Southern Highbush Blueberry Varieties

Production of southern highbush blueberries in the southeastern United States for the early fresh market is relatively new and acreage is limited. Because southern highbush blueberry cultivars vary in adaptation, vigor, and longevity; and site requirements differ significantly from that of the rabbiteye blueberry, successful production has been limited. Research defining and refining production practices required to grow southern highbush blueberry in the Southeastern United States has been conducted by universities and the USDA-ARS. As growers adjust their management practices, breeders are evaluating cultivar performance in Mississippi growing conditions. Early to mid-season southern highbush cultivars offer growers the greatest opportunity to participate in the earliest fresh berry markets which are the most financially lucrative. Mid- to late-season cultivars ripen along with the early rabbiteye cultivars and compete with the more productive, easier to manage, rabbiteye cultivars. Thus, the advantage of being among the earliest berries to market diminishes. However, due to their excellent fruit qualities, these later-ripening southern highbush cultivars may be suitable for some local fresh markets, Pick-Your-Own operations and home gardens.

Early to mid-season southern highbush varieties for trial plantings in the Gulf States

Variety: Star

- **Chilling requirement:** 400 hours to 500 hours.
- **Bloom time:** Blooms sufficiently early to require frost protection.
- **Ripening period:** Ripens from late April to mid-May.
- **Plant yield, vigor and growth habits:** Plants are productive, moderately vigorous and have an upright-spread growth habit.
- **Berry qualities:** Berries are large to very large, with good color, flavor, and medium firmness.
- **Drawbacks:** Berries may exhibit physiological splitting in wet weather.
- **Plant pathogen susceptibility:** Star is susceptible to Septoroia leaf spot. Star should only be grown in the Coastal Region.
- **Breeding history:** Released by the University of Florida. in 1996; patented.

Variety: Windsor

- **Chilling requirement:** 400 hours.
- **Bloom time:** Early March. Frost protection may be required.
- **Ripening period:** Late April to early May.
- **Plant yield, vigor and growth habits:** Windsor plants are very productive and have excellent vigor with a semi-spread growth habit.
- **Berry qualities:** Fruit are very large with good color, firmness and flavor.
- **Drawbacks:** The size of picking scars may vary on younger plants but older plants have medium picking scars. Occasionally, berry skins may tear upon picking, but incidence of tearing may be reduced by harvesting in the morning.
- **Plant pathogen susceptibility:** Windsor has good resistance to leaf spot diseases but only fair to moderate root rot and stem blight resistance.
• **Additional recommendations:** Windsor is not self-fertile and should be planted in alternate rows with other southern highbush blueberry cultivars having similar bloom periods such as Star, Santa Fe, Rebel, etc.

• **Breeding history:** Released by the University of Florida in 2000, patented.

**Variety: Santa Fe**

• **Chilling requirement:** 350 hours.

• **Bloom time:** Blooms sufficiently early to require frost protection.

• **Ripening period:** Ripens in early to late May.

• **Plant yield, vigor and growth habits:** Plants are productive, vigorous and have an upright growth habit.

• **Berry qualities:** Berries blue to dark blue, medium to large size with excellent scar, firmness and flavor.

• **Plant pathogen susceptibility:** Santa Fe is somewhat difficult to propagate and best results are obtained with very soft softwood cuttings.

• **Breeding history:** Released by the University of Florida in 1999; patented.

**Variety: Southern Belle**

• **Chilling requirement:** 400 hours to 500 hours.

• **Bloom time:** Blooms later than Star but frost protection should be available to avoid spring freezes.

• **Plant yield, vigor and growth habits:** Plants are productive, moderately vigorous, have an intermediate growth habit, and produce numerous canes forming a dense, wide bush.

• **Berry qualities:** Berries are large – very large, with very good scar, firmness, medium blue color, and good flavor.

• **Plant pathogen susceptibility:** Southern Belle is susceptible to Phytophthora root rot and should be grown only on well drained sites.

• **Breeding history:** Released by the University of Florida in 2002; patented.

**Variety: Rebel**

• **Chilling requirement:** 400 hours to 500 hours.

• **Bloom time:** Blooms three to four days before Star.

• **Ripening period:** Ripens three to four days before Star.

• **Plant yield, vigor and growth habits:** Frost protection is recommended with Rebel. Plants are productive, vigorous, and have a spreading growth habit with a medium crown.

• **Berry qualities:** Berries are large, medium-to-light blue color, small dry picking scars, and good firmness, but relatively bland flavor.

• **Plant pathogen susceptibility:** Some stemming may occur at harvest.

• **Breeding history:** Released by the University of Georgia in 2006; patented.

**Variety: Palmetto**

• **Chilling requirement:** 400 hours to 450 hours.

• **Bloom time:** Blooms early March.

• **Ripening period:** Ripens early to late May.

• **Plant yield, vigor and growth habits:** Plants are productive, vigorous, and have an open spreading growth habit with narrow crowns.
• **Berry qualities**: Berries are small to medium size, with medium color, good scar, firmness and mild flavor.

• **Breeding history**: Released jointly by the University of Georgia and the United States Department of Agriculture-ARS in 2003; patented.

**Variety: Gupton**

• **Chilling requirement**: 500 hours.

• **Bloom time**: Blooms about seven to 10 days after Star, early to late May. Bloom period is usually sufficiently late to avoid injury from late spring freezes.

• **Ripening period**: Ripens about seven to 10 days after Star, early to late May.

• **Plant yield, vigor and growth habits**: Plants are productive, vigorous, have an open upright growth habit with narrow crowns, and have shown good longevity.

• **Berry qualities**: Berries size is medium to large, have light blue color, small dry stem scars, and very good firmness and flavor.

• **Plant pathogen susceptibility**: Berries are resistant to physiological cracking and have good post harvest quality.

• **Additional recommendations**: Should be planted with other early to mid-season blooming southern highbush cultivars to achieve good pollination and fruit set.

• **Breeding history**: Released by the United States Department of Agriculture-ARs in 2005; public.

**Variety: Dixieblue**

• **Chilling requirement**: 500 hours.

• **Ripening period**: Ripens about 10 days after Star.

• **Plant yield, vigor and growth habits**: Plants are productive, moderately vigorous, have an upright, spreading growth habit with narrow crowns, and have shown good longevity.

• **Berry qualities**: Berry size is medium to large, with a relatively unique flat shape, good color, picking scar, firmness and flavor.

• **Plant pathogen susceptibility**: Mature berries show few signs of cracking during wet weather and have very good post-harvest fruit quality.

• **Breeding history**: Released by the United States Department of Agriculture-ARs in 2005; public.

**Variety: Camellia**

• **Chilling requirement**: 450 hours to 500 hours.

• **Ripening period**: Ripens early to mid-May.

• **Plant yield, vigor and growth habits**: Plants are vigorous, with strong cane growth, an open, upright growth habit with narrow crowns.

• **Berry qualities**: Berry size is large and berries have good firmness, picking scar and flavor.

• **Breeding history**: Released by the University of Georgia in 2005; patented.

**Variety: New Hanover**

• **Chilling requirement**: 500 hours to 600 hours.

• **Ripening period**: Ripens early to mid-May.

• **Plant yield, vigor and growth habits**: Plants are very productive, vigorous and have a semi-upright growth habit.
• Berry qualities: Berries are large to very large, and have very good color, firmness and flavor, and average picking scars.
• Additional recommendations: Fruit should be hand harvested. Has very good post-harvest fruit quality. Blooms are highly self fertile, reducing the need for pollinator cultivars.
• Breeding history: Released by North Carolina State University in 2007; patented.

Mid- to late season southern highbush blueberry cultivars for trial in the Gulf States

Variety: Bladen
• Chilling requirement: 600 hours.
• Ripening period: Ripens mid-May, several days before O’Neal, in the Gulf States.
• Plant yield, vigor and growth habits: Bushes are upright, moderately vigorous with a moderately spreading canopy.
• Berry qualities: Berry size is small to medium, with good color, picking scar, firmness and flavor.
• Plant pathogen susceptibility: Berries are resistant to cracking in wet weather and may be suitable for mechanical harvest.
• Additional recommendations: The small fruit size may limit the speed of hand-picking. Recommended for mid to northern Mississippi.
• Breeding history: Released by North Carolina State University in 1998; public.

Variety: Pamlico
• Chilling requirement: 600 hours to 800 hours.
• Ripening period: Ripens early to late May.
• Plant yield, vigor and growth habits: Plants are productive, vigorous with a semi-upright growth habit. Has good resistance to stem blight.
• Berry qualities: Berries are small with good color, picking scar, firmness and flavor, and good post-harvest fruit quality.
• Additional recommendations: Berries may be either hand or machine harvested. Blooms are highly self fertile, reducing the need for pollinator cultivars.
• Breeding history: Released by North Carolina State University in 2003; patented.

Variety: O’Neal
• Chilling requirement: 400 hours to 500 hours.
• Ripening period: Ripens late April to mid- to late May.
• Plant yield, vigor and growth habits: Plants are moderately vigorous but only moderately productive and have a semi-upright growth habit.
• Berry qualities: Berry size and color is medium with good picking scar, firmness and flavor. One of O’Neal’s most favorable features is, it begins bloom early and has an extended bloom period making it a desirable pollinizer for other southern highbush cultivars, and is recommended primarily for this purpose throughout Mississippi.
• Breeding history: Released by North Carolina State University in 1987; public.

Variety: Carteret
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- **Chilling requirement:** 500 hours to 700 hours.
- **Ripening period:** Ripens early to late May.
- **Plant yield, vigor and growth habits:** Plants of Carteret are very productive, vigorous, have an upright growth habit and fairly broad soil adaptation.
- **Berry qualities:** Berry size is small to medium, has excellent color, picking scar and flavor, and has good post-harvest fruit quality.
- **Additional recommendations:** Firmness is sufficient for machine harvest for the fresh market if berries are not allowed to get overripe. Carteret is highly self fertile, reducing the need for pollinizers.
- **Breeding history:** Released by North Carolina State University in 2007; patented.

Variety: Lenoir

- **Chilling requirement:** 600 hours to 800 hours.
- **Ripening period:** Ripens mid-May to early June.
- **Plant yield, vigor and growth habits:** Plants are productive, vigorous, and have a semi-upright growth habit.
- **Berry qualities:** Berry size is medium, medium blue color, and very good picking scar, firmness and flavor.
- **Additional recommendations:** Berries are suitable for both hand and mechanical harvest and have very good post-harvest quality. Lenoir is not self fertile and requires inter-plantings of other relatively late blooming southern highbush cultivars to achieve optimum pollination and fruit set.
- **Breeding history:** Released by North Carolina State University in 2003; patented.

For a table of these varieties, see File:Southern Highbush Varieties.pdf

**Reference**