

# Fruit and Nut Review

## BLACKBERRIES

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

### Establishment and Cultural Practices

Blackberries 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 substantially more expensive than root cuttings, but these might be a better choice for small homeowner plantings. For commercial plantings, root cuttings or bare-root plants are an economical necessity.

Root cuttings are collected from healthy plants during the dormant season. Root cuttings are 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 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 fertil-

izer 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 develop the first year, bear fruit the second year, and die after fruiting. Fruiting canes 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 for a number of years 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 the most significant factor limiting blackberry production in Mississippi. No thorny cultivar is immune to this disease,



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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.

## Thorny versus Thornless Cultivars

Many people choose the thornless cultivars because of the lack of thorns. However, fruit size and yields are greater from thorny varieties than those from thornless types.

### Thorny Cultivars

**Brazos** – An excellent variety for South Mississippi. Vigorous, erect canes. High yield. Large fruit. Insect and disease resistant, and drought tolerant. Somewhat cold sensitive and not suited for North Mississippi.

**Cheyenne** – Vigorous, erect. Ripens midseason. Very productive. Very large fruit. Excellent for fresh consumption or processing. Excellent flavor.

**Chickasaw** – Released in 1999. 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.

**Shawnee** – Vigorous, erect canes. Berry size larger than Cheyenne. Very productive. Ripens about 1 week later than Cheyenne. Excellent flavor. Excellent for fresh consumption or processing. Highly susceptible to double blossom.

### Thornless Cultivars

**Apache** – Released in 1999. 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, glossy, black with small seeds and medium yields. 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.

**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.

**Ouachita** – Released in 2003. 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.

**Natchez** – Released in 2007. Plants are erect to semi-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.

## 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, since 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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