



# ATLANTIC PROVINCES HOME GARDEN PRODUCTION OF CHERRIES



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

Publication ACC 1214  
Agdex: 213/12  
RV-98

Southwest injury followed by bacterial canker are the major problems that the home gardener will be faced with when growing cherry trees. Cherry trees are not hardy enough for general planting throughout the Atlantic region. While there have been reports of successful home garden growing of sweet cherries throughout Nova Scotia and the South Shore, many of the cherry varieties grow best in hardiness zones 5 to 7. However, fluctuating temperatures or late spring frosts will often result in tree injury and subsequent loss of crop. Tart cherries have a much better record of success than sweet cherries and can probably be grown throughout much of Nova Scotia and in selected areas of Prince Edward Island and New Brunswick. Flower buds of tart cherries have been known to withstand temperatures of  $-32^{\circ}\text{C}$  in mid-winter before any damage was recorded. Tart cherries, however, are, especially tender at bud break and early green bud and a low of  $-10^{\circ}\text{C}$  can result in 90% kill of flower buds. An advantage to growing tart cherries in the home garden is that the trees require very little protection from insects and disease; it will grow more than 3 to 4.5 meters while sweet cherries may reach 9 meters in height. Tart cherries are not generally as attractive to birds as sweet cherries, they can be harvested over a fairly long time and do not crack their skin after rain, which is a major problem with sweet cherry. Sweet cherry trees that are damaged by low winter temperatures are more prone to bacterial canker. Serious bacterial canker infections often show up a few years later following winter injury and in many cases the tree cannot be saved. The planting of winter hardy, bacterial resistant varieties will go a long way to ensure a healthy sweet cherry tree. Since sweet cherry trees grow so large, they do not

make good ornamental trees unless the grounds are very spacious.

**SOIL REQUIREMENTS:** Cherries are extremely sensitive to wet water-logging soil conditions. Avoid planting cherry trees on all soil types that have poor drainage characteristics. Cherry trees grow best on well-drained sandy loam soils. The soil pH should be in the range of 5.5 to 6.5.

**PREPARATION FOR PLANTING:** Start planning at least one year in advance of planting. Work the soil during the summer or at least the fall before planting. Soil with low phosphate and potash should have manure or fertilizers containing these two nutrients applied at this time. Apply limestone at a rate of up to  $1\text{ kg/m}^2$  and work into the top 7 or 10 cm of soil. Most Maritime soils are acidic and need to be neutralized. Select the varieties you want the fall before planting and place your order with a nursery. Many of the local garden centers and farm markets have fruit trees for sale during the spring and summer months.

**PLANTING:** Cherry 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. Top roots should be at least 15 cm below the soil surface. Pack soil firmly around all roots to avoid air pockets. Tramp soil in around the tree until the tree is firmly in place, then water. Be sure to leave the union (where the variety is grafted onto the rootstock) 5-10 cm above the soil line. Failure to do so will result in the loss of rootstock effect on tree size and fruit production. Sweet cherries are about the most difficult tree fruit to

obtain 100 percent survival after planting. Of great importance in their survival are (a) dormant trees, (b) relatively severe heading back, (c) proper planting and soil, and (d) watering when necessary. When planting leave adequate space between trees and away from buildings to accommodate the mature tree size. Note that the mature tree size will depend upon rootstock, variety and soil type. Excessive shading can have a detrimental effect on fruit production and quality.

**POLLINATION:** Most sweet cherry cultivars are self-unfruitful, that is, they will not set fruit unless they have been pollinated by a suitable pollinator cultivar. Furthermore, certain groups of cultivars are cross-incompatible. For example, Bing will not pollinate Napoleon or Lambert, but will pollinate Van if the bloom period overlaps. In most cases, if three different cherry cultivars are planted, this will insure adequate pollination. In the case of tart cherries, the varieties recommended in this publication are self-fruitful. That is, they will set fruit with their own pollen and only one tree is needed to obtain a crop.

**PRUNING:** Except in the year of planting, cherry trees can be trained to one of several tree forms, however, the modified leader system is suggested because it offers the advantage of early production, structurally sound trees and longer lived trees. A modified leader tree will have 6 to 8 permanent (scaffold) limbs which should be spaced 20-30 cm apart along the trunk in the 4 compass directions. The crotch angle of the limbs with trunk should be 90° from the vertical position. When planting, cut back the central leader to about 1 m above ground. Remove any broken limbs or limbs that form a narrow crotch angle with the main trunk. Years two to four - select 6 to 8 limbs that will form the permanent limbs. These limbs should have wide crotch angles and be equally well spaced in four quadrants around the trunk. No branch should be directly above another and branches should be at least 15 cm apart vertically. Remove limbs with narrow crotch angles and vigorous limbs that are competing with the leader.

**Maintenance Pruning:** Tart cherry trees require relatively heavier dormant pruning than sweet

cherries to remove dead and weak wood, broken and cross over branches. This will encourage new growth on which new blossoms will develop. Sweet cherry trees only require a light annual pruning to remove dead and weak wood, broken and crossing branches. When sweet cherry trees have become too high, head back the large vertical branches. Rub off the shoots (suckers) as they arise during the summer or remove them the following spring.

**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 difficult to judge how much to use, and with richer manures, it is easy to over fertilize. The fertilizer needs of mature trees range from 27 kg/ m<sup>2</sup> of cow manure stored outside to 4.5 kg/10 m<sup>2</sup> 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.

**ROOTSTOCKS:** Mazzard and Mahaleb are the two rootstocks most commonly used for cherries. Mazzard produces trees that are larger and more productive than Mahaleb. It is more tolerant of wet soils and more compatible with various sweet

cherry varieties. Mahaleb is hardier and more drought-resistant than Mazzard. On good soils Mazzard is preferred over Mahaleb. Colt, which was recently introduced as a dwarf rootstock for cherries, produces trees slightly smaller than those of Mazzard and Mahaleb. Colt has not been evaluated as to its suitability for the Atlantic region.

## CULTIVARS:

### Sweet Cherries

The cultivars listed have either been successfully grown at the Kentville Research Station or by commercial growers in the Annapolis Valley. The recommended cultivars are listed in order of harvest date at Kentville, NS.

SWEET CHERRIES	APPROX. HARVEST DATES
Cavalier	July 10
Sam	July 27
Napoleon	July 27
Van	July 30
Hedelfingen	July 30
Stella	August 2
Hudson	August 5

**Cavalier** - A new early season black sweet cherry. The fruit is medium to small size with deep, rich color and a shiny finish. Flesh is firm and has good storing qualities. It has resistance to fruit cracking. Tree is of medium vigor, upright, spreading and slow to come into bearing. The tree is hardy.

**Sam** - A dark red, large, firm cherry of high quality. It has shown good resistance to cracking. The tree is upright, spreading and appears quite hardy under Nova Scotia conditions. It is a good pollinator for Napoleon and should pollinate Hudson.

**Napoleon (Royal Ann)** - A yellow flesh and skinned cherry with bright red cheeks. A large, firm juicy and productive cherry that is well adapted to canning. The tree is vigorous, had a spreading growth habit with good crotch angles. It is relatively hardy but it is susceptible to early fall freeze damage, however, quite resistant to mid-winter damage.

**Van** - A medium sized, firm, dark red cherry of good quality. The fruit is somewhat resistant to cracking. The tree is hardy, very productive and can bear fruit in the 4th or 5th year after planting. The tree is well shaped with good crotch angles but it is susceptible to infections from bacterial canker. A good pollinator for other varieties such as Napoleon.

**Hedelfingen** - A medium-large, firm, good quality dark Mahogany cherry with good resistance to cracking. Tree hardiness is a concern and it has shown "south west" winter injury in Nova Scotia. The tree is spreading in habit and has slightly drooping branches.

**Stella** - A large firm, fair-quality, dark red cherry with moderate crack resistance. The tree is very vigorous, quite productive but only moderately hardy. Its outstanding feature is that it is the first good quality self-fertile sweet cherry. It can be planted by itself without any other pollinator and still produce. It is also reported to be a universal pollinator. Tests in Nova Scotia, however, indicate that this cultivar is quite susceptible to bacterial canker.

**Hudson** - A medium to large, firm, dark red late season cherry and crack resistant. The tree is vigorous, spreading and resistant to southwest trunk injury. It is resistant to bacterial canker so it should be tried for this reason alone. Several self-fruitful numbered sweet cherry selections from the Ontario breeding program are now available from Ontario nurseries. These selections have not been evaluated in the Atlantic region but may be of interest to the home gardener and worthy of trial because of their self-fruitful characteristic.

**V69061** - A medium-sized, firm, crack and brown rot resistant white cherry with good flavor. Estimated harvest date for Kentville July 23.

**V69062** - A medium-to-large-sized, productive, semi-firm, crack resistant red cherry with good flavor. Estimated harvest date for Kentville July 24.

**V690616** - A good-flavored red cherry which is crack and brown rot resistant. Estimated harvest date for Kentville July 24.

**V69018** - A large-sized, very productive, very firm red cherry with good flavor which is highly resistant to cracking. Estimated harvest date for Kentville July 26.

**V69020** - A very productive cherry with good flavor. Estimated harvest date for Kentville August 2.

**V69068** - A large-sized firm, productive, highly crack-resistant dark red cherry with good flavour. Estimated harvest date for Kentville July 27.

TART CHERRY CULTIVARS	APPROX HARVEST DATE
Northstar	August 1
Montmorency	August 6
Meteor	August 9

**Northstar** - This variety was selected from seedlings with the parents English Morello x Serbian Pie No. 1, introduced by the University of Minnesota in 1950. This tart cherry has mahogany-red fruit and dark juice. The tree is very small, productive, self-fruitful, very hardy in wood and bud, and claimed be resistant to leaf spot. The flesh to pit ratio is good as the pit is very small compared to the amount of flesh.

**Montmorency** - This variety was first mentioned in France as early as 1768. Montmorency is of major importance to the tart "pie cherry" industry and responds well to good care. The tree has a globular shape with attractive shiny leaves. This makes it possible to use this variety as a decorative ornamental. The new wood is fairly thin compared to sweet cherries, but still very productive and self-fruitful.

**Meteor** - This variety was introduced by the University of Minnesota in 1952. The tree is a natural spur-type semi-dwarf that is productive and self-fruitful. The tree is also hardy and resistant to leaf spot. The fruit is a clear light bright red, and large with a small pit, very suitable for pies. This

variety blooms and ripens a week later than Montmorency.

#### DISEASES:

**Leaf spot** is a fungus disease which causes small reddish-purple spots on the leaves. Diseased leaves turn yellow and fall from the tree; sometimes the centers of the diseased spots fall out. Heavy defoliation can cause die-back and weakening of the tree.

**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.

**Black Knot** is a destructive fungus disease that causes conspicuous, hard, black swelling on the twigs and branches. Knots should be cut out and burned every year before the start of the growing season. The cuts should be made about 15 cm below any visible swelling of the wood. It is found more commonly on plums and tart cherries.

**Bacterial Canker** is a disease that attacks most parts of sweet cherry trees. This disease causes wilted blossoms, spotting and collapse of leaves on spurs and cankers on twigs and limbs. Under severe conditions, large scaffold limbs may be killed. A heavy exudation of gum is usually associated with the cankers. If this disease is suspected, consult Fruit Specialists concerning a control program.

#### INSECTS:

**Plum Curculio** is a beetle pest of all stone fruits. The adults overwinter under debris or just beneath the surface of the soil. Feeding by the adults causes holes in the fruit when 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; infested cherries remain on the tree until ripe.

**Black Cherry Aphid** can be a serious problem on

sweet cherry and a problem on tart cherry. The black eggs are laid in the fall on cherry and the egg passes the winter in the egg stage. The black aphids appear as soon as the buds open and high numbers can be seen. Sweet cherry leaves will curl up and turn yellow while tart cherry leaves do not curl. These aphids will also attack the fruit.

**Pear Slug** is a slimy, dark-green to black larva that is swollen at the front end. It sometimes causes damage on cherries. The larvae, seen in June and early July, feed on the upper surface of the leaves, skeletonizing them. Insecticides listed for plum curculio would also control pear slug if applied when larvae are present.

**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 in your eyes, nose or mouth.
3. Do not smoke or eat while you are applying a pesticide. Wait until you have washed.
4. When applying a pesticide, do not permit material to blow back on you or others or pets.

#### HOME GARDEN SPRAY SCHEDULE (CHERRIES)

Stage of Development	Disease or Insect	Remarks
GREEN TIP (when green tips appear on buds)	Black cherry aphid	More likely a problem on sweet cherry.
BLOOM (just before blossoms open; if weather is wet; repeat)	Blossom blight and stem rot or brown rot	Bloom sprays important where brown rot has been a problem.
SHUCK (when the remaining base of flower drops off)	Brown rot, leaf spot	
FIRST COVER (12 days after SHUCK)	Brown rot, leaf spot Plum curculio	
SECOND COVER (12 days after FIRST COVER-- When early varieties begin to color)	Brown rot, leaf spot Plum curculio	
PRE-HARVEST (14 and 7 days before harvest of each variety)	Brown rot	
POST-HARVEST on trees	Leaf spot	

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