

## 2018 Tree Sale - *Plant Descriptions*

---

### Habitat-quality Deciduous Trees:

#### ***Acer rubrum*, Red Maple**

Red maple is one of the most common trees in northeast wetlands. It grows fast and reaches heights of 60-75 feet. It has bright red fall foliage, and its seed, sap and buds serve as food for wildlife.

#### ***Acer saccharinum*, Silver Maple**

Silver maple is a classic floodplain tree found along many of Vermont's major rivers. It tolerates regular flooding and is found on a range of soil conditions, but it is commonly found on well-drained alluvial soils. It has a shallow, wide-spreading root system, which can create pavement upheaval if planted near roads or sidewalks. Its broad canopy creates a significant amount of shade to streams, and its abundant seeds are a valuable food source for birds and small mammals.

#### ***Acer saccharum*, Sugar Maple**

An iconic VT tree of medium-tall height (60-80') preferring rich, moist, well-drained soils. Seedlings are shade tolerant, and in fact they prefer not to be planted in full sun. Maples are an important source of browse and seeds for wildlife food, and the sap, of course, is used in syrup production.

#### ***Amelanchier canadensis*, Serviceberry**

Upright, tall shrub (18'+). Its attractive white flowers are usually the very first blooms of spring. Birds love the berries and it makes a good wetland buffer shrub.

#### ***Aronia melanocarpa*, Black chokeberry**

This hardy, adaptive shrub can spread on suckers to grow into an attractive border thicket, which produces showy white flowers in spring and black berries that attract birds in the fall.

#### ***Betula alleghaniensis*, Yellow birch**

A medium-tall tree (60-70') of cool, moist forests. When mature it has beautifully peeling, yellow bark, and the twigs smell of wintergreen when broken. Tolerates a wide range of soil conditions, and is shade tolerant.

#### ***Betula papyrifera*, White birch**

This fast-growing (70-80') pioneer species grows in clearings and has peeling white bark. It prefers nutrient-rich, well-drained soils and full sun.

#### ***Cornus sericea*, Red osier dogwood**

This rapidly growing, spreading shrub reaches 6-10'. Showy red stems in winter. White berries and young twigs provide food for a wide variety of wildlife. It is favored for streambank stabilization because it is perfectly fine being planted into saturated soil or standing water. Like willows and the other dogwoods, it can be planted as a "live stake."

#### ***Ilex verticillata*, Winterberry**

Winterberry holly is aptly named for the abundant shiny red berries that adorn this small tree throughout the winter, made all the more striking when the deciduous leaves have dropped. Grows well near wetlands and vernal pools. Berries provide critical food for birds in winter, and the shrubs provide cover for nesting during summer.

#### ***Juglans cinerea*, Butternut**

Butternut, or white walnut, is a relatively short-lived tree of rich soils and streambanks. The oily nuts are delicious for humans and wildlife, but do not store well. The wood is light, stable, and easily worked for carving and veneer, but is less

prized than its close relative, black walnut. This stock is grown from seed from local butternuts with apparent resistance to Butternut Canker, but the resistance of the seedlings is not proven.

### ***Juglans nigra*, Black Walnut**

Black walnut is one of the most highly prized trees of the North American flora -- for its edible walnuts and its exceptionally beautiful wood with darkly patterned grain. It was a dominant and majestic canopy species of primeval midwestern and southeastern forests, attaining heights of 150 feet (50 m) or more. Humans are thought to have brought it north into Vermont, where it is naturalized. Chemicals exuded from its roots may inhibit the growth of other plants.

### ***Larix laricina*, Larch (Tamarack)**

American Larch, or Tamarack, is the northeast's only *deciduous* conifer – its needles turn bright yellow and fall off every fall. It grows 40-80 feet over its 150-year lifespan, and does best in cold, wet, poorly drained sites such as swamps and stream edges, and it is somewhat shade tolerant.

### ***Prunus virginiana*, Choke cherry**

Choke cherry is a great shrub for birds, which love its small, red-to-black fruits. Clustered white flowers appear in late May to June, with the leaves. It prefers rich, relatively moist soils but can do well in poorer and drier sites. It grows 5-25 feet and lives 40-60 years.

### ***Quercus bicolor*, Swamp white oak**

Swamp white oak occurs in a variety of soils from silty clays to sandy loams, but does best in deep, acidic soils that are moist-to-wet in full sun. It has a moderate to rapid growth rate, reaches 60-80 feet in height, and can live for over 300 years. A two-layer root system allows it to grow well in areas that are flooded in spring but markedly drier in summer. The acorns are important food for squirrels, white-tailed deer, beaver, black bear, and a variety of birds.

### ***Quercus rubra*, Red oak**

Red oak is one of New England's most common and widespread forest trees. It is very slow-growing and favors sites with deep soils. Humans use the beautiful reddish-white wood for furniture-making, flooring, veneer, and other purposes. The wood also makes a slow-burning fuel. Many wildlife make their dens in the hollows of mature trunks, and the acorns are also an important food source.

### ***Salix spp.*, Shrub Willows (5 species mix)**

This is a mix of five of the most common native species of shrub willows: Pussy Willow, Silky Willow, Heart-leaved Willow, Slender-leaved Willow, and Bebb Willow. Like most willows, these take root very easily and their strong, interlacing roots are good for stabilizing streambanks. Besides habitat for shrub-nesting birds, willows provide important food sources for butterfly larvae.

### ***Sambucus canadensis*, American elderberry**

Elderberry is rapidly gaining popularity for its edible and medicinal qualities. Shrubs are of high value to wildlife and pollinators. This offering is propagated from native, wild plants in Vermont. For a non-native cultivar selected for high fruit production, see the listing under "Cultivated Fruits and Nuts." Plants should begin to produce two years after planting. They thrive on moist (not saturated), fertile sites with good sun.

### ***Viburnum trilobum*, American cranberrybush**

American cranberrybush is an attractive landscape plant that is native to Vermont. It is no relation to table cranberries, but it gets its name from the fruit's size and bright red color. The berries hang on the shrub through the winter, making them important food for ruffed grouse and a variety of songbirds. Humans find the berries tart, but edible, and sometimes make preserves with them. The growth form is a dense shrub growing 6-10 feet tall with creamy-white flowers appearing in May to June and leaves that turn scarlet in the fall. It is adaptable to a variety of site conditions.

## Cultivated fruits, nuts and flowers:

### Apples, *Malus domestica*

We offer five varieties of apples – always Cortland, Macintosh, and Liberty, and a rotation of two varieties that are more novel and hard-to-find.

Most apples require cross-pollination to set fruit, so be sure to plant multiple varieties that flower at the same time in the same vicinity. Decorative crabapples that you or a neighbor might already have can provide good pollen, and since bees are the best pollinators for apples be sure your local bee population is not impaired by pesticides.

The rootstock determines the size, shape and longevity of your tree, as well as some elements of disease resistance. We sell most of our trees on “semi-dwarf” rootstock, because these trees begin bearing fruit just two to three years after planting and keep a shorter stature that makes pruning and harvesting easier. Semi-dwarf trees often require staking during establishment. Trees grown on “standard” rootstock grow into a classically-sized, long-lived tree, and they tend to be more winter-hardy and disease resistant. Plant standard-sized trees 25-35 feet apart, and semi-dwarf trees 12-25 feet apart.

#### **Cortland** – semi-dwarf root stock

Cortland ripens from mid-September to early October, typically 2-3 weeks before Macintoshes, and it is winter hardy in locations throughout Vermont. It produces large fruit with dark red skin under laid with stripes. When cut open the fruit is crisp, white and resists browning. It has a tart, tangy flavor that is excellent for eating, cooking and cider. Vigorous, long lived tree is annually productive and starts bearing early. Cortlands do not require cross pollination, and provide excellent pollen to other trees.

#### **Dayton** – standard root stock

Dayton apples ripen as early as August, and the lovely red apples are best eaten right off the tree. It is very hardy, vigorous, and disease resistant, making it an excellent home-garden tree. The apples are firm, sweet and juicy, with classic apple flavor that is only mildly acidic. We are offering these trees on “standard” root stock, so plan on a full-sized, long-lived, vigorous tree that will bear fruit five-to-six years after planting.

#### **Liberty** – semi-dwarf root stock

Liberty is the most disease resistant apple ever developed, making it an ideal backyard tree. It is winter hardy throughout Vermont and ripens in early October. The fruit is a medium to large, McIntosh type fruit with 90% red blush. The flesh is crisp, juicy, and light yellow with a sprightly flavor. It is great for eating fresh, cooking and canning and stores until February. The hardy, spreading, vigorous, productive tree bears fruit annually. It tends to set a heavy fruit load, so thinning ensures good-sized apples at maturity. It is resistant to scab, fire blight, mildew and cedar-apple rust; no spraying needed.

#### **Macintosh** – semi-dwarf root stock

Considered an all-purpose apple, Macs are perfect for cooking, cider and eating fresh. They ripen in late September and have tart flavor and tender white flesh. The trees produce heavily and the apples are typically large, round and red. It does not *require* cross-pollination but does better with it.

#### **Zabergau** – semi-dwarf root stock

This green, russeted apple originates from Germany and has been grown in the U.S. since 1885. The fruits are big and crunchy with a zing of sweet-sharp flavor, ripening in October. Excellent for eating fresh or for cooking, the apples also keep for 3-4 months. The tree has good disease resistance and attractive flowers appearing in mid-season. Like most apples, Zabergau requires cross-pollination with another apple variety. However its own pollen is often sterile, so don't count on Zabergau to pollinate your other trees.

## **Blueberries, *Vaccinium cyanococcus***

Because blueberries require cross-pollination, we sell our plants in pairs of one Bluecrop and one Duke. You may specify if you would like only one of these varieties.

### **Duke**

Duke blueberry is an early-season variety that is high-yielding and hardy. The attractive fruit is medium to large, light blue, and slightly tart. Berries maintain their uniform quality better than most other varieties. Duke grows upright to a height of 4-6 feet.

### **Bluecrop**

This mid-season blueberry is the leading commercial variety grown, valued for its high yields of large, bright blue berries that are firm and grow in large clusters. The berry flavor is superb, fresh or frozen. Bluecrop is known for its hardiness, vigor and consistent production. The plant grows to a height of 4-6 feet.

## **Cultivated Elderberry, *Sambucus x***

These are two of several newer elderberry varieties from Denmark selected for excellent fruit production. For a variety with higher wildlife benefits and more vigorous in wilder, wetter parts of your property, choose the “habitat-quality” native elderberry instead. These cultivated plants are vigorous, producing long shoots from soil level one growing season and bearing fruit the next. Remove shoots after bearing so they may be replaced by the next year's growth. This makes the plant easy to prune and manage as a bush. Large fruit clusters with good flavor ripen in August each year. Berries have very high anthocyanin content, a powerful antioxidant. Two varieties are required for cross pollination in a ratio of 1 pollinator : 5 fruiting.

We are selling the variety selected for fruit production as well as its favored pollinator. You may specify the ratio you want in your order, otherwise we will choose for you.

## **Concord grapes, *Vitis labrusca***

Grapes thrive in well-drained soil and full sun. These vines need an arbor, trellis, or fence for support. Grapes are self-fertile. The Concord was developed in Concord, MA in 1849. The grapes have a dark blue or purple skin and large seeds. They are excellent for fresh eating, wines, juices and jellies.

## **Hazelnut hybrid, *Corylus x*.**

These vigorous, suckering shrubs excellent for hedges and windbreaks. They begin to produce sweet, oil-rich nuts in just 3-6 years. Because the heavy pollen does not carry far on the wind, plant at least two within 4-10 ft of each other.

## **Lilac, *Syringa vulgaris***

Lilac is a favorite ornamental because of its brilliant and fragrant spring blooms. While the joy it brings to spring is a reason to love it, it provides little benefit for wildlife or pollinators.

## **Reliance Peach, *Prunus persica***

Reliance Peach trees are very hardy with a heavy crop production. It is great for cold climates (up to zone 4, all but the highest areas of VT's NEK) and produces a medium-large, orange-red fruit that ripens in early August. The peaches are soft and juicy with a sweet, classically peachy flavor, and they are great for canning. The tree will grow 12-20 feet tall and bears pink flowers in early spring.

## **Raspberries, *Rubus idaeus***

### **Encore – summer bearing**

Encore is vigorous, sturdy, upright, nearly spineless and has excellent winter hardiness. Berries are large with very cohesive drupelets and good raspberry flavor. Encore is a late-season summer-bearing raspberry, great for extending the summer raspberry-picking season and offers the high yields required by commercial growers.

### **Heritage** – fall bearing

This heirloom variety was long considered the standard variety for production and high-quality fruit by which fall-bearing raspberries were judged. Heritage is a highly popular variety for home gardeners. The fall crop is highly productive and ripens from the end of August through October, depending on your location. The berries have good size, color and flavor. The fruit is good for jam and freezing and is delicious for fresh use, as well.

### **Strawberries, *Fragaria x ananassa***

#### **Honeoye** – summer bearing

Honeoye strawberry combines winter hardiness, high productivity, good appearance and color, together with an excellent, firm, large-sized berry. The large berries are easy to pick and freeze well. Honeoye bears fruit one year after planting in the early-to-mid season, typically early June, and continues to produce high yields over a long season. For optimum flavor and productivity, grow this vigorous plant in medium to light soil.

#### **Sparkle** – summer bearing

Sparkle is an heirloom strawberry recommended for beginners and excellent for jam and freezing. It has been known for flavorful, high-quality, attractive fruit for over 60 years. An extremely vigorous variety, Sparkle is an excellent choice for home gardeners and pick-your-own operations in northern Vermont. Berries are small-to-medium, so for best fruit size keep the bed from overcrowding. Sparkle is resistant to Red Stele, a disease of the roots that can occur in clay-rich or waterlogged soils. This strawberry bears fruit one year after planting in the mid-to-late season, typically late June.

## **Wildflower seed mixes:**

### **Butterfly and hummingbird garden wildflower mix**

These flowers offer ideal forage for pollinators in a beautiful mix of annual and perennial wildflowers. It stars cornflower (bachelor's button), rocket larkspur, bigleaf lupine, white beardtongue, and others.

### **Riparian buffer wildflower mix**

A diverse mix of upland and wetland grasses, forbs and shrubs with extensive wildlife and pollinator value. Provides food and cover for many of our songbirds, pheasants, deer and turkey. It stars deertongue (or Tioga), indiagrass, big bluestem, and blackeyed susan, among others.

### **Wetland wildflower mix**

The diverse species provide pollinator habitat and erosion control in wet meadows. It stars fox sedge, blue vervain, swamp milkweed, sensitive fern, joe-pye weed, and others.

## **Evergreens:**

### ***Abies balsamea*, Canaan fir**

Technically an ecotype of bracted balsam fir, it may be a hybrid between Fraser fir and balsam fir. The main difference between balsam and Canaan, besides that Canaan prefers more temperate climates, is the bracts are longer and are visible on the closed cone.

### ***Abies balsamea*, Balsam fir**

This northern native evergreen (40-60') is an excellent addition to buffer zone plantings or drier portions along the edges of wetland areas. It tolerates low-fertility, acidic sites, and does well in both dry and wet areas. It provides winter cover for birds and small mammals, and makes for a favorite Christmas tree.

### ***Abies fraseri*, Fraser fir**

The Fraser fir, which comes from the southern Appalachians, is very similar to Vermont's native Balsam fir. The branches turn slightly upward and have good form and needle-retention. The needles are dark blue-green in color and smell wonderful.

### ***Picea glauca*, White spruce**

White spruce is a cold climate species, one of the first to colonize after glaciers recede. The waxy coating on its needles gives it a blue-green appearance. It is the most commercially important timber species in the far north woods, used for wood fiber, house logs, and musical instruments. In backyards it is important winter shelter for birds, and in forests it provides cover for moose, martens, and lynx. And, of course, it makes a perfect Christmas tree.

### ***Picea pungens*, Colorado blue spruce**

Native to the Rocky Mountains, Colorado Blue Spruce is a columnar or conical evergreen conifer with densely growing horizontal branches.

### ***Pinus strobus*, Eastern white pine**

This widespread and widely planted tree grows quickly on a variety of dry to wet soils. Virgin stands of this long-lived tree (to 450 years) once covered New England. Its soft wood is exceptionally useful for construction, and it is also sometimes used as a Christmas tree. It provides important winter habitat for songbirds such as chickadees, pine warblers, and pine grosbeaks.

### ***Thuja occidentalis*, Eastern white cedar (*Arborvitae*)**

Many people choose Eastern white cedar for privacy screening because of its dense growth form, year-round greenery, and responsiveness to shaping. For a low-maintenance hedge, plant trees three feet apart. It is naturally a smaller (30-50') evergreen tree of coastal bogs and swamps, where it grows in dense stands. It is extremely tolerant of shade and saturated soil, but it will grow faster in well-drained locations with full sun. Its fissured, fibrous bark, thick trunk, and broad base, make it strikingly beautiful. The wood is lightweight and rot-resistant. During harsh winters deer prefer it for both browse and shelter, and it provides important habitat for white-throated sparrows, kinglets, and a variety of warblers.