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YARDS AND GARDENS

GARDENING WITH BLUEBERRIES

Blueberries commercially available today are hybrid offspring, developed over the past 40 years, from the blueberries native to Eastern United States.

Blueberry plants raised by the home gardener for fruit production also can serve as ornamentals. These deciduous shrubs are handsome plants for a hedge or shrub border. The clusters of white to pinkish urn-shaped flowers are attractive in spring and the fruits are highly decorative through the summer. In the fall the leaves turn yellow to scarlet before falling, revealing red to yellow bark, depending on the variety.

These plants do well in the acid soils of the Pacific Northwest preferring much the same conditions as rhododendrons and azaleas. Blueberries grow and produce best in full sun but will tolerate partial shading, particularly if the site receives the afternoon sun.

SOIL

Soils with a pH of 4.5 to 5.5 are preferred by blueberries. Their shallow, fibrous root system does best in open, porous soil such as sandy loam with a fair amount of organic matter, and in peat or muck soils.

Plant in early spring. Space plants at intervals of 5 to 8 feet in rows 8 to 10 feet apart as in commercial plantings, or use in an ornamental manner. Plants two to three years old are recommended. Place the top of the root clump even with the soil surface. A gallon of peat moss mixed with about two gallons of garden soil placed in the planting hole will aid in establishment and stimulate early growth. Do not apply fertilizer to newly set plants during their first year of growth. Water the new plants in and keep them well watered through the summer.

MULCHING

A light mulching at planting time, increased to a depth of six inches over a period of years, will retard weed

growth, protect roots from extremes in temperature, and help hold soil moisture. Sawdust, bark chips, or similar materials are suitable. Add nitrogen fertilizer to new sawdust to prevent a shortage of available nitrogen to the plant (bacteria use nitrogen in breaking down the sawdust). Any cultivation around the plants should be shallow as the roots are near the surface and are easily injured.

IRRIGATION

Blueberry plants require about one to two inches of water every 10 days either from natural rainfall or supplemental irrigation. In the summer when no rain occurs this is best applied at two-week intervals. Constant but moderate soil moisture is needed. Good drainage is essential since the roots need good aeration. The water table in soil planted with blueberries should remain at least 14 to 22 inches below the surface.

FERTILIZER

The amount of fertilizer applied to blueberries is governed by the length of new shoot growth on the mature canes. Plants that make little or no shoot growth should receive the maximum recommended amount. Plants that make 1 foot or more of new shoot growth need little to no fertilizer. In a highly organic soil, blueberries require little supplemental fertilizer. Where needed, a mid-March application of 5-10-10 at the rate of 14 ounces (or approximately 1 3/4 cup) per mature plant is recommended. On mineral soils there is generally a need for added nitrogen beyond that supplied by an early spring application of 5-10-10. This can be supplied in the form of ammonium sulfate, added after berry set or about mid-May to June 1, with a second application in mid-June when necessary. The following table details the recommended rates.

Spread all fertilizers evenly to cover the root zone of the plant; away from the crown and out as far as the drip line of the branches. Dry fertilizer can be spread directly



Plant Age	Quantity of Fertilizer per Plant in Ounces (and Approximate Equivalent)		
	5-10-10	Ammonium Sulfate	
	March 15	May 20	June 15
Newly set	0	0	0
1 year	2 (1/4 cup)	1 (2 Tbsp.)	1 (2 Tbsp.)
2 year	4 (1/2 cup)	1-2 (2 to 4 Tbsp.)	1-2 (2 to 4 Tbsp.)
3 year	6 (3/4 cup)	1-2 (2 to 4 Tbsp.)	1-2 (2 to 4 Tbsp.)
4 year	8 (1 cup)	2-3 (1/4 cup to 1/4 cup + 2 Tbsp.)	1-2 (2 to 4 Tbsp.)
5 year	10 (1 1/4 cup)	2-3 (1/4 cup to 1/4 cup + 2 Tbsp.)	1-2 (2 to 4 Tbsp.)
6 and older	12 (1 1/2 cup)	2-3 (1/4 cup to 1/4 cup + 2 Tbsp.)	1-2 (2 to 4 Tbsp.)

on the soil surface or mulch layer and watered in thoroughly. Exercise caution when fertilizing one- to two-year-old plants as roots on young plants are easily injured by fertilizer.

PRUNING

During the first three years of growth, blueberry bushes need little or no pruning. This allows the plants to build strength and make maximum growth. Fruit buds for the following year are produced on new shoots. Removal of old branches forces this new growth, thus assuring adequate and vigorous fruiting wood. Pruning in general will tend to reduce the number of fruits set but will increase their size and speed their maturation.

On older bushes, remove a few older canes or cut them back to a strong lateral. Remove low, spreading branches near the ground, as berries on them get dirty easily. Thin the shorter, weaker shoots to prevent crowding, and head back some fruiting twigs on varieties that produce too many fruit buds. Prune during the dormant season.

HARVESTING

Fruits will mature between July 1 and September 1, depending on the varieties. Berries are produced in clusters and ripen in succession over a period of several weeks. Most varieties can be completely harvested in two to four pickings. Often the berry is blue some time before full maturity. Delay picking until a fair quantity of berries acquire full size and flavor.

New plants will produce very few berries the first two years. During the third and fourth years, light crops will be produced and full production should be expected

sometime from the sixth to eighth year. A few bushes will produce ample berries for home use.

Production of individual plants will vary depending on variety and cultural conditions. However, an average mature blueberry bush can be expected to produce at least 6-10 pounds of fruit per year. Two to four plants will normally produce all the blueberry fruits a family wants.

PESTS AND PROBLEMS

Blueberries grown in Washington are relatively disease and insect free. Infestations of root weevils, orange tortrix, aphids, or Lecanium scale might occur. Diseases which might be expected are Bacterial cane canker, *Botrytis*, or mummy berry. Most of these pests can be controlled by following WSU recommendations.

Bird damage is common in and around urban areas. Protective netting placed over the bushes as soon as fruits begin to color will aid in saving berries.

VARIETIES

Cultivated blueberries are generally self-fertile, however, two or more varieties in a planting assure good pollination and a larger yield. Good pollination is essential as berry size is controlled to a large extent by the number of seeds per berry. Varieties with overlapping flowering dates and good bee activity at time of flowering will aid fruit set.

The following varieties are generally recommended for home and commercial planting. Personal preference in flavor and size of berry, ultimate use of the crop—whether for fresh eating, baking, or processing—coupled

with the requirements for ripening date will determine which varieties should be planted. The following varieties are arranged in the order of ripening dates:

Earliblue. Berries are large with light blue skin, very firm flesh, good flavor, subacid, mild. Ripens very early after Weymouth or Bluetta. Plant is hardy, upright, vigorous, well-shaped. Fruit does not drop.

Blueray. Fruit very large with a medium light blue skin, flesh firm, flavor strong, aromatic, and good. Ripens early midseason. Plant is upright, hardy, spreading, consistently productive, and tends to overproduce unless carefully pruned.

Stanley. Has medium to small berry with medium blue skin, flesh firm, flavor highly aromatic, pronounced, spicy. Ripens early midseason. Plant is vigorous, erect, main branches few, easy to prune, heavy producer.

Concord. Berries are medium-sized, medium blue, flesh firm. Flavor is slightly aromatic. Ripens midseason. Plant is of medium vigor, upright, spreading, and productive. Tends to produce too much fine wood and can be difficult to prune.

Berkeley. Berries are very large, very light blue skin and firm flesh. Berry stores well and does not drop from bush. Flavor is mild. Ripens in late midseason. Plant is vigorous, open, spreading, and easy to grow.

Pemberton. Berries are medium to large, with a very dark blue skin, flesh is firm, with flavor fair, and slightly aromatic. Ripens midseason. Plant is vigorous, very

productive, erect. Easy to grow and prune. Difficult to pick.

Ivanhoe. Berries large with a light blue skin, flesh firm, flavor is highly aromatic, tart and good for pies. Ripens midseason. Plant is very vigorous, upright, productive. Not consistently productive.

Bluecrop. Berries are medium large, skin light blue and the flesh firm. Berries drop somewhat from bush. Flavor is good, moderately aromatic, ripens midseason. Plant is vigorous, spreading, consistently productive, drought resistant. Plant tends to overproduce unless carefully pruned.

Herbert. Fruits are very large, medium blue, flesh tender, flavor is very good and aromatic. Does not drop from bush. Ripens late midseason. Plant is consistently productive, vigorous, and open spreading.

Jersey. Medium size berry with medium blue skin, firm flesh. Flavor is fair with aroma lacking. Berries keep well. Ripens late. Plant is vigorous, erect, hardy, and productive. Easy to prune, easy to pick.

Coville. Very large berry with medium blue skin, flavor is tart and aromatic. Does not drop from bush. Ripens late. Plant is vigorous, open spreading, and productive. Is easily pruned.

Dixi. Large berry with medium blue skin and pronounced aromatic flavor. Ripens late. Plant is productive, vigorous, and open spreading. Easily picked and pruned.

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