



University of California Organic Farm Series

Organic Blueberry Production

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Essentially, organic refers to growing methods, which utilize cultural & mechanical practices, natural earth products, organic matter, and naturally occurring pest controls from organisms or plants. It basically prohibits the use of any synthetic made products.

Soil pH. Blueberries require a lower pH than many other fruits and vegetables. If the pH is above 5.3, apply soil sulfur. Make sure it is a type approved for use in organic production. Add the appropriate amount based on soil texture and soil pH. Try to end up with a pH of 4.8 (5.0-5.5). Apply sulfur at least 3-4 months before planting.

Changes in pH	Pounds of Sulfur per acre		
	<u>Sand</u>	<u>Loam</u>	<u>Clay</u>
8.0-6.5	1,200	1,500	2,000
7.5-6.5	500	800	1,000
7.0-6.5	100	150	300

Organic Matter. The addition of organic matter is highly desirable. Apply 4-6 inches of organic matter on elevated raised beds and incorporate with a rototiller. Peat moss, well-decayed pine sawdust or bark will help to lower the pH.

Organic matter, such as bark, wood chips, sawdust or straw mulch on the surface after planting results in uniform soil moisture, good weed control, reduces soil temperature, and generally results in better bush growth. Pine bark etc. is preferred since it has a pH of 3.5-4.5. The hardwoods can also be used but have a slightly higher pH (>5.0).

What varieties? Northern & Southern highbush (*Vaccinium corymbosum*), and rabbiteye (*V. ashei*) types can be grown. The northern highbush are a little hardier, especially in colder temperatures. The rabbiteye is more drought and heat tolerant and will tolerate a wider range of soils. A third type, referred to as the southern highbush, have been released recently and are intermediate between the N. highbush and rabbiteye. By far the most popular and doing the best in Parlier, CA are the Southern Highbush varieties • [Jewel](#) • [Star](#) • [Emerald](#) • [Southmoon](#) • [Sharpblue](#) • [Misty](#) • [Snowchaser](#) (new)

Planting. Plant early fall (October) or late winter (Feb.-March) to the same depth the plants were growing in the nursery and apply mulch after planting. Spacing – Highbush 3’ in the row and 8-11 ‘ between the rows. Prune back about 2/3 of the top growth on bare root plants.

Fertilization. Blueberries are easily damaged by excess fertilizer. Do not fertilize immediately after planting. Wait until the first leaves have reached full size. Applications of manure, cottonseed meal, bloodmeal, or fish emulsion will provide nutrients for growth. Do not overfertilize.

Irrigation. Depends on soil texture, mulches and thickness, age of plant., temperatures etc. During the growing season they may be watered 3 days per week, or every day depending on the quantity of water being applied. Some farms may irrigate for 1-1.5 hour sets, every single day; so there is a lot of variation. One of the biggest problems with blueberries is watering. And the plants are not very forgiving. Overwatering may set the plants back for a year or two, if they don't develop root rots. Remember the roots in probably in the top 1-2 feet of soil, and they do not like wet feet. Total water applied to blueberries is between 3-4 acre feet of water for the year.

Most commercial farms acidify the water with sulfuric acid, N-phuric acid, citric acid etc to bring the pH of the water to about 5.0. Even if the soil pH is not in the ideal range of 5.0, having the water solution around that pH seems to be conducive for the plants.

Weed Control. Mulched plants will not generally have problems with weeds in the beds (except for nutsedge). Weeds between beds can be removed with tractors or by hand. An organic mulch 4-6" deep seems to work the best.

Pruning. Highbush- little pruning will be required the second year except to remove all flower buds and weak or broken branches. Leave the flower buds on the third year. In the fourth year, the bush is 4-5' tall and capable of handling a crop.

Harvest. Healthy mature highbush and rabbiteye plants in a good climate should produce more than 10 lb. per plant each year. Birds love blueberries and a one inch mesh bird net is the only practical control. Everything in the small acreage farms is hand picked. Very labor-intensive. Picking in the morning while the fruits are still cool preserves the best quality.

Highbush blueberries will be of best quality if picked at a minimum of every 5-7 days depending on temperature. Many farms are picking every 3d day – again this depends on temperature and varieties.

Post Harvest. The optimum storage temperature and shelf life is as follows: $0\pm 0.5^{\circ}\text{C}$ ($32\pm 1^{\circ}\text{F}$) for blackberry and raspberry (2-5 days); and blueberry (1-2 weeks) $3\pm 1^{\circ}\text{C}$ ($37\pm 2^{\circ}\text{F}$) for cranberry (2-4 months).

<http://postharvest.ucdavis.edu/Produce/ProduceFacts/Fruit/berry.shtml>

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