

Raspberry Cultivars for the Pacific Northwest

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'Meeker' (floricane-fruiting)

There are two main types of raspberries: red and black. Yellow-fruited raspberries result from a mutation of red raspberries that prevents the formation of red color; they are grown exactly the same as red raspberries. Purple raspberries, a third type, are a hybrid between black and red raspberries.

This publication briefly describes each type of raspberry. Tables 1–4 list cultivars in approximate order of ripening within each type.

Hybrids between blackberry and red raspberry include 'Logan', 'Boysen', and 'Tayberry'. These fruits are blackberries and are included in the OSU Extension publication *Blackberry Cultivars for Oregon* (EC 1617). In blackberries, the core is part of the fruit; in raspberries, the core remains attached to the plant when the fruit is picked.

Raspberry Canes

Although raspberry plants live many years, their canes are biennial, meaning they live 2 years.

Primocanes: First year of growth. Only fall-bearing raspberries produce a significant amount of fruit on primocanes in the late summer and fall.

Floricanes: Second year of growth. Both summer-bearing and fall-bearing raspberries produce fruit on floricanes. Fruit is borne on branches called fruiting laterals. After fruiting, floricanes die.



'Vintage' (primocane-fruited)



'Willamette' (floricane-fruited)

Red Raspberries

Red raspberries (*Rubus idaeus*) are native to northern North America and Eurasia. Cultivated red raspberries were introduced into the United States as long ago as 1771.

Red raspberries produce new canes from buds on roots and from the crown. In the first year, canes are called primocanes. In the second year, they are called floricanes. Canes are pruned out after their second year. Both primocanes and floricanes are present during the growing season.

There are two types of red raspberries. In **floricane-fruited** (summer-bearing) cultivars, the second-year floricanes bear a crop in early summer and the first-year primocanes are vegetative only. **Primocane-fruited** (fall-bearing) cultivars produce a significant amount of fruit at the top of the primocanes in the fall. The easiest way to manage primocane-fruited raspberries is to cut the primocanes to the ground each winter after fruiting. If you keep



'Munger' (black)

them for the second year, however, they will produce a crop on the floricanes the next summer. Because primocane-fruited types can be double cropped, they sometimes are called everbearing raspberries. Red raspberry cultivars are listed in Tables 1 and 2.

Black Raspberries

Black raspberries (*Rubus occidentalis*), sometimes called blackcaps, are native from the Northeast to the Great Plains. The native western black raspberry is *R. leucodermis*.

Black raspberries produce canes only from the crown, not from the roots. Tip primocanes in summer to encourage branching. These canes produce fruit the following year.

In the early 1900s, there were dozens of black raspberry cultivars, and new cultivars were released until about the 1960s. Until recently, there has been little breeding work on black raspberries, and only a handful of cultivars are now commonly available. In the Northwest, nearly the entire commercial crop is 'Munger', a cultivar released in 1890. Black raspberry cultivars are listed in Table 3.

Purple Raspberries

Purple raspberries are a hybrid between black and red raspberries. They tend to be vigorous, crown-forming plants with large, soft fruit. Purple raspberries are generally considered to have only fair quality for fresh use, but they are excellent for processing. Purple raspberry cultivars are listed in Table 4.

Cultivar Table Notes

Tables 1–4 list floricane-fruiting and primocane-fruiting raspberries, black raspberries, and purple raspberries. The descriptions are intended to serve only as a guide in choosing a cultivar that's appropriate for your needs. Performance often varies with location.

Not all of the listed cultivars are available in nurseries; however, these are included in the tables because plants are long lived, and established plantings of older cultivars still exist.

Disease Issues

Most raspberry cultivars are sensitive to Phytophthora root rot; this disease is a much greater problem in Oregon and southern Washington than in northern Washington and British Columbia. Grow raspberries on very well-drained soils and on raised beds or ridges (about 12 to 18 inches high) to promote drainage.

Raspberry bushy dwarf virus (RBDV) is a pollen-borne virus (carried by bees); the primary symptom is crumbly fruit. Usually a raspberry plant infected with RBDV looks normal and is neither bushy nor dwarf. There are no control measures for this virus other than to replant with virus-free stock and choose resistant cultivars. In Tables 1 and 2, assume cultivars are susceptible to RBDV unless otherwise noted.

Fruit Descriptions and Yield

Descriptions of yield and berry size are primarily based on results of trials by the USDA-ARS/OSU cooperative breeding program at the OSU North Willamette Research and Extension Center in Aurora, Oregon, and the Washington State University breeding program in Puyallup, Washington. If a cultivar has not been tested at these sites, yield and berry descriptions are based on grower experience. Yield ratings are based on comparison to other cultivars of the same type. Red raspberries are generally more productive than black raspberries.

Use

Most berries sold in the fresh market are hand harvested, firm, and bright red. They have a shelf life of several days if properly handled and refrigerated. Berries grown for processing are machine harvested and have intense red color and flavor.

Machine Harvest

Cultivars adapted to machine harvest have good plant architecture, easy fruit release from the receptacle when the berry is ripe, and fruit that is firm enough for individually quick frozen (IQF) markets. Machine-harvested fruit will not store for more than a few hours after harvest.

Commercial Production

A commercial value score is provided to help commercial growers select appropriate cultivars for fresh and processed markets:

- 1 = Appropriate for most commercial operations
- 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 (e.g., low yield or poor shipping quality)
- 3 = Unlikely to have good commercial value

Small Farm, U-Pick, and Home Gardens

Cultivars that are well suited to small farms, local sales, U-pick farms, and home gardens are noted as such. However, we advise home gardeners not to grow cultivars that are susceptible to root rot west of the Cascades, except where there is very good drainage.

Cold Hardiness

Cold hardiness is indicated if information is available. Grow only cold-hardy cultivars east of the Cascades. Primocane-fruiting raspberries can be grown in most cold regions if only a primocane, and not the floricane, crop is produced. Many cultivars from eastern U.S. nurseries might be well adapted to eastern Oregon, eastern Washington, and Idaho.

Table 1. Floricane-fruited (summer-bearing) cultivars: Red-fruited unless otherwise noted

Floricane-fruited raspberries can be grown for fresh or processed markets. Cultivars are listed in approximate order of ripening. The harvest season of Meeker starts about June 20 in Oregon's Willamette Valley and about July 4 in Puyallup and Lynden, Washington. Cultivars are susceptible to *Raspberry bushy dwarf virus* (RBDV) unless otherwise noted.

Cultivar	Disease issues	Plant	Fruit	Yield	Use	Machine harvest	Large-scale commercial value	Small farm or home garden	Cold hardy
Prelude (U.S. Plant Patent 11,747)	Resistant to root rot	Moderate vigor	Small size, soft, dull, medium red, good flavor, very early florican crop, also produces small primocane crop	Low to medium	Fresh		3	✓	✓
Cascade Dawn (U.S. Plant Patent 17,985)	Some tolerance to root rot, immune to RBDV	Vigorous	Medium to large size, medium firmness, attractive, bright dark red, very good flavor, difficult fruit release unless fully ripe	Medium	Fresh		2 (nursery plants may not be available)	✓	
Malahat	Very susceptible to root rot	Vigorous	Medium to large size, medium firmness, attractive, bright red, very good flavor	Low to medium	Fresh		2 (high quality, low yield)		
Willamette	Susceptible to root rot, immune to RBDV	Vigorous	Medium size, soft, dark red, very good flavor	Medium	Processed	✓	1	✓	
Rudi	Moderately susceptible to root rot	Medium vigor	Medium to large size, medium to dark red, good flavor	High	Fresh and processed	✓	2 (too new to fully evaluate but expected to be fine)	✓	
Chilcotin	Susceptible to root rot, immune to RBDV	Vigorous	Medium size, medium firmness, attractive, bright light red, good flavor	Medium	Fresh		2	✓	
Boyne	Tolerant to root rot, immune to RBDV	Vigorous	Medium size, soft, dark red, good flavor	Medium	Fresh		3	✓	✓
Canby	Susceptible to root rot	Very vigorous	Medium size, medium firmness, attractive, bright red, very good flavor	Low to medium	Fresh		3	✓	✓

(Table continues)

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Cultivar	Disease issues	Plant	Fruit	Yield	Use	Machine harvest	Large-scale commercial value	Small farm or home garden	Cold hardy
Latham	Resistant to root rot, immune to RBDV	Moderate vigor	Small size, crumbly, medium red, only fair flavor	Medium	Fresh		3		√
Killarney	Moderate resistance to root rot, immune to RBDV	Moderate vigor	Medium size, soft, medium to dark red, sweet, excellent flavor	Medium	Fresh		3	√	√
Cascade Gold	Very susceptible to root rot, immune to RBDV	Vigorous	Large size, yellow fruit, excellent flavor, retains good flavor even when picked at firm stage	Medium to high	Fresh		2 (limited market for yellow types)	√	
Cascade Bounty (U.S. Plant Patent 18,246)	Excellent resistance to root rot	Vigorous	Medium size, medium firmness, can be a bit lumpy, bright red, fair flavor	High	Processed	√	2	√	√
Chemainus	Somewhat sensitive to root rot	Vigorous	Medium size, firm, bright red, very good flavor	Medium	Fresh or processed	√	1	√	
Saanich	Susceptible to root rot	Vigorous	Medium size, good firmness, dull red, good flavor	Medium	Processed	√	2		
Meeker	Somewhat sensitive to root rot	Vigorous	Medium size, medium firmness, medium red, good flavor	High	Processed	√	1		√
Tulameen	Very susceptible to root rot	Vigorous	Large to very large size, firm, very attractive, bright red, excellent flavor	Medium	Fresh		2 (high susceptibility to root rot limits commercial potential in this region)	√	

(Table continues)

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Cultivar	Disease issues	Plant	Fruit	Yield	Use	Machine harvest	Large-scale commercial value	Small farm or home garden	Cold hardy
Cascade Delight (U.S. Plant Patent 14,522)	Tolerant to root rot	Very vigorous	Very large size, very firm, attractive, bright red, excellent flavor	Medium to high	Fresh		1 (hand pick fresh only)	✓	
Wakefield (U.S. Plant Patent 21,185)	Relatively new but appears to develop RBDV slowly, if at all	Vigorous, primocanes not very self-supporting	Small to medium size, very firm, a bit dull in color, good flavor	High	Processed	✓	1 (available only to licensed growers; sold only as tissue-cultured plants)		
Lewis	Somewhat tolerant to root rot	Vigorous	Large size, firm, bright red, very good flavor	Medium to high	Fresh or processed	Unknown at this time	2 (difficult to obtain)	✓	

Table 2. Primocane-fruiting (fall-bearing) cultivars: Red- and yellow-fruited

Primocane-fruiting raspberries are grown primarily for the fresh market and harvested by hand. Cultivars are listed in approximate order of ripening. The fruiting season for the primocane crop of Heritage starts around August 20 in the Oregon's Willamette Valley; Autumn Bliss is about 2 weeks earlier. Yield and cold hardiness evaluations are based on the primocane crop only. Cultivars are susceptible to *Raspberry bushy dwarf virus* (RBDV) unless otherwise noted.

Cultivar	Disease issues	Plant	Fruit	Yield	Large-scale commercial value	Small farm or home garden	Cold hardy
Autumn Bliss (U.S. Plant Patent 6,597)	Good resistance to root rot	Moderate vigor	Large size, moderate firmness, attractive, medium red, mild flavor	Medium	2 (early season)	✓	✓
Autumn Britten		Moderate to good vigor	Large size, moderate firmness, attractive, bright red, mild flavor	Low to medium	2 (early season)	✓	✓
Amity		Moderate vigor	Small size, medium firmness, attractive, bright red, very good flavor	Medium	3	✓	✓
Vintage (U.S. Plant Patent 24,198)	Some sensitivity to root rot	Moderate vigor	Large size, firm, attractive, bright red, outstanding flavor	Medium to high	2 (too new to fully evaluate but expected to be fine)	✓	✓

(Table continues)

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Cultivar	Disease issues	Plant	Fruit	Yield	Large-scale commercial value	Small farm or home garden	Cold hardy
Anne (U.S. Plant Patent 10,411)	Susceptible to root rot	Vigorous	Large size, soft to medium firmness, attractive, bright yellow, excellent flavor	Medium to high	1 (market for yellow types may be limited)	✓	✓
Caroline (U.S. Plant Patent 10,412)	Susceptible to root rot	Vigorous	Large size, moderate firmness, attractive, medium red, good flavor	High	1	✓	✓
Fallgold		Moderate vigor	Medium size, very soft, gold color, excellent flavor	Medium	3	✓	✓
Joan J (U.S. Plant Patent 18,954)	Susceptible to root rot	Vigorous	Small to medium size, firm, very dark red, mild flavor	Medium	2	✓	✓
Jaclyn (U.S. Plant Patent 15,647)	Resistant to root rot	Very vigorous, susceptible to leaf rust	Small size, very long narrow berry, dark red, hard to pick	Low to medium	3		✓
Himbo Top ('Rafzaqu'; U.S. Plant Patent 19,512)	Some resistance to root rot	Vigorous	Small size, early ripening, dark red, mild flavor	Medium	3		✓
Polka	Low susceptibility to root rot	Vigorous	Medium to large size, firm, attractive, dark red, mild but good flavor	Medium to high	1	✓	✓
Polana		Vigorous	Small to medium size, dark red	Medium	3		✓
Heritage	Immune to RBDV	Vigorous	Medium size, firm, attractive, bright red, bland, ripens late so has short fruiting season in cold climates	Low to high (low yield in cold climates with short season)	1	✓	✓

(Table continues)

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Cultivar	Disease issues	Plant	Fruit	Yield	Large-scale commercial value	Small farm or home garden	Cold hardy
Kiwigold (U.S. Plant Patent 11,313) (Goldie or Graton Gold are similar)	Immune to RBDV	Vigorous	These are sports of Heritage and differ only in fruit color. Kiwigold is yellow or apricot yellow. Goldie typically is a deep apricot color.	Low to high (low yield in cold climates with short season)	1	✓	✓
Crimson Giant (U.S. Plant Patent applied for)		Moderate vigor	Large size, dull light red color, uneven shape, bland flavor	Moderate	2 (too new to fully evaluate)	✓	✓
Crimson Night (U.S. Plant Patent applied for)		Vigorous	Medium size, very dark ("black") fruit, mild flavor	Low to moderate	3 (novelty)	✓	✓
Josephine (U.S. Plant Patent 12,173)	Good resistance to root rot	Vigorous	Large size, moderate firmness, attractive, bright red, good flavor, ripens late so has short fruiting season in cold climates	Low to high (low yield in cold climates with short season)	1	✓	✓
Nantahala (U.S. Plant Patent 20,689)		Vigorous	Small size, dark red fruit, works well in tunnels in southern Oregon	Very low (unless grown in tunnels)	2		✓

Table 3. Black raspberry cultivars

Most black raspberry cultivars are very similar in growth and fruit characteristics. All except the late-fruiting MacBlack and the primocane fruiting Niwot ripen nearly simultaneously from late June to early July in the area around Portland, Oregon. Most are quite susceptible to Phytophthora root rot and Verticillium wilt.

Cultivar	Plant	Fruit	Yield	Use	Machine harvest	Large-scale commercial value	Small farm or home garden	Cold hardy
Jewel	Vigorous	Medium to large size, good firmness, black, excellent flavor	Low to medium	Fresh		1	✓	✓
Munger (same as Bristol or Cumberland)	Vigorous	Medium size, fair firmness, black, very good flavor	Medium	Processed	✓	1		✓
MacBlack	Vigorous	Medium to large size, good firmness, black, good flavor, ripens 10 to 14 days later than most other cultivars	Low to medium	Fresh		2 (unique for late season)	✓	
Niwot (U.S. Plant Patent applied for)	Primocane-fruiting (fall-bearing). Tip to encourage branching and flowering.	Small to medium size, ripens in September	Low	Fresh		2 (unique for very late season)	✓	✓

Table 4. Purple raspberry cultivars

Purple raspberries generally start fruiting a bit later than florican-fruiting red raspberries.

Cultivar	Plant	Fruit	Yield	Use	Large-scale commercial value	Small farm or home garden	Cold hardy
Brandywine	Vigorous	Large to very large size, soft, purple, excellent flavor	High to very high	Local fresh market or processed	3	✓	✓
Royalty	Vigorous	Large to very large size, soft, purple, excellent flavor	High	Local fresh market or processed	3	✓	✓



'Jewel' (black)

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

Find out as much about it as you can:

- Is it floricanne-fruiting (summer-bearing) or primocane-fruiting (fall-bearing)?
- Does the nursery's description indicate that it's susceptible to any diseases, such as root rot or viruses?
- What's the fruit like?
- Is it suitable for machine harvesting? (important for commercial growers)

Remember: If you purchase a cultivar that is not on these lists, it probably hasn't been extensively tested in this region. It's best to try a few plants first and see how well they grow and how you like the fruit.



'Cascade Gold' (floricane-fruiting)



'Cascade Delight' (floricane-fruiting)



'Cascade Bounty' (floricane-fruiting)



'Tulameen' (floricane-fruiting)

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For More Information

Commercial Red Raspberry Production in the Pacific Northwest (PNW 598). Oregon State University Extension.

Growing Raspberries in Your Home Garden (EC 1306). Oregon State University Extension.

PNW Extension Catalogs

Oregon: <http://extension.oregonstate.edu/catalog/>

Washington: <http://pubs.wsu.edu>

Idaho: <http://www.cals.uidaho.edu/edComm/catalog.asp>

'Heritage' (primocane-fruiting)



'Saanich' (floricane-fruiting)

'Chemainus' (floricane-fruiting)

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