

Peaches and Nectarines

M.E. Ferree and G. W. Krewer, Extension Horticulturists

Contents

- [Site and Soil Requirements](#)
- [Purchasing Trees](#)
- [Variety Selection](#)
- [Rootstocks](#)
- [Pollination](#)
- [Soil Preparation and Planting](#)
- [Post-Plant Care](#)
- [Pruning and Training Peach Trees](#)
- [Fertilization](#)
- [Increasing Fruit Size through Thinning](#)
- [Diseases and Insects that Attack Peaches](#)

Growing peaches and nectarines in Georgia can be both fun and rewarding. Such an undertaking provides you with the opportunity to put part of the lawn area to good use by producing peaches that are both enjoyable to eat and healthful. However, the success of your peach-growing enterprise will depend largely on the care and attention the trees are given throughout their lifetime.

This publication gives guidelines on the selection and care of peach and nectarine trees in your backyard. Since nectarines are nothing more than fuzzless peaches, their culture is the same as peaches. For simplicity, the term peach used in this publication refers to both peaches and nectarines.

Site and Soil Requirements

Sunlight, and plenty of it, is the key to maximizing fruit production. Pick an area where the trees will be in the sun most or all of the day. The early morning sun is particularly important because it dries the dew from trees, thereby reducing the incidence of diseases. If the planting site does not get plenty of sun, then you can't expect the best performance from the trees. Avoid very steep or badly eroded hillsides and areas having poor air circulation and poor soil water drain-age. Although peach trees will grow well in a wide range of soil types, a deep soil ranging in texture from a sandy loam to a sandy clay loam is preferred. Peach trees are extremely sensitive to poorly drained soils. In areas of poor drainage, roots will die, resulting in stunted growth and eventual death of the tree.

Most fruit plants, including peaches, grow best when the soil pH is near 6.5. Since the natural pH of most Georgia soil is below this level, it is necessary to incorporate lime before planting to raise the pH to the desired level. You can get information on soil testing and liming recommendations from your county Extension office. Periodically (about every three years) check your soil pH. The soil test report will indicate if additional lime is required.

Purchasing Trees

The old adage "you get what you pay for" is an important consideration when buying peach trees. Often, bargain plants are not healthy or may not be a variety adapted to your area. Buy only recommended varieties from a reliable source.

Listed below are a few points to keep in mind when purchasing peach trees:

- A healthy one-year-old tree, approximately three to four feet tall and with a good root system, is the preferred type of tree for planting.
- A small tree with a good root system is more desirable than a large tree with a poor root system.
- Trees that are two years old or older do not usually grow as well as one-year-old trees. Frequently, older trees do not have sufficient buds on the lower portion of the trunk to develop a good framework.
- Do not purchase trees that appear stunted, poorly grown, diseased or insect injured.
- Check the trees closely to make sure that you are getting the variety and rootstock that you desire.

Variety Selection

There are peach varieties adapted to most areas of Georgia. In selecting varieties to plant, you need to determine which Peach Zone you live in (see map). Table 1 lists recommended varieties for each area.

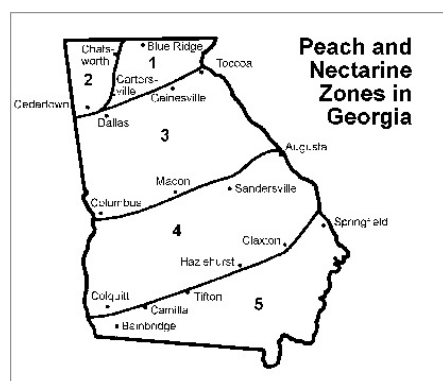


Table 1. Peach & Nectarine Varieties Recommended for Home Use for the Different Peach Zones in Georgia

Variety	Zone*	Flesh Color	Stone Freeness	Harvest **
Peach				
Flordaking	5	Yellow	Cling	57
Starlite	4,5	White	Semi-free	55

Springcrest	4,5	Yellow	Cling	52
Junegold	4,5	Yellow	Cling	47
Scarlet Pearl	3,4	White	Cling	47
Surecrop	1,2,3	Yellow	Semi-free	43
Juneprince	4,5	Yellow	Semi-free	35
Gala	3,4	Yellow	Semi-free	33
Redhaven	1,2,3	Yellow	Semi-free	28
Suwanee	4,5	Yellow	Free	22
Nectar	1,2,3	White	Free	22
Harvester	3,4	Yellow	Free	21
Winblo	1,2,3	Yellow	Free	15
Redglobe	1,2,3,4	Yellow	Free	13
Georgia Belle	1,2,3	White	Free	3
Cresthaven	1,2,3	Yellow	Free	3
Redskin	1,2,3,4,5	Yellow	Free	2
Jefferson	1,2,3	Yellow	Free	-3
Nectarine				
Sunsplash	5	Yellow	Semi-free	54
Sunfre	5	Yellow	Semi-free	35
Karla Rose	3,4,5	White	Semi-free	35
Durbin	1,2,3	Yellow	Semi-free	30
Sunglo	1,2,3	Yellow	Free	23
Rose Princess	1,2,3	White	Free	21
Fantasia	3,4	Yellow	Free	16
Redgold	1,2,3	Yellow	Free	14

* See Peach Zone Map.

** Days ripening before or after (-) Elberta at Byron, Georgia. The average ripening date for Elberta at Byron is July 20, but the actual date will vary slightly from season to season. North Georgia (Zones 1, 2 and upper part of 3) is 7-10 days later, while Zone 5 is 7-10 days earlier.

Rootstocks

For most of Georgia, Lovell is the best rootstock. In south Georgia (the lower half of Zone 4 and Zone 5), the Nemaguard rootstock should be used because of widespread root-knot nematode problems. A new rootstock, Guardian, has proven to be superior to both Lovell and Nemaguard. When trees become available on Guardian, use them in the fruit garden.

Pollination

Pollination is a prerequisite to setting fruit. Peach flowers are self-fertile; pollen from the same flower or variety will set fruit. Therefore, it is not necessary to plant more than one peach variety in the backyard.

Soil Preparation and Planting

When the fruit trees arrive from the nursery, open the bundles immediately. Soak the roots in water six to twelve hours if they are not moist. The trees should then be planted if the soil is not too wet.

If the soil is not prepared where the trees are to be planted, or the ground is too wet, heel the trees in by placing them in an open trench deep enough to cover all roots. The north side of a building is the best place for heeling because the trees will remain dormant longer. Place soil over the roots to the depth they will be planted in your yard.

Before planting, prepare the soil thoroughly by plowing or spading followed by disking or raking to smooth the surface. If you have not adjusted the soil pH to 6.5 previously, liming should be done before you prepare the soil so that the lime will be mixed throughout the planting area. When added to the surface and not plowed in, lime takes years to move down into the soil. Lime an area 10' by 10' where each tree is to be planted. Phosphorus also moves down through the soil slowly and should be incorporated along with lime before planting if soil tests indicate a need.

When planting, dig holes large enough to receive roots freely without cramping or bending from their natural position. Before planting, cut off all broken or mutilated parts of roots with a sharp knife or pruning shears. Keep root pruning to a minimum. Set the plants at about the same depth they were planted at the nursery so that the uppermost root is not more than one to two inches underground. Work soil in and around the roots. When the hole is half filled, firm the soil with your feet before you finish filling the hole. When the hole is filled, pack the soil firmly. Do not leave a depression around the tree. Do not place fertilizer in the planting hole or fertilize immediately after planting. Allow the soil to settle with a good rain before fertilizing.

Post-Plant Care

After planting, it is desirable to apply sufficient water to thoroughly soak the soil in the area of the tree roots. This watering will help bring the soil into closer contact with all sides of the roots and eliminate air pockets around the roots.

Keep weeds out of a 3' by 3' area around the tree because they compete with the tree for moisture and nutrients during the growing season. This will also keep mowers away from the tree and reduce trunk damage. Mulching will help to control weeds as well as conserve moisture.

Pruning and Training Peach Trees

The day you plant your trees is the day you begin to prune and train for future production. Too often backyard growers plant trees and leave them unattended for several years. This neglect results in poor growth, shading out and limb breakage. The purpose of pruning a young tree is to control its shape by developing a strong, well-balanced framework of scaffold branches. Because peach trees bear fruit on wood that grew the previous year, the pruning system best suited to keep the fruit-bearing surface close to the ground is the Open Center. The Open Center, which roughly resembles a vase, is also a good system for plums.

At planting: Regardless of whether you buy an unbranched tree, a well-branched tree, or a particularly tall tree, the tree should be pruned back to a height of 26 to 30 inches immediately after planting. Any side branches should be completely cut off so all that remains is a whip 26 to 30 inches tall. This seems drastic; however, the best-shaped Open Center trees come from those pruned initially to a whip.

First year: Prune in mid-February to early March, first removing diseased, broken and low-hanging limbs. Since we are developing an Open Center (vase-shaped) tree, next remove vigorous upright shoots that may have developed on the inside of the main scaffolds.

Do not prune trees in October, November, December and January. In the piedmont and in north Georgia, wait until mid-February to prune your trees. Pruning in late winter reduces the chance of winter injury and infection by the bacterial canker organism.

Second and third years: Second and third year pruning involves the same principles used after the first growing season. First, remove low-hanging, broken and/or diseased limbs. To maintain the open vase remove any vigorous upright shoots developing on the inside of the tree, leaving the smaller shoots for fruit production. Finally, prune the vigorous upright limbs on the scaffolds by cutting them back to an outside growing shoot.

Mature peach trees: The same principles used to develop the tree are used to annually maintain the size and shape of the mature peach tree. Removal of low-hanging, broken and dead limbs should be done first. Next, remove the vigorous upright shoots along the scaffolds. Lower the tree to the desired height by pruning the scaffolds down to an outside growing shoot at the desired height.

Pruner's note: Prune out extremely vigorous shoots developing on the inside of the tree because they shade out the center. Leave the small shoots alone. Do this in early or mid-July.

Fertilization

Fertilizing peaches starts with adjusting the soil pH to 6.5 before planting. Incorporate the lime at least a foot deep and over an area approximately 10' by 10' where the tree will be planted. Your county Extension office can provide you with information on soil testing and make recommendations from the results.

In March after the trees have been planted and the soil settled by a drenching rain, broadcast one cup of 10-10-10 fertilizer over an area three feet in diameter. Do not allow fertilizer to accumulate around the tree trunk. In early June and again in early August, broadcast one-half cup of calcium nitrate or equivalent over an area three feet in diameter.

Beginning the second year, fertilize the trees twice a year; in early March and around the first of August. Use these rules of thumb for the two fertilizer applications:

- Early March application - Apply one cup of 10-10-10 fertilizer per year of tree age to a maximum of 10 cups for mature trees.
- August application - Apply one cup of calcium nitrate or equivalent per year of tree age to a maximum of four cups for mature trees. Do not make the August application if you lost your crop to a late freeze. Do not apply until harvest of late season varieties is completed.

Increasing Fruit Size through Thinning

Peach trees grown under favorable conditions will set more fruit than the trees are capable of successfully carrying to maturity. Therefore, the removal of excess fruit from the trees is essential to ensure satisfactory development of the color, shape and size of the remaining peaches. This will reduce limb breakage as well. Fruit should be removed by hand so that the remaining peaches are spaced about every six inches. Hand thin the trees approximately four weeks after bloom.

Diseases and Insects that Attack Peaches

It is very difficult to grow top-quality peaches in the home orchard unless a rigid pest control program is maintained. Begin a spray program with dormant sprays and carry on through the growing season. The most damaging peach disease is a fruit rot commonly called brown rot. Other diseases of peaches include a scab, rhizopus rot, leaf curl, bacterial spot, nematodes, peach phony and oak root rot.

Brown Rot - Brown rot attacks flowers, shoots and fruit. Diseased flowers wilt and turn brown very quickly. Shoot infections result in fairly small elongated (1-3 inches long) gummy cankers. These cankers will provide the disease spores for fruit rot.

Brown rot is the most common fruit rot. A tan to brown spot appears on the surface of diseased fruit. In humid weather, brownish tufts of spores appear on the rotted surface. Infected fruit will rot completely to become a mummy. The mummies carry the disease over the winter. Sanitation is a valuable part of brown rot control in the home orchard. Collecting diseased fruit as soon as it appears and removing infected twigs and mummies from the trees will reduce the carry-over of brown rot to the next season. If fruit ripening occurs during a period of warm, wet weather, a very rigid spray program is required to control brown rot. It is important to begin spraying just before the fruit ripens. Delaying a spray program until rotten fruit is evident will result in very poor control regardless of the effort.

Peach Scab - This disease appears as small (usually less than 1/8 inch in diameter) dark, somewhat velvety spots on fruit. Large black areas may result from numerous closely spaced infections. This disease is easily controlled with chemical sprays applied at the "shuck split" stage and every 14 days for the next four to six weeks. Shuck split is the stage after bloom when the dry flower parts split and fall free of the small green fruit. Disease symptoms occur only on the outer skin. Infected fruit looks bad but eating quality is not affected. Peel fruit to remove all traces of the disease.

Rhizopus Rot - This disease occurs on ripe or nearly ripe fruit. Infected peaches turn brown. The rotted areas are very soft and will become covered with coarse black fungal growth. This disease is very common on peaches harvested and stored at room temperature a few days before consumption. Chemical sprays just before harvest and careful handling at harvest will help control rhizopus rot.

Peach Leaf Curl - Peach leaf curl is common in Zones 1, 2, and 3 and rarely seen in Zones 4 and 5. The disease attacks the peach leaves and occasionally the green fruit. Leaf infections occur just at bud break. The disease begins to show up about bloom time. Infected leaves will appear thickened and badly puckered or twisted and will often be quite red. Symptoms may involve the whole leaf or one or more small areas on a leaf. Infected leaves usually drop in early summer. The disease seldom kills trees, but the heavy leaf loss weakens them. Infected fruit will have raised wrinkled areas often reddish in color. Chemical sprays before bud break give good leaf curl control.

Bacterial Spot - Bacterial spot is a disease of peach fruit and leaves. Infected leaves develop small reddish-purple spots, often with white centers. These spots often drop out giving the leaf a battered or "shot hole" appearance. Infected leaves turn yellow and drop. This leaf loss weakens the tree. Infections on fruit appear as small dark spots. Close examination reveals these spots to resemble open sores rather than the velvety spots characteristic of peach scab. In years of severe infection, diseased areas of the fruit may develop severe cracks.

Chemical sprays for bacterial spot are not practical for the home grower. The best way to control bacterial spot is to select resistant peach varieties. The varieties recommended in Table 1 are all moderately resistant to Bacterial Spot but are not immune. Spots seldom penetrate deeply. Peeling fruit removes most traces of the disease.

Root-Knot Nematode - The root-knot nematode is a soil worm that attacks roots of numerous plants, including the peach. The roots of infected trees show numerous small swellings or knots. Diseased trees may grow poorly and appear always short of fertilizer. Take a nematode sample before planting in Zones 4 and 5 or the lower half of 3. Never plant a peach tree in an old vegetable garden site. Root-knot nematodes can build up on many vegetables. The safest planting sites are portions of the yard where bermuda or other lawns have been established for years. Information on nematode sampling can be obtained at your local county Extension office. Root-knot nematode cannot be treated or corrected after planting.

Peach Phony - Peach phony is a bacterial disease that has caused considerable damage to the peach industry in Zones 4 and 5. The disease is transmitted to healthy trees by leafhoppers. It is important to remove wild plum bushes, which are common sources of phony, before planting peaches. Also, peaches and plums should not be planted together in Zones 4 and 5. This disease cannot be controlled with chemical sprays.

Oak Root Rot - This disease is caused by a soil borne fungus that attacks and kills peach roots. The fungus will survive for many years in the soil on roots of hardwood trees long since removed. There is no control. Thus, peaches should not be planted where land has been cleared in recent years of hardwood trees, or planted in spots where peach trees have been removed. Peach trees maintained in a healthy condition survive much longer when infected than weak trees. Once a peach tree is infected with the oak root rot fungus, it may survive two or three years before death occurs.

Insects - There are a number of insects that cause damage to peach flowers, fruit, limbs, twigs and trunks. Among the most destructive in home garden peach plantings include borers, plum curculio, scale, catfacing insects, oriental fruit moths, Japanese beetles and the green June beetle.

A spray program is essential in controlling insects and diseases if you plan to be a successful peach grower. Contact your county Extension office for a copy of *Disease and Insect IPM in the Home Orchard*. The publication gives tips for a good spray program and additional information and precautions. Read and understand the section on precautions first. Pesticides are dangerous when they are misused or mishandled. This and other Extension publications are available from your county Extension office.

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Gale A. Buchanan, Dean and Director



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