

Bulletin #2068, Growing Peaches in Maine

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Growing Peaches in Maine

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Peaches are a highly desired fruit in Maine. Peach trees in Maine have a short life expectancy of about 7 years, but severely cold temperatures can kill trees at any age. Because they usually bloom in mid-May, they often escape spring frost damage to blossoms. Nectarines are fuzz-less peaches and consequently have the same cultural requirements. However, they are not as hardy or disease-resistant as peaches and may pose more of a challenge to the home gardener.

When growing peaches, there are some considerations in selecting varieties and cultural practices that can increase lifespan and fruitfulness.



Figure 1. Attractiveness of the flowers may be a reason for selecting certain peach varieties.

Selecting Varieties

With many different peach varieties (table 1) available, consider winter hardiness and disease resistance to prevent long-term problems, but fruit quality, ripening date, and showiness of the flowers (figure 1) can also be important considerations.

There are two general types of cultivated peaches that vary in eating quality and how they are used *Freestone* peaches have a melting flesh that makes them great for eating fresh. *Clingstone* peaches have a dense flesh that makes them useful for canning, but they are not as commonly available in nurseries or garden stores. Among the freestone peaches, some varieties have a flattened shape and are called doughnut or Peento peaches. Peaches also vary in their flesh color, with yellow being the most common, but some have white or red flesh.

Table 1. Importar	t traits of commor	peach varieties
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Variety	Cold hardiness	Ripening date	Leaf curl resistance	Bacterial leaf spot resistance	Blossom appearance
Canadian Harmony	good	mid Sept.	fair	fair	fair
Contender	good	mid Sept.	fair	good	good
Elberta	fair	late Sept.	good	poor	good
Harken*	fair	mid Sept.	good	good	good
Harrow Beauty*	fair	mid Sept.	fair	good	good
Madison	good	mid Sept.	unknown	fair	good
PF-24C*	good	early Sept.	unknown	fair	good

Polly	good	Sept.	poor	fair	good
Q 1-8*	fair	mid Sept.	good	fair	good
Reliance*	good	mid Aug.	poor	fair	fair
Redhaven*	good	late Aug.	good	fair	poor
Saturn	unknown	unknown	fair	good	excellent
Starfire*	good	early Sept.	unknown	good	good

*Varieties currently being evaluated at the Maine Agricultural and Forest Experiment Station-Highmoor Farm.

Adaptation to the Climate

Lack of winter hardiness is the biggest limitation to growing peaches in Maine. Peaches are too tender to survive winters in the northern half of the state and are short-lived in central Maine. The life expectancy of peach trees depends on the frequency of severely cold temperatures, but can be longer or shorter than the average, depending on the occurrence of winter temperatures below -20°F and on the site where trees are planted. Flower buds are not as hardy as the rest of the tree, so trees bear fruit less consistently than apple. Expect to have few or no fruit when winter temperatures dip below -15°F.

Planting

In selecting a site to plant peach trees, higher elevations and windy sites are preferable to lower ground or areas that are protected from wind because they tend to be warmer on the coldest nights. Select sites where air drainage is good. Ideal sites occur on sloping land that is not surrounded by dense woodlots.

Peaches need full sun for maximum winter hardiness and for the development of flower buds. They thrive in well-drained soil with a pH in the range of 6.0–7.0. Prior to planting, have the soil tested and correct any pH or nutrient problems. Soil test kits are available at Cooperative Extension offices. Where soil pH is too low, a <u>soil test</u> can determine how much lime is needed to adjust it.



Plant peaches 15-20 feet apart in colder regions and 20-25 feet apart in the warmest regions of Maine. The best time to plant is in early May, but June is also suitable. Add only soil to the planting hole. If compost will be added, it should be thoroughly mixed with the soil prior to planting. Fertilizer may be spread on the ground after planting. For newly planted trees the rate is 8 ounces per tree of 10-10-10 balanced granular fertilizer.

Water trees with 2–5 gallons during dry spells or if rainfall has not occurred in the previous 1–2 weeks. Apply wood chip or bark mulch in an even layer 3-4 inches deep. Avoid other types of mulch because they can encourage root rot or vole feeding on the lower trunk.

Garden stores offer trees in pots, allowing you to inspect the tree before purchase. Avoid buying trees with pot-bound root systems. If this is not possible, loosen roots prior to planting. Specialty nurseries will ship bare-root trees in springtime, and offer a wider selection of varieties. Bareroot trees that are shipped from a nursery should be planted soon after arrival. Trees with no side branches can be pruned back to 2.5 feet to encourage new shoots (figure 2). For more information on pruning new trees, refer to the section on pruning.

Pollination

Most peach varieties are self-fruitful and do not require another variety for cross pollination. The exceptions to this are JH Hale, Indian, and Indian Blood. Self-fruitful trees can be expected to produce abundantly when planted alone.

Fruit Thinning

When winter temperatures are mild, trees can bear an excess amount of fruit, which is a strain on the health and hardiness of the tree. In addition, limbs may not have the structural strength to support all of the weight of the fruit and consequently can break off near harvest time. To counteract this problem, some of the fruit should be removed in mid- to late June, but fruit thinning in July will also be beneficial. Thinning fruit early in their development will benefit the tree more than removing them close to harvest time. Thin fruit so that the remaining ones are spaced about 6-8 inches apart (figure 3). In some years, this may entail the removal of more fruit than what is eventually kept. To reduce brown rot disease, clean up fruit from underneath the tree and compost them in a location outside the orchard.



igure 3. A peach branch before (top) and after (bottom) fruit thinning

Common Diseases

Peaches are susceptible to several diseases that occur in Maine. Selection of resistant or tolerant varieties is the most effective method of prevention, but no variety is resistant to all diseases.



Figure 4. Brown rot infection of cherry blossoms (left) and peach fruit (middle), and a peach fruit that shriveled and dried into a "mummy" (right)

Strong resistance to brown rot does not exist in commonly grown varieties, but Glohaven, Elberta, and the cling peach Babygold No. 5 have some resistance. The brown rot fungus (figure 4) infects flowers when wet weather occurs during bloom and infects fruit when wet weather occurs during the ripening stage.

Peach leaf curl (figure 5) occurs in springtime as buds begin to grow. Rainfall at this time favors the fungus, which invades buds and causes the subsequent puckering and yellowing of the foliage in late spring. As the season progresses, shoots outgrow the disease and have a normal appearance. Fruit infection is uncommon in Maine. Although unsightly, peach leaf curl has little or no impact on the health of the tree if

symptoms are mild.

Cankers (figure 6) on peach trees are common and occur after winter injury. Branches with cankers can be removed with pruning, but when cankers occur on the trunk, removal becomes difficult without damaging the tree. Oozing is a sign of winter injury or disease, but in many cases, the tree eventually recovers from the injury, so tree removal should not be the first option unless the tree is obviously dead.





Insect Pests

Peach tree borer can be a serious pest because of the potential for tree death, particularly for younger trees. The larvae feed on the internal trunk tissues eventually killing the tree. To prevent trunk borer infestation, a trunk application of insecticide can be made in July and another in August. Select an insecticide labeled as appropriate for fruit trees and apply it according to its label instructions for effectiveness and safety. Keeping grass and weeds short around the trunk will also lessen the chance for borer egg laying.

Insects that damage fruit include the plum curculio, oriental fruit moth, stink bugs and earwigs. Plum curculio insects damage fruit by their egglaying in the month following bloom, which is usually June. The damage they cause leads to misshapen fruit. Tarnished plant bugs will also cause fruit to become misshapen. Oriental fruit moths will feed on fruit early in their development and again as they ripen. Earwigs will also feed on ripening fruit. Keeping grass and weeds short around the base of the trees reduces earwig problems. (To view images of common fruit pests, visit the <u>Fruit Pest Photo Gallery</u>.)

Fertilization

Most soils in Maine are sufficiently fertile to take care of the nutrient needs of fruit trees. Trees in sandy soils will benefit from periodic fertilization. Mature trees can be fertilized with one-half pound of 10-10-10 fertilizer once a year in May. On younger trees, reduce the rate by half. Use micronutrient-containing fertilizers conservatively, because peaches are sensitive to high levels of boron.

Pruning

Peach trees are typically pruned to have a spreading or vase-shaped canopy (figures 7–9), but can be trained in any shape or allowed to grow naturally. The vase-shaped training, also called "open center," is preferred because is prevents the tree from growing upright and thus results in a shorter tree from which it is easier to pick fruit. To achieve the open center shape, prune the main branch at a point just above a side branch and keep four or five side branches. Prune off dead or broken branches. Prune the tree as little as possible in the next five years to encourage fruitfulness. Branches growing back into the center of the tree canopy should be removed each year. Peach trees are mature when they have full fruit production, which is usually 5 years after planting. Mature trees can be pruned annually, which will allow more sunlight to reach the lower branches and will lengthen their lifespan. Small branches on peaches frequently die in winter, and these should be pruned each year.



Flower buds occur along the length of young shoots (figure 10). Avoid pruning most of these young shoots after winters in which flower buds are killed by cold. Following mild winters when most or all flowers remain alive, 25–50 percent of these young shoots may be <u>pruned with</u> thinning cuts to allow more sunlight into the tree canopy.

To ensure maximum winter hardiness, delay pruning until early springtime after the coldest temperatures have occurred. To encourage rapid healing of pruning cuts, prune after the tree has begun spring growth (sometime in April), but before bloom.



Harvest and Storage

Peaches are harvested when skin color changes from light green to yellow. Orange skin can indicate a fully ripe peach that will quickly degrade or rot. Peaches will continue to ripen somewhat once they are picked. When peaches are harvested green, they are not likely to ripen.

Because of their short shelf-life, peaches that cannot by used soon after harvest can be refrigerated for 1 to 2 weeks. They quickly succumb to brown rot at room temperature, particularly when they have skin punctures from insect damage.

Reviewers

- Barbara Murphy, Extension educator
- David Handley, Extension vegetable and small fruit specialist

For More Information

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Photos by Renae Moran.

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