

poorer years in with the better. Pruning and flower removal prevent fruiting for the first 2 years after planting. A crop can be expected the third year, and by the fifth year, the plantation should be nearing full production. Good growers in north Florida report long-term average yields of about 3 tons per acre per year. If rejuvenated by periodic pruning, plantations can be expected to maintain these yields for 30 years or more.

Southern Highbush Cultivars

The northern highbush has long been the most important cultivated blueberry in the U.S. The large Michigan and New Jersey industries are based entirely on highbush cultivars, and 90% of North Carolina's production is from highbush. The highbush cultivars used in these areas are early ripening and produce high-quality fruit. Unfortunately, they cannot be grown profitably in Florida because of their high chilling requirement and disease susceptibility.

Efforts were begun more than 30 years ago to develop varieties of highbush that could be cultivated in the humid southeast, and these efforts are continuing. Three cultivars have been released for Florida: Sharpblue and Flordablue mature their crops between April 25 and May 15 in an average year in Gainesville, and these are the earliest blueberries available in the U.S. Avonblue ripens at Gainesville from May 10 to May 20. Sharpblue berries are not firm enough to ship well, but Flordablue and Avonblue berries are firmer.

Experimental plantings of these cultivars in Florida have shown that they yield well and that fruit has high quality. They have also shown two major problems: birds and root rots. Birds have been more serious a problem with highbush than with rabbiteyes for at least two reasons: (a) Birds have less other food to eat at the earlier, highbush ripening season, and some migratory species, among them the cedar waxwing, are abundant in Florida during highbush season but have left the area by rabbiteye season, (b) Most experimental highbush plantings have been small. Birds do proportionally more damage in small plantings than in larger ones.

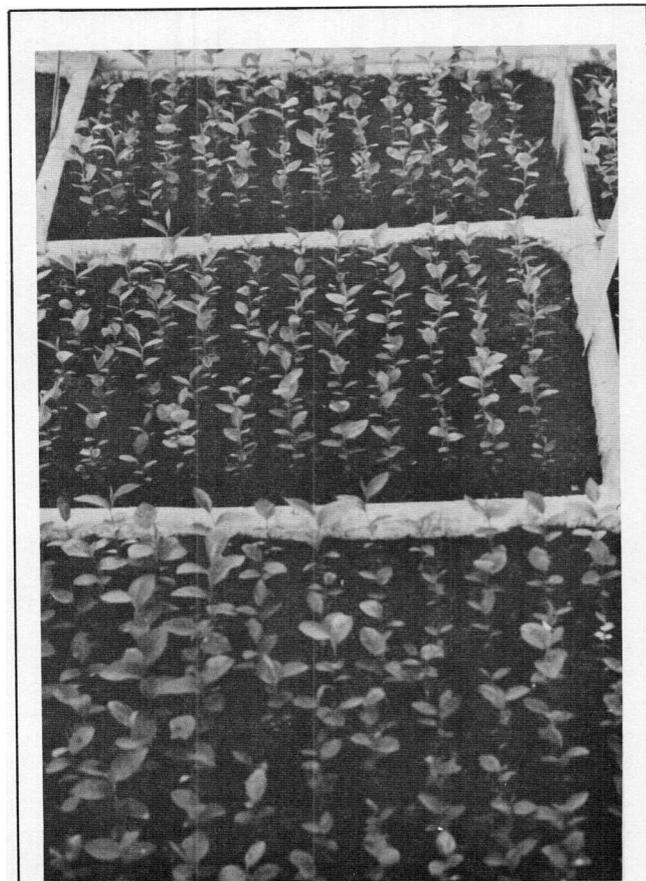
In some locations in Florida, the southern highbush cultivars have failed because of root rots. Highbush are much more susceptible to this problem than rabbiteyes. Root rots are more severe on heavy or poorly-drained soil than on lighter, well-drained soils.

Production of highbush blueberries in Florida will probably someday become an important indus-

try because of the great advantages of early ripening. At present, however, highbush plantations in Florida are still experimental. Growers who produce highbush blueberries in Florida must be able to obtain a higher price for their fruit than is received for rabbiteyes, because of higher production costs. Growers attempting highbush production should choose well-drained soils, mulch heavily, and be on the lookout for birds and root rots. Bird-repellant chemicals that do not injure the birds and systemic fungicides are being tested and may facilitate highbush production in the future.

Propagation

Blueberries are propagated by hardwood or softwood cuttings. Experienced propagators in Florida can sometimes produce plants large enough to set in the field in one year from hardwood cuttings, but 2 years is a more reasonable expectation. A 50-50 volume mixture of Canadian peat moss with Perlite or of finely-ground pine bark with Perlite is ideal for rooting blueberries. Ground beds or raised



Rabbiteye blueberry seedlings are used to develop new cultivars. Plants for production fields are propagated by softwood or hardwood cuttings under mist.