Figs for the Home Landscape - Ornamental and Edible

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You may not have thought about it this way, but your home landscape can represent an opportunity for food production and you don't even need a large tract of land. Incorporating plants into your landscape that are both ornamental and edible can double the rewards from your effort. If you want to try your hand at homegrown fruit, figs are just about the easiest fruit to grow and offer wonderful aesthetic qualities in the landscape garden. With its large bold deeply lobed leaves and its deciduous nature, the architectural structure of the fig plant blends its beauty well with other ornamental plantings. Figs can be cultivated as an edible shade tree, large bush form, used as a summertime screen, pruned into interesting espaliered forms, or grown as a specimen in the ground or a container. Growing figs in your home garden and landscape can not only be practical but also rewarding because of the satisfaction of picking the fruit you have grown yourself, and a quick internet recipe search will whet your appetite for the many tasty ways you can enjoy them!

History and Uniqueness of Figs

The common fig is a member of the genus *Ficus*, (*Ficus carica*) which is in the family Moraceae (mulberries). An ancient plant originated in Asia Minor and the Mediterranean region. Figs have been sought out and cultivated for thousands of years as a prized fruit. Even mentioned in Genesis, the leaves were once used to hide a special couples' nakedness. The fig was imported into the United States in the 18th century. The fruit of the common fig is unique and unlike most fruit, because it is parthenocarpic which means it is formed without fertilization. Each fig is developed in the axils of the leaves. The fruit of the fig is an inverted flower with both male and female flower parts that contain closely massed, tiny flowers on the inner wall of the enclosed stem tissue. The structure is known botanically as a syconium. When the fruit is mature, the interior of the fig contains the remains of these flower structures, including the gritty structures you may think are seeds but are the unfertilized ovaries that failed to develop. When we eat a fig, we are actually eating the container that holds the true fruit. The ends of the fruit have either an open or closed ostiole or eye and the best cultivars have a closed eye that minimizes rotting by preventing the entrance of insects or water inside the fruit. Figs can be grown over much of eastern North Carolina and westward into the Piedmont. Figs are typically very productive, easy to grow and if you have well-drained and reasonably fertile soil, you most likely will have success growing figs in North Carolina. It's important to learn what to consider before planting and how to plant, care for and maintain your fig tree for long term success.

What to Consider Before Planting

Exposure - When deciding on an area to plant a fig tree there are several things to consider. Choose an area that is in the sun most or all of the day and allow enough space for mature growth. Before you start your soil preparation, you should always include a pre-plant soil test. Figs grow satisfactorily in moderately fertile soils without additional fertilizer. However, if you have soils with low fertility, fertilizer is needed. Figs can tolerate soil with a pH ranging from 5.5 to 8.0. If you have acidic soil it is

best to apply lime so your ideal soil pH will be between 6.0 to 6.5. You may also need to apply other nutrients according to your soil test.

A southeastern exposure is best and avoids northwestern exposures and low frost pocket areas. It is common to see figs planted on the south or east side of a home or building to help protect it from cold winter temperatures and ensuring that the morning sun helps dry the foliage deterring foliage and fruit diseases. Figs can grow into large trees or shrubs from 15 to 30 feet tall and 20 feet in diameter, and they tend to grow wider than they are tall. With pruning, you can restrict them to a manageable height. In our climate, due to occasional freeze damage, they often grow as either a large multi-stem shrub or a central leader tree.

Nematode Considerations - Figs will grow in many soil types but prefer a well-drained soil free of root-knot nematodes. Nematodes are microscopic worms that live in the soil and enter the roots to feed and they cause stubby knotty roots. They are more common on sandy soils and are usually not a problem in fertile or loamy type soils. Nematodes will cause the fig plant to have stunted growth, premature fruit drop, and will eventually kill the plant. Young trees must be protected from nematodes if they are to get a good start. Well amended soils and mulches reduce nematode damage. Before you ever plant a fig, it is very important to have the soil tested for root-knot nematodes and as well as its pH and nutrient levels. If root-knot nematodes are present, it is not recommended to plant figs. You can take your chances but there is no way to eradicate nematodes from the soil. Soil solarization and amending soils heavily with compost before planting, mulching and watering when needed will help the plants cope with the stress nematodes may cause. You can try to fumigate the soil with VAPAM® before planting. In mature trees, damage from root-knot nematode is progressive and results in poor growth, low vigor, yellowing and bronzing of foliage, low yield and poor fruit quality. To determine if root-knot nematodes are causing these symptoms, examine the roots for galls. Infected fig trees cannot be cured with a chemical treatment, but products applied at pre- or post-planting such as DiTera, AzaGuard, and products that contain Saponins of Quillaja Saponaria can reduce nematode populations, along with good care practices may prolong the life of a root-knot infected tree. For establishing larger plantings, the soil fumigant Vapam can be used before planting.

Overwintering - Fig trees occasionally sustain cold injury in January and February as well as later in the winter when we often have a stretch of unseasonably mild weather followed by a sudden freeze. Choosing cultivars that are cold hardy such as Celeste and Brown Turkey will help. Cultural practices that promote a growth flush in late summer such as an application of fertilizer past late June and continued irrigation later in the season should be discouraged since this tender growth tissue will be frozen and killed when temperatures get 10-15 degrees F. below freezing. Cold damage can be minimized by planting the fig tree against a south-facing wall. Young bushes or trees are particularly susceptible to winter injury and they can be covered with a tarpaulin, or a wire cage can be placed around the dormant tree and filled with mulch, hay or leaves. On older trees, mulch or leaves can be mounded 18 inches to three feet above the ground and pulled away once freezing temperatures have passed. It is very rare that figs will be killed completely, usually, the top is winter killed and the plant will come back from its base or underground roots.

Choose a Variety - You may choose to purchase your figs from a nursery that is field grown, bare root or one that was grown in a container. Some of the recommended varieties for North Carolina are Celeste, Brown Turkey, Brunswick/Magnolia, and Marseille. Two crops of figs can be produced each year, the first or breba crop develops in the spring on last year's shoot growth and may not develop the rich flavor as does the main fig crop that develops on the current year's shoot growth that ripens in summer.

Celeste – The Celeste fig fruit is small, light brown/violet outside skin and light strawberry red inside. A classic Southern fig when eaten fresh is sweet and excellent for processing and making home-made preserves. Celeste is the most cold hardy of the common figs that are recommended for our area. It grows into a large tree and is very productive. The fruit has a tightly closed eye which inhibits the entry of insects and it doesn't sour excessively on the tree. Celeste usually doesn't have a breba crop and the main crop ripens in mid-June before the main crop of other fig varieties.

Brown Turkey - The Brown Turkey fig fruit is medium to large with a light coppery brown skin and amber on the inside and have a small eye. It produces a light breba crop of large fruit 2 weeks earlier than Celeste and the heavy crop of medium-sized fruit 2 to 3 weeks after Celeste giving it the longest ripening season of the recommended varieties. Although it is not quite as cold hardy as Celeste, if injured by a freeze, it will still produce a fair crop of figs during the season. The fruit is good fresh and excellent for processing and making home preserves.

Brunswick or Magnolia – produces the largest fruit with a bronze color skin with white flecks and a hollow inside that is amber to strawberry and having an open eye. The fruit should be picked early as possible since they may split and turn sour under wet conditions. It is best used for making home-made preserves. It can produce a fair to good crop on sucker sprouts produced the season following a freeze or cold injury.

Marseilles - Thomas Jefferson's passion for figs helped propagate this variety. In 1809, Jefferson wrote to Dr. William Thornton, a close friend and architect of the Capitol in Washington: "I will take some occasion of sending you some cuttings of the Marseilles fig, which I brought from France with me, and is unquestionably superior to any fig I have ever seen." The Marseilles fig is small, delicately sweet and mild-flavored with a green/yellow skin, a pale-yellow inside and is produced on previous seasons' growth.

Planting and Care

It's best to plant figs while they are still dormant in early spring after the danger of hard winter freezes has passed. Amend the soil with compost and if additional drainage is needed add pine bark mulch fines. If you have clay soils, it is best to make a raised bed using copious amounts of compost and pine bark fines. When planting young figs, do not add fertilizer in the planting hole at the time of planting. The initial growth of the young fig tree will come from stored carbohydrate reserves in the young trunk and roots. It should be cut back about one third at planting to encourage lateral branching. Since dormant pruning is an invigorating action, this will encourage vigorous growth in the first season. Well branched container-grown trees can be planted without being pruned. It is

recommended to mulch deeply, 3 to 4 inches or more, with composted leaves or pine straw. This mulching will help maintain water and suppress weeds. However, it is not recommended to use hardwood mulch because it will shed off the water and as it decomposes it will raise the pH of the soil. Once the young figs start to root in and new growth emerges, you can lightly fertilize them with ten ounces of 10-10-10 fertilizer and later fertilize lightly again in May, but no later than the first part of June. During the first year, water thoroughly once each week for the first growing season. After the first year, it should be okay unless there is a drought.

Pruning Considerations - Fig plants can be trained and pruned to either a tree or a bush form, however, because trees are occasionally frozen back to the ground, maintaining a tree form can be difficult. It's best to prune in late winter just before growth begins. Before you start pruning your fig, a word of caution is in order. Some people have an allergy or skin irritation to fig sap or latex. The latex can come from branch cuts, leaf stems, and the fruit stems. You may want to wear long sleeves and gloves when pruning, and also when harvesting fig fruit during the summer, because the upper surface of the fig leaf has a rough pubescence that can also be an irritant to the skin. To train your young fig plant to a bush form, cut it back at initial planting to about one half its height or plant it a little deeper. Allow the lateral shoots that will emerge to grow for the season until the next year. Select three to eight widely spaced shoots to serve as leaders and be sure they are far apart enough to grow to 3 to 4 inches in diameter without crowding out each other. Remove all other shoots and thin out all other growth and prune back those leaders to within 1 foot of the ground. Make clean smooth cuts close to the lateral branches, and do not leave any stubs. Beginning in the second year after planting, past the danger of frost, head back one-third to one-half of the past year's growth. Also, prune out all the deadwood, suckers that originate from the trunk, and remove any branches that may interfere with the growth of the leaders. Pruning stimulates new wood growth and fruits that develop in the axil of each leaf.

Mature Tree Care

Fertilization - Mature fig trees can be fertilized starting in late February to early March. Apply 2 to 3 cups of a balanced fertilizer with an analysis of 8-8-8 or 10-10-10 with micronutrients two to three times a year, depending on soil type, ending no later than the first part of June. You can increase the amount of fertilizer up to 10 pounds per year as the tree grows. For container trees, use a complete slow-release fertilizer such as Osmocote plus micronutrients. If you want to grow your fig organically, you should apply a generous amount of compost and add a high nitrogen fertilizer such as cottonseed, soybean, or alfalfa meal. If the fruit is not reaching maturity and ripening properly, drought or excess fertilizer may be the problem and fertilization should be reduced. Take a soil test to determine if you have any nutrient deficiencies.

Water Needs - For highest fruit yields, fig trees need watering throughout the summer. Most fig tree roots are shallow-rooted and can easily dry out. Yellowing and dropping of leaves can indicate drought and the need for water. If your fig is surrounded by a lawn, and the plant begins to wilt and the lawn doesn’t, this indicates that your fig will need water. Because of the competition of the lawn grass, your fig will need additional water during the hot, dry periods. Expanding the mulch ring around the fig or

controlling vegetation with herbicides is beneficial. Be careful not to overwater in areas where you have poor drainage.

Obtaining Figs through Propagation

If you have a friend that has a fig variety you like and is willing to share, ask if you can propagate from their tree. You may find a root sprout or a limb that has naturally layered and formed roots that you can dig up. Or you can propagate it yourself by bending down a branch and securing it to the ground and covering it with soil. Air layering is another technique you can use to propagate. (See link below on how to air layer.) Transplant it once it is well-rooted. You can also choose to propagate it by cuttings. Take cuttings on current season's growth, during the dormant season toward the end of winter after its chilling hours have been fulfilled. The cuttings should be 6 to 10 inches in length and cut at a 45-degree angle on the lower end to help you identify that this is the end you put into the rooting soil mix. Take your pruning shear or knife and scrape a few places to wound the sides of the cutting at its base an inch or more in length. Choose a rooting mix of a blend of sand and pine bark fines, or a perlite peat moss mix. You may or may not use a rooting hormone. Stick the cuttings into the rooting soil mix and leave at least one to two buds above the soil. The figs will root readily if they are kept moist daily and in a heated area with a minimum temperature of 40 to 42-degrees and no greater than 70 to 75 degrees. Within 6 to 8 weeks you will have roots develop. After danger of frost, take outside and keep watered. When well-rooted, pot up into a larger pot, lightly fertilize and continue to grow it for the season. Protect it during the winter and transplant after the threat of freezing temperatures. Summer cuttings are possible but you will need to cut the leaves severely to have about 10 percent left, place in the shade and frequently water or mist. You will have to protect it during the winter as it will not be cold hardy because it will not have developed enough roots.

Occasional Pests and Diseases

Figs are one of the easiest fruits to grow because they are relatively pest and disease-free, thus fungicides and insecticides are usually not necessary. However, other than becoming infested with nematodes, scale (use dormant oil for control), and ambrosia beetles, your fig tree and fruit can be damaged by other pests such as deer, rabbits, voles, squirrels, and birds. Usually free of diseases, but under certain conditions such as excessive rainy weather, fig rust fungus disease can attack the leaves. First appearing as small, yellowish-orange spots and in very wet seasons these spots can become numerous and spread eventually defoliating the tree. Rust can be controlled by spraying a neutral copper, copper hydroxide, or a Bordeaux fungal spray at first sign of the disease, removing any fallen diseased foliage and with follow-up sprays as described on the label. Sanitation is important. Don't allow piles of dead leaves and fruit to accumulate under your tree providing breeding sites for fungal diseases and insects.

Enjoy the Harvest

Figs will ripen from June through August in our area, and when harvesting, look for ripe ones when the ground color changes on the fruit. Fresh figs taste best when picked fully ripe. When ripe they will feel

plump, tender, and heavy for their size, and smell like honey at the stem, and any sign of stickiness will indicate they are overripe. Ripe figs are perishable and easily bruised. If left at room temperature the figs will soften, but they will not become sweeter. They have a short shelf life of 3 to 4 days after harvest. If you pick fruit a day or two before it is fully ripe, you will have a bit longer refrigerated storage time. Best stored at 32 degrees F. Cover and refrigerate in a single layer. They should be eaten, made into preserves, or used fresh in a recipe that same day, if possible. The versatile fig lends a delicious sweetness to all sorts of recipes, from tasty appetizers to festive desserts to sophisticated main dishes, and when eaten fresh, it is one of the South's greatest summer treats.

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Citations – Ozzie Coor- the owner of Coor Farm Supply and Rainwater Farms Nursery.
Dr. Michael Parker- Associate Professor & Extension Horticulture Specialist

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