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Growing Stone Fruits

Horticulture
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Several stone fruits are adapted to Minnesota conditions—plums, cherry plums, Nanking cherries, sour cherries, and apricots. Although peaches have fruited, they are not hardy and the trees are killed either to the ground line or entirely.

Apricots resulting from crosses with hardy Manchurian apricots are hardy and fruit quite regularly. Two varieties, Moongold and Sungold, developed at the Horticulture Research Center, University of Minnesota, are recommended. The apricot as well as some plums and cherries do bloom so early that late spring frosts are often a hazard.

Plums are of three general groups: the so-called hybrid plums, selected wild plums, and European-type plums. Hybrid plums, derived by crossing native plums with high quality tender varieties, generally are hardy.

European plums of the species *Prunus domestica* formerly were considered too tender for Minnesota winters. But recent tests revealed that a few varieties such as Mount Royal and Stanley may be hardy in southern Minnesota and also in favored sites farther north.

Cherry plums owe their hardiness to the native sand cherry, which was crossed with several plum varieties to produce the cherry plum group. Generally, these cherry plums develop into small trees with fruits intermediate in size between the sand cherry and plum.

The Nanking bush cherry is grown as a shrub approximately 6 - 8 feet tall. Leaves are hairy and fruits are rather small but densely clustered along stems. The fruits are good to eat fresh or to use for jelly, and they also make good sauce and pies.

Two varieties of pie cherries—North Star and Meteor—from the Horticulture Research Center are hardy in southern Minnesota. They also have been satisfactory in favored areas in central and more northerly sections. These two varieties produce fruits of good sour cherry size and quality. They produce attractive small trees and deserve extensive use.

European type plum

Sweet cherries, such as the Bing cherry, are not hardy in Minnesota.

For further information on stone fruit varieties, see *Fruits for Minnesota,* AG-FS-1104; and *Plum, Cherry, and Apricot Varieties for Minnesota,* AG-FS-1126.

PLANNING YOUR HOME FRUIT PLANTING

Since fruit planting represents considerable expenditure in time and money, give thought to spacing, number of trees, and arrangement.

Planting distances, time intervals from planting to fruiting, approximate yields, and ripening periods.

Fruit	Distance between trees (feet)	Time from planting to fruiting (years)	Approximate yield per tree	Ripening period
Apricots	20	2 - 4	1 - 2 bu	July-Aug.
Cherries (sour)	15	3 - 5	1 bu	July-Aug.
Cherries (Nanking)	6	2 - 3	2 - 4 qt	July
Cherry plums	15	2 - 4	1 - 2 bu	Aug.-Sept.
Plums	20	3 - 5	1 - 2 bu	Aug.-Sept.

Site Selection

Select a deep well-drained soil of good fertility. Good air drainage also is essential. Avoid areas that have frost pockets and low wet spots and are exposed to strong prevalent winds.

Planting

Tree roots must be kept moist at all times. Moisten the roots in a container of water prior to planting the tree.

Plant trees in the early spring as soon as the soil can be worked. Make the hole large enough to accommodate the entire root system and deep enough so the newly planted tree is 1 inch deeper than it was in the nursery. (Never set the tree so deep that the graft union is below ground level when the hole is filled.) Fill the hole with topsoil, leaving a shallow depression around the tree to catch and hold water. Add a pail of water if the soil is dry.

Management

Stone fruits grown in sod are more subject to leaf diseases and early defoliation than those grown under clean cultivation. For this reason clean cultivation often is practiced in commercial plantings.

Mulch, however, can be used in stone fruit plantings and is particularly desirable if planting on a steep slope where cultivation is not practical. Mulch the soil underneath the spread of the branches, using straw or hay to a depth of 5 - 6 inches. Sod may cover the remaining space.

If lawn culture is planned, apply mulch for the first year or two, or until the tree has become firmly established. Lawn grass, if kept closely clipped, then may be allowed to grow around the base of the tree.

Pruning

Newly planted trees should be pruned in the spring just before growth begins. If unbranched trees are planted, cut off the shoot 3 feet above the ground. If branched trees are planted, one or two branches with the lowest 2 feet from the ground are selected as the beginning of the main scaffold limbs. (For further information, see *Pruning Fruit Trees,* AG-MI-0556.

Plums. The ideal European-type plum tree such as Mount Royal has a central leader (main trunk) and six to eight well-spaced (5 - 10 inches) scaffold or side branches. Remove all narrow crotches and dead and diseased branches, and thin excessive growth. The hybrid plums such as Superior are usually a little more vigorous. They grow in a somewhat spreading fashion and will need some heading back as well as thinning of excessive growth. Avoid heavy pruning of plums.

Nanking (bush) cherry normally grows in the form of a small bush. Stems that are two to four years old are the most productive. To have a new supply of these young stems each spring, you must cut out the old unproductive stems. Cut them back as close to the ground as possible.

Cherry plums need pruning to cut out any dead, old, diseased wood to encourage production of new bearing shoots.

Apricots usually are pruned to a central leader system as suggested for plums. Apricots are borne on short spurs that are productive up to three years. Considerable thinning-out pruning should be done to induce annual production of new fruiting spurs.

Sour cherry trees normally spread out as they grow. Avoid retarding production with excessive pruning once desired branches are selected. Mature sour cherry trees require little pruning except removal of weak branches, especially on the inside of the tree. If this is not done, they become bushy, hard to spray and pick, and produce many small, unevenly ripening fruits.

Pollination

Some stone fruits often require more than one variety to insure cross-pollination, since most hybrids are self-sterile. Certain varieties are better pollinators than others, so include them in the planting. For hybrid plums, Toka and South Dakota are recommended. For cherry plums, plant Compass. The European plums generally are self-fertile and do not require a pollinator.

For Nanking cherries, plant several selections to insure cross-pollination. North Star and Meteor are self-fertile pie cherries. Moongold and Sungold apricots should be planted as a pair.

Fertilization

Because of variations in soil and climate, fertilizer needs throughout Minnesota will vary. Certain of the dark-colored soils have adequate amounts of nitrogen, phosphorus, and potassium for optimum tree growth, but sandy soils often need fertilization for optimum production.

Use commercial fertilizers as needed. If growth is satisfactory and leaves appear vigorous and dark green, it is not advantageous to fertilize. But if growth is slow and leaves are small and light green, fertilizers are beneficial. A complete fertilizer such as 10-10-10 is probably the best choice for the home fruit garden.

Apply the fertilizer in the early spring before growth starts. If a soil test is not available, apply a complete fertilizer at the rate of ½ pound for each year of the tree's age, to a maximum of 6 pounds per tree (for bush cherries use one-half the rate suggested). Spread the fertilizer evenly around the tree, beginning approximately 1 foot from the trunk and extending to the spread of the branches.

When a low-nitrogen mulch material such as straw is used, it is necessary to apply additional nitrogen to prevent a deficiency as the mulch decays. Instead of using ½ pound for each year of age, double the rate and use 1 pound.

Mouse and Rabbit Control

Many young fruit trees are lost each year to girdling by rabbits and mice. To prevent girdling, enclose the trunk's base with a cylinder of 3/4-inch mesh hardware cloth. Make this cylinder at least 6 - 8 inches in diameter and extend it from an inch below the soil level to the first branch.

INSECTS AND DISEASES

Stone fruits are affected by several serious insect and disease troubles. Follow the spray schedule given in *Home Fruit Spray Guide,* AG-MI-0675. The following insects and diseases are the most important:

Peach Tree Borer

The peach tree borer kills many stone fruits—cherries, plums, and apricots—and destroys the vigor of others. It passes the winter in the larval form—if small, usually on the bark in silken protective coverings; if large, in burrows under the bark. In the spring, the boring is continued and a cavity is formed in the sapwood just beneath the bark. Gum and sawdust collect at the openings of the burrows and around the base of the tree.

Leaf Spot Diseases

These are quite common on stone fruits. They result in a spotting of leaves and premature defoliation. Burying some of the infected leaves and increasing the vigor of trees may reduce the severity of these diseases. A thorough spraying program with a recommended fungicide will control leaf spot disease.

Brown Rot

This is common on cherries, plums, and apricots. This disease is best known as a disease of the fruit. A brown spot forms where the organism enters the fruit. These spots enlarge until the whole fruit is discolored. Such fruits are soft and watery and later become covered with brown tufts of fungus growth.

This disease organism overwinters on mummies (diseased fruits that dry and either fall to the ground or cling to the tree), so destruction of mummies helps control brown rot. A regular spraying program with a fungicide usually is effective.

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