PLANTING, FERTILIZATION AND CULTIVATION OF BLUEBERRIES

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Adaptation: The rabbit-eye 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 older varieties selected from the wild were Myers, Hagood, Clara, Black Giant, Walker, and Ethel. Some of the newer varieties are Callaway, Coastal, Homebell, and Tifblue.

Callaway grows best on fairly moist soil. It is generally a slow starter but grows well after becoming established. Fruits are medium to large in size, of medium blue color and excellent quality.

Coastal is more vigorous than Callaway, producing large fruits of medium blue color and good quality.

Homebell is one of the most vigorous rabbit-eye blueberries. It has grown rapidly in most locations tested and has been highly productive. Fruits are medium large in size, medium light blue in color, and of good quality.

Tifblue is moderately vigorous, grows more upright than most varieties and produces relatively few shoots. Fruits are of medium to large size, light blue in color, and of good quality.

Soil Requirements: Norfolk loamy sand and similar types of soil are preferable. Deep sand and other soils of low fertility are poorly adapted. Rabbit-eye blueberries will grow on high, well-drained land and also on low-lying, moist soils but will not survive in excessively wet or waterlogged 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 may prove satisfactory if slightly ridged.

Acidity: Soil acidity is an important factor in blueberry culture. Apparently, the rabbit-eye 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 medium to light shade, but maximum production and normal growth habits are obtained only in full sun.
Plating: After the soil has been properly conditioned the hills should be located. A liberal amount of humus such as peat, well-rotted oak leaves, pine straw, or cane pomace should then be incorporated in the soil for each plant. Plants should be set soon after being received from the nursery. If plants cannot be set immediately, the roots should be kept moist by lining out in soil or 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. Leggy plants should be cut-back to eight to twelve inches in height. In moist areas, plant on a slight ridge. In 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 5, 6, or 7½ x 15 feet may prove desirable if alternate plants are removed from the drill spacing when crowding occurs. This will allow increased production from young plantings.

Size of Plants: Large plants with a good root system are 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 lowering production. Care should be exercised to prevent moving an excessive amount of soil either to or from the plants. Weeds and grass may be allowed to grow in the middles and controlled by cutting with a disc harrow or rotary mower. This keeps the soil cooler than clean cultivation and facilitates harvesting.

Fertilization: Although no information is available as to correct fertilizer practices, it is definitely known that blueberries react favorably to its use. One-fourth pound of fertilizer such as a 4-8-8 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 generally should be used. Such fertilizers are manufactured for azaleas and camellias and are acceptable 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. They may be controlled by picking and destroying berries which ripen prematurely due to insect injury, and also by use of insecticides, the most generally recommended being Methoxychlor. But perhaps the most satisfactory control would be obtained from a combination of the two methods. Stem borers attack young twigs and burrow down the stem. They may be controlled by picking and destroying clusters of prematurely ripe berries, removing wilted twigs as soon as they are noticed, as the borer continues down the twig into the roots of the plant.