

## **Rabbiteye Blueberry Production in North Florida**

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### **Benefits of growing rabbiteye blueberries in north Florida instead of southern highbush:**

- More drought tolerant
- Less susceptible to Phytophthora root rot
- Less susceptible to late winter / early spring freezes because they flower later in the spring
- Require less organic matter and less mulching
- Generally more vigorous
- Rabbiteye fruit has a tougher skin and larger seed than southern highbush
- Stores better

### **Site Requirements**

- Full Sun: at least 4 to 5 hours of full sun per day
- High level of organic matter
- Good Drainage
  - Well – drained soil profile of at least 18 inches in depth
  - Plant on raised beds if water drainage is poor

### **Site Preparation**

- One year before transplanting:
  - Clear and level land
  - Design (orchard and irrigation)
  - Pre-plant weed control
  - Bed preparation

## **Soil Preparation**

- Submit a soil sample 4 to 6 months before planting
- Target soil pH = 4.0 to 5.5
- Lower soils by thoroughly mixing a small amount of wettable sulfur into the soil
  - 1 ton per acre will lower pH one unit
  - 50 lbs per 1,000 square feet will lower pH one unit
  - 1/3 cup per bush will lower one unit

## **Planting Time**

- Best time to plant is from mid-December to mid-February (dormant season)
- Use container-grown
- Best plants are 2 foot tall with well-developed root systems that are not pot-bound
- If using bare root, keep roots moist but not soaked prior to and during planting

## **Planting Instructions**

- Amend planting hole with finely ground pine bark or 50% pine bark and 50% soil
- Dig hole large enough to accommodate roots and pine fines/ organic matter (planting hole = 2' diameter and 1' deep)
- Set plants at same height as when growing in nursery
- If planting on raised beds, flatten bed in the vicinity of the plants and set plant in a slight depression so that irrigation and rain water will not flow away from the plant

## **Spacing**

- A mature rabbiteye blueberry plant can reach 12–15 feet in height with canes sprouting over an area of 8–10 feet in diameter.
- Allow at least a 7' x 7' area for rabbiteyes
- Set 5 feet apart for a hedgerow effect

## **Weed Control**

- Important to keep weeds 2 feet away from plants as they compete for:
  - Water
  - Nutrients
  - Sunlight
- Maintain several inches of acid-forming mulch such as:
  - Pine bark

- Pine Straw
- Oak leaves
- Other mulch options (less recommended):
  - Woven nursery fabric
  - Plastic ground cover

### **Pine Bark Mulch**

- Aids in establishment of young plants
- Moderates soil temperatures
- Provides weed control
- Provides protection from mechanical injury
- Adds organic matter to the soil
- Decreases soil pH
- Maintains N in NH<sub>4</sub> form

### **Container Planting**

- Good for soils with high pH or high salinity
- Use composted pine bark for potting medium
- Can top with larger pine bark mulch

### **Establishment Irrigation**

- Keeping the plants watered during the first couple of years until the roots are well-established is very important
- Irrigating the root zone area is critical in areas where lateral movement is limited, such as in pine bark or sandy soils

### **Maintenance Irrigation**

- Mature blueberry plant requires 40" water annually
- Low water requirements during winter
- Most critical period is during early fruit set until the end of harvest.
- During March, mature blueberry plants will require about 0.6 inches of water per week (rainfall plus irrigation)
- During April and May use 1.0 to 1.2 inches of water per week
- Established rabbiteye blueberries in gardens will require irrigation only during prolonged dry periods

## Fertilization Challenges

- Light, sandy soils are subject to leaching
- High amounts of soil amendments such as pine bark can tie up Nitrogen
- Blueberries have shallow root systems
- Summer pruning removes a lot of foliage that needs to be replaced
- Heavy summer rains can reduce fertilizer through leaching and runoff

## Fertilization Tips

- Blueberries respond best to frequent, light fertilization
- Apply nitrogen only in several small applications during the peak growing seasons of spring and fall
- Never apply in a concentrated area at the base of the plant or in the planting hole
- Use ammoniacal nitrogen or nitrogen from urea or organic sources, rather than from nitrate sources
- Chlorine levels should be as low as possible, preferably below 2%
- Blueberry Special is available in Florida and meets these requirements
- "Camellia-azalea" fertilizers are another option

## Fertilizer Application

- Initial planting:
  - After planting, when the soil is well settled from irrigation or rainfall, give un-mulched plants 1 ounce per plant of 12-4-8 (N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O) with 2% magnesium (Mg)
  - If plants are heavily mulched, use 1.5 ounces per plant per application rather than 1 ounce because some of the fertilizer will be unavailable for plant uptake
  - Spread fertilizer evenly over a circle 2 feet in diameter with the plant in the center
  - Repeat this procedure in Feb, April, June, August, and October
- During the second year, use 2 ounces of 12-4-8 per plant per application and spread it evenly over a 3-foot diameter circle
- In the third year and beyond, use 3 ounces of fertilizer per plant per application spread evenly over a 4-foot diameter circle, or broadcast in a continuous band 3–4 feet wide, centered on the plant row
- Mature rabbiteyes generally only need 2 fertilizations per year:
  - Apply at spring bud-break (February / March), and
  - Post - harvest (July / Mid – August)

## Pruning

### Prune new plants after planting:

- If plants have a well-developed root system and irrigation is used, pruning should not be severe
- Leave tallest, strongest cane unpruned
- Remove weak, twiggy growth at base of plant
- If plant has large top compared to root system, remove one-third of top by pruning out least vigorous growth and cutting back tops of vigorous canes by several inches
- Remove all flowers before fruit set occurs during first year in order to promote strong vegetative growth and good plant establishment

### 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> year pruning:

- Remove lower twiggy growth and weaker shoots during the dormant season.

### Post-harvest pruning:

- Cut back tall shoots by one-third
- Remove all dead or damaged shoots.

### Pruning mature plants:

- Selective cane removal
  - Winter
  - Stimulates development of new canes
  - Remove 1/4 to 1/5 of oldest canes yearly
- Canopy height reduction
  - Immediately after harvest
  - Stimulates new growth that will produce next year's crop
  - Prevents plants from becoming too tall

## Pollination

- Alternating rows of different varieties provide good cross-pollination
- All blueberry varieties benefit from cross-pollination
- Bumble bees are the most efficient pollinators

## **Early Season varieties**

- 'Beckyblue'
- 'Bonita'
- 'Climax'
- 'Austin'
- 'Savory'
- For best pollination plant 'Climax' with either 'Beckyblue' or 'Bonita'.

## **Mid- to- late season varieties**

- More productive and reliable than early-season rabbiteyes
- Bloom later than the early-season rabbiteyes, so the flowers and young fruit are less susceptible to late winter freezes.

'Brightwell',  
'Powderblue'  
'Tifblue'  
'Woodard'  
'Premier'  
'Chaucer'  
'Bluegem'

## **References**

Blueberry Gardener's Guide: <http://edis.ifas.ufl.edu/mg359>

Williamson, Jeff. Growing Blueberries in Northeast Florida. PowerPoint.

Burbaugh, Brad. Blueberry Production Practices in Florida, PowerPoint.