

UBC Apple Market 2020 list of available Apple Trees for Purchase | UBC Botanical Garden | applefestival.ca

Name:	Use:	Flesh /Flavor notes:	Additional notes:	Size:	Color:	Picking Dates:	Ripening Dates:	Bloom:	Disease:
Alkmene	Eating	crisp, juicy, aromatic, rich, honeyed, delicate tartness	Good substitute for Cox's Orange in our climate. Moderate vigour, heavy cropper.	small to medium	yellow with light red flush, broken stripes	late September	October through November	B: early mid; 5-8; Day 7, <b>self-fertile</b>	
Belle de Boskoop	Eating, Cooking	firm, aromatic, juicy, sharp, flavour mellows in storage, high in Vitamin C	High vigour, heavy cropper, slow to bear. Good for Lower Mainland.	medium large	gold, flushed orange, red stripes, russet	early October	October through April	B: early mid; 5-8; Day 8, <b>Triploid</b>	very resistant scab; resistant canker
Bramley's Seedling	Cooking, Cider, Juice	pale cream, puree texture, strong flavour when cooked	Good for Lower Mainland. Vigorous, heavy cropper, slow to bear, often biennial.	large	greenish yellow, brownish orange flush, red stripes	early October	November through March	C: mid; 9-12; Day 12, <b>Triploid</b>	resistant mildew
Brownlee's Russet	Eating, Cooking	cream, tinged green, sweet-sharp, juicy	Moderate vigour, upright, very hardy, good cropper.	medium	green, slight brown-red flush	mid-October	December through March	C: mid; 9-12; Day 9, <b>self-fertile</b>	resistant scab, canker
Cortland Red	Eating, Cooking, Cider	soft, melting, crisp, juicy, sweet, vinous	Good pollinator. Moderate vigour, good cropper, bears young. Stays firm, white when sliced.	medium-large	striped dark red	early October	October through January	C: mid; 9-12; Day 9, <b>partially self-fertile</b>	
Egremont Russet	Eating	juicy, aromatic, firm, nutty, sweet, good	Moderate vigour, bears young, good cropper. OK in pot. Tolerates spring frosts.	medium	gold, slight orange flush, russet	late September through early October	October through December	B: early mid; 5-8; Day 7, <b>partially self-fertile</b>	resistant scab, canker, mildew
Esopus Spitzenburg (Spitzenburg)	Eating, Cooking	cream, juicy, crisp, aromatic, sweet, rich, fruity, flavour lively even in March	Moderate vigour, spur bearing, often biennial, heavy cropper. Hangs well during ripening.	medium	yellow, flushed bright red	early through mid-October	November through March	C: mid; 9-12; Day 12	
Frequin Rouge	Cider	bittersweet, good colour, aroma, flavour, excellent cider quality	Moderate vigour, upright, heavy cropping.	small, medium	yellow, flushed red	November	November	D: late mid; 13-15	
Fuji Tak (Early Fuji)	Eating	crisp, juicy, excellent, sweet, honeyed	Ripens 5 days earlier than standard Fuji which is useful for cooler areas.	medium large	golden brown with orange-red flush	mid-October	November through December	C: mid; 9-12; Day 12	resistant scab
Golden Nugget	Eating	juicy, crisp, aromatic, sweet-sharp, rich, intense, pineapple acidity	Moderate vigour, bears young, good cropper.	small medium	yellow, streaked & splashed orange	late September	October through November	C: mid; 9-12; Day 10	resistant scab, canker, mildew
Golden Russet	Eating, Cooking, Cider, Drying	crisp, aromatic, nutty, honeyed	Moderate vigour, heavy cropper.	small	yellow with gold russetting	early through mid-October	December through February	B: early mid; 5-8; Day 7	resistant scab, canker, mildew
Grimes Golden	Eating, Cider	pale cream, juicy, crisp, sweet, honeyed, very good	Moderate vigour, bears young, good cropper.	medium	greenish yellow	mid-October	November through February	B: early mid; 5-8; C: mid; 9-12, D: late mid; 13-15; Day 11, <b>self-fertile</b>	
Haralson	Eating, Cooking, Cider	white, juicy, crisp	Very hardy, precocious, good cropper. Biennial.	medium-large	yellow, striped red	mid-October	November through January	C: mid; 9-12; Day 12	very resistant mildew
Hidden Rose (syn. Airlie Red Flesh)	Eating, Cooking	deep rose red, juicy, crisp, excellent		medium	yellow, pale whitish dots	late October	late October through	B: early mid; 5-8; Day 7	
Honeycrisp	Eating	cream, juicy, crisp, slightly aromatic, sweet-sharp, excellent	Moderate vigour, reliable, heavy cropping. Fruit hangs well when ripe.	medium-large	lemon yellow, mottled red-scarlet	late September through early October	October through December	D: late mid; 13-15	
Hudson's Golden Gem	Eating	crisp, juicy, sweet-sharp, nutty, very good	High vigour, good cropper. Tolerates late frosts.	large	dull yellow russet	late October	November through January	C: mid; 9-12	very resistant scab
Jefferies (Jefferis)	Eating	juicy, slightly aromatic, sweet, pear-like	Moderate vigour, bears young, heavy cropper.	small	yellow, flushed and striped dark red	mid-September	September through December	C: mid; 9-12; Day 9	resistant scab, mildew

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John Downie (Crabapple)	Eating, Cooking (jelly, sauce)	refreshing	Moderate vigour, good cropper. Long blooming period.	small, oval	yellow-orange, flushed scarlet	September through October	September through October	C: mid; 9-12; D: late mid;13-15, E: late; 16-20	
Kidd's Orange Red	Eating	juicy, crisp, aromatic, rich, sweet-sharp, flavour & texture of Cox's Orange Pippin	Moderate vigour, good cropper. Needs sun.	medium	yellow, flushed scarlet, dark stripes, rus-setting	mid-October	November through January	C: mid; 9-12; Day 12	resistant scab, mildew
Kingston Black	Cider	juice aromatic, bitter-sweet, full bodied, distinctive flavour. Of vintage quality	Moderate vigour, slow to start fruiting.	small, conical	yellow-orange, flushed dark maroon	early November	early November	D: late mid;13-15; Day 15	
Liberty	Eating	juicy, crisp, sweet-sharp, good	High vigour, good cropper, bears young.	medium	yellow, bright red flush	October	October through December	C: mid; 9-12; Day 9	very resistant scab
Lord Lambourne	Eating, Juice	juicy, crisp, sweet-sharp, slight strawberry, good, refreshing	Moderate vigour, bears young, good cropper.	medium	greenish yellow, red stripes and flush	mid-September	late September through November	B: early mid; 5-8; Day 8, <b>partially self-fertile</b>	
Newtown Pippin	Eating, Cooking, Cider	pale cream, juicy, crisp, aromatic, brisk, very good	Moderate vigour, slow to bear, often biennial, good cropper. Prefers hot summers. Vitamin C=16 mg/100g.	medium	greenish yellow, flushed light orange-brown	mid-through late October	December through January	C: mid; 9-12; Day 10	
Northern Spy	Eating, Cooking	cream, juicy, crisp, sweet-sharp, rich, intense, fruity	Moderate vigour, hardy, slow to bear, often biennial, good cropper.	medium-large	green, turning yellow, flushed dark red, striped red	mid-through late October	November through March	E: late; 16-20; Day 17	
Orin	Eating	pale yellow, sweet, juicy, firm, aromatic, very honeyed	Moderate vigour.	medium-large	lime green with slight flush	late October	November through January	C: mid; 9-12; Day 12, <b>Triploid</b>	
Purple Spartan	Eating, Cooking, Cider	juicy, crisp, aromatic, strawberry, sweet-sharp	Moderate vigour, hardy, bears young, heavy cropper. Tolerates late frosts.	medium	dark purple	early October	November through January	C: mid; 9-12; Day 12, <b>self-fertile</b>	resistant scab, very resistant mildew
RubINETTE	Eating	juicy, crisp, aromatic, sweet-sharp, rich, intense, flavour similar Cox's Orange Pippin	Moderate vigour, heavy cropper.	small-medium	yellow, red flush and stripes	late September	October through November	C: mid; 9-12; Day 11	resistant mildew
Saint Edmund's Pippin	Eating, Cider	pale cream, juicy, firm, sweet, nutty, rich, excellent really ripe	Moderate vigour, good cropper.	medium	greenish-yellow/gold, russeted	mid-September		C: mid; 9-12; Day 8, <b>partially self-fertile</b>	resistant scab, canker
Spartan	Eating, Cooking, Cider	juicy, crisp, aromatic, strawberry, sweet-sharp	Moderate vigour, hardy, bears young, heavy cropper. Tolerates late frosts.	medium	greenish yellow, flushed deep maroon	early October	November through January	C: mid; 9-12; Day 12, <b>self-fertile</b>	resistant scab, very resistant mildew
Suntan	Eating	cream, juicy, firm, aromatic, sweet-sharp, rich, very good	High vigour, good cropper. Tolerates late frosts.	medium	gold, flushed orange-red, striped red	early through mid-October	December through February	E: late; 16-20; Day 20, <b>Triploid</b>	resistant scab
Wickson (Crabapple)	Cooking, Cider, Juice	sweet, acidic tang, honeyed, pear flavour	Prolific.	very small, oblong	yellow, red	late September		B: early mid; 5-8; Day 6	

To the best of our knowledge all apple trees we offer for sale are healthy. They should produce apples in a few years if given the proper conditions and care. We regret we are unable to replace any tree that does not survive. Please water and plant the trees as soon as possible.

**DATES OF FLOWER BLOOM** indicate the optimum pollination time. In south-east England Day '0' corresponds to April 30<sup>th</sup>, '1' to May 1<sup>st</sup> and '42' to June 11. The flower dates should not be regarded as exact dates but as relative flowering times. These numbers can be useful in calculating whether cultivars will be good pollinators for each other. Two cultivars, assuming they both have viable pollen (i.e. are not triploids) will pollinate each other very well if their flowering dates are within 3 days of each other. For example, if one cultivar has a flowering date of Day 12, then any cultivar (except a triploid) with flowering dates of Day 9 to Day 15 will pollinate it and be pollinated by it, providing the weather is good. If it is raining or cold the bees will not fly and pollination will not occur.

**TRIPLOID APPLE TREES** will not produce viable pollen. A triploid requires another tree blooming at the same time to pollinate it as well as another tree to pollinate the pollinator. So it takes three trees to ensure they all produce fruit. (Only one of the three trees can be a triploid). Our triploid trees this year are: Belle de Boskoop, Bramley's Seedling, Orin and Suntan.

**ROOTSTOCKS** Our trees have been grafted on dwarfing rootstocks which make the trees smaller. M9 rootstock is a 'very dwarfing' rootstock producing a tree 6-8 feet high, about 25% of normal size. It is a good choice for a small garden with fairly good soil. B9 rootstock will produce a tree 6-8 feet high, 25-30% of normal size. B9 is hardy to zone 3 and so is useful for growing the trees in containers. Both M9 and B9 trees require permanent staking and routine watering and feeding. M26 is 'dwarfing', producing a tree 8-14 feet high, about 30--50% of normal.

**CRAB APPLE TREES** are used to enhance pollination in orchards because they bloom over a long period. Crab apples are smaller, under 2 inches (5cm) diameter. Our crab apples are John Downie and Wickson.

**SCAB RESISTANCE** Scab is caused by a fungus. It makes unsightly dark spots on apples but is edible and does not affect the flavour of the fruit. It is a problem in damp climates like the Lower Mainland and Fraser Valley so scab resistant trees are recommended for this area.

**ESPALIER** refers to the training of a tree to grow in a special form. Trees growing on any rootstock can be espaliered.

**SELF FERTILE** There are a few trees which are self-fertile and some are partly self-fertile which means they are able to produce apples without being pollinated by another tree. These could be used on balconies where bees are not likely to fly in to pollinate them. However, they will produce more fruit with cross pollination.

**Our Self Fertile** trees this year are: Alkmene, Brownlee's Russet, Grimes Golden and Spartan.

**Our Partially Self Fertile** trees are Cortland Red, Egremont Russet, Lord Lambourne and Saint Edmund's Pippin.

# UBC Apple Festival Apple Tree Planting Instructions

(for trees purchased at the festival)

UBC Botanical Garden Friends of the Garden (FOG)

Updated by Richard Hallman 2015

Apple trees are among the easiest of all fruit trees to grow. They tolerate a wide range of conditions, but need lots of sunlight (6 to 8 hours minimum) and good soil drainage. Getting good tree growth to develop structural branches during the first 2-3 years after planting is important. After that, the goal shifts from growing branches to the production of fruit buds. Healthy productive apple trees have a balance between branch growth and fruit production. Healthy trees require adequate soil moisture throughout the growing season, good nutrition (too much fertilizer can be worse than not enough) and control of competing vegetation, diseases and insect pests. Keep in mind that old apple trees nearby are usually a source of disease that will infect your new trees. Remove old infected trees if possible.

## **When to Plant**

If you purchased a tree at the UBC Apple Festival in mid-October, it is best to plant your new tree as soon as possible. This gives the tree a chance to grow a few new roots before cold weather, in preparation for growing the following spring. If you cannot plant your new tree in its final location in the fall, consider one of the following. All of these are intended to slow the rate of temperature change that the tree is exposed to. Rapid changes in temperature rather than low temperatures themselves cause most winter damage to trees in pots, particularly to the roots as they are less able to stand temperature changes than the above ground parts of the trees.

1. plant the tree – pot and all – in the soil in a temporary location and move it to its final location in February (the soil around the pot will protect the roots the winter), or
2. transplant the tree into a larger pot (a 5 - 10 gallon pot) or wrap the small pot in insulation and place it in a protected location out of the worst winter weather, making sure it does not dry out. A protected location could be under a deck or at the back of a home between the home and a fence or in an unheated garage. The trees will be dormant from the time you purchase them till the next spring so they do not need any sun. Water is very important as it buffers the rate of temperature change and keeps the roots from drying out. In February transplant it in its final location.

Until you plant it, protect your tree from injury, drying out, freezing, or overheating. Black pots exposed to the winter sun will heat up quicker than light colored pots, even on cold days, leading to a dramatic drop in temperature at sundown.

If you will be growing the tree in a container on a deck, patio or balcony, use a large container, soil with good drainage and follow the same procedure for planting in the ground. Half barrels are often recommended for long term planting of fruit trees. The problem with half barrels (20 - 25 gallon size) is that they are very heavy and awkward to move. Fruit trees can be grown permanently in containers as small as 10 gallons if you fertilize them annually and keep them irrigated in the summer. All trees that are grown permanently in containers will need to be repotted every few years (every 3 years for small containers, longer for larger containers).

## **Digging the Planting Hole**

Before planting, remove all the weeds and grass from a 2-4 foot circle of soil around the location where you are going to plant. Dig the hole approximately the depth of the pot and 2-3 times as wide. The planting hole should be wider at the top than at the bottom, as most of the feeder roots will be within a foot of the soil surface. All apple trees are grafted. The graft union is usually obvious as a slightly swollen area or a slight dog leg in the tree trunk just above the soil. After planting, the graft union should end up 2-3" (5-8 cm) above the final level of the soil, so the depth of the hole depends on where the graft union is on the tree you have purchased. Planting the graft union at or below soil level is the most common mistake made when planting new dwarf fruit trees. If the graft union touches the soil, the scion (the part of the tree above the graft union) will grow roots, eliminating the dwarfing effect of the rootstock. If you accidentally dig the hole too deep or the root is smaller than expected once you take it out of the pot, backfill and tamp the soil down at the

bottom of the hole prior to planting. Loose soil below the tree will result in the tree settling and the graft union getting closer to the soil.

### **Tree Support**

Most trees sold at the UBC Apple Festival have been grafted onto the full dwarfing M9 or B9 rootstocks (check the tree tag for the type of rootstock). These dwarf rootstocks will need support throughout their lifetime. If it is grafted on a larger rootstock, a temporary stake is a good practice to ensure it gets a start growing vertically. Support can be a single post for each tree (a post with 2' in the ground will support a full grown dwarf tree), a fence, or a trellis of posts and wire. Place single stakes on the windward side of the tree and about 4-6" away from the future location of the tree trunk. The tree can then be secured to the support using vinyl tying cord or similar material tied in a figure 8 so the tree will not bang against the stake when it is windy.

### **Planting**

Always handle a young grafted tree BELOW the graft union or by holding onto the pot. This is important because the graft union is held together by only a single year's growth ring at this stage and it can break if handled roughly. Holding the rootstock portion of the tree, invert the pot and remove the tree, shake off loose soil and/or potting mix. Form a small mound of soil in the bottom of the hole. Place the tree on top of the mound so the roots radiate evenly around the mound and all point downwards. Cut back any broken roots and any that wrap around the trunk or will not radiate properly.

Backfill the hole with the soil you removed from the hole. Organic and drainage soil amendments should not be added to the planting hole or the backfill soil. Research has shown that soil amendments added to the backfill do not aid in tree establishment and growth. Soil amendments are also likely to create an abrupt change in soil texture that can have a negative effect on moisture flow and root growth. In particular, do not add bone meal or phosphorus fertilizers to the planting hole; these products reduce the natural establishment of mycorrhizal colonization of the tree roots that help the tree absorb phosphorus from the soil. If your soil has problems that require amendments, apply them to the entire garden area before planting your tree. If you have a drainage problem, do not try to solve it by adding drainage material to the hole. Either install drainage in the entire garden area before planting, or plant the tree in a raised mound to provide a few extra inches of well-drained soil for the roots of your new tree.

When backfilling, work the soil around the root ball and add water to minimize air pockets that will dry out the roots. Firm the soil around the bottom of the root ball so the tree is vertical and adequately supported. If you are going to use a supporting stake, this is the time to add it. Slightly tamp down the remainder of the backfill as the hole is filled, as the new roots will grow through this soil. Water thoroughly and slowly after backfilling.

### **Post-planting Tree Care**

New apple trees should be watered well during the spring of first two years until their root systems develop. All trees growing in the Vancouver/Fraser Valley area, should be watered as needed from May through to September to ensure good tree and fruit growth. Maintain a weed-free area a minimum 2' in diameter around the tree. A 1-2" layer of mulch such as bark mulch, or possibly well-rotted manure, will help suppress weeds, maintain soil moisture, and provide nutrients.

Fertilize new trees in late February or early March with 1 tablespoon of 6-8-6 (or the equivalent in organic fertilizer) spread evenly over a one foot diameter radius from the trunk. Repeat at six-week intervals until early August. If additional fertility is needed, supplemental irrigations with liquid fish fertilizer (following label instructions) can be applied. Manure is not recommended after the tree begins to bear fruit, because the slow release of nitrogen results in soft, poorly colored fruit. Dolomite lime can also be added every other year or so. Spread 10 lbs (5kg) in a circular area 2-3 yards out from the trunk. The best time to apply lime is in late fall or early winter, with a couple of months between liming and fertilizer application.

Between February and mid-March, when the terminal bud begins to swell, prune back your new tree to about a 30-32" for bush or pyramid tree forms. For espalier tree forms see the UBC Botanical Garden Espalier handout.