

Growing Blueberries in Sacramento County

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Thinking of growing blueberries commercially? They are still in high demand because of press coverage of their antioxidant content and potential for lowering cholesterol, although many growers throughout California and the U.S. have recently planted them.

Blueberries are well suited to small farms, and they may play an important role if agri-tourism increases in the Delta. According to the Sacramento County Agricultural Commissioner, there are only 46 acres of blueberries being grown in the county (in the Delta). Blueberry production in San Joaquin County increased nine-fold from 2000 to 2005, and in 2006 there were about 500 acres – up from about 200 in 2005. There is also a fair amount of organic acreage. There are no blueberry processors in California, so nearly the entire crop is sold fresh or frozen. Growers in the southern Central Valley are more able to benefit from the early market than in Sacramento County.

Establishing blueberries currently costs about \$10-\$15,000 per acre. Yields on mature plantings may reach 15 tons per acre in the Pacific Northwest, but in coastal areas typical varieties may reach 5- to 8-ton yields in the fifth year. The 2002 sample cost study (Tulare County) listed below assumes a production of about 10 tons/acre.

Varieties that have been recently planted by large-scale San Joaquin County growers include Star, Jewel, Emerald, Duke, and Legacy. Small-scale growers have planted most of these varieties, as well as Spartan, Bluecrop, Chandler, Darrow, Ozark Blue, and Powderblue.

A key factor in growing blueberries is to ensure that the soil drains well and has high organic matter content – at least 3%. Use berms and incorporate 2-4 in. of sawdust, wood shavings (not cedar), or finely ground wood chips. Peat moss is beneficial to add to the planting hole, and compost can also be used. Some form of nitrogen must also be added, but not too much; many plantings have suffered greatly from excess N. The other key is to lower the pH to 4.5 to 5.0; pH can be lowered quickly with sulfuric acid or urea sulfuric acid materials but elemental sulfur is much slower. The amount to apply will vary

with pH and soil type, with more needed on heavier soils (see Gaskell soil preparation reference). Heavy clay soils should be avoided.

Blueberries have very shallow root systems and do not tolerate drought, so frequent watering is needed; drip or microsprinklers work best. The water must be acidified – sulfuric, phosphoric, and urea sulfuric acids are commonly added to irrigation water. Organic growers can use citric or acetic acid. A mulch of wood chips should be applied around the newly established plants to retain moisture and control weeds. Landscape fabric can also be used, which can last up to 7 years. Some growers also create a slight depression on the top of the berm to increase the amount of water that infiltrates.

Plant spacing is 3 to 4 ft. apart. Trellis systems are sometimes used to facilitate machine harvest. New plantings should be kept from producing flowers or fruit for about the first 2 years to allow the plants to develop an adequate plant structure and roots.

Production problems include weeds, birds, and nutrition. Eliminate perennial weeds before planting. Few weeds will grow through thick mulch and even fewer with landscape fabric. Both pre- and post-emergence herbicides can be used cautiously. Some plantings do not have bird problems, but many do. Netting must be used in affected fields. Fertilize regularly with nitrogen and test soil to be sure the pH stays in the optimal range.

In late spring 2007 I planted a variety trial of 8 blueberry varieties to compare their growth and production. They had a rough start due to the heat, but they grew well late in the season. The varieties planted were Duke, Northland, Toro, Southmoon, Bluecrop, Elliot, Legacy, and Liberty. Elliot (the latest ripening variety) was small and did not survive well; it will be replaced with Misty and Sharpblue will be added, and the trial is being moved to a site east of Courtland.

Upcoming Blueberry Workshops

The annual Blueberry Field Day & Tasting will be held all day on Wed., May 21, 2008 at the Kearney Agricultural Research & Extension Center in Parlier, CA. Visit <http://cetulare.ucdavis.edu> (click on Newsletters or Calendar) closer to the date of the event for more details.

Locally, home blueberry growing will be discussed at the May 3 workshop at the Fair Oaks Horticulture Center (www.cesacramento.ucdavis.edu). We have recently added more varieties to the small blueberry planting.

Useful References:

[Interest in berries grows in California](#) (UC, 2006)

[Calif. Agric. research article](#)

[Information from Benny Fouche](#) - UCCE San Joaquin County (click on Ag. & Nat. Resources, then on Small Farms)

Information from Mark Gaskell, UCCE San Luis Obispo & Santa Barbara Counties:

- [Acid injection in irrigation water](#)
- [Soil preparation & pH management](#)
- [Pruning southern highbush blueberries](#)

[UC cost study](#)

[Northwest Berry & Grape Information Network](#)

[Organic production \(ATTRA\)](#)

[Home blueberry growing in Sacramento](#) (click on Fair Oaks Hort. Center, then Berries)