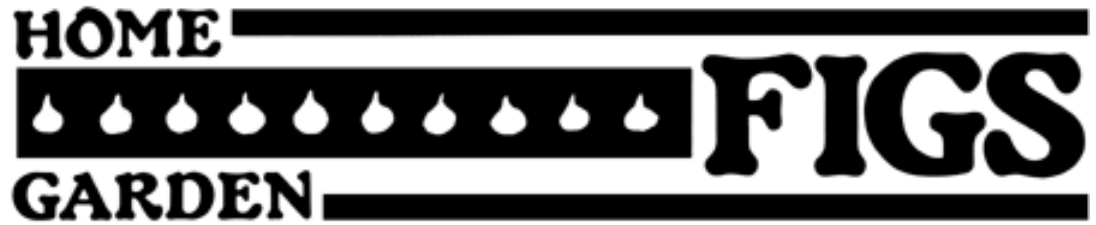


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*Prepared by G.W. Krewer, Extension Horticulturist; Floyd Hendrix, Plant Pathologist*

Most people are fond of figs and rightfully so. They are very tasty and can be eaten fresh, preserved, or used for baking and making desserts like ice cream. Figs will do well in most parts of Georgia except the mountainous areas (see map.)

### **Sections of Georgia Suitable for Fig Culture**



## Site and Soil Requirements

Figs will grow in many types of soils, but they need a site free of root-knot nematodes. Contact your county agent for information about testing your soil for nematodes. In the colder areas of the state, the ideal site is the south side of a building. Cold injury will be further reduced if the fig does not receive direct sunlight early in the morning or late in the evening during the winter months. However, the site should receive a minimum of eight hours of sunlight daily during the growing season.

## Purchasing Plants or Propagating Your Own

Fig trees from nurseries may be grown in the field and sold bare-rooted or grown in containers and sold in the container.

Because considerable confusion exists about fig variety names, order fig plants only from reputable nurseries in the Southeast. Never purchase or attempt to grow the kinds of figs grown in California. They require pollination by a tiny wasp that cannot survive under Georgia's climatic conditions. The only types recommended in Georgia are the common ones that produce only female flowers and set fruit without cross-pollination.

Fig trees are easy to propagate, and a home planting can be started at very little expense. The simplest and easiest method of propagating figs is by stem cuttings from an older bush. Make cuttings in late February. The cutting should be 8 to 10 inches long from 1-year-old wood. The upper end should be cut just above a node. Tips and soft

growth do not root satisfactorily. Set the cuttings directly in the nursery row in well-drained and well-prepared soil. The cutting length governs the planting depth. Cuttings should be planted so only one bud is exposed and spaced 10 inches apart in the row (see Figure 1). In case of dry weather, watering will aid the growth of the cuttings. These cuttings root early, grow rapidly and make good trees for permanent planting in the fall.

Figs may also be propagated by rooted side shoots. Shoots below the ground's surface frequently root; they may be separated from the parent bush and transplanted.

Figs can also be propagated during the growing season by rooting leafy cuttings under mist, or by air layerage. The use of these procedures, however, is seldom warranted.

To make an air layer, a ring of bark  $\frac{3}{4}$  inch wide should be removed from a large twig or small branch. Moist sphagnum moss should be placed over the wounded area and covered with polyethylene film, and the film should be tied at both ends.



**Figure 1.** Figs propagated from hardwood cutting six months after cutting.

## Fruiting or a Lack of Fruiting

If you look for blossoms on your fig tree, you probably won't find them — they are inside the fruit.

A number of conditions may cause the fruit not to ripen or to drop prematurely. The following are the most common in Georgia in order of importance:

1. Young, vigorous plants and over-fertilized plants will often produce fruit that drops off before maturing. If the plants are excessively vigorous, stop fertilizing them. Quite often, three or four years may pass before the plant matures a crop because most figs have a long juvenile period before producing edible quality fruit. If the distance between the nodes (leaves) on the current season's shoots is more than 3 inches, the plant is probably excessively vigorous.
2. Dry, hot periods that occur before ripening can cause poor fruit quality. If this is the case, mulching and supplemental watering during dry spells will reduce the problem.
3. The variety Celeste will often drop fruit prematurely in hot weather, regardless of the quality of plant care. However, it is still one of the best varieties.
4. An infestation of root-knot nematodes can intensify the problem when conditions are as described in items

2 and 3 above.

5.

You could have a fig plant that requires cross-pollination by a special wasp. If this is the case, then it will never set a good crop. The best way to resolve this is to replace the plant with one from a rooted shoot of a neighbor's plant you know produces a good crop each year. This is a rare problem.

## Soil Preparation and Planting

Soil preparation should always include a preplant soil test. If your soil pH is low, adjust the pH to 5.5 to 6.5 with dolomitic limestone. Spread the limestone evenly over the entire area where the figs will be planted, then till the soil. If possible, till at least a 6-foot by 6-foot area where each bush will be planted at least 8 inches deep.

Figs grown in the bush form may be set as close as 10 feet apart in the row and 15 feet apart between rows. Figs grown in tree form should be set 15 to 20 feet apart in the row and 20 feet apart between rows. Plant fig trees while they are dormant. In warm areas, bare-rooted trees can be set out in fall or early winter. In middle and northern Georgia, it is best to set them out in spring after danger of hard winter freezes have passed. Container-grown plants can be transplanted later than bare-root plants.

Before planting a bare-root tree, prune about one-third of its top, unless it was topped by the nursery. Container-grown plants can be transplanted without being pruned; just remove them from the container, spread their roots, and set them in the planting hole.

Set trees in the planting hole 4 inches deeper than they were in the nursery to encourage low branching for bush form. Fill the hole with soil; water heavily enough to settle the soil around the roots. Do not apply fertilizer in the hole at planting.

## Varieties

There are many varieties of figs available, but only a few are well adapted to Georgia. If you want to try to grow figs in the mountains, select a protected site and try Celeste or Hardy Chicago. In addition, some varieties such as Brown Turkey will produce some figs on the current season's growth after being killed to the ground by a freeze. In the Piedmont, Celeste, Hardy Chicago, and Conadria are fairly well adapted. South of the Fall Line, any of the varieties listed can be grown, but Celeste and Conadria are two of the best. If you would like to extend the season with a late ripening variety, plant Alma.

### *Fig Varieties for Georgia*

Variety	Color of Fruit	Size	Quality of Fruit	
			For Fresh Use	For Preserving
Alma	Greenish brown	Small	Very good	Good
Brown Turkey	Bronze	Medium	Good	Excellent
Celeste	Lt. brown to violet	Small	Very good	Excellent

Green Ischia	Bright green	Medium	Good	Good (seeds objectionable)
Hunt	Dull bronze with white specks	Small to medium	Good	Excellent
Kadota	Bright greenish yellow	Small to medium	Fair	Excellent
LSU Purple	Reddish to dark purple	Medium	Good	?
Magnolia	Bronze with white flecks	Medium	Fair	Excellent

## Training and Pruning

Although fig plants can be trained to either tree or bush form, the tree form is not practical for the Piedmont area of Georgia. In this region, fig plants are frequently frozen back to the ground, making the tree form difficult to maintain.

Bush form is generally recommended for other areas of the state as well. In the bush form, more of the fruit will be closer to ground level and easier to pick.

Begin training to bush form at the time of planting by cutting off one-third of the young plant. This forces shoots to grow from the base of the plant. Let these shoots grow through the first season. Then, late during the winter after the first growing season, select three to eight vigorous, widely spaced shoots to serve as leaders. Remove all other shoots.

Be sure the leaders you select are far enough apart to grow to 3 to 4 inches in diameter without crowding each other. If they are too close together, the leaders cannot grow thick enough to support themselves and their crop, and they tend to fall over or split off under stress of high winds. If this happens, remove the damaged leader and select a new one late the next winter by choosing one of the many suckers that arise annually.

If more branching is desired, head back the bush each spring beginning the second year after planting, after danger of frost is past but before growth has started. Do this by removing about one-third to one-half the length of the last year's growth.

Also, prune all dead wood and remove branches that interfere with the leaders' growth. Cut off low-growing lateral branches and all sucker growth that is not needed to replace broken leaders.

Do not leave bare, unproductive stubs when you prune. These stubs are entry points for wood decay organisms. Make all pruning cuts back to a bud or branch.

## Fertilization and Watering

### *Recommendations for South Georgia*

**Fertilizing:** Fig trees grow satisfactorily in moderately fertile soils with limited fertilizer. But fertilizer is needed in soils of low fertility or where competition from other plants is heavy.

Although nitrogen is usually the only needed plant nutrient, other nutrients may be lacking in some areas. If your soil is not very fertile, follow these general guidelines:

- Use a fertilizer with an analysis of 8-8-8 or 10-10-10.
- Apply fertilizer three times a year to bushes you are trying to bring into full production: early spring, mid-May, and mid-July. Mature bushes can be fertilized just once a year in the early spring.
- Fertilize newly set bushes with about 1½ ounce of fertilizer at each application. Spread the fertilizer evenly over a circle 18" in diameter with the bush in the center. On second-year bushes, increase the amount of fertilizer to 3 ounces at each application and the diameter of the circle to 24".
- On bushes 3 to 5 years old you are trying to bring into full production, apply 1/3 pound per foot of bush height per application. If the fruit are not reaching maturity and ripening properly, excess fertilizer or drought may be the problem; fertilization should be reduced.
- Mature bushes 6 years and older should be fertilized once a year in early spring. On bushes spaced 10 feet apart, apply ½ pound of fertilizer per foot of height, up to 5 pounds per year. On bushes spaced 20 feet apart, apply 1 pound of fertilizer per foot height, up to 10 pounds per year. Scatter the fertilizer evenly under and around the bush. A satisfactory amount of shoot growth for mature plants is about 1 foot per year.

**Watering:** For highest yields, figs need watering throughout the summer. The frequency and the amount of water depends to a large extent on the soil. As a rule of thumb, 1 to 1½ inches of water per week from rain or irrigation is adequate. Yellowing and dropping of leaves may indicate drought.

In lawns, the grass beneath fig plants may wilt in the heat while the rest of the lawn does not. This indicates the figs need water. Figs grown with lawn grasses may require one or more waterings a week during hot, dry periods.

**Mulching:** Figs respond well to mulching with organic materials. Mulch may reduce the effects of nematode problems.

### ***Recommendations for North Georgia***

Winter injury in figs is directly related to the amount of vigor. A vigorous, fast-growing plant is easily killed by low winter temperatures in the Piedmont. If figs are frequently winter injured in your area, halve the fertilization recommendations.

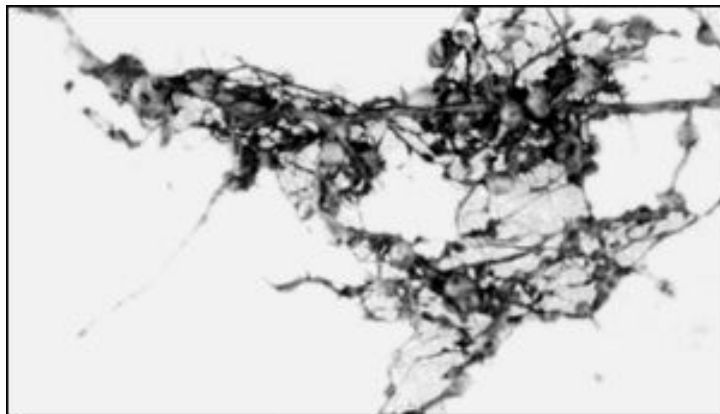
If you are attempting to grow figs near the mountains, limited fertilizer should be applied to make the plants as cold hardy as possible.

## Fig Diseases

### *Nematodes*

Root-knot nematodes are the leading killer of fig trees in South Georgia. Root-knot shares this honor with cold damage in North Georgia. An on-the-spot diagnosis of root-knot infection is possible. Dig up a few roots and look for the characteristic galling caused by the nematode (Figure 2). There is **NO** other similar problem in figs.

Root-knot nematode infected fig trees **CANNOT** be cured with chemical treatment. Pruning the tops to balance with the weakened root system and attentive watering and fertilization may prolong the life of root-knot infected fig trees. Usually, however, they will die sooner or later regardless of the care they receive.



**Figure 2.**

In planting a new fig tree, select a site as far as possible from any old garden sites. Take a nematode sample in this site. If root-knot nematodes are present, do not plant figs.

### *Rust*

Fig rust attacks the leaves, usually in late summer. Severely infected leaves turn yellow-brown and drop. The underside of the fallen leaves will have numerous small, somewhat raised, reddish brown spots. These spots are often covered with a dusty golden-yellow mass of rust spores.

Fig rust is usually not fatal, but repeated epidemics will weaken the plant. In any given year, heavy leaf drop from rust will reduce size and quality of the fruit.

Gather all infected leaves from the ground under the bushes in the fall and remove them from the area.

### *Souring*

Fig fruit souring is caused by yeasts spread by insects. Souring becomes noticeable as the figs begin to ripen. A souring fig will often show gas bubbles, scummy masses oozing from the eye, or both. These figs will give off an offensive fermented odor. Souring cannot be controlled with chemical sprays. The only control is to grow fig varieties that have a tight or closed eye that prevents insects from entering the fig fruit.

### *Pink Blight*

Pink blight appears as a dirty white to pale pink velvety growth on dying and dead twigs. It usually occurs in the interior of the tree. Remove infected branches and prune the tree to allow good air movement within the tree.

## ***Leaf Blight (Thread Blight)***

Leaf blight is another fungus disease that attacks leaves and fruit. Infection may start as a semicircular brown spot at the base of the leaf. Some leaves shrivel and die; others may be covered with brown spots that break out to leave irregular holes. During hot, wet weather, leaves can die and drop very quickly. Dead leaves are often matted together and held to the tree by threadlike strands similar to spider webs.

## **Additional Information**

A good source of information for fig enthusiasts is [North American Fruit Explorers](#), 1716 Apples Road, Chapin, IL 62628.

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*Gale A. Buchanan, Dean and Director*

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