

4 M

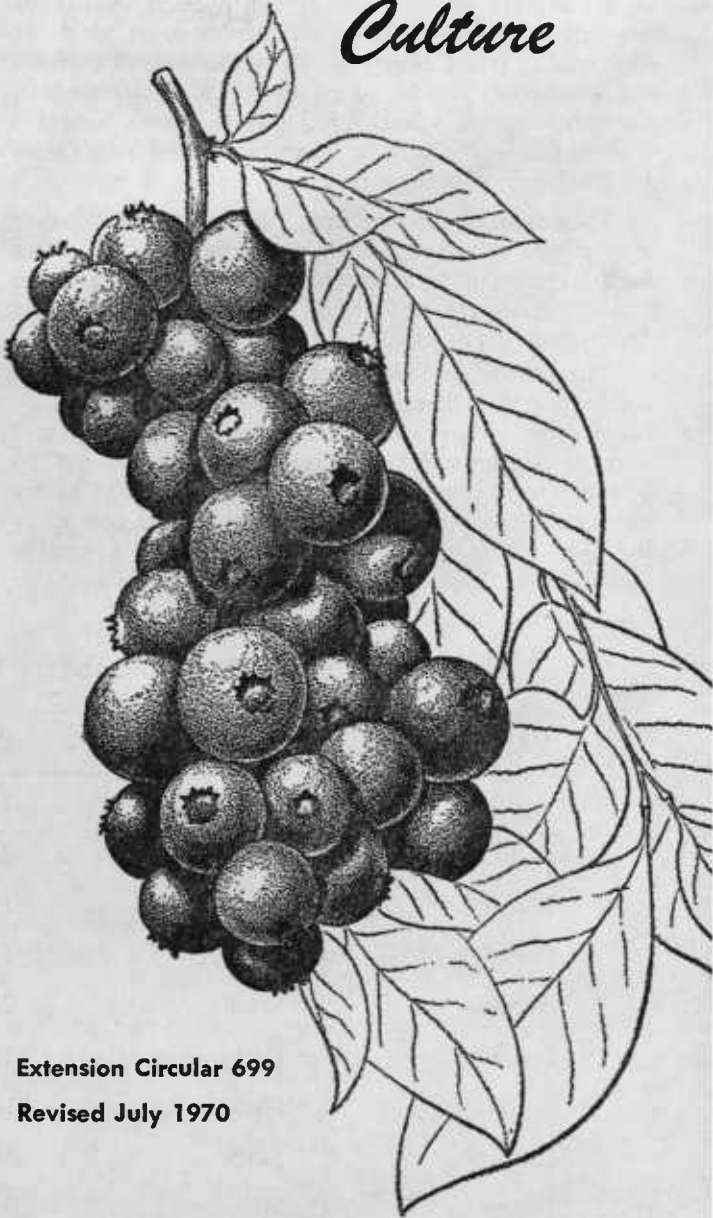
7-8-70

①

Oregon

Blueberry

Culture



Extension Circular 699

Revised July 1970

**COOPERATIVE EXTENSION SERVICE
OREGON STATE UNIVERSITY, CORVALLIS**

A delightful food an ornamental plant

High bush blueberries were introduced to Oregon more than 40 years ago. The mild climate of western Oregon is quite favorable for good yields of high quality fruits. Suitable soils and locations for growing blueberries can be found in many of our western Oregon counties. Plants grown in this area have remained free of the more serious diseases and pests found in blueberry plantings in many eastern states.

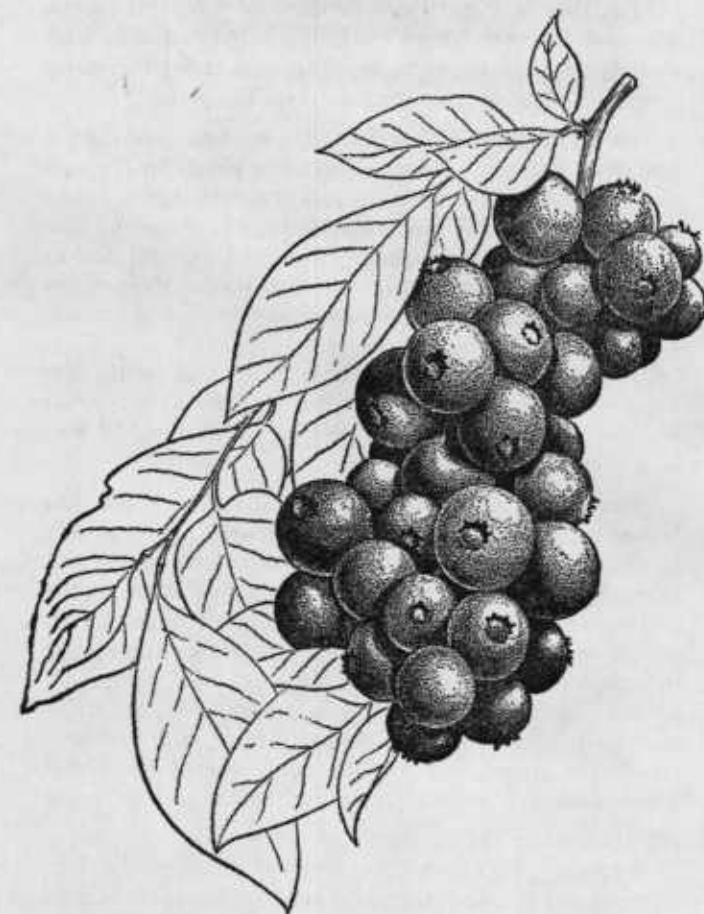
Expansion of the blueberry industry has been rather slow when compared with other berry crops. This has been largely due to a lack of intensive and aggressive marketing efforts and firmly established competition from other berry crops.

The cost of individual plants is somewhat high in comparison to other berry crops. Cost per plant may range from 50 cents to \$1.50 depending upon age and variety. At the minimum distance between plants (6 feet in the row and 8 feet between rows) 908 plants are required to plant one acre. At an 8 x 10 foot spacing, 545 plants would be required. Under favorable conditions at least five years are required before one

can expect a profitable return on the investment and costs involved in establishing a commercial blueberry enterprise. This factor accounts in part for the slower expansion of this industry, but it is compensated for in the longevity of the blueberry plant. Once established and well cared for, blueberry plantings can remain productive for 30 years or more.

The following information is provided as a general guide for the establishment of a blueberry planting. However, because of expenses and other factors involved, it is recommended that persons contemplating planting blueberries as a commercial venture consult with their county Extension agent or other agricultural specialists before making any sizable investment.

Soils with high organic matter content have long been used for blueberries. It is now a well known fact that our better drained loam soils will also produce this crop. The one factor that cannot be overlooked is that the soil must be moderately acid. The best production comes from soils with a pH below 5.6.



Some Good Blueberry Varieties in Order of Ripening

VARIETY	BERRY SIZE	COLOR	DESSERT QUALITY	BUSH SHAPE
Earliblue	Large	Light	Good	Erect
Collins	Large	Medium	Good	Spreading
Blueray	Large	Light	Good	Erect
Berkeley	Large	Light	Poor	Medium
Atlantic	Small	Medium	Medium	Spreading
Ivanhoe	Large	Medium	Good	Erect
Bluecrop	Medium	Light	Medium	Erect
Herbert	Large	Dark	Good	Medium
Jersey	Medium	Medium	Good	Erect
Coville	Large	Dark	Medium	Erect
Dixi	Large	Dark	Good	Spreading

Mulching is a common practice in blueberry culture. Sawdust is generally used, starting with a light mulch at planting time and increasing the depth and width as growth takes place. Producing plants should have about 6 inches of mulch covering the entire root area. This mulch will retard weed growth, protect roots from extremes of temperature, and help hold soil moisture. The main feeder roots are found quite near the surface and would be injured if cultivation were practiced. Where extensive use of mulch is planned, it is often advisable to fallow the land and treat with weedicides prior to establishment of the planting and application of the mulch. Certain insecticides are also best applied at this time.

Irrigation is necessary for good blueberry production. Blueberries require about an inch of water per week during the summer and it seems best to apply this at two-week intervals in most cases.

Blueberry plants are produced by several propagators in Oregon. Plants can be propagated readily with modern propagating equipment. It takes one to two years to grow a plant suitable for field planting.

In planting blueberries it is best to give 6 to 8 feet as a minimum distance between plants in the row and 8 to 10 feet between rows. These spacings are subject to adjustment if mechanical harvest is planned. Close planting creates a jungle at ripening time and makes picking very difficult. Most varieties spread their stems as the fruit weighs them down, and this should be considered when setting out plants.

Early spring is the best time to set out plants. Set them with the top of the root clump even with the soil surface and mulch lightly. Water in thoroughly and keep well watered during the summer months.

Fertilization of blueberries is quite important. However, blueberries planted in organic soils need little fertilization. A complete fertilizer should be used about every third year, if needed. Other than organic soils will need fairly heavy nitrogen fertilization. Ammonium sulfate at the rate of $\frac{1}{2}$ pound per plant in the early spring is very beneficial. Application can be divided using half before blooming and half after berries set. This generally corresponds to mid-March and mid-May. The fertilizer should be spread to cover the root zone of the plant. Keep it away from the crown and spread out as far as the limbs reach.

Pruning is essential for good crop production. Little or no pruning except to remove blossom clusters should be done the first three years. This gives the plant a chance to build strength. After this, weak growth should be removed to a strong lateral or to the base, and old canes taken out as the plant needs thinning. Pruning should be done during the dormant season.

The blueberry can be harvested mechanically, and commercial harvesters are available for operations where hand picking is not feasible. Harvest normally extends from July 1 to September 1. Most varieties will be picked in two to four pickings. Yields up to 10 tons per acre have been achieved on 12-year-old plantings in the mid-Willamette Valley. This is exceptionally good but indicative of the productive potential of the blueberry. Blueberry fruit keeps well if kept cool. Fruit is sold for processing and fresh market. Marketing opportunities should be studied before establishing plantings.

Birds consuming fruit are sometimes a problem in areas where there are lots of trees or brush. Removal of brush and the use of various types of protective covers and scares will sometimes help save berries.

Blueberry Diseases and Insects

Bacterial canker can be controlled by pruning out diseased wood and spraying about October 1 with Bordeaux 8-8-100 plus a sticker or a fixed copper at the rate of 6 pounds per 100 gallons of water. This should be followed in four weeks with a second application.

Botrytis blight can be controlled when first noted in the spring by spraying with Ferbam at $1\frac{1}{2}$ pounds per 100 gallons of water ($1\frac{1}{2}$ tablespoons per 1 gallon of water) or Captan at 2 pounds per 100 gallons of water (2 tablespoons per 1 gallon of water), or dust with 10% Ferbam dust. In wet seasons it may be advisable to anticipate infection and apply a fungicide prior to the opening of the first blooms. Applications should be continued every 10 days if wet weather persists.

Revised by Lloyd Martin, Extension horticulture specialist, and Ralph Garren, Jr., associate professor of horticulture, Oregon State University.