

MUSCADINE GRAPES

JUST FRUITS & EXOTICS

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INTRODUCTION

Most Southerners picked muscadine grapes in the wild as children. Sometimes called Scuppernongs or fox grapes. These spicy-sweet, thick-skinned grapes are an old Southern favorite and are still found growing wild throughout the lower South. They thrive with little care, and the vines can remain productive for 100 years! Modern breeding has brought us a wonderful range of varieties: wine grapes for the home vintner and jelly maker, plus delicious fresh-eating varieties, which can be as large as golf balls! Some muscadine grapes are self pollinating, while the female varieties need a self-pollinating variety to help them set fruit.

USES IN THE LANDSCAPE

Grapes add a touch of old world charm to any landscape. With large, lush leaves and gnarled, shaggy-barked trunks, grapes are particularly attractive with clusters of fruit hanging down through the foliage. Use them on fences to divide areas or create hidden gardens within your larger landscape picture. Train them over a patio for a living roof that's cool and shady, but drops its leaves in the winter to let the warm sun in. They can also be trained into small weeping trees for interesting accents in the border or in a large container.

PLANTING AND CULTURE

SITE SELECTION

Grapes do well on a wide range of soils, but rich sandy loam or clay loam soils are preferred. Grapes do not tolerate flooding and may grow poorly in mucky soils unless planted in raised mounds. Plants will grow more vigorously and produce more fruit in full sun. Grapes prefer slightly acid soil (pH 6.0-6.5), but soils of up to moderate alkalinity are tolerated. If you are in doubt about the acidity of your soil, take a soil sample to the Cooperative Extension Agent in your county for a soil test.

SITE SELECTION AND PLANTING

The grape should be planted in the middle of the main posts of your trellis. Dig a planting hole approximately three times the width of the pot and at the same depth as the root ball. Set that soil aside and mix it 50/50 with either aged mushroom compost, aged manure, or rotted pine bark & aged manure/mushroom compost. Remove the plant from the pot, gently loosen the root ball and place in the planting hole. To avoid burying too deep, make sure plant is positioned with the top most roots at the soil line. Fill the planting hole with the mix of soil and organic matter; gently tamp it in. Water thoroughly to

settle the roots and eliminate air pockets. **Do NOT put fertilizer in the planting hole.** Only apply fertilizer if it is the correct time of year (see Fertilization section below).

If desired, construct a water basin around the base of the tree approximately 36 inches in diameter. Mulch in spring and summer with approximately 4-6 inches of mulch. Pull mulch a couple of inches away from the trunk for good air circulation. Space grapes 20 ft. apart.

FERTILIZATION

The type of fertilizer you choose may be chemical or organic. Make sure that the fertilizer contains iron, zinc, manganese, magnesium, molybdenum, copper and boron. These minor elements are very important to plants and most soils are low in these elements. Application rates vary according to age of plant. See chart below. The amount of fertilizer applied increases each year until the 5th year after planting.

	Year 1	Year 2	Year 3	Year 4	Year 5
10-10-10 or 10-0-10 with minerals	Sprinkle 1 cup ($\frac{1}{2}$ lb) in a 2ft circle around each plant in late February, late May <u>and</u> late July.	Sprinkle 2 cups (1 lb) in a 4ft circle around each plant in late February, late May <u>and</u> late July.	Sprinkle 4 cups (2 lbs) in a 6ft circle around each plant in late February and late July.	Sprinkle 6 cups (3lbs) in a 6ft circle around each plant in late February and late July.	Sprinkle 8 cups (4 lbs) in a 6ft circle around each plant in late February and late July.
Espoma Citrus Tone (Organic)	Sprinkle 2 cups of Citrus Tone in a 2ft circle around each plant in late February, late May <u>and</u> late July.	Sprinkle 4 cups of Citrus Tone in a 4ft circle around each plant in late February, late May <u>and</u> late July.	Sprinkle 8 cups of Citrus Tone around each plant in a 6 ft circle in late February and late July.	Sprinkle 10 cups of Citrus Tone in a 6ft circle around each plant in late February and late July	Sprinkle 14 cups of Citrus Tone in a 6ft circle around each plant in late February and late July

To maintain established grape vines (6th year and older), spread 10 cups (5 lbs) 10-10-10 (10-0-10) or 20 cups Citrus Tone per vine in a 6ft area in late February and late May. Spread the fertilizer evenly avoiding a 5-inch area around the trunk. Water or rake in. For Zones 8a-10, fertilize 3 times each year in late February, late May and late July/early August. For plants further north (Zone 7), fertilize in March or after bud break. **Never fertilize after August** (June in Zone 7) as this will promote new growth late in the year which will be subject to freeze damage.

Grapes need more magnesium than many other fruit. Magnesium deficiency shows as a progressive yellowing between the veins of older leaves and may cause premature fruit fall. To prevent or correct magnesium deficiency, Epsom salts can be applied at the rate of 2-4 ounces for 1-2 year old vines and 4-6 ounces for older vines (recommended application rates from the Georgia Cooperative Extension Service). Spread the Epsom salts over a 6 foot circle around each plant.

WATER

The first year is a critical time for the establishment of a new grape. Water thoroughly twice a week on light soils and once a week on clay soils. Soak the entire root system deeply - this usually takes 45-60 minutes. Grapes should receive at least 1 inch of water each week for best growth and fruit production. Water regularly, especially during dry periods. Fruit may drop prematurely if insufficiently irrigated during dry spells.

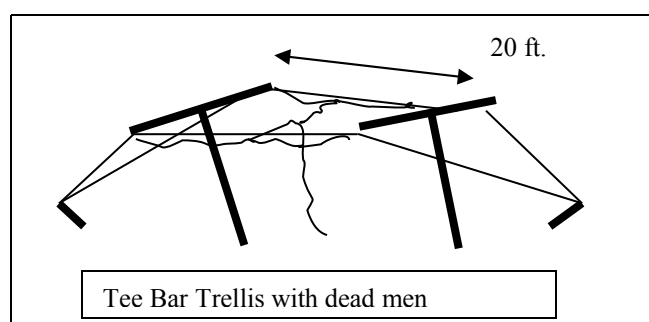
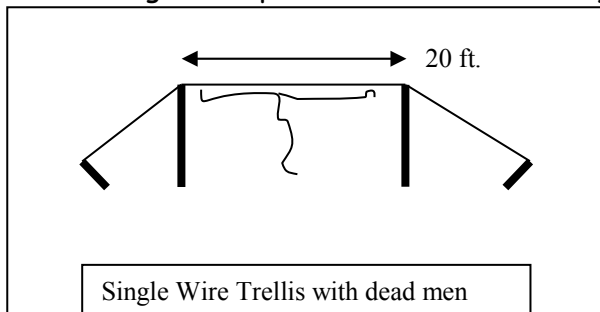
BUILDING A TRELLIS AND TRAINING THE VINES

You do need to train grapes to a trellis to get them to fruit. It's a little more work to start with, but the result is a long-lived, productive vine. The single wire trellis is the simplest method, and the one most used by commercial growers. Two and three wire horizontal trellises offer great possibility for use as living fences. The tee bar trellis is our personal favorite. It offers the greatest yield for the least amount of labor in pruning and is the easiest to pick. Overhead arbors are beautiful additions to the orchard and offer a wonderful place to sit and rest and enjoy the view. They're a little more work to set up and prune, but well worth the effort. We'll explain the single wire and tee bar trellises here, but the same construction principles apply to all trellises. For any trellis, choose sturdy materials designed to last the life of the vine. Posts should be pressure treated lumber at least 4X4 in diameter and 8 ft. long; wire should be at least 9 gauge in diameter. Your goal in training your muscadine vine is to grow the vine in a form that will produce fruit over many years. The basic shape (modified somewhat depending upon the trellis you've built) is a single trunk 5-6 ft. high and 2-4 arms each 10 ft. long. For a single wire trellis, you'll train the vine to a single trunk and 2 arms, each 10 ft. in length with fruiting spurs at 6 in. intervals. For any double wire trellis (including the tee bar), you'll have 4 arms, each 10 ft. long with fruiting spurs at 6 in. intervals. For an arbor, you'll figure out how to shape your vine's arms over the top of the arbor while keeping the 2 or 4 arm structure.

SINGLE WIRE TRELLIS: Set 8 ft. main posts 20 ft. apart, sinking posts 3 ft. deep. Sink dead man support posts 3 ft. deep approximately 7-8 ft. from each end post in your row of grapes, angled away from the last main post. Attach trellis wire from the end dead man post, across the top of the main posts and to the end dead man post using heavy duty wire staples. Install turnbuckles between the end posts and the dead man posts so the trellis wire can be tightened as needed over time.

Year 1: Your goal is to train the vine to the trellis, developing a single trunk. Choose the strongest shoot on the vine and remove any extra shoots. Use a stake or a string tied to the trellis to wind the shoot around so it will grow to contact the trellis in the middle of the 2 main posts. Pinch the shoot tip off when the vine reaches the trellis level.

Year 2: Your vine should have reached the level of the trellis and you should have pinched out the tip. Several shoots will form at the tip. Choose the strongest 2 shoots and train them along the trellis wires in opposite directions. You're done when the arms reach 10 ft. long and the vine looks like an elongated "T". Do not allow the arms to wind around the wires. Shoots will grow from the young arms and all should be allowed to grow to produce the first fruiting spurs. Remove all extra shoots from the trunk as needed.



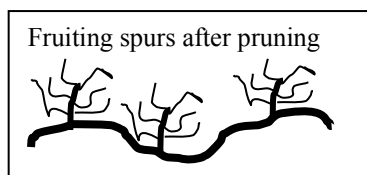
TEE BAR TRELLIS: Set main posts 20 ft. apart, sinking posts 3' deep. Sink dead man support posts 3 ft. deep approximately 7-8 ft. from each end post in your row of grapes, angled away from the last main post. Nail a 4 ft. bar to each main post to form the top "T" of the tee bar. Attach 2 trellis wires to one of the end dead man posts, continuing to the ends of each T bar, and then ending at the end dead man post. Use heavy duty wire staples. Install turnbuckles between the end posts and the dead man posts so each trellis wire can be tightened as needed over time.

Year 1: Your goal is to train the vine to the trellis, developing a single trunk. Choose the strongest shoot on the vine and remove any extra shoots. In the middle between 2 main posts, tie a string between the wires

and tie a second string to the middle of the first string. Twine the vine around the dangling string and train it to reach the string between the trellis wires. Pinch the shoot tip off when the vine reaches the trellis level.

Year 2: Your vine should have reached the level of the trellis and you should have pinched out the tip. Several shoots will form at the tip. Choose the strongest 2 and train them along the string between the trellis wires. Pinch tips of the 2 arms when they reach the wires (the vine should be in the shape of a "T" at this point). Two shoots will grow from each of the 2 tips you pinched back and they should be trained in opposite directions along the wires to a length of 10 ft. per arm. There will be a total of 4 arms in an "H" shape when viewed from above, attached to the main trunk in the middle of the bar in the "H". Do not allow the arms to wind around the wires. Shoots will grow from the young arms and all should be allowed to grow to produce the first fruiting spurs. Remove all extra shoots from the trunk as needed.

PRUNING FOR FRUIT



Fruit is produced on new shoots developing from the previous year's growth. In Year 3, canes produced the previous year should be pruned to approximately 3 in. long in January or February. These canes will produce several shoots that will fruit during the following summer. These new shoots will be cut back to 3 in. the next winter, forming the first fruiting spurs.

Depending upon the growth rate of the plants, spurs will need to be thinned in Year 5 or 6 after planting. During the winter pruning, remove every other shoot, aiming for a fruiting spur every 6 in. on each arm. Choose spurs on the top of the vine, if possible. Allow a few extra shoots to grow from the arms to form replacement spurs as the vine ages. Remove tendrils twining around the arms or spurs to prevent girdling.

POLLINATING MUSCADINE GRAPES

Choose at least one self-pollinating grape to pollinate up to four females. If you want only one grape, choose a self-pollinating variety. Ideally, every third grape in a row should be self-fertile to pollinate adjacent female plants. Females should be no more than 30 feet from a self-fertile pollinator.

MUSCADINE VARIETIES (*Vitis rotundiflora*)

FOR MORE VARIETIES GO TO OUR WEBSITE WWW.JUSTFRUITSANDEXOTICS.COM

FEMALE - NEEDS POLLINATOR: Choose a Self-fertile muscadine for pollination.

HUNT Excellent quality black grape with medium to large sized fruit. This is the one to compare all other grapes against. 17% sugar. Ripens early to mid September. Zones 7-10.

SCUPPERNONG Excellent flavor, great production. 17% sugar. Small clusters of bronze fruit. Ripens mid-season. Zones 7-10.

SUMMIT Thought by many to be better than Fry as a commercial grape. Red-bronze fruit is 1 inch in diameter. 20% sugar content, Ripens early September. Excellent fresh eating grape. Zones 7-10.

SELF-FERTILE

ALACHUA Premier fresh eating and wine grape. Medium size black grape is sweet and juicy. Excellent production. Ripe Sept. - Oct. Zones 7-10.

FLORIDA FRY Florida's answer for the Fry grape's problem with summer dieback. Bears heavy crops of large bronze grapes. Very sweet, excellent for fresh eating. Zones 8-10.

NOBLE Florida red wine grape. Makes beautiful dry red wine. Blend with Southland for a pink chablis, very productive. Zones 7-10.

SOUTHERN HOME Excellent red wine grape if you're inclined. Hybrid of a muscadine and a bunch grape. Beautiful, oak-shaped leaves. Fruit is almost black. Zones 7-10.

SUNRISE Our own find. This variety is very large, up to 1 inch in diameter. Bronze color with a crispy, almost bunch-grape flavor. Skins are thin. Ripens in late August. Zones 7-10.