

# BLACKBERRY CULTIVARS

FOR **O**REGON

C.E. Finn and B.C. Strik

There are three main types of blackberries grown: trailing, erect, and semi-erect. Several hybrids between raspberry and trailing blackberry have been developed, including 'Logan', 'Tayberry', and 'Boysen'. Since these grow like a trailing blackberry and need to be managed in the same way, this publication includes them with that group.

In this publication we briefly describe each type of blackberry. Tables 1–5 list the primary cultivars in approximate order of ripening within each type.

**Trailing blackberries.** The main species in the background of the trailing blackberry is *Rubus ursinus*, which is native along the Pacific Coast from British Columbia, Canada, to California, and inland to the Idaho mountains. Trailing blackberries produce vigorous primocanes (first-year, vegetative canes) from the base (crown) of the plant. Primocanes trail along the ground and may grow to 20 feet long. Primocanes are produced only from the crown, not from roots, so this type of blackberry is less invasive than many others. A trellis is needed to support the canes.

Second-year canes, known as floricanes, produce fruit. In general, trailing blackberries produce berries that are long in shape, have relatively small seeds, and have a highly aromatic, intense flavor.

In Oregon, fruit ripens from mid-June to August, depending on cultivar. The fruiting season for each cultivar lasts about 4 weeks.

Trailing blackberries are considered the least coldhardy of the three types of blackberries. Expect damage to buds and canes when temperatures drop below about 13°F in December or early January. Plants are more sensitive to cold in late fall and late winter, when damage might occur at much warmer temperatures (in the 20s°F). Trailing blackberries grow well west of the



Metolius (trailing)

Cascades in Oregon and southern Washington, although some damage might occur in particularly cold winters.

The USDA-ARS—Oregon State University cooperative breeding program developed and released 'Pacific' and 'Cascade' in the 1940s. However, the release of 'Olallie' and its offspring 'Marion' in the 1950s really changed the commercial blackberry industry. The USDA-ARS—OSU cooperative breeding program continues to breed this type of blackberry, with a primary goal of producing thornless blackberries for processing and fresh markets.

A second species of trailing blackberry, *Rubus laciniatus* (the cutleaf or evergreen blackberry), was



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imported from Europe in the late 1800s and led to what is still a strong industry in Oregon. 'Evergreen' and another introduced species from Europe, 'Himalaya' (*Rubus procerus*, syn. *R. armeniacus*), have naturalized throughout much of the Pacific Northwest and are considered noxious weeds.

Trailing blackberry cultivars are listed in Table 1 (pages 4–6).

Erect blackberries were developed from very different eastern native blackberries. Erect blackberries produce stiff, upright canes that may grow to 12 feet in Oregon if left unpruned. Plants can colonize an area by producing new primocanes (suckers) from the roots. Plants form a hedgerow and benefit from having some trellis support. Summer prune or tip primocanes to encourage branches and increase fruit production on the second-year floricanes.

Erect blackberries produce fruit with relatively large seeds. Flavor and aroma are not considered as intense as in many of the trailing blackberry cultivars. Although many erect blackberries taste good, berries often have a "grassy," "green," or bitter flavor that some people don't like. These berries are commonly grown for the fresh market, as the berries are firmer than most trailing types.

In Oregon, fruit ripens from early July to August. Most available cultivars come from the University of Arkansas breeding program and have Native American names.

Erect blackberry cultivars are listed in Table 2 (page 7).

Primocane-fruiting erect blackberries are a recent development (2005) from the University of Arkansas. This is the only type of blackberry that produces fruit on the tips of the primocanes or on primocane branches. This characteristic offers advantages for easier management, as the canes can be cut to the ground in the dormant season, and fruit is produced from late summer through early fall. The fruit ripens from September through October, depending on the climate.

Primocane-fruiting blackberries will produce a floricane crop the following year on the part of the cane that did not fruit the previous fall; however, we recommend growing these cultivars only for a fall crop. See *Growing Blackberries in Your Home Garden* (EC 1303) for more information.

Primocane-fruiting erect cultivars are listed in Table 3 (page 8). The first primocane-fruiting cultivars have fair quality, but we expect better cultivars to be released in the near future.

**Semi-erect blackberry** plants are thornless and produce very vigorous, thick, erect canes from the crown. The canes grow up to 20 feet long and arch to the ground if left unpruned. No primocanes are produced from the roots. Prune primocanes in summer to encourage branching and increase fruit production on the second-year floricanes. A trellis is required to support canes.

Semi-erect blackberries will, in general, produce a higher yield than trailing or erect types. Fruit quality is similar to that of erect blackberries.

In Oregon, fruit ripens from late July to early October, depending on cultivar. Many of the available cultivars were developed by the USDA-ARS in Illinois and Maryland.

The introduced weed, 'Himalaya,' has a growth habit most similar to the semi-erect types.

Semi-erect cultivars are listed in Table 4 (pages 9–10).

Blackberry/red raspberry hybrids generally have been developed unintentionally. Most have been found in plots or in the wild where red raspberry has been grown with *R. ursinus*. Despite their purple-to-red fruit color, they are technically blackberries because the receptacle (white core) comes off with the fruit when it is picked. (In red raspberries, the receptacle stays on the plant.)

These hybrids are considered trailing blackberries due to their growth habit. While 'Boysen' and 'Logan' historically have been very important in the commercial industry, commercial acreage of these hybrids, particularly 'Logan', has declined steadily. Other hybrids that are sold occasionally include 'Tayberry' and 'Tummelberry'.

Blackberry/raspberry hybrids are listed in Table 5 (page 11).

#### **Cultivar notes**

Tables 1–5 list the primary cultivars of each type of blackberry. Within each type, cultivars are listed in approximate order of ripening.

Note that not all of the listed cultivars are available in nurseries.

For more information on growth habit and how to manage blackberries, see *Growing Blackberries in Your Home Garden*, EC 1303.

#### Fruit descriptions and yield

Yield ratings are based on comparison to other cultivars of the same type.

Assessments of fruit quality, including flavor, were primarily based on plants grown in Corvallis or Aurora, Oregon. These traits, particularly flavor, can vary tremendously based on location (especially temperature and rainfall), cultural practice, and, of course, personal preference.

#### **Commercial value**

A commercial value score is provided to help commercial growers select appropriate cultivars:

- 1 = Appropriate for most commercial operations for fresh or processed markets
- 2 = May have commercial value but:
  (a) not enough is known about its performance, or
  (b) may meet a specific requirement
  (e.g., unique color or very early harvest), but has a negative trait such as low yield or poor shipping quality
- 3 = Unlikely to have good commercial value

#### Home gardens

Cultivars that are well suited to home garden production are noted as such.



**Black Diamond (trailing)** 



Marion (trailing)



Boysen (blackberry/red raspberry hybrid)

# **Table 1. Trailing blackberry cultivars**

Cultivars are listed in approximate order of ripening.

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Obsidian	Very vigorous, thorny	Large, good firmness, black, fair shape, excellent flavor, very early ripening	Very high	Primarily fresh but processes well	•	1 (particularly early- season fresh)	•
Metolius	Vigorous, thorny	Medium size, firm, black, excellent uniform shape, excellent flavor, very early ripening	High	Primarily fresh but processes well	•	2	•
Silvan	Very vigorous, thorny	Large, soft, dark purple, fair shape, excellent flavor	Very high	Processed	•	2 (very soft and does not hold up in heat)	•
Siskiyou	Vigorous, thorny	Very large, firm, dark purple, excellent but blunt-tipped shape, excellent flavor, early ripening	Varies from low to high	Primarily fresh but processes well	•	2 (excellent, fresh ship- ping quality but variable yield from year-to-year and field-to-field)	•
Black Butte	Vigorous, thorny	Extremely large (2"+ long!), fair firmness, black, very uniform shape, fair flavor, early ripening	Medium	Fresh only, processed quality is fair	•	3 (novelty for very large, attractive fruit)	•
Cascade	Vigorous, thorny	Small to medium, soft, purple, excellent flavor, early ripening	Low to medium	Processed	•	3 (not productive enough)	•
Pacific	Vigorous, thorny	Small, soft, purple, excellent flavor but more acidic than 'Cascade', early ripening	Low to medium	Processed	•	3 (not productive enough)	•
Santiam	Very vigorous, thorny	Small to medium, soft, black, excellent flavor	Medium	Processed	•	3	•

# Table 1. Trailing blackberry cultivars (continued)

Cultivars are listed in approximate order of ripening.

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Olallie	Very vigorous, thorny	Medium size, soft, black, lumpy shape, excellent flavor, early ripening	Low to medium	Primarily fresh but processes well	•	3 (was grown com- monly in California for U-pick and fresh sales, but in Oregon it is lower yielding and more sensi- tive to winter cold injury than 'Marion')	• (but 'Marion' is better)
Black Diamond	Vigorous, thornless	Large, firm, black, very uniform shape, good flavor	Medium to high	Fresh or processed	•	1	•
Kotata	Very vigorous, very thorny	Small to medium, good firm- ness, dark purple, uniform shape, excellent flavor	Medium	Fresh or processed	•	2 (may be difficult to market processed, but popular for fresh market)	
Marion (often called "marion- berry")	Very vigorous, thorny	Medium size, soft, dark purple, uneven shape, excellent flavor	High	Processed	•	1	•
Black Pearl	Vigorous, thornless	Medium size, moderate firmness, black, uniform shape, somewhat angular (vs. rounded) drupelet shape, excellent flavor	Medium to high	Processed	•	2 (too early to evaluate, but expect it will do well as a processed cultivar)	•
Wild Treasure (ORUS 1843-3)	Thornless, very vigorous, but thin canes (Canes break easily, so commercial growers should use alternate-year production systems or train canes very gently to avoid breakage.)	Small, medium firmness, dark purple, very uniform shape, excellent flavor	Low to high, depending on amount of damage during cane training	Processed, particularly small fruit market	•	2 (too early to evaluate but expect it will do well processed for small- berry, intense-flavor market)	•

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# Table 1. Trailing blackberry cultivars (continued)

Cultivars are listed in approximate order of ripening.

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Nightfall	Vigorous, thornless	Medium size, good firmness, black, good but tart flavor, late ripening	High	Processed	•	2 (fruit not similar enough in quality to compete with 'Marion')	
Waldo	Vigorous, thornless	Medium size, good firmness, black, good flavor, late ripening	High	Processed	•	2 (fruit not similar enough in quality to compete with 'Marion')	
Thornless Evergreen	Vigorous, thorn- less (This is a thornless form of 'Evergreen', but the plant is not geneti- cally thornless; when the canes are injured or pruned, thorny canes can be produced. See 'Everthornless' (below) for the genetically thorn- less clone of this cultivar.)	Small, soft, black, mild but good flavor, August–September ripening season, prone to gray mold after fall rains	High	Processed	•	1 (commercially grown, but fruit not similar enough in quality to compete with 'Marion')	
Everthornless	Vigorous, thorn- less, this plant will always be thornless	Small, soft, black, mild but good flavor, August–September ripen- ing season, prone to gray mold after fall rains	High	Processed	•	1 (commercially grown, but fruit not similar enough in quality to compete with 'Marion')	•

# **Table 2. Erect blackberry cultivars**

Cultivars are listed in approximate order of ripening.

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Cherokee	Vigorous, very thorny	Medium size, firm, tough skin, black, glossy, round, lumpy, fair flavor	Medium	Fresh		1 (ships fresh very well)	
Arapaho	Low to moder- ate vigor, thorn- less, susceptible to primocane tip dieback	Small to medium, firm, tough skin, black, glossy, round, lumpy, prone to sunburn (UV damage), fair flavor	Low	Fresh		3 (may be of higher value in areas without tip dieback)	
Natchez	Vigorous, thornless	Large to very large, very firm, black, glossy, picks easily; seedy, fair flavor	Medium	Fresh		2 (probably good but too new to tell)	
Shawnee	Vigorous, very thorny	Medium to large, moderately firm, black, glossy, round, lumpy, prone to sunburn (UV damage), fair flavor	Medium	Fresh		3 (not firm enough to ship reliably)	
Kiowa	Vigorous, very thorny	Medium to large, good firmness, tough skin, black, glossy, oblong, fair flavor	Medium	Fresh		1 (ships fresh reasonably well)	
Chickasaw	Vigorous, very thorny	Large to very large, fair firmness, tough skin, black, glossy, round, very lumpy, seedy, prone to sun- burn (UV damage), poor flavor	Medium	Fresh		2	
Ouachita	Vigorous, very thorny	Medium size, firm, tough skin, attractive, black, glossy, round, prone to sunburn (UV damage), poor flavor	Medium	Fresh		2 (too new to fully evaluate)	
Apache	Vigorous, thornless	Large, firm, tough skin, black, glossy, round, lumpy, seedy, prone to sunburn (UV damage), fair flavor	Medium	Fresh		2 (too new to fully evaluate)	

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### **Table 2. Erect blackberry cultivars** (continued)

Cultivars are listed in approximate order of ripening.

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Navaho	Moderate vigor, thornless	Small to medium, firm, tough skin, attractive, black, glossy, round, good flavor	Medium	Fresh		1 (ships fresh very well)	•

### Table 3. Primocane-fruiting erect blackberry cultivars

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Prime-Jan	Very vigorous, very thorny	Medium to large, soft to medium-firm, moderately tender skin, black, glossy, seedy, fair flavor, season is from late August to first frost.	Medium	Fresh		2 (too new to fully evaluate)	•
Prime-Jim	Vigorous, very thorny	Large, soft to medium-firm, moderately tender skin, black, glossy, seedy, fair flavor, season is from late August to first frost	Medium	Fresh		2 (too new to fully evaluate)	•

### Table 4. Semi-erect blackberry cultivars

Cultivars are listed in approximate order of ripening.

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Loch Tay	Moderate vigor, thornless	Small, fair firmness, attractive, black, glossy, round, fair flavor, very early ripening	Medium	Fresh		2 (earliest ripening semi- erect cultivar)	
Loch Ness	Moderate vigor, thornless	Medium, fair firmness, attractive, black, glossy, oblong, prone to sunburn (UV damage), fair flavor	Medium	Fresh		1 (ships fresh very well)	
Hull Thornless	Vigorous, thornless	Medium size, fair firmness, black, glossy, round, prone to sunburn (UV damage), fair flavor	Medium	Fresh		2 (too soft to ship well)	
Triple Crown	Vigorous, thornless	Medium to large, fair firmness, attractive, black, glossy, round, lumpy, prone to sunburn (UV damage), good flavor	Medium	Fresh		2 (can be shipped but must be handled gently)	•
Doyle's	Vigorous, thornless	Small to medium, fair firmness, black, glossy, round, lumpy, noticeable large seeds, poor to fair flavor	Medium	Fresh		3	

Note: 'Doyle's' is occasionally widely advertised nationally with particular focus on its high yields. In our trials at the North Willamette Research and Extension Center, Aurora, Oregon, yield is good but not outstanding, and the fruit size and quality are less than the standard cultivars such as 'Chester Thornless' and 'Triple Crown'.

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# Table 4. Semi-erect blackberry cultivars (continued)

Cultivars are listed in approximate order of ripening.

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Black Satin	Moderate vigor, thornless	Small to medium, soft, attractive, black, glossy, round, prone to sunburn (UV damage), fair flavor	Medium	Fresh		3	
Smoothstem	Vigorous, thornless	Small to medium, soft, attractive, black, glossy, round, prone to sunburn (UV damage), fair flavor	Medium	Fresh		3	
Dirksen Thornless	Vigorous, thornless	Small to medium, soft, attractive, black, glossy, prone to sunburn (UV damage), poor flavor	Medium	Fresh		3	
Thornfree	Vigorous, thornless	Small to medium, soft, black, glossy, round, lumpy, prone to sunburn (UV damage), fair flavor	Medium	Fresh		3	
Chester Thornless	Vigorous, thornless	Small to medium, firm, tough skin, attractive, black, glossy, round, prone to sunburn (UV damage), fair flavor	Very high	Fresh		1 (ships fresh very well)	

# Table 5. Blackberry/red raspberry hybrids

Cultivars are listed in approximate order of ripening.

Cultivar	Plant	Fruit	Yield	Market	Machine harvest	Commercial value	Home garden
Logan (often called "loganberry")	Moderate vigor, thorny ('Thornless Logan' is available, but it is not geneti- cally thornless and will produce thorny canes), canes are susceptible to disease	More like raspberry than black- berry in color and flavor, medium size, deep raspberry color and shape, excellent firmness but tender skin, excellent but distinc- tive flavor, hard to pick	Low to medium	Processed		2 (can't be picked well by machine)	•
Tayberry	Moderate vigor, thornless	Medium size, glossy, reddish purple, good firmness but tender skin, excellent but unique tart flavor, very hard to pick, fruit damaged easily by hot weather	Low	Processed		2 (while successful niche markets have been developed, low yield and difficulty of harvest make this nearly impossible to produce economically)	•
Boysen (often called "boysenberry")	Very vigorous, thorny (Thorn- less "clones" are not genetically thornless and will produce thorny canes.)	Large, soft, lumpy, purple, unique and very good flavor	High	Processed	•	1	•

Note: 'Nectarberry' and 'Youngberry' are very similar to 'Boysen.'

# What if you find a cultivar that's not on these lists?

Find out as much about it as you can, such as its growth habit, hardiness, fruit characteristics, disease susceptibility, and machine harvestability (commercial growers).

Remember that if you purchase a cultivar that is not on these lists, it probably has not been extensively tested in Oregon.

It's best to try some plants first and see how well the cultivar grows and how you like the fruit.



Navaho (erect)



Triple Crown (semi-erect)

#### For more information

Growing Blackberries in Your Home Garden, EC 1303 (revised 2008)

Web: extension.oregonstate.edu/catalog/

Fax: 541-737-0817

E-mail: puborders@oregonstate.edu

Phone: 541-737-2513

#### **Online information**

USDA Agricultural Research Service Small Fruit Breeding Program http:///www.ars.usda.gov/Research/docs.htm?docid=15551

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Trade-name cultivars are listed as illustrations only. The OSU Extension Service does not endorse any listed cultivar or intend any discrimination against others not listed.

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