

Cornell University College of Agriculture and Life Sciences Cornell Cooperative Extension



Blackberry Variety Review

By Courtney Weber, Associate Professor, Department of Horticulture Last updated 4/8/13.

Cultivars

New cultivars are released all the time, and the vast majority of them fail to catch on for various reasons including poor adaptability to diverse growing regions, unforeseen disease or insect susceptibility or fruit characteristics that are unacceptable to the buying public. No cultivar will work well in all locations, soil types, and productions systems, but many have proven to be useful in many different situations. This list is by no means complete but should address most situations.

Blackberries come in many types with the three predominant types being thorny erect, thornless semi-erect and trailing (thorny and thornless). In newer varieties, the distinction between erect and semi-erect has become less pronounced. All varieties are floricane fruiting in the mid to late summer except for the new primocane fruiting varieties released in recent years from the University of Arkansas breeding program. The primocane varieties are all thorny types but thornless varieties are under development. High temperatures (above 85°F) during primocane bloom tend to reduce fruit set in these varieties. In NY and regions of similar climate, most blackberry varieties will suffer cold injury on floricanes from low winter temperatures with thorny erect being generally most hardy followed by thornless semi-erect and trailing. Overwintering in closed high tunnels has been successful in avoiding winter damage in trials. A description of the types follows.

Thorny blackberries (erect)

Blackberries are more vigorous than red raspberries and benefit from summer pruning. Thorny blackberry (erect) canes are tipped when 0.9 to 1.2 m in height to stiffen the canes and encourage lateral branching. The laterals can be shorted in early spring to 30 to 40 cm in length and canes thinned to 5 canes per meter of 30 cm wide row. Longer laterals will produce more but smaller fruit. Alternate year mowing can be used to avoid the difficult job of pruning thorny blackberries. In this procedure, half the planting is mowed each year with the other half allowed to fruit with only minimal pruning and row width management.

Thornless blackberries (semi-erect)

For two years after planting, many semi-erect blackberry varieties tend to grow close to the ground like a vine. The trailing canes may need to be moved into the row to allow for cultivation and mowing. After two years, the canes become more upright and naturally branched. Growers often take special

precautions in colder growing regions to protect thornless cultivars because of their increased cold sensitivity. Some growers will tip the canes at 60 cm to better able to protect them from the cold. In the spring, the canes should be tied at least 90 cm about the ground to trellis wires. Fruiting canes can be shortened to the height of the top wire or woven around the wire with 60 to 80 cm of overlap with the next plant. Laterals should be shortened to 45 cm and lower ones removed. Thinning to 6 to 8 canes per hill will maintain acceptable production and aid in weed control.

Trailing blackberries (thornless and thorny)

Trailing blackberries are not cold hardy and generally not productive in most cold climate locations. These varieties produce canes that grow along the ground and must be physically tied to a trellis for production to keep the fruit off the ground. Overwintering in cold climates is done by removing the canes from the trellis and laying them on the ground and covering with an insulating material. Cold damage still occurs in many cases, reducing yields considerably. They are not recommended for NY and regions of similar climate. Varieties include Marion, Evergreen, Black Diamond, Obsidian, Olallie and others and will not be described further in this review.

<u>Thorny</u>

Darrow (Cornell University, NY) produces large, long conic and often irregular, black, glossy fruit in the late season. The fruit is mildly sub-acid with good quality. Secondary fruiting laterals produce fruit into the early fall. The erect canes are vigorous and winter hardy for a blackberry.

Illini Hardy (University of Illinois) fruit is medium sized with good flavor and quality but acidic until fully ripe. Ripens in the late season. Canes are erect and vigorous with good winter hardiness. It suckers mainly from the crown and is resistant to Phytophthora root rot.

Kiowa (University of Arkansas) produces large fruit on erect canes. Yield potential is moderate over a long harvest period (6 weeks).

Shawnee (University of Arkansas) produces high yields over an extended period late into the season. The fruit quality is good but tends to be soft and is suitable for local markets.

Primocane varieties (thorny)

Prime Ark 45 (University of Arkansas) is a late season primocane fruiting variety. Harvest is too late for NY outside of tunnels (up to 2 weeks after Prime Jim) and may be too late in tunnels as well except in more southern locations. The canes are erect and produce firm, medium sized berries.

Prime Jan (University of Arkansas) is a late season primocane fruiting variety but is the earliest available at this time. It produces medium sized berries in September-October in Geneva, NY with only modest productivity. The fruit is generally too soft for shipping and is suitable for home growers and local markets. The canes are semi-erect and require trellising for good production.

Prime Jim (University of Arkansas) is a late season primocane fruiting varieties that produces a few days after Prime Jan. The fruit is medium sized and moderately firm but still only suitable for local markets and home growers. The canes produce in September-October in Geneva, NY with only modest productivity. The canes are semi-erect and require trellising for good production.

<u>Thornless</u>

Apache (University of Arkansas, USA) produces conical fruit with good quality and flavor and ripens mid-season with high production. Sunburn can be a problem following rain. The fruit is well presented for picking. Erect, strong canes are self-supporting. Canes are vigorous and prolific. It is resistant to orange rust. Winter hardiness is similar to other thornless varieties.

Arapaho (University of Arkansas) produces medium sized, firm berries with smaller seeds than most varieties. It produces in the early season with a concentrated harvest season. The canes are moderately vigorous and erect for a thornless type with reported good hardiness. It is reported to be resistant to orange rust.

Black Satin (USDA, Illinois, USA) ripens late with large, firm and dull black berries that are slightly tart. These plants are very vigorous, semi-erect, productive, and resistant to anthracnose. More winter hardy than 'Thornfree' but not outstanding. Fruit is excellent for jams, jellies, and pies and more suitable for the local market.

Chester (USDA/Southern Illinois University). The late ripening fruit is somewhat difficult to pick but is of high storage quality with little breakdown. It produces high yields of medium sized fruit with average flavor. The glossy black color and firmness holds well in hot weather, and the variety does well in high tunnels. Vigorous canes are semi-erect. Chester is considered the hardiest of the thornless cultivars. It is resistant to cane blight. Flowers are lavender colored.

Dirksen Thornless (USDA/Southern Illinois University) produces large berries with low acidity. The color can be slightly dull when fully mature. They ripen in the early season. Canes are vigorous, semierect and moderately winter hardy. It grows mainly in a crown with few suckers. It is tolerant to Septoria leaf spot and anthracnose and moderately tolerant to powdery mildew.

Doyle (private breeder, Texas) is a very vigorous midseason cultivar capable of producing high yields. Fruit quality and size are average outdoors; quality is significantly higher in tunnels.

Loch Ness (SCRI, United Kingdom) produces large glossy black fruit with good quality suitable for local markets. The canes are semi-erect and moderately vigorous with hardiness equal to 'Chester'.

Natchez (University of Arkansas) is the earliest ripening thornless variety with high production potential. The fruit is large with good flavor. The canes are semi-erect and require trellising for good performance. Cold hardiness is unknown but expected to be only average.

Navaho (University of Arkansas) produces high yields of small fruit with very good flavor. The fruit is firm and stores well. The new canes (non-bearing primocanes) are very vigorous and benefit from tipping at 5-6 ft. several times during the season.

Ouachita (University of Arkansas) produces high yields of medium sized berries with good flavor and firmness. The very erect canes show poor cold hardiness and are at risk for significant winter injury in northern regions. The plants are resistant to orange rust, anthracnose and double blossom/rosette disorder. Harvest starts a week after Arapaho and a week before Navaho.

Triple Crown (USDA, Maryland, USA) has large, sweet aromatic berries with excellent flavor and is very productive. Canes are semi-erect, vigorous and sturdy, but have insufficient cold hardiness for most northern regions except in tunnels where they do well.

The information, including any advice or recommendations, contained herein is based upon the research and experience of Cornell Cooperative Extension personnel. While this information constitutes the best judgment/opinion of such personnel at the time issued, neither Cornell Cooperative Extension nor any representative thereof makes any representation, endorsement or warrantee, express or implied, of any particular result or application of such information, or regarding any product. Users of any product are encouraged to read and follow product-labeling instructions and check with the manufacturer or supplier for updated information.

Cornell University provides equal program and employment opportunities.