Growing Figs

in the South for Home Use

UNITED STATES DEPARTMENT OF AGRICULTURE

HOME AND GARDEN BULLETIN NUMBER 87

PREPARED BY SCIENCE AND EDUCATION ADMINISTRATION

Growing Figs

in the South for Home Use

Fig trees make excellent dooryard trees. They are adapted to more soils than most other fruit trees, and they require a minimum of care to produce fruit for eating fresh or for preserving. A single tree will usually produce enough figs to meet the needs of one family.

To grow figs successfully, follow these rules:

- Choose varieties that are adapted to your area.
- Select a planting site where the tree will receive full sunlight most of the day.
- Plant the trees while they are dormant.
- Prune them annually to keep growth within bounds.
- Protect them from insect and disease damage.

ADAPTATION

The general area where fig trees are adapted is shown on the map.

Fig trees are injured by low winter temperatures. In general, figs are not adapted to areas where the temperature is frequently below 10°F. Even in the South, fig trees are frozen back by severe winter cold or by early-fall and late-spring freezes.

If fig trees are protected from low temperatures, they can be grown in areas farther north than is shown on the map. To protect the trees, plant them in a location where they are shielded from winter winds or plant them in containers and move them indoors during the winter.

Though fig trees are not harmed by high summer temperatures, long periods of daytime temperatures over 100°F may cause fruit to ripen prematurely and to be tough.

Fig trees grow best in deep, fertile soils, but they grow satisfactorily in soil types ranging from coarse sand to heavy clay. They grow well both in acid soils and in alkaline soils.

BN-16571

Area of the United States where fig trees are adapted.

Because of damaging soil-borne organisms, figs do not grow well in several areas within the general area of adaptation. In central Florida, nematode damage to the roots is severe. In some areas of southern Texas, cotton root rot is prevalent; this disease kills fig trees.

FRUITING HABITS

All fig varieties recommended for the South produce a main crop of fruit that ripens in midsummer to late summer. Some varieties also produce a small crop, called the breba crop, that ripens in early summer. The brebas are borne on old wood and are poor in quality. They should be picked to aid control of fig diseases and insects.

Fruits of the main crop are borne in the axils of the leaves on the current season's growth. Maturity starts with the oldest fruits at the base of the current shoot and progresses toward the tip.

After a tree is 5 years old, it can be expected to produce about 50 pounds of fruit a year, provided that it has made normal growth and has been cared for properly.

RECOMMENDED VARIETIES

Table 1 lists six varieties of figs recommended for the South and gives some characteristics of each.

Of these six recommended varieties, Celeste and Brown Turkey are the best general-purpose figs for the South.

The fresh-fruit quality of *Celeste* is superior to that of the other varieties. During the dormant season, the wood of Celeste is slightly more tolerant of cold than the wood of other varieties.

All statements and instructions in this bulletin about fig trees apply also to fig bushes, except where specific distinctions are made.

Brown Turkey has the longest ripening season of the recommended varieties. If Brown Turkey is injured by freezing, it produces fair-to-good crops on sucker wood the next season. This is an advantage where spring frosts commonly damage fig trees. Brown Turkey is an excellent variety for growing in containers.

Magnolia is a weak grower. Its fruit sours and splits badly during wet weather. This can be prevented if the fruit is picked just prior to full maturity and is used for preserves. Magnolia preserves are superior to preserves made from fruit of the

BN-16086

The main crop of fruit is borne in leaf axils on shoots of the current season's growth.

other recommended varieties. Like Brown Turkey, Magnolia produces fair-to-good crops on sucker wood the season after injury from freezing.

The fruit of *Green Ischia* is of excellent quality when eaten fresh, but its extreme seediness detracts from its quality when it is preserved. Green Ischia is a good variety to grow in areas where fruit damage by birds is severe; the bright-green color of its fruit is less attractive to birds than the colors of fruits of the other recommended varieties.

Hunt is a relatively new variety that is somewhat tender to cold. It is grown primarily in Louisiana; little is known about its adaptability elsewhere. The main attributes of Hunt are good fresh-fruit quality and resistance to souring.

Kadota is not widely grown in the South but it does extremely well in the West and in southwest Texas. Kadota is another of the varieties that produce a fair-to-good crop of

TABLE 1.—*Some characteristics of six fig varieties recommended for the South*

Variety	Fruiting after severe freeze damage	Color of fruit	Size of fruit	Time of first ripening [1]
Brown Turkey	Fruits well	Bronze	Medium	Mid-July.
Celeste	No fruit	Light brown to violet.	Small	Mid-July.
Magnolia	Fruits well	Bronze with white flecks.	Medium	Late July.
Green Ischia	No fruit	Bright green	Medium	Late July to early August.
Hunt	No fruit	Dull bronze with white flecks and a distinct bloom.	Small to medium.	Early July to mid-July.
Kadota	Fruits fairly well.	Bright greenish yellow.	Small to medium.	Mid-July.

Variety	Length of ripening season	Quality of fruit	
		For eating fresh	For preserving
Brown Turkey	Long	Good	Excellent (moderately dark).
Celeste	Short	Very good	Excellent (dark colored).
Magnolia	Short (long when pruned heavily).	Fair	Excellent (light colored).
Green Ischia	Very short	Good	Good (seeds objectionable).
Hunt	Very short	Good	Excellent (dark colored).
Kadota	Short	Fair	Excellent (light colored).

[1] In extremely warm areas, may be 1 or 2 weeks earlier.

fruit on sucker wood the season after injury from cold.

SELECTING A VARIETY

Choose a fig variety that will best meet your needs. Consider whether you want fruit for eating fresh, or fruit for preserving only.

Be sure the variety you choose is adapted to the climate of your area. Ask your county agricultural agent or your State agricultural experiment station for recommendations for your locality.

There is considerable confusion over variety names. Mislabeled varieties often result in fruit failure. Magnolia is sold by California nurseries as Brunswick. The Turkey or Brown Turkey of California is not the Brown Turkey recommended for the South, even though it is mistakenly sold as such. To be sure of getting the right variety in the South, buy Brown Turkey nursery stock from a southern nursery. Brown Turkey also is widely sold throughout the South as Everbearing or Texas Everbearing.

If you buy fig trees from sources outside the South, be sure they are self-fruiting; otherwise, they will fail to fruit properly.

PLANTING

When To Plant

Plant fig trees while they are dormant; spring is the best time. In warm areas, bare-rooted trees can be set out in fall or early winter; but where late spring frosts are common, it is best to set them out in spring after danger of hard winter freezes has passed. Container-grown plants should always be planted in spring.

Where To Plant

For best growth, fig trees need full sunlight and freedom from competing trees and shrubs.

Roots of fig trees will not damage masonry foundations of buildings or steel pipe, but they may damage clay sewer pipe. Do not plant fig trees within 25 feet of clay sewer pipe or over septic tank drain fields.

If you plant fig trees in a lawn, keep a 2- to 3-foot area around each tree free of grass for a year or two until the tree becomes established.

Do not plant fig trees close to such rapid-growing plants as mulberry, chinaberry, hackberry, elm, black locust, and privet. These plants will use water and nutrients needed by the fig trees.

Soils in orchards and old gardens generally are heavily infested with nematodes. Treat such soils with a nematocide before planting (see p. 9). Young trees must be protected from nematodes if they are to get a good start.

How To Plant

Fig trees from nurseries may be grown in the field and sold bare rooted, or they may be grown in containers and sold while still in the container.

Before planting a bare-rooted tree, prune off about one-third of its top, unless it was topped by the nursery. Container-grown plants can be transplanted without being pruned; they need only to be removed from the container and set in the planting hole.

Set fig trees in the planting hole so they are 3 or 4 inches deeper than they were in the nursery. Fill the hole with soil; water heavily enough to settle the soil around the roots.

TRAINING AND PRUNING

Though fig plants can be trained to either tree or bush form, the tree form is not practical for the South; in this region, fig plants frequently are frozen back to the ground, making the tree form difficult to maintain.

Begin training to bush form at time of planting; cut back the young plant to about one-half of its height. This forces shoots to grow from the base of the plant. Let these shoots grow through the first season. Then, during the winter after planting, select three to eight vigorous, widely spaced shoots to serve as leaders. Remove all other shoots and prune the leaders back to within 1 foot of the ground.

Be sure the leaders that you select are far enough apart so they can grow to 3 or 4 inches in diameter without crowding each other. If they are too close together, they cannot grow thick enough to support themselves and their crop, and they tend to blow down or split off

PN-1053

Figs trained to bush form.

under stress of high winds. If this happens, remove the damaged leader and select a new leader the next winter from one of the many suckers that arise annually.

Beginning the second year after planting, head back the bush each spring 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 annual growth.

Also, prune out all dead wood and remove branches that interfere with growth of the leaders. Cut off low-growing lateral branches and all sucker growth that is not needed for replacement of 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.

FERTILIZING

Fig trees grow satisfactorily in moderately fertile soils without fertilizer. But fertilizer is needed in soils of very low fertility or where competition from other plants is heavy.

If growth is poor, have your soil tested. Your county agricultural agent can tell you how to submit soil samples to your State agricultural experiment station for testing. Although nitrogen usually is the only element that is deficient, other elements may be lacking in some areas.

If the tests indicate that your soil needs fertilizer, use 8–8–8 fertilizer, as follows:

Plants 1 to 2 years old. — Apply one-third pound of fertilizer each month starting when growth begins until the end of August.

Plants older than 2 years. — Apply fertilizer in late winter, early June, and late July. Use about 1 pound of fertilizer per year per foot of height, or about 12 pounds per year for a bush taller than 12 feet.

WATERING

For highest yields, figs need watering throughout the summer.

The frequency of watering and the amount of water to apply depend to a large extent on the soil. Soils that are shallow or that do not hold moisture will need frequent watering. Generally, watering is adequate if shoot growth continues and leaf size is normal. Yellowing and dropping of leaves may indicate either overwatering or drought.

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

CONTROLLING WEEDS

Weeds around fig trees can usually be controlled by using a mulch, a herbicide, or by light cultivation.

Hay, corncobs, pine needles, and sawdust make good mulches. Apply the mulch 4 to 6 inches deep from the tree trunk to several feet beyond the tips of the branches. Mulch the tree when it is first set out and maintain the mulch continuously.

A black polyethylyene mulch is effective in controlling weeds and

preserving moisture in the soil. Place this plastic sheet in the same location as any ordinary organic mulch. If the tree is located in an area of sparse rainfall, you may want to perforate the mulch. This allows the rain to filter through it as well as around it. This mulch will last for more than 3 years, if you keep the edges firmly anchored in the soil.

If mulching is not sufficient for controlling weeds, use carefully directed sprays of Stoddard solvent. Use the solvent at full strength and thoroughly wet the weeds. Use low-pressure spray equipment and keep the nozzle close to the ground. Spray when the air is calm to prevent harmful spray drift onto the trees. Apply the spray at least 6 inches away from the bases of trees.

When mulching is not needed, fig trees require only light cultivation to keep the weeds down and to break up surface crusts. Hoeing should be shallow; otherwise, the roots may be damaged.

PROTECTING FROM WINTER INJURY

Young bushes or trees should be protected from winter injury in very cold areas during their first 2 years.

In late fall, pile loose soil around the bases of young bushes or trees to a height of 1 to 2 feet. Remove soil in spring after danger of frost is past.

PROPAGATING

Propagate figs from cuttings. To do this—

- Make the cuttings in late winter from the previous season's growth. The cuttings should be 8 to 10 inches long.
- Use straight, vigorous wood not over three-fourths of an inch in diameter.
- Make the basal cut just below a joint, or node.

To root cuttings directly in the garden, plant them so only the top bud of each cutting remains aboveground. Water sparingly.

To root a cutting in a container, keep the top bud or two above the soil and the basal end 2 to 3 inches above the bottom of the container. Cut holes in the container to assure proper drainage. Water the cutting when it is placed in the container; do not water again until it has leafed out, unless the soil becomes quite dry. After the plant leafs out, water it in the same way that you would any other potted plant.

Protect the plant from freeze damage over winter. In spring, set it out as directed under "Planting" (p. 5).

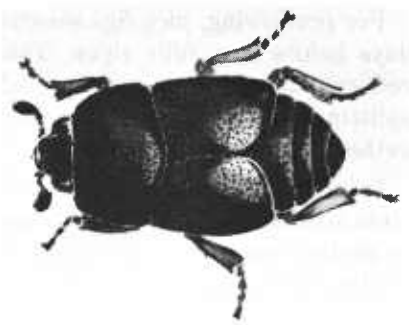
PESTS AND DISEASES

Insects

Fig trees and their fruit may be damaged by beetles (including borers), mealybugs, and scale insects. The Magnolia variety is especially vulnerable to the dried-fruit beetle, which enters the eye of the fruit and causes the fruit to sour.

You can help protect your trees and fruit against insects by—

- Pruning and burning infested limbs.
- Destroying insect breeding



BN-16570

Dried-fruit beetle. (About 13 times natural size.)

places—cleaning up leaf trash, grass piles, and fallen fruit.

- Picking the fruit before it fully ripens if it is to be used for preserving only.

If damage persists, send insect specimens in a small bottle of rubbing alcohol to your local or State agricultural extension service for identification; ask for control recommendations. Do not send live insects through the mail.

Nematodes

Nematodes are tiny soil worms. They stunt or kill fig trees by attacking the roots.

In deep, sandy soils, young trees are severely stunted and occasionally killed by nematodes. Older trees that have had a chance to become established before nematode infestation has built up in the soil are less affected but may show decreased vigor, produce smaller fruit, and drop their fruit prematurely.

In clay soils or in sandy soils that have a clay subsoil within 2 or 3 feet of the surface, tree growth and fruiting are usually normal; clay soils do not support heavy nematode buildups.

In old orchard or garden sites having sandy soils, nematode infestation is usually so severe that it is often impractical to plant figs unless the soil is first treated with a nematocide. It is also well to treat the soil in lawn areas with a nematocide before planting figs there. Use materials containing 1,3-dichloropropenes (DD); a mixture of DD and methylisothiocyanate; ethylene dibromide (EDB); sodium methyldithiocarbamate (SMDC); or methyl bromide. **Warning:** If applied too heavily, some nematocides severely damage plants; follow instructions on the label.

Fig Rust

Fig rust is a fungus disease that attacks young fig leaves but does not injure mature leaf tissue. Leaves affected by fig rust fall prematurely; the affected trees are more susceptible to cold injury than are healthy trees.

You can recognize fig rust by the small, yellowish-green spots that appear on leaves. These spots enlarge and turn yellowish brown. The leaves often become distorted.

To control fig rust, rake up and burn old leaves. Apply a 4–4–50 Bordeaux spray (available from garden-supply dealers).

Spray all new leaves, particularly the undersides. Begin spraying as soon as the first leaves have expanded to full size. Apply spray every 3 or 4 weeks during normal weather, more often during rainy weather.

This spray schedule also controls

other fungal leaf-spot diseases and twig blights of figs.

COMMON CAUSES OF FRUIT FAILURE

The fruit from your tree may be poor or the yield may be lower than expected; common causes and suggested remedies are listed in table 2.

HARVESTING

For eating fresh, pick figs as soon as they ripen. They have the best flavor then.

For preserving, pick figs several days before they fully ripen. This reduces damage from souring and splitting; the fruit also holds together better when cooked.

In pulling fruit from tree, leave stem attached to fruit. Wear gloves to protect your hands from the irritating milky juice.

Remove all fallen fruit daily from around the tree to keep down insects and other pests.

In areas where bird damage is severe, pick fruit early in the morning.

TABLE 2.—*Common causes of fruit failure*

Condition	Probable cause	Suggested remedies
All fruit drops when ⅓ to ⅔ full size.	Wrong variety for area (requires pollination).	Destroy tree and replant with recommended variety.
Leaves drop off prematurely; fruit withers and fails to mature.	Fig rust or other leaf-spot diseases, or a twig blight.	Use 4–4–50 Bordeaux spray. Rake up and burn old leaves.
Fruiting is poor; tree growth is retarded. Roots have knots or galls and are distorted.	Nematode damage.	Use a commercial nematocide; mulch; or plant tree next to a building.
Fruit fails to mature; leaves are small. Vigorous new wood arises from the base.	Low temperatures have killed some stem tissues.	Cut tree back to ground level and develop a new top from suckers that arise.
Fruit sours and many split.	Unsuitable variety or unusually wet year.	If unsuitable variety, replant with Brown Turkey, Celeste, Green Ischia, or Hunt; or pick fruit prior to maturity and preserve.
Fruit is tough and falls prematurely during hot, dry weather (Celeste only).	Excessive heat.	No control.

USE OF PESTICIDES

This publication is intended for nationwide distribution. Pesticides are registered by the Environmental Protection Agency (EPA) for countrywide use unless otherwise indicated on the label.

This use of pesticides is governed by the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. This act is administered by EPA. According to the provisions of the act, "It shall be unlawful for any person to use any registered pesticide in a manner inconsistent with its labeling." (Section 12(a) (2) (G))

The optimum use of pesticides, both as to rate and frequency, may vary in different sections of the country. Users of this publication may also wish to consult their Cooperative Extension Service, State agricultural experiment stations, or county extension agents for information applicable to their localities.

The pesticides mentioned in this publication are available in several different formulations that contain varying amounts of active ingredient. Because of these differences, the rates given in this publication refer to the amount of active ingredient, unless otherwise indicated. Users are reminded to convert the rate in the publication to the strength of the pesticide actually being used. For example, 1 pound of active ingredient equals 2 pounds of a 50-percent formulation.

The user is cautioned to read and follow all directions and precautions given on the label of the pesticide formulation being used.

Federal and State regulations require registration numbers. Use only pesticides that carry one of these registration numbers.

USDA publications that contain suggestions for the use of pesticides are normally revised at 2-year intervals. If your copy is more than 2 years old, contact your Cooperative Extension Service to determine the latest pesticide recommendations.

The pesticides mentioned in this publication were federally registered for the use indicated as of the issue of this publication. The user is cautioned to determine the directions on the label or labeling prior to use of the pesticide.

Information for this publication was furnished by A. H. Krezdon, Department of Fruit Crops, University of Florida, and by the Science and Education Administration's Agricultural Research Staff

Issued December 1962
Slightly revised February 1979

U.S. GOVERNMENT PRINTING OFFICE: 1979 O—271-965

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 001-000-03839-7