

# Fruit and Nut Review

## *Blackberries*



Home plantings of improved cultivars of blackberries offer high-quality fruit and ease of harvesting without the inconvenience of pests found in wild blackberries. Although trailing types will grow here, the erect or upright blackberry is the most popular type grown in Mississippi because they require little or no trellising.

### **Establishment and Cultural Practices**

Blackberries can tolerate many soil types but grow best in full sun and well-drained soil. The most suitable soils are high in organic matter and have a pH of 6.0–6.5. Sandy loam or loam soils are best. Blackberries can be grown on sandy soils if a good irrigation system is used. In general, their root systems do not tolerate wet soils. Avoid clayey, poorly drained soils. Raised beds are recommended for locations with poorly drained soils or in areas prone to flooding.

Establish blackberries in late February or early March by planting plants or root cuttings. Container-grown blackberry plants are more expensive, but these will also grow well. For commercial plantings, bare-root plants are the most common.

Root cuttings are collected from healthy plants during the dormant season. Note that it is illegal to propagate some cultivars that have plant patent protection. They should be 4–7 inches long and one-eighth to one-half-inch thick (about the size of a pencil). Space the root cuttings or plants 2 feet apart within rows that are 10–12 feet apart to form a hedgerow. Place the root cuttings 1–2 inches deep in well-prepared soil.

Fertilize the plants 1 month after planting with 10-10-10 or 13-13-13 and again in late June (using 5.5 pounds per 100 feet of row in a 2-foot band). Increase the fertilizer rate the next year to 11.5 pounds per 100 feet of row applied in February and 5.5 pounds per 100 feet in June. Spread the fertilizer evenly over a 2-foot band. In following years, use 11 pounds of fertilizer per 100 feet in March and 5.5 pounds of fertilizer per 100 feet of row immediately after harvest, evenly applied over a 3-foot band.

In the first growing season, canes from erect blackberries will be semi-erect or almost trailing. Keep them within the row area since they will produce fruit the next year.

New canes produced in the second and later years will be erect and need to be topped at 3–4 feet in June to encourage lateral branching. Vigorous plants may require topping two to four times. Prune hedgerows to a width of 3–4 feet.

Blackberry canes are biennial. Vegetative canes (also called primocanes) develop the first year, bear fruit the second year, and die after fruiting. Fruiting canes (also called floricanes) must be removed after harvest. New canes from the roots will replace these canes. The new canes will have fruit the following year.

Growers sometimes mow plants to ground level immediately after harvest and then dispose of all mowed plant material. A longer growing season in southern Mississippi allows time for growth of new canes in summer and fall (to provide for the next crop).

Annual mowing may weaken the plants. A 2- to 3-year mowing rotation may prove satisfactory. A grower must weigh the benefits of more frequent mowing (fewer disease problems, fewer dead canes in a row) versus less frequent mowing (possibly higher yields).

Rosette or double blossom, a fungal disease, is a significant factor limiting blackberry production in Mississippi. No thorny cultivar is immune to this disease, and it must be controlled by a spray and cultural program. Eradication of wild blackberries aids in control. Thornless cultivars have some tolerance to the disease. Other pest and abiotic issues include cane borers, spotted wing drosophila fruit fly and white drupelet disorder. See your local county MSU Extension office for more information on specific pest control options.

### **Thorny versus Thornless Cultivars**

Many people choose the thornless cultivars because of the lack of thorns. Thorny cultivars also grow but may not be as long-lived due to rosette disease.

#### *Thorny Cultivars*

**Chickasaw** –Vigorous, erect canes. Fruit size and yield are larger than Shawnee. Fruit are long, cylindrical, slightly flattened in shape, and very attractive with a glossy, black finish. Postharvest evaluations indicate superior shelf life.

**Kiowa** – Canes are erect and self-supporting. Fruit is black, glossy, firm, very large with a high sugar content and excellent flavor. Ripens about the same time as Chickasaw, and harvest season extends about 45 days. Good results in postharvest evaluations.

### **Thornless Cultivars**

**Apache** – Plant has erect-growing canes. Fruit is blocky and conical and very attractive with a glossy, black finish. Sugar content is comparable with other varieties and flavor is rated as very good. Seed size is larger than Arapaho and Navaho. Fruit size is twice as large as Navaho, and yields are high. Bloom date is between Navaho and Arapaho, and ripening date is later than both varieties but more concentrated. Vigor, health, erectness of cane, and cold hardiness exceed that of Arapaho and Navaho.

**Arapaho** – Canes are erect and self-supporting. Fruit is medium-sized, short and conical, bright, and glossy black with small seeds; yields are medium. Sugar content and shelf life are less than Navaho but greater than Shawnee. Ripens about 11 days before Navaho, and harvest period is 4 weeks. Hardy in all areas of Mississippi. Plants easily reproduce from roots.

**Caddo** -- High-yielding cultivar with erect canes and medium-large fruit. Fruit is sweet with very good flavor. Released as a commercial cultivar with good potential for local market production and home garden use.

**Navaho** – Canes are erect and self-supporting. Fruit is black and glossy, firm, sweet, and medium in size. Ripens about 7 days after Shawnee; produces for about 1 month and has shown good shelf life. Plants have good hardiness to low temperatures in Mississippi. Navaho plants do not reproduce freely from roots, so a closer spacing is best.

**Natchez** –Plants are erect. Fruit are large, comparable to Apache and larger than Arapaho, Ouachita, and Navaho. Ripens early June; ripening season comparable to Arapaho and earlier than Ouachita and Apache.

**Osage** – Erect growing canes with medium sized fruit, similar in size to Ouachita. Early to mid-ripening season with high yields. Good flavor, excellent storage potential.

**Ouachita** –Plant has very erect canes. Fruit is large with very good flavor and high sugar content. Yields are consistently high, producing at the same or higher levels of the other thornless cultivars. Ripening begins in early June and continues about 4 weeks. Plants and fruit are relatively disease resistant.

**Ponca** – A new release (2019) with high-yielding, erect canes. It has medium-sized, very sweet fruit and good post-harvest handling traits. Released as a commercial cultivar for the early market. Good for shipping, local market production, and home garden use.

**Sweetie Pie** – Bred by the USDA in Poplarville, Mississippi, it tolerates heat very well. It has a vigorous growth habit, and large, very sweet fruit. Excellent for homeowners, you-pick operations, and farmers markets. Sweetie Pie ripens mid to late in the blackberry-growing period (mid- to late June). Sweetie Pie is resistant to rosette (double blossom).

**Triple Crown** – Has a trailing growth habit with consistent and large fruit yields. Fruits have a good flavor with large fruit. Late ripening, so would be a good cultivar for season extension into July. Very high yielding but needs trellising for best production.

### **Primocane Fruiting Cultivars**

Primocane-fruiting (also called fall-fruiting) cultivars are not currently suitable for fall fruit production in Mississippi due to high temperatures during flowering. However, primocane-fruiting cultivars can be grown for a spring crop with success. Cultivars include PrimeArk-45, PrimeArk Freedom, PrimeArk Traveler, Prime-Jan, and Prime-Jim.

### **Harvesting**

Blackberries ripen in late May and early June. The cultivars listed produce at least one-half gallon per plant, or 2–3 tons per acre. Yields can be as high as 2½ gallons per plant.

Blackberries need to be harvested when fully ripe because they do not ripen after harvest. Usually a cultivar bears fruit for 2–4 weeks. Refrigerate berries as soon as possible after harvest; do not let harvested fruit sit in the sun.

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