

# FEDCO TREES 2024

Welcome to Fedco Trees's 40th annual tree order.

Our goal is to provide the hardiest and healthiest plants available for cold climates, while supporting plant diversity, small-scale local agriculture, and a fair, cooperative and responsible workplace. We are a division of Fedco Seeds Inc, a small consumer/worker-owned cooperative founded in 1978. Our workspace is low-frills; we value fair pricing and livable wages. Profits are redistributed to members and donated to related community efforts. Consider joining our co-op or applying for employment with us!

This year's final ordering deadline is **March 1**. All orders are shipped in spring. Orders totaling \$1,200 or more qualify for 20% off. Get together with friends or neighbors to place one big order for more savings.

Every year, we vary our plant selections. We offer most of the old favorites and rotate through dozens of new offerings. You'll find new fruit trees, ornamentals and perennials throughout the catalog. We contract with dozens of growers, and the bulk of our supply is grown locally on small diversified farms.

While we do not label our woody plants as organic, nearly all of our fruit trees and many of our shrubs are grown by these standards, tended by hand or cultivated with horses. Many of our herbaceous perennials are certified organic and labeled as such. You might pay a little more for locally grown items from small farms that are operating with less infrastructure than big agricultural corporations. In our catalog, your dollars go directly toward building communities.

If you haven't already, check out our **Seeds & Supplies** catalog. If you enjoy this one, we're pretty sure you'll like that one, too. Check out our website where you will find accurate updates on our inventory and additional items that we post for sale through the season as the crops come in. We invite you to share with us your experiences growing plants. Many of our selections result from your suggestions. If you know of something growing near you that we should be offering, please write to us: [questions@fedcoseeds.com](mailto:questions@fedcoseeds.com)

[fedcoseeds.com/trees](http://fedcoseeds.com/trees)

**As you will know, I chiefly live and move and have my being in and for the Wild Botanic Garden.**

—Eloise Butler

As we enter our fifth decade of growing and selling trees, we look back on where we've been and where we're going, straddling past and future with our linear minds, asking *What now?* We spend a lot of our waking and dreaming hours with plants. They unfold in patterns that regularly blow apart our neatly boxed concepts: How can seeds wait 2,000 years for the right conditions to germinate and then pick up where they left off? A plant we thought was extinct shows up somewhere one day—was it in front of us all along or did it make a quantum jump? I thought my rose was dead a year ago and look at it now, blooming like crazy! Plants keep it real.

We live and work with the plants in this catalog, and we bend them (and their branches), from seed to nursery to shipping box, to meet our schedules. All year long we scurry about coordinating details, talking to other growers, exchanging ideas, building upon their work and sharing ours: a new wild apple here, a harder rose there, a long-held mystery unlocked by genetic testing and another mystery gained. We travel miles to seek out plants and pass hours collaborating with colleagues to track down plant material for specific traits. We're on our knees taking pictures, or hunched over in the cold cellar fusing rootstock to scions with heat and moisture, looking for that sweet spot in which a difficult graft might take. We have miles of notes on germination and enough emails to pave Route 1 from Kittery to Fort Kent on how to do it better, faster, wiser, kinder. We sometimes feel like little mice running between the wild and domesticated spaces where all this work happens.

Meanwhile, there they are, grounded in place, our patient partners. Plants don't have names other than the ones we give them. They don't have borders and they don't label each other as right or wrong, good or bad. They do their quiet work among us and give us reason to come together with joy that springs from a well that can't be fathomed. Plants mingle and merge and vanish

and abound before our eyes, outside the pace and shape of human-conceived time.

Some years our catalog features how-to articles. Other years it delves into history and current events. This year it's all over the place, like our wild rambling gardens after this season of rain. We've been getting out to visit gardens and meet inspiring botanists, in present and past company (pp. 49, 63). We're perfecting how to integrate animals among our tree-lined pastures (p. 41). We're looking to old wisdom that can help us face the challenges brought by wild weather (p. 12). We're clearing space to reassess our next steps as farmers and as a business (pp. 19, 46). Yep, that's what we're up to. Read about it between the pages.

Thank you for joining us in our endeavor to fill the landscape with plants! But not just that. Thank you for being there with them in the landscape.

— Jen Ries, on behalf of the Fedco Trees team

John Bunker, Laura Childs, Jacob Mentlik and Jen Ries wrote plant descriptions. Elisabeth Benjamin edited with help from Khri Hogg, Joanna Linden and Emily Skrobis. Laura Childs, Alicia Letteney and Elizabeth Smedberg did the layout.

## Fedco Trees Guarantee Policy

We guarantee to ship you a plant that is healthy, will leaf out, and is true to name. Because we have no control over growing conditions such as weather, soil, cultural practices, pests, wildlife, or weed whackers, we cannot guarantee a plant's survival past leaf break. If you have thoroughly cared for the plant and it does not leaf out, we will issue a refund or gift certificate credit. We cannot offer replacements. We do not guarantee plants that are potted by you, except for perennials, which are the only plants we recommend for temporary potting. We are not responsible for the quality of plant material in the event your package is not promptly opened. For scionwood or rootstock orders, we do not issue refunds or replacements based on diameter of wood. We do not guarantee the survival of your grafts, the caliper or root size of the stock you receive or that rootstock will be fully dormant upon arrival.

We limit our liability in all instances to the purchase price. The liability of Fedco Seeds, Inc., for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability.

**Claims for errors in your order must be presented within 30 days of receipt of your order. Claims for any product defects should be presented as soon as possible after discovery and must be made no later than July 31 of the year the plant was received.** Failure to assert claims within the aforementioned time frames renders this warranty null and void.

## New for 2024

(or back after a long absence!)

- New Fruits, Berries, Grapes & Hops!
- Quince!
- Saskatoons!
- ‘Major Wheeler’ Honeysuckle!
- American Chinquapin!
- Sweetgum!
- Northern Pin Oak!
- ‘Snake’ Willow and Dappled Willow!
- ‘Agincourt Beauty’ Lilac
- New Crabs and Roses!
- New Heathers and Ericas!
- New Daylilies, Irises, Peonies!
- More Native Plants!

## Important dates & deadlines

- **Ordering deadline** (except scionwood), Friday, **March 1**
- **Shipping** by FedEx, beginning late March, through May 10
- **Scionwood order deadline**, Friday, **February 16**
- **Shipment of scionwood & rootstock** starts around March 11.

## Ordering Instructions, see page 34.

- Order online at [fedcoseeds.com/trees](http://fedcoseeds.com/trees). You can also check product availability and see color photos of most of our trees, shrubs and perennials.
- We no longer offer order pickups, but **Maine customers** pay only \$10 or \$25 flat-rate shipping!

## Indigenous Royalties

Fedco will donate 10% of sales on varieties bearing Native American names to Nibezun, a Wabanaki project in Maine that is working to rematriate Penobscot land and to create dialogue on healing throughout the extended community. For more about Indigenous Royalties, see page 25.

## FEDCO TREES



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## Our Variety Descriptions –

- **All trees and plants are bare-rooted** (except where noted). Because of the nature of dealing with living commodities, **size variations will naturally occur** within each crop.
- For fruit trees and berries, the **exact dates of peak ripeness** will vary from place to place.
- The **zone hardiness rating** will aid you in determining whether a plant will be hardy for you. The average minimum temperature in your area determines your zone (chart on p. 71). All plant descriptions list the coldest hardiness zone. Your own soil conditions, microclimate and topography will be equally important in determining the best varieties for you.
- Please note **pollination requirements** for fruits, nuts and berries. Some plants are self-pollinating, others require a second plant for pollination, and others require a second variety.
- We strive to give you accurate information about all the plants we sell. If you notice inaccuracies, please let us know.

Abbreviations:

**ME Grown** = grown in Maine at one of our small local nurseries.

**PPA** = Plant Patent Act.



# Pick the Right Apple!

	Apple Variety	Season	All-Purpose	Fresh Eating	Storage	Cooking	Pies	High Flavor
	102 Airlie Red Flesh	fall		•				
	104 Ashmead's Kernel	winter		•	•			•
	105 Baldwin	winter	•	•	•	•	•	
	106 Belle de Boskoop	winter		•	•	•		•
	107 Black Gilliflower	winter			•	•		
	108 Black Oxford	winter	•	•	•	•	•	
	110 Blue Pearmain	fall	•	•	•	•	•	
	111 Calville Blanc d'Hiver	winter	•	•	•	•	•	
	112 Canadian Strawberry	fall		•				•
	113 Cherryfield	winter	•	•	•	•	•	•
	114 Chestnut	fall		•		•		•
	115 Cortland	fall	•	•		•	•	
	116 Cox's Orange Pippin	fall		•				•
	118 Duchess of Oldenburg	summer	•	•		•	•	
	119 Esopus Spitzenburg	winter	•	•	•	•		•
	120 Fall Pippin	fall	•	•	•	•	•	
	122 Freedom	fall	•	•		•		
	123 Frostbite	fall		•	•			•
	124 Ginger Gold	summer		•				
	125 Golden Russet	winter		•	•			•
	126 GoldRush	winter		•	•			•
	127 Grandfather	winter	•	•	•	•		•
	128 Granny Smith	fall	•	•	•	•	•	•
	129 Gravenstein	summer	•	•		•	•	•
	130 Gray Pearmain	winter	•	•	•			•
	132 Grimes Golden	fall	•	•		•	•	•
	133 Honeycrisp	winter		•	•			•
	134 Hubbardston Nonesuch	fall		•	•			
	135 Hudson's Golden Gem	fall		•	•		•	
	137 Ivan	fall		•				•
	141 Keepsake	winter	•	•	•	•		
	142 Kerr Crabapple	summer		•				
	143 King David	fall	•	•	•	•	•	•
	144 King's Ransom	fall	•	•				
	147 Liberty	fall	•	•		•		
	148 Liveland Raspberry	summer		•		•		
	149 Lodi	summer	•	•		•	•	•
	150 Macoun	fall		•				•
	151 McIntosh	fall	•	•		•		
	153 Northern Spy	winter	•	•	•	•	•	•
	154 Opalescent	fall		•	•	•		•
	156 Pomme Grise	fall		•	•			•
	158 Red Astrachan	summer				•	•	
	160 Redfield	fall				•	•	
	161 Rhode Island Greening	fall	•	•	•	•	•	
	164 Roxbury Russet	winter	•	•	•	•		•
	165 Smith Cider	fall	•	•		•		
	167 St. Edmund's Russet	fall		•				•
	169 Stayman Winesap	winter	•	•	•	•		•
	172 Sweet Sixteen	fall	•	•	•	•	•	•
	175 Tolman Sweet	fall	•	•	•	•		
	176 Trailman	summer		•				•
	177 Wealthy	fall	•	•		•	•	
	178 Wickson	fall		•	•			•
	179 Williams Pride	summer		•		•		
	181 Winter Banana	winter	•	•	•	•		
	182 Winthrop Greening	fall	•	•		•		
	183 Wolf River	fall		•		•	•	
	184 Yellow Bellflower	winter	•	•	•	•	•	
	185 Zestar	summer		•				•

## Choosing the right apple

**Summer apples** ripen in summer, are generally crisp only for a short period, do not store well, and are often best for cooking.

**Fall apples** store longer and are useful for a wide variety of purposes.

**Winter apples** ripen mid to late fall, store well, and reach their best flavor after weeks, or even months, of storage.

**Dessert apples** are delicious eaten raw.

**Cider apples** are especially suited to making fermented “hard” cider. Some cider apples are also good dessert fruit, but most are not. See cider section on pages 16-17 and crabapples on page 18.

**Subacid** means tart!

**Russet** is a skin texture (fairly common on apple varieties and on a few pears and potatoes) that looks and feels somewhat like suede.

**Bloom** is a naturally occurring dust-like yeast film on the skin of some varieties of apples, plums, grapes and blueberries.

**Choosing a variety:** Not every variety may be right for you. All-purpose apples are just that—they’re good for a bunch of jobs. If you’re planting just one tree, perhaps start there. However, if you’re a history buff, consider the historical varieties and maybe plant one that originated nearby. If you don’t eat many apples fresh but love pies, go for the pie apples. If you’re a dessert connoisseur, skip all the others and go for the highly flavored dessert varieties. Some are strictly for cider. Some are great to put out at the camp for summer use. Some are perfect for those who want fall fruit but don’t have a root cellar. Others keep all winter and into the following summer. Read the descriptions and consult the chart. If you have a question about a specific variety, drop us an email: [questions@fedcoseeds.com](mailto:questions@fedcoseeds.com). We’ll try to help!

Varieties that bear fruit annually are noted in the descriptions; others are biennial, usually bearing every other year. However with diligent annual pruning and thinning, most trees will produce an annual crop, heavy one year, light the next.

**Hardiness zone:** The USDA plant zone hardiness map (see page 71 for chart) is a guide designed to assist gardeners and orchardists in choosing suitable plants. The zones are based on the average annual minimum winter temperature. The lower the temperature, the lower the zone rating number, and the “hardier” the plant. Zone 3 is about as cold as it gets in any part of New York and New England. Most of northern New York, Vermont, New Hampshire and Maine would all be Zone 3. The central part of the four states would be Zone 4. The southern half of each state would be Zone 5 or 6. This can vary from site to site depending on elevation, proximity to the coast and other microclimatic factors.

When choosing apple varieties, note the zone rating at the end of each description. If an apple has a Z3 rating, you will be able to grow it successfully in the coldest locations in Maine, as well as two or three zones “south.” In other words, if the rating is Z3, it may be in its prime in Z3, but should do well down to Z5 or 6. Typically, it will not perform well outside of that approximate range. Note that hardiness works both ways: you can’t grow mangoes in Maine, and you can’t grow most apples in Florida.

**Bloom times:** Early season, midseason, late season bloomers—should you be in a tizzy about pollination? No. If there is at least one other apple tree somewhere in your neighborhood, the bees will do their thing, and you’ll get fruit. It can be a wild roadside apple tree. It can be an ornamental crab. It can be old or young, in your yard or your neighbor’s. But it must be different from yours. In other words, avoid planting ten Honeycrisps if no other apples are in sight.

Most apples flower at about the same time, so timing is almost never an issue. However, if you live on a desert island with only an early bloomer and a late bloomer, you should plant a midseason bloomer, too.

## Choosing a rootstock

Rootstock determines the size, longevity, hardiness and growth habits of a tree. After enthusiastic response from customers, we continue to offer an assortment of dwarf and semi-dwarf rootstocks in addition to the standard.

We offer bundles of rootstock for grafting on page 39.



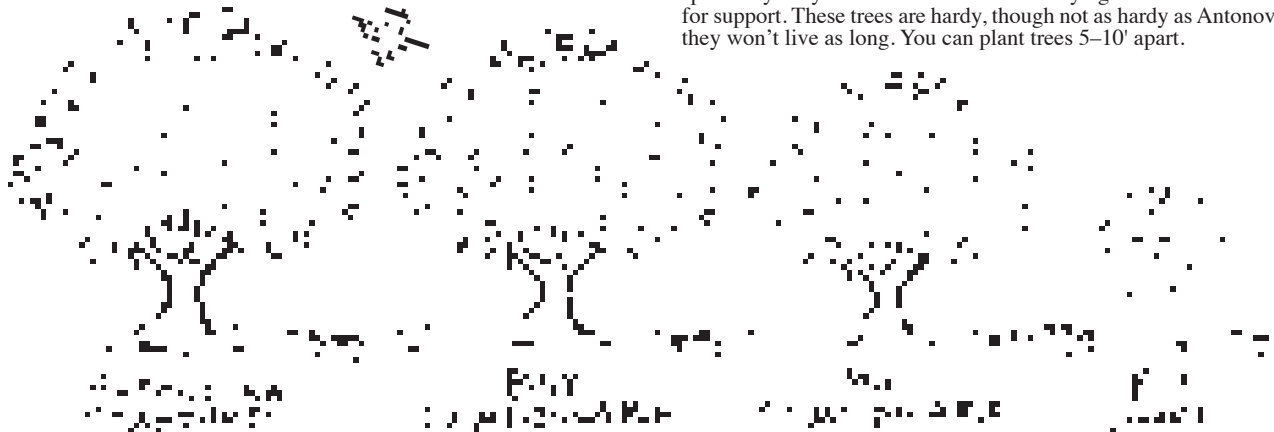
**Standard rootstock:** Most of the apples we offer are on standard full-sized Antonovka (and occasionally another) rootstock. Standard trees have deep, substantial—and therefore harder—root systems. By selecting the varieties appropriate to your district, grafted on standard rootstock, you may well be planting a tree that will be picked by your grandchildren’s grandchildren. Standard trees will grow to be large, but you can manage the size with pruning. The largest trees in our orchards are now about 30 years old, yet the tallest are well under 20’ due to careful pruning. Although standard-sized apple trees may be planted as close as 10–15’ apart, they were typically planted 30’ apart in 19th-c. orchards. We generally plant standard trees 20–25’ apart with good results. (Trees on standard stock are shipped at 3-6’.)

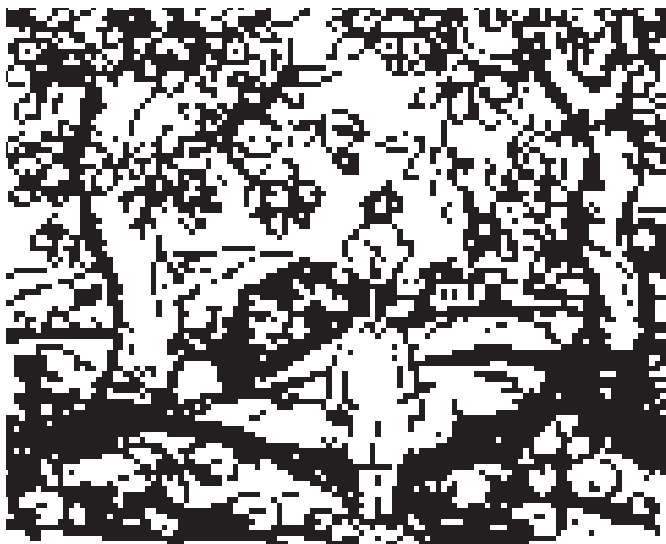
**Semi-dwarf and dwarf rootstocks:** We offer an assortment of semi-dwarf and dwarf apples on Bud 118, M111 and Bud 9 rootstocks. Each has great advantages for some growers, but these size-controlling rootstocks also have their limitations. Please read on and decide if they are what you want. If you are uncertain, stick with the good old standards, which are extremely rugged, hardier, more tolerant of drought and poor soils, very long-lived, and more capable of thriving under a regime of benign neglect. (Trees on semi-dwarf stock are shipped at 2½-5’; dwarf stock, 2-5’.)

• **Bud 118 semi-dwarfing** rootstock produces a tree about **85–90%** of standard size or even larger. Sometimes Bud 118 trees are called semi-standards or even standards. Considered to be more precocious (fruits at a young age) than standards, and probably more productive. Very hardy, though not as hardy as Antonovka. Plant about 20–25’ apart.

• **M111 semi-dwarfing** rootstock produces a tree about **65–80%** of standard size. Sometimes M111 trees are called semi-standards. M111 may not be more precocious than trees on standard. However it will likely be more productive. It has a relatively shallow spreading root system, does well in light soils, and is relatively drought tolerant. Prone to suckering; not as long-lived or hardy as Antonovka. You can plant them closer together than standards, about 15–20’ apart.

• **Bud 9 dwarfing** rootstock produces a small dwarf tree, **25–55%** of standard size. This makes it easy to spray, prune and pick. It requires less space in your yard and will fruit at an early age. Trees should be staked for support. These trees are hardy, though not as hardy as Antonovka, and they won’t live as long. You can plant trees 5–10’ apart.





**Apples** *Malus* spp.

**Rootstocks**

We offer most apple varieties on standard-sized Antonovka rootstock. Where

A follows the item number in the apple section, the variety is on Antonovka (or occasionally another) standard rootstock.

B is on Bud 118 semi-dwarf rootstock,

C is on M111 semi-dwarf rootstock,

D is on Bud 9 dwarf rootstock.

For more about rootstock, see pages 5 and 39.

**ME Grown** = grown in Maine at one of our small local nurseries.

**Airlie Red Flesh** Fall. Possibly a seedling of the European red-fleshed apple Surprise. Airlie, OR, about 1960. The medium-sized roundish-conic sometimes elongated fruit is greenish yellow with a pink-apricot blush. Bite into it to find that the flesh is a surprising and beautiful deep salmon color. As friends of ours said, "This is an apple for gazing at, admiring and fresh eating."



Probably the sweetest of all the red-fleshed varieties we've tried. Thought to have been discovered by Lucky and Audrey Newell in Airlie, OR. Introduced 40 years later and trademarked as **Hidden Rose** by Thomas Paine Farms in 2001. Also known as **Aerlies Red Flesh** and **Schwartz Apple**. Sometimes confused with Albert Etter's Pink Pearl. Uncertain bloom time. Z4. **ME Grown**.

**102B Airlie Red Flesh on B118, \$38.50**

**Ashmead's Kernel** Winter. Unknown parentage. Gloucester, England, about 1700. Possibly a seedling of Nonpareil. An after-dinner apple of unparalleled quality. Not for those who like sweet mild apples. Each bite is an intense aromatic sting of sharp and sweet, with hints of other indescribable but absolutely wonderful tastes and aftertastes. Beginning to show up here and there in commercial orchards. A good sharp addition to hard cider. Medium-small oblate and lopsided orange-gold-russet fruits ripen in October. Store until the New Year to reach perfection. Keeps until they're all gone. Moderately vigorous tree may bear irregularly, but it's worth the wait. Somewhat scab resistant. Blooms midseason. Z4. **ME Grown**.

**104A Ashmead's Kernel, \$38.50**

**104C Ashmead's Kernel on M111, \$38.50**

**Growing Apples**

**Soil:** Adaptable, but prefers well-drained fertile soil.

**Sun:** Full.

**Pollination:** Requires a second variety for pollination. Any apple or crabapple blooming within a quarter mile will probably do.

**Planting and Pruning:** See pages 67-70 for instructions on soil prep, planting, pruning and pest control.

**Spacing:** For trees on Antonovka and B111 rootstock, 20-25' apart. M111 semi-dwarf, 15-20' apart. Bud 9 dwarfing, 5-10' apart.

**Baldwin** Winter. Wilmington, MA, about 1740. Also called **Butters Apple** or **Woodpecker**. Discovered on the Butters Farm by a surveyor planning the Middlesex Canal and noted as a favorite site for local woodpeckers. By 1850 Baldwin was the standard all-purpose home and commercial variety wherever it was grown. It remained dominant in Maine until the terrible winter of 1934 when tens of thousands of trees perished and McIntosh became king. Large round-conic thick-skinned fruit, almost entirely blushed, mottled and striped with red and deep carmine. Hard crisp juicy yellowish flesh makes excellent eating and cooking. Makes top-quality hard cider, blended or alone. Keeps till spring. Vigorous adaptable hugely productive long-lived healthy tree. The late renowned entomologist Ron Prokopy described Baldwin as "not practical commercially due to biennialism but the only apple that is both disease and insect resistant." Blooms early to midseason. Z4. **ME Grown**.

**105A Baldwin, \$38.50**

**105C Baldwin on M111, \$38.50**

**Belle de Boskoop** Winter. Bud mutation of Montfort. Boskoop, Holland, 1856. For generations every European backyard had a Boskoop. Even today, chefs in Europe know Boskoop, which cooks and bakes beautifully. Quickly reduces to a nice sauce: yellow, soft and medium tart. Big blocky somewhat ribbed fruit largely patched with green and russet, sometimes with a reddish blush. Grower David Maxwell of Nova Scotia calls it "an absolutely outstanding apple...seemingly resistant to everything. I didn't spray them at all and they are absolutely clean. The taste is equally outstanding." Rather tart right off the tree. In storage the acidity softens and it becomes quite tasty fresh. Keeps well. Triploid: not a pollinator for other varieties. Blooms early. Z4.

**106A Belle de Boskoop, \$38.50**

**Black Gilliflower** Fall-Winter. Probably from Connecticut, well before 1800. Well known in old Maine orchards where it's called **Sheepnose**. Sometimes called **Gilliflower**. Very old easily recognizable American cooking heirloom with medium-sized long distinctly conic fruit, shaped like the snout of a sheep. The skin color ranges from dark green to deep purple to nearly black. Fruit quality is subacid, aromatic and dry. Old timers used it for mincemeat. Older editions of *Joy of Cooking* have an excellent recipe: chopped beef, suet, sugar, cider, raisins, currants, citron, lemon and orange peel, sour cherries, nuts, nutmeg, cinnamon, cloves, and lots of apples. Black Gilliflower would be perfect. Serve with brandy. Also recommended for drying. Keeps until February. Blooms late. Z4. **ME Grown**.

**107A Black Gilliflower, \$38.50**

**Black Oxford** Winter. Hunt Russet x Blue Pearmain. Paris, Oxford County, ME, about 1790. This outstanding apple, a favorite long ago around much of Maine, has made a huge comeback. Neck and neck with Honeycrisp as our bestselling apple. Medium-sized round fruit, deep purple with a blackish bloom. From a distance you might think you'd discovered a huge plum tree. Excellent pies, superb late cider. Leave the skins on for a delightful pink sauce. Best fresh eating late December to March, but we've eaten them in July and they were still quite firm and tasty. They get sweeter and sweeter as the months go by. Good cooking until early summer. Some insect and disease resistance. Unusual light pink blooms early to midseason. Z4. **ME Grown**.

**108A Black Oxford, \$38.50**

**108C Black Oxford on M111, \$38.50**

**108D Black Oxford on Bud 9, \$38.50**



**Blue Pearmain** Fall-Winter.

Thought to be from Middlesex County, MA, 1700s. Our favorite for baked apples—it was made to be stuffed. Moderately juicy flesh, firm, dense and slightly crisp, sweet with a bit of a tart background flavor. Incredibly beautiful medium to very large fruit is streaked and splashed with purplish red, mottled with russet and covered with a distinct dusty blue bloom. In a pie, it has just enough firmness and a good balance of sweet and tart with hints of pear. Tart coarse yellow sauce cooks up in a couple minutes. Tasty eaten out of hand. One of New England’s most famous varieties. Mentioned by Henry David Thoreau as a favorite in his wonderful essay “Wild Apples.” Grown throughout much of Maine for well over 200 years. Massive trees still found here and there. Keeps in the root cellar until midwinter. Blooms midseason. Z4. **ME Grown.**

**110A Blue Pearmain, \$38.50**

**Calville Blanc d’Hiver** Winter. Unknown parentage.

France or Germany, 16th c. Also called **White Winter Calville**. Famous as a dessert and cooking apple for more than 400 years. Steve Wood of Poverty Lane Orchards in Lebanon, NH, called it “the best culinary apple in the world.” Large flattish pale green-yellow fruit with deep ribs and a dotted orange-red blush. Creamy-white aromatic fine-grained juicy flesh with a sweet distinctive effervescent flavor. Also recommended for vinegar, fresh cider and as a sharp (acid) component in hard cider. Should be stored a month to reach peak flavor. Will keep until midwinter. Very vigorous strongly upright vase-shaped tree with good branch angles. Not for the coldest areas though certainly hardy to Zone 4. Blooms midseason. Z4. **ME Grown.**

**111A Calville Blanc d’Hiver, \$38.50**

**111C Calville Blanc d’Hiver on M111, \$38.50**

**Canadian Strawberry** Fall. Unknown parentage. Solon, ME. Beautiful superb-tasting dessert apple. Surprisingly juicy distinctly tart full-flavored medium-to-large round-conic fruit. Rich buttery-yellow skin over-spread with a veil of vibrant red-orange. Very good early season cider. Perfectly ripe at the end of September in central Maine where, in a good year, you won’t find a better apple. At our Common Ground Fair taste tests, it usually vies for the crown with Cox’s Orange Pippin. It was the overwhelming favorite in 2017 and runner-up in 2018 and 2019. In 1996 the late Roy Slamm convinced us to visit and subsequently propagate nursery stock from the three ancient “Strawberry” trees on his South Solon farm, thus saving the apple from almost certain extinction. Popularized throughout Fedcoland as “Canadian Strawberry” but recently found to be a DNA match with the old New York apple **Washington Strawberry** from the mid-1800s. Fruit keeps about a month. Triploid; not suitable for pollinating other varieties. Blooms midseason. Z4. **ME Grown.**

**112A Canadian Strawberry, \$38.50**

**Cherryfield** Fall-Winter. Westfield Seek-No-Further x unknown. Wyman B. Collins intro, Cherryfield, ME, about 1850. Also called **Collins**. Popularized more than 100 years ago by David Wass Campbell of Cherryfield and Welton Munson of UMaine. This all-purpose variety does everything well. We love it. Relatively tart with only a hint of sweetness. Makes a fairly quick tart sauce with a smooth texture—the skins mostly dissolve. Good in salads. Makes a highly flavored pie with great color and texture. Excellent sliced up on pizza. Irregular conic shape, washed and striped with pink. Ripens mid-October and keeps until the end of March.

Rediscovered with the help of Margery Brown, Larry Brown, and Kathy Upton, all of Cherryfield, ME. Recent DNA profiling appears to show that what we know in Maine as Cherryfield could be a local synonym for the Illinois apple **Salome** and may also have been known as **Benton Red** around Maine’s Kennebec County. It’s also possible that we have not yet found the true

Cherryfield. As we learn more about this connection, we’ll keep you posted. Tree is vigorous, hardy, spreading and productive. Blooms early-midseason. Z4. **ME Grown.**

**113A Cherryfield, \$38.50**

**Chestnut** Early Fall. MN 240 (Malinda x open-pollinated) U Minn, 1946. A dessert crab with truly excellent fruit for fresh eating, pickles and sauce. Round 2” yellow and bronze-red apple with some russetting. Firm crisp juicy fine-grained very sweet yellowish flesh. For a growing number of people in central Maine, late September is Chestnut apple time. A lot of people love this apple and it always scores high at our Common Ground Country Fair taste tests. Chestnut alone with no sugar makes a sweet and subtle sauce. Not a keeper, but can be stored for a month or two. Vigorous, somewhat weeping, medium-sized productive tree tends to bear annually. Disease resistant. Beautiful in bloom, mid-late season. Z3. **ME Grown.**

**114A Chestnut, \$38.50**



**Red Delicious-er**

Customers often ask us for suggestions for equivalents to their favorite “grocery store” apples. We can’t offer any direct comparisons since we think the varieties we offer are far superior in flavor and character than those widely available in stores. But here are some suggestions for varieties that share qualities with some familiar commercial apples.

If you like...	you should try...
Fuji and Gala	Keepsake Tolman Sweet Williams Pride
Golden Delicious	Ginger Gold GoldRush Grimes Golden Hudson’s Golden Gem Lodi
Pink Lady	Opalescent Sweet Sixteen
Red Delicious	Black Gilliflower Tolman Sweet

**Cortland** Fall-Winter. Ben Davis x McIntosh. NY Stn, 1915. Although never as important as McIntosh, Cortland remains very popular throughout northern New England even in this era of many new introductions. Medium-large slightly ribbed dull red fruit with a purple blush. Excellent eating and cooking. Slow-oxidizing white fine-grained crisp tender juicy flesh: very good in salads. Produces a surprisingly delightful cider, fresh or fermented, in a mix or even on its own. Stores for a month or so. Vigorous tall upright spreading tree. Annual producer of heavy crops. A recent UMass study showed Cortland's resistance to apple maggot fly. Bears young; remove fruit for the first year or two to avoid stunting growth. Susceptible to scab. Blooms midseason. Z4. **ME Grown.**

- 115A Cortland, \$38.50
- 115C Cortland on M111, \$38.50
- 115D Cortland on Bud 9, \$38.50

**Cox's Orange Pippin** Fall. Possibly a seedling of Ribston Pippin. Near Slough, Bucks, England, around 1825. D deservedly one of the most famous of all apples. Not only one of the best eating apples ever but also one of the most sought-after in modern apple breeding; parent or grandparent of many other varieties. Revered in the U.K. Medium-sized all-purpose aromatic fruit is red-orange to red with orange russet striping and wash. Perfectly balanced slightly subacid flavor and crisp juicy tender flesh improve with storage. Moderately vigorous moderately productive tree bears young and annually. Prefers cooler climates and higher pH. The oldest Maine Cox's we know is about 60, thriving in Mercer. Scab resistant. Blooms midseason. Z4. **ME Grown.**

- 116A Cox's Orange Pippin, \$38.50
- 116C Cox's Orange Pippin on M111, \$38.50

**Duchess of Oldenburg** Late Summer. Russia, well before 1800. Also called **Duchess** or simply **Dutch**. Imported to North America in 1835 and named in honor of Catherine Pavlovna, Grand Duchess of Oldenburg, sister of Czar Alexander. Extremely hardy. Medium-sized round red-striped fruit is crisp, tender, juicy, subacid and aromatic. Highly recommended for all sorts of cooking, especially pies and sauce. If you live where it's cold and you're looking for one apple, this is it. Historically planted extensively wherever growers needed extreme hardiness. Still popular in Aroostook county and other northern districts. Small to medium-sized adaptable tree. Duchess seedlings come relatively true to type, are rugged and hardy, and make good rootstock for grafting (known as 'Borowinka' in the nursery trade). Scab resistant. Does not perform well in warmer districts. Blooms early-midseason. Z3. **ME Grown.**

- 118A Duchess of Oldenburg, \$38.50

**Esopus Spitzenburg** Fall-Winter. Esopus, NY, before 1776. For more than 200 years "Spitz" has been a choice dessert and culinary variety, mentioned in nearly every list of best-flavored apples. Slightly subacid, crisp and juicy. Excellent acid source for sweet or fermented cider. Medium-large bright red round-conic fruit, covered with russet dots. Moderately vigorous tree with easily trained wide-angle branches. Forever famous as Thomas Jefferson's favorite apple though performs much better in New York and New England than Virginia. Moderately susceptible to scab though we have never sprayed ours with fungicides and the fruit has been great. Blooms mid-late season. Z4. **ME Grown.**

- 119A Esopus Spitzenburg, \$38.50
- 119C Esopus Spitzenburg on M111, \$38.50

**Fall Pippin** Fall-Winter. Possibly a seedling of Holland Pippin or White Spanish Reinette, from New England before 1750. Medium-large roundish high-quality all-purpose yellow fruit, sprinkled with a scattering of russet dots, a pronounced russet splash around the stem, and sometimes with a pinkish-red blush. Very good dessert quality.

Makes a nice sauce. One of the oldest American varieties, dating from back when apples were passed around freely and no one cared much about what it was called or where it was from. The name conveyed "seedling apple that ripens in fall," but it also had more than two dozen synonyms, including Autumn Pippin, Large Fall Pippin and Pound Pippin. Our trees were grafted with scionwood we collected at Tower Hill Botanic Garden in Boylston, MA. Fedco worked with Tower Hill to reconstruct their entire orchard of historic varieties. Blooms midseason. Z4. **ME Grown.**

- 120A Fall Pippin, \$38.50

**Freedom** Early Fall. Macoun x Antonovka.

NY Stn, 1983. Very high-quality and highly disease-resistant all-purpose apple ripens in early October and keeps until around New Years. Large roundish fruit almost entirely covered with bright red stripes. Juicy, firm and spicy flesh. Recommended for fresh eating, sauce and juice. This precocious tree is vigorous, spreading, spur-forming, productive and annually bearing. From the same breeding program that developed Liberty. Cross made in 1958, tested for nearly 25 years before release and named for its "freedom" from scab, powdery mildew, cedar apple rust and fire blight. Blooms midseason. Z4. **ME Grown.**

- 122B Freedom on B118, \$38.50

**Frostbite** Fall-Winter. MN 447. Unknown parentage. First fruited in 1921; named and introduced by U Minn in 2008. A massively flavored dessert apple, among those we most look forward to each fall. Likely the most distinctive, complex and unusually flavored apple you'll ever try. Astonished eaters have described it as tasting like molasses, olives, sugar cane, cheap whiskey, yogurt, tobacco juice, and so on. We love it. The aromatic crisp crystalline apricot-orange flesh, with its occasional red staining, is so juicy it might run down your hand. The roundish fruit is medium-sized and entirely covered with dark bluish-purple stripes. Lost in the dustbin of weird apples for nearly 90 years before it was finally named and released. Extremely hardy, productive and reliable; at its best in colder districts. A parent of the popular Sweet Sixteen and Keepsake, and grandparent to Honeycrisp. Blooms midseason. Z3. **ME Grown.**

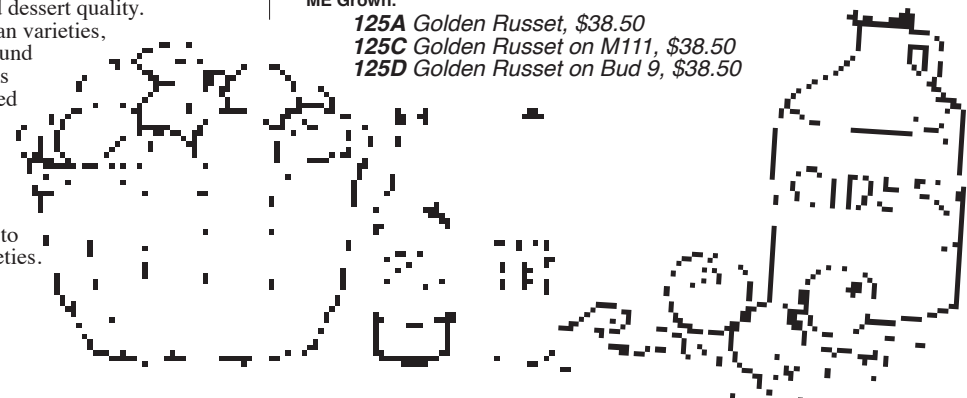
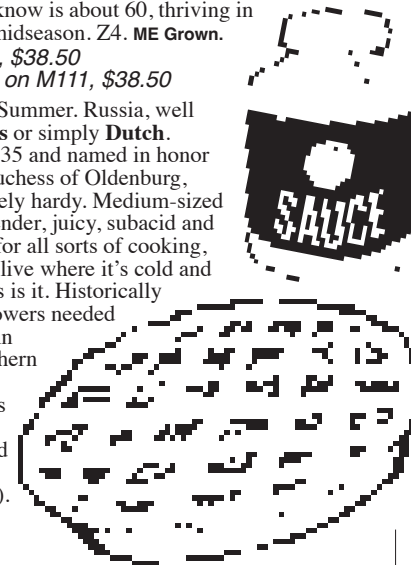
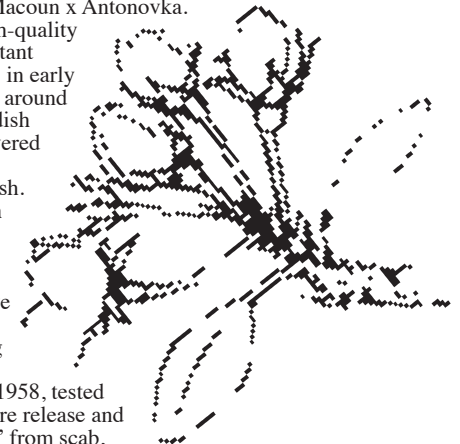
- 123A Frostbite, \$38.50
- 123B Frostbite on B118, \$38.50
- 123C Frostbite on M111, \$38.50
- 123D Frostbite on Bud 9, \$38.50

**Ginger Gold** Late Summer. Golden Delicious x unknown (possibly Newtown Pippin). Nelson County, VA, 1969. One of the first commercial varieties to ripen. Large conic-round classic Delicious shape with smooth waxy yellow skin and often a gentle red blush. Cream-colored juicy crisp flesh is a bit sharper than Golden Delicious but still quite sweet for an early apple. Great for salads because slices are slow to brown. One of the lone surviving trees on the edge of Clyde and Frances "Ginger" Harvey's Winesap orchard after Hurricane Camille flooded the area. The fruit turned out yellow—different from all the rest in the orchard—and was determined to be a Golden Delicious seedling. Blooms midseason. Z4. **ME Grown.**

- 124A Ginger Gold, \$38.50

**Golden Russet** Winter. Uncertain origin. Thought to be from England, New York or New England, before 1800. Round medium-sized russet fruit. Excellent eating; keeps all winter and well into spring. One of the best apples dried. The champagne of cider apples, ripening late in fall when the best sweet cider is ready to be made: sweet, balanced, thick and smooth. Also recommended as a sharp component for fermented cider. For more than 100 years, orchardists have been attempting to sort out the various russets. Several different apples have been called Golden Russet. Most resemble one another visually but differ in fruit qualities and tree habits. This is most likely the Golden Russet of western New York—we continue to work on unraveling this mystery by DNA testing various "Golden Russet" types. Vigorous diverging up-curving tree with long willowy branches. Scab resistant. Blooms early to midseason. Z4. **ME Grown.**

- 125A Golden Russet, \$38.50
- 125C Golden Russet on M111, \$38.50
- 125D Golden Russet on Bud 9, \$38.50



**GoldRush** Winter. Co-op 38 {PRI 2750-6=[Co-op 17 (PRI 1689-100) x Golden Delicious]} PRI Co-op, 1994. The first of the disease-resistant varieties from the Purdue-Rutgers-Illinois apple breeding program to have superior storage qualities. Not only that, it's probably the best-tasting apple to come out of that program. Medium to large round-conic fruit has uniform deep greenish-yellow opaque chewy skin that turns golden in storage. Creamy-white green-flecked flesh is hard, very crisp, juicy and tart. Excellent flavor. Serve them for dessert in February and March and no one will be disappointed. Becoming very popular with cidemakers and commercial orchardists. Ripens late but successfully in central Maine. Ours stayed firm and delicious through early June in the root cellar. Highly resistant to scab and powdery mildew. Moderate fireblight resistance. Blooms midseason to late. Z4. **ME Grown.**

**126A GoldRush, \$38.50**

**126D GoldRush on Bud 9, \$38.50**

**Grandfather** Late Fall-Winter. Unknown parentage. Hibbert's Gore, ME. One of the fabulous old apples introduced to John Bunker by Karen Keller, the sole resident of Hibbert's Gore, an anomalous unincorporated parcel adjacent to Palermo. "Good chompin', all around cookin'," as Karen said. Also good for cider. Excellent fresh eating, sweet-tart with distinct tropical notes. Medium-sized round-conic fruit with opaque yellow skin, numerous black dots and often bright red patches of blush. Stores extremely well in the root cellar and still quite firm into June. Now part of MOFGA's Maine Heritage Orchard collection. Blooms midseason. Z4. **ME Grown.**

**127A Grandfather, \$38.50**

**Granny Smith** Fall. Unknown parentage, possibly a seedling of French Crab. New South Wales, Australia, 1860s. Named for its discoverer Maria Ann Smith. Perhaps the most widely known and recognizable of all apples, available in almost every supermarket on the planet! Iconic medium-sized grass-green fruit with bright shiny skin, often with fine russet netting and purplish dots. Known in our area as **Blushing Granny** — in colder climates it develops a beautiful contrasting pink blush with the cold nights. Thick-skinned extremely durable storage apple. We've seen bins of perfect Grannies in the depths of February at the Apple Farm in Fairfield, ME. Oft considered a tart acidic apple, but it sweetens in storage. Great for midwinter snacks and famous for apple pies. Blooms midseason. Z4. **ME Grown.**

**128A Granny Smith, \$38.50**

**Gravenstein** Late Summer. Thought to be of Russian, Italian or German origin, before 1700. Brought to the U.S. in the early 19th c. Probably the most famous of all pie apples. Rightly so. It's great. By 1880 it was also the most popular summer apple in Maine, especially along the coast. Fruit is medium to large, irregularly round, asymmetrical, usually ribbed. Thin tender skin, striped with yellow, red and orange. Tender crisp aromatic richly flavored juicy firm tart flesh. Outstanding eating and cooking. Rated "very good to best" by Beach in *The Apples of New York*. Still commonly grown in Nova Scotia, northern California, Oregon and Washington. Large vigorous productive tree with a nearly perfect wide-angle branching habit that requires practically no training. Ripens over several weeks. Too tender for the coldest areas of New England. Triploid: not suitable for pollinating other varieties. Blooms early. Z4/5. **ME Grown.**

**129A Gravenstein, \$38.50**

**Gray Pearmain** Fall-Winter. Tolman Sweet x unknown. Probably Skowhegan, ME, before 1870. Absolutely delicious dessert apple with a distinct pear flavor and firm white juicy mildly tart flesh. Steadily gaining a devoted following. Medium-sized slightly ribbed and muffin-shaped fruit has a soft opaque greenish-yellow skin with a rosy pink blush, a russet veil, and a greyish bloom. Produces excellent juice. Pick late and eat them in the fall and all winter. At a late-fall apple tasting at the Maine Heritage Orchard, we had to stop at Gray Pearmain because every apple that followed paled in comparison. Not long ago the only trees we knew of were at The Apple Farm in Fairfield, across the town line from Skowhegan. Through the generosity of Marilyn and Steve Meyerhans, the Gray Pearmain is now grown throughout Maine and beyond. Annually bearing easy-to-grow medium-sized spreading tree. Blooms midseason. Z4. **ME Grown.**

**130A Gray Pearmain, \$38.50**

**Grimes Golden** Fall. Parentage unknown.

West Virginia, 1804. Tart citrusy crisp dense firm fruit is excellent for both dessert and cooking: wonderful spicy fresh eating, pies, applesauce and cider. Medium-sized roundish fruit with opaque yellow skin scattered with grey russet dots and an occasional faint blush.

All-around excellent variety grown in old Maine orchards for more than 100 years. This is a perfect apple for the New England homestead north to about Bangor. An added bonus is that the fruit doesn't ripen all at once. In central Maine they begin to drop mid-October. We collect the drops and use them right up. Around Halloween we pick the bulk of the crop to store in the root cellar until late winter. Productive precocious tree. Blooms mid-late season. Z4. **ME Grown.**

**132B Grimes Golden on B118, \$38.50**

**Honeycrisp** Winter. MN 1711 (Keepsake x open-pollinated) U Minn, 1991. Medium-large fruit, mottled and striped red over yellow. Sweet and juicy with hard snapping-crisp texture. Top quality in September. Improves steadily in storage. Unusual because it ripens in early fall yet keeps up to 7 months in the root cellar. First of the many excellent University of Minnesota intros to receive large-scale commercial attention, now has a huge following. Rivals Black Oxford as our bestselling apple. Probably best planted north of Massachusetts; less suited to warmer districts. Tends towards annual bearing. Relatively small low-vigor upright spreading tree. Above-average scab resistance. Blooms mid-late season. Z3. **ME Grown.**

**133A Honeycrisp, \$38.50**

**133C Honeycrisp on M111, \$38.50**

**133D Honeycrisp on Bud 9, \$38.50**

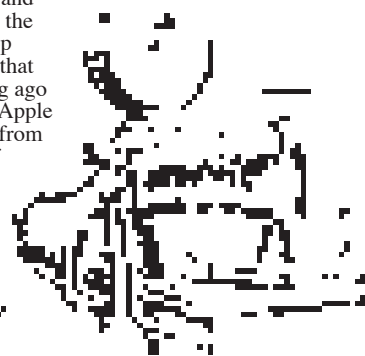
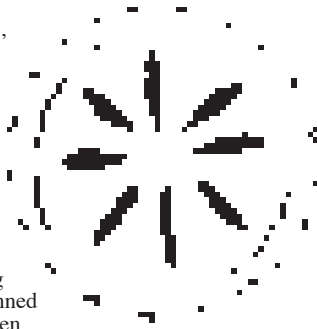
## Solving Apple Mysteries with DNA Testing

For the past four years, Fedco and MOFGA's Maine Heritage Orchard (see page 14) have been working with apple geneticists at Washington State University to confirm the identity of all the apple varieties we offer through Fedco and preserve at MOFGA in Unity. Until the development of DNA profiling, all apple identifications were made by farmers, orchardists, and the occasional pomological experts, who examined the fruit and made educated guesses: the shape and color may fit, the location may match historical records, yet they couldn't be certain. It's safe to say that in the past few centuries tens of thousands of trees have been passed around with incorrect names.

Mapping the apple genome has been a tremendous tool in helping to confirm the identity of dozens of rare varieties. It has also corrected a few bummer mistakes, some of which have been perpetuated for generations. The apple trees we've sent out to customers over the years will bear fruit that match what we've described in our catalog. If we learn of a change in nomenclature and parentage, we'll continue making updates to our descriptions and records to ensure you get the best information available.

One of our newest and most noteworthy discoveries involves Arkansas Black. We got our original scionwood from an old central-Maine orchard where for generations locals have known the trees as "Arkansas Black." Initial DNA testing showed that the tree was an offspring of Winesap, which we've always known to be true of Arkansas Black. However, further DNA testing revealed our source trees to actually be another Winesap seedling called Black Twig (syn. Paragon). These two distinct apples both hail from Arkansas, and their names have been mixed up for centuries. Similar to Arkansas Black, Black Twig is a late-ripening burgundy-skinned Southern apple with excellent keeping qualities.

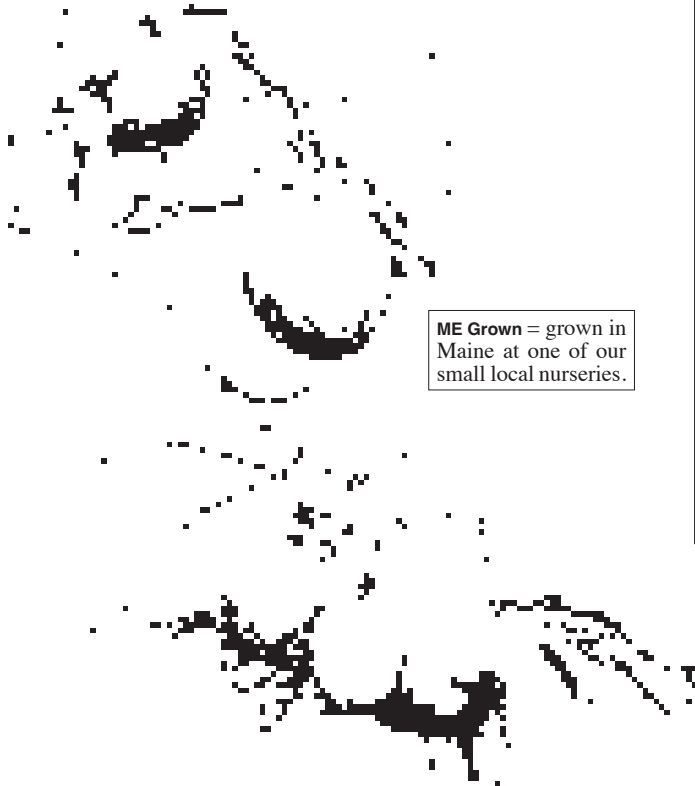
If you have questions about our DNA identification program, please don't hesitate to be in touch at [apples@fedcoseeds.com](mailto:apples@fedcoseeds.com).





**Hubbardston Nonesuch** Fall-Early Winter. Hubbardston, MA, 1800 or earlier. One of the most famous of all Massachusetts apples, once very popular and still found here and there today. John located a beautiful old specimen in Lincolnville, ME, still bearing regular crops of breathtakingly beautiful fruit that is also wonderful to eat. A superior subtly flavored fresh-eating apple with crisp tender juicy white flesh that glistens like ever-so-slightly melted snow. Medium to very large roundish-conic fruit, mottled and striped with reds, oranges, yellows and greens, often covered with a veil of russet and a scattering of large grey dots. Keeps into January. Vigorous tree produces large and often annual crops. Blooms midseason. Z4. **ME Grown.**

**134A Hubbardston Nonesuch, \$38.50**



**ME Grown** = grown in Maine at one of our small local nurseries.

**Hudson's Golden Gem** Fall. AD Hudson's Wholesale Nurseries, Tangent, OR, 1931. A wild seedling discovered in a fence row and introduced soon afterward. A truly fine dessert variety of unique appearance. Exceptional flavor, and sweet juicy crisp smooth firm-but-melting yellow pear-like flesh. Highly recommended for those who love to eat their apples out of hand. Nearly everyone loves the flavor after a single bite. Magnificent medium-to-large distinctly conical and beautifully russeted long-stemmed fruit. Skin a soft yellow-tan overlaid with a fine weave of light and dark browns. A favorite in Oregon, more recently gaining notice practically everywhere apples are grown. Stores several months. Productive scab-resistant tree resists powdery mildew and fireblight. Blooms mid-late. Z4. **ME Grown.**

**135B Hudson's Golden Gem on B118, \$38.50**

**Ivan** Late Summer-Early Fall. Probably *M. baccata* x open-pollinated. NE Hansen intro, 1916. If you're a fan of snackable highly flavored dessert fruit, you will want this apple. Delicious, crisp, juicy, well-balanced sweet and tart, tangerine, floral, "honeysuckle," a little bit astringent, sugarcane but not molasses. Flavor and texture resembles Frostbite. Small 2" roundish-oblate rusty red fruit overlaid with darker red stripes and a scattering of pinpoint white dots. Long thin stem. When Cammy and John tasted Ivan at the Geneva USDA PGRU collection in early October 2016, they became instant fans. We are very excited about this apple. On trial now in central Maine with good results. Our fruit has been excellent. Keeps a few weeks in the fridge. Should thrive in most NY and New England locations. Z4. **ME Grown.**

**137B Ivan on B118, \$38.50**

**Keepsake** Winter. MN 1593 (MN 447 [Frostbite] x Northern Spy) U Minn, 1979. One of the best of all winter storage varieties. Fine-textured flesh is hard, crisp, juicy and sweet. Excellent aromatic flavor, but wait about a month after picking before eating. Well named—keeps until July in the root cellar. Irregular conic medium-sized fruit is almost entirely overlaid with stripes and a wash of very deep red. Same parentage as Sweet Sixteen. Resembles Frostbite and Sweet Sixteen in appearance and taste, although the flavor is not quite as intense. Fruit size can be somewhat small. Don't be afraid to thin the crop each year 3 or 4 weeks after petal fall. You'll be happy you did. Moderately vigorous medium-sized tree reaches its prime in northern New England and the Upper Midwest. Somewhat resistant to scab. Blooms late. Z3. **ME Grown.**

**141A Keepsake, \$38.50**

**141C Keepsake on M111, \$38.50**

**Kerr Crabapple** Late Summer. Morden 352 (Dolgo x Haralson) Morden, Manitoba, Canada, 1938. Introduced by the famous Canadian plant breeder WL Kerr. Firm deep red ovate 2" fruits are a tasty snack fresh off the tree, better after storage. They keep well. Be sure to thin fruitlets so the remaining apples size up. We love culinary crabs, and this one is especially good for brandying. Pack fruit into a mason jar with a scoop of sugar and cover with your favorite vodka. Let stand a year or two; flip it upside-down now and then. Extremely productive and precocious, somewhat spreading vigorous medium-sized tree. Heavy annual long-lasting bloom of single white flowers makes this a great pollinator for other varieties. Early to midseason blooms. Exceedingly hardy. Z3 or maybe even Z2. **ME Grown.**

**142C Kerr Crabapple on M111, \$38.50**

**King David** Fall-Winter. Chance seedling, thought to be Jonathan x Arkansas Black. Washington County, AR, 1893. Stark Brothers Nursery intro, 1904. King David has a reputation as an intensely flavored apple. The initial bite is an explosion of flavors—pineapple, tangerine, lemon, sweet, sour, tart, sharp, aromatic and spicy. You may wince or moan or scream. You may see stars. Fine juicy flesh is firm yet tender and distinctly yellow. Known primarily as a dessert apple, but also good for pies and sauce. Medium-sized round-oblate-conic fruit is very dark solid maroon—nearly black. Occasionally found in old Maine orchards. The tree is vigorous, bearing young and regularly. Ripens in fall and keeps until the beginning of the year. Its one drawback is scab susceptibility. We grow it anyway. Blooms early midseason. Z4. **ME Grown.**

**143A King David, \$38.50**

**King's Ransom** Late Summer-Early Fall. ME 8256 (Cortland x Northern Spy) This very good all-purpose apple resembles Cortland and was bred by Russ Bailey (1901-1990), head of agricultural research projects at UMaine for 35 years and one of our most famous plant breeders. Responsible for the Northern pickling cuke and Brock apple, Bailey also made a number of apple crosses that he never released. We located ME 8256 with help of Maine orchardist Scott Miller, who grafted scions onto old Red Delicious trees at Pietree Orchard in Sweden, ME. The apple soon became a customer favorite, and in a naming contest it earned the moniker "King's Ransom"—a nod to

Stephen and Tabitha King, who had purchased and revamped the old scenic orchard. Ripens a couple weeks before its parents and keeps well for such an early apple. Like the fruit, the tree resembles Cortland's growth habit, though it is not as droopy. Blooms mid-late season. Z4. **ME Grown.**

**144A King's Ransom, \$38.50**



**Liberty** Late Summer-Fall. NY 55140-19 [Macoun x PRI 54-12 (PRI Co-op complex cross includes Rome Beauty, Jersey Black, McIntosh, Wealthy and *M. floribunda*)] NY Stn, 1978. One of the best of the disease-resistant varieties, particularly in the Northeast. Somewhat similar to Macoun. Handsome medium-sized round-conic bluish-pinkish-red apple with crisp white flesh of very good dessert quality when dead ripe.

Excellent cooking and sweet cider, too. Recommended for single-variety sweet cider. Keeps till late fall. Begins fruit production at an early age, bearing consistent heavy annual crops. Naturally well-structured sturdy tree is easy to care for. Considered to be 100% scab-immune, though not resistant to insects or other lesser apple diseases. Don't let it crop too heavily at a young age. Blooms early to midseason. Z4. **ME Grown.**

- 147A Liberty, \$38.50
- 147C Liberty on M111, \$38.50
- 147D Liberty on Bud 9, \$38.50

**Liveland Raspberry** Summer. Originated in Estonia where it is known as **Suislepper**; imported to the U.S. from Russia in 1870. Also called Lowland Raspberry. One of the hardiest and finest summer apples. Still found here and there in Maine dooryards and orchards. Unlike many summer apples, which are tart, hard, green one day then soft and mushy the next, Liveland Raspberry is actually crisp and breaking when it's ripe and stays that way just long enough to use up and enjoy the crop. Medium to large round fruit with very tender clear waxen white skin is striped, shaded and marbled with light crimson. The white flesh, often stained red, is tender, mild, pleasant, subacid, almost sweet. One of the best varieties for summer fresh eating and of course for cooking. Around us it ripens late August. Will not store. Vigorous productive small to medium-sized tree. Disease and pest resistant. Early to midseason bloomer. Z3. **ME Grown.**

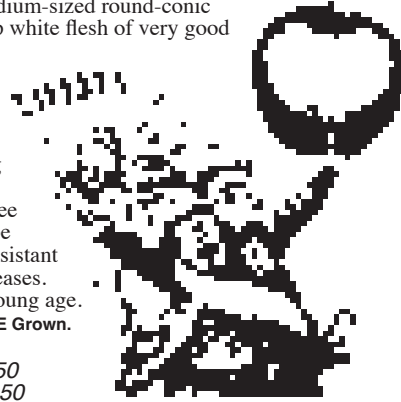
- 148C Liveland Raspberry on M111, \$38.50

**Lodi** Summer. Yellow Transparent x Montgomery. NY Stn, 1924. Bred to be an easier-to-grow modern replacement of sorts for the hardy Russian early season Yellow Transparent. Not quite as pale and translucent as its parent, Lodi is nevertheless a highly attractive conical slightly ribbed smooth-skinned light green apple that appears to glow on the tree when ripe in midsummer. Medium- to fine-grained white flesh with green highlights. Very tart fresh eating, more so than Granny Smith, which it resembles in color. Great for sauce and summer pies. Ripens in mid-late July. Does not store long. Blooms early. Z3. **ME Grown.**

- 149B Lodi on B118, \$38.50

**Macoun** Fall. NY 547 (McIntosh x Jersey Black) NY Stn, 1923. This is an apple with a near cult following, even though practically no one seems to know how to pronounce the name. (It rhymes with *town*, not *tune*!) Especially good choice for those who like McIntosh but live south of Maine where Macs might not reach their prime. Medium-sized ribbed lobed truncate fruit, almost entirely covered with a dark purplish-red blush. The very juicy aromatic white flesh is crisp with a rich sweet flavor. Excellent for fresh eating. Large vigorous upright spreading tree. Moderately productive. Although susceptible to scab, the fruit appears to be less affected than McIntosh. Macoun also shows some natural resistance to insect damage. Blooms mid-late season. Z4. **ME Grown.**

- 150A Macoun, \$38.50



**McIntosh** Fall. Thought to be a seedling of Fameuse or perhaps St. Lawrence. Dundela, Ontario, 1811. First discovered by John McIntosh on his farm near the St. Lawrence River. Originally called Granny's Apple, then McIntosh Red, sometimes Gem, and finally McIntosh or simply Mac. Beginning in about 1930, the most important apple in the Northeast until Honeycrisp appeared. Although not planted in many other locations, it grows to perfection in our cool climate. There are many strains of McIntosh, some selected for traits other than flavor, and the variety has gotten a bad reputation. Despite the criticism, this is a delicious aromatic apple. Excellent for sauce but turns to soup in a pie. Annual cropper. Large beautifully rounded spreading strong tree is easy to manage. Beware, however: it's extremely susceptible to scab. It also doesn't keep well in ordinary storage. Blooms midseason. Z4. **ME Grown.**

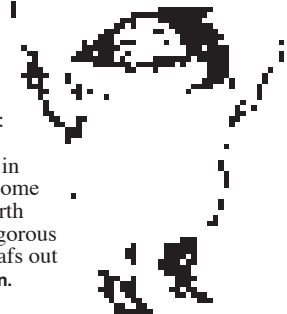
- 151A McIntosh, \$38.50
- 151C McIntosh on M111, \$38.50
- 151D McIntosh on Bud 9, \$38.50

**Northern Spy** Winter. Chance seedling. East Bloomfield, NY, about 1800. One of the most famous of all heirloom apples. Very large delectable all-purpose fruit, covered with pink and light red stripes. Very juicy and tender. Even when the thin skin bruises, the fruit keeps extremely well. Cooks up quickly into a loose mild sauce. No need to remove the skins. Its reputation as a pie apple is well deserved: makes a very good single-variety pie! Recommended as a source of sharp juice in cider. Its one drawback is being slow to come into bearing, although for us it's been worth the wait. Medium-to-large moderately vigorous long-lived tree. Good scab resistance. Leafs out late and blooms late season. Z4. **ME Grown.**

- 153A Northern Spy, \$38.50
- 153C Northern Spy on M111, \$38.50

**Opalescent** Fall. Unknown parentage. George M. Hudson intro, Shultz, Barry County, MI, 1890s. Originally called Hudson's Pride of Michigan but eventually sold as Opalescent by Dayton Star Nurseries, Xenia, OH, 1899. Highly flavored dessert apple, well known among collectors. Very large brilliant deep red white-dotted fruit. Crisp, sweet, tart, juicy—but most of all supremely flavorful. Also considered a good cooking apple. Keeps till mid-late winter. Would be an excellent apple for the small commercial orchard farm stand or CSA. Likely at its best from Massachusetts north. For years, our scionwood came from an ancient broken-down tree three miles from John Bunker's Super Chilly Farm in Palermo, ME. Every fall he'd stop by to grab a few fruits. Vigorous medium-sized productive tree. Blooms midseason. Z4. **ME Grown.**

154B Opalescent on B118, \$38.50



### **Pomme Grise** Fall.

Unknown parentage. May have originated in Europe as early as the 17th c., and probably brought to Canada's St. Lawrence Valley by French immigrants. Found its way into Maine about 150 years ago. Medium-small russeted fruit with a longtime reputation as one of the very best dessert russets. Firm, crisp, juicy, rich, subacid and aromatic, with interesting aftertastes. Very good fresh eating.

The combination of the chalky russet and the green ground color give the skin its grey (grise) appearance. Recognizably different from the various Golden Russet types. Vigorous dense round spreading tree prefers northern locations. Ours has been consistently productive. Keeps fairly well, still crunchy in January. Blooms midseason. Z3. **ME Grown.**

**156A Pomme Grise, \$38.50**

**Red Astrachan** Summer. Thought to be from Astrakhan on the Black Sea, prior to 1800. The standard Maine summer cooking apple for generations. Still found occasionally in old Maine dooryards. Juicy rich subacid white flesh frequently tinged with red makes a highly colored sauce. Especially loved for its distinctive flavor in pies. Medium-sized somewhat oblate fruit, splashed or sometimes solidly covered with dark red. An obvious russet patch surrounds the stem. Looks like a junior version of a Wolf River. Fruit ripens over a period of several weeks in midsummer, making it perfect for the home orchard and lousy for the commercial folks who want them all at once.

After finding its way to Sweden, the apple traveled to England and finally to Massachusetts in 1835. From there it quickly spread throughout New England and beyond. Keeps for a few weeks with refrigeration. Very hardy. Blooms early. Z3. **ME Grown.**

**158A Red Astrachan, \$38.50**

**Redfield** Fall. Wolf River x Niedzwetzkyana. NY Stn, 1938. One of the best and largest of the red-fleshed apples. Although usually considered too tart for eating out of hand, the medium-large fruit with opaque solid rusty-red skin is absolutely great in pies, makes wonderful jelly and turns sauce and cider red. We love this apple. Gained fame in the hard-cider world thanks to the wonderful single-variety Redfield cider and Redfield blends made by the late Terry Maloney of West County Cider. Very sharp and bitter in cidermakers' lingo. (SG 1.052) Flesh is two-toned: deep pink fading to white around the core. The flowers are also two-toned, deep pink, tipped with small white lightning bolts. And the bronze-red foliage adds further interest all season. Bears young, annually, and shows some insect resistance in our trials. One of the very first to bloom each year. Z3. **ME Grown.**

**160A Redfield, \$38.50**

**160C Redfield on M111, \$38.50**

**Rhode Island Greening** Fall-Winter. Green's Inn, near Newport, RI, about 1650. Also known as **Greening**. The classic New England cooking apple. Large roundish-conic-oblate green fruit often has a tannish blush. Light yellow-green flesh is crisp and tart. Great for pies, also excellent for fresh eating. The most well-known of the various Greenings, and the number one green apple for a few centuries before Granny Smith arrived from Down Under and stole the show. With its high-quality fruit and adaptability to a range of soil conditions, Rhode Island Greening established itself as one of the most important commercial varieties throughout the Northeast in the 19th c. Keeps well into winter. About as hardy as Baldwin. Old trees can still be found in central Maine. Not recommended for northernmost districts, but cooks everywhere else will love it. Blooms late season. Z4. **ME Grown.**

**161A Rhode Island Greening, \$38.50**

## **Fire and Ice in the Orchard**

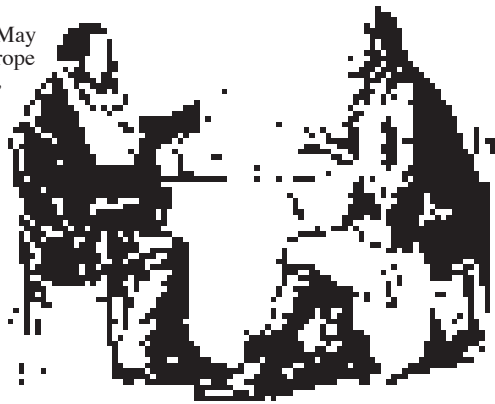
Erratic weather events seem to have become the norm, but 2023 has been a real doozy. On May 18, when fruit trees in the Northeast were in full bloom or had already developed fruitlets, our region had a catastrophic late-spring freeze, with sustained temperatures recorded as low as 24°. While some microclimates and protected pockets were spared, many orchards experienced demoralizing losses. Our friends at Scott Farm, a diverse and historic heirloom orchard in Dummerston, VT, lost upwards of 90% of the crop (potentially more than 10,000 bushels of fruit). As orchardists there explained, "It's during that short window of time, when [trees] are at the peak of their beauty, adorned with a thousand flowers, that they are also at their most vulnerable."

At North Branch Farm in Monroe, ME, where the bulk of Fedco's fruit trees are propagated, nurseryman Seth Yentes had just planted out thousands of fragile newly grafted nursery trees when the late freeze came. Anticipating the potential damage, Seth lit many small fires along his nursery rows in the wee hours of the morning, a scene he says resembled a medieval battleground. He got the idea from the age-old practice of orchardists who tended fires through cold nights to raise the air temperature just enough to protect the fragile blossoms and save their crops. It worked in the tree nursery and the nascent trees survived the night relatively unscathed.

This freeze event came on the heels of a winter where we saw -20° with 50 mph winds in February. Many plants in our yards and orchards showed dieback, and throughout the Northeast the tender fruit buds on peach trees were killed. Peaches in Maine had been reliable in recent years, but those couple days of deep freeze and biting windchill wiped out this year's crop. On one farm, we pruned back our trees only to discover upon leaf-out that half the remaining wood was dead and all the flower buds were shot. (It's worth noting that peach trees on a colder farm in central Maine fared better thanks to a magnificent windbreak of conifers that must have softened the blow.) We pruned some more and waited. Then came the rain that lasted for weeks, and to our amazement the trees rebounded tenfold!

With this summer's record rainfalls and ruinous floods, we're having difficulty remembering the hot dry droughty summers we have come to expect lately. (The same rains kept the Canadian wildfire smoke at bay in Maine.) In mid-July parts of Massachusetts, New York and Vermont received 6-10" of rain, two-months' worth in just two days. Entire farms were wiped out, drowned and covered in contaminated sludge—some farmers had to canoe through their fields to assess the damage.

We go to great lengths to protect our trees and crops from weather extremes. From covering individual vulnerable seedlings with glass cloches, to building elaborate irrigation systems, windbreaks and shade structures, and even staying up all night tending fires. The trees are resilient and so must we be. All the apple and peach trees without fruit to ripen this season are putting energy into new growth and stretching their roots for years to come. When floods recede and fields dry out, farmers replant and salvage as much of the growing season as possible. In the face of unpredictable weather, we must continue to seek out the most adaptable and hardy plants, and stay on our toes to help each other respond to crises.



**Roxbury Russet** Winter. Roxbury, MA, early 1600s. Said to be the first named American apple variety. One of the best late-winter dessert apples—it would be hard to live without a stash of them in our root cellar. Our favorite for winter sauce. Hard medium-large patchy green and russeted fruit not uniform in size, shape or color. Rich, spicy and juicy. Dried, it's nice and tart with a pleasant first sensation and a lingering good aftertaste. The aromatic juice has potential for cider, fresh or fermented. Medium to large vigorous spreading tree. One of the most popular commercial apples of the 19th century, largely because it can store until summer. Scab resistant. Blooms midseason. Z4. **ME Grown.**



**164A Roxbury Russet, \$38.50**  
**164C Roxbury Russet on M111, \$38.50**

**Smith Cider** Mid-Late Fall. Thomas Smith intro, Bucks County, PA, about 1800. Synonyms include **Cider Apple**, **Choice Kentuck** and **Poplar Bluff**. Quite popular long ago in the Ohio Valley, mid-Atlantic and Southern states. All-purpose fruit, desired for fresh eating, cooking and for its rich juice with consistently high sugar, an excellent base for cider blending. Flesh is tender, juicy, crisp and mildly subacid. Medium-sized roundish-oblate conic fruit is splashed and striped with red. Tree is vigorous, spreading, highly productive and annually bearing. First recorded in 1817 by Coxe in his book *A View of the Cultivation of Fruit Trees and the Management of Orchards and Cider*. Named by the owner of the original tree, which stood on a slope near a cider press. Smith would roll barrels down the hill and use the tree as a bumper to stop them from rolling any farther. Keeps until late winter. Blooms late. Z5. **ME Grown.**

**165A Smith Cider, \$38.50**

**St. Edmund's Russet** Early Fall. First discovered in the orchard of Richard Harvey, Bury St. Edmunds, England, about 1870. Received a first-class certificate from the Royal Horticultural Society in 1875. Also called **St. Edmunds**, **St. Edmunds Pippin** and **Early Golden Russet**. High-quality and highly flavored late-September dessert fruit. Medium-sized roundish-conic fruit is similar in appearance to Golden Russet but with a much lighter uniform yellowish-tan coloring. The crisp fine-textured creamy-white to yellowish juicy aromatic flesh has a sweet subacid pear-like flavor. Always one of the most popular apples at our Common Ground Fair taste tests. One of the many great apples introduced to us by the late orchardist Don Johnson. The earliest russet to ripen in central Maine every year. Not a keeper. Blooms early midseason. Z4. **ME Grown.**

**167A St. Edmund's Russet, \$38.50**

**Stayman Winesap** Fall-Winter. Seedling of Winesap, discovered by Dr. Joseph Stayman of Leavenworth County, KS, 1866. Large round fruit is similar in appearance to Winesap but bigger and not as deep red. Thick smooth skin with cherry red stripes over a yellow ground, and conspicuous black-russet dots. Juicy aromatic honey-flavored yellowish-cream flesh is more sweet than tart. Wonderful for both fresh eating and cooking. Popularized in the late 19th and early 20th c. by the Stark Brothers Nurseries catalog and widely planted up and down the eastern half of the U.S. Grows best with hot humid summers and cold winters. (Sound familiar?) Keeps well. Triplot: not suitable for pollinating other varieties. Blooms midseason. Z4. **ME Grown.**

**169A Stayman Winesap, \$38.50**

### Apple Maggot and plywood

The late orchardist and rare apple collector Don Johnson made nifty apple maggot traps. We've gotten into doing so ourselves. In small orchards, the traps alone may be enough to reduce the AM pressure to a tolerable level. Here's how: Cut up plywood (3/8" or 1/2") into 8x11" rectangles. Drill a hole along the top edge. Paint the plywood bright yellow with a 2-3" red spot (the apple) in the center. Coat with Stiky Stuff (an adhesive found at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs)) and hang three in each tree in mid-June, positioning the traps at about chest height. Trim away any foliage that might stick to the trap. Check for trapped AM flies. Now and then, when they get too gnarly, scrape the traps and add new Stiky Stuff. Remove traps around Labor Day.



**Sweet Sixteen** Fall. MN 1630 (MN447 [Frostbite] x Northern Spy) U Minn, 1979. The first bite into a Sweet Sixteen is always a surprise. Fine-textured crisp flesh contains an astounding unusually complex combination of sweet, nutty and spicy flavors with slight anise essence, sometimes described as cherry, vanilla or even bourbon. We always love Sweet Sixteen season. Truly excellent fresh eating, although it is too sweet for some palates. Also good for pies and sauce. Round-conic bronze-red medium-sized fruit, striped and washed with rose-red. Annual bearer if thinned. Very hardy moderate-sized vigorous vase-shaped tree grows upright with willowy branches that get loaded with fruit but do not break. Best grown in northern districts. Keeps till midwinter. Some resistance to scab. Blooms mid to late season. Z3. **ME Grown.**

**172B Sweet Sixteen on B118, \$38.50**



**Tolman Sweet** Fall-Early Winter. Sweet Greening x Old Russet. Dorchester, MA, before 1700. Sometimes called

**Talman Sweet**, **Taulman Sweet**, **Tomey Sweet** and many other variations. One of the first American apples and one of the few to remain popular for centuries. Truly an all-purpose fruit, used for cider, cooking, dessert and even animal fodder. Once popular for pickling, boiling and baking. Especially prized in Maine for apple cake.

Unforgettably peculiar sweet strange flavor. Very low acidity. Moderately juicy medium-sized greenish fruit, sometimes with a bit of a blush and often marked by a distinct suture line running from stem to stem. Long-lived heavy-bearing vigorous tree. Still often found throughout central and southern Maine. Blooms midseason. Z4. **ME Grown.**

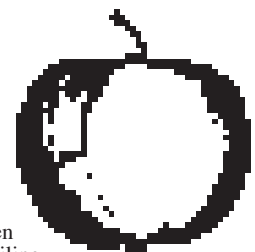
**175A Tolman Sweet, \$38.50**

**Trailman** Summer. Trail x Osman. Beaverlodge Research Farm, Alberta, Canada, 1973. In spite of its small size, this is an exceptionally delicious fruit for fresh eating. Spicy sweet crisp crunchy golden-yellow flesh. Visitors who try it in our orchard usually fall in love with it instantly. Some have called it the best summer apple they've ever tasted—some even call it their favorite apple of any season! Ripens around Aug. 20 in central Maine. Translucent yellow skin has a porcelain finish, white bloom and sometimes a brownish-red blush. Fruit the size and shape of an egg. Hangs on the tree for 2 weeks without softening. Precocious, annually productive, moderately vigorous spreading tree with somewhat drooping branches and distinctive greyish-beige twigs. Exceedingly hardy. Might be tasteless south of Zone 6. One of the first to bloom each year. Zone 3 or even 2. **ME Grown.**

**176B Trailman on B118, \$38.50**

**Wealthy** Fall. Thought to be a seedling of cherry crab, but recent DNA analysis proves old history wrong: one parent is Duchess. Excelsior, MN, 1860. A Maine native of sorts, the seed having come from Bangor. One of the most famous of all hardy varieties, with its perfect texture and complex flavors, all-purpose Wealthy is widely considered to be one of the best apples. We agree. Round-oblate medium-sized fruit is pale greenish-yellow streaked with carmine. Tender very juicy sweet subacid flesh is white, often stained red. About as firm as McIntosh. Good eating and even better cooking. Wonderful pies! Good acid source for fermented cider. Ripens over a long period. Productive moderately vigorous long-lived naturally small-statured tree. Blooms early. Z3. **ME Grown.**

**177B Wealthy on B118, \$38.50**



**Wickson** Fall. Esopus Spitzenburg x Newtown Pippin. Albert Etter intro, Humboldt County, CA, 1944. One of the most intensely flavorful apples we list. Small roundish bright red fruit is crisp, juicy, tart, tangy and spicy. Highly recommended for dessert. Extremely high in both sugar and acid. Sugar level of the juice is around 25%. Becoming one of the most sought-after American cider apples. Makes perfect single-variety cider—the best there is! In September the tree looks like a mass of cherries. Bred and introduced by the generally unknown Albert Etter, one of America's most innovative and important fruit breeders of the 20th century. Keeps until January. Wickson bears young, heavily and mostly annually. Blooms midseason. Z4. **ME Grown.**

**178A Wickson, \$38.50**  
**178C Wickson on M111, \$38.50**

**Williams Pride** Summer. Co-op 23 [PRI 2845-1=(PRI 1018-101 x NJ50)] PRI Co-op, 1988. Probably the most popular summer apple among PRI's disease-resistant introductions. It's actually crisp, which is rare for a summer apple. Deep purple roundish-conic irregularly shaped fruit highlighted with areas of glowing rosy red and covered with a thin bloom. Light cream-colored flesh with red staining just under the skin. Firm, crisp and very juicy. Has a nice acidic blend of tart and sweet, reminiscent of Fameuse. Long ripening period means you don't have to eat them all at once. Vigorous annually bearing tree with some biennial tendency. Well shaped with strong right-angled branches that do not require careful training. Highly resistant to fireblight, cedar apple rust and sooty blotch; resistant to powdery mildew. Scab immune. Blooms early to midseason. Z4. **ME Grown.**

**179B Williams Pride on B118, \$38.50**

**Winter Banana** Fall-Winter. Unknown parentage, Adamsboro, IN, 1876. One of the most famous American heirloom apples. Large blocky brilliant shiny yellow fruit with a bright red blush, rather conical, somewhat ribbed and sometimes with a suture line. Best as a dessert apple: aromatic, slightly crisp, juicy, mild and quite tasty. Good sauce. Some say they detect a banana aroma or flavor. Keeps through the fall and into midwinter. Often planted in the mega-orchards of the Northwest for its compatible and presumably potent pollen. Blooms midseason. Z4. **ME Grown.**

**181A Winter Banana, \$38.50**



**Winthrop Greening** Late Summer-Fall. Ichabod Howe Farm, Winthrop, ME, before 1800. Large beautiful oblate all-purpose green fruit sporting a red-orange wash, small greenish dots and splashes of russet. Tender rich juicy flesh. Very interesting sweet flavor with medium-low acidity. One of the few Maine apples to receive attention from outside the state over the years. Quite popular throughout central Maine as late as 1920; now all but unknown. Ichabod Howe (1731-1810) laid out many of Winthrop's roads, organized construction of its first church, was an accomplished trapper and hunter, served seven terms as selectman and was, appropriately enough, Winthrop's first orchardist. Blooms late. Z4. **ME Grown.**

**182C Winthrop Greening on M111, \$38.50**

**Wolf River** Fall. Alexander seedling. Near Wolf River, Wisconsin, 1875. Perhaps the most famous old-time apple in Maine, likely due to its catchy name and its extremely large—even huge—round-oblate fruit. Giant Wolf River specimens always stand out in our apple displays at the Common Ground Country Fair. Pale yellow-green skin mostly covered with pink, deep red and bright crimson with a vivid yellowish-green russet splash around the stem. Creamy-white coarse flesh is firm but tender. Aromatic subacid flavor is very good for cooking. Makes an excellent baked apple and a decent pie. Not much good for fresh eating, but particularly tasty when dried. Keeps until late fall. Large moderately vigorous productive spreading tree. Excellent scab resistance. Blooms mid to late season. Z3. **ME Grown.**

**183A Wolf River, \$38.50**

**Yellow Bellflower** Winter. Parentage unknown. Crosswicks, NJ, about 1742. Large conical pure-yellow fruit does everything well, including keeping all winter in the root cellar. Firm, crisp, moderately fine-grained, rather tender, juicy, aromatic, very good for culinary use and good for fresh eating, especially after it's mellowed for a month or two. Excellent for pies. Applesauce cooks quickly, somewhat coarse, bright glistening yellow with great flavor and chewy skins. We also love it dried: it's balanced and flavorful. One of the first named American varieties and one of the first apples to be grafted and planted in Maine. Incredibly long-lived. When you find a truly ancient apple tree in Maine, there's a pretty good chance it's a Yellow Bellflower. Blooms early-midseason. Z4. **ME Grown.**

**184A Yellow Bellflower, \$38.50**

**Zestar** Late Summer. State Fair x MN 1691. U Minn, 1999. Also called **Zestar!** Extremely hardy high-quality mid-late summer dessert apple. Medium-sized blocky round fruit covered with red stripes and blush. Juicy and crisp with a well-balanced acid-sweet flavor. As the late Michael Phillips, New Hampshire orchardist and author of *The Apple Grower*, said, "When you tree-ripen Zestar, it's fabulous." Northern Maine orchardist Steve Miller added, "That's an impressive apple. From the standpoint of appearance and quality, they're first rate." Keeps in cold storage up to 7 weeks. Tree has moderately vigorous upright form; excellent horizontal branching habit makes it easy to train and prune. Precocious and annual-bearing. Blooms early season. Z3. **ME Grown.**

**185B Zestar on B118, \$38.50**

**185D Zestar on Bud 9, \$38.50**

### Become an Apple Steward!

**Maine Heritage Orchard Stewardship Apple** The Maine Organic Farmers and Gardeners Association (MOFGA) established the Maine Heritage Orchard (MHO) in a renovated gravel pit in Unity, with the first trees planted on Earth Day 2014. MHO is home to hundreds of heirloom varieties of apples that were known to be grown in Maine dating back as far as 1630, as well as a growing collection of noteworthy, provisionally named seedling varieties grafted from impressive ancient trees found across the state. Nearly 350 apple trees have been planted so far with many more to come. The trees are managed with innovative organic practices and planted on a terraced hillside alongside native flowers and shrubs to create a polyculture orchard unlike any other. MHO is an educational resource, open to the public during various workshops, tours and volunteer days throughout the year.

You can join in this effort by becoming an Apple Steward. By purchasing a Heritage Orchard Stewardship Apple, you become the proud keeper of one of the varieties growing at MHO. In the event that the orchard's tree dies, you'll have a backup so we can collect scionwood for grafting another.

We'll send you a historic apple tree with a description (if it's not listed in this catalog), and a form to fill out. After planting your tree, you return the form with the tree's location to MOFGA. MOFGA will contact you from time to time.

\$30 from the sale of each tree goes to support the Maine Heritage Orchard project. All trees best grown from Z4-6. **ME Grown.** (3-6' bare-root trees)

**195A Stewardship Apple, \$60.00**

## Where can I taste that apple?

While we take pride in our variety descriptions, there's nothing like the real thing. Frequently we're asked, "Where can I taste a...?" One opportunity is Great Maine Apple Day, October 15, 2023, at MOFGA in Unity. (Check [mofga.org](http://mofga.org) for updates.)

To try more than 20 varieties, sign up for Out on a Limb Apple CSA ([outonalimbapples.com](http://outonalimbapples.com)) co-managed by Fedco Trees founder John Bunker. Members pick up biweekly shares of rare apples during the fall harvest season.

**Visit an orchard near you.** There are many great orchards out there. Even one or two rare fruit finds can make the trip worthwhile. Below are some Maine orchards with good collections. For a more complete list of Maine orchards, go to [maineapples.org](http://maineapples.org).

For a longer list of orchards around the Northeast, visit: [fedcoseeds.com/trees/tasting.htm](http://fedcoseeds.com/trees/tasting.htm)

### Some orchards in Maine:

- The Apple Farm, Fairfield, Somerset County (207) 453-7656, [applefarm.us](http://applefarm.us). A great collection of unusual old and new varieties.
- Bailey's Orchard, Whitefield, Lincoln County (207) 549-7680. One of the largest collections of old varieties in the state. Other fruits, too.
- Cayford Orchards, Skowhegan, Somerset County (207) 474-5200, [cayfordorchards.com](http://cayfordorchards.com). 57 new and heirloom varieties of tree fruits.
- Clayfield Farm, East Blue Hill, Hancock County (207) 374-2159, [clayfieldfarm.net](http://clayfieldfarm.net). Small organic orchard of mixed varieties.
- Doles Orchard, Limington, York County (207) 793-4409, [dolesorchard.com](http://dolesorchard.com). Mix of old and new. They have two un-named varieties crossed by the late Maine plant breeder Russell Bailey. Both are extremely rare, if not unique.
- 5 Star Orchard, Brooklin, Hancock County (207) 359-4960, [5starorchard.com](http://5starorchard.com). Organic heirloom apples, pears, plums and peaches.
- Lane Road Orchard, New Sharon, Franklin County (774) 265-0614. Many interesting heirlooms and unusual modern varieties.
- McDougal Orchards, Springvale, York County (207) 324-5054, [mcdougalorchards.com](http://mcdougalorchards.com). Many unusual apple varieties.
- Maine-ly Apples, Dixmont, Penobscot County (207) 234-2043, [mainelyapples.com](http://mainelyapples.com). Excellent collection of old, new and rare varieties.
- North Star Orchards, Madison, Somerset County (207) 696-5109, [northstarorchards.me](http://northstarorchards.me). Pick-your-own apples, cider mill, and farm store.
- Pleasant Pond Orchard, Richmond, Sagadahoc County (207) 737-4443. Apples, pears, plums, peaches, blackberries and pick-your-own highbush blueberries.
- Ricker Hill Orchards, Turner, Androscoggin County (207) 225-5552, [rickerhill.com](http://rickerhill.com). Mostly modern varieties, some organic.
- Rollins Orchard, Garland, Penobscot County (207) 924-3504, [rollinsorchards.com](http://rollinsorchards.com). More than 20 unusual old varieties.
- Sandy River Apples, Mercer, Somerset County (207) 587-2563, [sandyriverapples.com](http://sandyriverapples.com). Francis Fenton's orchard, original source of many of Fedco's apple varieties. More than 40 heirloom and modern apples.
- Sewall Orchard, Lincolnville, Waldo County (207) 763-3956, [sewallorchard.com](http://sewallorchard.com). Organic apples including some of the first disease-resistant releases. Organic apple cider vinegar, too!
- Sweetser's Apple Barrel and Orchards, Cumberland Center, Cumberland County (207) 829-6599, [maineapple.com](http://maineapple.com). A great collection of 39 old and new varieties. Don't miss their Rolfe apples.

### Great Maine Apple Day!

Join us **Sunday, October 15, 2023**, at MOFGA in Unity, ME, and try a bunch of apples! See [mofga.org](http://mofga.org) for details.

## Books We Love!

### Available from Fedco's Organic Growers Supply

At Fedco, we love books. Find titles carefully selected by Fedco staff at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs).

***Apples and the Art of Detection: Tracking Down, Identifying and Preserving Rare Apples*** by John Bunker. Written and wonderfully illustrated by Fedco Trees' founder!

***The Apple Grower: A Guide for the Organic Orchardist*** 2nd edition, by Michael Phillips. The book you need to grow apples organically.

***The Apple Lover's Cookbook: The Classic Guide to Cooking and Eating Apples*** by Amy Traverso. Includes descriptions for 59 varieties (many listed in our catalog) with notes on taste, texture and suggested uses. From savory to sweet, there are recipes to suit everyone's tastes.

***The Apples of New England*** by Russell Steven Powell. A well-written, brief but dense history of apples and the folks who spread them throughout New England. A handy guide for exploring and rediscovering our apple heritage, with 162 varieties described.

***The Big Book of Cidermaking: Expert Techniques for Fermenting and Flavoring Your Favorite Hard Cider*** by Christopher Shockey and Kirsten K. Shockey. Wild or cultivated, infused or straight, sparkling or still, extra-boozy or ciderkin for the kiddos—there's a cider for any occasion.

***The Book of Pears: The Definitive History and Guide to Over 500 Varieties*** by Joan Morgan. A comprehensive history of one of our favorite fruits, from seedlings found in the wild to modern-day cultivars.

***Cass Turnbull's Guide to Pruning: What, When, Where & How to Prune for a More Beautiful Garden*** by Cass Turnbull. Clear how-to and how-not-to instructions with useful illustrations and laugh-out-loud humor. Covers more than 150 plant species.

***Cold-Hardy Fruits and Nuts: 50 Easy-to-Grow Plants for the Organic Home Garden or Landscape*** by Allyson Levy and Scott Serrano. A must-have resource to broaden your fruit and nut horizons.

***The Elderberry Book: Forage, Cultivate, Prepare, Preserve*** by John Moody. Moody writes, "If the dog is humanity's best friend, then the elderberry may be its best plant friend." Plant more elderberries!

***Growing Trees from Seed: A Practical Guide to Growing Native Trees, Vines and Shrubs*** by Henry Kock. Learn how and when to collect seeds from your favorite native trees and shrubs, how to process them, store them and sow them to grow your own legacy of trees.

***Hardy Apples: Growing Apples in Cold Climates*** by Bob Osborne. Half hands-on guide to propagating and cultivating, and half reference text of noteworthy northern apple varieties.

***Hardy Roses: The Essential Guide for High Latitudes and Altitudes*** 3rd edition, by Bob Osborne. From one of the most thoughtful gardeners and poetic plant writers we know, a thorough and truthful lesson on soil, pruning, winter hardiness and pests. For more about Bob, see page 49.

***The Holistic Orchard: Tree Fruits and Berries the Biological Way*** by Michael Phillips. Covers a wide range of fruit crops, while addressing orchard design, dynamics and horticulture in unparalleled detail. It's all here: pruning, planting, companion planting, spraying, not spraying.

***The Nature of Oaks: The Rich Ecology of Our Most Essential Native Trees*** by Douglas W. Tallamy. In New England we have 12 species of oak and countless creatures that oaks support, diversity worth appreciating.

***Root Cellaring*** 2nd edition by Mike and Nancy Bubel. Where are you going to store all those apples? Here's your guide.

***Sprout Lands: Tending the Endless Gift of Trees*** by William Bryant Logan. A history of the tradition of managing woodlands with the art of coppicing and pollarding for perpetual supply of small-diameter wood.

***Trees of Power: Ten Essential Arboreal Allies*** by Akiva Silver. A book for anyone working to fill the world with more trees!

## Cider Apples

Each year we offer a different assortment of the best European and American cider varieties, including new wild apple introductions from local cidemakers. Many of these are NOT for fresh eating. They do however possess qualities that make them very desirable for fermented cider production.

**Ashton Bitter** Early Fall. **Full bittersweet** cider apple. Dabinett x Stoke Red. GT Spinks intro, Long Ashton, England, 1947. Astringent cider apple with strong tannin, high sugar (SG 1.060) and low acidity. Very juicy. Medium-sized round opaque orange-yellow fruit, blushed and striped with red. Ripens in early fall, but we've pressed them in late October with good results. Best blended with sharps and other bittersweet varieties. From 1903 until 2003, Long Ashton Research Station was the British center for the study of cider. Ashton Bitter was resurrected from an old Long Ashton trial orchard and planted extensively in recent years in England and the U.S. Scab free. Blooms midseason. Z4. **ME Grown.**

**196C Ashton Bitter on M111, \$38.50**

**Cellar Hole Bitter** Fall. **Full bittersweet** cider apple. Unknown parentage. Gene Cartwright, Whaleback Cider intro, 2015. Discovered near an old overgrown cellar hole down the road from Whaleback's orchard and cidery in Lincolnville, ME. Very bitter yellow fruit develops spots of pink and orange when fully ripe in mid-October. Gene says, "Intense tannins, not terribly juicy but can pack some sugars." He measured a whopping 21 Brix in some highly colored specimens from the sunny side of the tree. Gene has artfully pruned the wild mother tree, but he still has to compete with the porcupines for a share of the large annual crop. Another one of the local discoveries on trial at MOFGA's low-intervention no-spray South Orchard, where hopefully the quill pigs will stay away. Z4. **ME Grown.**

**199A Cellar Hole Bitter, \$38.50**

**Dabinett** Late Fall. **Medium-bittersweet** cider apple. Probably a seedling of Chisel Jersey. Middle Lambrook, Somerset, England. One of the most popular cider varieties in Somerset today and one of the mainstays of Poverty Lane Cider Orchards in NH. At a MOFGA workshop, Steve Wood of Poverty Lane and Farnum Hill Ciders said, "If you're going to plant one bittersweet, plant this one." Sugar content fair and fermentation moderate. High-quality well-balanced low-acid cider with a soft-tasting tannin. (SG 1.057, acidity 0.18%, tannin 0.29%) Medium-sized roundish fruit covered with brownish brick-red stripes and blush. Picked last week of October and usually blended with other late varieties. Crops annually. Grower-friendly tree with flat lateral branches may require help in developing a strong central leader. Not pollen compatible with Chisel Jersey. May be susceptible to fireblight in some locations. Midseason bloom. Z4. **ME Grown.**

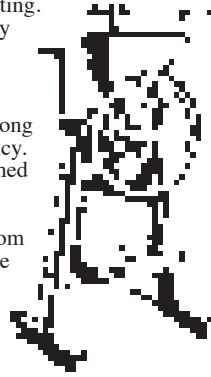
**200C Dabinett on M111, \$38.50**

**Damelot** Fall. **Vintage mild bittersweet** cider apple. Unknown parentage. Rare French cider apple first brought to the U.S. in 1948. Possibly from Sarthe, in northwest France. Selected from the USDA collection in Geneva, NY, by John Bunker in 2015 and has been growing well at Super Chilly Farm in Palermo ever since. Small round golden-yellow fruit with a pink blush and abundant blackish-russet dots. Fruit stays firm through mid-November and presses into high-quality aromatic juice. Slightly bitter, mildly sweet, fragrant and floral with almost no acidity. Suitable for a single varietal cider. (SG 1.080, Brix 19) Vigorous hardy spreading tree with a domed crown. Blooms midseason. Z4. **ME Grown.**

**201C Damelot on M111, \$38.50**

**Gnarled Chapman** Fall. **Bittersweet** cider apple. Unknown parentage. Eric Shatt of Redbyrd Cider intro, Hector, NY, 2015. Large, roundish-oblately and outrageously beautiful. Yellowish-green skin with a glowing orange blush, netted and dotted with russet. The nice soft tannins are not overly bitter, but very pronounced and balanced with a mild sweetness. True bittersweet seedlings are few and far between, and Eric named this discovery in honor of America's most famous apple guy, John "Appleseed" Chapman. Vigorous upright tip-bearing tree. Recommended for trial in all cider-apple growing districts. Blooms midseason. Z4. **ME Grown.**

**203A Gnarled Chapman, \$38.50**



**Harrison** Mid-Late Fall. **Vintage sharp** cider apple. Parentage unknown. South Orange, Essex County, NJ, as early as 1712. One of the most renowned American cider apples, dating from the early days of domestic cidemaking. Harrison cider was famous and considered to be better than champagne. Medium-small oval yellow-skinned fruit. Rich firm dry yellow flesh. According to William Coxe in 1817, it makes a "high coloured, rich, and sweet cider of great strength, commanding a high price in New-York, frequently ten dollars and upwards per barrel." Vigorous productive tree. A Harrison revival is underway in several locations on the East Coast. Performing well in our central Maine trials. Appears to be plenty hardy. Blooms mid to late season. Z4. **ME Grown.**

**204A Harrison, \$38.50**

**Harry Masters Jersey** Fall. **Medium-full bittersweet** cider apple. Often called **Port Wine** in north Somerset. Probably introduced by Harry Masters, Yarlington Mill, Woolston, Somerset, England, before 1900. High-quality bittersweet variety recommended for blending with other fall varieties. Soft astringent tannins. (SG 1.056, acidity 0.20%, tannin 0.32%) Becoming popular commercially in New England. One of the mainstays of Farnum Hill Cider in New Hampshire. Medium-large oblate-conic fruit, mostly covered with bright red stripes and blush, and a splash of yellow russet around the stem. Narrow upright tree form. Harry Masters himself was the miller at Yarlington Mill. Harry Masters Jersey and Yarlington Mill are thought to be of the same parentage. Blooms midseason. Z4. **ME Grown.**

**205A Harry Masters Jersey, \$38.50**

### It's All in the Mix!

"From the great diversity of soil and climate in the United States of America, and the almost endless variety of its apples, it followed that much diversity of taste and flavor will be necessarily found in the cider that is made from them."

— Colin MacKenzie, 1829

For the best cider, plant several varieties. That's because when it comes to cider, it's all in the mix. Unlike beer, cider usually has only one ingredient: apples. They provide everything: acidity, sugar, tannin and flavor.

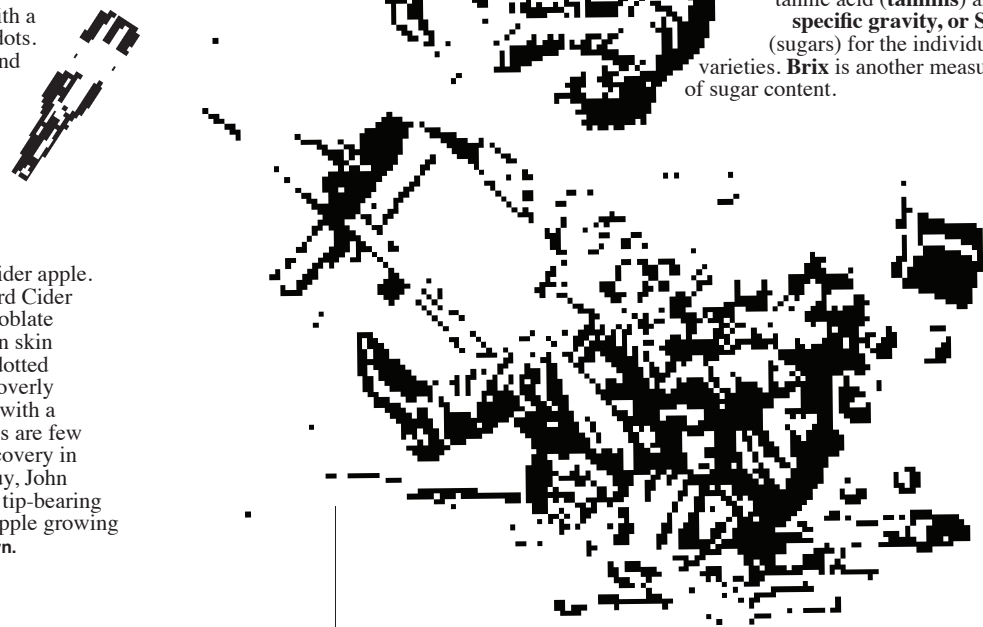
We classify the cider varieties into four categories:

- **Sharp** (low in tannins, high in acid)
- **Sweet** (high in sugar, little or no tannin, low acid)
- **Bittersharp** (high in tannins and high acid)
- **Bittersweet** (high tannins and sugar, low acid).

**Tannin** denotes naturally occurring compounds whose bitter astringency gives rounded full flavor, body and golden color.

**Vintage** refers to varieties with perfect qualities for single-variety cider. Most cider is best blended. We recommend you plant some sharp apples for acidity, some sweet apples for sugar and some bitter apples for the tannin.

For those who are really serious about it, we include where we can the percent malic acid (**acidity**), percent tannic acid (**tannins**) and **specific gravity, or SG** (sugars) for the individual varieties. **Brix** is another measure of sugar content.



**Hewe's Virginia Crab** Fall. **Vintage sharp** cider apple. Probably a seedling of the native *M. angustifolia*, the Southern Crab. Introduced about 1700 in Virginia. One of the most prized of all American cider apples. One of the rare varieties recommended for single varietal cider. In his 1817 *A View of the Cultivation of Fruit Trees*, William Coxe devoted an entire chapter to making cider with Hewe's. The red-skinned white-spotted fruit is small, round, juicy, tough, astringent and acidic. According to AJ Downing in 1848, Hewe's "makes a very high-flavored dry cider, which, by connoisseurs, is thought unsurpassed in flavor by any other, and retains its soundness a long time." Incredibly vigorous, productive and healthy in our trials. Quite hardy despite its name. Long ago used as a rootstock even as far north as Maine. Prolific large white blooms persist for a long time midseason, making it a great pollinator for other varieties. Z4. **ME Grown.**

**206C Hewe's Virginia Crab on M111, \$38.50**

**Kingston Black** Fall. **Vintage bittersharp** cider apple. Parentage unknown. Somerset, England, early 19th c. High in tannin and acidity. (SG 1.061, acidity 0.58%, tannin 0.19%) Produces full-bodied vintage cider with a nice blend of acid, tannins and sugar. One of the noteworthy varieties that makes a high-quality single variety hard cider; also good in a blend. We became fans of Farnum Hill's tasty Kingston Black varietal. Now we make it ourselves. Also makes superb fresh cider. Even the fresh juice is a deep rich dark color. Medium-sized conical beautiful rich red fruit is mottled with red russet and deeper shades of maroon. Fairly decent fresh eating. The tree is a reliable bearer, but is gangly and needs careful pruning. Blooms midseason. Z4. **ME Grown.**

**207A Kingston Black, \$38.50**

**Medaille d'Or** Late Fall.

**Full bittersweet** cider apple. Parentage unknown. Developed by M. Goddard of Boisguillaume, Rouen, France, probably mid-19th c. The gold medal of cider apples, introduced into England in 1884. Full bittersweet, high in bitterness and astringency. (SG 1.053-1.059, acidity 0.21-0.27%, tannin 0.64%) Combine with other late varieties. Small to medium roundish-conic yellow fruit mostly covered with a netting of golden russet and sometimes featuring a soft reddish blush. In the 1993 British text *The Book of Apples*, Joan Morgan and Alison Richards wrote that it "produces sweet, heavily astringent juice and full bittersweet cider often high in alcohol, fruity and good quality." Wide spreading vigorous tree with good branch angles. Scab resistant but said to be susceptible to fireblight. Blooms late season. Z4. **ME Grown.**

**208A Medaille d'Or, \$38.50**

## John and Cammy's Simple Hard Cider

Apple juice wants to ferment. Although there are many books, websites and conferences devoted to hard cider, the process is quite simple.

Our best ciders come from a mix of different apples. We combine wild seedling apples, small and somewhat bitter, with sweet low-acid apples like Tolman Sweet, and bittersweets like Dabinett, Medaille d'Or, or other cider varieties. That said, just use what you have!

A bushel of apples will yield about 3.5 gallons of juice. You can buy, borrow or build a cider press. You could also buy fresh cider from a local orchard in the fall.

Pour juice into a clean container, such as a glass gallon jug, a 5-gallon carboy, or a 50-gallon wooden whiskey or wine barrel. We clean our fermentation vessel with potassium metabisulfite, available at beer/wine supply stores.

Some cidemakers add yeast. Others add raisins, brown sugar, various fruits or even a piece of steak. Our cider is just juice. The natural yeasts on the farm are enough to make great cider.

Seal the vessel with an airlock. When the airlock stops bubbling, the fermentation is done. This takes several months in the cool basement where we ferment our cider.

Time to drink the cider or bottle it. We like to bottle ours and wait another few months because it keeps getting better. Sometimes we add 3/4 tsp sugar to each bottle to make the cider fizzy. Twist-top wine bottles or flip-top bottles are easy because you don't need to purchase bottle caps or corks. Enjoy!

**Nailbiter** Fall **Bittersharp** cider apple. Unknown parentage. Marlboro, VT. Matt Kaminsky, aka Gnarly Pippins, intro. Seedling apple found at the bottom of a steep roadside bank, holding its own among the pines and aspens. Large conic ribbed often lopsided fruit looks similar to Black Gilliflower (aka Sheepnose) but with more vibrant coloring. Bright red wash atop a yellowy-orange base with a russeted cavity and scattered russet netting. Firm bittersharp flesh. "Savory acids and crushing tannins combine giving way to combustion on the palate with a unique, smoky bitterness," said Matt. We are happy to offer another high-quality wild apple discovery from the Gnarly Pippins collection. Blooms mid-late season. Z4. **ME Grown.**

**209C Nailbiter on M111, \$38.50**

**Nehou** Fall. **Full bittersweet** cider apple. Unknown parentage. Probably Nehou, France, before 1900. Soft, juicy, low-acid, sweet and astringent. (SG 1.057, acidity 0.17%, tannin 0.6%) Not as bitter as Dabinett and Harry Masters Jersey. Medium-sized somewhat oblate and oblique yellow fruit with a reddish blush and some striping. Presumably originated near Nehou on the northwest coast of Normandy although there are no records of a French variety by that name. Likely renamed Nehou when it was brought to England in the 1920s and popularized by HP Bulmer's cider company. Renaming apples has been a tradition for centuries! Introduced to the states in 1949. Blooms mid-late season. Z4. **ME Grown.**

**210A Nehou, \$38.50**

**Porter's Perfection** Late Fall. **Medium bittersharp** cider apple. Charles Porter intro, East Lambrook, near Kingsbury Episcopi, Somerset, England, before 1900. Heavy cropper of small dark red-blushed fruit. (SG 1.054, acidity 0.82%, tannin

0.25%) Pomologist Liz Copas writes that it "can produce an excellent cider. Its juice is rather acidic bittersharp and is better blended for a more balanced product." When we meet cidemakers, we always ask them about their favorite varieties. Eric Shatt of Redbyrd Orchard Cider in the Finger Lakes region of New York replied, "Porter's Perfection." Redbyrd's website calls it an "excellent balance of tannins and acidity." Often produces twins or triplets—two or more fruits fused together. Similar to the excellent Lambrook Pippin; the two varieties are thought to be of same parentage. Scab resistant. Blooms midseason. Z4. **ME Grown.**

**213C Porter's Perfection on M111, \$38.50**

**Redfield** Fall. **Bittersharp** cider apple. See page 12 for description.

**Reine des Pommes** Fall. **Full bittersweet** cider apple. Probably originated in northern Brittany, before 1900. Still known in Mayenne and surrounding areas. Also called **Doux Geslin**. The fruit is sweet, woolly textured and astringent (acidity 0.24%, tannin 0.47%), best for blending. Medium-sized oblate-roundish-conic fruit, mostly russeted over a beautiful blend of reds, oranges and yellow. Years ago Terry Maloney of West County Cider in Colrain, MA, wrote to John, "I think the Reine des Pommes has the most powerful and unique taste in a cider of any of the apples we grow. It's a true spitter though!" Recommended for trial in all northern locations. Blooms early to midseason. Z4. **ME Grown.**

**214C Reine des Pommes on M111, \$38.50**

**Vilberie** Late Fall. **Full bittersweet** cider apple. Probably originated in Brittany, France. Brought to England in the late 1800s by HP Bulmer. Medium-soft flesh is somewhat spongy with low acidity and a nice astringency. (SG 1.044; acidity 0.27%; tannin 0.41%; Brix 11.5) If you've been looking for late-ripening bittersweets as we have been, try this one. We're excited about it so far. Small-medium fruit is roundish and obscurely ribbed. Resembles Stark and Baldwin, about half covered with a brownish-red blush, with a few short darker red stripes. By mid-October the green has still not begun to turn yellow. The stem is quite long and thin. Our scionwood came from the USDA ARS, Geneva, NY. Blooms late. Z4. **ME Grown.**

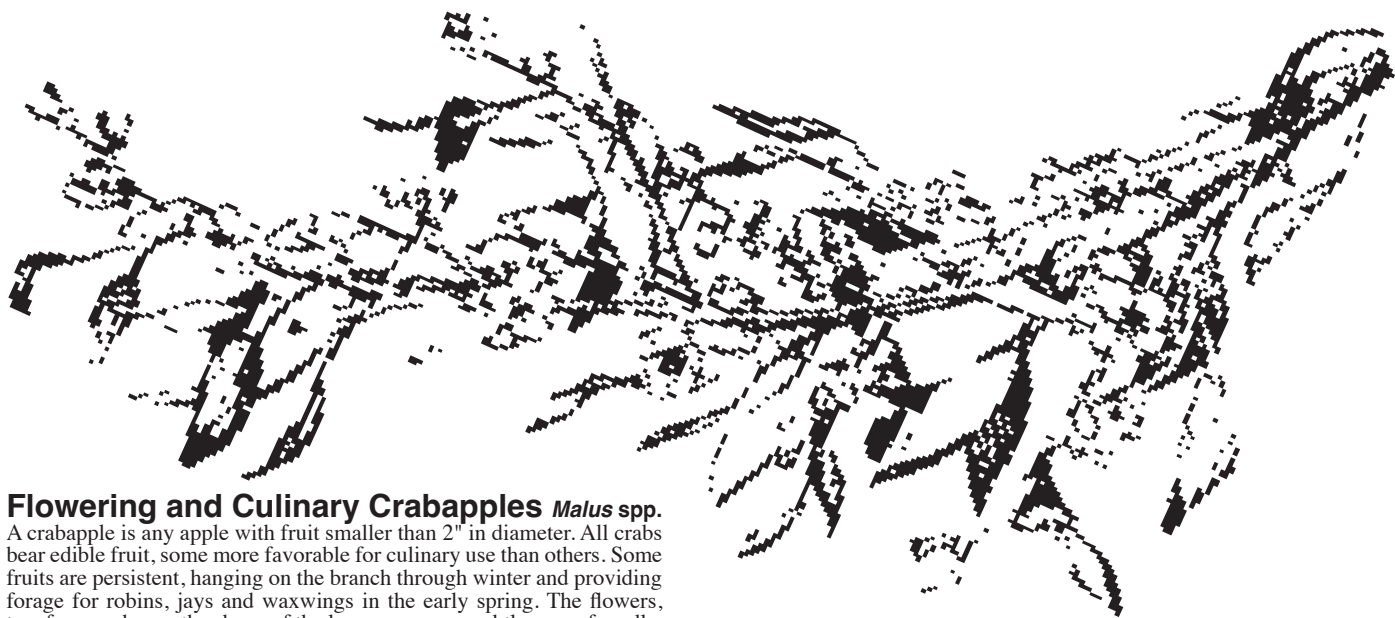
**217C Vilberie on M111, \$38.50**

**Wickson** Fall. **Vintage sharp** cider apple. Description on p. 14.

## Pears for pressing

Perry pears, which are varieties especially suited to fermented pear cider, can be found on page 21.





## Flowering and Culinary Crabapples *Malus* spp.

A crabapple is any apple with fruit smaller than 2" in diameter. All crabs bear edible fruit, some more favorable for culinary use than others. Some fruits are persistent, hanging on the branch through winter and providing forage for robins, jays and waxwings in the early spring. The flowers, tree form and even the shape of the leaves can vary subtly or profoundly. Most are magnificent in bloom and ornamental year round, especially in winter when the leaves drop and the trees show off their interesting forms.

Our crabapples are grafted on M111 rootstock, unless otherwise noted. (Stock is 2 1/2-5', unless otherwise noted)

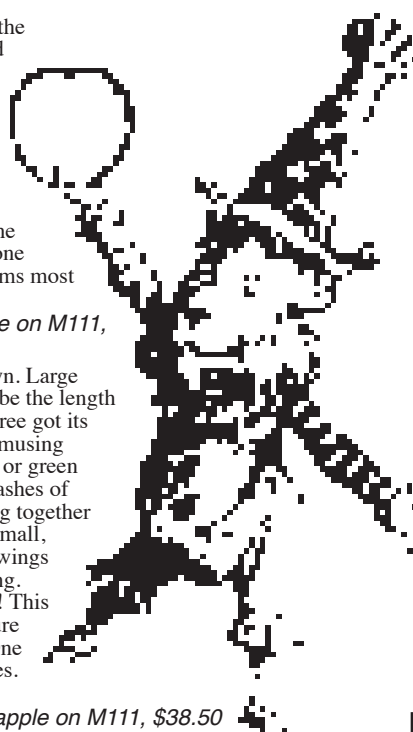
**Brandywine** 20x20' *M. ioensis* 'Plena' Klehm's No. 8 (*M. x purpurea* Lemoinei x *M.* Klehm's Improved) Incredibly beautiful fragrant flowers followed by unbelievably bitter fruit.

Deep pink buds open to fragrant 1" wide pink double rose-like blossoms. Put an arrangement of these flowers in a vase, and people will swear they are roses. Cidermakers love the unattractive 1-2" maroon-blushed green fruit that drops in the fall and makes a mess. Very high in tannin. In *Cider Digest* some years ago, one grower wrote, "You ought to try planting a crab called 'Brandywine'. WOW!!! what a real mouth-killer as far as tannin goes... Couldn't tell you the acidity because my tongue had gone dead." Loosely rounded tree blooms most years. Z4. **ME Grown.**

**226C Brandywine Crabapple on M111, \$38.50**

**Carnival Clown** Origin unknown. Large single magenta flowers fully enrobe the length of each branch. We see how this tree got its name! As if the flowers weren't amusing enough, the festive leaves are red or green or sometimes variegated with splashes of hot pink, all of the colors mingling together at once. Burgundy-red fruits are small, persistent and frequented by waxwings and robins in winter or early spring. Multiple acts under one umbrella! This clown is new to our circus—mature tree size unknown at this point. One of grower Delton Curtis's favorites. Stunning. Z4. **ME Grown.**

**227C Carnival Clown Crabapple on M111, \$38.50**



**Dolgo** 25x30' From seed collected by NE Hansen of *M. x robusta* in 1897 at the Imperial Botanical Gardens, St. Petersburg, Russia. (*Dolgo* means 'long' in Russian.) Introduced in the U.S. in 1917. The classic culinary crab still found in old Maine dooryards. Apricot-pink buds, large fragrant 2" pure white single flowers bloom early. Beautiful purple-red 1 1/2" teardrop-shaped fruit makes flavorful clear ruby-red jelly. In recent years the aromatic sweet very acidic fruit has found favor with cidermakers. Great for canning, pickling and delicious sauce. Vigorous large blocky upright spreading tree consistently yields abundant summer crops. Very hardy. Z2. **ME Grown.**

**228C Dolgo Crabapple on M111, \$38.50**

**Donald Wyman** 20x30' Chance seedling. Arnold Arboretum, 1970. Deep pink buds and large 2" single white flowers early in the season. The bloom is so intense, the tree looks like one massive flower. Beautiful rounded wide-spreading medium-sized tree with attractive glossy green foliage. Looks great when it has room to spread out. The tree's form alone is enough to recommend it. The bright 3/8" red oval fruit completely covers the tree in clusters and persists until spring when the birds clean it off in time for the next bloom. 2001 Carey Award winner for Distinctive Plants for New England. Disease free, although said to be slightly susceptible to powdery mildew. Z4. **ME Grown.**

**229C Donald Wyman Crabapple on M111, \$38.50**

**Indian Magic** 15x15' Unknown origin. Robert Simpson intro, Vincennes, IN. One of the best of all the pinks, an outstanding showy ornamental tree with a well-deserved great reputation. Beautiful in every season. Red buds open to single deep rose-pink flowers. Abundant attractive small elliptical bright glossy red long-stemmed fruits with a slight orange blush turn full orange in late fall and persist all winter, attracting birds. Dark green foliage also turns brilliant orange in fall. Rounded open form. Rarely affected by scab. Midseason bloom. Z4. **ME Grown.**

**230C Indian Magic Crabapple on M111, \$38.50**

**Sarah** 15x15' Autumn Glory x Angel Choir. John Fiala intro, Falconskeape, Medina, OH, 1990. One of our favorite "rose" crabs. Small white cup-shaped semi-double flowers with yellow stamens look like miniature roses or maybe snowdrops covering the entire upright-rounded tree. Half-inch orange-red persistent fruit in autumn hang on till spring. Named for Sarah Klehm, whose surname is well recognized in the nursery world for the family's outstanding plant collections and work in introducing some wonderful cultivars to the trade. Z3. **ME Grown.**

**231C Sarah Crabapple on M111, \$38.50**

### Category schmategy!

When we determine that a crab's culinary value overrides its ornamental "crabbiness," we list it in the main apple or cider section. Here are some small-fruited varieties that are technically crabs:

- Chestnut
- Ivan
- Kerr Crab
- Trailman
- Hewe's Virginia Crab (cider section)

Some ornamental crabs, like **Dolgo** and **Brandywine**, are great in hard cider. Dolgo also makes great jelly.

### Growing Crabapples

**Soil:** Adaptable, but prefers well-drained fertile soil.

**Sun:** Full sun, but will tolerate less if you pamper it.

**Pollination:** Requires a second variety for pollination. Any apple or crabapple blooming within a quarter mile will probably do.

**Planting:** Same as other apples. See pages 67-70 for instructions on soil prep, planting and pest control.

**Spacing:** Plant M111 semi-dwarf trees 15-20' apart.

**Pruning:** Crabs do not require formal pruning. Prune broken branches and suckers; moderately shape as you wish, but otherwise allow the tree to assume its natural form.

## Whither the Fedco Tree Sale?

For 36 years, Fedco Trees hosted a wildly popular spring plant sale. For many, coming to the Tree Sale was an annual pilgrimage. Dedicated attendees and hopeful shoppers streamed in with the promise of good deals, and maybe a glimpse of the imaginary gnomes who pull the strings behind the scenes at Fedco Trees. Traffic was sometimes backed up for miles on Interstate 95. People were packed into our warehouse like sardines and slogged through the puddles and sawdust in anything from logging boots to sequined high heels, hailing from Aroostook County to Pennsylvania.

### So why did the Tree Sale go away?

In 2020, due to the pandemic, the Tree Sale as we knew and loved it came to an abrupt end. We were forced to close to the public, cancel the sale, and discontinue our order pickup option—we shifted gears to become mail-order only. For a number of reasons, we haven't revived the sale, and while this change has made sense to Fedco and its workers, it has disappointed a loyal following. For the last few years, many of you with your sad puppy dog eyes have asked if the Tree Sale will return. We are met with this inquiry frequently over the phone or email, over dinner with friends, and even once over the doctor's exam table. (The doc: "Say, don't you work at Fedco? When is the Tree Sale coming back? It was so fun. Could really save on shipping!")

We deeply appreciate your enthusiasm and share your nostalgia. In short: Yes, there will be more Tree Sales. Will they look the same? Probably not. At least, not for a while.

### A little bit of Tree Sale history

When Fedco Trees was born in the early '80s, all tree orders were picked up—nothing was shipped. Whatever didn't sell was surplus inventory, which we put out for customers to buy at a discount when they picked up their pre-orders. It was a low-key event for local folks. A few years later, we started to ship some orders but still held a pickup day and small surplus sale. This model moved with Fedco to a few different home bases with customers following along.

In 1992 we moved to the chicken barn on the Bellsqueeze Road in Clinton (where Fedco Seeds is still based). After all the pre-orders were shipped, we set up for pickups as usual, but also made flyers and advertised our first-ever sale that was open to the general public. This was a turning point and the beginning of what became a production event. Instead of just selling leftovers to our pickup customers, we bought in extra inventory for a bigger sale.

Over time, it grew beyond a sale into what felt like a festival. In addition to 2-for-1 deals on trees, we engaged outside vendors to peddle their wares. Staff donned wigs that spanned the colors of the rainbow; staff member Ellen launched each day by belting out a song while standing atop a root-wrapping table; and sometimes people played music for the crowds. We might have even had a juggler once.

Tree Sale attendees came to expect vendors like Amy LeBlanc of White Hill Farm with her heirloom tomato seedlings and laminated graphics with jokes (memes before memes were a thing), and Jason Kafka of Checkerberry Farm with his array of veggie and flower starts and a never-ending stream of Grateful Dead tunes pouring out of the greenhouse. Various growers and Fedco staff sold potted plants and once in a while the odd craft or two.

We grew even more, and in 2012 we moved down the road to our Hinckley warehouse. By this time, the Tree Sale was an all-hands-on-deck event. We'd spend four long days reorganizing the plants in the warehouse, running wires, and painting artsy posters and directional road signs. We hired extra staff to manage parking, retrieve pickup orders, run cash registers, answer questions, count up orders, and of course to speed-wrap tree roots without poking customers' eyes out. We had a designated "stage manager" to make sure anyone who fell down a drain could be easily retrieved. Many of you will remember Tom standing at the end of our driveway in a sombrero you could see from outer space—passersby would pull in just out of curiosity. In 2015, Maine's *Downeast Magazine* voted it the "Best Springtime Tradition."

Each year we found creative new ways to move the lines faster, to keep it flowing, to not blow up. It wasn't until the mid-2010s that we finally stopped using manual carbon-copy credit-card swipers and moved to the Square (whoa!). Most people were fantastically good-natured about the intensely long lines and seemed to derive euphoria from the smell of fermenting sawdust. It's like they felt baptized by the morsels of wet sawdust that went airborne when someone nearby yanked out a giant plum tree.

The Tree Sale was a fun way for us to sell more trees, welcome new customers, reunite with old friends and make new ones. It was also labor intensive, and we gave away a lot of trees with little return on our expense. Although we were growing our customer base and paying the bills, as a business we weren't thriving. If the Tree Sale were a cider apple, we would call it a bittersweet one. By the end of the weekend, our crew was utterly exhausted. We wonder how much longer we could have pulled this event off, if Covid hadn't brought it all to a halt.

### An evolving business model

In March of 2020, when we had to cancel the Tree Sale, we did a new thing and created an online surplus sale to move the extra stock. It worked well. The pandemic boom seasons 2021 and 2022 saw record online sales—people were stuck at home and wanted to plant trees—and we sold out of nearly everything we had in inventory. We offered Mainers a flat fee for shipping to help offset not being able to pick up orders in person. We finished those seasons in a timely manner with a better ratio of labor expense to sales, and we didn't have to stay late to stage a huge event.

We noticed a new model emerging, or maybe an old model was growing: we had become a mature mail-order catalog company. The humans got a break from the public event production, we weren't selling trees for huge discounts (good for you but not for business), and our bottom line started to look up. While we disappointed some people, we felt a little saner and a little less broke.

In spring 2023, we had enough plants left over to hold an informal, minimally advertised walk-in sale without much ado: instead of a few days it was a week long with only a few people staffing the floor while they tended to other tasks. We didn't rearrange the room, we didn't wear wigs or sing, we standardized the discounted price, and we welcomed enough shoppers to make it worthwhile on our end while offering locals a chance to get some good last-minute deals. It was a true surplus sale—sort of like getting back to our roots.

Since the first sale in 1984, Fedco Trees has gone from filling a handful of local orders to operating as a medium-sized business. We've retained our cooperative values, and our focus on our original mission is still laser-sharp, yet we're definitely less of a ragtag, seat-of-our-pants operation. With the growth, we've been able to support more workers and farmers, diversify our catalog offerings, start our own propagation program (see page 46), and send even more plants out into the world. It's been a good run and we intend to keep going. But in order to continue, we have to keep adapting. The only certain thing in life is change, as we all know, and this applies to Fedco as well.

### Now what?

We're always dreaming and scheming, looking back fondly to the good old days while striving to embrace change. When the Tree Sale was born all those years ago, there was no internet and our reach was not far. It's a whole new game now with orders streaming in via our website. We are juggling tons of growth in the same square footage we had ten years ago. Our number of orders keeps hitting new records, while our shipping season is hitting hard up against the deadline for when bare-root stock is breaking dormancy...and we're busting at the seams.

We are actively working to acquire funding for an addition with refrigerated cold storage, which would keep our stock dormant longer so we could comfortably take more orders and ship later into the spring.

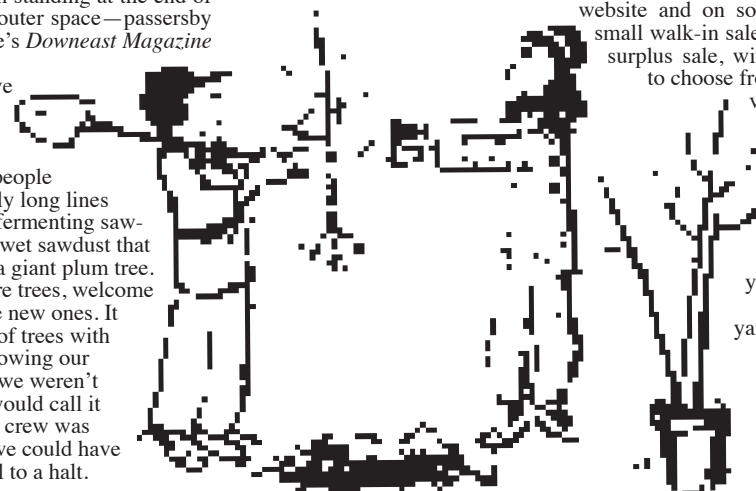
A longer-range dream is to continue our bare-root order model, but add a retail store with potted plants for sale the rest of year alongside Fedco Seeds and Organic Growers Supply products.

### Stay tuned!

In the spring, after we close ordering and survey the leftover stock—around the last week of April—we'll make an announcement on our

website and on social media for a small walk-in sale. It will be a true surplus sale, with good varieties to choose from, but not every

variety. Much like the old days, it will be a simple, low-key event. This won't be the year we rent a Ferris wheel, but you're sure to spot a gnome or two, yanking trees out of the wet sawdust.



## European Pears *Pyrus communis*

Native to temperate Europe and Asia, pears can grow up to 100' tall in the wild. Many pear varieties are hardy in New England but tend to take longer to come into bearing than apples and might not bear every year. Farther south, pears tend to bear annually. Pick fruit when green and ripen it on the shelf. Or, for optimal eating, try this method, from Ed Fackler of Rocky Mountain Orchard: "...when fruits exhibit slight color changes, begin to test pressure (using your thumb) near the stem. When there is a slight 'give,' pick all the fruit, store at or near 35° for 7 or more days. Then remove them as needed, allow them to sit at room temps for 2-4 days which allows them to ripen to peak flavor."

Pears are on OHxF97 or a similar rootstock and will reach 25' or taller at maturity. (2½-6' trees)

**Bartlett** Late Summer. Seedling found in Aldermaston, England. Introduced to the U.S. in the late 1700s. Also known as **Williams' Bon Chrétien**. The most widely planted and well known of all pears in U.S. commercial production. Adaptable to many climates and soils. Large classic pear-shaped greenish-yellow fruit; very good quality. Full reliable annual crops. Might be iffy north of Bangor. Large vigorous easy-to-grow long-lived tree bears young. Susceptible to fireblight. Good pollinator for Asian pears. Z4. **ME Grown.**

**250A Bartlett Pear, \$38.00**

**Beurre Clairgeau** Mid-Late Fall. Pierre Clairgeau intro, Nantes, France, c. 1830. Large Bartlett-shaped yellow fruit with a beautiful red blush sprinkled with russet. At its best, the fruit is richly flavored, melting, buttery, juicy, sweet and aromatic. Brought to the U.S. around 1854, Clairgeau found its niche for canning and other cooking. The trees are beautiful, vigorous, unusually upright, healthy, very productive, bearing young and annually. Quickly spread throughout New York and New England up into Maine, becoming a mainstay of American pear growing at that time. Now mostly forgotten—we're pleased to have it back. Z4. **ME Grown.**

**251A Beurre Clairgeau Pear, \$38.00**

**Beurre d'Amalis** Early Fall. Probably from near Rennes, France, before 1800. Also called **Beurre d'Amanlis**. In the past we've offered this pear as **Pownal**, before we had confirmed its true name. Very high-quality dessert and cooking pear introduced to us by June Lacombe and Bill Ginn of Hawk Ridge Farm in Pownal, ME, whose beautiful locally famous tree dominates their backyard. June wrote to us that the tree produces "an abundant crop of large sweet juicy fruit. It is thick skinned and must be eaten when it first 'dents' with your thumb while the skin is still green. At that point, it is tender, fragrant and luscious. We have collected pear recipes for years to use the prolific produce from this ancient tree and fattened our homegrown turkeys on the excess." Z4/5. **ME Grown.**

**252A Beurre d'Amalis Pear, \$38.00**

### Growing European Pears

**Soil:** Prefers well-drained fertile soil.

**Sun:** Full.

**Pollination:** We recommend planting a second variety for pollination, though some pears may be self-pollinating. Bloom times are similar for all varieties we offer.

**Planting and Pruning:** See pages 67-70 for instructions on soil prep, planting, pruning and pest control.

**Spacing:** 15-20' apart



**Beurre Hardy** Early Fall. Raised by M Bonnet, Boulogne-sur-Mer, France, c. 1820. Named to honor the director of the Luxembourg Gardens in 1830. Brought to the U.S. mid-century. Introduced to Fedco by Mark Fulford of Teltane Farm. Large light yellow fruit veiled and dotted with russet. When perfectly ripe, the fruit is very soft, melting, dissolving, practically all juice. You can take a bite and droplets of juice appear on the fruit where you bit. Perfumy and not overpoweringly sweet. No grit at all. Does not keep. Trees are vigorous, hardy, healthy and productive. Z4. **ME Grown.**

**253A Beurre Hardy Pear, \$38.00**

**Bosc** Fall. Seedling introduced by Van Mons, Lourain, Belgium, 1807. Also called **Beurre Bosc**. Long-necked fruit is dark rich yellow covered with cinnamon-brown russet. Distinctive sweet rich spicy buttery flavor. Melting juicy tender white flesh has smooth texture and a pleasing aroma. Somewhat gritty around the core. Large vigorous upright spreading tree bears huge crops annually. Good pollinator for other varieties. A longtime favorite throughout central Maine. Z4. **ME Grown.**

**254A Bosc Pear, \$38.00**

**Buffum** Fall. Possibly a seedling of White Doyenne. Rhode Island, early 19th c. Small (about 2" long) heirloom dessert pear with deep brownish-yellow skin and a reddish blush. Flesh is white, rich, melting and aromatic.

Ripens in late September to early October, around the same time as Seckel. For best flavor, pick fruits early and store them in a cold place (around 35°) for at least a week before bringing them to room temperature to fully ripen. The tree is vigorous and considered ornamental with its glossy foliage. Ours tends to shoot for the sky, so train it early to spread and stay low unless you have a very tall ladder.

Somewhat resistant to fireblight. Bears biennially. Rare. Z4. **ME Grown.**

**255A Buffum Pear, \$38.00**

**Cabot Vermont** Fall. An old dessert pear, c. 1850, discovered in Cabot, VT, a few miles west of the New Hampshire border and about as far north as Bangor. A superior dessert pear with medium-large pear-shaped fruit. Yellowish skin has a slight reddish blush. Yellowish sweet flesh is coarse grained, extremely juicy, with no grit cells. Not only is it a delicious dessert fruit, it is also remarkable for its very rare "double" flowers. Highly ornamental! Introduced to us many years ago by Armando Bona of Passumpsic, VT. Not to be confused with the old Massachusetts pear named Cabot. Annual and self-pollinating. Very hardy. Z4 or possibly even Z3. **ME Grown.**

**256A Cabot Vermont Pear, \$38.00**

**Columbia** Fall. Originated on the Casser farm, Westchester County, NY, about 1835. Good dessert pear, and excellent for canning and sauce. Large yellowish-green oblong fruit has yellowish-white granular sweet juicy flesh. Similar in appearance to Bartlett. Large vigorous spreading productive tree bears very heavily every other year. Our scionwood comes from an old tree in the front yard of the Palermo Historical Society. Year-round it's a majestic sight, especially in fruit. People from all over stop by and put the fruit to good use. Once a favorite tree in the Northeast, now rarely to be found. Z4. **ME Grown.**

**257A Columbia Pear, \$38.00**

**Comtesse Clara Frijs** Late Summer. Denmark, 19th c. Very old delectable dessert pear, first described in 1858 by JA Bentzien in the Danish garden journal *Dansk Hageetidende* and thought to be from the village of Skensved. Medium-sized thick-skinned pear-shaped fruit is dotted yellow-green, sometimes with a very slight pink blush like a spot of rouge. The buttery aromatic flesh is firm but not crisp with no grit cells. Juicy but not dripping. You can eat it in the car. You can eat it right down to nothing. Keeps for a month. Solid rugged hardy tree. Z4. **ME Grown.**

**258A Comtesse Clara Frijs Pear, \$38.00**

### Pear Leaf Blister Mite

Pear leaf blister mites can sometimes be a problem for pear growers in the U.S. The tiny mites overwinter under the bud scales and become active in spring. They are too small to see with the naked eye, but you'll know you have them if pear foliage looks like it has red blisters that eventually turn black. We recommend a dormant oil spray in spring just before the pears leaf out. You can also do a sulfur spray in the fall. (Apply appropriately, with protection. Read labels.) As a precaution, we spray Fedco pear trees with Organic JMS Stylet-Oil in the spring before shipping. You'll find organic treatments for fruit trees in our **Seeds & Supplies**

**catalog**, or at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs). We have noticed that trees often outgrow the infection even if you do nothing.

**Dana Hovey** Winter. Thought to be a seedling of Seckel. Roxbury, MA, about 1854. Introduced by 19th-c. fruit enthusiast Francis Dana who dubbed it “Dana’s Hovey” in honor of CM Hovey, Boston nurseryman and author of *The Fruits of America*. Sometimes called **Winter Seckel** because of its similarity to Seckel. Small squat rich golden-yellow russeted fruit. Intensely sweet highly aromatic tender storage pear has excellent flavor; possibly the best eating of all winter pears. Keeps extremely well. Harvest in October and store in a cool dry spot. Still great eating in December—sometimes even as late as February. Hardy vigorous moderately productive spreading tree adapts to a variety of soils. No scab and relatively few bugs. Z4. **ME Grown.**

**259A Dana Hovey Pear, \$38.00**

**Devoe** Late Summer. Possibly a seedling of Clapp’s Favorite. Marlboro, NY, 1947. Fine-grained buttery melting white flesh is juicy and sweet with notes of honey and vanilla. Very attractive large elongated pyriform fruit with a bright spotted reddish-pink blush—like a stretched out Bosc with the coloring of Clapp’s. The USDA’s pear germplasm repository describes it as “pretty enough to pose for a still life.” Best for fresh eating, does not keep well. Eat when it gets soft right around the stem. Z4. **ME Grown.**

**260A Devoe Pear, \$38.00**

**Kaspar’s Winter** Late Fall-Winter. Frankendorf, Germany. Very good tough-skinned storage pear—will keep until April in the root cellar. Greenish-mottled medium-small pear-shaped fruit with some russet splashes or dots. Coarse flesh with a floral vanilla-cake flavor, as described by Trees coordinator Elizabeth Smedberg. Very hard off the tree; don’t begin to eat them until a month after picking. Years ago this nameless winter pear found its way from the roadside near Frankendorf to Unity, ME. The name came later, courtesy of grower Howard Wulf who calls it “the latest-keeping pear I’ve ever seen.” Sturdy adaptable hardy precocious tree. Recommended for those who want pears into January. Z4. **ME Grown.**

**262A Kaspar’s Winter Pear, \$38.00**

**Magness** Late Summer. US 3866-E [Giant Seckel (SP149490) x Doyenne du Comice] USDA, 1960. Rich, melting, buttery, juicy, sugary, tender, highly perfumed and aromatic with almost no grit cells. Renowned plant breeder Elwyn Meader rated Magness as the standard by which to judge other pears in taste and quality. Some call it the best-flavored pear ever. Medium-sized fruit is greenish-yellow with a light dull-bronze russeting, sometimes a crimson blush, and a short pyriform—almost oval—shape. Fruit set can be inconsistent, though we heard of one grower who got excellent fruit set by mashing up flowers from other pear varieties and spraying them on his Magness when it was in full bloom. Keeps more than two months with refrigeration. Vigorous spreading tree. Will not pollinate other varieties. Some insect resistance and excellent fire blight resistance. Z4. **ME Grown.**

**263A Magness Pear, \$38.00**

**Patten** Late Summer. Orel 15 x Anjou. CG Patten intro, IA St U, 1922. Very good fresh eating with sweet “high flavor.” Oblong and greenish-yellow with a red blush. Vaguely reminiscent of Bosc in size and shape. Fine-grained soft flesh has minimal grit cells. Good canning pear. Tree is extremely adaptable, growing all over the Northeast. Long willowy very flexible branches won’t break even under the weight of its heavy crops. Fared incredibly well during the cold “test winter” several years ago when hundreds of northern Maine pear trees died to the roots. Extremely hardy and highly recommended for coldest districts. A good pollinator for other varieties. Scab resistant. Z3. **ME Grown.**

**264A Patten Pear, \$38.00**

**Rogue Red** Fall-Winter. 5-235 [Comice x (Seckel x Farmingdale seedling #122)] Frank Reimer intro, Southern OR Exp Stn, Medford, OR, 1969. Very sweet high-quality late-ripening dessert pear with buttery cream-colored flesh and very few grit cells. Large Seckel-shaped mostly red-blushed and partially russeted fruit. Harvest about the time of Bosc. Said to be a very good winter keeper. Sometimes mistakenly called Rouge Red, an understandable slip-up considering its red skin. Vigorous upright annual-bearing moderately productive tree. Shows tolerance to fireblight; resistant to pear scab. Z3/4. **ME Grown.**

**265A Rogue Red Pear, \$38.00**

**Seckel** Late Summer. Seedling found near Philadelphia, PA, early 1800s. Sometimes called **Sugar Pear**. Often considered the best-flavored of all pears; even the skin is delicious. Small squat fruit is russeted yellowish-brown often with a deep red blush. Juicy, spicy, distinctive and aromatic. Eat ripe off the tree, or pick firm and ripen later. We use Seckels to make our roasted pear sauce (recipe found on our website). It’s wonderful. Very productive annual-bearing large tree, easy to grow. The most reliably bearing pear we have in our home orchard. Scab and fireblight resistant. Z4. **ME Grown.**

**266A Seckel Pear, \$38.00**

**Summercrisp** Midsummer. MN N33201 (Gaspard No. 5) Brought to the MN Hort Res Stn by John Gaspard in 1933, likely discovered as a wild seedling. U Minn,

1986. Large fat very sweet dessert and canning pear with green skin and a red blush. Ripens in August in Maine. Eat them fresh, can them in quarters, and juice the rest. Precocious annually bearing tree, medium-sized with typically conic habit. Considered the hardiest variety in the Minnesota collection. Free from fireblight. One of the most popular pears we offer. Z3. **ME Grown.**

**267A Summercrisp Pear, \$38.00**

**Vicar of Winkfield** Winter. A wild seedling found in the woods of Villiers-en-Brenne, France, 1760. Large pear with greenish-yellow skin, a faint brownish-red blush and some russeting. White flesh is sweet and melting with low acid. Best to let ripen on the tree as long as possible. Flavor peaks in early winter after storage. If you don’t want to wait, serve in the fall poached with a scoop of sorbet, or use in sauce or for drying. Slightly astringent at harvest and may blend well in perry. Excellent keeper. Known as Le Curé in France where it was once commonly found on homesteads and sold in markets as a culinary pear before traveling to England and then the US by the mid-1850s. Ours has a lovely spreading habit with elegant swirling branches. Very old and rare. Z4. **ME Grown.**

**268A Vicar of Winkfield Pear, \$38.00**

**Winter Nelis** Winter. Seedling pear from Belgium, early 19th c. Brought to the U.S. from England in 1823. Medium-sized short roundish-conic-pyriform shape. Cinnamon-colored russet almost fully covers the thick green skin, turning yellow when fully ripe. The flesh is fine textured, flavorful, juicy, sweet and aromatic. Fruit can remain on the tree through leaf fall in late autumn. High-yielding tree is covered in spring blossoms. Highly regarded as a late-season storage pear by Victorian gardeners, and achieving popularity in the mid-20th c. as an export crop from warmer markets in California, Australia and New Zealand. Z4. **ME Grown.**

**269A Winter Nelis Pear, \$38.00**

## Perry Pears

Perry is fermented pear juice—the pear equivalent of hard cider. While you can ferment any pear juice, the best perry is made from small dry astringent varieties selected over the centuries just for that purpose. Most of these perry pears are not suitable for fresh eating or cooking. These trees are a good investment—they should live to be about 300 years old.

**Hendre Huffcap** Fall. **Sweet English perry pear.** Also called **Lumberscull**. Probably originated near the villages of Bromsberrow and Haresfield in Gloucestershire, England, before 1900. Sweet and astringent, with low acidity and low tannin. Perry-maker Charles Martell calls it “one of the very best vintage varieties of perry pear with all the most desirable orchard properties.” Small (2" or less) roundish fruit is yellowish-green, partly russeted and orange-blushed. Z4.

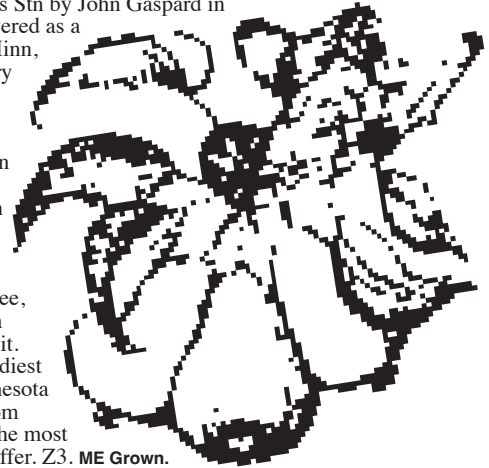
**275A Hendre Huffcap Perry Pear, \$38.00**

**Winnals Longdon** Fall. **Medium bittersharp English perry pear.** Weston-under-Penyard, Herefordshire, circa 1790. Herefordshire-based and world-renowned perry-maker Tom Oliver’s favorite variety, which he described in *The Book of Pears* as having enough tannin and acidity to make a “bold, single variety perry.” Low tannins and moderate acid levels. Yellow-green and heavily blushed red with some russeting. May bear every year if it feels like it, otherwise every other year. Z4.

**276A Winnals Longdon Perry Pear, \$38.00**

**Yellow Huffcap** Fall. **Ancient sharp English perry pear.** Possibly originated on or near the Chandos Farm in Much Marcle in the 17th c. Many synonyms including **Chandos Huffcap**, **King’s Arms**, **Uffcap**, **Uffcup**, and **Yellow Longdon**. Sharp and astringent with high acidity and medium tannin. Craig Campbell of Tieton Cider Works in Yakima, WA, says Yellow Huffcap makes their best perry. Small (less than 2") oval yellow-green russeted fruit with slightly yellow flesh. Z4.

**277A Yellow Huffcap Perry Pear, \$38.00**



## Asian Pears *Pyrus pyrifolia*

There are thousands of named Asian pear cultivars in China, where they have been grown for more than 2000 years. They bear young and are long-lived. Asian pears differ from European pears: they are crisper and very juicy, sweet and mild with a nutty background, and are roundish in shape. Because they set heavily, thin the crop once or even twice during the first two months after bloom to ensure large fruit. Leave about one fruit per spur. Unlike European pears, they should be tree-ripened. When the seeds are black, the pears are ready. They ripen in late summer and keep for several weeks with refrigeration.

Asian pears reach 15–20' at maturity. (2½-6' trees)

**Atago** Fall. Nijisseiki x Imamura Aki. Ninomiya-Engei Testing Center intro, 1928. Very large sweet juicy golden-brown pear with a claim to fame. According to *The Guinness Book of World Records* in 2011, an Atago grown by JA Aichi Toyota Nashi Bukai in Japan was the heaviest pear in the world at 6 lb 8 oz. Will develop sweetness even in cooler summer weather. Long bloom period makes it a good pollinator for other Asian pears. Good resistance to fireblight. Z5.

**279A Atago Asian Pear, \$38.00**

**Kosui** Late Summer. Kikusui x Wasekoko. Natl Hort Res Stn, Tsukuba, Japan, 1959. Crisp, juicy and very sweet. Medium-sized fruit is mostly covered with golden-brown russet. Early ripening, two weeks before Hosui (which we've offered in the past), and keeps for about two months. *Kosui* means 'good water.' Medium-sized vigorous spreading tree. Some resistance to scab. Z4/5.

**280A Kosui Asian Pear, \$38.00**

**Shinko** Fall. Nijisseiki seedling, Japan, 1941. Yellowish flesh is sweet, crisp and juicy, with very good flavor. Medium-large lumpy round brownish russeted fruit ripens late and stores up to 3 months. *Shinko* means 'new success' in Japanese. Moderately vigorous precocious annually bearing tree. Fireblight resistant. Z4/5.

**281A Shinko Asian Pear, \$38.00**

**Shinsui** Summer. Kikusi x Kimizukawase. Hort Res Stn, Yatabe, Japan, 1967. Medium-sized round-oblate yellowish-brown russeted fruit with crisp juicy fine-textured very sweet flesh. One of the earliest to ripen each year. Pennsylvania grower and Asian pear aficionado Ike Kerschner considers this a great pear. Keeps about 6 weeks in refrigeration. *Shinsui* is translated as 'new water,' 'adoration,' 'inundation' and more. It is also the pseudonym of one of Japan's most famous 20th-c. artists, Ito Shinsui (1888-1972). Z4/5.

**282A Shinsui Asian Pear, \$38.00**

**Yoinashi** Fall. Fowler Nurseries intro, Newcastle, CA, about 1987. Fine-textured off-white flesh is crisp, juicy, aromatic and sweet. Large conic light brown russeted fruit. Means 'good pear' in Japanese. It is a good variety! One of the folks at Fowler Nurseries described it to us as having "a little bit of a zip" to it. Harvest after Hosui and before Shinko. Upright medium-vigorous tree. Moderate tolerance to fireblight. Z4/5.

**283A Yoinashi Asian Pear, \$38.00**

## Quince *Cydonia oblonga*

At one time, every Maine dooryard had a quince, a small tree with large tan or yellowish aromatic fruit with mild light yellow flesh. The fragrance is so intoxicating that just having a bowl of ripe fruit on the table might distract you from getting around to cooking them! Large lovely white to pink flowers—not to be confused with the small-fruited *Chaenomeles*, Flowering Quince. The wood of mature trees becomes impressively gnarled and twisted. Quince are native to Asia.

Great in stews and preserves. Makes a fragrant orangey-pink jelly—unlike anything we've tasted. Sometimes added to hard cider. We asked Aktan Askin what he most loves about quince: "I love the sound a big, fully ripe quince makes as it falls off the tree and hits the ground. So solid. So invincible. Thunk! But that aside, I really just love eating fresh quince with a spoon. Carving little balls out and chewing to juice them in my mouth."

Ripens in October in central Maine; may not ripen in coldest areas. Susceptible to fireblight and apple borers.

Trees reach 10–25' at maturity. (3-6' trees)

**Aromatnaya** A very hardy Russian variety, maybe the hardiest of them all. Selected for its pineapple-like flavor notes and resistance to disease. Z4/5.

**285A Aromatnaya Quince, \$45.00**

**Pineapple** Named by Luther Burbank for the pineapple-like flavor of the fruit when made into jelly. Late bloomer ripens in late summer. Z4/5.

**286A Pineapple Quince, \$45.00**

**Smyrna** Brought from Smyrna, Turkey, by Californian GC Roeding, whose father Fred brought the famous Smyrna fig to the U.S. Selected for excellent flavor and good keeping quality. Z4/5.

**287A Smyrna Quince, \$45.00**



### Growing Asian Pears

**Soil:** Prefers well-drained fertile soil.

**Sun:** Full.

**Pollination:** We recommend planting a second variety for pollination, though some Asian pears may be self-pollinating. Some European pears, notably Bartlett, will also act as pollinators.

**Spacing:** 15–20' apart

**Planting and Pruning:** See pages 67-70 for instructions on soil prep, planting, pruning and pest control.

### Growing Quince

**Soil:** Prefers well-drained fertile soil.

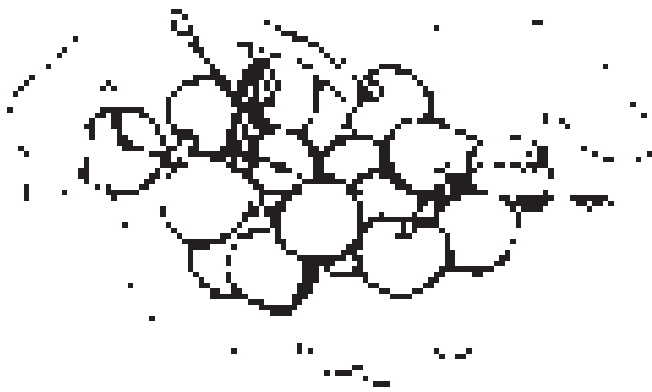
**Sun:** Full.

**Pollination:** Self-fruitful, but plant more than one for better yields.

**Spacing:** 15–20' apart

**Planting and Pruning:** Prune like an apple tree, and protect young trunks from apple borers.

See pages 67-70 for instructions on soil prep, planting, pruning and pest control.



## Stone Fruits *Prunus* spp.

Widely cultivated around the world and adaptable to most of New England. Not highly particular as to soils. Clingstone means the fruit's flesh sticks to the pit (or stone) and a freestone pit drops away from the flesh.

Like our apples and pears, all our stone fruits are grafted trees.

### Sweet Cherries *P. avium*

Generally grow into large trees although the flowers are tender and fruiting can be iffy in central Maine and north. We are testing the hardiest varieties and hope to have more available in coming years.

Mature trees reach 25–30' tall. (2½-6' grafted trees)

**Benton** Summer. PC7146-8 Stella x Beaulieu. WSU, 2003. Highly flavorful large firm deep red cherry resembles Bing. Neighbors reported that the cherries on their young tree had a sweet chin-dripping heavenly flavor that made them think of little plums dressed up in cherry suits. Less susceptible to cracking than other varieties. Flowers almost a week later than other sweet cherries, potentially missing late frosts. Vigorous upright and spreading growth. **Self-pollinating.** Z5.

**288A Benton Sweet Cherry, \$38.50**

**Black Tartarian** Early Summer. Originated in North Caucasus of southwestern Russia and brought to England in 1794, landed in U.S. markets in 1848. In *Cherries of New York 1914*: "...tempting to the eye through their rotund form and glossy black color and are a delight to the palate, the handsome purplish-red flesh being firm and crisp, yet juicy, with a sweet, rich flavor which all agree gives the quality the rank of 'very good to best.'" Once widely distributed in home gardens around the world, it fell out of favor commercially for thicker-skinned varieties that were easier to ship. **Requires a second variety for pollination.** Z4.

**289A Black Tartarian Sweet Cherry, \$38.50**

**EbonyPearl** Summer. NY 32. NY Stn, Andersen and Brown, Geneva, 2008. Large juicy sweet cherry with just enough tart for a perfect balance. Attractive deep red skin with orangey-red flesh. Excellent resistance to cracking, but not to cedar waxwings, who love cherries as much as we do! Some consider this the tastiest of the cherries released in Cornell's Pearl series. **WhiteGold is a good pollinator** for EbonyPearl. Z5.

**290A EbonyPearl Sweet Cherry, \$38.50**

**Gold** Summer. Chance seedling. Stark Bros Nursery intro, Louisiana, MO, about 1932. Also called **Stark Gold** or **Stark Gold Sweet Cherry**. Medium-sized crack-resistant fruit has translucent golden-yellow skin and firm flesh of exceptionally good quality. Originally selected for maraschino cherry processing, but its hardiness and good taste made it an excellent choice for northern sweet-cherry growers. Very productive large tree. Ripens late. Developed or selected by CJ Thomas in Rulo, Nebraska, and subsequently released by Stark Bros. Grown commercially in some areas. **Requires a second variety for pollination.** Z4/5.

**291A Gold Sweet Cherry, \$38.50**

### Growing Sweet and Pie Cherries

**Soil:** Prefers well-drained fertile soil; pie cherries are more forgiving and adaptable than sweet cherries.

**Sun:** Full.

**Pollination:** Most sweet cherries need a second variety for pollination, so plant two or more for best results. Pie cherries are self-pollinating.

**Spacing:** Plant sweet cherries 25' apart. Plant pie cherries 15–20' apart.

**Planting:** See pages 67-70 for instructions on soil prep, planting and pest control.

**Lapins** Summer. Van x Stella. Summerland Res & Dev Ctr, BC, Canada, 1983. Large sweet high-quality black-mahogany-red fruit. Ripens a week after the popular variety Stella, by mid-July in warmer districts. Very vigorous, productive and upright; crops consistently in central Maine. **Self-pollinating**, but benefits from planting with another variety. Z4/5.

**292A Lapins Sweet Cherry, \$38.50**

**Van** Summer. Empress Eugenie x open-pollinated. Summerland Res & Dev Ctr, BC, Canada, 1944. Bing-type, almost black, medium to large fruit that ripens late in the cherry season. Very firm though somewhat susceptible to cracking, but we've eaten wonderful fruits in central Maine that were completely crack free. Heavy annual crops on a strong vigorous upright tree. Excellent pollinator for other sweet cherries but it's self-sterile and **requires a second variety for pollination.** Z5, but worth trialing in Z4.

**293A Van Sweet Cherry, \$38.50**

**WhiteGold** Summer. NY 13688 (Emperor Francis x Stella) NY Stn, 2001. Also known as **Newfane**. From the breeding program in Geneva, NY, another highly admired all-around excellent sweet cherry for the Northeast. Light red-yellow fruit with good size, great flavor and heavy cropping. Sweet light-colored flesh. Bob Purvis called it "the Rainier of the North." Disease and crack resistant. **Self-pollinating.** The first self-fertile light-fleshed cherry released commercially in the U.S. Z4.

**294A WhiteGold Sweet Cherry, \$38.50**



### Pie Cherries *P. cerasus*

Also called **Sour Cherries**. Delicious enough to eat right off the tree and especially good in pies. They fruit in early to midsummer and don't mind heavy soil. Pie cherries are generally divided into two groups: **Morello** types have dark red spherical fruit, dark juice and relatively small compact trees (*check our website*—we might have a Morello type available). **Montmorency** (or Amarelle) types have light red slightly flattened fruit, clear juice and medium-sized somewhat open trees.

Pie cherries are significantly harder than sweet cherries but flower buds may be damaged in colder winters. We often encounter excellent crops in central Maine.

Mature trees reach 10–15' tall. (2½-6' grafted trees)

**Montmorency** Summer. Seedling of Cerise Hâtive or Cerise Commune. Montmorency Valley, France, before 1600. Introduced to the U.S. c. 1830. The most famous of all pie cherries, long considered the standard of excellence in the U.S. Aromatic firm-fleshed bright red fruit makes a clear light pink juice and is a favorite for processing. Tart but still enjoyable fresh off the tree when fully ripe. Birds love them, too. Surprisingly hardy, showing no signs of dieback in central Maine after the arctic blast of February 2023. In Aroostook County, trees fare better than Meteor. Appears to be resistant to brown rot. Vigorous productive medium-sized upright-spreading tree tolerates a variety of soils. **Self-pollinating.** Z3/4.

**301A Montmorency Pie Cherry, \$38.50**

### Relative ripening dates

Although our catalog focuses on woody plants that do well in the northeast, we have customers all over the U.S.— up along the Canadian border, in the mid-Atlantic states, down in the mountains of North Carolina and out west in the high desert—anywhere hardiness is important. We love having customers so spread out, but it's not easy to tell when a variety will ripen in every far-flung orchard. A fruit that ripens in September in northern Maine might ripen a month earlier in Pennsylvania. Ripening dates also vary from year to year depending on conditions. Not only that, the fruit might be exquisite up north but rather blah farther south. That's the nature of these varieties, and it's part of why we offer a wide selection. We think you'll find varieties that can thrive in your area.

## Peaches *P. persica*

Northern New England peach growing can be very successful. The trees often bear so heavily that the fruit needs thinning and the branches need support. Some winters can be hard on peach trees, and they may die. Other trees live for many years. Replant and try again. They are worth the trouble, and since they bear young, you won't have to wait too long!

Peaches are usually unaffected by pests or diseases in northern areas, the occasional exception being **peach leaf curl**. PLC is not a fatal problem but does need to be controlled if you get hit with it. Look for crinkled or puckered foliage in spring. Remove affected leaves and compost them. Spray tree with lime, sulfur or copper early the following spring while it is still dormant (before any buds open!) Onion, garlic or horsetail spray while leafed-out may also be effective. It's common for peaches to have black gummy wounds. This is usually harmless and happens from any environmental stress, even when a bird or a bug looks sideways at the tree. Mature trees will be 10-15' tall. (3-6' trees)

**Blushingstar** Late. Fruit Acres intro, Coloma, MI. A newer **white-fleshed** release from the Stellar Peach breeding program in Michigan, late 1990s. Very good fresh eating. The flesh is white, tinged with pink, turning red at the pit. Completely freestone and non-browning when cut. Ripens about 20 days after Redhaven. Tree is hardy, open-growing and resistant to bacterial spot. Doing well in our Maine orchards and worth trialing in much of the Northeast. Z4/5.

**306A Blushingstar Peach, \$38.50**

**Contender** Late. NCT 544 (Winblo x complex parentage of North Carolina selections) DJ Werner, JR Ballington and DF Ritchie intro, Ag Exp Stn, Raleigh, NC, 1988. Extend your peach season with this high-quality variety that is proving to be hardy in northern Maine. Large round bright red and yellow freestone fruit with a slightly raised suture. Firm melting aromatic yellow flesh. Growth habit similar to Redhaven, but fruit ripens 3 weeks later. Resistant to leaf spot. Because it blooms quite late, it might escape late spring frosts. Z4 maybe Z3.

**307A Contender Peach, \$38.50**

**Cresthaven** Mid-Late. MI Ag Exp Stn, 1963. Very round medium-large yellow fruit with a red blush and yellow sweet juicy flesh. Freestone. Ripens later than Redhaven but before Madison. From the Haven series of peaches bred by Professor Stanley Johnston (1898-1969) who grew and studied more than 20,000 peach trees in Michigan. Z5, but worth trialing in Z4.

**308A Cresthaven Peach, \$38.50**

**Madison** Late. Ideal x Redhaven. VA Stn, 1963. A fine peach for the North, with hardiness similar to Redhaven but ripening 3 weeks later, around the time of the Common Ground Country Fair. Medium-large fruit with bright orange skin and bright red blush. Orange-yellow firm fine-textured juicy flesh with excellent very sweet rich peach flavor. Skin peels easily. Freestone, excellent canner. Very productive. Exceptional tolerance to blossom-season frost. This winter, deep freeze caused widespread dieback on all of our peach trees, but Madison fared the best, upstaging even Reliance on hardiness! A Fedco favorite! Z4.

**311A Madison Peach, \$38.50**

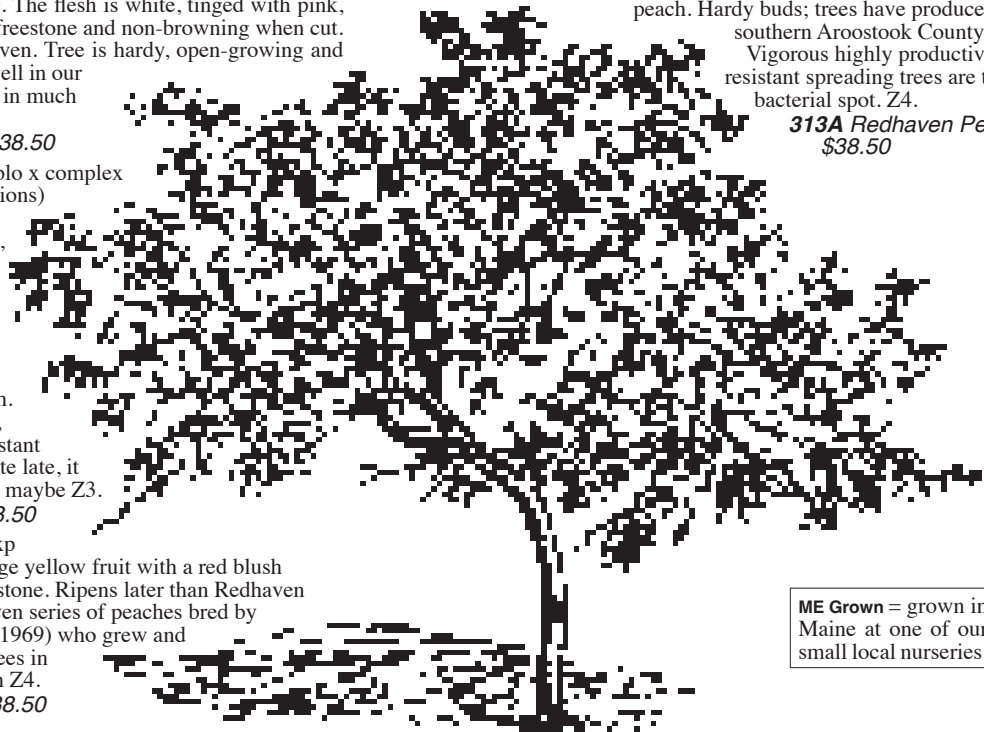
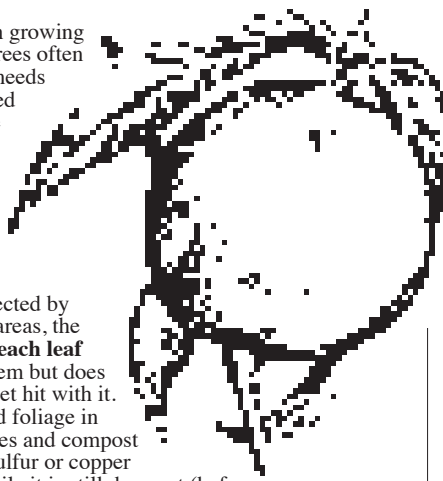
**Raritan Rose** Early-Mid. JH Hale x Cumberland. NJ Ag Exp Stn, 1936. Medium-sized **white-fleshed** peach is aromatic with sweet exceptional flavor, especially for a white. Freestone. Skin is rose red with a green creamy background. Ripens around the time of Redhaven or a bit earlier. High-yielding trees are very cold hardy. Resistant to bacterial leaf spot. It's rare that we come across a hardy peach we haven't offered before, so we're quite thrilled to finally have this one! Z4.

**312A Raritan Rose Peach, \$38.50**

**Redhaven** Early-Mid. Halehaven x Kalhaven. MI Ag Exp Stn, 1940. Medium-sized round fruit with beautiful red and golden-yellow skin and sweet firm fine-textured yellow flesh. Non-browning. Excellent for eating, freezing, canning, shipping. Countless Fedco customers call this their favorite peach; also the world's most widely planted freestone peach. Hardy buds; trees have produced crops in southern Aroostook County orchards.

Vigorous highly productive disease-resistant spreading trees are tolerant to bacterial spot. Z4.

**313A Redhaven Peach, \$38.50**



ME Grown = grown in Maine at one of our small local nurseries.

### Growing Peaches

**Soil:** Prefers well-drained fertile soil.

**Sun:** Full.

**Pollination:** Self-pollinating. You only need one.

**Spacing:** Plant 20' apart.

**Planting:** See pages 67-70 for instructions on soil prep, planting and pest control.

**Pruning:** Prune in spring after the buds begin to swell and show pink. Remove dead and inward-growing branches. Make a few bold cuts to bring main branches closer to the trunk. After cutting back any main branches, thin last year's shoots and cut them back to about 12-18". When you're done, the tree shape should look something like an open hand reaching for a peach, with the tree not much taller than 10' or so.

The goal is to keep trees small and open. Peach trees grow vigorously each year and fruit on the previous year's wood. Leggy branches will break from the weight of fruit.

### Pollination clarification

**Self-pollinating, self-fertile** and **self-fruitful** all mean the same thing. You can plant a self-fertile tree and expect it to pollinate itself and set fruit alone (e.g. peaches and pie cherries). However, many self-fertile trees' fruit sets are enhanced with multiple plantings (elderberries and saskatoons).

**Self-sterile** or **self-infertile** means that another tree of a different cultivar or variety is needed to set fruit (cross-pollinate). This is the case with most apples.

**Monoecious** (from Greek meaning 'one household') plants have their female and male parts on separate flowers both together on the same plant. In most cases, these plants are self-fertile. **Dioecious** ('two households') plants have either all male or all female flowers on separate individuals. You would need to plant one female and one male to achieve pollination. When you buy unsexed seedlings, you generally have a 50-50 chance of getting one sex or the other (spicebush and bayberry). **Bisexual** or **perfect** flowers contain both male and female components within the same flower. Some plants with perfect flowers will be self-fertile, some will not. Often, specific cultivars or varieties have perfect flowers but they cannot pollinate themselves and need other varieties to do it for them (apples and blueberries).

## Hybrid Plums *Prunus* spp.

Extremely hardy crosses between various Asian and American species; may fruit even after severe winters.

Hybrid plum fruiting can be inconsistent but it's worth the trouble! Warmer areas will see longer bloom times. Cold late springs may force blooming all at once. Both of these conditions can be optimal for plum crops. At other times, it can be a little hit or miss. Bloom times are similar for all the varieties we offer.

Hybrid plums are less susceptible to black knot than European plums and have few issues other than Japanese beetle and plum curculion attraction.

At maturity, hybrid plums are roughly 15–20' tall. (3–6' trees)

**American Plum Seedling** *P. americana* 15–20' Not a hybrid, but included here since it may be the best pollinator for hybrid plums. Seedling plum that grows in thickets and produces very decent red, yellow and orange 1" fruit, suitable for fresh eating, canning and freezing. Spectacular white bloom in spring is highly ornamental. Red fall color. Plant singly as a graceful specimen, or let the branches intertwine with other plums for maximum pollination, with one American plum for every 3–4 hybrid trees. Tends to sucker freely. This tree stock is significantly larger than plum seedling rootstock (see page 39). Extremely hardy. Z3. **ME Grown.**

**318A American Plum Seedling, \$25.50**

**Black Ice** Midsummer. *P. Lydecker* [*P. besseyi* x (*P. salicina* Oka x *P. sal.* Z's Blue Giant)] U of WI, River Falls, 2006. Large 2" round early-ripening high-quality hardy blue-black dessert plum. Very sweet juicy reddish-purple semi-freestone flesh. Precocious and productive tree with a naturally compact growth habit. Bred by Brian Smith, whom we visited on a fruit exploration trip in the Upper Midwest. He graciously showed us around his amazing nursery in River Falls, WI. He was growing many of his plums in huge tubs, manipulating bloom time using greenhouses and coolers. This enabled him to cross species or varieties that would never normally flower together. The literature recommends Toka or La Crescent as a pollinator. **PPA** (expires in 2024). Z3. **ME Grown.**

**319A Black Ice Plum, \$38.50**

**Cocheco** Midsummer. Purple Heart x unnamed red-leaf plum. Elwin Meader intro, Rochester, NH, 1968. Red-orange medium-sized fruit with soft sweet pinkish flesh. One of the first to ripen midsummer. In a lengthy *Maine Sunday Telegram* article on Sept. 8, 1968, Meader said, "It's an example of being able to have your cake and eat it. The new tree is beautiful enough to be an ornamental. It also has delicious fruit and windbreak value." Red twigs and buds in winter, light pink flowers in spring, glossy red foliage all summer long. Even from 100' away, it is a strikingly beautiful sight. Relatively large tree with an upright growth habit. May be self-pollinating, though we recommend treating it like other hybrid plums. Z4. **ME Grown. Indigenous Royalties.**

**320A Cocheco Plum, \$38.50**

**Grenville** Late Summer. *P. sal.* Burbank x *P. nigra*. Canada Dept of Ag Res Stn, Ottawa, 1941. Large dark rosy-red clingstone fruit.

Yellow flesh has excellent flavor. Vigorous early-blooming tree. Most of the hybrid plums were developed using Asian varieties crossed with *P. americana*. Grenville was bred using *P. nigra*, the extremely hardy Canada plum. Pollination requirements are the same as other hybrids. Like *P. nigra*, very hardy. Z3. **ME Grown.**

**321A Grenville Plum, \$38.50**

### Growing Hybrid Plums

**Soil:** Prefers well-drained fertile soil.

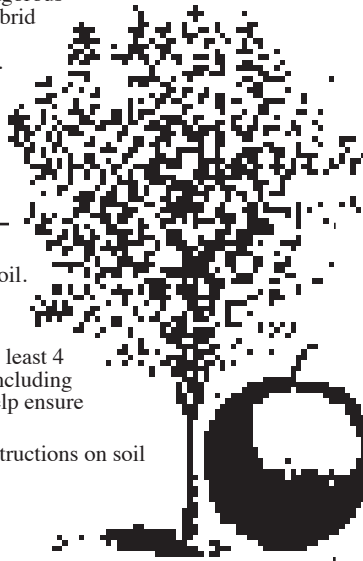
**Sun:** Full.

**Pollination:** Requires a second variety. We recommend planting at least 4 different varieties close together. Including an American Plum Seedling can help ensure pollination.

**Planting:** See pages 67-70 for instructions on soil prep, planting and pest control.

**Spacing:** Plant 15–20' apart, or closer for a thicket.

**PPA** = Plant Patent Act. Unauthorized propagation of the plant is prohibited. The use of **PPA** in the catalog is for informational purposes only and does not constitute an endorsement by Fedco of plant patenting.



**Hanska** Summer. *P. a.* x *P. simonii*. NE Hansen intro, Brookings, SD, 1908. Medium-sized bright red fruit with a heavy bluish bloom. Firm fragrant yellow semi-freestone flesh. When cooked, the fruit has a strong apricot-like flavor reminiscent of its Chinese "apricot plum" parentage. The fruit resembles its sister seedling, Kaga. *Hanska* is the Sioux word for 'tall' referring to the tree's fast growth in the nursery. We agree! It's grown quite rapidly in our orchard. Though Hansen gave it a lengthy write-up in his 1927 *Plant Introductions Bulletin*, *Hanska* all but disappeared and remains one of the rarest of his introductions. We're happy to offer it in our catalog. Z3/4. **ME Grown. Indigenous Royalties.**

**322A Hanska Plum, \$38.50**

**Kahinta** Mid-Late Summer. Luther Burbank's *P. sal.* Apple x *P. a.* Terry. SD, 1912. Another intro by plant breeder NE Hansen. Large 1 1/2" roundish slightly pointed fruit is flattened at the stem end. Brilliant red-purple tart skin and translucent yellow-orange tart but quite flavorful flesh. Easy to peel; peeled fruit looks like a peeled tangerine. Or you can bite a small hole in the skin and suck out the juicy flesh. Clingstone. Very good for fresh eating or canning. Medium-sized spreading tree. Kept pruned, our old tree remains about 8' tall. Bears more reliably than most other varieties in our orchard. *Kahinta* is the Sioux word for 'sweep.' Rare. Z3. **ME Grown. Indigenous Royalties.**

**323A Kahinta Plum, \$38.50**

**La Crescent** Late Summer. *P. sal.* Shiro x *P. a.* Howard Yellow. U Minn, 1923. Also known as **Golden La Crescent** or **Golden Minnesota**. Most of the hybrid plum varieties are colored with some variation of red and orange with a little purple

tossed in. Yellow-skinned La Crescent is one notable exception. The beautiful roundish tender thin-skinned yellow fruit is sometimes blushed with a little pink. Tender yellow juicy flesh of excellent quality is sweet, aromatic and suggestive of apricots. Freestone.

Upright spreading vigorous tree. Z3/4. **ME Grown.**

**324A La Crescent Plum, \$38.50**

**Lavina** Mid-Late Summer. *P. cerasifera* x *P. salicina*. Developed in Lithuania, early 2000s. May also be known as **Avalanche**. Rare variety in the trade. Stunning golden-yellow skin is blushed dark red to pink when fully ripe—one of the most attractive plums in the orchard with fruit weighing in at just over an ounce. Amber flesh is meaty with unusual flavor notes of papaya and caramel. Ripens in mid-late September in central Maine. Seems to bloom around the same time as Toka. Grower Jesse Stevens' grafts survived a cold snap of -26° with only minor dieback. Highly vigorous growth. Semi-freestone and crack resistant. Z4. **ME Grown.**

**325A Lavina Plum, \$38.50**

**Obilinya** Midsummer. *P. cer.* x *P. sal.* Origin obscure but cataloged at the Nikitsky Botanical Gardens, Republic of Crimea. Purple-red fruit with yellow-bleeding-to-red sweet firm flesh is excellent fresh eating. Grower Jesse Stevens says it has "skin less sour than many other hybrids, but still a good amount of zing." Seems plenty hardy once established with good pest and disease resistance. Blooms early and pairs well for pollination with Lavina and Purple Heart. Ripens mid-August in central Maine. Highmoor Farm, UMaine's Ag Experiment Station, gives it an overall rating of "excellent!" Z4/5. **ME Grown.**

**326A Obilinya Plum, \$38.50**

### Indigenous Royalties

A few years ago, Fedco began to pay a portion of our seed sales of certain varieties—like Hopi Blue corn and Jacob's Cattle bean—to Nibezun, a Wabanaki project here in Maine that is working to rematriate Penobscot land and to create dialogue on healing throughout the extended community (nibezun.org). Our Indigenous Royalties program is one small way to appreciate and recognize the native breeders and seed keepers whose varieties continue to sustain us here on Turtle Island.

We extended the program to our Trees catalog by paying royalties on any plant that bears a Native American name. We recognize that Kahinta plum, for example, was given a Sioux name by a white person. These plants were likely named without permission. While this practice continues in the nursery trade, it is not something we embrace. At the same time, we can appreciate a plant as an innocent third party, holding merit in our landscape.

Long before breeding stations and universities, there were Tree Seed Keepers. Many of our named cultivars likely carry the genetics of the old trees tended long before European arrival. Where you see **Indigenous Royalties** at the end of our description, you will know we are dedicating 10% of sales of these plants to Nibezun. Last year's Trees royalties came to \$4,655.12.



## More Hybrid Plums

**Pembina** Early Summer. *P. sal.* Red June x *P. n.* Assiniboine. NE Hansen intro, SD Exp Stn, 1923. Large pointy bright red half-freestone fruit with bluish bloom. Dark golden-orange flesh is firm and apricot flavored. One of the first of the hybrids to ripen in summer, about the same time or a bit earlier than Underwood and well before the bulk of the plum crop. Z3/4. **ME Grown. Indigenous Royalties.**

**328A Pembina Plum, \$38.50**

**Pipestone** Late Summer. MN 218 [*P. sal.* Burbank x (*P. sal.* x *P. a.* Wolf)] U Minn, 1942. Juicy yellow-fleshed clingstone plum with excellent sweet flavor. Tough yet thin skin peels easily. Large deep red fruit with a golden blush presumably named in honor of the beautiful red catline rock of Pipestone, MN, a site sacred to First Nations people. Vigorous reliable hardy tree. Z3.

**ME Grown. Indigenous Royalties.**

**329A Pipestone Plum, \$38.50**

**Purple Heart** Late Summer. Elwyn Meader intro, Enfield, NH, 1968. Medium-sized clingstone fruit with red-purple skin and flesh. Some say the most delicious plum we offer. Meaty, mild and rich with no astringency. It's wonderful. Origins shrouded in mystery. It was brought to the great plant breeder Professor Elwyn Meader by a fellow who passed away before Meader could ascertain the plum's origin. We planted ours next to Black Ice: both are fruiting well. Underwood also may be a good pollinator. Not as hardy as other hybrids. May show tip damage following colder winters in central Maine, some susceptibility to black knot. Z4/5. **ME Grown.**

**330A Purple Heart Plum, \$38.50**

**Toka** Late Summer. (*P. a.* x *P. sim.*) NE Hansen intro, SD Exp Stn, 1911. Rosy red fruit is mottled with darker purplish-red and covered with a faint bloom, up to 1 1/2" in diameter. Grower Don Johnson's comment: "Talk about flavor: candy plum." Sweet, distinctive, meaty and flavorful. Not real juicy. Somewhat freestone. Extremely vigorous tree blooms heavily every year. Diligent pruning may be required to keep it from becoming a bit of a monster. Considered a great pollinator for other hybrid plums because of its long bloom period. Z3. **ME Grown. Indigenous Royalties.**

**332A Toka Plum, \$38.50**

**Waneta** Midsummer. (*P. sal.* Apple x *P. a.* Terry) NE Hansen intro, SD Exp Stn, 1913. Released when hybrid plums were an important and commercially viable crop. Medium to large, somewhat pointed, 1 1/2"-2" reddish-maroon clingstone fruit. Sweet tender translucent orange flesh is very juicy but not dripping. Medium-thick skin, tart and easy to peel. Delicious overall taste. Hansen said of Waneta: "My belief is that in this variety I have combined the best points of the native and the Japanese plum. It is probably the largest [fruit] of over 10,000 seedlings." Early blooming healthy open spreading tree bears reliably in our orchard. Named after a Yanktonai youth who won fame in the War of 1812 and later became a great chief. Z3. **ME Grown. Indigenous Royalties.**

**333A Waneta Plum, \$38.50**

## Plum Curculio... and garlic

Plum curculio is a small pesky insect, a terrible plum and apple pest. We have read that laying sheets of cardboard under plum (and apple) trees will smother the pupae developing in the soil. Many organic growers spray Surround clay powder on their trees to combat this weevil. (See our **Seeds & Supplies catalog**, or [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs), for this and more orcharding supplies.)

Many years ago we planted garlic near one of our apple trees and neglected to harvest all the bulbs. Now we have a small colony of garlic plants around the tree. Recent reports are touting garlic as a curculio deterrent. Anecdotal evidence suggests it may be working at our place. Plant more garlic!



## Small Fruits & Berries

### Highbush Blueberries *Vaccinium corymbosum*

Many of Maine's lakes are lined with massive stands of highbush blueberries, native to North America. Grazing the shore requires only time and a suitable vessel; we prefer kayak or canoe. The beautiful vigorous shrubs are extremely easy to grow at home, productive and reliable. By planting several varieties, you can harvest berries from early July through most of August. First crops come 3-5 years after planting. Productive for at least 20 or 30 years. Berries may turn blue before they reach their peak flavor. Leave them on the bush until they are fully ripe. Check a few before you pick them all! (1 liter pot, 12-18")

**Blueray** Early-Mid. 4-6'. (GM 37 x CU-5) USDA, NJ, 1955. Large firm dark blue berries of high dessert quality in small clusters. Considered the best-tasting by nearly everyone who grows highbush blueberries. Very vigorous bush with upright spreading habit. Consistently productive. Z4.

**343A Blueray Blueberry, \$18.00**

**Duke** Early. 4-6'. G-100 (Ivanhoe x Earliblue) x 192-8 (E-30 x E-11) USDA, NJ, 1987. Medium-large light blue firm fruit with excellent sweet flavor. Even after temps of -30° the winter of 2019, the branches were still loaded with fruit that summer. One of grower Seth Yentes's favorites in his U-pick. Flavor holds up better than other varieties in the freezer. Vigorous upright high-yielding bush. Long stems and loose clusters. Z4.

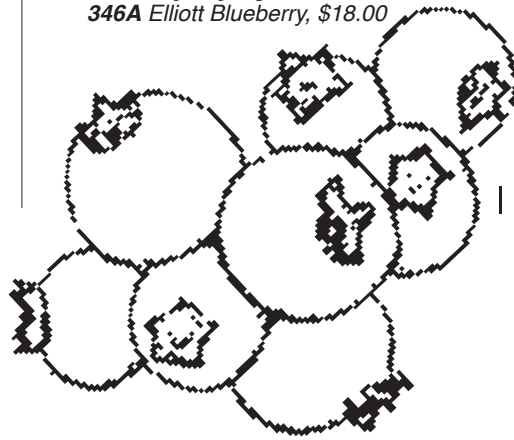
**344A Duke Blueberry, \$18.00**

**Elizabeth** Mid-Late. 5-6'. Discovered by Elizabeth White, Whitesbog, NJ, and released in 1966. Friend and avid fruit grower Dan Kennedy of Searsmont, ME, grows 17 different varieties of highbush and rates Elizabeth and Blueray as his top favorites. He describes the bushes as bearing dense clusters of large fruit with a balanced flavor of sweet and tart. Stores well in refrigeration. Large vigorous upright shrub has strong spreading lateral branches. Z4.

**345A Elizabeth Blueberry, \$18.00**

**Elliott** Very Late. 4-6'. Burlington x [Dixi x (Jersey x Pioneer)] USDA, 1974. A real season-extender. Considered the latest of all varieties, Elliott ripens two weeks after Jersey. Loose clusters of medium-sized very firm mild-flavored light blue berries. Slightly spreading somewhat bushy upright plant is highly productive every year, in part because it blooms late and escapes spring frosts. Z4.

**346A Elliott Blueberry, \$18.00**



## Fruit-growing websites

Whether you use organic or conventional orchard practices, several websites can provide you with information about insect and disease pressure, spray timing, frost predictions and a whole lot more. Here are a few of the best:

**UMaine Cooperative Extension:** [umaine.edu/ipm/programs/apple/](http://umaine.edu/ipm/programs/apple/)

**Cornell University:** [fruit.cornell.edu/](http://fruit.cornell.edu/)

**University of Vermont:** [uvm.edu/~fruit/](http://uvm.edu/~fruit/)

**UMass Extension Fruit Program:** [ag.umass.edu/fruit](http://ag.umass.edu/fruit)

**Holistic Orchard Network:** [groworganicapples.com/](http://groworganicapples.com/)

**Know Your Roots' newsletter, *Ecosystem Insights*:**

[newsletterknowyourroots.com/newsletter-ecosystem-insights.html](http://newsletterknowyourroots.com/newsletter-ecosystem-insights.html)

**Jersey** Mid-Late. 5-7'. Rubel x Grover. USDA, 1928. The beloved old standard of blueberry introductions to which new varieties are compared. Medium to large dark blue berries in large loose clusters. Vigorous erect hardy bush. Productive, adapted to a wide range of soils, highly praised, easy to grow and suited to the New England climate. Z4.

**347A Jersey Blueberry, \$18.00**

**Meader** Early-Mid. 5-7'. Elwyn Meader intro, UNH Ag Exp Stn, Durham, NH, 1971. Medium-large medium-blue fruit with excellent flavor, from one of our most beloved breeders. Sweet with a hint of acid. Vigorous upright open lightly spreading form. Very hardy. Z4 or even Z3.

**348A Meader Blueberry, \$18.00**

**Nelson** Late. 5-6'. Bluecrop x G-107 (F-72 x Berkeley) USDA, NJ, 1989. Firm large dark blue berries in loose clusters taste great, similar to Bluecrop. Particularly vibrant red fall foliage. Upright vigorous high-yielding bush. Z4.

**349A Nelson Blueberry, \$18.00**

**Northblue** Mid. 2-3'. MN 360 (B10 x US3)

U Minn, 1983. Very hardy highbush-lowbush cross. Large dime-size dark blue fruit especially good for freezing and cooking. Sweet wild flavor. This half-high shrub yields 3-4 quarts per plant. Good choice where space is limited. Excellent pollinator for St. Cloud and Patriot. Z3.

**350A Northblue Blueberry, \$18.00**

**Patriot** Early-Mid. 4'. US3 (Dixi x Michigan LB-1) x Earliblue (Stanley x Weymouth) UMaine, 1976. Partial lowbush parentage. Adaptable to many soil types. Large firm berries with excellent flavor. Productive upright open spreading bush. Tolerant or resistant to some strains of soil fungus. Hardy. Good pollinator for other lowbush-highbush types. Z3.

**351A Patriot Blueberry, \$18.00**

**St. Cloud** Early-Mid. 4'. B19 [(G65 x Ashworth) x US3] U Minn, 1990.

Lowbush-highbush cross with firm dark blue medium-large highly flavorful sweet fruit.

We're excited to see how this newer offering compares to our old favorites. Crisp texture, stores well in refrigeration. Foliage turns orange in fall. Short spreading canes. A good pollination companion for Northblue and Patriot. Z3.

**352A St. Cloud Blueberry, \$18.00**



## Black Huckleberry *Gaylussacia baccata*

Cousin of the blueberry. Flowers in June and fruits in August.

Nectar of the pink bell-shaped blossoms helps sustain the endangered adult Karner Blue butterfly and native bumblebees. Brilliant purple-red fall foliage. We've found many quiet little shrubs tucked in along pond edges and uplands woods, and also in great swaths among the sheep laurel and the lowbush blueberries of coastal Maine. Native to eastern U.S. and Canada.

**Michigan** 1-3' x 2-4' Hartmann's Plant

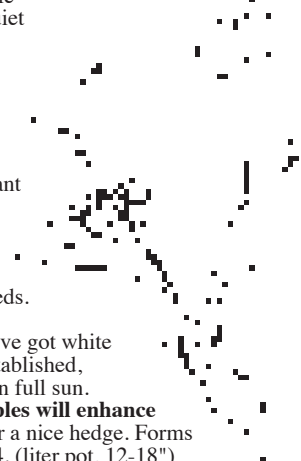
Co intro, found growing in Allegan County, MI, among some

lowbush blueberries. Shiny black huckleberries are mildly sweet with the slightest crunch from tiny seeds.

Delicious fresh or in desserts. Prefers sandy acidic well-drained soil. If you've got white pine, you're probably all set. Once established, they are drought tolerant. Fruits best in full sun.

**Self-pollinating, but planting multiples will enhance fruit production.** Space 3-4' apart for a nice hedge. Forms colonies but does so very slowly. Z3/4. (liter pot, 12-18")

**356A Michigan Black Huckleberry, \$18.00**



## Saskatoons *Amelanchier* spp.

Also called **Juneberry**, **Parsonberry**, **Serviceberry**, **Shadblow**, **Shad-bush** and **Shad**. Purplish-black sweet berries great for pies, cobblers, jellies, jams, smoothies and cakes. Berries are about the size of a lowbush blueberry, or a bit larger, and seedier. Beautiful fragrant 5-petaled white flowers are early harbingers of spring in Maine. Nice red-orange fall foliage.

We're excited to be expanding our selection of saskatoon cultivars this year. We've always admired our native *Amelanchiers* in the wilds of Maine where they grow along stream edges and rocky slopes. Recently we're learning more about saskatoons farmed commercially for fruit in Canada, much like how we grow highbush blueberries. In Canada there are saskatoon festivals, and even a baseball team called the Saskatoon Berries! (1-3' shrubs)

For a taller tree species of *Amelanchier*, see Allegheny Serviceberry on page 44.

**Lee #8** 6x6' Thiessen x Northline. *A. alnifolia*. Lee Lloyd selection, Barrhead, Alberta. Clusters of medium to large berries are mildly sweet and quite tasty. Large yields on a somewhat upright shrub with loose arching branches. New leaves are very light green and contrast beautifully against the older dark green lower leaves. Crossed between two popular cultivars, used for fruit and market production in Canada. Z3. **ME Grown.**

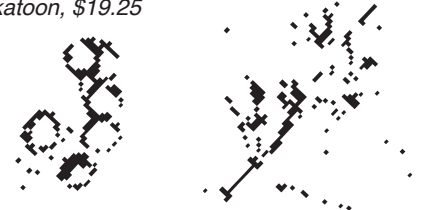
**357A Lee #8 Saskatoon, \$19.25**

**Parkhill** 5-8' x 5' *A. stolonifera* x *A. a.* Bismark, ND, 1974. Dangling clusters of medium-large berries that are mildly sweet with no trace of acid. Hefty fruits showed very minimal cracking in a year with lots of rain. Very uniform ripening pattern. Shrub is somewhat upright with loose arching branches. Will sucker. Resistant to Entomosporium leaf spot. Z3. **ME Grown. Limited supply—order early!**

**359A Parkhill Saskatoon, \$19.25**

**Regent** 4-6' x same. *A. a.* J. Candrian intro, Faribault, MN, 1997. An open-pollinated seedling originating near Regent, ND. Compact prolific shrub with sweet purple-magenta berries. Fruit ripens in mid-July in central Maine. Plant in well-drained fertile soil and full sun. Foliage somewhat susceptible to leaf spot or rust but this doesn't affect fruit. Z2.

**360A Regent Saskatoon, \$19.25**



## Growing Highbush Blueberries

**Soil:** Light acid soil with plenty of organic matter. Keep them watered.

**Sun:** Full.

**Pollination:** Two varieties required, three or more recommended.

**Spacing:** Plant 6' apart (or closer for smaller lowbush-highbush types) in rows 8-10' apart.

**Planting:** Mulch yearly with at least 3-6" pine needles, wood chips, hay, cardboard, even old slab wood. They don't like grass competition.

**Pruning:** Fruit is produced on one-year shoots off healthy canes. Older canes become twiggy and less productive. After three years, head back long sprigs of new growth for a bushier plant. Each bush should be allowed to grow 6-10 canes varying in age from 1-6 years old. Thereafter, remove dead canes and those over 6 years old to encourage new replacement canes. Bushes with regular moderate pruning produce the most berries.



## Growing Saskatoons

**Soil:** Moist well-drained soil; will tolerate clay.

**Sun:** Full.

**Pollination:** Self-fruitful, but plant more than one variety for better yields.

**Spacing:** 5' apart.

## Elderberries *Sambucus* spp.

Elderberry trees appear in myths from days of yore, thought to possess magical and protective powers. Dangling clusters of edible purple-black berries ripen in late summer on this broad vigorous multi-stemmed shrub. The fruit is highly nutritious and medicinal. A century ago, every grandmother knew how to make the perfect elderberry pie. Recipes for jam could be found in all the old farm cookbooks. Elderberries have made a big comeback as folks rediscover the scrumptiousness of elderberry jelly, cordial, elixir and wine. The large creamy-white flower clusters, or cymes, that cover the shrub in early summer make delicious fritters. Dry them for a fragrant wintertime cold-and-flu remedy tea. For centuries, humans have used this plant's medicinal qualities to treat a wide range of ailments and to boost the immune system. Hippocrates is said to have called the elder tree his "medicine chest." Birds love the fruit, and the blossoms attract beneficial insects and pollinators.

*Note:* Cooking elderberries is essential to breaking down toxic cyanide-inducing glycosides in the seeds. Not for fresh eating.

No serious pest or disease issues. (1-3' shrubs)



ME Grown = grown in Maine at one of our small local nurseries.

### American Black Elderberry *S. canadensis*

This species is native to North America. Hardier than the European *Sambucus nigra*, and fruits on first-year wood.

**Adams No. 1** 6-12' x same. NY Stn intro, 1926. Selected in 1915 from the wild by William Adams in Union Springs, NY, and sent to Geneva where it was introduced 11 years later. Large berries and fruit clusters make for easy and fast picking. If you're heading to a potluck and need to make a pie in a pinch, Adams is the shrub you want. Very large vigorous strong productive bush. Z3. **ME Grown.**

**363A Adams No. 1 Elderberry, \$22.00**

**Bob Gordon** 6-8' x same. MU intro, 2011. Wild seedling selected by Robert Gordon in Osceola, MO. Large clusters of large dark berries. High Brix levels makes this elderberry a good one for winemakers. Upright slightly spreading habit. Z4. **ME Grown.**

**364A Bob Gordon Elderberry, \$22.00**

**Goodbarn** 5-10' x same. Chance seedling. Elwyn Meader intro, Rochester, NH. Professor Meader named this Goodbarn because it was the good elderberry growing under the eaves of his barn in New Hampshire. Another of the many fine plants Elwyn's son John has brought to our attention. Thanks, John! Hardy, vigorous with apparent self-fertility. It blooms heavily and produces large crops annually. Z3. **ME Grown.**

**365A Goodbarn Elderberry, \$22.00**

**Johns** 8-10' x same. Adams No. 1 or Adams No. 2 x open-pollinated. Nova Scotia Exp Stn, 1954. Very vigorous. One particular cutting in our garden grew 5' in one season and had berries and flowers at the same time late into the summer. Z3. **ME Grown.**

**366A Johns Elderberry, \$22.00**

**Nova** 6-8' x same. Open-pollinated seedling of Adams No. 2. EL Eaton intro, Kentville, Nova Scotia, 1959. Selected in 1946 and named for its province of origin. Large sweet fruit matures early and uniformly. Suckers easily. Z3. **ME Grown.**

**368A Nova Elderberry, \$22.00**

**Scotia** 8-12' x same. Seedling of Adams 2. Kentville, Nova Scotia, 1960. High-yielding cultivar popular with market growers in Canada. Selected for high levels of sugar compared to other elders. Berries are on the small side. Showing serious vigor in our trials. Z4. **ME Grown.**

**369A Scotia Elderberry, \$22.00**

**Wyldeewood** 6-12' x same. Selected from wild bushes in 1995, introduced in 2010, MU/MSU, by PL Byers and AL Thomas. A consistently high-yielding elderberry cultivar, popular in the Midwest. Some trials are showing it produces as much as Adams, if not more, and ripens a little bit later. Vigorous! Give it lots of room or whack it back. Z3. **ME Grown.**

**370A Wyldeewood Elderberry, \$22.00**

**York** 4-10' x same. Ezyoff x Adams No. 2. NY Stn, 1964. An old reliable, considered by some to be the largest-fruited and heaviest-bearing cultivar. In most of our Maine trials, this shrub is more compact than Adams, topping out at 4-5', but we've seen a 10' specimen growing on a compost pile. Persistent and will bear well for many years alongside other varieties. Heavy clusters of mildly tart large berries that ripen after Adams. Z3. **ME Grown.**

**371A York Elderberry, \$22.00**

**American Elderberry Seedlings** Each one is grown from cold-hardy seed and will be a totally unique plant. Some of our best plants grew from batches of such seedlings. Z3. **ME Grown.**

**372A Elderberry Seedling, \$22.00**

## European Elderberry *S. nigra*

This species is native to Europe. The medicinal berries are extremely high in immune-boosting anthocyanins. You can use them in all of the same wonderful ways you would use the *canadensis* species. More tender than *canadensis*, but ours in Zone 4 seem to be almost as hardy. Note that *nigras* produce on second-year wood—prune accordingly.

**Korsor** 6-8' x 2-5' Danish cultivar bred for heavy fruit clusters and excellent juicing quality. Leaves are broader and darker green than other elderberries and the plant gives off a musky scent when you brush past it. Upright habit, extremely vigorous. Z4/5. **ME Grown.**

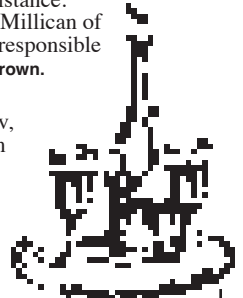
**373A Korsor Elderberry, \$22.00**

**Marge** 4-6' x 4-5' An open-pollinated seedling of Haschburg, one of the most popular commercial varieties in Europe. A heavy-yielding *nigra* with extreme vigor, hardiness and pest resistance. Upright and non-suckering. Named after Marge Millican of Wyldeewood Cellars Winery, Mulvane, KS, also responsible for giving us the cultivar Wyldeewood. Z4. **ME Grown.**

**374A Marge Elderberry, \$22.00**

**Samyl** 5-8' x 2-5' Res Ctr for Hort intro, Aarslev, Denmark. Selected for juice production based on very high anthocyanin content and sweet flavor. Strong upright shoots yield dark glossy berries. Z4/5. **ME Grown.**

**375A Samyl Elderberry, \$22.00**



## Growing Elderberries

**Soil:** Adaptable and low maintenance, but prefers moist fertile soil. Can tolerate drier soil, poor drainage and even temporary flooding.

**Sun:** Full, but will tolerate some shade.

**Pollination:** Self-fruitful, but plant more than one variety for better yields. *Canadensis* and *nigra* species will pollinate each other.

**Spacing:** 6-8' apart.

**Planting:** Add plenty of compost to the planting hole; sidedress with compost every spring. Mulch with a thick layer of hay, leaves or wood chips to control weeds and protect shallow roots.

**Pruning *S. canadensis*:** Fruit on both new and old canes, with best sets on one- and two-year canes. In spring when plant is still dormant, prune out broken or dead canes, and periodically cut out the oldest wood. New canes will emerge. If you cut elders back to the ground, they will produce fewer but larger fruit clusters.

**Pruning *S. nigra*:** These fruit on second-year wood. It's ok to prune in spring, but be sure to leave first-year canes for the next season's yield.

## Strawberries *Fragaria x ananassa*

A major highlight of every summer is picking strawberries. In central Maine strawberry season usually coincides with the summer solstice.

Modern strawberries, developed about 1830, are a hybrid of *F. chiloensis* (native of Chile) and *F. virginiana* (native of North America). Royce Bringham of UC-Davis developed everbearing strawberries from wild plants found in Utah's Wasatch Mountains. He crossed these with modern varieties and introduced the first everbearers in 1980.

50 plants will plant from 50–100'. (virus-free bare-root crowns)

### EVERBEARING STRAWBERRIES

Everbearing, or day-neutral, strawberries flower regardless of day length as long as temperatures are between 35 and 85°, and produce fruit from June to October. They are uncommonly productive—about 1 lb of fruit per plant the first year, and slightly less the second year. Productivity peaks in August the first year. The second year, berry size decreases in the hottest weather and increases in cooler weather. After second year, turn under and start again.

**Albion** CN220 (Diamante x Cal 94.16-1) UC-Davis, 2006. Everbearing strawberry with very large conical firm fruit, excellent flavor and good shelf life. High yielding. Fedco's Alice Coyle switched to Albion from Seascape and never looked back. She says, "Albion is definitely no slouch for flavor. It continues to bear reliably and produce large delicious berries in hot weather." Plants are large and need extra space to produce bigger berries. Resistant to verticillium wilt, phytophthora crown rot, and anthracnose crown rot. **PPA, Z4.**

**L379A Albion Strawberry, bundle of 50, \$30.00**

**Mara des Bois** (Gento x Osara) x (Red Gauntlet x Korona) Hybridized by Jacques Marionett, Soings-en-Sologne, France, 1991. Everbearing strawberry claimed to be the most flavorful and fragrant of the day-neutrals, often referred to as "gourmet." Berries are high in methyl anthranilate, the volatile compound that gives them their strong fragrance. Commercially grown in France where they are sold at a premium. Shorter shelf life makes them better suited for local markets. Plants bear medium-small glossy red berries prolifically from summer into fall the first year. Second year bears a heavy spring crop with continuously ripening berries throughout the summer. **Z4.**

**L380A Mara des Bois Strawberry, bundle of 50, \$30.00**

**Seascape** CN 49. Developed by Royce Bringham, UC-Davis, 1991. Everbearing strawberry with bright red medium-to-long conic high-yielding firm productive reliable fruit. Excellent flavor. Broad resistance to fungal diseases. Somewhat susceptible to common leaf spot and two-spotted spider mite. Very hardy. **Z4.**

**L381A Seascape Strawberry, bundle of 50, \$30.00**

### JUNE-BEARING STRAWBERRIES

When cultivated as described in sidebar below, June-bearing plants begin bearing their second year and can produce for up to 5 years.

**Earliglow** Early. MDUS 3861 [MDUS 2359 (Fairland x Midland)] x [MD2713 (Redglow x Surecrop)] MD Ag Exp Stn, 1966. Medium-sized berries, best for fresh eating and freezing. Excellent flavor for an early berry. A favorite of strawberry growers Shaun and Benji at Sand Hill Farm. Resistant to red stele and verticillium wilt. Hardy, but considerably more productive in southern New England than up north. **Z3.**

**L382A Earliglow Strawberry, bundle of 50, \$30.00**

**Honeoye** Early-Mid. NY 1409 (Vibrant x Holiday) NY Stn, 1979. Folks pronounce it *honey-eye*. Tough, hardy, vigorous, extremely productive and easy to grow. The freezer-filler of the strawberry patch. Produces large conic bright red fruit over a long fruiting season. Firm flesh with tart—and surprisingly good—flavor. Excellent freezing quality. Probably the most popular commercial berry in the Northeast. Susceptible to verticillium wilt. **Z3/4.**

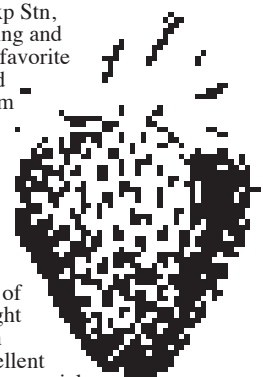
**L383A Honeoye Strawberry, bundle of 50, \$30.00**

**Jewel** Mid-Late. NY 1324 [(Senga Sengana x NY E-58) x Holiday] NY Stn, 1985. Shaun Keenan of Sand Hill Farm suggested we add Jewel to our list; he even went so far as to say that Jewel tastes almost as good as Sparkle. Although we don't think we'd go quite that far, we were very impressed with the berry. Large shiny red perfectly shaped fruit is firm, sweet and slightly aromatic. Unlike Sparkle, Earliglow and many other varieties, Jewel keeps its size all season. Extremely popular with commercial growers and Gene's favorite. Good freezing quality. Low incidence of fruit rots and foliar diseases. Not resistant to verticillium or red stele. **Z4.**

**L384A Jewel Strawberry, bundle of 50, \$30.00**

**Sparkle** Mid-Late. Fairfax x Aberdeen. NJ Ag Exp Stn, 1942. We've yet to taste a strawberry that comes even remotely close to Sparkle. They possess a flavor that can only be described as the essence of strawberry. The best in an early year, the best in a late year, the best this year, last year, every year. Soft small-to-medium berries make delicious fresh eating and are also excellent for jams and freezing. One of its few drawbacks is that it tends to lose color in the freezer. Moderate crop yields. Resistant to most strains of red stele. Blooms late, rarely affected by spring frost. **Z3.**

**L385A Sparkle Strawberry, bundle of 50, \$30.00**



### Growing Strawberries

**Soil:** Well-drained and fertile. Avoid planting sites where tomatoes, peppers or potatoes have grown in the past 4 years.

**Sun:** Full

**Pollination:** You need only one variety.

**Planting and Spacing:** Choose a site with good air flow. Plant at the same depth as they were in the nursery, with the middle of the crown at soil level.

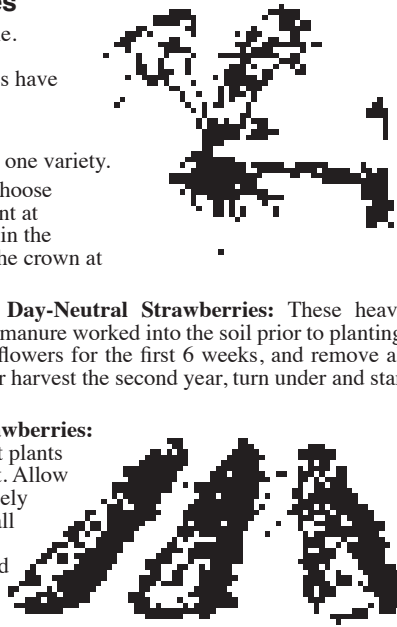
• **For Everbearing or Day-Neutral Strawberries:** These heavy feeders benefit from 3–4" of manure worked into the soil prior to planting. Plant 6–12" apart. Remove flowers for the first 6 weeks, and remove all runners the first season. After harvest the second year, turn under and start again.

• **For June-Bearing Strawberries:**

Use Matted Row system: Set plants 12–24" apart in rows 3' apart. Allow plants to produce runners freely and fill in the row. Remove all flowers the first year.

Harvest berries the second year, and immediately after harvest, fertilize liberally with compost or aged manure and renovate the row. By hand or with a tiller, narrow the row to 12" wide. Thin plants to 4–5" apart within the row. By this method a bed can last about 5 years.

**Mulching:** In late fall mulch with hay to protect plants over winter. In spring pull mulch off plants and place between rows to keep fruit dry and clean in summer. Floating row cover may be used for frost protection.

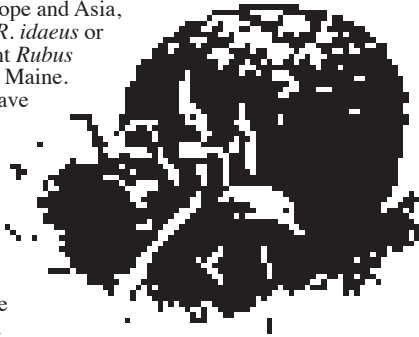


## Raspberries *Rubus* spp.

We love raspberries: fresh or frozen, in smoothies, jam and especially pie. We even like the foliage—best taken from the first-year primocanes—which makes a delicious astringent healthful tea. Raspberry leaf and fruit vinegar is very high in minerals. The root bark is also medicinal. Raspberry season in Maine is mid-July through fall.

Native to North America, Europe and Asia, they are usually identified as *R. idaeus* or *R. i.* var. *strigosus*. 53 different *Rubus* species and subspecies live in Maine.

Please note: Raspberries have very fine, fibrous roots. Often they do not sprout from the plant stem after planting. This is normal. Be patient! Keep them well watered and they should all break dormancy, sprout from the roots and thrive for many years to come. (Canes are bare root unless otherwise noted in the description.)



### EVERBEARING RASPBERRIES

Everbearing raspberries bear on first-year canes (primocanes). Particularly desirable for northern growers because they can die (or be cut) to the ground and still produce a sizable crop the following year. In central Maine the first of these ripens in mid-late August and the latest can go through September.

**Anne** Late. JEF-b1 (Amity x Glen Garry) U of MD, 1998. Everbearing sweet flavorful pale yellow raspberry ripens in fall. Large cohesive conic fruit stores decently and is firmer than other yellows. Semi-vertical canes may sucker less than most everbearing types. Cut it entirely to the ground after the season is over. Resistant to phytophthora root rot. Z4.

**388A Anne Raspberry, bundle of 10, \$40.00**

**August Red** Late. NH R7 [Durham x NH 102 (dwarf F2 seedling x Taylor) x NY 287 [NY 18810 (Marcy x Indian Summer) x NY 20990 (*R. strigosus* selection)] Developed by EM Meader, UNH, 1973. Considered the hardest of the everbearing types—the last hope when no other raspberry will survive. Medium-large crimson fruit has excellent flavor. Compact 3' bush bears earlier than other everbearers, even Polana. Productive midsummer, about Aug. 10 in central Maine. We are very pleased to offer this rare variety. Z3. ME Grown.

**389A August Red Raspberry, bundle of 5, \$35.75**

**Polana** Late. Heritage x Zeva Herbsternte. Res Inst of Pomology and Floriculture, Brzezna, Poland, 1991. Large firm red berries with very good flavor on vigorous and productive short canes. Early for an everbearing variety. In northern districts, it ripens in late August or September and has performed well in our Fedco trials. According to David Handley of UMaine, “as near a thing to a sure bet.” Easy to pick: the berries hang off the tops of the plants. Suckers freely. Z4.

**390A Polana Raspberry, bundle of 10, \$40.00**

**Agri-gel** Highly recommended for raspberry planting. See p. 43. **L600A Agri-gel, \$4.00**

### SUMMER-BEARING RASPBERRIES

Summer-bearing raspberries bear on second-year canes (floricanes). Midseason berries ripen around late July in central Maine.

**Boyne** Early-Mid. Chief x Indian Summer. Morden Stn, Manitoba, Canada, 1960. Round-conic medium-sized berries with an intense deep dark almost purple color. Strong aromatic tart raspberry flavor and a perfect medium-soft texture. Grower John Meader speaks glowingly of Boyne, calling it “an excellent, excellent variety. Boyne is the one to beat if you’re going to introduce a new raspberry.” Leaves tend to curl down over the fruit making it harder to pick if you’re in a hurry. According to friends who make honey and fruit butters, there is no better raspberry for processing. Disease resistant. Extremely hardy. Z3.

**391A Boyne Raspberry, bundle of 10, \$40.00**

**Killarney** Early. Chief x Indian Summer. Morden Stn, Manitoba, Canada, 1961. Produces medium to large round crumbly fruit of excellent quality over a long season. Deep red summer-bearing cultivar ripens after Prelude and before Nova. Same parentage as Boyne but firmer texture and brighter color. Sturdy 4' canes. Hardy, and yields consistently. Z4.

**392A Killarney Raspberry, bundle of 10, \$40.00**

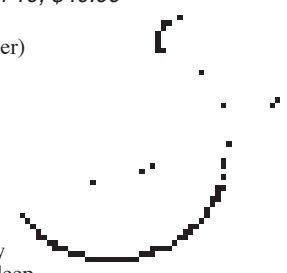
**Latham** Mid. MN4 (King x Loudon) U Minn, 1920. A standard raspberry for more than a century, extremely popular and widely grown. Large bright red 1" fruit is roundish, firm, a little crumbly and sprightly sweet, full-flavored and aromatic. Great for fresh eating, canning, freezing, jam, juice or pie. Ripens over an extended season making it an ideal candidate for the home garden. Canes are 4–5' tall and highly productive. Not as spiny as most raspberries. Widely adaptable and very winter hardy. Disease resistant. Z3.

**393A Latham Raspberry, bundle of 10, \$40.00**

**Royalty Purple** Mid. (Cumberland x Newburgh) x (Newburgh x Indian Summer)

NY Stn, 1982. Their distinctive flavor is different from the red raspberries, with a hint of black raspberry. A favorite for fresh eating among those who know it. Cohesive fairly firm large berries make outstanding jam and jelly, too. Extremely robust minimally suckering plants are very productive and open-formed; the berries are eye-level and easy to pick. Ready to harvest when they are deep purple, somewhat later than the reds. Plant in hills (see below). Disease resistant. Occasional slight tip dieback in Zone 3. Z3/4. (plugs)

**395A Royalty Purple Raspberry, bundle of 5, \$35.75**



### Growing Raspberries and Blackberries

**Soil:** Well-drained soil rich in organic matter. Avoid planting sites where tomatoes, peppers, potatoes, strawberries or wild brambles have grown. For every 100 row feet, fertilize each spring with up to 100 lb manure or compost (or 8 lb blood meal or 14 lb soybean meal).

**Sun:** Full.

**Pollination:** You need only one variety.

**Planting:** Prepare holes wide enough to spread out roots. Don't let roots dry out—consider soaking roots in Agri-gel (L600A, page 43) for 1–2 hours before planting. Add plenty of compost. Plant canes 1–2" deeper than the nursery line. Mulch with a thick layer of woodchips. Plants require 2" water per week during growing season.

**Spacing:**

- **Everbearing raspberries:** Plant 9–15" apart.
- **Summer-bearing raspberries:** Space 2' apart. To trellis, run a wire on either side of the 18–36" bed, with wires 3–4" high to support the tall canes.
- **Purple and black raspberries and blackberries:** Plant in hills 3–4' apart, 3–4 plants per hill. Tie to a center post if needed.

**Pruning:**

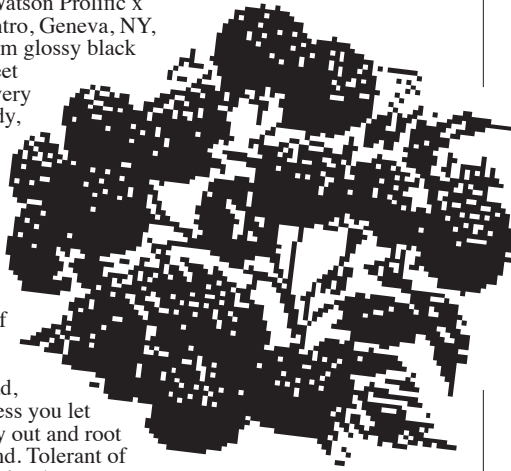
- **Everbearing raspberries:** Cut all the canes to the ground in late fall or early spring. New first-year canes will fruit in mid-late summer. (In warmer districts, you can leave old canes, which could fruit lightly the following year.)
- **Summer-bearing raspberries:** In fall or early spring, prune out the canes that last carried fruit (they will be the branchy ones). Thin the fresh first-year canes to about 3–4" apart. During the growing season cut back canes to 5' if they are bending over severely.
- **Purple and black raspberries and blackberries:** In spring, thin to 5–8 canes per hill. In early summer, pinch back tip of first-year canes to 2½–3' tall. This will encourage lateral fruiting branches. You may run a wire between hills for lateral branching but this is not necessary. The following spring, cut these fruiting laterals back to 8–12 buds.

## Black Raspberry

Black raspberries bear on second-year canes. Also called **black caps**.

**Bristol** Midsummer. Watson Prolific x Honeysweet. NY Stn intro, Geneva, NY, 1934. Medium-large firm glossy black fruit with excellent sweet blackberry-like flavor very distinct from reds. Hardy, vigorous and high-yielding. They ripen earlier in central Maine than most raspberries. USDA has found black raspberries to have some of the highest levels of antioxidants of any cultivated fruit. Unlike red raspberries, which sucker and spread, black caps stay put unless you let the long canes arch way out and root themselves in the ground. Tolerant of powdery mildew. Z4. (plugs)

**396A Bristol Black Raspberry, bundle of 5, \$35.75**

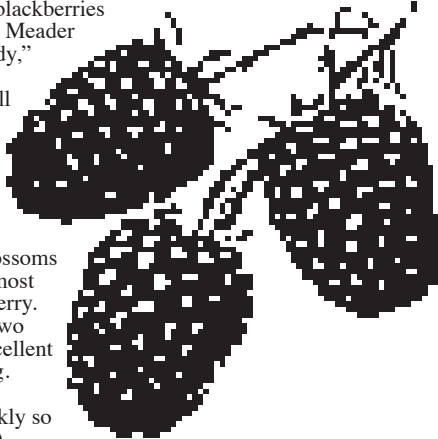


## Blackberry

Blackberries bear on second-year canes.

**Nelson** Midsummer. Nelson has been surviving Maine winters for at least a century. Introduced to us by the descendants of Nelson Fronk, whose 1928 family photograph taken on their farm northeast of Farmington shows the blackberries growing by the barn. John Meader calls it “exceptionally hardy,” one of the most enduring blackberries he knows. Tall sturdy upright inch-thick canes can be grown on posts or free standing. Fruit is moderately large and quite juicy with true blackberry taste. Highly productive with 16–18 blossoms on the central stalk—the most we’ve seen on any blackberry. Four good pickings over two weeks in mid-August. Excellent jelly and good fresh eating. Disease resistant. Like all blackberries, spreads quickly so give it room. Z3/4. (plugs)

**397A Nelson Blackberry, bundle of 5, \$35.75**



## Grapes *Vitis* spp.

Grapes are easy to grow and can bear plentifully even in northern New England. They begin fruiting in the second or third year after planting. They are rugged and cold hardy. Our vines bear consistently every year. Although many people prefer seedless types for table use, seeded varieties can be quite enjoyable right off the vine if you don’t mind “grape nuts.” Grape seeds contain an antioxidant that is twice as powerful as vitamin C.

Most grape varieties are bred from a combination of different species, *V. labrusca* and *V. vinifera* being the most important. *Labrusca* is native to the eastern U.S., has a wild tart musky (foxy) flavor, and is hardy and disease resistant. Concord is the best-known of the *labruscas*. *Vinifera*, native to Europe, is extremely high quality, and is the most important wine grape in the world, but is not cold hardy and is prone to disease. *V. riparia*, native to North America, used as rootstock for grafted varieties and in hybridization with *vinifera*, is very adaptable to a wide range of soils, disease resistant and very cold hardy.

In central Maine, “very early” grapes begin ripening in mid-August, while “midseason” ripen mid-September. Late-season Concord, a standard elsewhere, does not ripen in many northern areas. (well-rooted vines)

**Bluebell** Mid. MN 158 (Beta x unknown) Developed by JM Dorsey, U Minn, 1944. Our most popular seeded grape; it does everything well. Delicious flavor makes them excellent for fresh eating, jelly and juice. Clusters of medium-sized dark berries with a heavy blue bloom. Extremely hardy, to  $-30^{\circ}$ , *labrusca*-type ripens 2–3 weeks earlier than Concord. While it ripens beautifully from central Maine south, it may not have time to ripen in some northernmost locales. Strong, productive, vigorous—but not rampant—vine. A joy to grow. Immune to most or all fungal diseases. Z3/4.

**399A Bluebell Grape, \$18.00**

**Brianna** Early-Mid. ES 7-4-76 (Kay Gray x ES 2-12-13) IA St U, 2001. Bred by Elmer Swenson in WI, selected in 1989. High-quality white wine grape that is also great for fresh eating. Medium-large round thick-skinned gold berries in medium-small tight clusters. As a wine grape, imparts pineapple and grapefruit flavors with very floral characteristics. French-American hybrid including *V. labrusca* and *V. riparia*. Vigorous vines are easy to manage. Z3/4.

**400A Brianna Grape, \$18.00**

**Crimson Pearl** Mid. TP 2-1-17 (MN1094 x E.S. 4-7-26) U Minn selection, 2015. (US Patent 30,263P3) Wine grape good for fruity, not-too-acidic, dry reds or rosés with notes of dried cherry and hints of pepper. Berries are deep dark purple. Less tannic than Petit Pearl and ripens about 10 days earlier. Bud breaks later than Frontenac and shows good winter hardiness with canes having survived a Minnesota cold snap of  $-32^{\circ}$ . Good resistance to powdery mildew. Thanks to Tom Plocher for permitting Fedco to be one of the few nurseries offering this grape in the U.S. Z4.

**401A Crimson Pearl Grape, \$18.00**

## Growing Grapes

**Soil:** Very well drained with moderate fertility. Every few years, fertilize liberally with granite meal. Mulch annually with hay or straw.

**Sun:** Full.

**Pollination:** Self-pollinating; you need only one for fruit.

**Spacing:** 8–12' apart in rows 8–12' apart.

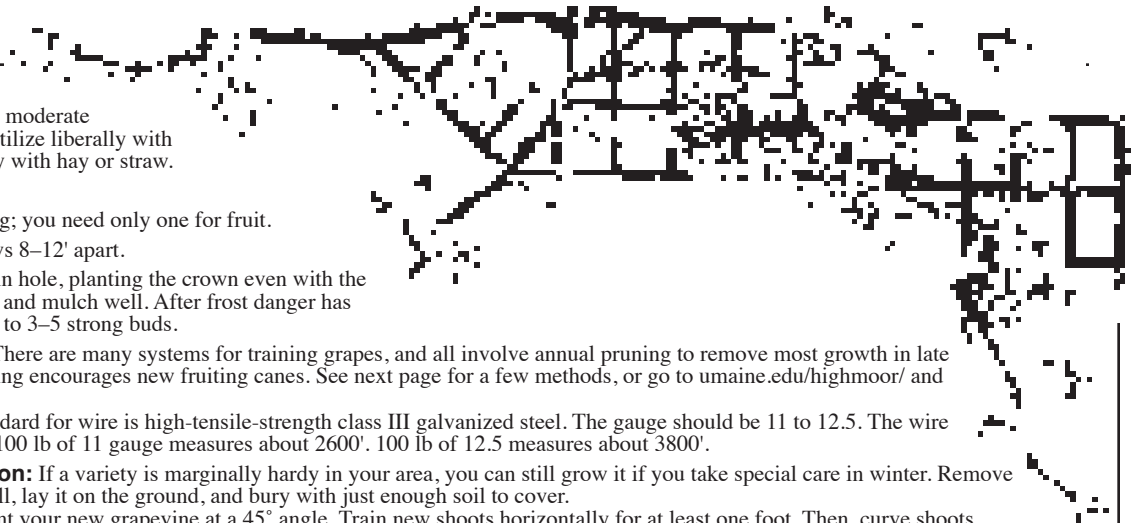
**Planting:** Spread roots out in hole, planting the crown even with the soil surface. Pack soil, water and mulch well. After frost danger has passed, prune new vine back to 3–5 strong buds.

**Pruning and Trellising:** There are many systems for training grapes, and all involve annual pruning to remove most growth in late spring. This aggressive pruning encourages new fruiting canes. See next page for a few methods, or go to [umaine.edu/highmoor/](http://umaine.edu/highmoor/) and click on “videos.”

The current vineyard standard for wire is high-tensile-strength class III galvanized steel. The gauge should be 11 to 12.5. The wire is generally sold by weight. 100 lb of 11 gauge measures about 2600'. 100 lb of 12.5 measures about 3800'.

**Optional Winter Protection:** If a variety is marginally hardy in your area, you can still grow it if you take special care in winter. Remove the vine from the trellis in fall, lay it on the ground, and bury with just enough soil to cover.

If you plan to do this, plant your new grapevine at a 45° angle. Train new shoots horizontally for at least one foot. Then, curve shoots upward to form a J shape. This creates a flexible hinge, allowing you to lay the vine down at the end of the season.



**Itasca** Early. MN 1285 (Frontenac Gris x MN 1234) U Minn intro, 2017. New in vineyards and nurseries across the country, the fifth cold-hardy grape to be released from the Minnesota grape breeding program. Golden-yellow berry with low acid, high sugar and high resistance to common grape diseases. Breaks bud early, ready to harvest early. Makes a nice dry Sauvignon Blanc–style wine with what grower Andy Farmer described as “apple melon quince violet” flavors with pear as the top floral note. Also fine for fresh use: our grower said Welch’s has begun planting Itasca for juice production. Vigorous upright vines have survived –38°. Z4.

**402A Itasca Grape, \$18.00**

**Marquette** Mid-Late. MN 1211 (MN 1094 x Rivat 262) U Minn, 2006. This grape has northern winemakers buzzing with excitement. The best variety this side of the Atlantic for a Pinot Noir–style red wine. One parent, MN 1094, has both *V. riparia* and *V. vinifera* in its background. The other, Rivat 262, is a French hybrid with Pinot Noir as one of its parents. Not only is Marquette heavy with *vinifera*, the vines are also extremely cold hardy. And there’s more: sugar levels are high—in the range of 26.1 Brix—and the acid levels are lower than Frontenac. Substantial tannins add complexity. Small-medium bluish-black berries in small to medium-sized clusters. Ripens a few days before Frontenac. PPA. Z3.

**403A Marquette Grape, \$18.00**

**Mars Seedless** Very Early. Island Belle x Arkansas 1339. U of AR, 1984. Large seedless blue berries good for fresh eating, juice or raisins. Typical *labrusca* foxiness common to Concord grapes (a general term for grapes that are native to North America). Big orbs, though might not accommodate a Rover. Thick skins are resistant to cracking and one of the best for disease resistance, performing well during hot wet summers. Very vigorous vine showed hardiness after –20°. Z5, but definitely worth trialing in Z4.

**404A Mars Seedless Grape, \$18.00**

**Reliance Seedless** Very Early. Arkansas 1163 (Ontario x Suffolk Red) AR Stn, 1982. Medium-sized berries are good for fresh eating or juice. Large loose clusters of tender melting sweet pinkish-red fruit with a strawberry-like flavor. Stores well in a root cellar for 1–2 months. Seems hardy although it has shown significant dieback in our Zone 4 trials. You may need to lay vines down for the winter in colder areas (see sidebar on previous page). While the literature cautions about Reliance’s disease susceptibility, our vines have performed well and remained free of disease. Z4/5.

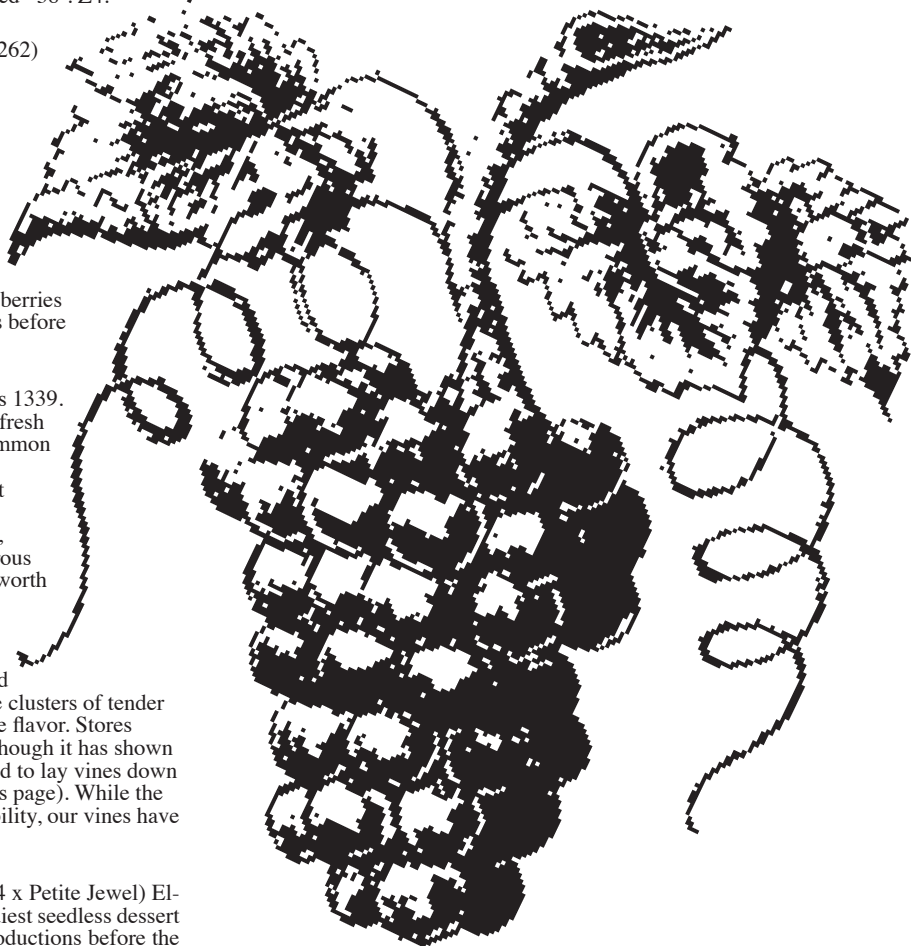
**405A Reliance Seedless Grape, \$18.00**

**Somerset Seedless** Early. ES 12-7-98 (ES 5-3-64 x Petite Jewel) Elmer Swenson intro. Somerset is likely one of the hardiest seedless dessert grapes available today. One of the last Swenson introductions before the renowned and beloved grape breeder passed away in December 2004. Medium-sized loose clusters with small sweet ruddy reddish-golden fruit. Crispy texture and great flavor. Easy to grow but not overly vigorous. Z4.

**406A Somerset Seedless Grape, \$18.00**

**Vanessa Seedless** Mid. Seneca x NY 45910. Introduced by KH Fisher and OA Bradt, Vineland Stn, Ontario, 1983. Large bright firm seedless deep red grapes with a fruity flavor make the absolute best raisins we’ve ever eaten. Excellent fresh eating. Medium-sized well-filled clusters on vigorous vines. Ours had some dieback at –20° but they all re-sprouted from the base and grew back to where they left off the previous summer. Going strong in our central Maine vineyards. Z4/5.

**407A Vanessa Seedless Grape, \$18.00**



### Training Grapes on an Arbor

Train one or more vines onto an arbor or gazebo; we have 8 vines, spaced about 10' apart. Prune each vine back to a single trunk. Encourage several permanent arms from each trunk. In late spring remove 70-90% of the past summer's growth. Next summer new fruiting canes will grow off the permanent arms.



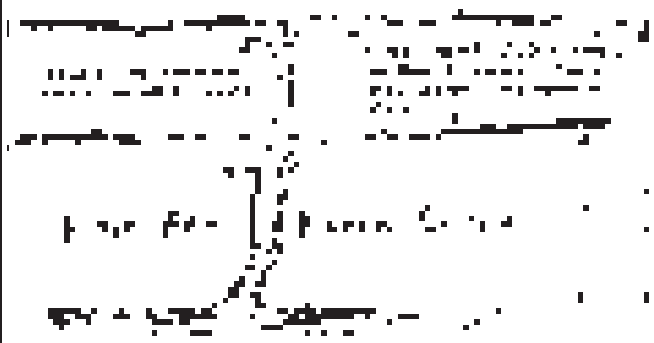
### Training Grapes in the Four-Arm Kniffin System

First year: After the danger of frost has passed, cut newly planted vines back to a single stem, 6" long with two to three buds.

Second year: Set up two wires, 3' and 5' high, stretched between posts. Cut plant back to a single stem, 6 feet long and tie it to the top wire. Leave 4–6 buds near each wire and remove others.

Third year: Select 8 canes, 4 for each wire, and remove the rest. Tie two canes to each wire, one in each direction. Cut these 4 canes back to 10 buds each. Cut the remaining 4 canes back to 1–2 buds each.

Later years: In late spring, remove last year's fruiting canes. Select eight new canes. Cut 4 of them to 10 buds each, and tie them to your wires. Cut the remaining 4 back to 2 buds each. These will produce next year's fruiting canes. Remove all other canes. The number of buds left on the fruiting canes may be adjusted to encourage more fruit (leave more buds) or larger size (leave fewer buds).



## Hardy Vines & Creepers

### Hops *Humulus lupulus*

Up to 20-30' long. Beautiful twining vine covers a trellis, archway or the entire side of a barn. Our favorite live awning to shade out the summer sun. Green lobed leaves, bristly stems, and insignificant greenish flowers, followed in late summer by the hops: papery aromatic cone-like strobiles used medicinally and in brewing for more than 1000 years. Herbalist John Christopher recommended the strobile tea as "a powerful, stimulating and relaxing nerve tonic." For brewing, there are basically two types of hops. Aroma hops are used for flavoring, finishing or conditioning brews. Bitter hops have more alpha acids and are used to impart bitterness. Native to Eurasia. Z3. (female rhizomes)

**H. I. 'Cascade'** USDA 19124 (Fuggle x Serebrianka-Fuggle S) x open-pollinated. OR St U, 1972. Contains 4-7% alpha acids. Fragrantly aromatic hop, low bittering value. For years Cascade has been the most widely used hop in the beer industry. Very productive with large cones, ready to harvest mid-late August in central Maine. A customer wrote, "Cascade has gained impeccable renown as the charismatic hop in such unsurpassable ales as Anchor's Liberty Ale, Sierra Nevada's Pale Ale and McNeill's Firehouse Amber Ale. Nothing 'light' about these." Resistant to downy mildew.

**L410A Cascade Hops, bundle of 3, \$21.25**

**H. I. 'Magnum'** Galena x select German male. German Hallertauer hybrid, 1980. Very high bittering with good storability. Alpha content 12-17%. Not generally used as an aroma hop, but lends subtle hints of spice and citrus along with the clear distinct bitterness that's not overpowering. Used in IPAs, pale ales, stouts and lagers.

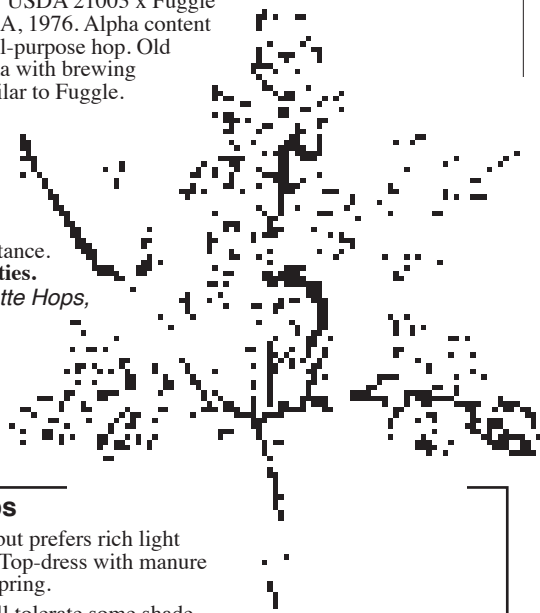
**L411A Magnum Hops, bundle of 3, \$21.25**

**H. I. 'Willamette'** USDA 21003 x Fuggle Seedling 2-4. USDA, 1976. Alpha content 4-6%. Excellent all-purpose hop. Old English-style aroma with brewing characteristics similar to Fuggle.

Low bittering.  
Spicy aroma.  
Good finishing hop for brewing English ales and stouts. Vigorous.  
Good disease resistance.

**Indigenous Royalties.**

**L412A Willamette Hops, bundle of 3, \$21.25**



### Growing Hops

**Soil:** Adaptable, but prefers rich light well-drained soil. Top-dress with manure or compost each spring.

**Sun:** Full, but will tolerate some shade.

**Pollination:** You need only one variety.

**Spacing:** In hills 3' apart, 1 or 2 plants per hill.

**Planting:** Plant hops where you're sure you want them—they'll be hard to get rid of once established.

Prepare planting holes with plenty of compost, manure or other slow-release organic fertilizer. Plant rhizomes with buds pointing up and cover with 1-2" loose soil. Appreciates frequent light waterings and mulch the first year.

**Training:** Vines may grow up to 25' in a single season, and do best if they are trained onto strong twine 12-30' high, supported by a trellis, wire, pole, tree branch or south-facing building.

When young vines are about 1' long, select the most vigorous 2 or 3 shoots per hill and remove the rest; gently wrap the vines clockwise on the twine to get it started.

**Harvest:** Pick the hops when they are papery but still slightly sticky and filled with yellow powder. Dry hops thoroughly before use. Spread on screens in a dry room, they will dry in a few weeks. Dried hops freeze well.

**Pruning:** Vines die back to the ground in fall and rebound vigorously in spring. Just cut back the dead vines after frost. To help control vigor, prune roots by cutting a 2-3' circle with a shovel around the base of the plant in spring.

**Lonicera Honeysuckle** Tall climbing (non-invasive!) honeysuckle. Jazzy whimsical whorled clusters of 1 1/2" multicolored tubular flowers bloom profusely and tirelessly from early summer into late fall. Attracts butterflies and bees but especially loved by our ruby-throated hummingbird. Striking blue-green foliage is perfoliate, appearing as if the red stems were growing through a single cupped disk. Spartan shiny red berries in fall. Finely shredded peeling bark makes an interesting winter display. Great on a fence or arbor, or cut back like a perennial and left as a low rangy thicket in the garden. Vines touching the ground will root themselves. Easy to grow, generally free of problems, though susceptible to aphids. Flowers the first year. Likes average well-drained soil and full sun. Will tolerate partial shade but at the expense of flower production. Z3. (well-rooted vines)

**L. x brownii 'Dropmore Scarlet' Brown's Honeysuckle** 10-20' long. (*L. sempervirens* x *L. hirsuta*) A cross developed by FL Skinner in Dropmore, Manitoaba, 1950. Scarlet-orange and yellow blossoms. Both parents in this hybrid, Hairy Honeysuckle and Trumpet Honeysuckle, are native to North America and cross with each other in the wild. Hairy is found from Maine south to Pennsylvania, while Trumpet's range is typically Connecticut to Florida. This cultivar strongly displays the traits of the Trumpet.

**415A Dropmore Scarlet Honeysuckle, \$19.00**

**L. sempervirens 'Major Wheeler' Trumpet Honeysuckle** 6-10' long. Scarlet-red and yellow flowers. This is the straight species. Selected for excellent blossom set and outstanding resistance to powdery mildew. Found by amateur horticulturist Patricia Wheeler along the North Carolina coast in the late 1980s and named for her husband Charles, whose many activities included rescuing rare wildflowers and supporting minority health research and education. Years ago, friend and former Fedco grower John Meader introduced us to a similar cultivar called Firecracker. We're pretty wild about these plants and plan to have more for you in future catalogs. 2015 Pennsylvania Gold Medal Award. *Limited supply—order early!*

**416A Major Wheeler Honeysuckle, \$19.00**



### Remembering Carmen Joy Gonzalez

Our longtime groundnut grower Carmen Joy Gonzalez, of Joyful Living Farm in East Madison, ME, passed away from a heart attack on May 5, 2023—a Full Flower Moon and penumbral lunar eclipse. We extend our deepest condolences to her family and friends. Carmen was "mother-in-love" to our warehouse coordinator Elizabeth Smedberg, and dear Abuelita to Elizabeth's children. Her labors of love left marks on us all.

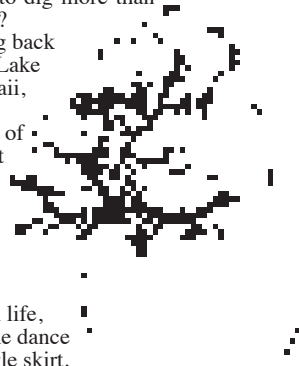
Some Fedco customers may remember Carmen as a cornerstone of the Tree Sale, with her ingenious way of potting up perennials in recycled milk jugs, the handles perfect for toting the plants home.

Carmen was vital to the central Maine community, a treasured friend and mentor to many. She had a truly generous heart, shown through her joyful smiling presence, delicious homegrown organic food, and an open invitation to her gorgeous manicured and self-made homestead where she held countless potlucks, parties, music jams, berry-picking jubilees, salsa-making and pickling nights, and several weddings. She always had an ear to lend, never rushing through a heartfelt conversation. Her Virgo-sun work ethic was unparalleled, always willing to lend a hand. Who else but Carmen could have essentially dug up and replanted her entire extensive perennial gardens in order to dig more than 2,000 groundnuts for Fedco every fall?

Carmen was a world traveler, going back repeatedly to visit her family roots in Lake Atilán, Guatemala, as well as to Hawaii, Peru and all over the U.S. She was a chainsaw-wielding, fir-tipping woman of the woods, a hunter, gatherer, herbalist and avid mead- and winemaker. She loved her gardens and was famous for her picturesque edible-flower salads, anise hyssop pesto, tabouli, green bean salad, "breakfast nirvana" and the occasional groundhog stew!

Even after she became deaf later in life, Carmen was usually the first one on the dance floor, in bright clothes and often a jingle skirt. Among her many lasting lessons, Carmen showed us to always dance, even when you can't hear the music.

We are taking a break from offering groundnuts this season, but hope to bring them back in coming years.





## Ordering Instructions

Order online at [fedcoseeds.com/trees](http://fedcoseeds.com/trees).

Or mail your order form:

Fedco Trees, PO Box 520, Clinton, ME 04927

- Use a current catalog, as prices and selection vary year to year!
- Use the 2024 order form; submit as many pages as you need using our exact format. Print an order form from our website to make this easier—a spare form can be found at [fedcoseeds.com/requests.htm](http://fedcoseeds.com/requests.htm)
- Keep a copy of your order for your records.
- We do not take fax or phone orders.

**Scionwood orders** and early shipment of rootstock: Order online or use the scionwood order form on pages 37-38.

### Bulk pricing on large orders

Orders \$1,200 and more receive a 20% discount. We encourage you to go in with friends and neighbors to save on shipping by submitting *one* regular order under *one* name. We cannot bundle and label items separately—you'll sort that out yourselves.

### Tax Exemption

*Retailers and farms:* We need a copy of your state resale certificate or farm exemption, otherwise we must collect sales tax.

- Mail orders: include a copy of your certificate with your paper order.
- Online orders: email us at [questions@fedcoseeds.com](mailto:questions@fedcoseeds.com) with a scan of your tax exemption certificate *before* placing your order.

### Shipping Restrictions

Some states have restrictions on imported plants. Please check this list to make sure you're not trying to order something that's restricted in your area.

**\* We do not ship any plants outside the U.S.**

- AZ:** *Juglans* spp. Walnut
- CA:** *Castanea* spp. Chestnut; *Juglans* spp. Walnut; *Pinus* spp. Pine; *Quercus* spp. Oak
- CO:** Some counties prohibit *Prunus* spp. Cherry, Peach, Plum. Please check your county regulations.
- FL:** *Castanea* spp. Chestnut; *Cornus* spp.; *Quercus* spp. Oak
- GA:** *Vaccinium* spp. Blueberry, American Cranberry
- HI:** *Pinus* spp. Pine
- ID:** *Humulus lupulus* Hops; *Mentha* spp. Mint; *Vitis* spp. Grape
- IN:** *Fragaria* spp. Strawberry; *Rosa* spp. Rose
- KS:** *Juglans* spp. Walnut
- MI:** *Abies* spp. Fir; *Vaccinium* spp. Blueberry, American Cranberry, Lingonberry
- MT:** *Pinus* spp. Pine
- NJ:** *Rosa* spp. Rose
- NV:** *Allium* spp. Chives, Flowering Onion; *Mentha* spp. Mint
- NY:** *Vitis* spp. Grape
- OR:** *Allium* spp. Chives, Flowering Onion; *Castanea* spp. Chestnut; *Corylus* spp. Hazelnut; *Humulus lupulus* Hops; *Quercus* spp. Oak; *Sambucus nigra* European Elderberry; *Ulmus* spp. Elm; *Vaccinium* spp. Blueberry, American Cranberry; *Vitis* spp. Grape
- TX:** *Juglans* spp. Walnut
- WA:** *Allium* spp. Chives, Flowering Onion; *Castanea* spp. Chestnut; *Corylus* spp. Hazelnut; *Humulus lupulus* Hops; *Vaccinium* spp. Blueberry, American Cranberry, Lingonberry; *Vitis* spp. Grape
- WI:** *Abies* spp. Fir; *Pinus* spp. Pine; *Picea* spp. Spruce; *Mentha* spp. Mint

**Plants in soil medium cannot be shipped to the following states:** AK, AL, AR, AZ, CA, HI, ID, KS, MS, MT, ND, NM, NV, OK, OR, SD, TX, UT, WA.

**The following plants come in soil:** *Achillea millefolium* 'Oertel's Rose', 'Paprika' and 'Terra Cotta'; *Arctostaphylos uva-ursi* Bearberry; *Asarum canadense* Wild Ginger; *Calluna vulgaris* Heather; *Clethra alnifolia* Summersweet; *Erica carnea* Winter Heath; *Gaultheria procumbens* Wintergreen; *Gaylussacia baccata* Huckleberry; *Phlox* 'Jeana'; *Rubus* 'Royalty Purple' Raspberry, 'Bristol' Black Raspberry, 'Nelson' Blackberry; *Salix* spp. Willow (except Niobe Weeping and bare-root Snake Root); *Sempervivum* Hens & Chicks; *V. corymbosum* Highbush Blueberry; *V. macrocarpon* American Cranberry; *V. vitis-idaea* Lingonberry

### Deadlines

- Scionwood order deadline is February 16, 2024.
- Final order deadline (except scionwood) is March 1, 2024.

### Pickup

We are no longer offering a pickup option.

### Shipping Rates

- We ship via FedEx or USPS Priority Mail, our choice.
- **Maine** customers pay only flat-rate shipping fees.
- **Alaska** shipments are sent via USPS Priority Mail. Please include a postal address. *This rate also applies to Hawaii and anyone in the Lower 48 who requires postal delivery.*

### Small & Light shipping

applies only to orders in the Lower 48 that exclusively contain item numbers beginning with L: perennials, bulbs, strawberries, rhubarb, hops, asparagus, scionwood, etc. If you order other items in addition to these, you must pay the higher shipping rate.

### Shipping Schedule

- Scionwood and early rootstock orders ship **around March 11**.
- We ship everything else **approximately March 26 through May 10**. We begin with warmer areas, working our way to coldest areas last. We do not ship outside of this range of dates.
- If you provide an email address, you will receive an email update in mid-March with the approximate ship date for your order. When your order ships, you'll receive an email with the tracking number.
- Please allow 1-3 business days for delivery in the Northeast, and 3-7 days for locations farther south and west.
- **No Special Ship Dates!**  
We cannot accommodate specific ship date requests or guarantee your order will arrive on a certain day. If you are away during our shipping dates, consider having your plants shipped to a friend or neighbor to care for them until you return.
- Check our website in the spring for an approximate shipping schedule.

### Out of Stock

We fill all orders on a first-come first-served basis. Some customers wonder why we don't contact them when something on their order is out of stock. We understand the disappointment. Some of our stock arrives in November to be stored through the winter, but much more of it arrives in early spring just before—or even during—shipping. When we don't know about a shortage or crop failure or damage until the last minute, it's impossible to contact customers individually. We will issue you a refund. Please accept this as a condition of ordering.

### Substitutions

If something becomes unavailable, our default mode is to substitute a similar variety because most people prefer a similar tree or plant to a refund. On the order form, if you indicate you don't want any substitutions, we'll send a refund. You'll have the option to donate some of your refund to the Maine Heritage Orchard.

### Handling Charges

We charge \$10 for handling each time you adjust your order. Additions and deletions are costly for us to process. You are welcome to place as many separate orders as you wish.

### Cancellation Policy

If you must remove items after our final order deadline, we will charge a \$20 fee. If you must cancel after the deadline, we will retain a \$20 fee or 20% of the order total, whichever is greater. *Please don't make us do this.* Unlike most businesses, we take orders from this catalog for about five months and then fulfill them all in a span of a few weeks. When we receive last-minute cancellations or order reductions after we've closed for ordering, we cannot resell the plants we've designated for your order.

### Plant Sizes

Unfortunately, we can't take requests for particular plant sizes or branching preferences. We grade for healthy trees with excellent root systems. Sizes listed for each item should be considered an average. The trees and shrubs in your shipment will sometimes be slightly larger and occasionally smaller than these projections.

# Fedco Trees 2024

PO Box 520 Clinton, ME 04927

www.fedcoseeds.com/trees



## FEDCO TREES

+

Order deadline:  
**March 1, 2024**

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Visit **fedcoseeds.com**  
to check product  
availability.

(From mailing label) CC- \_\_\_\_\_

Farm or Group Name \_\_\_\_\_

Name \_\_\_\_\_

US Mail Delivery Address \_\_\_\_\_

Town \_\_\_\_\_ St \_\_\_\_\_ Zip \_\_\_\_\_

Street Address (if different) \_\_\_\_\_

Town \_\_\_\_\_ St \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

### Delivery:

**Ship** in late March to early May.

*Sorry, no pickup option or Tree Sale in 2024.*

*We cannot accommodate specific ship date requests.*

### Substitutions:

I will accept a similar variety.  Yes  No

I will accept similar rootstock.  Yes  No  
(Applies to apple trees only.)

<b>Subtotal</b> from reverse	
<b>Bulk pricing</b> orders \$1,200+ take 20% off	—
<b>Fedco Member?</b> 1% <b>Discount</b> from Subtotal	—
<b>Adjusted Total</b>	=
<b>Shipping</b>	+
<b>Sales Tax</b> (if your state is listed)	+
<b>Order Total</b>	=
<b>Optional \$2</b> to defray catalog mailing cost	+
<b>Donate to Wild Seed Project</b> (see p. 64)	+
<b>Grand Total</b>	=

<b>Shipping Rates</b>	
<b>We ship via FedEx or Priority Mail, our choice.</b>	
If you <i>require</i> postal delivery (all PO Boxes), use the Alaska/Hawaii rates.	
<b>1) Maine</b>	
All item #s begin with L: Maine Small & Light flat rate	\$10
Otherwise, Maine regular flat rate	\$25
<b>2) Alaska, Hawaii, or addresses that <i>require</i> postal delivery</b>	
Adjusted Total up to \$129.00	\$27
Adj Total more than \$129.00	21% of Adj Total
<b>3) All other U.S. states</b>	
<b>All item #s begin with L (Small &amp; Light Shipping)</b>	Adj Total up to \$59.00     \$10 Adj Total > \$59.00     17% of Adj Total
<b>Otherwise, Regular Shipping</b>	Adj Total up to \$147.00     \$25 Adj Total > \$147.00     17% of Adj Total

<b>Sales Tax</b>	
ME addresses	— Pay 5.5% sales tax on Adjusted Total
CO, MA, MD, MI, UT, VA	— Pay your local tax rate on Adj Total
AK, CT, GA, IL, IN, KY, MN, NC, NJ, NY, OH, PA, RI, VT, WA, WI, WV	— Shipping is taxable – pay your local tax rate on <b>Adj Total + Shipping</b>

Help support the  
**Maine Heritage Orchard**  
by donating refunds for out-of-stock  
items or overpayments.

Donate up to \$25.00

Donate up to \$10.00

Donate up to \$5.00

### Payment:

- We accept payment by check, money order, or credit/debit card.
- Please make checks payable to **Fedco**.
- Orders under \$25: please pay by check or money order.

We accept Visa, MasterCard, American Express and Discover Card. Exp. Date

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# Fedco Trees 2024: Trees, Shrubs & other Plants

For scionwood and early shipment of rootstock, order online or use the next form.

	Item #	Qty	# Plants per pkg	Name	Price Each	Total Price
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
					<b>Subtotal</b>	

If you are ordering more than 28 items, copy this page or our format and submit as many pages as you need. You can download another form at [fedcoseeds.com/requests.htm](http://fedcoseeds.com/requests.htm).

If you order *only* item numbers beginning with **L**, you qualify for our **Small & Light shipping rate**. See other side for details.

Order Comments:

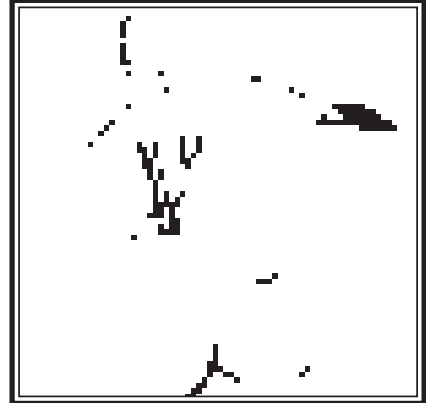
# Scionwood 2024

Fedco Trees, PO Box 520, Clinton, ME 04927

[www.fedcoseeds.com/trees](http://www.fedcoseeds.com/trees)

Scionwood and early-shipment rootstock order deadline:

**February 16, 2024**



(From mailing label) CC-

Farm or Group Name

Name

US Mail Delivery Address

Town St Zip

Street Address (if different)

Town St Zip

Phone

Email

## Delivery:

Ship around March 11.  
Sorry, we cannot ship scionwood at other times.

<b>Scionwood Total</b> from reverse	
<b>Rootstock Total</b> from reverse	+
<b>Subtotal</b>	=
<b>Bulk Pricing</b> orders \$1,200+ take 20% off	-
<b>Fedco Member?</b> 1% Discount from Subtotal	-
<b>Adjusted Total</b>	=
<b>Shipping</b>	+
<b>Sales Tax</b> (if your state is listed)	+
<b>Order Total</b>	=
<b>Optional \$2</b> to defray catalog mailing cost	+
<b>Donate to Wild Seed Project</b> (see p. 64)	+
<b>Grand Total</b>	=

## Shipping Rates

**We ship via FedEx or Priority Mail, our choice.**

If you require postal delivery (all PO Boxes), use the Alaska/Hawaii rates.

### 1) Maine

All item #s begin with L: Maine Small & Light flat rate \$10  
Otherwise, Maine regular flat rate \$25

### 2) Alaska, Hawaii, or addresses that require postal delivery

Adjusted Total up to \$129.00 \$27  
Adj Total more than \$129.00 21% of Adj Total

### 3) All other U.S. states

All item #s begin with L (Small & Light Shipping) Adj Total up to \$59.00 \$10  
Adj Total > \$59.00 17% of Adj Total

Otherwise, Regular Shipping Adj Total up to \$147.00 \$25  
Adj Total > \$147.00 17% of Adj Total

## Sales Tax

ME addresses — Pay 5.5% sales tax on Adjusted Total

CO, MA, MD, MI, UT, VA — Pay your local tax rate on Adj Total

AK, CT, GA, IL, IN, KY, MN, NC, NJ, NY, OH, PA, RI, VT, WA, WI, WV — Shipping is taxable — pay your local tax rate on **Adj Total + Shipping**

## Scionwood and early rootstock orders ship around March 11, 2024.

- We'll send an email notification when your order ships.
- We routinely send scions and rootstock during cold weather. Even if your package is shipped in low temps or delayed by snowstorms, the plant material will be okay.
- However, we are not responsible for the quality of plant material in the event your package is not promptly opened once it arrives.

**We aim to provide wood that is 1/4" in diameter. When only smaller wood is available and we consider it usable, we send it. We do not issue refunds or replacements based on diameter of wood. No refunds for leafed-out rootstock—it's fine to use.**

Help support the **Maine Heritage Orchard** by donating refunds for out-of-stock items or overpayments.

- Donate up to \$25.00  
 Donate up to \$10.00  
 Donate up to \$5.00

- For information about storing and collecting scionwood, see page 39.
- For grafting supplies, please refer to our Seeds & Supplies catalog, or visit [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs).

We accept Visa, MasterCard, American Express and Discover Card.

Exp. Date

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# Fedco Trees 2024: Scionwood

Find variety descriptions at [fedcoseeds.com/trees](http://fedcoseeds.com/trees)

Apples	# sticks	# feet		# sticks	# feet		# sticks	# feet
L-801 Airlie Red Flesh			L-858 Idared			L-897 St. Edmund's Russet		
L-802 Alexander			L-859 Jonathan			L-898 St. Johnsbury		
L-803 Ashmead's Kernel			L-860 Kavanagh			L-899 St. Lawrence		
L-804 Aunt Penelope Winslow			L-861 Keepsake			L-900 State Fair		
L-805 Baldwin			L-862 King David			L-901 Stone		
L-806 Black Oxford			L-863 King of Tompkins County			L-902 Summer Rose		
L-807 Black Twig			L-864 Kingston Black			L-903 Sweet Sal		
L-808 Blenheim Orange			L-865 Kola			L-904 Sweet Sixteen		
L-809 Blue Pearmain			L-866 Liberty			L-905 Tarecap Bitter		
L-810 Bourassa			L-867 Lodi			L-906 Tolman Sweet		
L-811 Bramtot			L-868 Macoun			L-907 Trailman		
L-812 Brandywine Crab			L-869 Mantet			L-908 Transcendent		
L-813 Bullock			L-870 Martha Crab			L-909 Twenty Ounce		
L-814 Burgundy			L-871 McIntosh			L-910 Wealthy		
L-815 Calville Blanc d'Hiver			L-872 Medaille d'Or			L-911 Westfield Seek-No-Further		
L-816 Canada Reinette			L-873 Milden			L-912 Wickson		
L-817 Canadian Strawberry			L-874 Milo Gibson			L-913 Williams Pride		
L-818 Cellar Hole Bitter			L-875 Mother			L-914 Windham Russet		
L-819 Centennial			L-876 Mutsu			L-915 Winekist		
L-820 Chenango Strawberry			L-877 Northern Spy			L-916 Winn Russet		
L-821 Cherryfield			L-878 Opalescent			L-917 Winter Banana		
L-822 Chestnut			L-879 Otterson			L-918 Wolf River		
L-823 Chisel Jersey			L-880 Pewaukee			L-919 Yellow Bellflower		
L-824 Cole's Quince			L-881 Pipsqueak			<b>Pears</b>		
L-825 Cora's Grand Greening			L-882 Pomme d'Or			L-920 Barnet		
L-826 Cortland			L-883 Pomme Grise			L-921 Bartlett		
L-827 Cox's Orange Pippin			L-884 Porter's Perfection			L-922 Beurre Clairgeau		
L-828 Crimson Crisp			L-885 Pristine			L-923 Bosc		
L-829 Dabinett			L-886 Red Astrachan			L-924 Brandy		
L-830 Dolgo			L-887 Redfield			L-925 Butt		
L-831 Drap d'Or			L-888 Rhode Island Greening			L-926 Comtesse Clara Frijs		
L-832 Duchess of Oldenburg			L-889 Ribston Pippin			L-927 Early Pear (Fruhbirne)		
L-833 Ellis Bitter			L-890 Rolfe			L-928 Hendre Huffcap		
L-834 Empire			L-891 Roxbury Russet			L-929 Patten		
L-835 Esopus Spitzenburg			L-892 Royal Sweet			L-930 Seckel		
L-836 Fallawater			L-893 Screen Shot			Column 3 Total		
L-837 Fameuse			L-894 Shavel Sharp			Total Number Ordered		
L-838 Fletcher Sweet			L-895 Spencer			\$ Total Sticks @ \$6.00 ea. \$		
L-839 Freedom			L-896 Spice Sweet			\$ Total Feet @ \$5.50/ft \$		
L-840 Frostbite			Column 2 Total			(Minimum 10 feet per variety)		
L-841 Gala			<p><b>Scionwood sticks</b> are approximately 8" long with a 1/4" caliper when possible. \$6.00/stick.</p> <p><b>For larger quantities,</b> order by the foot for \$5.50/foot. (10' minimum per variety)</p>					
L-842 Gideon								
L-843 Ginger Gold								
L-844 Gnarled Chapman								
L-845 Golden Pippin								
L-846 Golden Russet								
L-847 GoldRush								
L-848 Gray Pearmain								
L-849 Green Kerr								
L-850 Grimes Golden								
L-851 Haralson								
L-852 Harrison								
L-853 Harry Masters Jersey								
L-854 Hewe's Virginia Crab								
L-855 Honeycrisp								
L-856 Honeygold								
L-857 I-95								
Column 1 Total								

### ROOTSTOCK – Bundle of 10

Rootstock is approximately 1/4" caliper.  
See page 39 for descriptions.

Rootstock	Price	Qty	\$ Total
234-B Malus Antonovka	\$39.50		
235-B M. Budagovsky 118	\$39.50		
236-B M. M111	\$39.50		
237-B M. Geneva 11	\$39.50		
238-B M. Budagovsky 9	\$39.50		
239-B Prunus americana	\$39.50		
240-B Prunus avium	\$39.50		
241-B Prunus cerasifera	\$39.50		
242-B Pyrus OHxF97	\$39.50		

Bundles Ordered

## Scionwood for Grafting

- Deadline for ordering scionwood is February 16, 2024.
- Scionwood will be shipped to you around March 11.

The variety list is on the facing order form. Variety descriptions are on our website. Scionwood is shipped only in March. Rootstock can be sent with your scionwood order in March if you select that option, otherwise we'll ship it during the regular shipping season in April/May. We sell scionwood in two ways:

**By the stick:** One 8" stick (\$6 each) can graft 3 or 4 trees.

**By the foot:** For orchardists grafting large numbers of trees of a particular variety, we also offer scionwood by the foot (\$5.50/foot, minimum order of 10 feet). In our own nursery work, we are usually able to graft 6–8 trees from one foot of scionwood.

**Storage:** You can graft right away or store scionwood for later use. It will keep quite well for several weeks in the fridge or in a cold dark basement, root cellar or shed. Storing scionwood close to freezing temps can be okay, but the very cold temperatures in a freezer will kill it. Scions will also die if they dry out or are stored without special protection from ripening veggies or fruits. We recommend triple plastic bagging your scionwood. There is no need to dampen the scionwood or to insert wet paper towels before bagging it, as this can lead to mold.

### What does a person do with scionwood?

Scions are twigs. They have no roots and will not grow if you plant them. They are cuttings from dormant branch tips, intended for spring grafting.

**Is grafting easy?** Yes, once you get the hang of it. Experienced grafters often have 100% "take" with their grafting. Beginners often have less. While you can learn to graft from a book or video, we highly recommend the old-fashioned way: find a real person to teach you. MOFGA and other organizations have grafting classes every spring. Find one near you!

There are two general ways to graft fruit trees in spring. You can **bench graft** by grafting scionwood onto **rootstock** (see right). Generally we do this indoors in late March or early April. We keep the little grafted trees packed into a bucket of damp sawdust in a warm spot in the house (77–86°) for a couple weeks to break dormancy and promote callus development. Then we harden them off in a colder (but not freezing) place for a week or two before planting out in nursery beds anytime from late April to mid-May. If trees have begun to leaf out before planting time, we slowly introduce them to direct sunlight before setting them out. In a couple of years when the trees are 3–6' tall, we plant them in the orchard.

You can also **topwork** scionwood onto established trees. We do our topworking after the trees have begun to show some green growth and the bark slips easily from the wood when cut, but before petal fall. The window for topworking is roughly the whole month of May in central Maine, but often can be successful for a week or so on either end.

We offer grafting supplies in our Seeds & Supplies catalog or online:  
[fedcoseeds.com/ogs](http://fedcoseeds.com/ogs)

### Scionwood Collection at Fedco

Scionwood season at Fedco is a truly hopeful time. Every tiny dormant bud on each stick we ship out has the potential to become a new grafted fruit-bearing tree. Each winter we collect more than 20,000 feet of scionwood from up to 250 varieties of apples, pears and plums! In 2023 we shipped out more than 13,000 feet of scions to customers across the country: first-time grafters, orchardists, apple collectors and cidermakers alike. The rest is distributed to our local growers to propagate most of the fruit trees found in this catalog.

During the frigid days of January and February, scionwood collection is in full swing. We bundle, label and seal the wood in bags to store in our cold warehouse. In March we measure, snip and label the scions for shipping. As our founder John Bunker says, we are passing the baton.

There is no single Fedco Orchard. Over many years John and others from Fedco built friendly relationships and collaborated with orchards around Maine. In exchange for permission to collect scionwood, we have offered grafting in the spring, pruning in the winter, or traded some trees from the Fedco inventory. A win-win for all.

We have also sourced some of our rare and difficult-to-find varieties from out-of-state orchards. For instance, Poverty Lane Orchards in NH, home of Farnum Hill Ciders, was one of the first in the Northeast to grow many of the now popular European cider apple varieties. For years they shared generously with us while we built up our own scion banks. We continue to collect rare and important varieties and graft them into our own orchards to ensure access in the future and to localize and streamline our winter scion collection.

### The Scionwood Exchange and grafting workshop

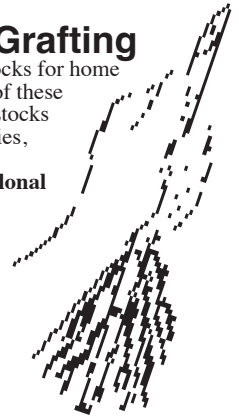
Please join us **Sunday, March 24, 2024**, for the annual Scionwood Exchange and Seed Swap, at MOFGA in Unity, ME. See [mofga.org](http://mofga.org) for details and to learn about other organic orcharding classes and events.

## Hardy Rootstocks for Grafting

We consider these to be some of the best rootstocks for home or commercial use. Even without grafting, any of these will produce fruit suitable for wildlife. For rootstocks not listed, or for larger calipers or larger quantities, please contact us for information.

**Because of the way they are propagated, clonal rootstocks (B118, M111, G11, B9 apples and OHxF97 pear) rarely come with more than a few roots.**

You can receive your rootstock sooner—shipped around March 11—if you select the early shipment option online, or use the scionwood paper order form. Otherwise, your rootstock will be shipped during our regular schedule later in March or April.



**Please note! We do our best to provide 1/4" caliper stock, but we cannot guarantee scion or rootstock caliper. Because of factors beyond our control (like weather!) stock may be 3/16–3/8".**

**Malus 'Antonovka'** (Apple) Hardy Russian seedling rootstock for full-sized "standard" apple trees. The hardiest rootstock we offer. Space trees 20–30' apart. Z3.

**234A Malus Antonovka, bundle of 10, \$39.50**

**Malus 'Budagovsky 118'** (Apple) [Moscow Pear x (M8 and M9 pollen)] Michurinsk College of Ag, Michurin, Russia. Also called **Bud 118** or **B118**. Semi-dwarf rootstock, about 85–90% of standard. Sometimes referred to as a "semi-standard" or even a standard. Space trees 20–25' apart. More productive and precocious (fruits at a young age) than trees on Antonovka. Very winter hardy and soil adaptable. Generally not used in commercial orchards due to its large size. Note that reddish cambium does not scrape green like other rootstocks. Moderately resistant to collar rot and fireblight. Z3.

**235A Malus Budagovsky 118, bundle of 10, \$39.50**

**Malus 'M111'** (Apple) [Northern Spy x Merton 793 (Northern Spy x East Malling11)] Collaborative intro of East Malling Research Stn and the John Innes Institute, Merton, England, about 1950. Technically named MM111, the MM refers to Malling and Merton. Very popular semi-dwarf rootstock produces a tree about 65–80% of standard. Space trees 15–20' apart. No staking necessary. Slightly more precocious than standards. Well anchored and adaptable to a wide range of soils. Resistant to woolly aphid. Prone to suckering. Not nearly as long-lived as standards. Hardy to Z4, maybe Z3.

**236A Malus M111, bundle of 10, \$39.50**

**Malus 'Geneva 11'** (Apple) Also called **G11**. Cornell U intro, NY. Dwarf rootstock produces a tree about a third the size of standard, about halfway between M9 and M26 (a bit larger than Bud 9). Space trees 8–10' apart. Suckers only slightly. Moderately susceptible to woolly aphid. Excellent fireblight resistance. Requires staking and irrigation in most locations. Z4/5.

**237A Malus Geneva 11, bundle of 10, \$39.50**

**Malus 'Budagovsky 9'** (Apple) [M8 x Red Standard (Krasnij Standart)] Also called **Red-leafed Paradise** or **Bud 9**. Michurinsk College of Ag, Michurin, Russia, 1946. Dwarfing rootstock, produces a tree about a quarter the size of a standard tree. Highly productive and precocious with large fruit size. Very hardy though not as hardy as Antonovka. In most locations, requires mulching, staking and irrigation. Space trees 5–10' apart. Note that reddish cambium does not scrape green like other rootstocks. Some resistance to fireblight. Z4.

**238A Malus Budagovsky 9, bundle of 10, \$39.50**

**Prunus americana** (Plum) Seedling rootstock for American, Japanese or hybrid plums. Also recommended for grafting peaches. Seedling plum produces very decent 1" fruit without grafting. The best pollinator for hybrid plums. (See explanation in plum section on page 25.)

**239A Prunus americana, bundle of 10, \$39.50**

**Prunus avium 'Mazzard'** (Cherry) The rootstock we use for grafting sweet and pie cherries. Shallow spreading root system. Longer lived than Mahaleb though not as hardy. Does not do well in heavy poorly drained soils. Z4, sometimes Z3.

**240A Prunus avium Mazzard, bundle of 10, \$39.50**

**Prunus cerasifera 'Myrobalan'** (Plum) Seedling rootstock for European plums. Not recommended for American or hybrid plums. Z3.

**241A Prunus cerasifera Myrobalan, bundle of 10, \$39.50**

**Pyrus 'OHxF97'** (Pear) (Old Home x Farmingdale 97) Produces a vigorous hardy well-rooted almost-standard-sized tree. Superior to *Pyrus communis* in numerous ways, and can be used for both European and Asian pears. We use "97s" for most of our Fedco catalog offerings. Z3/4.

**242A Pyrus OHxF97, bundle of 10, \$39.50**

## Nuts

The nut seedlings we're offering are grown from nuts harvested from the most productive specimens. Like all seedlings, each one is a little different, and nut quality may vary.

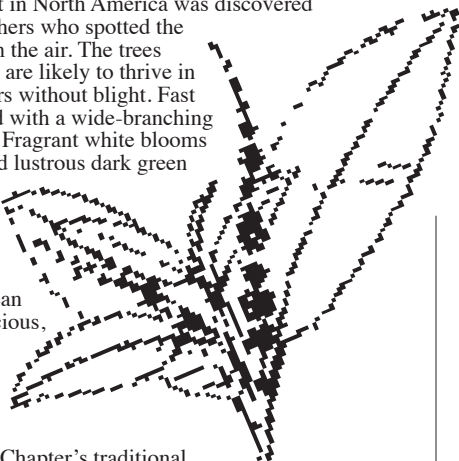
***Castanea dentata* American Chestnut** Up to 100' Before 1900 American chestnut was one of the most important deciduous trees in the eastern U.S. The arrow-straight rot-resistant wood was used for everything from mine timbers to musical instruments. Delicious sweet nuts were an important food for wildlife and humans. Chestnut blight showed up in Brooklyn, NY, in 1904; within 50 years it killed virtually every chestnut tree in the eastern U.S. The blight does not kill the roots however, and rare stands of mature trees can still be found. In July 2015, the tallest American chestnut in North America was discovered in Lovell, Maine, by researchers who spotted the profuse white blossoms from the air. The trees we offer are not immune but are likely to thrive in a suitable site for 10-30 years without blight. Fast growing and straight trunked with a wide-branching magnificent rounded crown. Fragrant white blooms in July. Ribbed sharp-toothed lustrous dark green foliage. Yellow fall color. Prefers loamy well-drained acidic soil and full sun.

**Two or more needed for pollination** but will cross-pollinate with Asian, European and hybrid chestnuts. Precocious, bearing heavy crops of nuts in 10 years. From each American chestnut purchase, Fedco will donate \$3 to support the American Chestnut Foundation Maine Chapter's traditional breeding program. Z4. **ME Grown.** (2-4')

**421A American Chestnut, \$30.00**

***C. pumila* American Chinquapin** 15-30' x 10-20' Also called **Allegheny Chinquapin** and **Dwarf Chestnut**. Smaller in stature than the American or Chinese chestnuts, but with similar lustrous dark green toothed leaves and long pale yellow spiky flowers. Prickly 1-1 1/2" burs each house a single glossy brown nut, savored by many birds and mammals. The sweet nuts are edible for humans, though labor-intensive to harvest. Once an important food for indigenous peoples. Forms a small tree or big multi-stemmed thicket-forming shrub with horizontally spreading lower branches and upright climbing top branches. Densely grained, strong but light wood is used for fence posts and fuel. Somewhat resistant to chestnut blight, and can often survive infections. Prefers well-drained soil; pH adaptable. Full sun to partial shade. Monoecious, so **plant two or more for pollination**. May hybridize with other *Castanea* species. Native to much of central and eastern U.S. but scattered and becoming rare in the wild. Z4. (1-3')

**424A American Chinquapin, \$22.00**



***Corylus americana* American Hazelnut** 12-18' x 10-15' Also called **American Filbert**. Squirrels, blue jays and humans alike relish the sweet tasty 1/2" nuts of this multi-stemmed rounded native shrub.

Usually bears 3-5 years after planting. Collect the crop as soon as the husks begin to brown and lose their sticky yellowness. In central Maine that's around the third week of September. Showy catkins in spring. Dark green serrated foliage in summer. A patchwork of reds, yellows, oranges and greens in autumn. Suckers from the roots. Excellent for naturalizing in thickets. The main pest is nut weevil, which leaves a "hit" mark on the nut shell. (Raking up drops and spraying Surround may help with this.) Prefers well-drained soils; pH adaptable. Full sun or light shade. May be self-fruitful but **for best nut sets, plant more than one**, 4-6' apart. Native to U.S. Z4. (1-3')

**425A American Hazelnut, \$20.50**

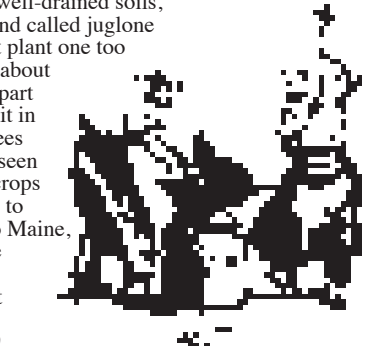
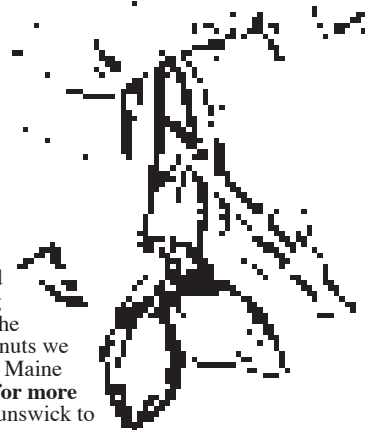
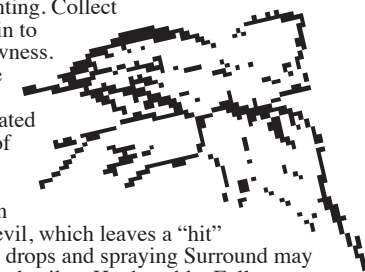
**425B American Hazelnut, bundle of 5, \$90.00**

***Juglans cinerea* Butternut** 40-60' x same. Very large impressive rounded shade tree produces edible nuts. Broad open crown, distinctive compound leaves on large arching branches that can hang nearly to the ground. Leaves out relatively late in spring. Use the oblong edible nut to make oil, or pickle the soft young nut for snacking. Husks yield a yellow-orange dye. Very nice cabinet wood referred to as **White Walnut**. Prefers moist rich deep soils but will grow in dry rocky conditions. Give it full sun and plenty of space. Susceptible to butternut canker, which has devastated many wild specimens. Some lovely old trees are thriving in Belfast, Belmont and Newburgh, ME, and may have been back-crossed long ago to include genes resistant to the canker. These seedlings are from nuts we harvested from some of those old Maine trees. **Self-fertile but plant two for more abundant crops**. Native New Brunswick to Georgia. Z3. **ME Grown.** (1-3')

**427A Butternut, \$21.50**

***J. nigra* Black Walnut** 70-90' A spectacular shade tree with a magnificent open rounded crown of massive limbs with dark green leaves. Harder to crack than commercial English walnuts but worth the effort for their distinct sweet earthy rich flavor. Eat them chopped on salads, or with dark chocolate for dessert. Highly valued cabinet and veneer wood. Husks, leaves and roots common in herbal medicine for anti-fungal properties. Husks also yield a rich brown dye. Deep taproot. Prefers moist well-drained soils, pH 6-7. Roots give off a compound called juglone that inhibits some plants, so don't plant one too close to your garden. Space trees about 50' apart for nut production, 20' apart for lumber. May begin to bear fruit in 5-10 years. Some say multiple trees needed for pollination but we've seen enough solo trees with large nut crops to say **you only need one**. Native to eastern U.S. though not quite into Maine, yet many majestic and productive specimens can be found near old homes and farmsteads throughout the state. Z4. (1-3')

**428A Black Walnut, \$19.00**



## Make Space for Native Plants

We love incorporating native plants into our gardens and orchards. These plants are attractive, natural and beautifully suited to our growing conditions. They are also the best food sources for our butterflies, bees and other wildlife. Here are some you'll find in our catalog:

Amelanchier	Highbush Cranberry	Nannyberry
Asters	Culver's Root	New Jersey Tea
Bayberry	Diervilla	Northern Wild Raisin
Bearberry	Pagoda Dogwood	Oaks
Beardtongue	Redosier Dogwood	White Pine
Bee Balm	Echinacea	Beach Plum
Birch	Elderberry	Redbud
Blackberry	American Elm	American Smoketree
Black Haw	Ferns	Spicebush
Blazing Star	Balsam Fir	White Spruce
Blueberry	Geranium	Steeplebush
Bluestar	Stiff Goldenrod	Fragrant Sumac
Boneset	Hazelnut	Sweetgum
Butternut	Huckleberry	Sweetflag
Buttonbush	Blue Flag Iris	Tuliptree
Cardinal Flower	Jack-in-the-Pulpit	Vervains
Carolina Allspice	Joe Pye Weed	Violet
Eastern White Cedar	American Linden	Black Walnut
Chestnut	Lingonberry	Wild Ginger
Chinquapin	Lobelia	Winterberry
Chokeberry	Milkweed	Wintergreen
Wild Columbine	Mountain Mint	Witch Hazel
American Cranberry	Mockorange	Woodbine

## Fedco does not support genetically engineered Seeds or Trees.

At our 1996 Annual Meeting, our cooperative voted unanimously not to knowingly offer for sale any genetically engineered variety because the gene technologies may pose unacceptable risks to the environment. Similarly, we have supported the campaign to stop GE Trees and taken a stance against the release of genetically engineered chestnuts. For more about this pledge, our commitment to testing for GE contamination, and talks on GE by Fedco founder CR Lawn, please go to [fedcoseeds.com/seeds/genetic\\_engineering.htm](http://fedcoseeds.com/seeds/genetic_engineering.htm).

Please read our extended discussion of the genetically engineered chestnut at [fedcoseeds.com/trees/ge-trees.htm](http://fedcoseeds.com/trees/ge-trees.htm)

## Shade Trees

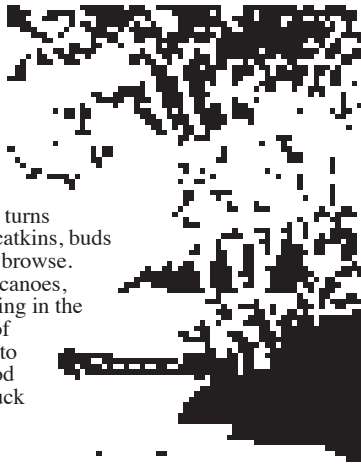
**Betula nigra River Birch** 60-80' x 40-60' With its graceful silhouette and attractive bark, river birch is a highly prized ornamental. Grows to be a very large rounded tree. Found along stream banks and riparian areas where conditions are wet in winter and spring, dry in summer and fall. The beautiful reddish-brown exfoliating bark reveals the equally ornamental multi-shaded inner bark. Dark green summer foliage yellows before dropping. Leaves, twigs and bark traditionally used to treat various stomach ailments. Birds eat the seeds and deer browse the foliage. Wood not as valuable as other birch. Prefers moist acid soil. Fast growing, trouble free. Native to eastern U.S. Z4. **ME Grown.** (2-4)

**436A River Birch, \$19.00**

**B. papyrifera Paper Birch** 30-70' x 30' Also called **Canoe Birch** or **White Birch**. The classic birch tree. Elegant as a single- or multi-stemmed specimen.

Medium-sized tree with an irregular oval shape, upright angled branches and magnificent chalk-white peeling bark. Deep green foliage produces light shade in summer and turns clear yellow in fall. Birds prize the catkins, buds and seeds. Twigs are a favorite deer browse. Bark traditionally used for building canoes, containers and roofing. When traveling in the north country, keep a small bundle of finely shredded bark in your pocket to kindle the nightly fire. Valuable wood at the sawmill. Twiggy branches, stuck into the ground, are perfect for pea fencing. Prefers moist well-drained acid soil though we've seen it thrive on ledge. Native to northern North America. Z3. **ME Grown.** (2-4)

**437A Paper Birch, \$19.00**



**Liquidambar styraciflua Sweetgum** 60-80' x 40-60' Most admired for its 5-pointed star-shaped deep glossy green leaves and its gumballs—the 1" hard round prickly "fruit" that can hang into winter and become a real ankle twister in the spring when the ground is covered with them. Great fall display spans a range of colors. Tall pyramidal trees may become more rounded with age. Sweetgum references the fragrant sap that exudes from wounds, once used for chewing gum. Wood was prized for furniture veneer. Needs full sun. Tolerates a wide range of soil conditions including clay and occasional flooding. Salt tolerant but sensitive to urban pollution. Fast growing after a few years; give the roots plenty of space. Native to eastern U.S. from Connecticut south and west into Mexico. We are offering it as a good tree to trial for in Maine's rapidly warming climate. May show dieback in cold snaps beyond -20°. Z5. (1-3')

**440A Sweetgum, \$19.00**

**Liriodendron tulipifera Tuliptree** 60-90' x 30-50' Also called **Tulip Poplar**. Highly ornamental shade tree and largest native relative of the magnolia. Decorated in late spring with large tulip-like flowers that lure in the hummingbirds. Each 6-petaled light lime-yellow flower is ornamented with a bright orange band that extends from petal to petal, visible inside and out. Deeply grooved richly colored bark. Very attractive flat soft-green rounded leaf has a shape like a child's drawing of a tulip. Golden-yellow fall color. Fast-growing tree produces a very straight and clear trunk, hence its popularity with furniture makers and boat builders. One of the tallest trees in the eastern U.S. but it will adapt to the space you give it. Reaches full potential toward southern New England but we've seen a few impressively large specimens in central Maine. Full sun, moist well-drained slightly acid loam. Native to eastern U.S. Z5 or maybe Z4. (1-3')

**441A Tuliptree, \$19.00**

**Silvopasture** is the intentional integration of trees, pasture and livestock into one single management system, a common practice in forested parts of the world for thousands of years. A carefully managed silvopasture operation can be mutually beneficial for land, animals and people. Silvopasture can be thought of in two ways: bringing the livestock to the trees, or bringing the trees to the livestock.

For centuries farmers have integrated livestock into their orchards. In Somerset, England, where there is a rich history of cidemaking, orchards are everywhere and it is common to see sheep grazing among the rows of established apple trees. Sheep can keep grass and weeds down while fertilizing at the same time. Running sheep through the orchard instead of mowing mechanically can reduce labor inputs, decrease compaction and have huge benefits to soil health, as well-distributed sheep manure and urine can replenish nitrogen and increase mycorrhizal activity. On hot days livestock will retreat to the shade of the trees, thus concentrating the fertilizer over the roots. In the fall, sheep are happy to clean up dropped fruit and leaves, which can help control the spread of scab and other fungal diseases. Similar effects can be achieved with poultry and cattle (if you are careful!) and this practice can be applied to other tree plantings like chestnut and hickory, pine plantations, and even woodlands managed for timber.

Planting trees into existing grazing lands can help mitigate the effects of drought, extreme temperatures and heavy rainfall. In hot dry times when pasture grasses may not be growing optimally, trees not only provide livestock with cooling shade, but can also supply forage in the form of leaves, fruit, nuts and seed pods. The deep perennial roots of trees can work to hold soil in place during heavy rains and flooding, preventing erosion. Tree plantings can also provide a long-term source of income for farms in the form of timber and fuel wood.

In recent years there has been much research and funding for establishing silvopastoral systems as a way to make farms more resilient in the face of a changing climate future. A pasture with trees can sequester up to 10 times as much carbon as an equivalent area without trees, helping to counteract methane emissions from large-scale grazing.

### For more information:

- *Silvopasture: A Guide to Managing Grazing Animals, Forage Crops, and Trees in a Temperate Farm Ecosystem* by Steve Gabriel  
- The Savanna Institute conducts research, education and outreach to support the growth of diverse, perennial agroecosystems. Learn more at [savannainstitute.org](http://savannainstitute.org)



### Tree Species for a Silvopasture

- Leaf Fodder** (palatable and nutritional leaves for livestock)
- Mulberry (high protein and digestibility)
  - Willow (antiparasitic, protein, coppice)
- Other suitable species: Linden, Hazelnut, Elm, Yellow Birch
- Mast** (fruit, nuts and seeds for livestock)
- Oak and other shade trees
  - Chestnut, Walnut, Hickory and other nuts
  - Apple, Pear and other fruit trees



## More Shade Trees

**Quercus Oak** Many oaks are native to New England. They are generally divided into two groups: the reds and the whites. The reds have pointier leaves and the whites have rounder ones. Most of them make absolutely breathtaking shade trees, creating a major presence in almost any landscape and providing bountiful forage for wildlife and for humans. The strongly astringent inner bark, foliage and acorn caps are all medicinal, and acorns were an extremely important human food source for thousands of years.

Contrary to much of the literature, all acorns are edible, both reds and whites. (For instructions on acorn processing, see Samuel Thayer's book *Nature's Garden*.) The tannins from a handful of oak leaves added to homemade half-sours will keep pickles crisp for months. These oaks are all native to eastern North America. **Oaks are monoecious so you need only one to get acorns.** (1-3')

**Q. alba White Oak** 50-80' x same. Spectacular broad irregularly rounded oak with low-lying branches that stretch out horizontally from the trunk, sometimes as far as 50'. Bark is finely grooved and etched. Wood is valued for lumber and firewood. Once common along the Maine coast, it was almost entirely stripped for boat-building lumber more than a century ago. Some extremely fine specimens in Maine grow on Swan Island in the Kennebec River. Soil adaptable, though prefers deep moist well-drained acid conditions, full sun. Thrives where fallen leaves can be left around the base; avoid soil compaction, even foot traffic. Disease and insect resistant, drought tolerant. Slow growing and extremely long-lived. Z3.

**442A White Oak, \$21.00**

**Q. bicolor Swamp White Oak** 50-60' x same. Also called **Bicolor Oak**. A massive rounded shade tree with a short deeply ridged trunk and a fan of branches, the uppermost ascending and the lower drooping. The contrast between the light grey bark and the dark trunk fissures is particularly striking. Called Swamp White in recognition of its affinity for the wild low wetlands that once peppered eastern North America before the days of the parking lot and the Big Box. Called Bicolor because its large thick leathery lobed leaves have a glossy dark green upper surface and a white to greyish-green hairy felty underside. Its large 1 1/2" sweet acorns are highly attractive to wildlife, particularly waterfowl, sapsuckers and squirrels. Its yellow to reddish-purple fall foliage persists until spring. Prefers moist acid soils where drainage is poor, but exhibits excellent drought resistance as well. Very fast growing once established. Z3.

**443A Swamp White Oak, \$21.00**

**Q. macrocarpa Bur Oak** 70-80' x same. Hardest of the white oaks with a deeply grooved massive trunk and a wide-spreading crown of huge branches. Small branches are distinctively corky, winged and tend to twist and kink. The habit is upright and somewhat vase-shaped. Lustrous dark green foliage and large 1-2" acorns, each almost entirely enclosed in a fringed cup. These are edible and low in tannic acid; when roasted they reportedly make a decent coffee substitute. The most urban-tolerant oak. Fairly fast growing. Needs full sun but adaptable to a wide range of soil types including clay. Z3.

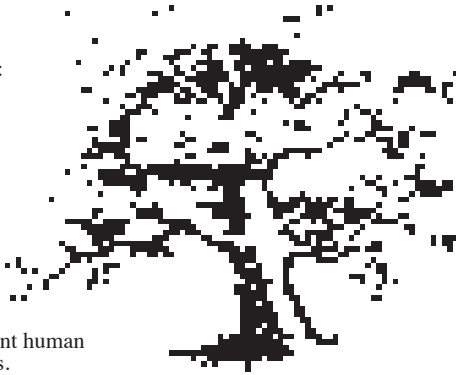
**444A Bur Oak, \$21.00**

**Q. palustris Northern Pin Oak** 50-70' x 40-60' Fast-growing oak of the red oak family. The acorns are smaller than those of the red oak and the leaves have deeper sinuses. Deep glossy green foliage turns scarlet red in fall. Pyramidal form when younger becomes open and rounded in maturity. Smooth bark develops ridges with age. Found in the wild growing in swampy areas or on the edge of ponds—*palustris* means 'marsh loving.' Prefers full sun. Tolerates a wide variety of soil conditions from sandy well-drained, to wet clay, and even seasonal flooding. Z4.

**445A Northern Pin Oak, \$18.00**

**Q. rubra Northern Red Oak** 60-75' x 45' The most common oak in northern New England. Typically a single large trunk dividing into several large ascending spreading branches. While the branches are not as massive as some of the other oaks, its open rounded crown is magnificent. The trunk is a deep grey textured web of surfaces overlaid one upon another. Sharply toothed foliage turns orange-tan during apple season. Fast growing, up to 2' per year. Prefers well-drained sandy slightly acid soils; red oaks we planted in shallow ledgy ground are thriving. Tolerates shade, compacted soil, salt, pollution and other urban conditions. Z4.

**446A Northern Red Oak, \$18.00**



**Salix pendulina f. salamonii 'Chrysocoma' Golden Weeping Willow** 50x50' (*S. babylonica* Babylon x *S. alba* Vitellana) Selected by Späth, Berlin, Germany, 1888. For years we listed this as *S. alba* 'Tristis' **Niobe Weeping Willow**. The classic weeping willow. A very large majestic graceful wide-spreading tree with golden drooping branches that hang to the ground and sweep in a breeze. Buzzes with life when May flowers attract loads of pollinating bees. Very fast growing and hardy, may shed lower branches as it grows. Light green leaves turn yellow in fall. Prefers full sun and moist to wet soils but tolerates a range. When young, treat like an apple tree and protect the trunk with mouse guards in winter. Keep grass away from the base to deter voles in summer. Don't plant near septic fields; roots can break into the tank. Native to southern Europe and western Asia. Z3. (1-3') (More willows on page 50.)

**447A Golden Weeping Willow, \$22.00**

**Tilia americana American Linden** 60-80' x same. Also known as **Basswood, Butterwood and Lime**. Tall stately long-lived tree with rounded crown and numerous low-hung spreading branches. Sweetly fragrant yellow June flowers will attract all the bees in the neighborhood, make the best honey, and also make a popular after-dinner tea and stomach remedy. Sprinkle them on your salad for a festive treat. The young half-size foliage makes a high-quality salad green. Excellent carving wood. Fibrous inner bark used for making cordage. Yellow fall color. Prefers deep rich moist soils. Full sun or partial shade. Sensitive to salt and pollution. Native from New Brunswick to Virginia. Z3. **ME Grown.** (2-4')

**448A American Linden, \$21.00**

**Ulmus americana 'Princeton' American Elm** 60x70' Princeton Nursery intro, 1922. Large fast-growing graceful native once lined virtually every street in New England but declined dramatically due to Dutch elm disease.

Fortunately, several disease-resistant cultivars have been introduced. Princeton has been a standard in the trade for almost a century, chosen for its high resistance to the disease. Good resistance to elm leaf beetles, too.

At maturity the trunk can be 4' (even up to 8'!) in diameter with an immense vase-shaped canopy. Long pendent branches blow and sway in a hazy breeze on hot summer days. One of the most wonderful shade trees for northern climates. We're infatuated with them. If you find yourself in Castine, ME, visit the huge old elms lining every street; you'll feel like you stepped back in time. Soil adaptable, prefers moist areas along rivers and streams but also grows well in drier places. Plant off the corners of a house and they'll provide all the shade you need. Salt and drought tolerant. Plant more elms! Z4. **ME Grown.** (2-4')

**450A Princeton American Elm, \$36.00**



## Conifers

**Abies balsamea Balsam Fir** 45-75' One of the most abundant of our native conifers. Narrow, conical, smooth-barked. Twigs, inner bark, needles and sap are all medicinal. Small "blisters" contain a transparent aromatic resin that has been traditionally used as an inhalant for headaches and congestion, and as a salve for cuts and arthritis. Needle tea is rich in vitamin C. The fragrant boughs are a favorite for wreaths; the needles used in scented pillows and potpourri. The best of all conifers for a Christmas tree! Prefers well-drained moist acid soil. Avoid polluted areas. Semi-shade tolerant, slow growing. Good hedge or specimen tree, songbird nesting area or rabbit thicket. Native from Labrador to northeastern U.S. Z3.

**Balsam Fir** (6-12")

**458A Balsam Fir, bundle of 5, \$25.00**

**Balsam Fir** (12-16") **ME Grown.**

**458B Balsam Fir, bundle of 5, \$40.00**

**Metasequoia glyptostroboides Dawn Redwood** 100' One of the most spectacular of the ornamental trees. The wide irregular trunk looks like something out of a fairy tale with its iridescent golden-orange bark that becomes deeply grooved, hollowed and fluted with age. The bright green deciduous needles turn orange in the fall. Grows quickly, up to 50' in 15-20 years, with many small-diameter horizontal branches and a uniform conical habit. Give it lots of space! Highly adaptable, easy to transplant. Prefers moist deep well-drained slightly acid soil and full sun. Will tolerate wet or dry sites. Pollution resistant. Good specimen or street tree; rarely needs pruning. Fossils dating back 50 million years have been found in Japan. Considered extinct until it was "rediscovered" in central China in 1941. Resembles California redwood only vaguely. Native to China and Japan. Z4. **ME Grown.** (1-3')

**459A Dawn Redwood, \$23.00**

**Picea abies Norway Spruce** 80-100' Fast-growing wide-spreading upright picturesque tree with graceful long pendulous branches that often reach the ground. Largest of the spruces. If you go to the Mt. Auburn Cemetery in Cambridge, MA, don't miss the ancient Norway spruce just inside the front gate. Several of its massive drooping branches have rooted and turned into secondary trunks. It is truly amazing. Orange-brown scaly bark. Excellent lumber. Showy 4-6" cones. Bright green foliage. Plant in full sun to part shade. Prefers loam but tolerates poorer soils better than other spruces. Native to northern Europe. Z2.

**Norway Spruce** (12-16")

**460A Norway Spruce, bundle of 5, \$35.00**

**Norway Spruce** (14-18") **ME Grown.**

**460B Norway Spruce, bundle of 5, \$40.00**

**P. glauca White Spruce** 60-80' Conifer native to boreal forests, subalpine regions and Acadian forests of North America ranging from Alaska to Newfoundland. Northernmost trees nearly reach the arctic and will withstand winter lows of -70°. Diameter of trunk reaches up to 2'. One of the best trees for wind blocks and privacy screens. Wood commonly used for lumber, pulp and paddles. Harvest bright green spruce tips in late May to early June and process into citrusy sugar, syrup, vinegar or cordials. High in vitamin C. Adaptable and tolerant to wind, drought and cold. Full sun. Z2. Both sizes are **ME Grown.**

**White Spruce** (10-14")

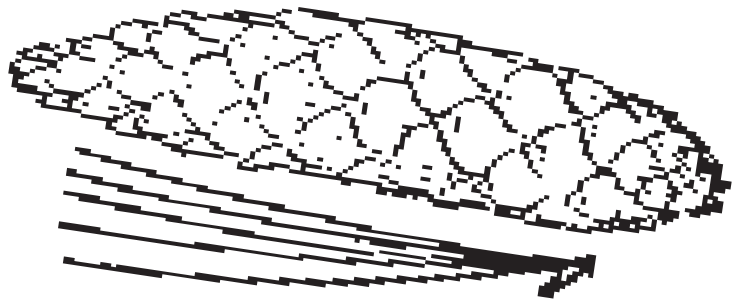
**461A White Spruce, bundle of 5, \$35.00**

**White Spruce** (12-18")

**461B White Spruce, bundle of 5, \$40.00**

**P. pungens var. glauca Colorado Blue Spruce** 30-60' Very popular specimen tree with frosty blue needles. Excellent for privacy screens, as it is fast growing after 3'. A beautiful stand of blue spruce is on Rt. 139 in Benton, just before you cross the Sebasticook River. Plant in full sun to part shade. Does not like wet soil. Extra spring nitrogen will improve blue color, which doesn't appear for the first few years. Native to western U.S. Z2. (18-30")

**462A Colorado Blue Spruce, bundle of 5, \$30.00**



**Pinus strobus Eastern White Pine** 100-130' or more. The largest northeastern conifer. Magnificent and massive when mature. Smooth greyish-green bark becomes thick, rough and deeply furrowed with age. A cup of pine needle tea has more vitamin C than a cup of orange juice; Native Americans showed early white explorers how to brew it and stave off scurvy. The resin has numerous practical and medicinal applications. Excellent wood with a thousand uses. Grown in the forest it will typically be "clear" (no lateral branches) for the first 30-80'. Planted thickly and sheared, it makes a beautiful hedge that won't drop its lower branches. Likes ordinary to poor—even sandy—soil. Shade tolerant, but does not like salt or roadsides. Fast growing. Native to eastern U.S. Z3. **ME Grown.** (12-18")

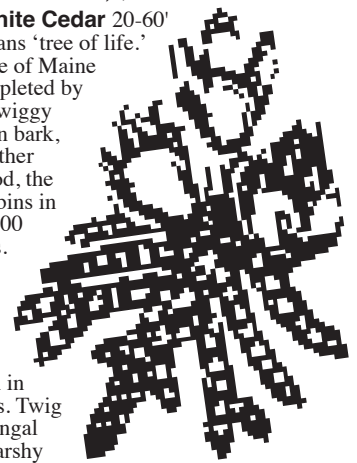
**463A Eastern White Pine, bundle of 5, \$40.00**

**Thuja occidentalis Eastern White Cedar** 20-60'

Also called **Arborvitae**, which means 'tree of life.'

Common throughout the entire state of Maine although some stands have been depleted by overcutting. Narrow and tall with twiggy branches, soft fibrous orange-brown bark, and flat foliage unlike that of any other conifer. Valuable light fragrant wood, the standard for fence posts and log cabins in Maine. Slow growing, lives up to 400 years. Good for screens and hedges. A favorite browse of deer. Pruning limbs and leaving them on the ground during a harsh winter helps sustain these animals and is a long-practiced tradition in the forests of Maine. Foliage and bark tea is high in vitamin C and helps fight infections. Twig decoction makes an antiviral antifungal skin wash. Thrives in rich moist marshy neutral-to-alkaline soils. Z2. (18-24")

**464A Eastern White Cedar, bundle of 5, \$35.00**



**Agri-gel** A hydrogel formulation that absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, nontoxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with 1 to 3 gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. Not allowed for organic certification. 1/2 oz.

**L600A Agri-gel, \$4.00**



### Growing Conifers

**Soil:** Tolerate a wide range of soil conditions; most prefer slight acidity.

**Sun:** Most tolerate some shade.

**Planting:** If you are planting in dry or well-drained areas, dip tree roots in a solution of Agri-gel before planting to protect roots from drying out. Do not *soak* conifers in the Agri-gel solution; a good dipping is sufficient.

It is better to prune the roots than to crowd them in the hole; you can shear back roots by about a third of their length. Dig a small hole or make an incision with a spade and slip the tree in to the level it grew in the nursery. Fan the roots out. Water well and pack the earth down with your feet to remove air pockets.

Periodic deep watering is far more beneficial than frequent sprinkling. Fertilization is not necessary in the first year. In later years you may fertilize around the drip line.

**Pruning:** To make evergreens dense and compact, prune back the central leader and the center bud on the end of each side branch. Otherwise, leave them alone.

## Small Trees and Shrubs

As Green's Nursery catalog from 1904 explains, "There are many trees that by pruning can be made to resemble shrubs, and many shrubs that by different pruning may be made to produce medium-sized trees."

**Amelanchier laevis Allegheny Serviceberry** 15-25' The most common Amelanchier in Maine. Referred to as **Shad** or **Shadbush** by old-timers because the blossoms coincide with the spring shad run in certain Maine streams. The unique purplish-orange bronzed color of the unfolding leaves on this understory tree is a favorite spring sight. Pendulous white 5-petaled blossoms precede the young leaves and are followed by purplish-black sweet berries that ripen in midsummer. (For shrub Amelanchiers grown for fruit production, see page 27.) Taxonomy of Amelanchiers are a point of confusion in the nursery trade where common names and even botanical names are used interchangeably. Furthermore, they easily hybridize with each other in nature. Considered to be **self-fruitful**, but we recommend planting more than one to ensure pollination. Likes well-drained acid soils along the edge of fields, streams and roads. Native Midwest to eastern U.S. and Canada. Z2. **ME Grown**.

**Indigenous Royalties.** (1-3')

**468A Allegheny Serviceberry, \$18.75**

**Aronia spp. Chokeberry** Aronia has gotten a lot of press in recent years as a superfruit: it has wonderful medicinal qualities, works well in a range of culinary applications and is an important wildlife plant in the native landscape. Both red (*A. arbutifolia*) and black (*A. melanocarpa*) chokeberries are edible when cooked, but we emphasize the red for wildlife, while the black may be a better choice for medicine and food.

Black chokeberries are commercially cultivated for their high levels of antioxidants and myriad health benefits. Both species are small rounded shrubs with blueberry-sized fruit and electric-red fall foliage. Begins to bear fruit in its third year and increases to full yield around five years.

Ripens in late July or early August. If not harvested, the berries will hang on the bushes until songbirds eat them in late winter. Will form colonies, especially when planted in partial shade. Not particularly picky about where it grows: adaptable to moist or dry areas, sun or partial shade. Native to eastern U.S. **Self-fruitful.** Z3/4. (1-3')

**A. arbutifolia 'Brilliantissima' Red Chokeberry** 6-8' x 3-4' In *The Best of the Hardest*, John Sabuco calls red chokeberry "one of our finest native landscape shrubs." Upright multi-stemmed form. Dense clusters of small white flowers with red stamens. Birds love the abundant persistent glossy bright red fruit. With "brilliant" fall foliage, this plant is the best alternative to the invasive burning bush. **ME Grown.**

**469A Brilliantissima Red Chokeberry, \$18.75**

**A. a. Red Chokeberry Seedlings** 6-10' x 3-6' Same habit and form as Brilliantissima but each one is genetically unique. All produce stunning red fruit and fall foliage. Beautiful in mass plantings and borders. Plant several in a hedge and make the birds happy! **ME Grown.**

**470A Red Chokeberry Seedling, \$18.75**

**470B Red Chokeberry Seedling, bundle of 5, \$75.00**

**A. melanocarpa 'McKenzie' Black Chokeberry** 5-10' x same. Bismarck, ND, 2008. Cultivar selected for use in farm windbreaks and wildlife conservation plantings. Extremely hardy, they don't mind Z3 winters and wind. This medium-sized shrub fruits abundantly. The name comes from the North Dakota site where the original seedlings were planted in 1976 and still thrive today.

**471A McKenzie Black Chokeberry, \$18.75**

**A. m. Black Chokeberry Seedlings** 3-6' x same. Each one is genetically unique. Plant several for an attractive edible hedge for juice, jam and syrup production, or intermingle with perennials in a wildflower garden. Everything about this plant is lovely from spring foliage emergence, to flowering, to fall when the branches are pendulous with ripe fruit. Summer foliage stays glossy and bright, free of disease. **ME Grown.**

**472A Black Chokeberry Seedling, \$18.75**

**472B Black Chokeberry Seedling, bundle of 5, \$75.00**

**Calycanthus floridus Carolina Allspice** 6-10' x 6-12' Beautiful aromatic native shrub with unique 1" dark maroon flowers. Blooms as it breaks dormancy in April and May and continues flowering sporadically throughout the summer. Upright flowers resemble small magnolias with petals spiraling into similar-looking sepals, a characteristic of many primitive plants. Highly fragrant blooms reminiscent of pineapples and bananas. Interesting fig-like seedpods can hang on through the winter. Dirr considers it one of the great treasures of eastern North America, especially when allowed to grow into a large open specimen. Flowers on previous year's wood so best pruned in summer. Will become more vigorous and form colonies in warmer zones. Partial sun and moist rich soil. Native to stream edges and woodlands of southeastern U.S. Z5. (1-3')

**475A Carolina Allspice, \$19.25**

**Ceanothus americanus New Jersey Tea** 2-3' x same. Small compact shrub bearing white odorless 1-2" long flowers late June into July. Attracts a wide assortment of pollinators, and among award-winning horticulturist and author William Cullina's top 10 plants for butterfly gardens. The Coastal Maine Botanical Gardens in Boothbay has a stunning patch that fizzes with insects when in full bloom. Leaves were used as a tea substitute during the American Revolution and for medicine long before then by native peoples. The root bark is deep red and can be used for dyeing wool a cinnamon color. Grows in depleted infertile ground, especially dry acidic conditions. Deep vigorous roots fix atmospheric nitrogen and make it a great candidate for stabilizing sandy slopes. Full to partial sun. Native to North America. Z4. **ME Grown.** (1-3')

**476A New Jersey Tea, \$19.25**

**Cephalanthus occidentalis Buttonbush**

6-10' x 8' Loose rounded branchy shrub with masses of unusual spherical fragrant white flowers that appear for 4-6 weeks in summer—a magnet for every honeybee around. These highly ornamental blooms the size of ping-pong balls do well in dried flower arrangements. The seeds (nutlets) make good duck fodder in the fall. Bright green foliage. Often found in masses along the shores of New England's rivers and ponds but also suitable for well-drained soil. Recommended in hedges for naturalizing. Native from eastern U.S. to New Mexico. Z4. **ME Grown.** (1-3')

**477A Buttonbush, \$19.25**

**Cercis canadensis Redbud** 25-30' x same. Small vase-shaped multi-stemmed tree is highly ornamental with edible flowers and seeds. In early spring, clusters of small brilliant purplish-pink pea-like flowers are so abundant they fill the entire tree, dotting the branches and even coming right out of the trunk. Nitrogen-fixing tree is valuable as an early-season nectar plant for bees. Host to the Henry's Elfin butterfly. Large heart-shaped leaves emerge opaque pink, mature to deep green and turn yellow in fall. Smooth dark bark becomes plated and brick-red with purple undertones. Sun or partial shade. Soil adaptable, tolerates clay and juglone from black walnut. Fine as a specimen tree or in groups. Native to central and eastern U.S. and may not reach full maturity size in northern areas. Z4/5. (2-4')

**478A Redbud, \$21.00**

**Clethra alnifolia 'Ruby Spice' Summersweet** 4-5' x same. Sport of 'Pink Spires', Broken Arrow Nursery, Hamden, CT, 1992. Also

known as **Sweet Pepperbush**. Red buds and beautiful spires of heavenly scented deep-pink flowers appear on racemes for six weeks in midsummer. Bees and butterflies love it. Whorls of extremely attractive finely serrated distinctly veined glossy dark green foliage turn deep gold in fall. Dangling racemes of "black peppercorns" persist into the next growing season. Erect oval habit, often suckering to form dense colonies. Slow growing. Prefers acid moist well-drained soils. A good shrub to border streams and ponds. Will tolerate salty coastal conditions. Full sun to shade. Easy to grow. Species native Maine to Florida. Z3. (plugs)

**479A Ruby Spice Summersweet, \$18.50**

## Cultivars and varieties

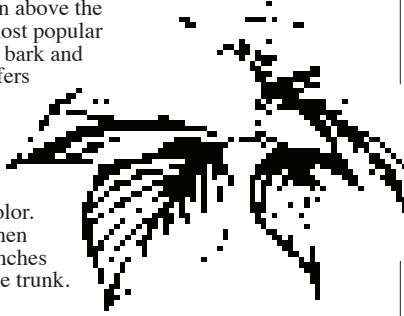
Cultivar is short for 'cultivated variety.' A **cultivar** is a plant that has been bred; it does not occur naturally in the wild.

A **variety** is a plant that occurs naturally in the wild, is chosen for commercial propagation and maintains its genetic characteristics.

In the nursery trade, the terms 'cultivar' and 'variety' are mistakenly used interchangeably. We do it, too. Both cultivar and variety names follow the botanical name (*Genus species*) and are enclosed in single quotes.

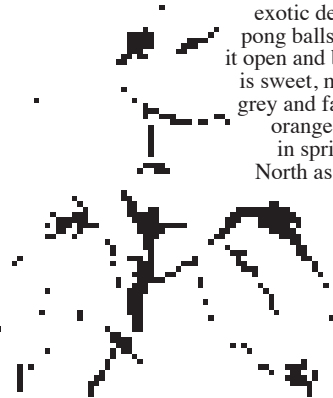
In the tree and shrub world, most cultivars and varieties are propagated clonally by cuttings or grafting. When there is no variety or cultivar name after the botanical name, the plant is most likely grown from seed. We often refer to these as "the straight species" of a plant, or as **seedlings**.

**Cornus alternifolia Pagoda Dogwood** 20' x 30-35' Also known as **Alternate-Leaved Dogwood**. Small tree or large multi-stemmed shrub, particularly beautiful with its tiers of horizontal branches and fragrant white 2-3" flower clusters. These appear in mid-late spring followed by immature olive-green berries, each tipped with a tiny bright yellow style remnant. In midsummer clusters of dark blue berries ripen above the blue-green foliage. One of the most popular dogwoods with the birds. Roots, bark and inner bark are all medicinal. Prefers partial shade and moist well-drained acid soil, but tolerates full sun, poor soil and even clay. pH adaptable. Excellent naturalized as a specimen or in groups. Reddish-purple fall color. Susceptible to golden canker: when dormant, prune out diseased branches to prevent spores spreading to the trunk. Native to eastern U.S. Z3. (1-3')



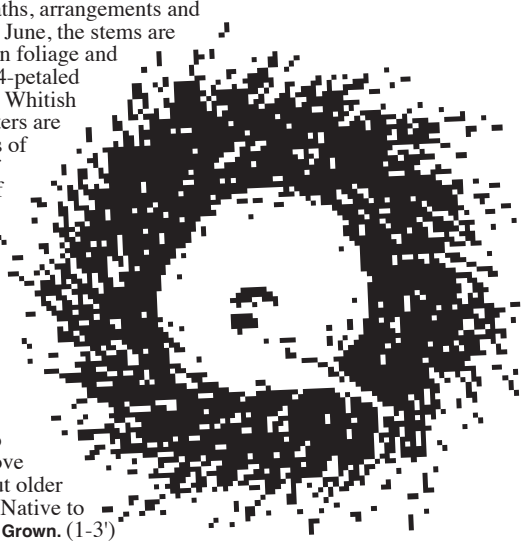
**480A Pagoda Dogwood, \$20.50**

**C. kousa var. chinensis Kousa Dogwood Seedling** 20-30' x same. Also referred to as **Chinese Dogwood**. Introduced by EH Wilson, Hubei, China, 1907. Horizontally spreading small specimen tree or large shrub covered with layers of 3-5" milky-white blossoms for up to 6 weeks in early summer. The pointed bracts give blossoms a starlike appearance followed by exotic deep pink edible fruit the size of ping-pong balls. Peel off the skin or simply squeeze it open and bite into the custardy pulp. The flesh is sweet, mild and reminds us of pawpaw. Tan, grey and faint orange exfoliating bark. Scarlet-orange-yellow fall foliage emerges maroon in spring before turning green. Used in the North as an alternative to the iconic southern dogwood tree, *C. florida*. Resistant to dogwood anthracnose and borer. Prefers light well-drained soils with an abundance of air and sun, but it'll tolerate shade and damper areas. Very adaptable. Native to China and Japan. Z4. (1-3')



**481A Kousa Dogwood, \$18.50**

**C. sericea Redosier Dogwood** 8-10' Formerly called *C. stolonifera*. Bright red stems are a favorite sight from late fall through early spring, before the foliage emerges. Broad loosely rounded multi-stemmed shrub spreads freely by stolons (underground stems) and forms excellent hedges and borders. Most admirable in the winter when the masses of brilliant stems contrast a backdrop of freshly fallen snow. Bring them inside and enjoy them for wreaths, arrangements and basket-weaving. By June, the stems are hidden by dark green foliage and sprinkled with tiny 4-petaled star-shaped flowers. Whitish berries in 2-3" clusters are popular with dozens of bird species. One of the most valuable of our native wildlife plants. Perfect for swamps, streams and wetlands. Very adaptable to a range of soils and climates, but generally likes wet conditions. Sun or partial shade. Fast growing and easy to transplant. To improve stem color, prune out older stems in the spring. Native to eastern U.S. Z2. **ME Grown.** (1-3')



**482A Redosier Dogwood, \$18.75**

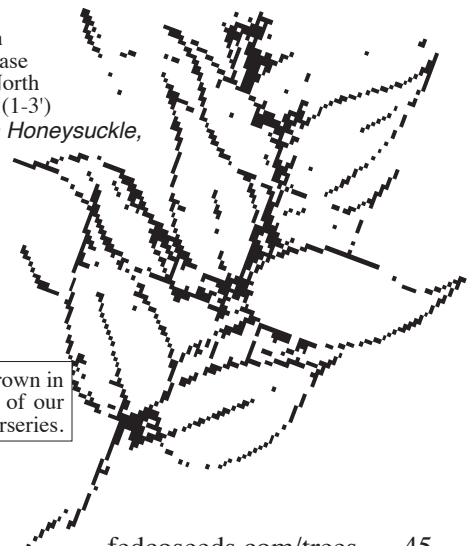
**482B Redosier Dogwood, bundle of 5, \$80.00**

**Cotinus obovatus American Smoketree** 20-30' x same. Also called **Smoke Tree** and **Chittamwood**. Rare and exquisite. (Not to be confused with Smokebush, *C. coggryia*.) Large oval leaves emerge yellow, orange, amber, red and purple, are upright and filter the sun like stained glass. They relax and turn bluish-green as they mature, then put on another color show in fall. Female plants bear 6-10" panicles of tiny yellow-green flowers in early June. As they fade, fuzzy light pink "hairs" emerge and persist all summer, giving the tree a hazy smoky misty quality. These plumes are more subtle than the non-native Smokebush, but the foliage is the real eye-catcher here. Finches love the seeds. Scaly interesting bark. Thought to be a relic tree from 25 million years ago, it almost went extinct during the mid-19th c. when the wood was overharvested for fence posts, tool handles and orange fabric dye. Allow it to grow several trunks or prune to a single specimen. Tolerates most soils but prefers well-drained infertile ground. Full sun to partial shade. These are unsexed seedlings, so **plant several for seed production**. Native to North America. Z4/5. **ME Grown.** (1-3')

**485A American Smoketree, \$21.75**

**Diervilla lonicera Northern Bush Honeysuckle** 2-4' x 2-5' Also called **Dwarf Bush Honeysuckle**. Don't be fooled by the common name: it isn't really a honeysuckle. Long pointed lustrous dark green leaves emerge with a hint of bronze. Five little bright yellow petals on each tubular flower curl open and away, an invitation to insects, hummingbirds, butterflies and garden tourists. A favorite of the bumblebee. Clusters of flowers form in the axils of new growth. Extended-season bloomer. Excellent for erosion control or mass planting. Full sun to light shade. Tolerates even the poorest soils, but if you want it to naturalize, give it rich moist soil. Pest and disease free. Native to eastern North America. Z3. **ME Grown.** (1-3')

**487A Northern Bush Honeysuckle, \$18.75**



**ME Grown = grown in Maine at one of our small local nurseries.**

### Pruning Flowering Shrubs

#### • Summer-Flowering Shrubs

should be pruned in late winter or early spring, before the new wood begins to grow. These shrubs blossom on the new wood they produce in the spring.



• **Spring-Flowering Shrubs** form flower buds in the summer, after they are finished blooming. Prune them immediately after their bloom is over. If you wait and prune them in the winter or following spring, you will likely remove many flowering buds.

• A common error is to prune or shear shrubs straight across the top. This encourages top-growth and the lower part of the shrub becomes woody and unsightly with less foliage. Proper pruning promotes growth at the base of the shrub.



• Observe your plants and see what they need. Some trees and shrubs benefit from aggressive pruning each year and might even respond well to being cut all the way back to the ground; others will respond by delaying fruit or blossom. Some plants thrive with little or no pruning.

• Overgrown shrubs with little foliage near the base may be rejuvenated by cutting canes down to the ground in early March, even though early blooms may be sacrificed that year. They will send forth new shoots in late spring and will be bushy with foliage clear to the ground. Pinch off tops when the desired height is attained. It usually takes two to three years to rejuvenate shrubs and hedges completely.



**Forsythia x ovata 'Northern Gold'** Forsythia 6-8' x 5-7' Bred by Felicitas Svejda, Ottawa, Canada, 1979. One of the earliest forsythia cultivars to flower in spring. Upright form with yellow-grey branches clad in healthy rich green foliage. Northern Gold has not only the bud hardiness necessary for flower production above the snow line, but also outstanding golden-yellow flowers. You can have a full bloom every year! Prefers full sun and moderately fertile, slightly acid to neutral soils with good drainage. We cut our first bouquet of the year when we harvest the dormant branches for forcing inside mid-February. Bred from *F. ovata*, a hardy dependably blooming species native to Asia and Europe. Z3. (1-3')

**489A Northern Gold Forsythia, \$20.00**

### Fedco's Propagation Program Grows!

At Fedco Trees, we place high value on propagating from plants we live with and know well, and from wild plants representing our local ecotype. Many of the plants we offer begin from seeds, scions and cuttings we collect from healthy local specimens and then germinate or root to be grown out using best practices on one of the small-scale regional farms we contract with.

Propagation and growing are two separate steps to get plants from their source to you, and not all growers are propagators. Many plants, shrubs in particular, can be difficult to get started. For years Western Maine Nursery had a wonderful propagator who could root anything and deliver baby plants to our local growers to raise in their nurseries for our catalog. When WMN shut down, they left a hole.

In response, we've shifted gears to put more resources toward building up our local propagation program, with the long-term goal of propagating all our plants from our own germplasm. Germplasm can be thought of as our mother plants, or stock plants, whose seeds, scions and cuttings we use to propagate our nursery crops.

To expand our local germplasm, we've grafted hundreds of varieties of fruits into our orchards, and planted seedlings and cultivars of many species into our gardens and landscapes. We've developed maps of favorite wild specimens and dooryard trees around the state and in pockets of New England, from which we collect seeds and cuttings. By maintaining and expanding our local germplasm, we get to know these plants through the seasons, learn about the pests and diseases that may plague them, and observe their hardiness.

The added benefit of this program is that it allows us to become more self-sufficient. For example, we graft our entire fruit-tree line onto excellent rootstock that comes from farms in Oregon's Willamette Valley. We love these farms and they are experts at this particular crop. However, we never know when climate crisis or shipping-route disruption could cut off this supply. In recent years, we've had a few close calls. For this reason, we have begun to experiment with growing our own rootstock for grafted fruit trees from hardy seedlings of Borowinka apple, *Prunus americana* and Lovell peach, among others. It's tough work, but we're going for it. Look for some of these grafts in our 2025 catalog!

To support our propagation program, we are also working toward improved facilities, like mist tents and chambers for rooting cuttings, hot callus pipes for grafting finicky species, and improved cold storage for overwintering delicate seedlings.

Next year, look for more detailed messaging on our plant sources. Thanks for supporting our work. Every plant you buy furthers the cause!

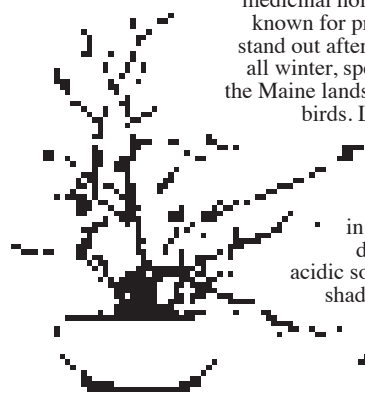
A selection of pruning tools and books are available from our **Seeds & Supplies catalog** and through our Organic Growers Supply website: [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs)



**Hamamelis virginiana Witch Hazel** 8-20' x same. A small irregular rounded fall-flowering medicinal tree or large shrub. Quirky 2/3" yellow flowers appear in early to mid-November. Oval hazel-like textured foliage turns brilliant golden-yellow in fall. Makes a soothing astringent with a seemingly endless number of uses from controlling acne to soothing diaper rash, poison ivy, chicken pox and browntail moth rashes. Most preparations involve simply brewing tea from the leaves and/or twigs. "Witch" is said to refer to the odd flowering time or maybe it's because dowsers like to use the interesting forked branches to "witch" for water. Full sun or shade. Prefers moist acid soils; avoid dry spots. No pests or diseases, does well with very little care. We do nothing to ours and it looks better and better every year. Native Canada to Georgia. Z3. (1-3')

**490A Witch Hazel, \$20.00**

**Ilex verticillata Winterberry Seedling** Also called **Black Alder, Fever Bush, Possumhaw, Swamp Holly** and more. Deciduous suckering medicinal holly with clusters of upright stems. Best known for profusions of bright red 3/8" berries that stand out after the leaves fall—they keep their color all winter, spectacular against the snow. A staple of the Maine landscape, providing late-spring forage for birds. Lustrous deep green leaves retain their color long after they're cut for decoration. Richly foliated, but open enough to display interesting branch structure. Tiny white flowers in mid-July attract pollinators. Tolerates dry conditions but prefers moist or wet acidic soil, even standing water. Sun or partial shade. No serious pests. **Male and female plants required for fruit**, which is produced on female plants. These are unsexed seedlings, so **plant several for berries**. Native



from Midwestern to eastern U.S. Z4. **ME Grown.** (1-3')

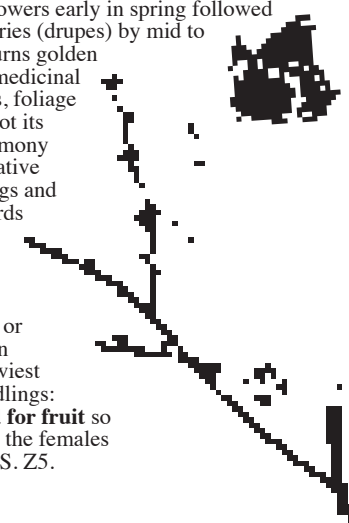
**491A Winterberry Seedling, \$20.00**

**491B Winterberry Seedling, bundle of 5, \$85.00**

**Lindera benzoin Spicebush** 6-12' x 8-12' Large rounded multi-stemmed native shrub suited to naturalizing in moist or wet areas, singly or in groups. Soft-yellow flowers early in spring followed by small clusters of glossy red berries (drupes) by mid to late summer. Blue-green foliage turns golden yellow in fall. Edible berries and medicinal twigs and bark. Scratch the berries, foliage or stems and you'll know how it got its name: all three have a delicious lemony spicy scent and can be used as a native alternative to allspice. Leaves, twigs and fruit used in teas. Attracts bees, birds and butterflies, particularly the strange and dynamic Spicebush Swallowtail (*Papilio troilus*) larva with its stunning false eye spots. Prefers moist well-drained neutral or slightly acidic soils. Often found in full or partial shade, but at its showiest in full sun. These are unsexed seedlings: **male and female plants required for fruit** so plant several for best results. Only the females bear red fruit. Native to eastern U.S. Z5.

**ME Grown.** (1-3')

**492A Spicebush, \$20.50**



**Morus alba x M. rubra 'Illinois Everbearing' Mulberry** 30x20'  
 White County, IL, 1947. Sweet flavorful purple-black 1" blackberry-like fruit is delicious fresh, in sauces, pies, fruit leather or smoothies. What fruit you don't pick, the birds will. Great tree for viewing a huge variety of birds up close. Plant it next to the chicken pen where it will rain chicken feed into the yard for several weeks, or put down a sheet to collect the fruit as it falls. Dense round-topped tree is one of the last to leaf out in the spring and one of the first to set fruit. Ripens in mid-July and continues for several weeks into late summer or longer. Aaron Parker of Edgewood Nursery in Falmouth, ME, had fruit on his tree into October! Fast growing, even in poor soils. Prefers moist well-drained soils but otherwise adaptable. Full sun to partial shade; withstands pollution, drought, wind and salt. **Self-fruitful** grafted cultivar, so only one plant required for fruit. Z4/5. (3-6')

**494A Illinois Everbearing Mulberry, \$44.00**

**Myrica pensylvanica Bayberry** 5-10' x same. A common sight along Maine's rocky shores. Glossy leaves are highly aromatic, although not to be confused with the Mediterranean bay leaf in your spice collection. Small greyish-blue waxy fragrant berries were historically used for making candles. Non-showy flowers appear in late spring followed by fruit production along the stems of female plants during summer into late fall. Plants feed numerous wildlife species and are especially craved by swallows. Rounded deciduous semi-evergreen very salt-tolerant shrub thrives in full sun to partial shade, sandy poor soils to heavy clay soils. Excellent en masse or in hedges, tends to sucker. Fixes nitrogen. Tends toward being dioecious: male and female plants required for good fruit development. Unsexed plants; **plant several if you desire berries.** Native to eastern U.S. Z2. (1-3')

**500A Bayberry, \$18.75**

**Philadelphus lewisii 'Blizzard' Mockorange** 4-5' x 3-4'  
 COPF intro, Alberta, Canada. Medium-sized coarse upright loosely arching ornamental blooming shrub. A "blizzard" of sweet citrusy fragrance from pure white slightly cupped 4-petaled blossoms for up to four weeks in late spring, after the lilacs fade. A spray of golden yellow anthers attractive to bees and butterflies accents each flower. Species was named after Meriwether Lewis who noted it in 1806 during the Lewis and Clark Expedition. Prefers moist rich well-drained soils but will grow well in most conditions. Full sun to partial shade. Since blossoms form on prior year's growth, best to prune after flowering. Similar to old-fashioned European *P. coronarius*, but this species is native to North America. William Cullina, plant curator at the Coastal Maine Botanical Gardens, calls it "our most ornamental *Philadelphus* species." Z3. (1-3')

**501A Blizzard Mockorange, \$17.00**

**Prunus glandulosa 'Rosea Plena' Dwarf Flowering Almond** 5-6' x 3-4' Abundant pink double flowers in late April when little else is blooming. This arresting little shrub, an old standard in the trade, has made a big impression on us and we've fallen head over heels for it. Branches are nearly covered with the 1/2" blooms ranging all shades of pink and loaded with petals that look like layers of petticoats. Pointy lanceolate leaves are light green and contrast beautifully against the maroon stems of first-year wood, extending its interest into summer after the curtain closes on act one. Prune after flowering to shape and for better blooms the following year, or do nothing. Rich loamy soil, full sun to partial shade. May sucker and naturalize, but the one in our garden is keeping to itself. Native to China and Japan. Z4. (1-3')

**502A Dwarf Flowering Almond, \$17.00**

**P. maritima Beach Plum** 6' x 5-6' Rounded dense suckering shrub found along ocean beaches, New Brunswick to the Carolinas. In spring beautiful showy white blooms cover the dark branches. Purplish-red (or occasionally orange-yellow in some specimens) 1/2-1" fruit in late summer. Excellent jams, sauces and especially jelly. Easier to grow than dessert and culinary plums and some seedlings have surprisingly good fruit for fresh eating. Although typically found growing naturally in poor sandy soils, the plants thrive in well-drained fertile soils with a pH of 6-6.5. Additional fertilization will increase productivity. We suggest an annual 5-gallon bucket or two of compost per plant. Prune to maintain an open center for good light penetration, or train as more of a single-stemmed dwarf tree. Plant about 5' apart. Pollination requirements are uncertain — **we recommend planting at least two for good fruiting.** Salt tolerant! Native to eastern North America. Z3. (1-3')

**503A Beach Plum, \$19.00**

**P. tomentosa Nanking Cherry** 6-10' x same. Broad dense fruiting shrub, becoming open and attractively irregular. One of the earliest flowering fruits every spring. Pink buds open to masses of fragrant white 3/4" flowers. Deeply veined light green foliage with very fine fuzz (tomentum) lining each vein underneath. Excellent hedge plant: an edible landscape crop that produces a lot of tasty fruit! Variable 3/4" fruit in early summer ranges in flavor from mild to tart and in color from scarlet to clear red to pink and sometimes even white. Eat fresh or frozen. Excellent jelly and fruit leather. Covering plants with netting will deter birds from robbing your crop. Prefers full sun in well-drained soil. **Plant two or more for pollination.** Susceptible to brown rot. Native to China and Japan. Z3. (1-3')

**504A Nanking Cherry, \$19.00**

**Rhus aromatica Fragrant Sumac** 5-6' x 6-8' Glossy blue-green trifoliate leaves emit a pleasing aroma when crushed: maybe lemony or musky but also a tad minty. Phenomenal fall colors when leaves turn orange to brilliant scarlet. Throughout summer, young leaves emerge reddish-pink, older leaves mellow into a deep green, and teenage leaves are lighter green, creating a lovely display. Beautiful small bright yellow flowers in spring draw in butterflies. Small red fuzzy fruit clusters on females attract birds. Low irregular form will sucker from the roots, and branches touching the ground will root themselves to quickly produce a colony; useful in erosion control on banks or hillsides. Dioecious: these are unsexed plants; **multiples needed for fruit.** Easy to transplant, adaptable, prefers acid soil, sun to partial shade. Native to eastern U.S. Z3. (1-3')

**505A Fragrant Sumac, \$19.00**

### Special Plants for Challenging Locations

Drought Tolerant:	Wet Tolerant:	Shade:
Amelanchier	Amelanchier	Dogwood
Bearberry	Birch	Balsam Fir
Carolina Allspice	Highbush Blueberry	Geranium
Catmint	Buttonbush	Wild Ginger
Chokeberry	Eastern White Cedar	Hazelnut
Chestnut	Chokeberry	Hops
Dawn Redwood	American Cranberry	Hosta
Elm	Dawn Redwood	Jack-in-the-Pulpit
Erica	Dogwood	Lady's Mantle
Grape	Elderberry	White Pine
Heather	Elm	Pulmonaria
Hens & Chicks	Ferns	Spicebush
Honeylocust	Blue Flag Iris	Summersweet
Huckleberry	Marshmallow	Viburnum
Lavender	Swamp Milkweed	Wintergreen
Lilac	Northern Wild Raisin	Witch Hazel
Lingonberry	Spicebush	
Nannyberry	Steeplebush	
Beach Plum	Sweetflag	
Rosa rugosa hybrids	Trollius	
American Smokebush	Willows	
Spruce	Winterberry	
Fragrant Sumac	Witch Hazel	

## Rosa spp.

For millennia, roses have beguiled humans. The first cultivation of these flowers dates back more than 5000 years in China. Fossil records suggest that roses may have been around for more than 30 million years. Regarded as the ultimate icon of love, grace, beauty and elegance, roses continue to be the subject of art and poetry across the world.

Leaves, petals, hips and roots all have medicinal properties. Rose hips (fruits) are rich in vitamin C and make a wonderful "rose apple" jam; rose-petal elixir calms the nerves and lifts the spirit.

Each year, we aim to offer a diverse selection of unusual and antique varieties. Unlike hybrid tea roses, these roses are all vigorous, cold hardy and on their own roots. The antique varieties grow slowly compared to newer hybrids and tend to be more difficult to propagate. You may notice when you receive your order that some of these roses have small root systems and little top growth. Don't be alarmed by this—it's just the nature of these old varieties. We can attest that they perform just as well as the others. If roots are tangled, cut them back to 6" or so and spread them out in the planting hole.

Roses are native to temperate regions throughout the world. (9-18")

**R. alba 'Chloris'** 6-8' x 4-6' *R. alba* hybrid, pre-1820. Exact parentage unknown but believed to include *R. damascena*, *R. canina*, *R. corymbifera* and *R. gallica*. Thornless and fragrant, with double flowers that look ruffled from afar. Outer edges of petals are almost white and unfurl out of a tightly folded medium-pink center that is so scrumptious it's hard to look away. Every stage of this blossom is heartachingly lovely. The hardest thornless rose that connoisseur Bob Osborne knows. One of the main types grown for essential oil in Bulgaria for export to the perfume industry in France. Strong upright habit. Z4.

**508A Chloris Rose, \$23.50**

**R. 'Canadian Shield'** 4-5' x 3-4' *R. floribunda* complex hybrid (RSMY8 x Frontenac) Dyck intro, Vineland Res Stn, Ontario, 2017. Collaboration between Vineland Research Station and the Canadian Nursery Landscape Association has led to an extremely hardy true deep red rose that has northern rose lovers talking. Mildly fragrant 3" double blooms hold their color through full blossom. Continuous flushes of blooms midsummer till frost. Deep green glossy foliage is highly resistant to black spot and powdery mildew, even late into the season. Upright form. First rose in the 49th Parallel Collection released after decades of breeding. Canada Blooms' 2017 Plant of the Year. Z3.

**509A Canadian Shield Rose, \$23.50**

**R. 'Chinook Sunrise'** 4-6' x same. Complex hybrid. Vineland Res Stn, Ontario, 2019. An exquisite multicolored rose from Canada's 49th Parallel Series. From June until frost, apricot buds open to semi-double 2-3" blossoms with coral-pink center petals, lighter apricot-pink outer petals and yellow centers, all fading to soft pink at blossom's end. The tropical coral is reminiscent of the underside of a conch shell. Glossy deep green leaves are black-spot resistant. Low-maintenance non-suckering shrub rose. If you only have space for one rose, this might be the one. Z4, maybe Z3. **Indigenous Royalties.**

**510A Chinook Sunrise Rose, \$23.50**



**R. 'Emily Carr'** 4-7' x same. Complex cross derived from Cuthbert Grant. Collicutt intro, Canadian Artist Series, AAFC, Morden Stn, 2007. If you're looking for the classic red shrub rose, seek no further. Scarlet semi-double 3" faintly fragrant flowers bloom nonstop spring until fall, for about 10 weeks. New shoots emerge yellow-green and in fall green foliage turns golden and then red. Upright bushy habit. Disease resistant. Named for famous Canadian painter Emily Carr, who used her work to celebrate and draw awareness to the indigenous communities of the Pacific Northwest. Z3.

**511A Emily Carr Rose, \$23.50**

**R. 'Morden 6910'** 6-8' x 3-4' Complex hybrid, bred by Bert Harp at the Morden Res and Dev Center, Manitoba, 1969. A true red rose. Dark red single blossoms cover the tall shrub in late June. Caught our eye this early summer as one of the most sublime hardy reds we've ever seen. Warning: If you are afflicted by Stendhal syndrome, you may want to avoid this one. Before the bloom is fully open to reveal its shockingly golden stamens, it has the loveliest shape, reminiscent of a tea rose. Mildly fragrant. Not a repeat bloomer but a vigorous grower that could be used as a climber. Breeding records were closely guarded, so this one remains without a proper name. Z3.

**512A Morden 6910 Rose, \$23.50**

**R. 'Stanwell Perpetual'** 4-6' x same. *R. damascena bifera* x *R. pimpinellifolia*. Lee, UK, 1838. Chance seedling purportedly found growing in a hedge in Stanwell, England, alongside some ancient rose genetics. Extremely double (quartered) fragrant soft blush-pink blooms adorn long arching canes and bloom over an extended season. If you are drawn to Maiden's Blush, you will love this one, too. Foliage has a discoloration that is not particularly attractive to some but is a side note next to this rose's nearly unparalleled beauty. Z3.

**513A Stanwell Perpetual Rose, \$23.50**

**R. gallica 'Charles de Mills'** 5x5' Parentage unknown. Likely originated in the Netherlands and named in France in the 17th c. Classic old garden rose with large strongly aromatic deep magenta-pink, perhaps purplish-red, flowers—it's hard to say where one color ends and another begins. Very double blossom opens flat like a saucer with petals divided into distinct "quarters," as though it was sheared. It is exquisite, and easily one of the most jaw-dropping in all of our rose trials. Petals hold on in bouquets. Robust, hardy, suckering and easy to grow. Roundish symmetrical form.

Deep glossy green foliage is moderately resistant to black spot and other foliar diseases when given sufficient air flow. Z4.

**514A Charles de Mills Rose, \$23.50**

**R. g. 'Tuscany Superb'** 4-5' x 4' A sport, c. 1840, of the ancient *gallica* Tuscany (Old Velvet Rose), which dates back to the 14th c.

Moderately fragrant semi-double dark red to crimson-maroon flowers are velvety beyond belief. Red-orange hips. The petals retain fragrance when dried and have been used medicinally, cosmetically and in potpourri for centuries. Easy to grow. Sometimes has a low-suckering habit. Ours is open, irregular and spreading, planted along a stone wall with perennials poking up through the open branches. Starts blooming mid-June in central Maine. Will tolerate poor soil, sun or partial shade. Very tough. Z3/4.

**515A Tuscany Superb Rose, \$23.50**

## Old-fashioned Roses

Roses grown in Europe before 1800 are referred to as "Old World" roses, including the cultivars of *Rosa gallica*. Their pink colors ranged from the deepest dark purple of 'Cardinal de Richelieu' to a faint pink blush like that of 'Chloris'. There were no reds among these antique roses and, though rich in fragrance, they bloomed only once per season. In the late 1700s red roses with repeat blooming tendencies were introduced from China, shifting the focus of rose breeding toward those traits. Demand for the aromatic and medicinal qualities of the Old World roses declined, supplanted by flowers that lasted long through the season. The hybrids created since the 1820s are called "modern" roses and are much more commonly seen in gardens today.

*R. gallica* is considered the oldest rose, steeped in history, legend and myth, and still grows wild in some places in the Caucasus, the mountainous region between the Black and Caspian seas, where it originated. Its exact origin is unknown but it can be traced back fourteen centuries when it was considered a symbol of love by the Persians. The aromatic petals hold their scent better than any other rose and have long been considered medicinal. This species contains hundreds of different cultivars, some very similar and others unique. Most have compact shrub habits and are generally very hardy. Most modern-day roses are presumed to be descendants of the *gallicas*.

## Growing Roses

**Soil:** Well-drained soil with a good amount of organic matter.

**Sun:** Full sun, but some will tolerate part shade. Pick a site with good air flow, but avoid sites with cold northwest winds.

**Spacing:** 4-6' apart.

**Planting:** Plant as early as soil can be worked. Most roses' roots don't spread beyond the original hole, so dig a bushel-sized hole, as deep as 2' or more. Mix soil with liberal quantities of well-rotted manure and compost. Add a coffee-can of rock phosphate or bone meal.

Prior to planting, prune plants back to 3-5 of the best canes.

Keep roses well mulched to retain moisture and reduce weeds. Add 2 shovelfuls of compost to each crown annually in late fall.

**Pruning:** Just clipping out dead wood, shrub roses and climbers require little pruning.

**Rosa rugosa hybrids** We no longer offer straight *Rosa rugosa* seedlings. Many wonderful old and new roses carry *rugosa* in their parentage (sometimes of an undetermined amount), and we have not observed these hybrids to be harmful to the environment. However the State of Maine legally requires us to include this statement: "*R. rugosa*: Invasive species, harmful to the environment. Do not plant in coastal environments, especially on or near sand dunes. Alternatives: Virginia rose, bayberry, red chokeberry, and beach plum."

**R. 'Blanc Double de Coubert'** 5x4' *R. rugosa* x Sombreuil. Cochet-Cochet, France, 1892. The best of the double whites with recurrent blooms of lush fragrance. Large 2½–3" blossoms are creamy and substantial as if they were carved out of snow-white ivory; not fluffy like some other doubles. Begins blooming in June with some recurrence thereafter. Infrequent hips. Attractive dark shiny green foliage. Good fall color. Open vigorous shrub will form a thicket if allowed. Good for hedges or soil stabilization. Z2.

**516A Blanc Double de Coubert Rose, \$23.50**

**R. 'Hansaland'** 4x3' *R. rugosa* hybrid of undisclosed parentage. Kordes, Germany, 1993. Luminous red medium-large semi-double blossoms have a soft casualness in the way they arrange their petals around the center. Red doesn't quite describe the color—it's almost red with a chalky pastel pink wash, bathed in ethereal light. Its glowing allure will transfix you. Leaves are glossy. Not uncommon for tip damage to occur in winter; just prune that back and off it goes. Blooms on new and old wood, spring till frost. Quite prickly; handle with care. Mildly fragrant. Corn Hill Nursery Rose of the Year 2010. Z3/4.

**517A Hansaland Rose, \$23.50**

**R. 'Lac Majeau'** 5' x same. *R. rugosa* hybrid (Martha Bugnet x Betty Bugnet) Hybridized by Georges Bugnet, Canada, date unknown. Resembles the cultivar Marie Bugnet. Ruffled white blooms washed in a very pale soft silvery lavender-pink are 2–3" wide, double and fragrant. The bud is white with prominent cherry-red stripes that fade after opening. Nearly free of thorns. Very hardy and free of disease. Extremely rare in the trade and impossible to find this side of the pond—offered here for the first time courtesy of Corn Hill's very special collection. Z2.

**518A Lac Majeau Rose, \$23.50**

**R. 'Max Graf'** 1½ x 8' *R. rugosa* x *R. wichuriana*. James Bowditch intro, CT, 1919. Single pink blossoms with crinkly crêpe-paper texture on a low-growing shrub. Deep yellow glowing centers are very accessible to bees. Mildly fragrant. Not flashy, but for the northern gardener it's a good, hardy, healthy rose that offers interest and appeal even out of season as the long reaching branches travel and root to form a dense mat. Trailing, good for banks or rock walls or a matted ground cover that can sprawl. Large dark leaves. Not a repeat bloomer. Z4.

**519A Max Graf Rose, \$23.50**

**R. 'Moje Hammarberg'** 3–4' x 4–5' *R. rugosa* hybrid of unknown parentage. Hammarberg, Sweden, 1931. Pronounced *moyeh*. Extend your petal harvest with this early-blooming hybrid *rugosa*. Large double 3" mauve flowers repeat throughout summer. Strongly scented petals loosely surround bright stamens and tend to nod on the branch. Distinctly pointed center of the opening flower. Large hips for making jams and preserves. Glossy dark green disease-resistant foliage. Good in a medium-sized hedgerow. Rare in the trade. Z3.

**520A Moje Hammarberg Rose, \$23.50**

**R. 'Wasagaming'** 5–6' x same. (*R. rugosa* x *R. acicularis*) x Grüss an Teplitz. Skinner, Manitoba, 1939. Rose of the year in 2023 at Corn Hill Nursery in New Brunswick. We see why! Deep pink buds open to double lilac-lavender-rosy blooms that are fragrant, lush and prolific. In the muted light of early morning, the color has a soft, diaphanous quality that lends an ethereality to the blossom. Very cold-hardy rounded vigorous shrub will rebloom and readily sucker. Rose expert Suzanne Verrier called it "a standout among hundreds of other roses." The name refers to a town inside of the Riding Mountain National Park in Manitoba and is derived from an Anishinaabe phrase *washagama saageeygun*, which translates as 'clear water lake.' Tolerates partial shade. Z2. **Indigenous Royalties.**

**521A Wasagaming Rose, \$23.50**

**R. virginiana Virginia Rose** 4–6' Also known as **Prairie Rose**. Low-maintenance native with fragrant single pink 2" blossoms in June. One of the most common wild roses. Low to medium-sized shrub with dense red canes. Glossy dark green foliage turns red-orange in fall. Bright red ½" hips mature in August and can be harvested for tea, jams, and a variety of other uses or left for the birds to eat throughout the winter. Suckers freely into an excellent barrier or hedge, creating a habitat for wildlife including nesting birds, reptiles, amphibians, spiders, bumblebees, honeybees and assorted beneficial insects. Perfect for steep banks or slopes, or anywhere you need erosion control. Thrives in sandy soils and tolerates salt. Z2.

**522A Virginia Rose, \$23.50**

## Fedco Field Trip: The Roses of Corn Hill

About 15 years ago, I started to dabble in cold-hardy roses, planting out cultivars from our catalog to observe and photograph. Each year we try to offer one of every type of rose: species, ancient *gallicas*, *albas*, rugged Scottish *pimpinellifolias*, *rugosa* hybrids, selections from Agricultural Canada's hardy, disease-resistant breeding programs like the Canadian Artist series, the 49th Parallel Series, and the Explorer Series, plus assorted hybrids with international parentage—all very low maintenance and suited to grow in colder zones of the U.S. We try to include a rambler, a red one, a yellow one, hedge roses, low growers and rare cultivars with exquisite beauty and fragrance. Over the years my home collection grew, and I've fallen in love with these roses.

We plan our catalog's rose offerings in cooperation with Corn Hill Nursery in New Brunswick, Canada, a Fedco supplier for the past dozen years. Corn Hill grows these plants without pesticides, herbicides or chemical fertilizers and prepares them bare root to ship over the border to us. This allows us to offer roses from their amazing collection to U.S. customers who would otherwise have trouble procuring them. Our interest in the rare roses has inspired Corn Hill's propagation team to keep them in circulation. It's a great partnership all around.

After years of contemplating a trip to Corn Hill, we finally made it happen this June. Corn Hill is a rural community with rolling hay fields and pastures that seem to climb up and up to higher stands of conifers and then to the sky, as if the high fields of Switzerland had been cut out and restitched into the lowlands just above the shores of the Bay of Fundy. Each modest house looked neatly tucked into the scene, and wild hedgerows were untamed and aflutter with life. The horses, cows, tractors and fields were all in top shape. The deep brown fertile well-drained Albert Formation soil made us drool.

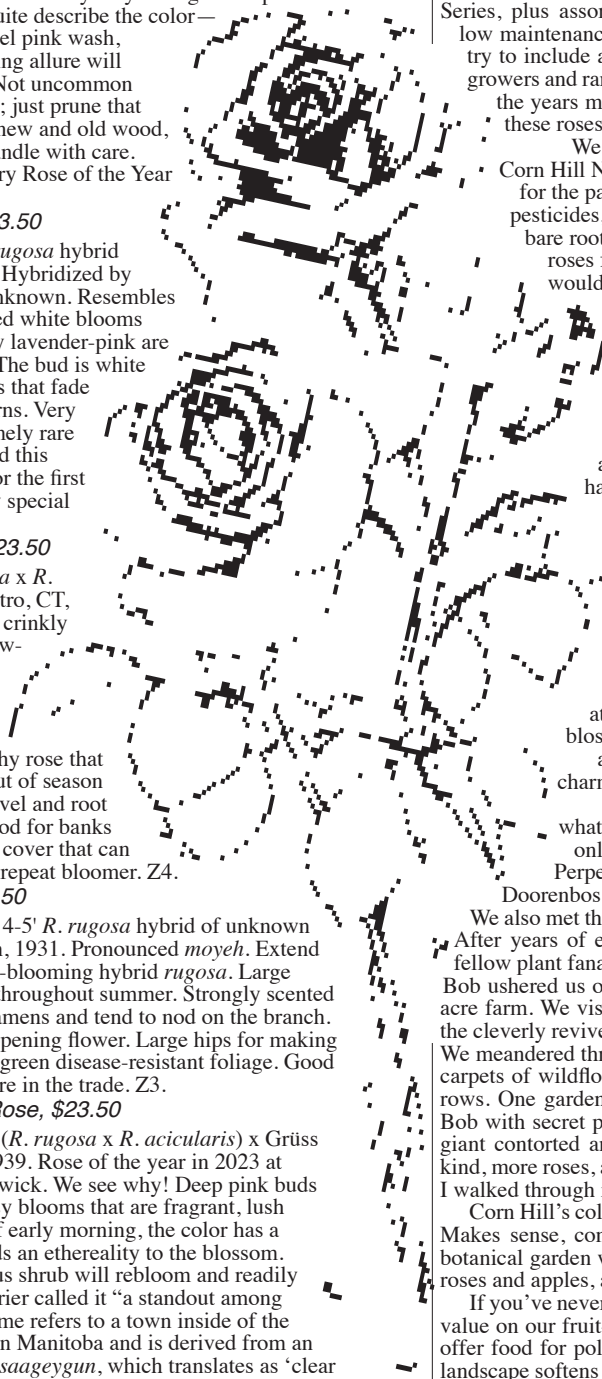
We timed our trip with an event called Rose Weeks at Corn Hill Nursery. Each day at dawn for two weeks, the nursery crew harvests rose blossoms for display in little cups of water, each labeled, all laid out on a thick stone slab table in the nursery's charming Cedar Cafe. It's a chance to binge on eye candy and let the heady fragrance of these blossoms soothe whatever ails you. I met so many exquisite roses that I've only ever read about or seen in books: Kakwa, Stanwell Perpetual, Roseraie de l'Hay, Sarah Van Fleet, Hazeldean, Doorenbos, Aicha, Max Graf. My head was swooning.

We also met the founder of this nursery, Bob Osborne, and his team. After years of emailing back and forth, it was great to meet these fellow plant fanatics in person. They gave us a warm welcome before Bob ushered us off on a 2-hour tour of the working parts of the 170-acre farm. We visited the propagation rooms and the coolers; we saw the cleverly revived old machinery used to mechanically fill plant pots. We meandered through orchards full of lush apple trees surrounded by carpets of wildflowers with alleys of sunlight pouring in between the rows. One garden was a menagerie of plants all lovingly curated by Bob with secret pathways through grafted witch's brooms, dwarf and giant contorted and pendulous conifers, azaleas, perennials of every kind, more roses, and seemingly one of every shade tree. After the tour, I walked through it all again, this time stopping to linger longer.

Corn Hill's collection rivaled any botanical garden I've ever visited. Makes sense, considering that as a child Bob wandered freely in a botanical garden where his father worked. (Check out Bob's books on roses and apples, available at Fedco's Organic Growers Supply.)

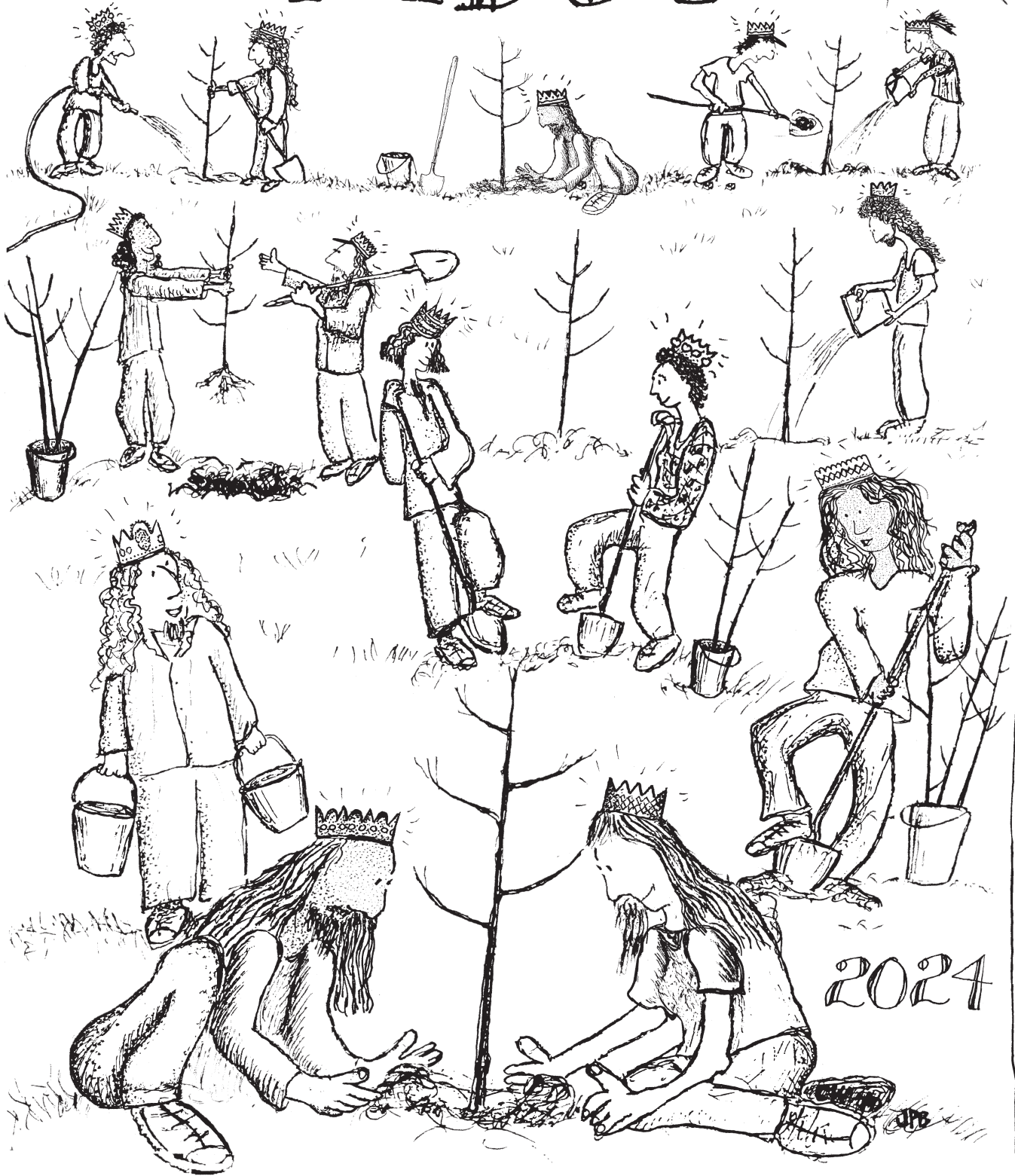
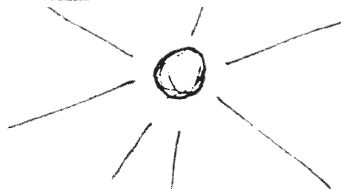
If you've never planted a rose, maybe it's time. While we put a lot of value on our fruit-cropping plants, we also appreciate the flowers that offer food for pollinators and food for the soul. Adding beauty to the landscape softens us and opens us to more loving kindness in our lives.

— Jen Ries





# FEDCO



2024

TREES SHRUBS *and* PERENNIALS

## Willow *Salix* spp.

The genus *Salix* comprises hundreds of different species of plants most commonly called willows but sometimes called **Osier** or **Sallow**. Willows grow all over the world. Some, like the weeping willow (see page 42), are towering specimens. Others are short scrubby bushes; willows growing in the arctic can be 100 years old but only 2' tall! Uses include ornamental landscaping, shade, basket-making, erosion control, timber, fuel and medicine. All parts, especially the bark, contain salicin, used for relief of pain and fever for hundreds, or even thousands, of years. Aspirin is a synthetic analog of salicin. Willows feed local wildlife, insects and birds. We plant them near the orchard to provide early season forage for our native pollinators. All prefer sun and loamy wet soils, but are adaptable, easily transplanted and fast growing. (1-2' plugs, unless otherwise noted.)

***S. alba* 'Britzensis' Coral Bark Willow** 15-30' x 12-15' Späth intro, Britz, Germany, 1878. Also called *S. a.* var. *vitellina* Britzensis. Fast-growing shrubby tree with highly ornamental red bark that starts yellow and graduates to coral. Especially splendid in the snowy winter landscape. Recommended for filling the winter flower vase: Set the dormant branches in a vase *without* water and enjoy. The deep red stems will dry to a rusty red. Color is most striking on new growth, so give it an annual spring pruning or even cut it right to the ground. Every spring you'll get new 5-10' red stems. Typically narrow *Salix* leaves. Originally raised from seed by the famous nurseryman Ludwig Späth, whose lilac is an all-time favorite. Likes water, adaptable to a wide range of soils and conditions. Full sun to light shade. Z2. **ME Grown.**

**523A Coral Bark Willow, \$16.75**

***S. gracilistyla* 'Melanostachys' Black Pussy Willow** 6-10' x same. Very attractive unique fast-growing plant for wetland areas, but also does fine in a well-drained setting. Deep purple-black male catkins in early spring; the cut branches are marvelous in a vase and really stand out alongside pink and grey pussy willows. The rather short foliage emerges orange and then turns a deep green. Stems turn a rich purple-black in winter. Attractive dark colors all year. Winner of Royal Horticulture Society's Award of Garden Merit. Prune in summer or fall. Adaptable. Prefers moist soil but will tolerate dry as well. Native to eastern Asia. Z4. **ME Grown.**

**524A Black Pussy Willow, \$16.75**

***S. g.* 'Mt. Aso' Japanese Pink Pussy Willow** 6x6' Possibly a hybrid of *S. gracilistyla* x *S. caprea*. Male specimen selected in Japan by Dr. Tsuneshige Rokujo. Pink buds open to electric pink catkins for a stunning early spring display. When the plants in our stark warehouse began to reveal their darling daubs of pink, the crew gathered round and cooed as if we'd discovered baby bunnies. Excellent in cutflower arrangements. Foliage opens pink and turns rich blue-green with prominent veins and soft fuzzy undersides. Catkins form on second-year wood. Coppice just after flowering to keep form pulled in and less rangy. Easy to maintain. Prefers full sun and sandy soils but will do fine in average or moist conditions. Z4. **ME Grown.**

**525A Mt. Aso Japanese Pink Pussy Willow, \$16.75**

***S. integra* 'Hakuro Nishiki' Dappled Willow** 3-5' x same. Harry Van de Laar intro, Boskoop, Holland, 1979. Also called **Alba Maculata**, as well as **Fuiji Koreangi**, **Fuiji Nishiki**, **Fleming Willow**, **Albomarginata** or **Variegated Willow**. Highly ornamental slender 4" pastel pink, white and green variegated foliage, maturing to green and creamy white. Some of the leaves are pure translucent white. Others have a tint of pale pink and others are tri-colored. Rounded spreading form with slender arching radiating branches. Leaves turn yellow in fall and drop late. For a dramatic contrast, plant with an evergreen background to highlight its luminary qualities. New stems turn coral red in winter. Once established, prune it to the ground in early spring to ensure continued variegated foliage. Foliage colors will be best in full sun and colder districts. Readily available in the trade at potted nurseries, we're offering this in response to requests from our customers for a more economical alternative to potted plants. Native to Japan and Korea. Z4. **ME Grown.**

**526A Dappled Willow, \$16.75**

## ***S. matsudana* 'Snake' Willow** 30-50'

A selection of the standard contorted Tortuosa willow, with an even more wildly branching habit. A fast-growing wide oval tree with distinctively curled wiggled and twisted branches.

The twigs look like sine waves—or maybe the stock market. Even the foliage loops and curls. Interesting outside in the yard and beautiful in a wreath or a vase. Quite nice as a young specimen. Keep it pruned and small if you like. Drought tolerant, but thrives in moist locations. Native to Argentina. Z5.

**'Snake' Willow** (1-2' tall plug)

**ME Grown.**

**527A Snake Willow plug, \$16.75**

**'Snake' Willow** (1-3' tall, bare root.)

**527B Snake Willow, bare root, \$20.00**

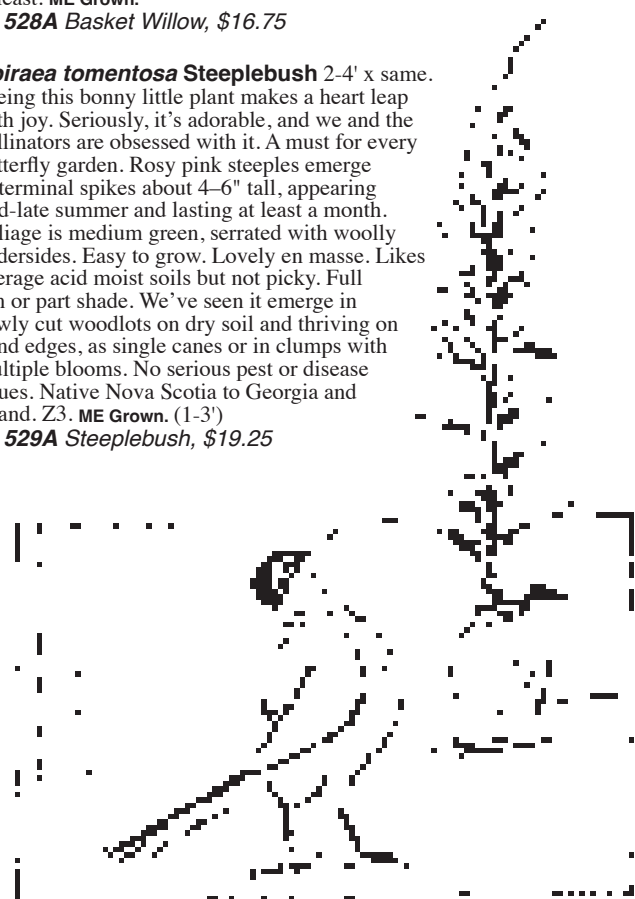
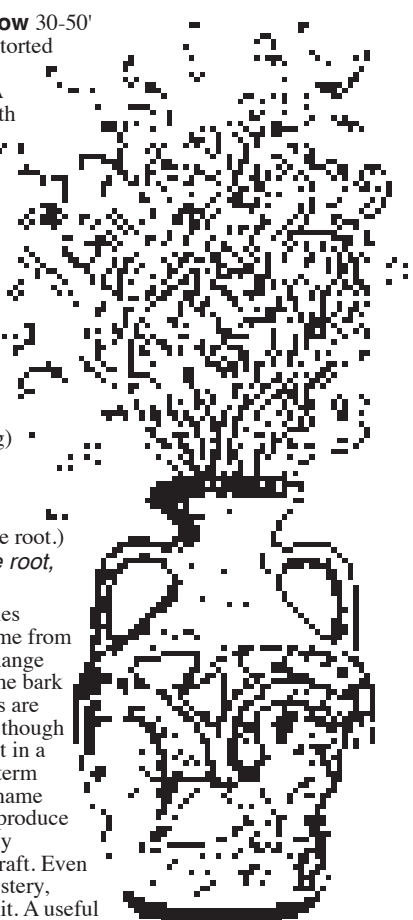
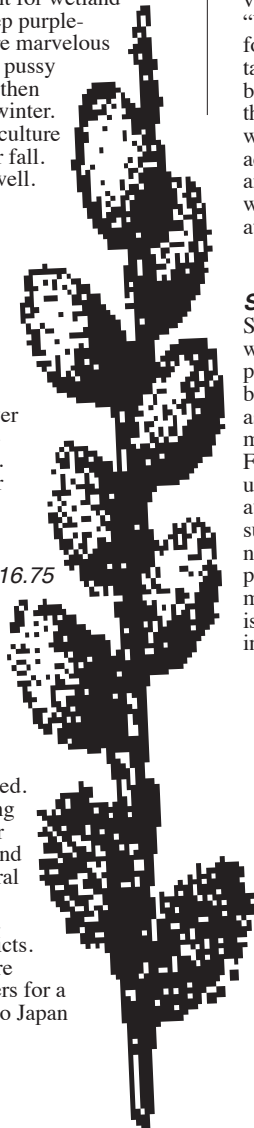
**Basket Willow** 20' tall. Species unknown. Original cuttings came from the Seed Swap and Scion Exchange at MOFGA many years ago. The bark is green to light brown. Catkins are small and not very ornamental though the cut stems look quite elegant in a vase at peak catkin stage. The term "basket willow" is a common name for many kinds of willow that produce tall, straight, flexible, minimally branching shoots suitable for craft. Even though this one is a bit of a mystery, we couldn't resist propagating it. A useful addition to any homestead. Pollard or coppice annually to collect material to dabble with. You can even expand your willow patch by collecting and planting your own dormant cuttings. Z4, at least. **ME Grown.**

**528A Basket Willow, \$16.75**

## ***Spiraea tomentosa* Steeplebush** 2-4' x same.

Seeing this bonny little plant makes a heart leap with joy. Seriously, it's adorable, and we and the pollinators are obsessed with it. A must for every butterfly garden. Rosy pink steeples emerge as terminal spikes about 4-6" tall, appearing mid-late summer and lasting at least a month. Foliage is medium green, serrated with woolly undersides. Easy to grow. Lovely en masse. Likes average acid moist soils but not picky. Full sun or part shade. We've seen it emerge in newly cut woodlots on dry soil and thriving on pond edges, as single canes or in clumps with multiple blooms. No serious pest or disease issues. Native Nova Scotia to Georgia and inland. Z3. **ME Grown.** (1-3')

**529A Steeplebush, \$19.25**



## Lilac *Syringa* spp.

Lilacs have been a fixture in the New England landscape for generations. More often than not, when we find old apple trees, the ancient lilacs are not far away. The large rambling suckering shrubs continue to flourish each spring long after the buildings have disappeared and all that remains of homesteads are crumbling stone foundations. Why were the lilacs always planted just outside the kitchen door? On cold winter mornings, someone would clean out the wood stove and sprinkle ashes on the icy path to the backhouse, the woodshed or the clothesline. The earth outside the kitchen door became more alkaline, which lilacs love.

Excellent alone or in hedges. Deep green glossy heart-shaped foliage looks good all season. Intensely fragrant blooms in May. Flowers range from singles to doubles, pure white to the deepest purples, pinks, reds and lavenders. Bees and butterflies love them, too. Ornamental, edible (frittered flowers), medicinal, and a great Mother's Day gift. (1-3')

***S. vulgaris* 'Agincourt Beauty'** 8-15' x 6-12' Leonard Slater intro, Agincourt, Ontario, 1968. Deep bluish-purple lilac with the biggest florets around: each single flower can reach up to 1 1/2" wide! John Fiala said they are "so large they hang like clusters of immense grapes." Lightly fragrant panicles hold up in the vase. First time making an appearance in our lilac list! Z3.

**530A Agincourt Beauty Lilac, \$21.00**

***S. v.* 'Beauty of Moscow'** 12x8' N237 (Belle de Nancy x IV Michurin) Leonid Kolesnikov intro, Russia, 1974. Also known as Krasavitzka Mosky. Dazzling pearly lavender-pink buds open to delicate double light pink-shaded white flowers tinged with lavender. The flower panicles display both buds and open flowers at the same time for a dynamic multicolored effect. Described by Fiala as "excellent in every way." Considered one of the best creations by one of the master hybridizers of the 20th c. Prolific vigorous upright plant has a long bloom period. Z2/3.

**531A Beauty of Moscow Lilac, \$21.00**

***S. v.* Common Purple** 12-15' x same. A mass of medium-light purple blooms every year. A magnificent New England sight for nearly 400 years and still one of our most popular ornamentals. When a friend looked out John Bunker's living room window and thought he had some fancy new cultivar, John chuckled, "Nope, just the good old common purple." Never disappoints. Suckers freely, the best lilac for a spreading hedge. Z3.

**532A Common Purple Lilac, \$21.00**

***S. x tribrida* 'Miss Canada'** 6-9' x same. *S. x josiflexa* Redwine x *S. prestoniae* Hiawatha. William Cumming intro, Morden Ag Res Ctr, Morden, Canada, 1967. Another outstanding Preston hybrid in the class of later-blooming lilacs. Masses of dark reddish-pink buds open to lovely fragrant single deep pink blossoms after the *vulgaris* lilacs have faded. The florets are unique in shape, like little trumpets clustered along the flower stem with spaces in-between. Plant singly as a specimen, preferably near the entrance to your home, or in a hedge for the butterflies and other nectar-loving creatures. Like other Prestons, can be pruned to tree form; won't sucker and eat the building. Z3.

**533A Miss Canada Lilac, \$21.00**



### Growing Lilacs

**Soil:** Adaptable. Prefers well-drained moderately rich soil; sandy gravelly loam is perfect.

**Sun:** Full sun, but will tolerate part shade.

**Planting:** Add shovelful of wood ash or lime to hole at planting time, then add another shovelful of either every 3 years. A yearly mulch of manure or compost will encourage spectacular annual blooming. Pink, lavender and blue lilacs color up best in soil with a neutral pH.

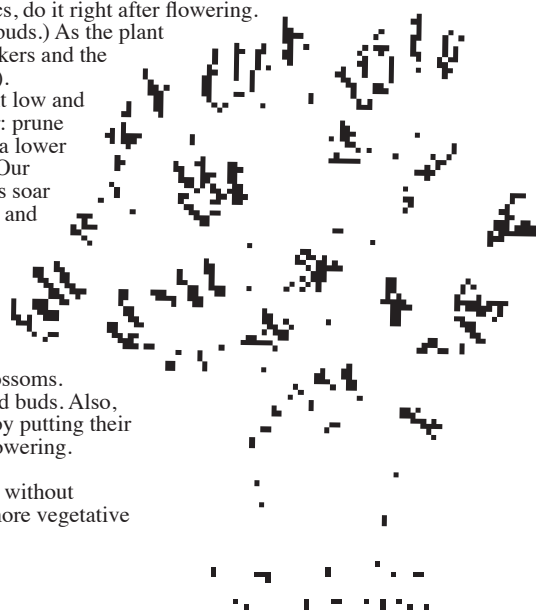
**Pruning:** If you choose to prune your lilacs, do it right after flowering. (Late-season pruning removes next year's buds.) As the plant matures, prune off a quarter of the new suckers and the oldest growth (a few main stems each year).

Some growers prefer to keep the plant low and bushy. Do so by "topping" it off every year: prune any upright branch back to a junction with a lower branch. Others prefer a tall tree-like form. Our friends Philippe and Danielle have let theirs soar to 8' or more, removing the lower branches and creating a magical walkway in the process.

Lilacs are more than willing to cater to your own personal vision. Have fun! No need to cut off spent flowers except for appearance.

#### Lilac isn't blooming?

- Too shady: lilacs need sun to form blossoms.
- Over-pruned: pruned too late, removed buds. Also, some plants respond to excessive pruning by putting their energy into vegetative growth instead of flowering.
- Too wet: lilacs like well-drained soil.
- Over-fertilized: lilacs will bloom well without assistance. Too much fertility can lead to more vegetative growth and inhibit bud formation.



## Viburnum spp.

The Viburnum genus encompasses more than 150 different species, which can range from dense shrubs lush with green foliage to more open and rangy small trees. Viburnums are prized for their multi-season interest, with blossom, berry and foliage varying by species. Flowers attract many butterflies and other early-season pollinators in spring. Ripening berries, some edible for humans, put on a show of color throughout the summer. All the Viburnums we offer are important wildlife plants, native to eastern North America. (1-3')

**V. cassinoides Northern Wild Raisin** 5-6' x same. Also called **Appalachian Tea, Raisinberry** or **Witherod** (pronounced *withe-rod*, not *wither-rod*.) Rounded arching dense suckering shrub. Creamy white flowers with yellow stamens on 2-5" flat-topped cymes bloom from spring to early summer. Highly desired for its edible fruit, which turns from green to pink to red to blue before finally turning black in September. Fruiting clusters feature several colors at the same time. Best eaten when nearly dried out on the branch, if you can get to it before the birds! Foliage, once used in tea, emerges bronze or purple tinted, turning dark green when mature and then orange-red, dark crimson and purple in fall. Very rugged: adapts to dry or wet sites. Z3.

**534A Northern Wild Raisin, \$23.00**

**V. lentago Nannyberry** 15-20' x 10-12' Also called **Sheepberry** or **Sweet Viburnum**. Large open vase-shaped suckering shrub with edible oval berries that turn from green to yellow to red to blue-black raisins that persist in winter and are popular with the birds. Large flat-topped clusters of fragrant creamy white flowers are a common sight in spring in the Maine landscape and are reminiscent of elderberry blossoms. Shiny foliage, purplish red in fall. Medicinal bark and leaves. Recommended for naturalizing, bird and wildlife habitat, screens and borders. Z2.

**535A Nannyberry, \$18.75**

**V. opulus var. americanum Highbush Cranberry Seedling** 8-12' x same. Formerly known as *V. trilobum*. Also known as **Cramp-bark**. Medicinal multi-stemmed native shrub. Clusters of lovely 4" flat white flowers in May attract beneficial insects. Pendulous bunches of red berries ripen mid-October, popular with dozens of bird species. Fruit is extremely rich in antioxidants and vitamins

A and C. Berries can be used for juice, jam, fruit leather and syrups—when boiling them down, don't let the somewhat unpleasant odor deter you. Bark is one of the most effective anti-spasmodic medicinals. Good for screens and hedges. Not to be confused with low-growing American cranberry familiar in sauces (next page). **Self-pollinating.**

Seed sourced from pure stands of *americanum*. Z2. **ME Grown.**

**536A Highbush Cranberry Seedling, \$21.00**

**V. prunifolium Black Haw** 12-15' x 8-12' Creamy white 2-4" cymes bloom in early spring while leaves are still opening, attracting dozens of different pollinators. Lustrous green leaves, narrow-to-oval with pointed tips, turn to bronze-red in fall. Dark bluish-black 1/2" fruits with a waxy bloom form hanging clusters through fall, in a similar way to highbush cranberry. Tasty raw or in preserves. Rounded arching shrub stiffly branched, reminiscent of a wild hawthorn or crabapple. Suckering nature allows it to form a dense colony or hedge, but it can also be pruned as a nice specimen that can reach 20-30' in height. Appears to be disease and pest free. Z3. **ME Grown.**

**537A Black Haw, \$20.00**

**537B Black Haw, bundle of 5, \$85.00**

### Growing Viburnums

**Soil:** Adaptable, but in moist rich well-drained soil they will take on a fuller shape.

**Sun:** Full sun to part shade.

**Pollination:** Plant multiples of the same species for best fruit set.

**Pest Control:** **Viburnum leaf beetle** (*Pyrrhalta viburni*) has become a problem in some areas. The larvae overwinter on twigs and can defoliate shrubs in spring and early summer. They seem to prefer Arrowwood, but we have seen them do a number on Wild Raisin and Nannyberry. Prune out and burn any egg-infested twigs in early spring before your shrubs are leafed out. Spraying with Spinosad in late April or early May when the larvae first emerge can also help. (Monterey Garden Spray is a Spinosad available from **Fedco's Organic Growers Supply**.) Timing is key—spraying eggs or adult beetles is less effective.

## Groundcovers

You'll find more groundcovers, like Canadian wild ginger, thyme, geranium and arnica, in the herbaceous perennials, beginning on page 56.

**Arctostaphylos uva-ursi Bearberry** Also called **Kinnikinick, Hog Cranberry, Mealberry, Sandberry, Mountain Box** or **Bear's Grape**. Delicate low-growing beautiful glossy evergreen spreading groundcover. Beautiful in rock gardens. One plant can sprawl to 15'. Small pinkish-white flowers in spring. Small bright red drupe-type berries color up in late summer and persist into winter. Too insipid for fresh eating, but good fried with fish. Leaves are diuretic, astringent and antibacterial. Prefers poor sandy infertile acid soils, tolerates salt. Can be sensitive to root disturbance, thus finicky in transplanting and may be slow to establish. Set plants 1-2' apart. No need ever to prune or fertilize. Sun or partial shade. Native to North America and Eurasia. **Self-pollinating. Z2. ME Grown.** (1-gallon fabric pots)

**541A Bearberry, \$23.00**

**Calluna vulgaris Heather** Magical, mythical and medicinal evergreen groundcover features a spread of flowers and foliage that change color throughout the season. Revered in the British Isles, important medicinally in teas, honey, liniments and ointments. First fermented a few thousand years ago, used in gruit, ale, and might be the original ingredient for the first whiskey. Branches used in thatching, bedding, basketry, rope and broom-making. Flowers attract bees, butterflies and moths, especially when planted in masses. Recommended for rock gardens and pathways—or for opening the portals to the fairy world.

Shear every April for best bloom. Species native to the dry forests, heaths and bare grounds of Britain and Ireland. More recently naturalized in North America. Z4. (4" pots)

**C. v. 'Allegra'** 18-24" x same. Striking crimson flowers July to October. Dark green foliage turns bronze in winter. Upright and bushy.

**L542A Allegra Heather, \$12.50**

**C.v. 'Spring Torch'** 12-18" x 18-24" Purplish-pink flowers July to October. Foliage is medium green with distinct red torch-like tips winter through spring, turning pink and cream in summer.

**L545A Spring Torch Heather, \$12.50**

**Erica carnea Winter Heath** Also called **Snow Heath**. Profuse blooms of distinct bell-shaped flowers in very early spring through April with repeat blooms in August. Foliage is more ferny and wispy than heathers and can be many shades of green through the season. Mounded matlike growth habit sprawls and crawls like slime mold, and just as pretty. This spring ours bloomed through a crust of snow for an explosion of flowers with bees of all kinds clamoring for early nectar. Ericas have become a favorite of ours. You won't be able to resist the urge to pet it when you walk past. Super low-maintenance. Plant en masse to create a magical carpet. Species native to the Alps and the British Isles. Z4. (4" pots)

**E. c. 'Rosalie'** 6x14" Seedling of Myretoun Ruby. Edewecht, Germany, Kurt Kramer intro, 1990. Of Scottish descent. Bright pink blossoms over bronze-green foliage.

**L546A Rosalie Winter Heath, \$12.50**

**E. c. 'Springwood White'** 8x24" A wild specimen found by Anna Walker in Monte Correggio, northern Italy, 1930. Propagated at her garden in Scotland and named after her house. Pure white flowers in spring over bright green foliage.

**L547A Springwood White Winter Heath, \$12.50**

### Growing Heather and Erica

**Soil:** Requires acidic well-drained soil.

**Sun:** Full sun to part shade. Sun and wind intensify their colors.

**Spacing:** Plant 18" apart. They'll spread.

**Planting:** We recommend pine needles or softwood chips as an acidic year-round mulch.

**Shearing Heathers:** Heathers should be sheared every April for best bloom. Without annual shearing, they'll become woody and bare in just a few years. With pruners or shears, roughly cut the stems below where they flowered the previous season, leaving a few inches of foliage. It should look like a little mound with a haircut. Next thing you know, bright new growth will start emerging.

Shearing not only makes the plants look better but also makes them stronger and more resistant to fungal problems. If you're not up for shearing, heathers might not be for you.

**Pruning Ericas:** Lightly prune spent flower tips in spring after blooming. These don't require shearing like heathers.



**Gaultheria procumbens Wintergreen** 6–10" tall with a 1–3' spread. Also called **Eastern Teaberry**. Herbaceous aromatic rhizomatous evergreen groundcover native to the woodlands of eastern North America. Glossy dark green elliptic-to-oblong leaves form on erect stems. Nodding bell-shaped waxy white flowers bloom from the leaf axils in June. Flowers give way to vivid red berries. Leaves will take on beautiful burgundy shades in the fall. Excellent winter food source for free-range chickens, partridge, turkeys, and some two- and four-legged mammals. Fragrant leaves contain methyl salicylate, a potent external anti-inflammatory, and can be used to make a poultice or massage oil to ease arthritic pain and sore muscles. Designated Maine's State Herb in 1999. Plant 16" apart in dappled shade in moist but not boggy woodland soil. **Self-pollinating**. Z3. (3½" pots)

**L548A Wintergreen**, \$10.75

**L548B Wintergreen**, bundle of 3, \$24.00

### American Cranberry *Vaccinium macrocarpon*

Native to northeastern U.S. and Canada. Dense low lustrous evergreen groundcover, reddish purple in fall and loaded with large red berries. Once established, makes a beautiful and edible "lawn." Bitter and alkalinizing effects make it one of the most common remedies for bladder infections. An excellent source of vitamin C.

Handpick or rake like blueberries before hard frost. Use fresh, freeze or store in a cool basement or root cellar for months. Commercial operations flood fields for frost protection and harvesting convenience, but this is not necessary in home plots. Easy to grow; pest and disease resistant. Z2. (6" pots)

**V. m. 'Blushing Moon'™** Selected from a seedling John Harker found growing in a bog on an island off the coast of Maine in 1993; introduced in 2003. Berries are considered albino, having a red blush on a golden-white background at harvest. The fruit is smaller than Stevens with higher yields per shoot and strong recurring flowering the following year. Makes clear juice. Sauce is amber. Long life in cold storage, up to 6 months. **ME Grown**.

**549A Blushing Moon American Cranberry**, \$23.00

**V. m. 'Stevens'** This is the red cranberry of holiday sauces, bread and jelly. **ME Grown**.

**550A Stevens American Cranberry**, \$23.00



#### Growing Cranberries

**Soil:** Prefers acidic cool moist soil high in organic matter; adaptable to everything from bogs to dry rocky outcroppings.

**Sun:** Full.

**Pollination:** Self-pollinating; you only need one.

**Planting:** Plant comes in a bushy 6" clump, which can be carefully divided or planted as a whole and divided in future years.

### Lingonberry *V. vitis-idaea*

Also called **Foxberry**, **Cowberry**, **Mountain Cranberry**. Vigorous shallow-rooted spreading groundcover is related to blueberries and cranberries. Bright red glossy nutritious fruits are wicked tart until dead ripe, then have excellent flavor, richer and less astringent than cranberries. Can be eaten fresh but primarily used in sauces, jams, syrups, fruit leathers, juices and wines. Stores up to 2 months in the fridge. Small shiny dark green foliage is quite lovely. Adorable tiny bell-shaped white flowers in spring attract a plethora of pollinators. Extremely popular in Scandinavia and now catching on in the U.S. Ripen in late summer but are best after a frost. Can produce 1–2 lb per plant for up to 20 years.

Native to circumpolar boreal forests. Incredibly tough and very hardy. Z2. All are **ME Grown**. (1-gallon fabric pots)

**V. v.-i. 'Erntedank'** Up to 12" tall. Albert Zimmer intro, 1975. Collected in a wild heath near Uchte, Germany. Heavy yields of small- or medium-sized berries.

**551A Erntedank Lingonberry**, \$22.50

**V. v.-i. 'Erntesege'** 12–15" Also collected by Zimmer from a wild German heath. High-yielding plant produces very large berries.

**552A Erntesege Lingonberry**, \$22.50

**V. v.-i. 'Linnea'** 5–9" Swedish U of Ag Sciences intro, 1999. Newer cultivar selected from an open-pollinated seedling of Sanna, a wild strain. Strong producer of medium-sized berries.

**553A Linnea Lingonberry**, \$22.50

**V. v.-i. 'Magenta'** 12–15" Swedish U intro. Vigorous cultivar produces large purplish-red berries. Selected for high yields.

**554A Magenta Lingonberry**, \$22.50

**V. v.-i. 'Red Pearl'** 12–18" Elden Stang intro, Holland, 1983. Very adaptable with large berries. Somewhat lower yielding but standard in commercial production as a great pollinator. May bloom twice a season.

**555A Red Pearl Lingonberry**, \$22.50

**V. v.-i. 'Red Sunset'** 8–15" Hartmann's Plant Co intro. Medium-to-large firm flavorful berries. Considered one of the most vigorous cultivars.

**556A Red Sunset Lingonberry**, \$22.50

**V. v.-i. 'Regal'** 4–8" WI-108, Univ of WI intro, Madison, WI, 1994. From open-pollinated seed collected in southwest Finland. Produces firm small-to-medium berries with good flavor. May bloom twice in one season.

**557A Regal Lingonberry**, \$22.50

**V. v.-i. 'Ruby'** 12" Swedish U intro. Medium-sized light red berries. Moderately vigorous with lots of spreading rhizomes.

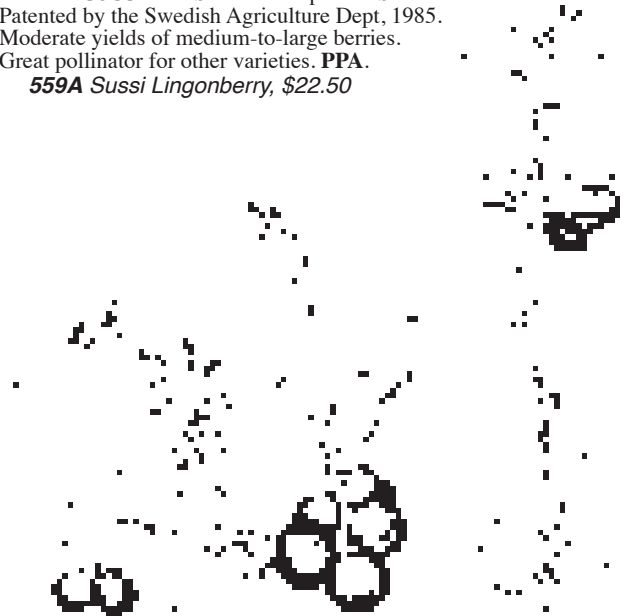
**558A Ruby Lingonberry**, \$22.50

**'V. v.-i. 'Sussi'** 4–8" Sometimes spelled 'Susi.' Patented by the Swedish Agriculture Dept, 1985.

Moderate yields of medium-to-large berries.

Great pollinator for other varieties. **PPA**.

**559A Sussi Lingonberry**, \$22.50



#### Growing Lingonberries

**Soil:** Prefers poor sandy acidic soils.

**Sun:** Full.

**Pollination:** Plant more than one variety to ensure good fruit production.

**Spacing:** Plant 12–18" apart.

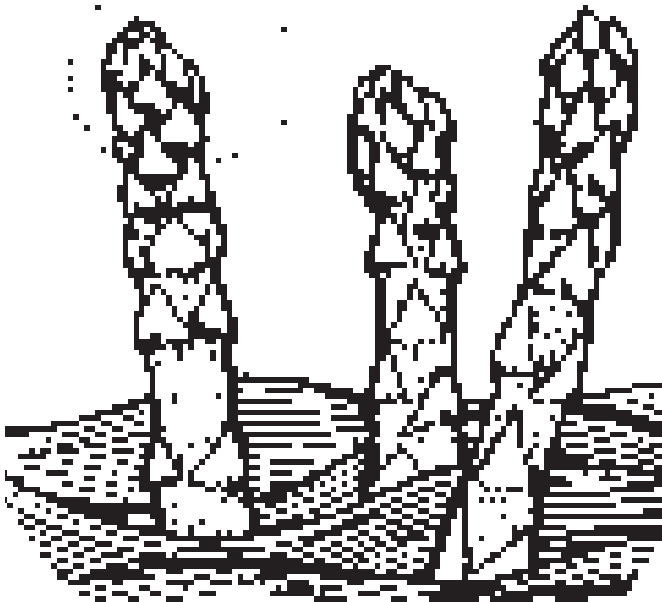
## Garden Roots

No garden is complete without the classic triumvirate of Horseradish, Asparagus and Rhubarb!

***Armoracia rusticana* 'Big Top' Horseradish** Exceptionally vigorous perennial with large dock-like leaves and spicy hot roots, savored for centuries for their culinary and medicinal qualities.

Horseradish tea is said to be an effective control for brown rot on stone fruits. Deep taproot with numerous shallow runner roots. Choose carefully where you plant it because you may never get it all out. Even the tiniest root piece can produce a new plant. Leaves can be cooked as greens. Roots are traditionally harvested in the fall, but you can dig them anytime. Roots keep 3–4 months in the fridge. To use as an invigorating tonic, grate the fresh roots and mix with a little lemon juice or apple-cider vinegar and refrigerate. Use soon, then make more. Big Top is an especially disease-resistant variety. Prefers moist rich soil. Plant with the slanted cut down and the flat side up, or just toss them in and watch them grow. Native to northern Europe. Z3. (roots)

**L560A Big Top Horseradish, bundle of 5, \$21.00**



***Asparagus officinalis* Asparagus** A spring staple for millennia, may have originated around the Mediterranean Sea, perhaps in Asia Minor. The pharaohs, Greeks and Romans were all aware of its highly nutritious qualities and delectable flavor. The earliest known American horticultural advertisement, from March 1719, is for “English Sparrow-grass Roots.” Uncut shoots become a light green feathery hedge, a beautiful backdrop to a flower garden. Honeybees love the dainty dangling flowers, which develop into bright red spherical seed pods on female plants. Occasionally non-spear-forming females will show up in a planting. Leave them be or rogue them out as you wish. (1-yr crowns)

**A. o. 'Mary Washington'** Heirloom variety developed by JB Norton, USDA, 1919. Large early green stalks tolerate heat well and demonstrate good resistance to rust. For those of you who know your antique asparagus, Mary was selected from Martha. Of the two, Mary is earlier, more vigorous and more uniform. A parent to many modern varieties and planted in American gardens for more than a century. Very winter hardy. Z3/4.

**L561A Mary Washington Asparagus, bundle of 25, \$40.00**

**A. o. 'Purple Passion'** Developed from the Italian heirloom Violetto di Albenga. Brian Benson intro. Very large deep purple stalk with a creamy white interior. Purple asparagus is actually a type of white asparagus shown the light; grow under cover to get white spears. Sweeter and less stringy than its green counterparts, so you can use more of the spear. Tender enough to eat raw in salads. Purple turns green when cooked. Z4.

**L562A Purple Passion Asparagus, bundle of 25, \$40.00**

***Rheum rhabarbarum* Rhubarb Seedling** Seedlings of heirloom variety 'Victoria'. Famous for early summer pie and wine, but also good in sauce, bread, juice, soup or cooked with meat and fish. Rhubarb's clumps of juicy acid leaf stalks were once a staple food. The root is a toning purgative herb traditionally used every spring for thousands of years. There are dozens if not hundreds of rhubarb varieties. May have originated in Siberia and been carried across Asia on the Silk Road to Turkey and then into Europe. Victorian cookbooks included rhubarb compotes, fools and charlottes. Eventually brought to North America through the efforts of Ben Franklin and John Bartram. Low-maintenance; will continue through summer if flower stalks are removed and new leaves allowed to grow. Leaves are not edible.

From our trials, we've learned that rhubarb rarely comes true to type when grown from seed, a fact often undisclosed in the nursery trade. We are offering seedling crowns grown on a local organic farm. There will be variation within the crop. Some stalks will be green with deep red bases and others will be solid green or splashed with red. All are vigorous and delicious, and we've enjoyed them in our pies, wines and sauces. Z2. **ME Crown.** (1-yr crown)

**L563A Rhubarb Seedling, \$14.00**



### Growing Rhubarb

**Soil:** Well-drained rich slightly acidic soil.

**Sun:** Full sun.

**Spacing:** Plant crowns 2–4' apart in rows 3–4' apart.

**Planting:** Plant the top of the root division level with soil surface. Add a bushel of well-rotted manure or compost to each planting hole.

When plant is established, fertilize liberally with compost and balanced garden fertilizer every spring, as it's a heavy feeder.

**Harvest:** Never remove more than 2/3 of the stalks from a plant. Two years after planting, harvest for no more than 4 weeks. Thereafter you can harvest for 8–10 weeks each year. Water during dry spells for extended season.

**Dividing:** Every 10 years or so, divide plants in early spring. Leave about 1/3 of the clump in place, and cut up remaining crowns into fist-sized pieces to replant or share with friends.

### Growing Asparagus

**Soil:** Requires fertile soil and high levels of phosphorus.

**Sun:** Full sun.

**Planting:** Plant 14–18" apart, 6–10" deep, in trenches 4' apart. Or dig your trenches somewhat deeper and fill the bottom with 4" of compost and rotted manure.

Lay plants with crowns up and cover with 2" of soil. Plants emerge very slowly. As young shoots grow, add soil gradually, just covering the shoots, until the trench is full.

In late fall, remove dead stalks and mulch with 3" of manure.

**Second summer:** Add lime, rock fertilizers and compost as needed. Control weeds but do not injure crowns.

**Later years:** Same routine but increase fertilizer. Be sure to leave some spears each year to grow stalks that will nourish the roots and give you more spears next year. Keep the bed weed-free and mulched heavily.

**Harvest:** We recommend caution in harvesting too much too soon. Before the third or fourth season, harvest only the largest shoots from vigorous plants so the young plants can establish themselves.

# Mushrooms

In collaboration with North Spore Mushrooms, we're excited to help you get started on your own fungus garden!

- These products are all **Maine-grown and organic**, on natural substrates.
- Most can be refrigerated until you are ready to start growing. We send detailed instructions with your order and you can find more info about each item on our website.
- We ship mushrooms and tools in April during our regular shipping season.



## Getting started

First decide if you want plugs or sawdust spawn for your mushroom-growing adventure. Kits are a good choice for beginners.

**Plug Spawn** are small wooden dowels colonized by mushroom mycelium. These get hammered into drilled logs of an appropriate tree species.

**Sawdust Spawn** comes in a 5 1/2 lb loaf. Depending on variety, it can be crumbled into outdoor beds or used for larger-scale log inoculation projects.

**Outdoor Log Kit** contains 100 plugs, wax, a dauber, 5/16" drill bit and instructions. Everything but the log, drill and hammer!

**Spray & Grow Kit** Simply slice open the bag, and keep in a humid environment, like beside the sink. Mushrooms should start to produce "pins" within 2 weeks and will grow quickly. Each kit contains a 4 1/2-lb inoculated sawdust block that could produce up to 3 lb of mushrooms over 2-4 months. Instructions included. The easiest way to get into growing mushrooms. Makes a great gift.

**Agaricus subrufescens Almond Agaricus** Related to the well-known portabella, crimini and button mushrooms but has its own unique aroma and flavor reminiscent of almonds. The species grows on composted material and thrives in warmer temperatures. A great addition for the home gardener, can be incorporated with compost into vegetable and perennial plantings and does well in season-extension structures.

**570C Sawdust Spawn, \$30.00**

**Grifola frondosa Hen of the Woods** Also known as **Maitake**. Rich earthy semi-firm mushroom resembles a fat hen with leafy feathers and can weigh up to 20 lb. This tasty polypore has a flavor akin to eggplant. Will fruit only in oak logs. For success with sawdust spawn, we recommend heat-treating and incubating log segments in **XL 0.5-Micron Filter Patch Bags Mushroom Grow Bags** (not needed for plug spawn).

**L571A 100 plugs, \$18.00      L571B 500 plugs, \$36.00**  
**571C Sawdust Spawn, \$30.00**

**Hericium erinaceus Lion's Mane** Pure white cluster of icicle-like teeth, often found on beech and birch in the wild. When cooked, they have a consistency similar to crab meat. Naturally fruits during cooler months. Due to a slower colonization rate, a higher inoculation rate should be used. Can be grown on many different hardwood species, large- or small-diameter logs.

**L572A 100 plugs, \$18.00      L572B 500 plugs, \$36.00**  
**572C Sawdust Spawn, \$30.00      L572D Outdoor Log Kit, \$30.00**  
**572E Spray & Grow Kit, \$30.00**

**Laetiporus sulphureus Chicken of the Woods** Large bright orange fruit bodies have a texture reminiscent of chicken. Great in soups and stir-fries. Fruits all season from late spring into late fall. Prefers large-diameter oak logs. For success with sawdust spawn, we recommend heat-treating and incubating log segments in **XL 0.5-Micron Filter Patch Bags Mushroom Grow Bags** (not needed for plug spawn).

**L573A 100 plugs, \$18.00      L573B 500 plugs, \$36.00**  
**573C Sawdust Spawn, \$30.00**

**Lentinula edodes Shiitake** Brown umbrella-shaped spongy caps, very nutritious and medicinal. Good for drying and reconstituting in winter soups. Meaty texture when cooked. Grows best on oak and hard maples. Fruits throughout the growing season and responds well to commercial forced-fruiting production methods. This is the Wide Range Shiitake strain. *Note: 574E Fruiting Block* is the same as a Spray & Grow Kit, except it doesn't come in a pretty box; instructions included.

**L574A 100 plugs, \$18.00      L574B 500 plugs, \$36.00**  
**574C Sawdust Spawn, \$30.00      L574D Outdoor Log Kit, \$30.00**  
**574E Fruiting Block, \$30.00**

**Pholiota nameko Nameko** Gelatinous orange-to-amber caps thicken soups and are popular in Japanese cuisine. Fruity earthy aroma pairs well with dark green veggies, red meat and miso soup. Produces in the cooler temperatures of fall. Grows on oak, aspen, maple and other hardwoods. If planted in beds, use fresh hardwood chips.

**L575A 100 plugs, \$18.00      L575B 500 plugs, \$36.00**  
**575C Sawdust Spawn, \$30.00**

More mushrooms and tools, next page.

## Growing Mushrooms

**Log method** Drill holes in logs, insert plug spawn or sawdust spawn, then seal with wax. Tools are listed on the next page. Be sure to choose an appropriate tree species for the mushroom (see variety descriptions.) We offer these options for log inoculation:

• **Plug Spawn** 50 plugs will inoculate a single 4' long, 4" diameter log. Drill 5/16" holes (or 8.5mm with angle-grinder adapter) into your log, hammer in the plugs and seal the holes with wax. Plugs are an excellent choice for beginners. **Plugs come in bags of 100 or 500.**

• **Sawdust Spawn** Each bag contains 5 1/2 lb of hardwood sawdust colonized by mushroom mycelium, enough for about 25 logs. Drill 12mm holes in your logs, pack the sawdust using an inoculation tool and seal with wax. Good for commercial mushroom growers.

**Outdoor Bed method** Some varieties can be grown in non-sterile outdoor beds of fresh wood chips, sawdust, straw or other organic matter. Plant them under orchard trees or in your garden paths! Layer **Sawdust Spawn** with your growing medium, and keep beds watered. One 5 1/2-lb bag of sawdust spawn will inoculate a 4x4' bed. Once established, a well-maintained bed can produce for many seasons.



Growing methods		
Mushroom type	Log method	Bed method
Almond Agaricus		X
Hen of the Woods	X	
Lion's Mane	X	
Chicken of the Woods	X	
Shiitake	X	
Nameko	X	X
Golden Oyster	X	X
Blue Oyster	X	X
Italian Oyster	X	X
Wine Cap		X

## More Mushrooms

***Pleurotus* spp. Oyster Mushrooms** grow well on many different hardwood logs; soft hardwoods (poplar, aspen, cottonwood) are best. All three oyster species can also be grown in outdoor beds; they prefer straw to denser wood chips.

### ***P. citrinopileatus* Golden Oyster**

Tropical oyster strain that thrives in warm weather. Produces beautiful clusters with yellow caps that are a favorite at farmers markets.

**L576A 100 plugs, \$18.00**  
**L576B 500 plugs, \$36.00**  
**L576C Sawdust Spawn, \$30.00**  
**L576D Outdoor Log Kit, \$30.00**  
**L576E Spray & Grow Kit, \$30.00**

***P. ostreatus* Blue Oyster** Also called **Grey Oyster**. Very popular fleshy firm edible grey-white oyster-shaped caps often found growing on old dying maple trees. Our most productive oyster strain. Reliable and cold tolerant, fruits prolifically in early spring or late fall.

**L577A 100 plugs, \$18.00**  
**L577B 500 plugs, \$36.00**  
**L577C Sawdust Spawn, \$30.00**  
**L577D Outdoor Log Kit, \$30.00**  
**L577E Spray & Grow Kit, \$30.00**

***P. pulmonarius* Italian Oyster** Clusters of tender brown caps with thick white stems. Considered to be one of the finest culinary oysters.

**L578A 100 plugs, \$18.00**  
**L578B 500 plugs, \$36.00**  
**L578C Sawdust Spawn, \$30.00**  
**L578D Outdoor Log Kit, \$30.00**  
**L578E Spray & Grow Kit, \$30.00**

***Stropharia rugosoannulata* Wine Cap** Vigorous red-capped fruiting bodies for growing in outdoor beds. Prefers hardwood chips but will grow on a mix of soft and hard. Once established, they will produce for several years and can be easily transplanted to fresh woody debris.

**L579C Sawdust Spawn, \$30.00**

**Mushroom-growing Tools** For log inoculation, you'll need some tools. Here are a few essentials to get you started:

**Inoculation Tool for Sawdust Spawn** A simple thumb-press hand tool for rapid inoculation of hardwood logs with sawdust spawn. (Not needed for plug spawn.) Drill holes with 12mm bit for best results.

**L580A Inoculation Tool, \$44.00**

### **Angle Grinder Adapter (for Log Drill Bits)**

Used to attach a drill bit to an angle grinder to increase speed on large projects. Fits 5/8" spindle and takes both 12mm and 8.5mm drill bits.

**L581A Angle Grinder Adapter, \$55.00**

### **Log Inoculation Drill Bits**

Specifically made for log inoculation, designed to clear the hole of sawdust as it drills to a set depth that matches plug length or sawdust dosage. For large projects, we recommend the **Angle Grinder Adapter** with an 8.5mm bit for plug spawn or a 12mm bit for sawdust.

**L583A 8.5mm Drill Bit for Plug Spawn, \$22.00**  
**L584A 12mm Drill Bit for Sawdust Spawn, \$22.00**

**Log Inoculation Sealing Wax** A clear food-grade paraffin wax ideal for sealing holes in inoculated logs. One pound of wax is enough to seal about ten 4'-long logs. Sealing the holes is critical to success because it protects the spawn from drying out and from contamination by other fungal species. Wax is in granular form.

**L585A Sealing Wax, 1 lb, \$7.00**

### **XL 0.5-Micron Filter Patch Mushroom Grow**

Bags Chicken of the Woods and Hen of the Woods are prone to being out-competed by other fungi.

This makes them unreliable producers. For these two varieties, we strongly recommend heat-treating and incubating your logs in filter-patch bags to provide a blank slate for your desired species. Each bag fits a 1'-long, 8"-diameter log segment. One bag of **Sawdust Spawn** will inoculate about 10 log segments—you'll need one bag per segment. The 0.5-micron filter allows for ample gas exchange. More detailed instructions for heat-treating logs will come with your order. Bag is 3mil thick polypropylene, 10x5x24". Pack of 10 bags.

**L586A XL Filter Patch Bags, package of 10, \$20.00**

## Herbaceous Perennial Plants

USDA hardiness zone (chart on page 71) follows each description. All our plants are nursery propagated. They are not dug from the wild! All plant stock is bare root unless otherwise noted.

**Organic** after item name means the plants were grown at Ripley Farm, a MOFGA-certified organic nursery in Dover-Foxcroft, ME.

***Achillea millefolium* Yarrow** Blooms June through September featuring 2-3" flat-topped flowerheads. Femy green foliage is aromatic when crushed. Excellent filler for fresh and dried arrangements. Prompt removal of faded flowerheads guarantees a long season of blooms.

Colors can fade out in extreme humidity but regular cutting will keep the blooms looking bright and fresh. It's a sweet and easy early morning task to walk the yarrow path and cut quick bouquets. Plant 12-24" apart in well-drained soil, full sun to part shade. (For white yarrow, see p. 63.) Z3.

### **A. m. 'Oertel's Rose'**

12-15" tall. Deep rose-pink flower clusters. One of the most well-behaved yarrows we've

seen—not messy or floppy in windy weather like some of the taller varieties. (2 1/4" plug stock)

**L675 A: 3 for \$16.25**  
**B: 6 for \$28.25**  
**C: 12 for \$51.00**

**A. m. 'Paprika'** 18-36" tall. Handsome bright red flowerheads. Each tiny blossom within the cluster has a sunny yellow center. Draws a crowd when we have friends over for barbecue. (2 1/4" plug stock)

**L676 A: 3 for \$16.25**  
**B: 6 for \$28.25**  
**C: 12 for \$51.00**

**A. m. 'Terra Cotta'** 18-36" tall. Flowerheads start out dusky peachy-apricot with yellow undertones and gradually mature to a stunning coppery-bronze. One of our favorites! (2 1/4" plug stock)

**L677 A: 3 for \$16.25**  
**B: 6 for \$28.25**  
**C: 12 for \$51.00**

***Aconitum napellus* English Monkshood** 36-40" tall. Also called **Friar's Cap**.

Produces a mass of late-summer blooms with dense showy spikes of dark violet-blue helmet-shaped flowers above elegant palmate foliage in late summer.

Grand delphinium-style

blooms rarely need

staking. An excellent

cutflower—cut when 1/3 to

1/2 the spike is in bloom. We

love watching bumblebees

disappear under the hood

then clamber out covered in

pollen. *Caution: the entire plant is*

*poisonous*; wash your hands after

handling or cutting. Prefers partial

shade. Plant 15-20" apart in moist

soil. Native to Europe. Z3.

**L678 A: 3 for \$14.00**

**B: 6 for \$24.50**

"Fingers crossed for more native understory species in your catalog, yet not at the expense of your commitment to ethical sourcing. Rock on!!"  
— Susan from Auburn, ME



**L576A 100 plugs, \$18.00**  
**L576B 500 plugs, \$36.00**  
**L576C Sawdust Spawn, \$30.00**  
**L576D Outdoor Log Kit, \$30.00**  
**L576E Spray & Grow Kit, \$30.00**

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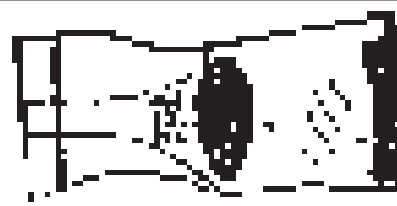
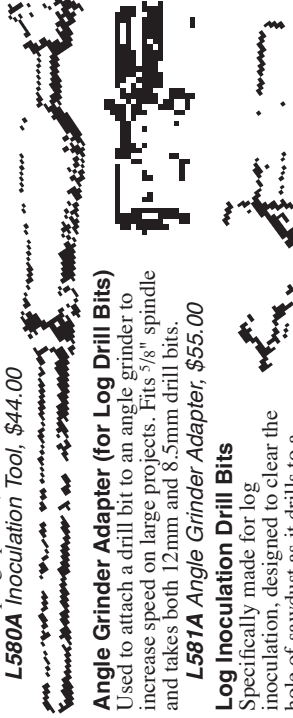
**L585A Sealing Wax, 1 lb, \$7.00**

### **XL 0.5-Micron Filter Patch Mushroom Grow**

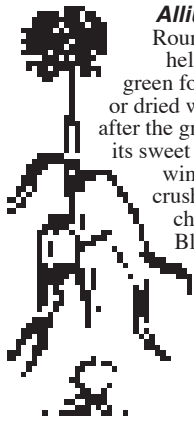
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**L586A XL Filter Patch Bags, package of 10, \$20.00**







**Allium 'Little Sapphire' Flowering Onion** 12" tall. Round dense clusters of deep purple star-shaped flowers held above tidy upright clumps of strappy glossy grey-green foliage. Sweet-scented blooms make great cutflowers or dried winter arrangements whether you cut them before or after the green seed pods form. Attracts beneficial insects with its sweet nectar yet repels an array of undesirables—slithery, winged and legged pests alike—including deer. Only if crushed will the plants smell like an onion. Adds rugged charm and vertical structure to herb and rock gardens. Blooms in mid to late summer. Z4.

**L679 A: 1 for \$7.75  
B: 3 for \$19.75  
C: 6 for \$35.50**

**Amsonia tabernaemontana var. salicifolia Willow-leaf Bluestar - Organic**

30" tall. Clusters of deep blue pointed flower buds form and open into powder-blue star-shaped florets held above deep green fine grassy willow-like foliage. Blooms in early June in northern Maine. Gorgeous foliage turns gold in the fall. Best planted en masse. Forms a handsome vase shape at maturity. Looks fabulous with catmint and irises. Adaptable to most garden environments but performs best in full sun to part shade. Plant 12–18" apart in moist slightly acidic soil. Native from Illinois south to Texas. Z3. **ME Grown.**

**L680 A: 1 for \$9.50  
B: 3 for \$24.75  
C: 6 for \$44.50**

**Aquilegia canadensis Wild Columbine - Organic** 12-24" tall. Delightful little stacks of round-lobed leaves emerge in early spring. Soon after, magical jewel-like nodding blossoms with red-spurred sepals and yellow petaled skirts dance above the foliage. The elegant slender spurs are filled with nectar irresistible to hummingbirds. We planted ours at the base of a granite boulder, right alongside some highbush blueberries. The columbines start flowering at the same time as the blueberry bushes, and the rock helps retain even moisture in the soil.

Columbines bloom from late May to early June. Prefers light moist well-drained soil. Nice planted in clusters, 12–18" apart. Dappled shade guarantees the best color. Native to eastern North America. Z3. **ME Grown.**

**L681 A: 1 for \$9.50  
B: 3 for \$24.75  
C: 6 for \$44.50**

**Arisaema triphyllum**

**Jack-in-the-Pulpit** 12-24" tall. In midspring, one or two compound leaves appear close to the ground, each with three leaflets framing an upright stem topped by a striped tannish-purple 3" long cuplike spathe (the pulpit) that contains and arches over the erect greenish-yellow spadix (Jack). It's always a delight to lift the flap and see Jack. This magical Northeastern native prefers dappled shade and moist rich woodland soil. Plant 10–18" apart. Z3.

**L682 A: 3 for \$17.25  
B: 6 for \$29.75  
C: 12 for \$53.50**

**Asarum canadense Canadian Wild Ginger**

6-12" tall. Heart-shaped leaves up to 7" wide will spread into a beautiful groundcover. Leaves are large and slightly fuzzy, not small and glossy like the European species. Aromatic roots used like other gingers for their warming qualities and for soothing indigestion, coughs, colds and motion sickness. The small reddish-brown urn-shaped flowers grow near the soil surface or in the surface leaf mold, pollinated by crawling insects. Flowers are fun to search for but won't decorate your landscape. Requires shade and moist rich woodland soil. Native to eastern North America. Z3. (2 1/2" plugs in pots)

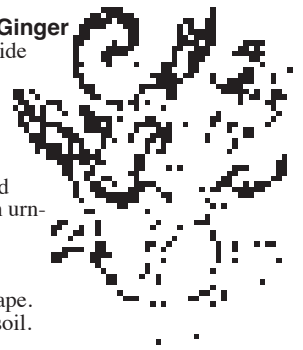
**L683 A: 3 for \$28.00 B: 6 for \$49.00 C: 12 for \$87.75**

**Asclepias incarnata Swamp Red Milkweed - Organic** 5' tall. Forms unique fragrant flat-topped clusters of upturned rosy red flowers. Willow-like leaves are 4–5" long. Clump-forming; great for naturalizing. Attracts bees, butterflies and hummingbirds. We've been noticing increased numbers of monarch butterflies in our gardens—plant more milkweed! Grows naturally in floodplains and wet meadows. Plant 18–36" apart in moist soil. Native to North America. Z3. **ME Grown.**

**L684 A: 1 for \$11.00 B: 2 for \$19.00 C: 3 for \$26.00**

**A. tuberosa Butterfly Weed** 24" tall. This brilliant summer wildflower features vivid tangerine-orange clusters of flowers atop slender fuzzy stems, covered with green lance-shaped leaves. Spent flowerheads transform into prominent spindle-shaped seed pods that make a unique addition to mixed bouquets. The fleshy taproot will not tolerate clay or low ground. The very last to emerge in spring—be patient. Plant in full sun, 18–24" apart in well-drained fertile soil. Native to eastern and southern North America. Z4.

**L685 A: 1 for \$11.00 B: 2 for \$19.00 C: 3 for \$26.00**



**Planting Guide for Bare-root Perennials**

To receive our guarantee (see page 2) for items on pages 56 to 65, you must have followed these instructions:

**When you receive your order**, open the bags and check the plant stock immediately. Roots and crowns should be firm and pliable, not soft or brittle.

**After danger of freezing has passed:**

- Dig a hole 2 or 3 times bigger than the plant stock.
- Add a little compost if needed.
- Fan or spread out the roots to encourage root development.
- Fill hole with soil, pressing out air pockets as you go.
- Keep the planting area free of weeds.
- Mulch *around* the crown with straw or woodchips.
- Avoid applying mulch directly on top of crowns as they could rot.
- Mark the location with a plant label.
- Check your plants daily in the first 2 weeks after planting!

**If you cannot plant right away, you have two options:**

1. Store bags of bare-root plants in a dark and cool (35–40°) place.
2. Pot up plants in well-drained slightly moist potting mix. Avoid coiling the roots in the bottom of undersized containers. Set pots in a protected spot in part-shade until you're ready to plant.

**You must protect your herbaceous perennials from:**

- Freezing
- Sun-shock in the first 2 weeks
- Long periods of cold and wet conditions
- Too much or too little water
- Absentee gardening!

**Astrantia major** 'Burgundy Manor' Masterwort 24-28" tall. Compact umbels of burgundy flowers surrounded by rosettes of bracts appear on airy branched deep red stems held above deeply lobed green foliage.

Clump-forming perennial makes an excellent groundcover when planted en masse. We've observed it to be somewhat resistant to slugs and snails. Makes long-lasting cutflowers and is also a great container plant. Prefers morning sun and afternoon shade. Blooms June to August here in central Maine. Plant 12-18" apart in moist poorly drained soil. Species native to Europe and Asia. Z4.

L686 A: 1 for \$9.50  
B: 3 for \$24.75  
C: 6 for \$44.50

**Baptisia australis** Blue False Indigo - Organic

3-4' x same. An early summer stand-out with vibrant blue lupine-like flowers. Nitrogen-fixing legume transfers nitrogen from the air to the soil where it can be absorbed by neighboring plants. Has a bushy habit and shrub-like structure once mature. Seed pods turn black in fall, adding interest to the autumn landscape. Will develop an extensive root system, good for holding slopes to prevent erosion. Plant 3' apart in full sun and well-drained acid soil. Native to eastern and central North America. Z3. ME Grown.

L687 A: 1 for \$9.50  
B: 3 for \$24.75  
C: 6 for \$44.50

**Clematis virginiana** Woodbine - Organic 9-12' long vine. North American native, also called **Virgin's Bower**, **Devil's Darning Needle** and **Old Man's Beard**. Vigorous red-stemmed climbing vines are studded with small clusters of fragrant 1" creamy white flowers, each with four elliptical petal-like sepals. Blossoms attract pollinating butterflies, moths and flies. An individual plant may produce all male flowers, all female flowers, or all bisexual "perfect" flowers. Both female and perfect flowers transform into silky 2½" tufty seed heads that provide food for migratory birds. Thick foliage creates a safe and cozy nesting place for a variety of birds, including goldfinches and the stunning Indigo Bunting.

To keep woodbine from dominating your gardens, you can cut it back by half in early spring, but first check for bird nests! Be sure to wear gloves and long sleeves, as woodbine can cause skin irritation in sensitive individuals. Plant in full to part sun, in moist to wet soil, perhaps along the edge of the woods. Mulch with leaves, straw or a large rock to keep roots cool and moist. Mid to late summer blooms. Z3. ME Grown.

L688 A: 3 for \$33.00

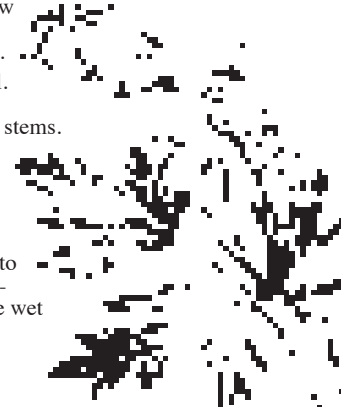


Organic after item name means the plants were grown at Ripley Farm, a MOFGA-certified organic nursery in Dover-Foxcroft, ME.

**Dicentra** **Bleeding Heart** Also called **Lyre Flower**, its genus has been updated to **Lamprocapnos**. Graceful racemes arch over clumps of attractive cut foliage. Distinctive heart-shaped flowers dangle in a row on each raceme like charms on a bracelet. Native to eastern Asia. Z3.

**D. formosa** 'Bacchanal' 15" tall. Burgundy-red oblong heart-shaped blossoms dangle from long leafless stems. Flowers are a little less tidy than the respectable *D. spectabilis*. With consistent moisture, the lacy blue-green foliage of this *Dicentra* stays awake and looking good all season long. Plant 12" apart in full to dappled shade in evenly moist well-drained fertile soil. Will not tolerate wet winter soils. Blooms in late spring.

L689 A: 1 for \$7.25  
B: 3 for \$18.75  
C: 6 for \$33.75



**D. spectabilis** **Old-Fashioned Bleeding Heart** 30-36" tall. Perfectly formed pink heart-shaped flowers with delicate white inner petals define this classic hardy long-lived perennial. Plant 2-4" deep, 24" apart in rich moist soil and partial shade. Blooms in early to mid spring, goes dormant in summer.

L690 A: 1 for \$7.25 B: 3 for \$18.75 C: 6 for \$33.75

**Eutrochium** **Joe Pye Weed** Also called **Queen of the Meadow**. Tall architectural clump-forming North American native wildflowers feature big soft terminal clusters of mini pink florets on strong stems from midsummer to early fall. Whorls of lance-shaped serrated leaves look good all summer. Chickadees like to pick at the tawny dried seed heads in winter. Flowers can be used for dyeing. Choose a planting site where *Eutrochium* can naturalize at the back of a border, or along the edge of a wood. We've let ours spread into a tall perennial hedge right along the front of the house where it mingles in full sun with globe thistle and goldenrod. The deer don't seem interested, but pollinators abound! Native to eastern North America, found along the edges of moving water, in damp meadows, and in moist roadside ditches. Readily spreads from seed and underground rhizomes, so plant it thoughtfully if you are working in a small space. All three species we're offering do well in moist soil and full sun. They can handle part to full shade, although they might need support.

**E. fistulosum** **Hollow Stem Joe Pye Weed - Organic** 6' tall. Dusky-rose flowers are held on beautiful wine-red stems that are dusted with a light purplish bloom. Leaves whorl in sets of 4 to 7, with slightly more rounded teeth than other Joe Pye's. More adaptable to heat and drought than the other species we're offering. Z4. ME Grown.

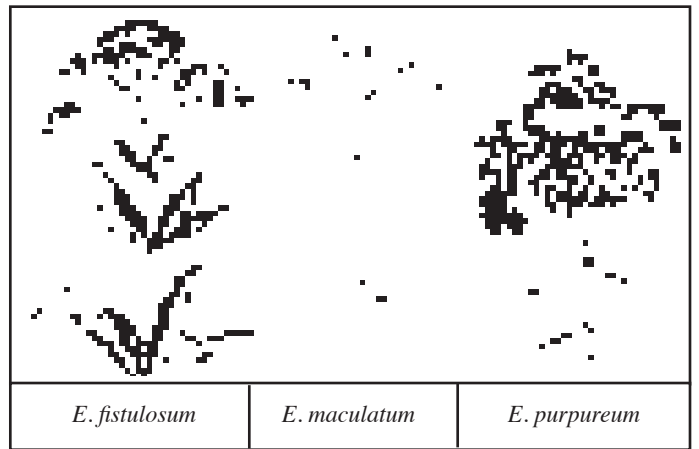
L691 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25

**E. maculatum** **Spotted Joe Pye Weed - Organic** 4-7' tall. Large lavender-rose flower clusters attract a plethora of pollinators. Leaves whorl in sets of five around sturdy unbranched bewhiskered purple-spotted stems. Z4. ME Grown.

L692 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25

**E. purpureum** **Sweet Joe Pye Weed - Organic** 4-6' tall. Massive vanilla-scented pinkish-purple domed flowers are held atop sturdy green stems with whorls of 4 to 5 sharply serrated leaves. Often found in average to dry woodland edges. Z3. ME Grown.

L693 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25



*E. fistulosum*      *E. maculatum*      *E. purpureum*

**Ferns** are flowerless spore-producing perennials, represented by more than 10,000 species worldwide, ranging from 70' tropical tree ferns to teensy plants sprouting from cracks in alpine rock. In Maine we enjoy lush fern displays all summer on the roadsides and in the woods. Ferns make wonderful low-maintenance foliage plants that thrive in woody humus-rich soil and lend a serene aura to a shady garden or landscape. Mulch with 2" of leaves if necessary to keep crowns from drying out.

**Adiantum pedatum Maidenhair Fern** 10-12" tall. Also known as **Eastern Maidenhair Fern**. Delicate whorled form makes it one of our favorites. Glossy black stems curve up and then droop toward the ground with more narrow black stems growing in elegant arches from the main stem. Tiny distinct ginkgo-like green leaves line every stem. Prefers partial shade and slightly alkaline soil. Plant 12" apart. Native to eastern North America. Z2.

L694 A: 6 for \$23.00

**Dryopteris marginalis Leatherwood Fern** 24" tall. Also known as **Evergreen Wood Fern**. Strong sturdy stems and slightly glossy leathery grey-green fronds make this one of the best ferns for floral arrangements.

In late spring it's great fun to look for immature sori (spore cases) on the underside of the frond. Hunt for small green bumps along the margins of the subleaflets.

Later in the year, the sori change color to rusty-brown. Evergreen leaves flourish through the winter and can be found in rocky wooded slopes in Canada, onwards south to Alabama and farther west to the Rocky Mountains. Performs best in less than 3 hours of sunlight per day but will tolerate more if you ask nicely. Plant 12" apart in moist well-drained woodland soil. Z3.

L695 A: 6 for \$28.00

**Osmunda regalis Royal Fern** Up to 6' tall and 9' wide at maturity. Attains giant proportions, with soft and wavy deciduous lance-shaped light green fronds can reach 3' long. Sometimes called

**Flowering Fern** because some of the fronds have brown spore cases on their tips that lend a decorative tassel-like appearance. One of the showiest garden ferns, a great focal point at the waterside or in a woodland. Evolutionarily speaking, *Osmunda* is one of the oldest plant genera, native to North and South America and Asia. Some Royal Fern individuals are said to be 1000 years old. Ours are much younger. Prefers wet boggy areas and part shade. Plant 18" apart in consistently moist soil. Z2.

L696 A: 6 for \$28.00

**Geranium Cranesbill** Vigor, longevity, hardiness, lo-o-ong flowering period and lush attractive deeply cut leaves make this hardy perennial useful for borders, edging, rock gardens or as an orchard companion. After bloom, distinctive long narrow "cranesbill" seed pods flutter jauntily above the spreading foliage, which quickly forms dense clumps and turns a rich red in fall. Name confusion may be a big reason why this attractive easy-to-grow genus is not more well known: the popular bedding and indoor plant with big red flowers widely called geranium is actually *Pelargonium*. For best results plant in the lightly shaded areas of wild open woodland gardens or in the orchard underneath your ancient apple trees. Plant 12-18" apart in average garden soil. Z4.

**G. maculatum Spotted Cranesbill** 24" tall. Clusters of single 1 1/4" pinkish-lilac saucer-shaped flowers beckon the native pollinators. Also known as **Wild Geranium**, this is the true geranium, native to eastern North America. Low-growing spreading groundcover and the best choice for planting in the orchard.

L697 A: 3 for \$12.00  
B: 6 for \$20.00  
C: 12 for \$36.00

**G. pratense 'Orion'** 20-24" tall. Clusters of single 1" sapphire-blue flowers with violet veins. Blooms continuously from late spring through fall, the first big flush of flowers arrives in late May, with a lighter repeat bloom cycle continuing well into autumn.

L698 A: 1 for \$5.75  
B: 3 for \$14.85  
C: 6 for \$26.75

**Helenium autumnale Red and Gold Sneezeweed Mix - Organic** 4-5' tall. Supposedly used for snuff at one time, hence the common name. A rich and blazing scheme of bronze, brown, crimson and yellow for a vibrant end-of-summer display. Single flowers resemble coreopsis in shape but have large center buttons much like coneflower. Combine with asters and phlox for great late-season color. Not fussy, easy to grow, excellent cutflower. At its prime when most perennials are done blooming. Plant 18" apart in full sun. Native to North America. Z3. ME Grown.

L699 A: 1 for \$9.50  
B: 3 for \$24.75  
C: 6 for \$44.50

**Hemerocallis Daylily** Champion low-maintenance perennial produces a bush of narrow arched leaves topped with lily-shaped flowers from July to September.

*Hemerocallis* means 'beautiful day,' referring to the fact that each flower lasts only a day, but since each scape (or stem) is covered with buds, bloom periods can be extensive and the long stems work well in bouquets. Trouble-free, chokes out weeds. Flourishes under a wide range of conditions, from full sun to shade, wet to dry. Plant 12-18" apart in average soil; benefits from an annual shovelful or two of compost. Native to eastern Asia. This year's stock is one-year-old field-grown rootstock with two fans. Z2.

**H. 'Frans Hals'** 34-36" tall. Smart-looking 4-4 1/2" blooms look like pinwheels—orange-red petals alternate with bright yellow sepals. Petals have striking yellow midribs. Pale green to yellow throats. Blooms mid to late season.

L700 A: 1 for \$5.50  
B: 3 for \$14.50  
C: 6 for \$26.00

**H. 'Hyperion'** 30" tall. On dense foggy mornings, bright clear Hyperion peers through the gloom with intensely fragrant 5" trumpet-shaped lemon-yellow flowers. Widely planted on old farmsteads in Maine, where it became popular in the 1920s. Famous for its heavenly scent, extended blooms—flowers stay open for nearly 16 hours—and ability to rebloom later in the season. Hyperion remains a favorite and is a must-have in the naturalized perennial border. Midsummer blooms.

L701 A: 1 for \$9.50  
B: 3 for \$24.00  
C: 6 for \$43.50

**H. 'Pink Stripes'** 30" tall. Rare variety, with wild paint-brushed patterns. Big 7" magenta-rose flowers are streaked with shades of pink and cream bursting out from a golden-orange throat. One of the first streaked daylilies we've ever seen. Early to midseason blooms and reblooms!

L702 A: 1 for \$12.00  
B: 3 for \$31.00  
C: 6 for \$56.00

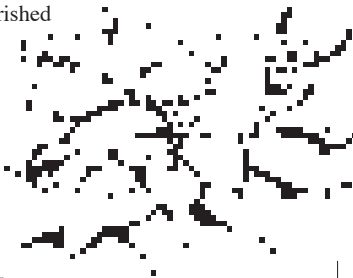
**H. 'Primal Scream'** 24" tall. Let this daylily keep you company as you scream into the void. Giant 7-8" glowing diamond-dusted tangerine blossoms with apple-green throats. Unusually narrow recurved twisting tepals with a slight ruffled edge. Elegant and disheveled at the same time. Early to midseason blooms, which means early July here in central Maine. Dormant foliage. Tetraploid.

L703 A: 1 for \$9.50  
B: 3 for \$24.75  
C: 6 for \$44.50

**H. 'Siloam David Kirchoff'** 16" tall. Dreamy orchid-lavender flowers with cerise penciled eyezones and apple-green throats. Petite blossoms span 4". This variety is hard to find! Get it while you can. Early to midseason blooms. ME Grown.

L704 A: 1 for \$9.50  
B: 3 for \$24.75  
C: 6 for \$44.50

**Hosta** Bold foliage forms orderly mounds with dependable sprays of fragrant bell-shaped flowers on tall stalks. Valuable and cherished low-maintenance border plant provides shade-loving groundcover from spring to frost. With their varying colors, textures and clump sizes, hostas alone under trees can make a woodland garden. Hostas tolerate a wide range of soil conditions but need moisture. Those with blue and variegated leaves develop their best color in shade. Deep shade gives fewer flowers but better leaf colors. Plant 2–4' apart in rich soil with adequate humus. Divide every 4–5 years, or leave them alone; they will improve with age as they spread and establish. Native to eastern Asia. Z3.



**H. 'Blue Hawaii'** 42" tall and 30" wide. Solid smoky blue-green rounded slightly puckered leaves and fragrant white flowers. Foliage maintains good color throughout summer and develops a slightly upright vase shape. Will tolerate some sun.

**L705 A: 3 for \$17.00**

**H. 'Dream Queen'** 18" tall and 26" wide. Distinctive puckered heart-shaped leaves have broad blue-green margins with a solid green detail next to buttery yellow centers. A royal sport of Great Expectations with improved bold variegation, a speedier growth habit and better sun tolerance. White flowers.

**L706 A: 3 for \$17.00**

**H. 'Jurassic Park'** Glorious giant cascading clumps of puckered blue-green leaves that measure 17" long and 15" wide! Stunning planted as a specimen with fetching lavender flowers. Generally grows 40" tall and 80" wide but we advise you to give this beast plenty of room to spread—the original grower's plant spanned a shocking 9' after 12 years!

**L707 A: 3 for \$27.00**



**Iris germanica Tall Bearded Iris** A hardy perennial and fine cutflower with multiple 3–6" blooms on each flower stalk. Strong sword-shaped foliage. "Beards" are soft hairs protruding up from the crest of each fall, often in contrasting colors. Blooming begins in the first real heat of late May or early June. Plant rhizomes horizontally, less than 1" deep, in clusters with new growth facing outward. Prefers full sun and light limey well-drained soil. May take a year to establish before blooming. Vigorous plants, so give them room to spread. Clumps need dividing every 4–5 years. Z4.

**I. g. 'Neptune's Wine'** 40" tall. Mammoth mahogany-red standards and falls with a subtle golden shimmer when the sun shines.

**L708 A: 1 for \$14.75 B: 2 for \$25.50 C: 3 for \$34.50**

**I. g. 'Savannah Sunset'** 36" tall. Eye-catching sunny orange standards and falls with tangerine beards, gorgeous ruffles, and strong sturdy stalks that won't pass out when the wind picks up! Expect 3 weeks of bloom once these beauties are fully established.

**L709 A: 1 for \$14.75 B: 2 for \$25.50 C: 3 for \$34.50**

**I. sibirica Siberian Iris** In late June, delicate flowers dance above tall slender slate-green foliage that looks beautiful all summer. Tolerates most conditions, but performs best in rich moist acid soil. Plant 18" apart in full sun or partial shade. Give them room to spread, and divide clumps every few years to share with friends! Z3.

**I. s. 'Crimson Fireworks'** 34" tall. Okay folks, truth be told, the standards and falls are not really crimson. They are more of a deep magenta-purple with prominent white signals and dramatic blue vein flashes just outside the signal, outlined by a fine white rim. This ruffled variety knocked our socks off with its surprising saturated color. Mid to late season blooms. **ME Grown.**

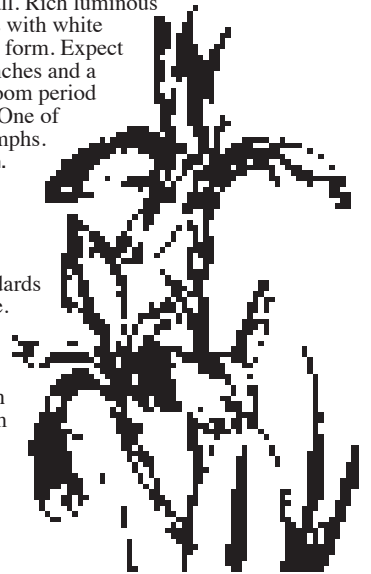
**L710 A: 1 for \$19.75 B: 2 for \$34.25 C: 3 for \$46.00**

**I. s. 'Lavender Bounty'** 34" tall. Rich luminous lavender-pink standards and falls with white signals and a semi-flaring ruffled form. Expect repeat blooms with multiple branches and a whopping 9 buds per season! Bloom period stretches over 8 glorious weeks. One of Currier McEwen's breeding triumphs. Very early bloom time. **ME Grown.**

**L711 A: 1 for \$14.25 B: 2 for \$24.50 C: 3 for \$33.00**

**I. s. 'Navy Brass'** 32" tall. Distinguished 6" royal blue standards and falls with a brassy gold blaze. When we visited a local grower's fields and stood on the ridge above the Siberian irises, this shade of blue—though not exactly navy—stood out from all the rest. Mid to late season blooms. **ME Grown.**

**L712 A: 1 for \$14.25 B: 2 for \$24.50 C: 3 for \$33.00**



**Iris versicolor Northern Blue Flag** 30–36" tall. Northeastern native species carries gorgeous blue-violet flowers with bold purple veining and a white and lemon-yellow blaze. Tall slender blue-green arching lance-shaped leaves offer a strong vertical feature to the landscape. Requires consistently moist soil and prefers 2–4" of shallow standing water. Plant 12–24" apart in full sun to part shade. Early bloom time. Z2.

**L713 A: 3 for \$18.25**

**Leucanthemum x superbum 'Crazy Daisy' - Organic** 24" tall. Snow-white petals form fluffy double rings around a bright yellow disk. A Shasta gone wild! Starts blooming mid-July here in central Maine and with regular cutting will bloom into fall. Excellent choice for cutflowers. One of the easiest perennials to grow. Plant 12–18" apart in full sun to partial shade in well-drained soil. Z4. **ME Grown.**

**L714 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25**

**Liatris Blazing Star** Also called Gayfeather. Stiff dense "bottlebrush" flower spikes tower above fine grass-like foliage. Adds elegant structure to the perennial border and mixed bouquets. For cutflowers be sure to leave at least 1/3 of the stem on each plant for best results. Blooms from July to September. Tolerates a broad range of growing conditions, but not drought. Plant in full sun, 3" deep, 8–12" apart, in well-drained fertile soil. Both species native to eastern North America. Z3. (1 1/4–1 1/2" corms)

**L. pycnostachya Prairie Blazing Star - Organic** 48" tall. North American native with tall brilliant purple wands loved by butterflies. Z3. **ME Grown.**

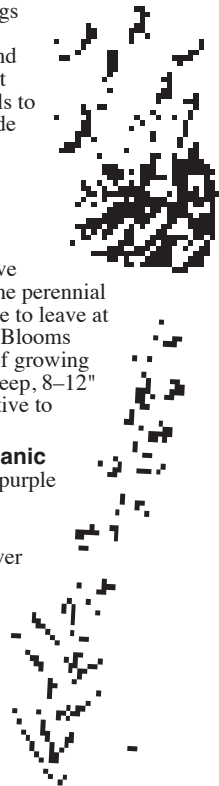
**L715 A: 3 for \$23.75**

**L. spicata Floristan White** Dreamy white flower wands grow 30–36" tall.

**L716 A: 10 for \$6.00 B: 20 for \$10.25 C: 50 for \$23.00**

**L. s. Purple Blazing Star** Magical magenta-purple flower wands grow 20–30" tall.

**L717 A: 10 for \$6.00 B: 20 for \$10.25 C: 50 for \$23.00**



**Lilium Oriental Lily Mix** 30-44" tall. Queen of the perennial border, fabulously showy and surprisingly easy to grow. Colors range from all-pinks, all-whites, to brilliant bicolors with spots and stripes. The five or more varieties in this mix of fragrant Oriental hybrids will draw a crowd to your garden in August. Good as single specimens or in masses. Great cutflowers. Light shade prolongs summer blooms and keeps the bulbs cool. Plant bulbs 6-8" deep, 6" apart in rich slightly acid well-drained soil. Z3.

**L718 A: 3 for \$9.25  
B: 6 for \$16.00  
C: 12 for \$28.75**

**L. tigrinum 'Citronelle' Tiger Lily**

2-5' tall. Robust variety produces scads of luminous lemon-yellow flowers with recurved petals generously flecked with dark purple dots. Prominent rusty-red anthers produce a beautiful mahogany pollen. Tiger lilies are distinguished by purplish-black bulbils in the leaf axils along the stem. When the plant is happy, the bulbils will drop and sprout baby lilies by the score. Mid to late summer blooms. Z2.

**L719 A: 3 for \$9.25  
B: 6 for \$16.00  
C: 12 for \$28.75**

**Lobelia** In early spring these gorgeous North American native wildflowers form deep green rosettes, which produce tall unbranched stems with alternate lance-shaped leaves. Tubular 2-lipped flowers bloom along spikes in mid to late summer. Considered short-lived perennials, both *Lobelia* species we're offering will naturalize beautifully and reseed year after year. Healthy plants can produce several thousand seeds per stem, which will germinate well only on damp open ground. Plant along the riverbank and streambed, edges of bog, in the perennial border or in the meadow. Absolutely stunning once established. Best planted in light shade to full sun in consistently moist soil. Mulch to reduce weed competition in the first year. Z3.

**L. cardinalis Cardinal Flower** 4' tall. Tubular scarlet flowers are irresistible to hummingbirds and butterflies because each tube has a pool of nectar at its base. Habitat loss and thoughtless picking can spell disaster for this plant in the wild.

**L720 A: 3 for \$12.00  
B: 6 for \$21.00  
C: 12 for \$37.25**

**L. syphilitica Great Blue Lobelia** 3-5' tall. Sometimes called Blue Cardinal Flower, with similar habit to its more famous red cousin, but with blue-violet flowers that are beloved by the bumblebees.

**L721 A: 3 for \$12.00 B: 6 for \$21.00 C: 12 for \$37.25**

**Nepeta faassenii 'Walker's Low' Catmint** 2-3' tall. Aromatic grey-green foliage with long arching stems topped by lavender-blue flowers provides an eye-catching show of color nearly all summer. Creates a strong dependable low-growing hedge along any garden path. Flowers attract bees, butterflies, hummingbirds and human admiration. 2007 Perennial Plant of the Year. Cut back in midsummer to encourage steady blooms. Likes hot and dry, but will grow in any well-drained soil. Plant 18-24" apart in full sun to part shade. Z3.

**L722 A: 1 for \$11.25 B: 2 for \$19.25 C: 3 for \$26.00**

**Oligoneuron rigidum Stiff Goldenrod - Organic** 2-5' tall. Also called **Rigida**. Formerly classified as a member of the *Solidago* genus and recently reclassified as an *Oligoneuron*. Grower Gene Ripley said it best: "Rigida displays the gorgeous yellow-gold vibrancy of goldenrod, but packed into a dense, showy, flat-topped cluster, with attractive lush slate-green foliage that you'd never recognize as a goldenrod. The pollinators absolutely love it, like all goldenrods, but Rigida draws them in without looking weedy or common. My favorite kind of plant: a native pollinator magnet that holds its own in the garden on looks alone!" Excellent cutflower. Plant in full sun to part shade in rich well-drained soil. Native to eastern North America. Z3. **ME Grown.**

**L723 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25**

**Paeonia (Itoh) x 'Bartzella' Peony** 30-36" tall. Fragrant 6" semi-double lemon-yellow flower with red flames at the center. Blossoms can display as fully double on occasion. Also known as **Intersectional Hybrid Peonies**, Itoh Peonies are a cross between herbaceous garden peonies and tree peonies and feature the best of both. Giant blossoms (like the ones on tree peonies) open just after the garden peonies have faded. The growth habit is similar to garden peonies with attractive mounded foliage that dies back in the winter. Don't cut it back to the ground in fall. **Leave at least 6" of hardwood stems above the ground**—next year's buds need room to develop on the lower stems. Full planting and pruning instructions will be included with your order. Z3. (Stock has 3-5 eyes.)

**L724 A: 1 for \$39.00**

**Paeonia lactiflora Garden Peony** Also called **Chinese Peony**. Red shoots appear in spring and form a bushy clump of lustrous dark green deeply lobed foliage. Fat spherical buds on sturdy stems above the foliage gradually open into large beautiful flowers from late spring to early summer. Ants may help the buds open so don't discourage their presence. May take 3 to 5 years to establish before blooming. Wait several years until the plants have many stems (therefore many eyes) before dividing. Z3. (Stock has 3-5 eyes, except where noted.)

**P. I. 'Candy Stripe'** 30-36" tall. Marvelous buds are pink with spiraling raspberry-red streaks, which open to fragrant whimsical double blooms of loosely held silken opalescent light pink petals splashed with occasional streaks of raspberry red. Mid to late season blooms.

**L725 A: 1 for \$48.00**

**P. I. 'Dr. Alexander Fleming'** 36" tall. Large double deep rose blooms. Some petal edges will develop a fine red outline. Prized for its sweet scent and impressive number of sidebuds. A must-have highly productive variety for your cutflower collection. Mid to late season blooms.

**L726 A: 1 for \$13.00 B: 2 for \$22.25 C: 3 for \$30.00**

**P. I. 'Festiva Maxima'** 36" tall. Introduced in 1851. Heavenly scented large double white flowers with a light crimson drizzle upon the central petals. Early season blooms. 2-3 eyes.

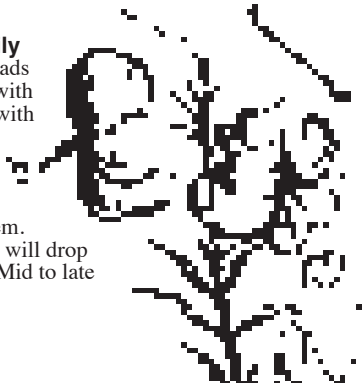
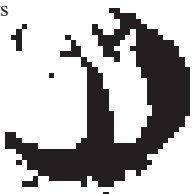
**L727 A: 1 for \$13.00 B: 2 for \$22.25 C: 3 for \$30.00**

**P. I. 'Kansas'** 36" tall. Vivid crimson fully double blooms on very strong stems do not fade in sun. Has set the standard for double reds since its introduction more than half a century ago. Early to midseason.

**L728 A: 1 for \$13.00 B: 2 for \$22.25 C: 3 for \$30.00**

**P. I. 'Red Charm'** 32" tall. Giant dark crimson double bomb-type with a heavily ruffled pile of petals in the center surrounded by a red guard of smooth single outer petals. Offers a gentle scent of cloves and roses. Extra-early bloom time!

**L729 A: 1 for \$25.50 B: 2 for \$44.00 C: 3 for \$59.50**



**Growing Garden Peonies**

- **Peonies prefer:** full sun to part shade, and rich fertile well-drained soil
- **Recommended soil amendments:** compost, bone meal, azomite
- **After danger of frost, transplant** 2-3' apart with the eyes no more than 1 1/2" below the soil.
- **Peonies require support** to prevent heavy flowers from flopping.
- **Autumn plant care:** Cut back to just above ground level to allow a fresh start in spring. Amend soil with compost around the base of the plant.





**Penstemon Beardtongue** North American native plants with spires of tubular bell-shaped flowers will beckon the birds and bees to your garden. Plant 8–14" apart in full sun to part shade in fertile medium-dry well-drained soil. Will self sow and develop a nice stand over time. Deer resistant. Z3.

**P. digitalis Foxglove Beardtongue** - Organic 3' tall. Airy clusters of white to light pink 1" bell-shaped flowers top rigid stems in early summer. ME Grown.

L730 A: 1 for \$9.50  
B: 2 for \$16.50  
C: 3 for \$22.25

**P. hirsutus Hairy Beardtongue** - Organic 16-30" tall. Shorter than *P. digitalis*, with fuzzy stems topped by clusters of slender tubular nodding 1" lavender flowers with arching white lips. ME Grown.

L731 A: 1 for \$9.50  
B: 2 for \$16.50  
C: 3 for \$22.25

**Perovskia atriplicifolia Russian Sage** 36-48" tall.

Renamed *Salvia yangii*. Elegant slender spires of lavender-blue tubular flowers in midsummer. Finely divided grey-green leaves are aromatic when crushed. *Perovskia* has one of the longest bloom times of any blue-flowered plant. Semi-woody shrub emerges slowly in spring; cut back after frost. Tolerates drought, loves heat and full sun, can't bear standing water. Likes to spread out once it gets established—we think it deserves every foot of space it can get! Plant 24–36" apart. Native to central Asia. We suspect Zone 4 reports of winterkill are from poor drainage rather than cold, so a cautious Z4.

L732 A: 1 for \$11.25  
B: 3 for \$26.00

**Phlox paniculata 'Jeana' Garden Phlox** 48" tall. Large clusters of fragrant showy pinkish-lavender flowers with tiny magenta eyes bloom from July through September, attracting butterflies and hummingbirds. Jeana's blossoms are more petite than the average garden phlox—excellent filler for late-summer bouquets. Spicy vanilla-clove fragrance. Extend flowering by watering and prompt deadheading. Dark green foliage looks clean all season with impressive mildew resistance. Naturalizes over time both by seed and underground roots. Prefers humus-rich soil that stays cool and moist in summer, and benefits from regular side-dressing. Plant 2' apart, full sun to partial shade. Species native to eastern North America. Z4. (2 1/2" plug stock)

L734 A: 1 for \$7.50  
B: 3 for \$19.50  
C: 6 for \$35.00

**Pulmonaria 'Mrs. Moon' Lungwort** 9–12" tall and eventually up to 2' wide. Brighten up your shade garden with boldly textured periwinkle-blue buds that open to charming pink flowers—a striking effect when both colors appear at once. Large ovate slate-green leaves are dressed in vivid silver-white splotches. A brilliant early season contrast to blooming daffodils and emerging hostas and ferns. Plant 1–2' apart in moist soil and full to partial shade. Z3.

L735 A: 1 for \$5.75  
B: 3 for \$14.50  
C: 6 for \$26.00



**Salvia azurea Blue Sage** - Organic 3-5' tall.

North American native displays delicate spires of sky-blue tubular double-lipped flowers in whorls on long square stems. Incredible in mixed bouquets. Humans generally love the sweetly scented foliage, while deer tend to avoid it. Blooms from August to October. Pollinators love this plant. Prefers poor soil. If the site you choose is too rich, plants may lodge without support. In full sun and well-drained sandy or light gravelly soil, they're likely to stand strong. Z4. ME Grown.

L736 A: 1 for \$9.50  
B: 3 for \$24.75  
C: 6 for \$44.50

**Sempervivum Hens and Chicks Mix** If you've got boulders in the back forty or a rocky sandy sun-drenched spot in the dooryard, you have the makings for an amazing cascading *Sempervivum* display. *Sempervivum* means 'always alive.' Low-growing rosette-forming succulents produce runners and babies by the boatload. Drought and heat tolerant, and cold hardy, too! They offer a fun way to learn about fractals—plant them in a strawberry pot with the kids for an easy-to-care-for project, or go whole hog and build a mini-boulder palace all decked out in Hens and Chicks and mosses. Performs best in super-drained gravelly soil with lots of sun and dappled shade. We're offering a mix of varieties including reds, greens and purples. Z3. (2 1/2" pots)

L737 A: 1 for \$5.75  
B: 3 for \$14.50  
C: 6 for \$26.00

**Symphotrichum Aster, Starwort or Frost Flower** Native wildflowers with freely branching sprays of brightly colored flowers decorate the autumn landscape throughout the Northeast. Asters add hardy grace to the back of the wild border and will naturalize on banks or in the meadow. Cut back slightly in early to mid June to induce an abundance of 1 1/2–2" rayed blooms from late August into October. Deer usually don't eat them. Asters provide important late-season nectar to hungry pollinators. Plant 12–18" apart in light moist humusy soil in full sun with good air circulation.

**S. laeve Smooth Blue Aster** - Organic 3-4' tall. Loose clusters of lavender-blue blossoms with yellow eyes. Smooth blue-green foliage. Z3. ME Grown.

L738 A: 1 for \$9.50 B: 3 for \$24.75 C: 6 for \$44.55

**S. novae-angliae New England Aster** - Organic 4-6' tall. Blooms range from blue-purple to lavender-pink with yellow eyes. Z3. ME Grown.

L739 A: 1 for \$9.50 B: 3 for \$24.75 C: 6 for \$44.55



**Symphytum x uplandicum 'Bocking 14' Russian Comfrey - Organic** 24-48" tall. Highly recommended as a companion plant for orchards. We scythe and gather up the leaves for mulch, or to add to compost piles or compost teas—it is rich in silica, nitrogen, magnesium, calcium, potassium and iron. Clusters of bell-like magenta-purple flowers dangle above the deep green bristled foliage. Russian comfrey is thought to have a higher pyrrolizidine alkaloid content than the species, *S. officinale* (page 65) is preferred for making herbal medicines. Easy-to-grow vigorous plant demands space and if the roots are disturbed *can be very invasive; be careful where you plant it and control with regular harvest.* Plant 24" apart in well-drained soil, sun or shade. Z3. **ME Grown.**

**L740 A: 3 root cuttings for \$23.75**

**Trollius Globeflower Sunshine Mix** 24" tall. We are crazy about Trollius, which are like big overgrown hyper-selected buttercups. Spherical to bowl-shaped orange-yellow double flowers bloom in late spring, around the time of late tulips, on stems above the foliage. Excellent for cutting. The fancy petal-filled flowers seem miraculous blooming so early in the season. Palmately lobed, then further divided and toothed (buttercup-like) leaves form a mound. Ideal for a moist border, streamside, or naturalizing in a damp meadow. Plant 8-12" apart in moist heavy soil, full sun to part shade. Z3.

**L741 A: 3 for \$16.00 B: 6 for \$28.00**

**Verbena stricta Hoary Vervain - Organic** 12-48" tall. North American native. Long-lasting steeples of blue-violet blossoms held on square reddish-purple stems with fuzzy slate-green leaves. Attracts scads of pollinators, most notably the Buckeye butterfly. Birds will devour the seeds! In 1911, Eloise Butler wrote of hoary vervain growing in a neglected lot: "Large, downy leaves thickly clothe the stem. The flower spikes are long and slender, having close rows of seed pods at the base with a ring of bright blue flowers above and tapering at the tip with the still unopened buds. The garden Verbena, unlike this weed, has the lazy habit of lying with its elbows on the ground and getting covered with dirt." Spreads by seed and will form nice clumps, even in dry soil. Plant 18" apart in full sun in well-drained soil. Blooms June through August. (For blue vervain, see page 65.) Z3. **ME Grown.**

**L742 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25**

**Veronicastrum virginicum Culver's Root - Organic** 4-6' tall. Elegant and towering, with large 9" flower spikes of densely clustered tiny white blossoms that open from the top down in early summer. Lance-shaped leaves form whorls on rugged upright stems that rarely need staking. Bees love this flower. Adds beautiful architecture to the back of the perennial border and is a requirement in any well-built rain garden. Plant 2' apart in full sun, in wet well-drained soil. Native to eastern North America. Z3. **ME Grown.**

**L743 A: 1 for \$9.50  
B: 2 for \$16.50  
C: 3 for \$22.25**

## Eloise Butler, Wild Gardener

*As you will know, I chiefly live and move and have my being in and for the Wild Botanic Garden.* —Eloise Butler

The Eloise Butler Wildflower Garden and Bird Sanctuary is a 16-acre native plant reserve and one of the oldest public wildflower gardens in the U.S. Located just outside Minneapolis, MN, the garden is maintained in accordance with its original charter, in a wild natural state similar to what you would have seen at its founding in 1907.

Born in Appleton, ME, in 1851, Eloise's chief amusement as soon as she could walk was roaming the woods, a passion that endured throughout her life. She taught school in West Appleton (near the old Butler Farm) and went on to enroll in teachers college at the Eastern State Normal School in Castine, ME. In 1874 she moved to Minnesota to begin a long teaching career in botany, retiring in 1911.

"My wild garden is run on the political principle of *laissez-faire*," Eloise said. "A paramount idea is to perpetuate in the garden its primeval wildness. All artificial appearances are avoided and plants are to be allowed to grow as they will and without any check except what may be necessary for healthful living."

For more information about Eloise, and to donate to the garden, visit: [friendsofeloisebutler.org/pages/support.html](http://friendsofeloisebutler.org/pages/support.html)



## Culinary and Medicinal Herbs

The following plants have long histories of traditional medicinal or culinary use. It's up to you to educate yourself about the safety and efficacy of using plants for medicinal purposes. The statements in our catalog regarding traditional medicinal uses of plants have not been evaluated by the FDA. The plants we sell are not intended to diagnose, treat, cure, or prevent any disease.

Plants may take a year or more to establish before they flower; roots often take several years to reach harvestable maturity.

**Achillea millefolium Yarrow - Organic** 24" tall. White flat-topped flower clusters bloom June through September. Excellent orchard companion and beautiful addition to the perennial border, meadow, herb or moon garden. Named for its use by Achilles to staunch battle wounds, has a centuries-old tradition of use as an external styptic. A natural anti-inflammatory, yarrow has been used to regulate the menstrual cycle and combined with other herbs as a cold remedy and to reduce fever. Infusion of flowering tops stimulates healthy digestion and improves circulation. Plant 18-24" apart in full sun and well-drained soil. Species introduced to North America by early European settlers. Z3. **ME Grown.**

**L744 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25**

**Acorus americanus Sweetflag** 24-36" tall. Hardy herbaceous water-loving bog plant forms striking stands of broad sword-like foliage that smells sweetly of citrus and vanilla when crushed. A spathe-less yellow-green spadix the length of a finger pokes out in early summer and eventually develops into fleshy berries containing two to three seeds. Dried roots have been traditionally used as an aromatic bitter for digestive upsets. Spreads vigorously by rhizomes in quiet shallow waters, wet open marshes, and along the shoreline. Can also be grown in consistently moist garden soil. 12-18" apart in full sun or light shade. Not to be confused with the similar European species, *A. calamus*. Sustainably grown. Native across northern U.S. and southern Canada. Z3. **ME Grown.**

**L745 A: 3 for \$28.50**

**Allium schoenoprasum Chives - Organic** 12" tall. Edible spreading groundcover has a layman's reputation for warding off scab on fruit when planted around the tree. Is thought to act as an aromatic pest confuser, emitting bitter aromas that deter critters from grazing in the garden. Chives are good to eat from early spring to heavy frost. Add greens and starry purple blossoms to omelets for subtle savory onion flavor. Plant 12-18" apart in full to part sun. Z3. **ME Grown.** (1-2" clump)

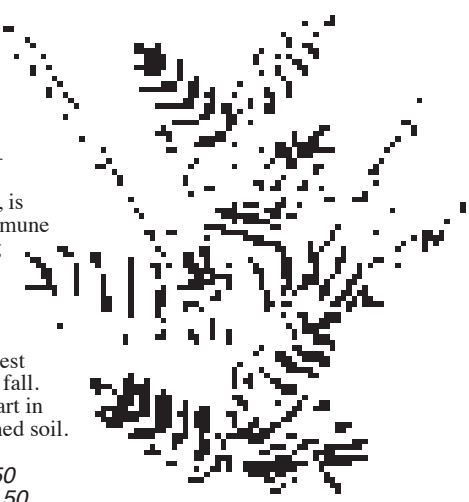
**L746 A: 3 for \$22.00**

**Althaea officinalis Marshmallow - Organic** 5-8' tall. Small delicate lavender-white flowers with darker lavender stamens bloom along the stalks of this beautiful towering medicinal plant. We've been drawn to marshmallow ever since we saw herbalist Deb Soule rub its soft velvet leaf against her cheek and explain how much the ruby-throated hummingbird appreciates the nectar of marshmallow flowers. The leaf, flower and mucilaginous roots are traditionally used to soothe the mucous membrane linings of the lungs and digestive tract, and to calm the lining of the urinary tract. Leaf is best used fresh for tea, and the dried roots are best when soaked overnight in cool water for tea.

Harvest 4-year-old roots for medicinal use. Wonderful in a hedgerow and magnificent planted with black cohosh as they often blossom together in late July and into August. Readily self-sows. Plant 1-2' apart in light moist soil, part sun, part shade. Native to Europe and Asia. Z4. **ME Grown.**

**L747 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25**

**Astragalus membranaceus Chinese Milk Vetch - Organic** 18-36" tall. Important Chinese medicinal known as *huang qi*. Deep-rooted leguminous plant forms an upright bush with many stems, each thickly covered with tiny pinnate leaves and small arching racemes bearing rows of whitish-yellow flowers. When used over many months, is known to rebuild the immune system while combating exhaustion. Long-term tonic use is believed to increase stamina and improve resistance to cold temperatures. Harvest 4- to 6-year-old roots in fall. Plant in full sun, 12" apart in deep gravelly well-drained soil. Z4. ME Grown.



L748 A: 1 for \$9.50  
B: 2 for \$16.50  
C: 3 for \$22.25

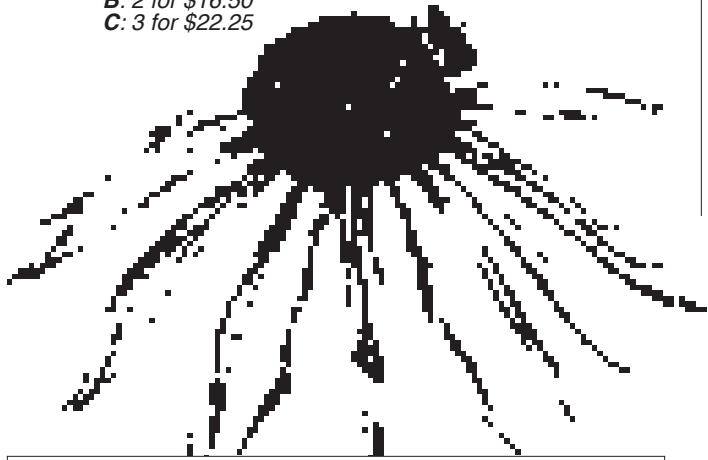
**Echinacea Coneflower** 3-5' tall. *Echinops* means 'spiny' and coneflower's spiny seedheads are beautiful surrounded by a single row of reflexed petals. These North American native plants are often overharvested in the wild. Medicinal benefits vary among the different species. *E. purpurea* and *angustifolia* are considered the standard for making medicinal tincture. *E. paradoxa* shares some of the immune-stimulating compounds as *purpurea* but in our opinion is best planted for the birds and the bees as a complement to your *purpurea* patch. Tolerates wind, heat and drought once established. Will reseed. Plant 20-30" apart in full sun and light sandy soil. Z3.

**E. paradoxa Yellow Coneflower - Organic** Bright pure-yellow flowers with drooping petals surround spiky dark brown seed cones—irresistible to gobbling goldfinches! Native to the Ozark Mountains and surrounding areas. ME Grown.

L749 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25

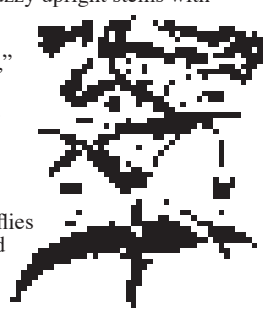
**E. purpurea Purple Coneflower** Reflexed lavender-purple petals surround the coppery yellow-brown seed cone. Attracts butterflies and other beneficial insects. Tincture roots of 3-year-old plants for a remedy that boosts the immune system; use it when you feel a cold or flu coming on. Native to eastern and central U.S. Sustainably grown. ME Grown.

L750 A: 1 for \$9.50  
B: 2 for \$16.50  
C: 3 for \$22.25



**Native Plants & The Wild Seed Project**  
The Maine-based non-profit Wild Seed Project ([wildseedproject.net](http://wildseedproject.net)) is a great place to learn about growing native plants from seed and incorporating them into the landscape. Wild Seed Project works to increase the use of native plants in all settings in order to conserve biodiversity, encourage plant adaptation in the face of climate change, safeguard wildlife habitat and create pollination and migration corridors for insects and birds. As a small cooperative seeking to provide ethically sourced plants to our customers, we at Fedco have been deeply appreciative of guidance from Wild Seed in helping us determine which plants are at-risk of being pillaged in the wild. If you want to support this important work, you can donate to Wild Seed Project when you fill out a paper order form.

**Eupatorium perfoliatum Boneset - Organic** 5-7' tall. Also called **Thoroughwort**. Majestic native with flat-topped clusters of creamy-white to milky-lavender flowerheads atop fuzzy upright stems with deeply veined dark green diamond-shaped perfoliate leaves. Traditionally used to alleviate the symptoms of "breakbone fever," now known as dengue fever. Tincture of the flowering tops and leaves induces sweating, stimulates the immune system and acts as a mild anti-inflammatory. Traditionally used as a tea during flu epidemics. Peak bloom is mid to late August, providing a generous late-season supply of nectar for adult butterflies and other pollinating insects. A practical and fetching addition to the wilder part of the orchard and perennial border. Plant 3' apart in moist soil and full sun to dappled shade. Native to eastern North America. Z3. ME Grown.



L751 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25



**Lavandula angustifolia 'Munstead' Lavender** 16-18" tall. Considered the hardiest lavender, with light lavender flowers. Sweet-scented flower spikes extend above aromatic silvery-green lanceolate leaves. Makes a nice border, rockery, slope or specimen plant. Compact habit lends itself to edging walkways. Deadhead spent flowers for blooms all summer. Traditionally used to calm nervous excitability and relieve muscle tension. Plant 12-24" apart in full sun, in moist well-drained soil. Mulch to prevent winter heaving. Z4.

L752 A: 1 for \$10.50

**Levisticum officinale Lovage - Organic** 6' tall. Looks like a giant celery plant with toothed compound leaves, greenish-yellow umbelliferous flowers and small oval seeds. A dramatic architectural element for an edible border; attracts beneficial insects. Glossy green leaves have a strong celery taste and can be used to flavor soups, stews and casseroles. Crush seeds and add to bread and pastries; candy the stems and roots into a sweet medicinal syrup that is said to restore the appetite and revive the love of life. Second-year plants are best for drying. Formerly used to mask the bitter herbs in medicinal concoctions. Avoid during pregnancy. Plant 24-36" apart in full sun to part shade in rich moist well-drained soil. Native to Europe and Asia. Z3. ME Grown.

L753 A: 1 for \$8.75 B: 2 for \$15.25 C: 3 for \$20.50

**Melissa officinalis Lemon Balm - Organic** 24" tall. The Greek word *melissa* means 'honeybee'—the plant in flower attracts them. Yellow-green scalloped lemony leaves are delicious in teas, salads, with fruit, or dried for sachets. Infuse leaves in oil for making potent lemony antiviral topical creams and salves. Plant in full sun in rich well-drained soil. Some say Zone 4, but our clump in Zone 3 has been coming back strong for 13 years, even after our Grammy Ethel Lewis mowed it repeatedly with her John Deere! Native to Europe and Asia. ME Grown.

L754 A: 1 for \$8.75  
B: 2 for \$15.25  
C: 3 for \$20.50





**Mentha piperita Chocolate Mint - Organic** 18-24" tall. Our favorite mint! Bright sweet refreshing peppermint-patty flavor is a must-have for any winter dried-herb supply. Freshen your breath, settle your stomach, brighten up fruit desserts, garnish ice cream, flavor your favorite meat dish, or scent soaps and salves. We grow chocolate mint to enjoy during our warehouse crew tea breaks and to add to the communal hot cocoa pot. Harvest the leaves before it goes to flower. As with any mint, plant it where you want it forever. Plant in full sun in any decent garden soil. Some say Z5, although many of us have unstopable patches in Z4. **ME Grown.**

**L755 A: 1 for \$8.75  
B: 2 for \$15.25  
C: 3 for \$20.50**

**Monarda Bee Balm** Also called **Bergamot** or **Oswego Tea**. Beloved by bees, butterflies and one of the best hummingbird magnets nature has to offer! Wild and wily flowers form with tubular petals on pincushion heads borne above colorful bracts in July and August. Aromatic foliage. Good for borders, for wet areas and for cutting. Infusion of the aerial parts can be used to improve digestion by reducing flatulence. Delicious used as tea or added to meat and bean dishes. Plant 16-20" apart in light shade in moist soil. Thrives in full sun if given adequate moisture or mulched with leaf mold; tolerates most conditions. Z3.

**M. didyma 'Panorama Reds' - Organic** 3-4' tall. Fabulous blooms in a diverse range of red shades destined to attract scads of butterflies and hummingbirds for your cats and kids to chase in vain. **ME Grown.**

**L756 A: 1 for \$8.75  
B: 3 for \$22.75**

**M. fistulosa Wild Bergamot - Organic** 2-4' tall. Our native North American wildflower species with aromatic lavender blossoms. This is the species most commonly used for medicinal purposes. **ME Grown.**

**L757 A: 1 for \$8.75  
B: 3 for \$22.75**

**Origanum vulgare Oregano - Organic** 18" tall. Low-growing perennial with fragrant green and purple leaves and white flowers. This is the culinary oregano—dry the leaves and sprinkle them on pizza all winter. If given plenty of space in full sun, it will sprawl and attract a proliferation of pollinators. Plant 24" apart in medium garden soil. Survives some winters in Zone 3, but we can safely say Z4. **ME Grown.**

**L758 A: 1 for \$8.75**

**Pycnanthemum virginianum Mountain Mint - Organic** 30" tall. Feed your local pollinators with this densely flowered native. White to light lavender flowers with tiny purple spots bloom July to August. Wispy upright branching foliage smells intensely minty when crushed. A strong infusion of the aerial parts makes a tasty minty tea, traditionally used to settle indigestion. (Avoid during pregnancy.) Spreads by shallow underground rhizomes and will ramble around if you let it, so choose planting location wisely! Prefers moist soil and will do well in full sun to part shade. Once established, it will grow well in a wide range of soils. Tolerates clay, heat and drought. Try growing it along the woodland edge—deer are not fond of this plant. Native to eastern U.S. from Maine to Michigan and south to Georgia and Texas. Z4. **ME Grown.**

**L759 A: 1 for \$9.50  
B: 2 for \$16.50  
C: 3 for \$22.00**

**Salvia officinalis Garden Sage - Organic** 24-36" tall.

Aromatic fuzzy oblong grey-green leaves and light blue flowers. Used fresh or dried, leaves are tasty in stuffing blends, with eggs, cheese, poultry, pork. Sage tea dries up mothers' milk and helps reduce hot flashes. Grows woody with age; replace every 3 years or so. Plant 24" apart in full sun and rich well-drained soil with good fertility. A light winter mulch of straw is highly recommended to prevent heaving. Z4. **ME Grown.**

**L760 A: 1 for \$9.50**

**Symphytum officinale Comfrey** 24-48" tall.

Also called **Knitbone**. Clusters of bell-like pinkish purple flowers dangle above the deep green bristled foliage. Highly recommended as an orchard companion. Well known for its skin-soothing properties. Contains allantoin, promotes healing of skin and bone; also demulcent for lung and throat. Research on comfrey is inconclusive, but most agree that this species is the one to use medicinally. Easy-to-grow vigorous plant *can be invasive*; be careful where you plant it and control with regular harvest. Choose a site that will never see a rototiller or you will live to regret it! Plant 16-24" apart in well-drained soil, sun or shade. Native to Europe and Asia. Z3. **ME Grown.**

**L761 A: 1 for \$8.75 B: 3 for \$22.50 C: 6 for \$40.50**

**Thymus vulgaris German Winter Thyme - Organic** 10-15" tall.

Fragrant sprawling perennial brings depth of flavor to soups, gravies, casseroles. Said to calm the nerves and soothe headaches. As good in salad dressings as it is in sore-throat remedies. Bees love its short lavender flower spikes. Likes well-drained light dry alkaline soil. Plant 18" apart, full sun, in light sandy or loamy well-drained soil. Native to Europe. Z4. **ME Grown.**

**L762 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25**

**Urtica dioica Stinging Nettle - Organic** 3-6' tall.

The benefits of this plant outweigh the risk of a short-lived sting. Biodynamic gardeners use the dark green nettles to increase potency of neighboring herbs and to stimulate humus formation. Young shoots are high in minerals—the leaves are delicious steamed as early spring greens or dried and brewed as tea. Handle fresh and dry herb with gloves. Cooking removes the sting. Choose your planting site carefully; nettles spread readily, and both the rhizomes and leaves sting. An indicator of super-fertile soil where it volunteers. Plant in damp rich soil with high nitrogen content; thrives beside manure piles or the lush side of your leaky compost bin. Z2. **ME Grown.**

**L763 A: 1 for \$8.75 B: 2 for \$15.25 C: 3 for \$20.50**

**Verbena hastata Blue Vervain - Organic** 5-7' tall. Elegant tall branching spikes of vibrant blue-purple flowers. Honeybees mingle amongst the blossoms all day. Used as a nervous-system tonic and mild sedative. Tincture of the fresh flowering tops is said to ease stress-induced neck tension, as well as help women to navigate premenstrual, perimenopausal and menopausal waters. Grows wild along streambeds and marshes but will happily grow in ordinary garden soil. Plant 1-2' apart in full sun. Native to North America. Z3. **ME Grown.**

**L764 A: 1 for \$9.50 B: 2 for \$16.50 C: 3 for \$22.25**

**Viola sororia Common Blue Violet - Organic**

6-10" tall. North American native with cheery blue-purple flowers in May and attractive heart-shaped dark green leaves, all edible. Traditionally used as medicinal tonic for the heart. Cook the leaves as you would spinach, or eat them raw in salads for a nice dose of vitamins A and C. If you really want to get fancy, use the blossoms to make a beautiful bright purple syrup. Larval host plant for multiple species of butterflies. Plant 12" apart in full sun to part shade in average garden soil. Z3. **ME Grown.**

**L765 A: 1 for \$8.00  
B: 2 for \$13.75  
C: 3 for \$18.50**

## Tender Summer Bulbs

Spring-planted bulbs offer wonderful variety to the cutflower market and are a staple in old-fashioned gardens. The bulbs we offer here are not hardy to northern climes. Smart and thrifty people lift and store them over the winter; the rest of us treat them as annuals.



**Begonia x tuberhybrida Tuberous Begonia** If you live in the woods with limited sunlight and are longing for colorful flowers, tuberous begonias offer lush textures, intense colors and a tropical aura that make this tender plant well worth cultivating. Velvety flowers bloom all summer, drooping languidly amidst red-tinted foliage. Excellent bedding or container plants. All are *camellia multiflora* types.

**Orange** 12" tall. Double flowers.

**L766 A: 3 for \$14.25 B: 6 for \$24.75 C: 12 for \$44.25**

**Dark Red** 12" tall. Double flowers.

**L767 A: 3 for \$14.25 B: 6 for \$24.75 C: 12 for \$44.25**

### Growing Tuberous Begonias

- After last frost, plant 2" deep, 8–12" apart, in rich moist but not soggy well-drained soil. Place the knobby concave side facing upwards, rounded side down.
- For window boxes, plant 3–5" apart.
- Grows best in a cool spot with indirect sunlight and good air circulation.
- We drench ours with water every other day, feed them weekly and stand back to ooh and ah!



**Crocsmia x crocosmiiflora 'Lucifer'** 24–36" tall. *Lucifer* is Dutch for 'match.' Glows in the garden! Midsummer sprays of bright red flowers open from bottom to top on long arching bronze stems, like bursts of flame above gladiolus-like foliage. Grows well in pots. Makes a long-lasting cutflower. Plant in full sun, 3" deep, 3" apart in moist well-drained soil. May overwinter with protection in Zone 5; colder zones should treat these as annuals.

**L768 A: 10 for \$11.50 B: 20 for \$20.00 C: 50 for \$45.00**



**Dahlia** We were not able to confirm our supply at press time. Please check our website for availability and pricing!

**Gladiolus Sword Lily** Showy summer bloomer excels as a cutflower. Each stalk is covered with 10 or more open funnel-shaped flowers that bloom from bottom to top. Named for their sword-like leaves; a gladiolus is a small Roman sword. Each stalk blooms for about a week, roughly 8 weeks after planting.

**G. Large-Flowering Glad Mix** 36" tall. A mercurial mix of colors, stripes, stipples, bicolors, tricolors—what fun!

**L771 A: 10 for \$6.50 B: 20 for \$11.25 C: 50 for \$25.50**

**G. Nanus Glad Mix** 24" tall. Marvelous miniature glads in mixed colors, bicolors and butterfly types. Very satisfying clumped in a bed or as cuts. They're just darling! Some suppliers offer these as Hardy Glads, supposedly hardy in Zone 5. This is optimistic unless you have very good snow cover or winter mulch. Even with mulch, we'd say Z6.

**L772 A: 12 for \$9.50 B: 24 for \$16.50**

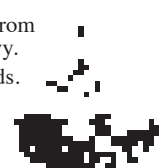
**G. murielae Fragrant Gladiolus** 12–18" tall. Also called *Acidanthera*. Sword-like foliage is topped by wonderfully scented star-shaped 2" white flowers with mahogany-purple centers on arching stems. Beautiful in the garden or as a cutflower; another name is **Peacock Orchid**. Culture like gladiolus, but blooms slightly later. Z7.

**L773 A: 20 for \$11.25 B: 40 for \$19.50 C: 60 for \$26.00**



### Growing Gladiolus

- After the last spring frost, plant corms in full sun 5" deep and 8" apart.
- Stagger plantings for a long season of blooms: First planting in early to mid-May, then again every two weeks through mid June. This schedule will keep the flowers coming July through August.
- Hill or stake the corms at planting time to keep the plants from keeling over when the foliage and flower spikes get top heavy.
- Mulch with straw to retain even moisture and prevent weeds.
- Cut the stalks when 2–3 blossoms have opened, taking care to spare the leaves, which feed the developing corm.
- **To overwinter**, dig corms after the tops have died, discard the old one, clean the new one, allow it to dry off, and store them in paper bags in a well-ventilated cool (35–45°) dark dry place.



# Guide to Planting and Care

## When you get your order: Immediate Care DO NOT ALLOW ROOTS TO DRY OUT AT ALL!!!

When your new trees and shrubs arrive, they need to be planted as soon as possible. Don't be deterred by snow. If you can dig a shovel into the ground, plant your trees. If you wait until spring is in full swing, your plants might become stressed and have a hard time recovering.

If frozen ground makes immediate planting impossible, follow the instructions below and all will be well. Why do we send plants even when there is snow on the ground? The weather may be fickle but we must be steady. Bare-root plants need to move out of storage and travel to their permanent homes before or as they are breaking dormancy, but not much later. For our system to work, we must follow a tight shipping schedule regardless of regional weather conditions. We begin shipping late March and finish early May, sending orders by climate zones, warmest region first.

If you can't plant immediately and are unable to store or heel in plants as instructed below, ordering bare-root plants may not be right for you.

### If You Can Plant Woodies Within 48 Hours (Ideal)

Leave the plastic wrapping around the root ball. Add some water to re-moisten the packing material and store your trees and shrubs in a cool shaded place like a shed, barn or cellar. Avoid heat and sunlight.

### If You Cannot Plant Within 48 Hours

You can keep plants for a week or two by following one of these temporary measures and continuing to water as needed:

- Open your package and inspect for damage. Fold the plastic back from around the tops of trees and shrubs. Keep the damp shredded newspaper around the roots and re-wrap the plastic around the root ball, packing firmly to eliminate air pockets. Water as needed to keep the roots moist, but don't let them stand in water. Keep the trees in a cool shaded or dark place like a shed, barn, cellar or garage, but don't allow the plants to freeze before you get them in the ground. Avoid heat and sunlight.

- You could also "heel in" your trees in a protected cool shady spot. Dig a trench or turn back an appropriate amount of earth and bury the roots; tamp firmly to remove air pockets. Water thoroughly. Plant in final location as soon as possible.

## Caring for Other Plants Until Planting Time

### Asparagus

Store asparagus roots dry and uncovered in a cool shaded place.

### Hops

Refrigerate slightly moistened rhizomes in a plastic bag until planting.

### Horseradish & Rhubarb

Open package slightly to allow the plants to breathe. They should be fine left in their packaging and kept in a cool place (ideally 35–50°). Keep them moist but not wet.

### Mushroom Spawn

Refrigerate in packaging until ready to use.

### Strawberries

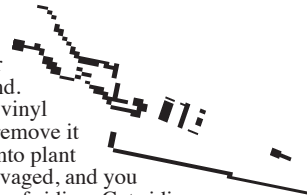
We ship with the roots slightly on the dry side. If it's going to be a while until planting, mist the roots and re-cover. Refrigerate until you are ready to plant. When it's time to plant, do it in the evening or on a cloudy day.

### Herbaceous Perennials

Open bags and check the stock immediately. Roots and crowns should be firm and pliable, not squishy or brittle. Surface mold is harmless and will not affect the plant's future performance. Store plants in their packaging in a cool (35–40°) location until you are ready to plant. If it's going to be awhile, you can pot up your perennials. See page 57 for more detailed perennial planting instructions.

### The Perfect Tree Label

Commercially available garden labels do not last. Permanent marker fades. Aluminum tears off in the wind. And so on. We make our own using vinyl siding. It works so well, we should remove it from all the houses and make it all into plant labels! It's inexpensive, or easily salvaged, and you can make dozens from a single piece of siding. Cut siding into strips using a utility knife. Snip strips to length using hand pruners. Drill a hole at one end. Attach with wire. Write on labels with pencil, NOT a marker. Pencil will last for decades.



The basics of tree care outlined here are meant to get you started. Obviously, we can't tell you everything you need to know in a few pages. Some specific information, like location or soil preferences of particular plants, is in the item descriptions. A soil test is useful in determining the specific needs of your site. Fedco's Organic Growers Supply offers a soil testing and fertilization recommendation service. Learn more at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs).

Reading, observation, trial and error, and talking with other growers and extension agents can expand your knowledge of trees and shrubs. Consult the OGS book list for recommended reference books. Also, find useful links at our website, [fedcoseeds.com/trees](http://fedcoseeds.com/trees).

## General Planting Directions for Trees and Shrubs

The best way to ensure your plants will thrive is to follow our cultural requirements. Choose the right site for the plant. Add soil amendments only as needed. Many native plants don't require any fertilization. Fruit trees may need more. (See next page for fruit tree fertilization recommendations.)

To reduce transplant shock, plant on cool cloudy days in the early morning or late afternoon. Soak roots of deciduous trees and shrubs for up to 24 hours before planting, but not longer. Keep the roots from drying out; even a few minutes in the sun and breeze can damage a tree or shrub. Keep them watered and covered until the moment you set them in their planting holes!

### Follow these steps for planting:

1. **Dig a large hole**, at least twice as wide and about as deep as the root system. Most roots grow laterally and need plenty of room to spread out. Your trees will benefit if the hole is at least 3' wide.
2. **Loosen up the soil** at the bottom of the hole and especially around the sides. For fruit trees, if you haven't used our *Deluxe Fall Preparation Method* (next page), you may add a 3-lb bag of **Fedco's Hole-istic Spring Planting Mix** (available in our Seeds & Supplies catalog, or at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs)), or well-aged compost and mineral fertilizers like rock phosphate or azomite, but *not* raw manure or other nitrogen sources. Incorporate into the soil, then make a mound at the bottom of the hole over which to spread the roots.
3. **Examine the plant for a "dirt line"** or a change in bark color indicating nursery depth. (This is different from the graft line.) Generally, you should plant trees and shrubs at the same depth they grew in the nursery. Set the plant in the hole and spread the roots out around the mound. Make sure the roots are not circling in the hole. It's better to trim roots a bit than coil them. Hold the plant at the right depth as you backfill the soil around it. Tamp firmly to remove air pockets.
4. **Water immediately**. Don't skimp on the initial watering; make sure there's plenty to settle in all the loosened soil. Wiggle the trunk as the water seeps in to ensure no air pockets remain around the roots. Leave a berm around each tree so water will not run off. Keep trees well watered throughout the first summer. They require the equivalent of 1–2" rain per week. Longer deeper soakings are effective; frequent sprinklings are not.
5. **To remember which varieties you planted**, paint a map of the orchard on your wall, or replace the plastic Fedco plant tags with permanent vinyl tags. See below left.



## Choosing a Site for Fruit Trees and Berries

The best sites for fruit crops have well-drained fertile soils, protection from wind, good air drainage and full sun. A gentle slope and 6–8 hours of full sun per day is ideal. Good air flow will moderate frosts and fungal disease. If possible, avoid “frost pockets.”

Sunny south- or west-facing slopes are not advisable for less hardy varieties. These slopes tend to warm up before the danger of frost has passed. Trees may flower prematurely and then be damaged by frost, causing loss of fruit. South and west slopes may also have widely fluctuating early spring temperatures that can damage less hardy trees.

Soil pH for fruit trees should be between 5.5 and 8.0, toward the lower end for apples, the higher end for peaches, and in the middle for others.

Fruit species have optimal space requirements. See chart, next page.

Do not plant trees where power lines will interfere with them.

## Fall Preparation or Spring Initial Feeding for Fruit Trees

If you're interested in preparing locations for your trees this fall, or for feeding newly planted fruit trees, the following amendment recipe should address most sites in the eastern U.S., which tend to be acidic and moderate to low in calcium and phosphorus. You'll also find all the amendments below at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs).

### Deluxe Fall Preparation Method

• When digging the hole, cover an area 4–6' in diameter with:

- 5 lb gypsum or Hi-Cal lime
- 5 lb colloidal phosphate (short-term calcium and phosphorus)
- 5 lb azomite (long-term minerals and trace minerals)
- 5 lb granite meal (for improved soil texture)
- 2–3 lb Hum-Amend Max (aids mineral and rock-powder breakdown)

• For building high levels of humus, also add:

- 2 lb alfalfa meal
- 2 lb bone char
- 2 lb kelp meal
- 2 lb blood meal
- 100 lb compost (1/8 yard)

• Or skip those recipes and use **Fedco's Fall Fruit Tree Prep Mix**, one 32-lb bag per planting hole, available at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs).

Cover with a 3–4" mulch of lawn clippings, leaves or woodchips, which will smother the sod, conserve moisture, prevent leaching and provide a habitat for soil organisms to break down the recipe. In the spring, pull back the mulch and dig your tree hole, incorporating the mineral supplements and compost into the backfill.

If you didn't get around to fall prep, you can apply this same mix as a mulch to your newly planted tree in the spring.

### Simpler Method

Forgo the soil amendments and simply pile 1–2 wheelbarrows of compost on each planting-hole site. If you live by the ocean, add a couple wheelbarrows of seaweed. Then cover with mulch. In the spring, pull back the mulch and plant your fruit tree, incorporating the compost into the hole as you dig.

## Feeding Older Fruit Trees

Cover the surface of the ground out to the tree's drip line with the same materials listed above, or with **Fedco's Fruition**

**Mix**. For larger trees (five years and older) increase the mineral amount to 10–15 lb each.

For ancient trees you can use up to 25 lb of each mineral, or **Fedco's Ancients Rise Mix**, in a ring beneath the drip line. Mulch as described above.

All Fedco-formulated mixes are found in our Seeds & Supplies catalog, or at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs).

## Initial Pruning at Planting Time

### All Trees and Shrubs

Prune any branches that were broken during shipping. Sometimes we need to prune a central leader in order to fit a tree into a shipping box; don't worry—a new leader will grow from the topmost bud. Prune all dead or injured branches and roots. Further pruning of most trees is not necessary at planting time.

Do not prune tops or prune or bend tap roots of nut or oak trees unless necessary.

Find information on pruning flowering shrubs on p. 45.

Conifers (p. 43); roses (p. 48); and lilacs (p. 51) benefit from special pruning especially in later stages of growth.

### All Fruit Trees

Avoid excessive pruning on young trees, as it can delay bearing. It's okay to cut off extra trunks and lateral branches to establish the tree's basic shape, but keep in mind that every time you prune potential leaf-bearing branches from a young tree, you set it back.

The tree will grow quickly and fruit sooner if you allow it to maximize photosynthesis. Once it begins to fruit, you can prune annually. Always remove suckers or root shoots.

On peaches and plums, the trees may want to develop 2–4 leaders, or an open-vase shape. Always prune just above a good strong bud that faces a direction you'd like your branch to grow. On apple and pear trees, you may choose to either leave the central leader alone and let it grow or cut it back according to the instructions below. Either way is acceptable; it's a matter of personal preference.

### Apple Trees

Apple trees will almost always benefit from light initial pruning to establish shape. After that, refrain from pruning until the tree begins to fruit.

• **Year one (initial planting time):** If the tree is a branch-less “whip,” you may cut the top back to a strong bud about 3–4' from the ground. This will encourage branching. If the new tree arrives with branches, prune off all but 3–4 branches at the height you'd like for your first tier, about 3–4' from the ground, or higher if you prefer. The lowest scaffold (branch layer) should be very wide to collect as much sun as possible. If too low, these long branches will rest on the ground under the weight of fruit, and the deer will have a field day. Also, it becomes difficult to mow under and to mulch.

Some folks choose not to prune at the time of planting and wait to shape the tree in subsequent years. This method is fine, too.

• **Year two:** Trim off root suckers or other odd branches that come up from around the base. Otherwise, leave the tree alone and let it grow.

• **The next few years:** If something looks really crowded, broken or dead, prune it. Otherwise, leave your tree alone and let it grow. If you don't fuss over it too much, you'll get fruit sooner!

## Pruning Established Fruit Trees

Once your fruit tree begins to bear, you should prune annually. Good pruning brings sunlight to all parts of your tree. Maximum sunlight encourages more and higher-quality fruit.

Sunlight also encourages fruit buds to form for next year's crop. Good airflow discourages fungal diseases and promotes greater spray penetration. There's an old saying that a bird should be able to fly through your fruit tree. A well-pruned tree will produce larger fruit and will tend toward more annual bearing.

Most pruning should be done in late winter or early spring. We recommend a good-quality pair of hand shears and a lightweight pruning saw. You may also wish to invest in long-handled loppers, a pole pruner or a pole saw. Keep your pruning tools sharp for smooth clean cuts.

Any good book on growing fruit trees will have the information you need. Consult old and new books as well as orcharding articles and develop a system that works for you. Pruning is not difficult and will make a huge difference.



**Mulch**

Keep weeds and especially grass away from new trees and shrubs. Apply a 2-4" mulch of composted material—leaves, wood chips or hay—out as far as the drip line. A 1/2-1" topdressing of alfalfa meal beneath the mulch may substantially reduce transplant shock. Keep mulch back several inches from the tree trunk. We lay down cardboard or newspaper and spread mulch on top of it. Mulch encourages earthworms, holds moisture, keeps down weeds, insulates against excess heat and cold, aerates and loosens soils, builds humus and fertilizes feeder roots, 90% of which are within 6" of the surface.

**Staking & Crooked Trees**

Newly planted standard-sized and semi-dwarf fruit trees and ornamental trees seldom need staking. If your tree is in a very windy site or develops a leaning habit, staking may help.

Dwarf apple trees do require staking. Drive a stout post near the tree. Wrap the tree trunk with a scrap of burlap or rubber to protect against abrasion. Secure the wrapped part of the tree to the post with string or wire. Tie tree somewhat loosely, as a slight rocking motion will encourage rooting. Once roots are well anchored, the stake may not be needed. Mark small trees with a stake with ribbons to warn operators of lawn mowers, tractors, cars and skidders.

Some tree varieties naturally tend to grow a little crooked (like Redfield apple!) and they won't grow straight no matter how much room we give them in the nursery.

To mitigate this issue, you may try staking. You may also try planting the crooked tree so the roots are at a slight angle and the top is more upward-pointing, as if to split the difference. Most trees do not grow perfectly straight. Retraining your eye to appreciate a tree's unique form may be easier than fighting nature.



**Spacing of Fruit Trees, Nut Trees & Berries**

	between plants	between rows
Apples, Dwarf	5-10'	15'
Apples, Semi-dwarf	15-20'	15'
Apples, Standard	20-25'	20-25'
Asparagus	1-2'	4'
Blackberries	3-4'	6-12'
Blueberries & Saskatoons	3-6'	8-10'
Grapes	8'	8-10'
Hazelnut	4-6'	hedge
Nut trees - orchard	35'	35'
Nut trees - forest	20'	20'
Pears, Asian Pears, Quince	15-20'	20'
Raspberries	2'	6-12'
Stone Fruit	15-20'	15-20'
Strawberries	see instructions, p. 29	
Sweet Cherries	25'	25'

**Orchard Ladders:** Sturdy lightweight traditionally shaped wooden orchard ladders have wide bottoms for stability and narrow tops for easy handling and placement. Contact the manufacturer:

Peter Baldwin, (207) 722-3654  
 baldwinpetert@gmail.com  
 baldwinappleladders.com



**Beware the Apple Borer!**

In many parts of central and northern New England the roundheaded apple tree borer, *Saperda candida*, is the number one enemy of young apple, crabapple and quince trees. If you are growing young apple trees in these locations, you must protect your trees from this pest. Farther south and north the borer may not be an issue. If you don't know if they are a problem in your area, check with any grower near you: they'll know. Otherwise, err on the side of caution. Borers also feed on other members of the rose family, such as pear, hawthorn, Aronia and Amelanchier.

Borer beetles lay eggs under the bark near the base of the tree. The developing larvae tunnel through the wood, weakening the tree until it eventually falls over. The trouble sign is small deposits of orange sawdust, called frass, at the base of the tree. Check lower trunks for frass and tunneling in late May, and again in September. Left unchecked, borers usually mean death for young trees.

Here are our strategies for controlling borers:

**Coat the trunks with Neem or Paint**

**• With Neem Oil** We have been experimenting with several methods for treating borers using neem oil. It's easy and effective. All you need is a paintbrush and undiluted neem oil warmed to liquefy. Paint neem on young tree trunks from the soil line up 12". We apply one time only around July 1. If applied in May or early June, the neem dries and becomes ineffective.

**Note:** We have noticed that the adventitious root bumps of M111 show some sensitivity to undiluted neem.

We're having good results spraying a 2% neem solution on the trunks of M111 and other clonal rootstocks.

**• With Paint** After neem oil, paint is likely the best deterrent. It's easy and requires no hard-to-find ingredients. Do not apply paint until trees have been in the ground for 3-5 years. Until then, be sure to continue monitoring them for signs of borer.

**Recipe:** Mix white interior latex paint with joint compound. (The stuff you smear on sheet rock joints and nail holes—you can buy a small tub at any hardware store. Make sure to use *interior* paint, as some exterior paint formulations contain ingredients that can harm the tree's phloem.) The consistency should be thick but still quite easy to paint, not glob on. Repaint as needed. This mix will help deter borers and also make detection of infestations easier. Once you locate a borer hole, you'll have to cut or blast it out (see below). Look for the orange frass!

**Cut it Out** Once you've identified a hole or soft spot in the trunk, insert a wire and dig around until you locate and kill the larva. Cut away soft spongy pockets with a knife. Even serious carving is less harmful to the tree than leaving the larvae alive inside.

**Blasted Borers** When you discover a soft spot or hole in the tree, get yourself a can of compressed air (for cleaning computers). Put the long skinny tube nozzle up to the hole and give it a blast. Should do the trick.

**The Polyculture Deterrent** Borer beetles thrive in shady moist warm environments. Keep grass back at least 6' from the tree base. Trials in our "functional" orchard suggest that a mixed polyculture environment may disguise the apple trees and fool the borers. We plant woody and herbaceous perennials around the trees, keeping them back 12" or so. Borers are lazy opportunists. If there are a lot of apple trees within easy reach, they will attack. Otherwise, you may never see them. The polyculture orchard may present too much work for them.



**Soil testing & organic fertilizer recommendation service**

Which soil amendments do you choose and how much do you apply? Don't guess—test! Fedco can help. We'll send you a soil test kit and sampling instructions, plus a postage-paid box to return your soil sample and test form to the Maine State Soil Lab. Once your results are in, we'll offer customized recommendations for how to correct any deficiencies or imbalances in your soil. Cost is \$50. **Learn more about this service in our Seeds & Supplies catalog, or at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs).**

## Scab in the apple orchard

Apple scab (*Venturia unaequalis*) may be the most challenging disease for the New England apple grower. Scab is a fungus, spread by spores that overwinter in fallen fruit and leaf litter, rising up in rainy spring weather to cause grief all over again. It appears as small rough black patches on the fruit or foliage. A bit of scab is not a bad thing. It won't hurt you or your tree or fruit. Some growers actually believe that a small amount of scab triggers a beneficial self-protection response in the apple. But a lot of scab can destroy the fruit and even kill the tree. Severity of infection can vary depending on the year, the site, and the variety.

With organic or conventional fungicides as a last resort, what can you do to avoid or minimize scab damage in your trees?

• **Avoid susceptible varieties.** Although nearly all apples are susceptible to some extent, certain varieties are especially vulnerable to scab. In particular, McIntosh and its relatives are scab magnets. These include Cortland, Fameuse and Macoun. If you grow these apples, you'll probably struggle with scab in your orchard. If you can avoid these varieties, you may be able to keep scab to a tolerable level without spraying fungicides. Most heirlooms can be susceptible but should be quite tolerant as long as the more highly susceptible varieties are kept away.

In 1945, Purdue, Rutgers and the University of Illinois began a collaboration to develop scab-immune varieties. Many of these have PRI in their names. (Prima, Pristine, Williams Pride, etc.) They bred the varieties using *Malus floribunda* as a parent. It contains a gene that imparts scab immunity to the fruit. By crossing and re-crossing, they were able to isolate and include this gene in the final introduction. We've offered some of these varieties, including GoldRush from the PRI program, and Liberty from the associated New York breeding program. If you like the fruit from these varieties, growing them can be a good strategy for avoiding scab.

• **Thin the fruit.** In late spring or early summer, we thin all our tree fruit, removing enough fruitlets that the mature fruits won't touch. You want air circulation. Insects also like those places where fruits rub against each other.

• **Clean up drops and fallen leaves.** Scab lives in the fallen fruit, as do insects. Eat the drops, make them into cider, feed them to your livestock or compost them—just don't leave them at the base of your trees. Some farmers let livestock in the orchard to eat the drops. Also rake up leaves in the fall. Burn, compost or mow them. By practicing good hygiene in the orchard, some growers have been able to grow good McIntosh and other disease-prone varieties organically.



## Protecting Trees from Mice and Voles

Fruit trees and ornamentals are sometimes girdled by mice or voles eating the bark. Girdling will usually kill the tree or shrub. The danger is greatest in winter. Stomp around the trunks after each fresh snowfall to create a packed-ice barrier that will prevent mice from traveling beneath the snow. Keep the grass mowed in the fall and remove large mulch piles from near the trunks. Rodents like to nest in hay more than in woodchip mulches. A wrap of hardware cloth or a plastic spiral tree guard can protect your tree from being girdled.

If you use screening or plastic spiral tree guards on apple, quince or crabapple trees, be sure to remove them from April to October, as they attract borers if left on the tree in the summer.

Our trials show that a mulch of wood chips surrounding young trees greatly reduces the chance of summer vole damage. Tall grasses invite them in. The polyculture model may provide cover for the voles and can result in summer vole damage. So keep the tall perennials back about 12" from the tree.

Also, make your orchard hawk friendly.

## Voles Don't Like Narcissus!

For many years we've been planting daffodils around the base of some of our apple trees. No particular reason; it just looks great. Come to find out that you can beautify your orchard and deter voles at the same time. Plant daffodils in a circle a foot or two away from the base. The tunneling voles don't like the bulbs and will veer away.

## Oh Dear, Deer!

The best deer protection is a dog in the yard. If you don't have one or if your orchard is too far from the house, an 8' deer fence will work. Some people have good luck with electric fences. Small protective enclosures for individual trees can be made by circling your tree with a cylinder of chicken wire or other fencing with t-posts to stabilize the cage.

## Aphids and ants

Aphids can do a lot of damage to apple trees and they make the young leaves look gross. Often when you see aphids you will see ants climbing up and down the tree feeding them. Here's an easy solution. Wrap a piece of stiff paper about 6" wide around the trunk about a foot or two off the ground. Tape this sleeve to itself but not to the tree. Smear Tanglefoot (available in our **Seeds & Supplies catalog**) on the paper. Ants will not cross the barrier and, without the ants, the aphids will die. In a day or two no more aphids.

## Caterpillars

Most caterpillars will not damage healthy plants and are important members of the environment. However, a few kinds, such as tent caterpillars and browntail moth caterpillars, are extremely destructive to fruit trees. You'll know when you see them—they hatch in large crowds and rapidly defoliate plants. Vigilant daily observation, manual collection and disposal are necessary from mid-summer to fall. Be careful handling browntail nests. They can cause a severe rash.



## Top-Quality Orchard and Horticultural Supplies Available Year-round at Organic Growers Supply!

Come shop for supplies at our Organic Growers Supply warehouse at 688 Bellsqueeze Road in Clinton, ME, or order online at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs) or through our Seeds & Supplies catalog to have these orchard essentials shipped to you.

- Ancients Rise Fertilizer Mix revitalizes old fruit trees
- Fruition Mix for fertilizing established fruit trees
- Fall Fruit Tree Prep Mix
- Hole-istic Spring Planting Mix
- Blueberry Booster Mix for planting and fertilizing
- Gungnir Mix for mighty spears of asparagus
- True Love Mix for roses and other ornamentals
- Soil Testing & Organic Fertilizer Recommendation Service
- Grafting Tools, Kits & Supplies for righties and lefties
- Felco Pruners & Pruning Saws
- Silky Pruning Saws
- Telescoping Fruit Picker
- Traps, Lures & Organic Sprays for orchard pests
- Fencing, Netting, Tree Guards & other mammal repellents
- Holistic Orchard Spray Kit (à la Michael Phillips!)
- SOLO® Backpack Sprayer
- Neem & Karanja Oils
- Orchard Crop Irrigation Starter Kit
- Books!
- Amendments, cover crop seed and tools galore!

### NEW! Products coming in November 2023

- Telescoping Cut 'N Hold Pole Pruners (for cutting browntail nests)
- Paper EcoMulch Rolls and Circles (for rows and solitary plants)
- Planting Auger Drill Bit (for digging small holes fast)
- Easy-Drape Rip-Stop Bird Netting (for protecting berries)
- 36" Tall Steel Nameplate Plant Markers (keep track of tree IDs)

Fedco's **Organic Growers Supply** warehouse is open for walk-in sales and pre-order pickups Tuesday–Thursday, 9am–3pm, year-round

This year's cover "Planting Queens" is a composite of John Bunker's original art. Original catalog art by John Bunker, Phoebe Bunker, Laura Childs, Alison Corrie, Gene Frey, Laura Grover, Samantha Jones, Jennifer Jones, Wendy Karush, Alicia Letteney, Melissa May, Pam McKeen, Sarah Oliver, Emily Skrobis, Elizabeth Smedberg, Leslie Stern, Sue Szwed, and Gabriel Willow.

Tools and books are in our  
**Fedco Seeds & Supplies catalog,**  
 or at [fedcoseeds.com/ogs](http://fedcoseeds.com/ogs)

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USDA Hardiness Zone	Average Minimum Temperature
2	-50° to -40°
3	-40° to -30°
4	-30° to -20°
5	-20° to -10°
6	-10° to 0°

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# Trees, Shrubs & Perennials for Spring Planting

**Scion Order Deadline:** February 16, 2024  
**Final Order Deadline:** March 1, 2024  
Ordering instructions, page 34.

## Join Us at These Events

**October 15**

Great Maine Apple Day  
at MOFGA in Unity, ME

**November 3**

4th Annual Wild and Seedling  
Pomological Exhibition  
Williamsburg, MA

**November 3-5**

Franklin County CiderDays  
Franklin Co., MA

**November 18-19**

Maine Harvest Festival  
Bangor, ME

**March 24, 2024**

Scionwood Exchange  
& Seed Swap  
at MOFGA in Unity, ME

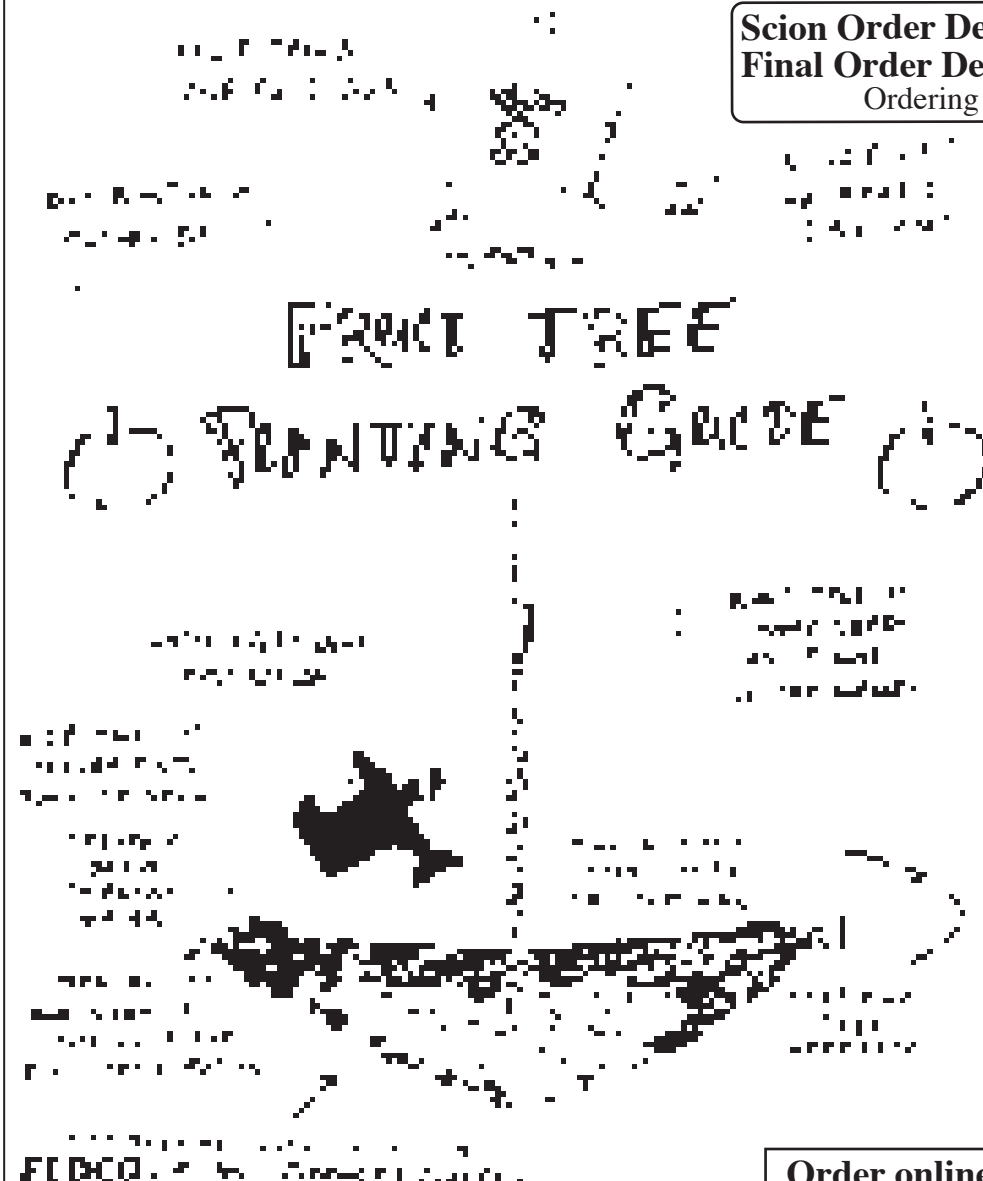
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