PLANTING, FERTILIZATION AND CULTIVATION OF BLUEBERIES

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Adaptation: The southern or rabbiteye blueberry (Vaccinium ashei) is native to northern Florida, southern Georgia, and adjacent areas and is well adapted as a cultivated crop. It has been successfully grown from the latitude of northern Florida to that of the lower Piedmont area of Georgia.

Varieties: Among the better varieties that are available for commercial plantings are Callaway, Coastal, and other desirable selections resulting from the breeding program in progress. To insure pollination, at least two varieties should be included in each planting.

Soil Requirements: Norfolk loamy sand and similar types of soil are preferable. Deep sand and other soils of low fertility are poorly adapted. Rabbiteye blueberries will grow on high, well-drained land and also on low-lying, moist soils but will not survive in excessively wet or water-logged areas. Soils that are well drained, productive, liberally supplied with humus, and retentive of moisture are ideal for this crop. Areas that tend to be too wet during rainy seasons will prove satisfactory if slightly ridged.

Acidity: Soil acidity is an important factor in blueberry culture. Apparently, the rabbiteye type thrives best in a pH ranging from 4.0 to 5.0. Facilities for testing soil are available at the Georgia Coastal Plain Experiment Station, Tifton, Georgia.

Preparation of Land: The land on which blueberries are to be planted should be cleared of all native growth, and the soil should be thoroughly pulverized by harrowing.

Shade: Plants will survive in shade, but maximum production and normal growth habits are obtained only in full sun.

Planting: After the soil has been properly conditioned, and prior to the planting season, locate the hills and incorporate in the soil in those areas a liberal amount of peat moss or some other source of humus such as well-rotted oak leaves, pine straw, or cane pomace. Plant as soon as possible after plants are received from the nursery. If planting cannot be done immediately, heel in, keeping roots moist by covering with wet sphagnum moss or sawdust. Set plants one to two inches deeper than they originally grew in the nursery row. Firm soil around roots, preferably by watering. The top of the plant should be reduced about one-half by cutting out weak branches and heading back vigorous shoots to a lateral branch. In moist areas, plant on a slight ridge. On well-drained areas, plant on a level. The months of December and January are preferable for planting. Early planting insures settling of soil by winter rains, thereby providing better root contact. It also provides time for at least partial restoration of the root system which usually is badly impaired by the transplanting operation.

Spacing: As a result of varying degrees of vigor of the different varieties, it seems advisable to use different spacings, varying from 10-foot checks for the less vigorous to 15-foot checks for the stronger growing varieties. For commercial
plantings a spacing of 7 1/2 x 15 feet may prove desirable if alternate plants are removed from the 7 1/2 foot spacing when crowding occurs. This will allow increased production from young plantings.

Size of Plants: Large plants (preferably two years old or older) are decidedly more desirable for transplanting. Small plants are so shallow rooted that the soil moisture during seasons of prolonged drought often recedes below the root system causing a high percentage of mortality.

Cultivation: Cultivation should be shallow and at such frequency as will control weed growth. Feeding roots are near the surface and, as a result, deep cultivation near the plant will cause root injury, thereby retarding growth and also lowering production. Care should be exercised to prevent moving an excessive amount of soil either to or from the plants.

Fertilization: Although no information is available as to correct fertilizer practices, it is definitely known that blueberries react favorably to its use. One-half pound of fertilizer such as a 4-8-3 should be adequate for young plants. Half this amount should be applied when growth begins in the spring and the remaining half about two months later. No fertilizer should be used at time of planting. In order to maintain the desired soil pH, fertilizers that are acid in reaction should be used. Such fertilizers are manufactured for azaleas and camellias and are desirable for blueberries. Because of its acid reaction, sulphate of ammonia is a desirable source of nitrogen.

Cover-Crops: Since the soils on which blueberries usually are grown are predominantly low in organic content, it is considered advisable to grow either a winter or a summer cover. Particularly is this true in young plantings. The planting of the summer cover crop should be so timed that there would be the least possible competition for moisture between the cover crop and the fruit. The latter part of the berry harvest is considered a desirable time. Winter covers should be cut-in about the time plants begin to bloom.

Mulch: Mulching is of particular aid in establishing young plants and could be substituted for cultivation on small areas, although in extensive plantings it probably would not be practical.

Pruning: Very little pruning is necessary the first few years. During that time it should consist of removing the small bushy wood around the base of the plant. Also all dead and diseased branches should be removed. As the plants become larger, the small branches inside the plant may be removed and tall shoots headed back.

Diseases: There are relatively few diseases attacking the present varieties of rabbiteye blueberries. Among those of most importance are stem canker, mildew, and leaf spot. Fortunately, many of the better varieties either are immune or carry a high degree of resistance to these diseases.

Insects: As yet very little injury has resulted from insect attack. Perhaps those causing greatest injury are caterpillars, fruit worms, and stem borers. Caterpillars occur during late summer and may be controlled either by hand picking or by use of a stomach poison. Fruit worms attack berries just before they ripen and may be controlled by dusting with cryolite. Stem borers attack young twig and burrow down the stem. They may be controlled by removing wilted twigs as soon as they are noticed, as the borer continues down the twig into the roots of the plant.