## Apples

Apple cultivation began back in Roman times and continues today with thousands of varieties grown worldwide. When buying an apple tree, it is important to consider the variety, planting site and required maintenance of the tree before purchasing. The following are hints for successful apple growing.

## SELECTION

Things you need to know when choosing an apple tree: the pollination compatibility (this is especially important), taste, and storage capability. Be sure to read your labels and ask a nursery staff for details to find the perfect tree for you.

## POLLINATION

Most apples with the exception of a few self-fertile varieties, cannot set fruit with their own pollen. This means that if you only have one tree (or two of the same tree) then you will get flowers but no apples. It is vital to have a different apple variety nearby (within 10') which has an overlapping flowering period. This enables cross-pollinate (movement of different pollen between trees).

Some of the commonly available apple varieties are listed in the box below, so you can compare and make sure to get two trees with overlapping flowering periods. Early season apples can pollinate mid-season apples, mid-season apples can pollinate late-season apples, but late season apples will not pollinate early apples and vice-versa.

If you live in an area where apple and crabapple trees are already growing you can rest assured that as long as they are blooming at the same time as your tree the bees will do their job and pollination will occur. If you have limited space and aren't sure if the local trees are going to be enough consider getting a multi-variety tree, where three to four suitable apple types are grafted onto one tree.

## APPROXIMATE FLOWERING SEASON

Early Season: Liberty, Yellow Transparent, Braeburn, Jonamac
Mid-Season: Idared, Pink Lady, Honeycrisp, Gala, Granny Smith, Redfree, Mutsu, Fuji, Golden Delicious
Late Season: Red Rome, Northern Spy, Melrose, Red Winesap

## ROOT STOCKS

Most fruit trees are grafted, this gives the tree benefits of both the top and the root stock. Root stocks are chosen based on their dwarfing capability. Without this dwarfing root stock many apple trees would soon become too large to manage. Dwarf trees will grow to about $30 \%$ of the size of the standard tree, about 3 m to 4 m ( $9^{\prime}$ to $12^{\prime}$ ). Semi-dwarf trees will grow to about 5 m to 7 m (15' to $20^{\prime}$ ).

## LOCATION

Plant apple trees where they will get at least six hours of bright sunlight with a good rich soil.
A slope is a great place to consider since it allows good air movement which can prevent disease problems. Sites that are subject to late spring frosts, flooding, or seepage water should be avoided. For gardens in the northern areas, plant mid or late blooming varieties such as Granny Smith, Red Rome, and Golden Delicious to avoid flower bud damage from late frost. Planting distance should be 5.5 m to 6 m (18' to 20') apart for most apple trees. Exceptions to this planting distance are those that are not on semi-dwarfing rooting stock.

## PLANTING

Apples can be planted in the fall or early spring. Availability is generally better during spring. Be sure to pick up our "Planting Trees and Shrubs" information sheet for complete instructions on planting. When planting make sure the graft union is 5 cm to $7 \mathrm{~cm}\left(2^{\prime \prime}\right.$ to $\left.3^{\prime \prime}\right)$ above the soil.
Once planted keep the new tree well-watered and apply GARDENWORKS Transplanting Fertilizer.

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PRUNING
Pruning is very important for apples to ensure you have a good harvest and a healthy tree, and there are many different types and forms of apple pruning. Here are few helpful hints to get you started but for more information refer to our "Pruning Know-how" information sheet. With young trees that have no lateral branches (also called a whip), cut back the leader, or predominant branch, by one-third (see fig. A). This will encourage side shoots to grow and horizontal branches produce the most apples.

After this initial cut, most pruning should be for maintenance and the majority should be done during dormancy in January or February. During the summer months branches can also be thinned to increase air and light into the tree canopy. Look to remove branches growing inwards towards the trunk, are crossing, and any that are damaged or diseased. Try to remove entire branches if possible as opposed to a portion of the branch.

1 YEAR-OLD TREE. SHOWING REMOVAL POINT OF LEADER

## FERTILIZING



The young apple tree should be growing at a rate of 15 cm to 35 cm ( $6^{\prime \prime}$ to $14^{\prime \prime}$ ) per year. To encourage this growth, apply 10 cm to 15 cm (4" to $6^{\prime \prime}$ ) of well-rotted compost or mushroom manure annually as a mulch around the tree. Feed trees with a fruit tree fertilizer such as GARDENWORKS 4-20-20 Fruit Tree and Berry Food. But avoid excess nitrogen as it can aggravate certain insect problems.

## APPLE PESTS AND DISEASES

Quick and accurate identification of problems are key to successful apple growing. Sometimes a specific problem can be difficult to identify, so please visit one of our stores with a leaf sample for a thorough analysis.

## HARVESTING AND STORING

Depending on variety, apples are ready to harvest from July into September. Some apples can even tolerate a little frost without damaging the eating quality (though frost will shorten storage life). Apples are ready to be picked when the fruit stem easily gives when you twist the apple. Harvest apples with stems over a period of time and do not try to get all of the fruit in one day. Consume bruised or damaged fruits first and keep the good ones for storage. The general rule of storage capability of apples: late fruiting types may be stored 1 to 6 months depending upon variety, mid-season types are limited to 2 to 3 weeks, and early varieties should be eaten immediately.

Store apples in a cool $\left(0^{\circ} \mathrm{C}\right.$ to $\left.2^{\circ} \mathrm{C}\right)$ and humid (80-90\%) place. In a perfect situation each apple should be wrapped in newspaper and placed on trays that allow good ventilation.

## APPROXIMATE RIPENING SEASON

Early Season: Akane, Chehalis, Discovery, Gravenstein, Lodi, Summer Red, Tideman's Red, Transparent, Yellow Transparent
Mid-Season: Bramley's Seedling, Fuji, Gala, Golden Russet, Golden Sentinel, McIntosh Red, Red Delicious, Royal Gala, Spartan, Spurmac, Summerland Mac, Wealthy
Late Season: Belle de Boskoop, Cox's Orange Pippin, Crispin (Mutsu), Golden Delicious, Granny Smith, Jonafree, Jonagold, King, Liberty, Melrose, Newton, Northern Spy, Red Roma, Red Sentinel, Winesap, Winter Banana

