### Strawberry Cultivars for Western Oregon and Washington

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'Totem' (June-bearing)

he cultivated strawberry (Fragaria × ananassa), resulted from a cross between two wild strawberry species: Fragaria virginiana (meadow strawberry), which is native throughout much of North America, and Fragaria chiloensis, which is native to the Pacific coast of North and South America. Colonists in eastern North America sent the meadow strawberry, F. virginiana, back to Europe. A French spy, who was also a botanist, was monitoring the Spanish in Chile and brought plants of F. chiloensis, which had been improved greatly by native South Americans, back to Europe. By chance or design, the two species crossed, and the offspring became the cultivated strawberry we know today.

This publication briefly describes the main types of cultivated strawberries. Tables 1–3 list cultivars within each type that are adapted to conditions west of the Cascades.

### **June-Bearing Strawberries**

The primary type of strawberry is the June-bearing strawberry. These cultivars are sometimes referred to as short-day strawberries because they initiate flower buds the previous summer/fall as the days become shorter. This type of strawberry is commonly grown in perennial matted rows, where runners are encouraged to root within the row each year to establish productive crowns for the following year.

Many California-developed June-bearing strawberry cultivars are available. However, many of these cultivars, including 'Camarosa', 'Chandler', 'Camino Real', 'Gaviota', 'Lassen', 'Tioga', 'Torrey', 'Tufts', and 'Ventana', are not good choices for the Pacific Northwest. The plants tend to be short lived, not very productive, and have poor fruit quality. June-bearing cultivars are listed in Table 1.



### **Everbearing Strawberries**

As people noticed that some types of strawberries bore small fall crops in addition to a spring crop, breeders and hobbyists began selecting for this trait. The result was everbearing strawberries, such as 'Ft. Laramie', 'Gem', 'Ogallala', 'Ozark Beauty', 'Quinault', and 'Rockhill'. Everbearing strawberries tend to have large spring and fall crops, with little fruit in between. An everbearing cultivar is listed in Table 2.

### **Day-Neutral Strawberries**

In the 1970s, day-neutral (remontant) strawberries were developed at the University of California. Day-neutral strawberries flower throughout the growing season as long as temperatures are below 90°F. Periods of hot weather will cause a temporary gap in fruit production. Day-neutral strawberries do not produce as many runners as the other types, so they are usually grown commercially with plastic mulch in a hill system, where runners are removed to maintain individual plants. This type of strawberry can be grown in annual or perennial production systems. Cultivars are listed in Table 3.

Distinguishing between everbearing and day-neutral cultivars can be confusing for the home gardener. Day-neutral cultivars are "everbearing," whereas the old everbearing cultivars produce two distinct crops—one in the spring and one in the fall. Furthermore, both day-neutral and everbearing cultivars are usually sold as "everbearing" in retail nurseries.

### *Fragaria vesca* (Alpine) Strawberries

Fragaria vesca (fraises des bois or woods strawberry) is also commonly found throughout the northern hemisphere. Many "alpine strawberries" have been developed from this species. Cultivars include 'Alpine', 'Baron Solemacher', and 'Ruegen'. Plants are moderately vigorous but have poor durability because they are highly susceptible to viruses (these cultivars often are used as virus indicators). Berries are small, with a bright red external color and pale internal color. They are soft, very aromatic, and have a mild flavor. Berries are suitable only for fresh use. Yields are low, and commercial value is limited.





'Puget Crimson' (top) and 'Puget Reliance' (bottom), both June-bearing





'Seascape' (top) and 'Albion' (bottom), both day-neutral

### **Cultivar Table Notes**

Tables 1–3 list June-bearing, everbearing, and day-neutral strawberry cultivars that are adapted to conditions west of the Cascades. Most of these cultivars are not adapted to colder regions in the Pacific Northwest. In colder regions, choose cultivars that grow well in the Midwest or eastern United States, including 'Allstar', 'Jewel', 'Honeoye', 'Earliglow', 'Clancy', 'Lateglow', 'Annapolis', and 'Cavendish' (June-bearing) or 'Monterey', 'San Andreas', 'Tristar', and 'Tribute' (day-neutral).

Not all of the listed cultivars are available in nurseries.

### **Durability**

Durability refers to how long lived a cultivar might be in the field. Plant viruses and other diseases, particularly root rot, can shorten the productive life of a planting. Some cultivars, such as 'Hood', often bear for only 1 or 2 years, whereas others, such as 'Tillamook', often produce for several years.

### **Fruit Descriptions and Yield**

Descriptions of yield, flavor, 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.

Fruit traits, particularly flavor, can vary tremendously based on location (because of differences in temperature and rainfall), cultural practice, and, of course, personal preference.

"Ease of capping" refers to how easily the fruit pick without the cap or calyx—an important trait for processing.

### **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.

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

Find out as much about it as you can:

- Is it June-bearing, everbearing, or day-neutral?
- Does the nursery's description indicate that it's susceptible to any diseases, such as root rot or viruses?
- What's the fruit like?

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.

### (Table continues)

## Table 1. June-bearing strawberry cultivars

These cultivars have a large spring (May–July) crop and are listed in approximate order of ripening.

Small farm or home garden	<i>?</i>	<i>&gt;</i>	>	>	>	>	>	>
Large-scale commercial value	2 (very early fresh-market niche)	2 (too new to fully evaluate)	2 (despite name recognition and outstanding quality, lack of durability is a real concern; for processed market, have contract in place before planting)	1 (some resistance by buyers in processed markets so confirm with buyer; very attractive for local fresh sales)	2 (too new to fully evaluate)	2 (variable market satisfaction, from fair to excellent)	2 (too new to fully evaluate)	2 (too new to fully evaluate)
Market	Fresh	Fresh or processed	Fresh or processed	Fresh or processed	Processed	Fresh	Processed	Fresh (but processes well)
Yield	Low to medium	High to very high	Medium	High	High	Medium	High to very high	Medium to high
Fruit	Medium to large size, bright red and glossy external color, pale red internal color, fair capping, firm, uniform conic shape, poor processed quality, good flavor	Medium to large size, bright red and glossy external color, deep red internal color, good capping, uniform shape, excellent flavor and processed quality	Medium to large size, bright red internal and external color, easy capping, medium firmness, uneven shape, good processed quality, excellent flavor	Large to very large size, bright red external color, pale red to red internal color, glossy, attractive, good firmness but tender skin, uniform shape, good processed quality, good flavor	Large, consistent size from first to last pick, deep red external color, medium red internal color, very uniform, attractive shape, good firmness but tender skin, good processed quality, good flavor	Medium to large size, bright red external color, pale red to red internal color, poor capping, tough skin, variable shape, fair processed quality, very good flavor	Medium size, bright red internal and external color, excellent capping, tender skin, excellent processed quality, very good flavor	Medium to large size, bright red internal and external color, beautiful and glossy, symmetrical conic shape, tough skin, excellent flavor
Plant	Vigorous, poor durability, very susceptible to root rot	Vigorous, durable	Vigorous, poor durability, sensitive to viruses	Vigorous, very good durability	Vigorous, very good durability, tolerant to root rot	Vigorous, good durability	Very vigorous, excellent durability	Vigorous, susceptible to Phytophthora crown rot
Season	Very early	Early	Early	Early to midseason	Early to midseason	Midseason	Midseason	Midseason
Cultivar	Honeoye	Sweet Sunrise (U.S. Plant Patent pending)	Роод	Puget Reliance (U.S. Plant Patent 9,310)	Valley Red	Shuksan	Charm (U.S. Plant Patent pending)	Sweet Bliss

Table 1. June-bearing strawberry cultivars

These cultivars have a large spring (May-July) crop and are listed in approximate order of ripening.

Cultivar	Season	Plant	Fruit	Yield	Market	Large-scale commercial value	Small farm or home garden
Tillamook	Midseason	Moderate vigor, excellent durability	Large to very large size, bright red external color, red internal color, caps well, very firm, moderately tough skin, very good processed quality, good flavor but bland if not fully ripe	High to very high	Fresh or processed	-	>
Totem	Midseason	Vigorous, good durability	Medium to large size, bright red external and internal color, caps well, good firmness, tender skin, excellent processed quality, very good flavor	Medium to high	Processed	1	>
Sequoia	Midseason	Moderate vigor	Can have large, dark red fruit with production extending over a longer season than most June- bearing cultivars	Medium	Fresh	8	√ (home garden only)
Benton	Midseason to late	Very vigorous, excellent durability	Medium size, bright red external color, pale internal color, caps well, medium to firm, tender skin, poor frozen color and texture, excellent flavor	Medium to high	Fresh	2 (local fresh)	>
Rainier	Midseason to late	Vigorous, good durability	Medium to large size, bright red internal and external color, poor capping, fair firmness, excellent quality, excellent flavor	Medium	Fresh	2 (local fresh)	7
Puget Crimson (U.S. Plant Patent 22,781)	Very late	Vigorous	First berries very large but size drops quickly, red external and internal color, fair capping, good firmness, uniform shape, excellent flavor	Medium to high	Fresh	1	>

# Table 2. Everbearing strawberry cultivar (two crops per year)

This cultivar has a large spring and fall crop.

Large-scale commercial value Small farm or home garden	√ (but day-neutral cultivars perform better)
Large-scale commercial value	3
Market	Fresh
Yield	Low to medium
Fruit	Medium size, bright red external Low to and internal color, very soft, fair medium capping, fair flavor
Plant	Moderate vigor, poor to fair durability
Cultivar	Quinault

Table 3. Day-neutral strawberry cultivars (continuous cropping)

These cultivars have a large spring crop followed by a constant but small number of fruit until frost. Plants stop flowering for a while when temperatures exceed 90°F. Cultivars are listed in approximate order of ripening.

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Cultivar	Plant	Fruit	Yield	Market	Large-scale commercial value	Small farm or home garden	Comment
Albion (U.S. Plant Patent 16,228)	Fair vigor, poor durability	Large size, light red external color, pale internal color, firm, good flavor	Medium to high	Fresh	1 (in plasticulture system)	<i>&gt;</i>	Most important day- neutral cultivar in northern California and the Pacific Northwest
Mara des Bois (U.S. Plant Patent 8,517)	Low vigor, poor durability	Small size, pale, soft, unique flavor that people either love or dislike	Low	Fresh	3		Commonly promoted in garden literature but has not done well in our trials
Monterey (U.S. Plant Patent 19,767)	Low vigor, poor durability	Large size, firm, light color, mild nontraditional flavor	Low to medium	Fresh	2		Common day-neutral cultivar in northern California
San Andreas (U.S. Plant Patent 19,975)	Low vigor, poor durability	Large size, firm, light external and internal color, bland, susceptible to anthracnose	Low to medium	Fresh	2		Common day-neutral cultivar in northern California
Tristar	Vigorous, fair to good durability	Very small to medium size, glossy bright red external color, bright red internal color, good firmness, excellent flavor	Low	Fresh	3 (too small on average)	>	Tribute and Tristar are often compared. Tristar has better flavor; Tribute has good flavor but better fruit size.
Tribute	Vigorous, fair to good durability	Medium size, attractive, glossy bright red external color, bright red internal color, poor capping, very good flavor	Low	Fresh	3	>	See comment above for Tristar.
Seascape (U.S. Plant Patent 7,614)	Moderate vigor, good durability, susceptible to verticillium wilt	Large, bright red external color, pale internal color, poor capping, firm, good flavor	Low to medium	Fresh	2 (best fruit quality combined with size among day-neutral cultivars in the Pacific Northwest)	>	Yield low to medium unless managed intensively, but best fruit quality of the day-neutral cultivars



'Sweet Bliss' (June-bearing)



'Charm' (June-bearing)



'Rainier' (June-bearing)



'Hood' (June-bearing)



### 'Tillamook' (June-bearing)



'Sweet Sunrise' (June-bearing)

### **For More Information**

Growing Strawberries in Your Home Garden (EC 1307). Oregon State University Extension. <a href="http://extension.oregonstate.edu/catalog">http://extension.oregonstate.edu/catalog</a>

Growing Day-Neutral Strawberries in Western Washington (FS132E). Washington State University Extension. http://pubs.wsu.edu/



'Shuksan' (June-bearing)

### Cultivar photo credits:

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