

Central Florida Youth

Blueberry Growing Contest



UF/IFAS

Polk County Extension Service
1702 US Hwy 17-98 South
P.O. Box 9005, Drawer HS03
Bartow, FL 33831-9005

Osceola County Extension Service
Osceola Heritage Park
1921 Kissimmee Valley Lane
Kissimmee, FL 34744-6107

Blueberry Contest

Central Florida

Blueberries in Florida

Two types of blueberries grow well in Florida, rabbiteye (*Vaccinium virgatum*) and southern highbush (interspecific hybrids of *V. darrowii*, *V. virgatum*, and *V. corymbosum*). However, only the low-chill cultivars of each are adapted to Florida. Generally, rabbiteye blueberries grow well in areas of Florida that have winters as



cold as or colder than winters in Ocala. The southern highbush cultivars that are commonly grown in Florida are well adapted to areas south of Ocala and north of Sebring, although they will grow reasonably well in Alachua County. The southern limits of southern highbush adaptation in Florida has not been fully determined. In our contest southern highbush varieties will be the types of plants we will be growing.

This year the blueberry variety you will be growing is called ‘Optimus’. ‘Optimus’ is a high, early yielding variety which is suitable for machine harvest for the fresh market. It blooms early (later than ‘Magnus’ but earlier than ‘Wayne’), has good natural leafing, and its timing of production fits well for the Florida production

window. Some chili thrips damage has been observed on ‘Optimus’. It is not highly recommended for hand-harvest, as the medium size berry is not preferred by pickers. Due to its early bloom, ‘Optimus’ may require freeze protection in January in certain areas.

Care of Containerized Blueberries

Transplanting

Blueberry plants will be delivered in cylindrical plastic sleeves. These plants are produced from cuttings off mature plants that are grown in a blueberry nursery. You may have also ordered a 5 gallon pot and/or potting media. Only 5 gallon pots can be used for the blueberry growing contest. Pots either larger or smaller will not be allowed back to the fair. For this reason, it is very important that you consider ordering a pot from the fair for the contest, or making sure the container you will be using is a 5 gallon container. Potting media can also be ordered through the fair at the time you order your plant depending on the contest. The media is a blend commonly used in Florida blueberry production. If you choose to, you can blend your own media using the following ingredients:

Potting media:

one-half Michigan or Canadian peat moss
one-half natural pine bark nuggets

You need to thoroughly mix the ingredients together in a large tub or container.

Fill the potting container about three-quarters full with the potting media. Next hold the plant over the container and carefully remove the plant from its original container. Try to remove some of the potting media from around the rootball. Dig out a hole in the potting media to place the plant. Make sure the plant is planted in the pot at a slightly higher level than it was in the original container. Never plant at a level deeper than it was in the original container. At this point you can begin to add water to the container while adding additional potting media around the rootball. Lightly pack down the potting media as you are adding the water to firmly pack the media around the blueberry rootball removing any potential air pockets around the roots. Make sure the plant is at the proper level and standing vertical in the container. Finish adding potting media and water to the proper level. Leave about one to two inches from the top of the container to the potting media to allow for watering your newly planted blueberry bush.

Irrigation

Blueberry plants will require watering 3 to 4 times per week during the spring and summer to prevent wilting and increase plant growth. During the cooler months this can be reduced to about once per week or less. You can easily check the moisture of your media by using the “two finger moisture meter”; insert two fingers into the media and pinch the soil to check for moisture. If the plant is in a wilt, you have waited too long and this will affect growth.

When you first get your bush planted, it is important to keep it from drying out until you see evidence of new growth. Once this new growth appears, it is evidence the plant is becoming established in its new container.

When watering you can fill the container to the top with water (one to two inches) allowing the media to become saturated with water. This will be when you can see water run out of the drain hole at the bottom of the container. Avoid over watering which can lead to water logging and root disease problems. If the blueberry bush is water logged for forty-eight hours, it can destroy the plant root system. If your media gets too dry, it may become difficult to add water to the media. In these cases it is best to add water slowly at a drip like rate to re-wet the media.

Fertilization

Nutrition, along with water, are the most important factors that will affect the growth and size of your blueberry plant. Blueberries can be fertilized by using dry granular, slow release or liquid soluble. Begin fertilizing your blueberry plant as soon as new growth appears after transplanting. You can use any one or a combination of these to fertilize your blueberry plant. The important idea in fertilization rates is to apply similar amounts of nitrogen to your plant regardless of the type of fertilizer used. Blueberries can be susceptible to over fertilization which can cause plant damage and even death in some cases. The following examples are based on applying 0.05 pounds of actual nitrogen to your plant for the year.

A dry granular azalea, camellia and rhododendron acid forming fertilizer should be used (in these fertilizers ammoniacal nitrogen or urea is used as the source of nitrogen). A couple of examples would be Vigoro’s azalea, camellia and rhododendron (10-8-8 analysis) and Sunniland’s azalea, camellia and gardenia (8-4-8) dry granular fertilizers. Apply dry fertilizer at a rate of 2 to 2.5 ounces (Vigoro/Sunniland listed above) per plant, 4 times per year (in April, June, August and October) and incorporate it into the top layers of the potting media. Be careful not to place fertilizer in direct contact with the plant.

If using slow release, apply the same amount of nutrients based on the analysis of the fertilizer. There are many slow release fertilization formulations available at most garden centers. One formulation readily available is “Miracle-Gro shake ’n feed all purpose continuous release plant food” (12-4-8). The label indicates this formulation needs to be applied every 3 months. Based on the analysis of this formulation, apply every 3 months (April, June, August and October) 1.5 ounces of the fertilizer incorporating it into the top layers of the potting media.

Soluble fertilizer can also be used and the rate should again be based on the analysis of the fertilizer material. “Miracle-Gro liquid all-purpose concentrate plant food” (12-4-8) is a formulation easily found at most garden centers. Based on the formulation, use one-third of an ounce mixed in a gallon watering can and apply to your blueberry plant every two weeks.

In addition to the macronutrients of nitrogen, phosphorous and potassium (the three numbers on the fertilizer container as listed in the above examples), blueberry plants may also require secondary (calcium, magnesium and sulfur) and micronutrients (iron, zinc, manganese, boron, copper, and molybdenum). Some of the secondary and micronutrients may be included in the fertilizer formulations listed above. Look on the fertilizer label for the names of these. It is important these nutrients be included as part of a good blueberry fertilizer program. Most fertilizer formulations contain some of the secondary nutrients such as sulfur and magnesium. If the secondary or micronutrients are not included, then application of a complete blueberry foliar nutritional spray can be applied after the new flush has fully expanded. Blueberry plants are very susceptible to high pH soil conditions and this can be most noticed in the appearance of nutritional deficiencies in blueberry foliage.

Pest Control

Your blueberry plant will likely not need to be protected from insect pests and blueberry diseases. The plants you will receive from the nursery should be free from pests and diseases. Pesticides labeled for blueberries can be used if problems occur. By growing plants generally away from commercial blueberry plants this will greatly reduce the potential for pests and diseases. Blueberry plants grown outdoors will have their leaves fall off when we begin to get colder weather in the late fall and winter and this is normal. Water use should be greatly reduced if the foliage has dropped off.

Pesticide Safety

When using pesticides you must read, follow and understand the instructions listed on the label. Reading the label should be done first before you even open the pesticide container. These label instructions include how much to use, how to mix

the insecticide, how to apply, what clothing must be worn during the application, what to do if the pesticide spills on you or your clothing and how to clean up your equipment after the application. It is also important that your parent or guardian be present when you spray.

Pruning

You may need to do some light running of your blueberry plant at the time of planting and or during the growing season. Pruning should be light and any large and fast growing canes or stems should be cut back to promote a slowing of growth.

Grades and Standards

When returning your plant to the fair, judges will be looking for certain desirable characteristics in judging your plant as either a blue, red, white or needs work. These categories include:

Category		
Size	plant is proportional to the container	evidence of trunk growth, cane structure
Shape	pruning, branching, balance	absence of multiple canes, plant symmetrical and well shaped
Color	deficiencies, toxicities	nutritional deficiencies, toxicities of the foliage, uniformly green foliage if present
Density	foliage quantity, size	good foliation, numerous leaves of normal size if present
Injury	insects, mites, diseases, mechanical damage	plant free from damage