



ATLANTIC PROVINCES HOME GARDEN PRODUCTION OF PEACHES, NECTARINES AND APRICOTS



Prepared by the Atlantic Committee on Fruit Crops
Published by the authority of the Atlantic Provinces
Agricultural Service Coordinating Committee

Publication ACC 1213
Agdex: 212/12
RV-98

Peach, nectarine and apricot are the least hardy of the tree fruits, the successful production of these tree fruits will be restricted to the milder areas of the Atlantic Provinces. Production within these areas will depend on winter temperatures, spring frosts and tree conditions. Although these trees can survive winter lows of -30°C under the right conditions, a low of -23°C is sufficient to cause injury to the fruit buds. More often than not, late fall or early winter low temperatures and fluctuating winter temperatures result in injury to the trees and fruit buds. Associated with the winter injury is bacterial canker, which enters the injured tissue. Winter injury and canker greatly reduce the life expectancy of these tree fruits. There is also a higher risk of frost injury to buds or bloom, as they bloom 2 to 3 weeks before apples. A low of -2 to -3°C during bloom can result in up to 90 percent of the blossoms being injured. It is because of these factors that only one good crop can be expected in every 4 to 5 years.

The Annapolis Valley, Southern Nova Scotia and the South Shore of Nova Scotia have the greatest potential for the production of these tree fruits. However there has been successful home garden production of peaches along the Bay of Fundy area of New Brunswick (including Grand Manan) and in some selected areas of Cape Breton. Most other Maritime regions are too cold during the winter for good peach, nectarine or apricot survival, if they will survive at all. Best success has been in areas near large bodies of water which help to modify temperatures and sheltered locations near buildings which will provide protection from southwest injury to trunks.

Temperatures of -23°C will kill the fruit buds of peach trees. It is important then, to provide as much protection for the tree as possible, even in the warmest climate. This can be achieved to some degree by planting the tree close to the house or near a windbreak or a hedge. It is very important that overcropping and late excessive vegetative growth be avoided and that the trees have healthy foliage exposed to lots of sunlight if they are to achieve maximum resistance to winter conditions. Where peach, nectarine and apricot can be grown, they are very good home garden trees for these reasons:

- 1) They require very little spraying - peach leaf curl and brown rot are the major problems.
- 2) The fruit is a novelty in any home garden and can be preserved easily.
- 3) Trees begin to bear fruit in the 3rd and 4th year.

SOIL REQUIREMENTS: Peach, nectarine and apricot trees will not tolerate, imperfectly drained soils. Deep, well-drained, sandy loam soils are preferred for these tree fruits. Clays and gravel will be tolerated if they are deep and well-drained. The soil pH should be within the range of 5.5 to 6.5.

PREPARATION FOR PLANTING: Start planning the year before you plant. Work the soil during the summer or at least in the fall before planting. Apply limestone at a rate of 1 kg/m^2 and work into the top 7 or 10 cm of soil. Most Maritime soils are acid and need to be neutralized. Select the varieties you want the fall before planting and place your order with a nursery. Many garden centres and farm markets sell fruit trees during the spring and summer months.

PLANTING: Peach, nectarine or apricot trees should be planted in the spring before the buds begin to grow. In the Annapolis Valley, this is prior to May 15. Dig a hole large enough to hold all roots in a spread-out position. Pack soil tightly around all roots to avoid pockets. Tramp soil in around the tree until the tree is firmly in place, then water.

POLLINATION: Peaches and nectarines are self-fruitful, and therefore do not need a pollinator. Successful fruit production can be obtained with a single tree. Most apricots are self-fruitful, but the planting of two cultivars is commonly recommended to ensure maximum set.

PRUNING: Except at time of planting, it is recommended that the pruning of these tree fruits be left until bloom or just after bloom. It will be easy to distinguish live wood from dead wood at this time. The pruning should be done when it is warm and dry to avoid bacterial canker infections. Peach trees can be trained to a number of pruning systems with a modified leader or an open center system commonly used. The modified leader system offers the advantages of earlier production, stronger trees and longer-lived trees. The modified leader tree will have 4-6 scaffold limbs which should be spaced 20-30 cm apart along the trunk in the four compass directions. The crotch angles should be 60-70° from the vertical position. When **planting:** Cut back the leader to about 1-1.2 m in height depending upon tree size. Remove any broken limbs, limbs that are below 50 cm in height and limbs that form a crotch angle with the main trunk. **Second season** - Remove limbs with narrow crotch angles, competing leaders, limbs that are too close together on the main trunk (8-10 cm), limbs inflected with canker. **Year three** - same as year two. **Year four and later** - Selection of the four to six scaffold limbs should begin with the competing scaffold limbs gradually being removed over several years. The basic pruning required for mature trees will involve the removal of dead or broken branches, branches weakened by canker, winter injury, low drooping

branches and vigorous upright growth.

FERTILIZER: Apply 500 g of 6-12-12 per year of tree age up to a maximum of 7 kg per mature tree. The fertilizer should be applied in the spring prior to June. When applying fertilizer, distribute the fertilizer evenly under the branch spread. Manures and mulch can be used to replace mineral fertilizers. Because the composition of manures varies with source, age and storage, it is easy to over fertilize. The fertilizer needs of mature trees range from 27 kg/10 m² of cow manure stored outside to 4.5 kg/10 m² of fresh poultry droppings. Manures should **not** be spread around fruit trees from May 1 to November 1. Decomposable organic mulches can reduce fertilizer needs, and if rich enough, e.g. waste hay, can entirely replace mineral fertilizer. A mature tree will require 1 to 2 bales of hay for the first mulching, after which 1/4 to 1/2 bale every other year should be sufficient. Growers using mulch should be cautioned that the mulch can provide an ideal habitat for rodents which can feed on the tree bark in times of food scarcity.

WEED CONTROL: Hoe or cultivate lightly to remove competition for the first three years. Seed down with a good lawn seed and keep well mowed. Grass control may be achieved by using herbicides. A grass or straw mulch spread under the tree will also help to control weeds while retaining soil moisture and adding fertility to the soil.

STORING: Peaches, nectarines and apricots do not all ripen at the same time. Therefore, it is necessary to make a number of pickings. If harvested before they are ripe, they will not properly ripen after harvest. Therefore, select firm, ripe fruit. Firm ripe fruit can be stored at -1°C in very satisfactory conditions for at least two weeks.

CULTIVARS: The cultivars listed are those that are hardy, and many of these cultivars have been successfully grown in Nova Scotia. New winter-hardy cultivars are being developed at the Agriculture and Agri-Food Canada Research Station, Harrow, Ontario and a number of these

new cultivars are listed.

PEACHES

CULTIVAR	APPROX HARVEST DATE
Harbinger	August 10
Garnet Beauty	August 25
Harbelle	August 28
Brighton	August 29
Reliance	August 30
Redhaven	September 1
Harken	September 4
Harbrite	September 7
Harrow Beauty	September 15
Cresthaven	September 25

Harbinger - Trees are productive, medium-hardy, vigorous and somewhat upright; fruit are small to medium in size (5.5 cm), bright and attractive with 80% red color on yellow background, medium firmness, uniform ripening and medium quality, clingstone with melting flesh, a promising new cultivar from Harrow.

Garnet Beauty - a productive, medium-hardy, early ripening bud sport of Redhaven; attractive fruit with good size (6.5 cm), and color with 70-80% red blush on yellow ground; fruits are firm with medium quality and semi-freestone; a popular early basket cultivar.

Harbelle - A moderately productive cold-hardy tree with compact, spreading growth habit; fruits are large (7 cm) and attractive with 60% red blush on a bright yellow background, firmer fruits than Sunhaven and do not drop as easily, flesh is clear yellow and quality is fair to good; it is semi-freestone, slow oxidizing and freezes well; a promising Harrow introduction.

Brighton - Is an attractive, high quality, yellow-fleshed peach. The fruit is roundish, uniformly medium in size, and nearly all-over bright red on yellow ground. The flesh is medium firm, semi-cling, slightly fibrous, juicy and slow to oxidize. The tree is vigorous, productive and medium-hardy

Reliance - Productive and very cold-hardy but somewhat lacking in appearance and quality; fruits

are of medium size (6.5 cm) with 60% red blush on a yellow background; flesh softens early and is semi-freestone; a hardy cultivar for marginal regions from New Hampshire.

Redhaven - Cold-hardy and productive, attractive fruit with 70-80% red blush on a yellow ground; flesh is firm, usually freestone and of good quality; main problems are long harvest season and susceptibility to bacterial spot; a popular and proven cultivar from Michigan.

Harken - Cold-hardy and moderately productive with large (6.5 cm), attractive fruit of high quality; flesh is clear yellow, firm and freestone; fruits ripen uniformly and can be harvested in two pickings, suitable for home canning and freezing, high tolerance to bacterial spot, a promising Harrow cultivar.

Harbrite - Productive, cold-hardy and able to size heavy crops to 6.5 cm; fruits are uniform ripening, attractive with a bright red blush (80%) on a yellow background; flesh is firm, semi-free to free stone and quality is good but slightly below Harken; a promising Harrow cultivar.

Harrow Beauty - Productive, cold-hardy, trees with medium vigor and an open spreading growth habit. Fruit attractively colored with 80% smooth, bright red blush over a bright yellow ground color. Flesh is firm, smooth textured, bright yellow and tinted with red at the pit.

Cresthaven - A productive large-fruited variety ripening with Madison but not as cold-hardy; fruits are moderately attractive with 60% red blush on yellow ground, flesh is firm and yellow but red at the pit, quality is fair to good and comparable to Madison; a promising cultivar from Michigan.

NECTARINES

Nectarines resemble peaches except for the lack of fuzz. Nectarines generally are smaller than peaches and thinning is required to attain marketable size fruit. Nectarines are more susceptible to insect stings, skin cracks and fruit rots than peaches. The

cultivars of nectarine listed are as hardy or hardier than the peach cultivars recommended for the Atlantic Provinces.

CULTIVAR	APPROX. HARVEST DATE
Harko	September 2
Hardired	September 7
Mericrest	September 9
Nectared 6	September 20

Harko - A Harrow selection that is hardier than Redhaven peach. A yellow-fleshed, freestone nectarine of good flavour and texture. Medium-sized, roundish fruit with an almost solid bright red skin. The tree is medium size, spreading and productive. Tolerant to bacterial spot and brown rot.

Hardired - A Harrow selection with a hardiness comparable to Reliance peach. A yellow-fleshed, freestone nectarine of good flavour and texture. Medium-sized round fruit, with a brilliant, almost solid red color skin. The tree is vigorous and very productive, and must be heavily thinned to attain medium size fruit. Tolerant to bacterial spot and brown rot.

Mericrest - A hardy, yellow-fleshed freestone nectarine, of excellent flavour. Medium-sized round fruit with a red skin. The tree is vigorous and productive, and must be thinned to attain medium fruit size. Tolerant to bacterial spot and brown rot.

Nectared 6 - A yellow-fleshed freestone nectarine. A medium-size fruit with 3/4 to full red over yellow skin. Trees are productive and early fruit thinning is required to increase fruit size.

APRICOTS

The introduction of hardy apricot varieties, particularly from the Harrow Research Station in recent years, has improved the chances for successful apricot production within the Atlantic Provinces. The majority of cultivars listed are cold-hardy and have some resistance to perennial canker which in the past has hampered apricot production. However, the chance of successful apricot pro-

duction is still less than that of peach or nectarine.

CULTIVAR	APPROX. HARVEST DATE
Harcot	August 4
Goldcot	August 11
Veecot	August 16
Hargrand	August 17
Harogem	August 20
Harglow	August 22
Harlayne	August 24

Harcot - An attractive, early season, high quality apricot. The fruit is medium size, oblong, orange with slight blush. The flesh is orange, sweet and juicy with a very good flavour. The tree is vigorous, spreading to upright and cold-hardy.

Goldcot - A medium to large size apricot if thinned. The fruit is round with a smooth golden skin and orange flesh. The trees are vigorous, hardy and self-fertile.

Alfred - A hardy, productive, good quality apricot. The fruit is medium to small in size, roundish, and bright orange with a slight blush. The flesh is medium firm, fine grained, juicy with a sweet rich flavour. The trees bear a regular crop and are self-fertile.

Veecot - A medium to large apricot. The fruit is round with a deep orange color. The flesh has a very smooth texture and is slightly juicy. The tree is productive and hardy.

Hargrand - An exceptionally large apricot. The fruit is roundish, orange in color with a slight blush. The flesh is orange, very firm, fine textured and of good favour. The tree is moderately vigorous, hardy and productive.

Harogem - An exceptionally attractive apricot. The fruit is small to medium size with a bright red blush on an orange background. The flesh is firm and moderately juicy with good texture and flavour. The tree is moderately vigorous, and consistently productive and hardy.

Harglow - A late-blooming cultivar with medium

size fruit. Fruits are bright orange with no blush and very high quality. The tree is productive, self-fertile, compact and hardy.

Harlayne - An attractive, middle to late season apricot. The fruit is medium in size with a moderate red blush on an orange background. The flesh is orange, very firm with a good texture and flavour. The tree is vigorous, productive and very cold-hardy.

DISEASES

Leaf Curl is a fungus disease which can cause defoliation of peaches and nectarines and thus weakens the trees. The actual infection occurs while the leaf buds are swelling and opening. Infested leaves are thickened, swollen, variously distorted and curled; they become reddish or purplish in color. Peach and nectarine trees should be sprayed in the spring prior to bud swelling with an appropriate fungicide.

Brown Rot is a fungus disease of all stone fruits. In the blossom blight stage, infected blossoms will shrivel, die and become covered with a grayish mold. Brown rot on the fruit appears as a small, circular brown spot that increases rapidly in size and eventually involves the entire fruit in a soft rot.

Peach Canker is one of the major limiting factors to the successful production of peaches, nectarines and apricots in the Atlantic Region. Cankers are a result of fungi and bacterial infections. These organisms often enter the tree where the tissue has been injured as a result of winter temperatures. Steps to help control canker are outlined in the spray schedule.

INSECTS

Plum Curculio is a beetle pest of all stone fruits. The adults overwinter under debris or just beneath the surface of the soil. The fruit is attacked as soon as it is formed. Feeding by the adults causes holes in the fruit while egg laying causes very distinctive crescent-shaped wounds. Egg laying takes place for several weeks following shuck-fall. The larvae feed to maturity within the fruit and the infested

usually falls prematurely.

Plant Bugs will feed on and cause damage to peaches and nectarines. Injured fruit can be deformed or have shallow gummy scars. Strings of clear gum are sometimes seen exuding from bug punctures. The very common tarnished plant bug is 5-6 mm in length and varies in color from pale brown to almost black.

European Earwig will feed on the fruit as it ripens. The surface feeding can generally be tolerated. However, when this insect enters the fruit it can present an unwelcome surprise to the home gardener at time of eating. Earwigs enter the fruit by a crack which forms generally at the stem end when the pit splits. Once entering they feed around the pit and remain within the pit cavity. Earwigs are more of a problem on those cultivars that have a tendency to pit splitting which generally are the early season peach cultivars. Earwigs are very mobile and therefore are very difficult to control with insecticidal sprays. Home gardeners that cannot tolerate earwigs would be recommended to plant one of the late season peach cultivars which are not prone to pit splitting.

These diseases and insects of peaches and nectarines can be controlled by following the spray schedule. Brown rot and plum curculio are the main disease and insect of apricots and can be controlled by following the spray schedule for peaches and nectarines.

PEACH CANKER - CONTROL The following practices aid greatly in the prevention of canker. Prune after growth commences in the spring to remove winter killed and cankered wood. Do not prune in late fall or winter. Immediately after pruning apply a spray to protect pruning wounds against infection by canker fungi.

- Make pruning cuts close to supporting wood. Otherwise, stubs die back and form favorable sites for infection.

- Remove dead wood at pruning time. If any is overlooked or appears later, remove it by the end of June. Cut well below the dead areas (at least 10

to 15 cm). Gather all prunings and destroy by burning as soon as possible.

- Cease orchard cultivation before the first week in July to promote early maturing of wood.

- Consider carefully the fertilizer requirements of the orchard. Maintain thrifty vigorous growth. It is important to avoid overstimulation and late season growth.

- Apply sprays to protect the twigs from brown rot infection and insect damage. A fall spray will help to prevent wood disorders.

- Avoid injuries to the trees when cultivating or harvesting. Cut out cankers on trunks and main limbs of younger trees in the spring. Remove all brown discolored bark. Treat the wounds with a disinfectant wound dressing (e.g. Braco).

SAFE USE OF PESTICIDES: Always handle pesticides with care. This includes herbicides.

1. Before using any pesticide, read the label carefully. Take note of precautions to be followed when using a specific product.
2. Avoid spilling pesticides on yourself or in the immediate area where you are working. If this should happen, wash yourself immediately with plenty of water to remove all traces of the pesticide.
3. Do not get any pesticide in your eyes, nose or mouth. Do not smoke or eat while you are applying pesticides. Wait until you have washed.
4. When applying a pesticide, do not permit material to blow back on you or on other people or pets.

HOME GARDEN SPRAY SCHEDULE (PEACHES AND NECTARINES)

Stage of Development	Disease or Insect	Remarks
DORMANT (March or early April BEFORE buds swell)	Peach leaf curl	Leaf curl spray is required every year. Successful depends on thorough coverage of all twig growth.
BLOOM (Spray when first blossoms are opening, if weather is wet, repeat every 4-5 days)	Blossom blight stage of brown rot	Bloom sprays important where brown rot has been a problem.
SHUCK-FALL (when the remaining base of flower drops off)	Brown rot Plum curculio, Plant bug	
FIRST COVER (10-12 days after SHUCK-FALL)	Brown rot	
SECOND COVER (10-12 days after FIRST COVER)	Brown rot	
PRE-HARVEST (14-17 days before harvest of each variety)	Brown rot	
FALL SPRAY (after leaves are off in fall or when temperatures in shade are above freezing and conditions favor rapid drying)	Peach leaf curl	Cover all twigs thoroughly.

Consult your local Garden Centre or Department of Agriculture for suitable pest control products.