

unusual kind of stock/scion incompatibility.

Workers with cacao in East Africa have found that notching or ringing the stock above an inserted bud has the effect of interrupting phloem transport on a temporary basis, and of speeding up the scion bud-break. We tried this very carefully on the framework-budded avocado trees, but with negative results. Notching affected neither the take or buds; nor the percentage of branches rejected, regardless of the budding technique employed. Ringing the scion branches three weeks before the budding and grafting gave similarly negative results.

We did find differences in cultivars and in stock/scion effects, and these are still being evaluated. Generally speaking, patch and chip budding proved superior to the inverted-T

for frameworking; and budding gave a better take than multiple-bud grafting. We think also that cultivars of the West Indian race, or of hybrids involving that race, stand a better chance of being compatible than do those of Guatemalan and Mexican races, although the Collinson stock tree proved a reluctant partner for almost all scion cultivars tested.

Research still under way includes own-root propagation by cuttings, and by deep planting of budded seedlings to encourage induction of scion roots. A rhizotron has been constructed and several representative Trinidad soils have been "reconstituted" beside the glass panes in large bottomless "boxes," and a detailed study of root growth in relation to season, tree juvenility and susceptibility to Phytophthora root rot is now in progress.

## Bluegem Blueberry

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Rabbiteye blueberries, *Vaccinium ashei* Reade, are being commercially grown on approximately 50 acres in northern Florida. The varieties, 'Tifblue,' 'Homebelle,' and 'Woodward,' from Georgia, are most important.

Breeding work was started at Gainesville, Florida with rabbiteye in 1950 and approximately 4000 seedlings of this species have since been fruited and evaluated. One of these, 'Bluegem,' tested as Fla. 6-164, is being released in 1970.

'Bluegem' blooms at about the same time as 'Woodward,' and in greenhouse tests, pollination with 'Woodward' has resulted in better fruiting than from 'Bluegem' selfed. In the Gainesville area both of these varieties bloom in early March before 'Tifblue.' 'Bluegem' appears to be adapted to

the same areas where 'Woodard' is successful, and is suggested for interplanting with this variety.

An outstanding character of 'Bluegem' fruit is the long retention on the bush in firm condition. In 1969, 90% of the fruit could have been harvested in a single picking between June 20 and 25. This is a very valuable characteristic for mechanical harvesting. For best quality, it is recommended that 'Bluegem' be picked one to two weeks after blue color first develops. The picking scar is dry and very small, thus reducing chances of decay, and enhancing shelf life of the fresh fruit. Crop production has been heavy in the Gainesville area. Yields of three-year old bushes of 'Bluegem' in 1969 ranged from 2½ to 5 lbs. per plant. Fruit size is average for the rabbiteye

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type, with approximately 110 berries per standard cup from non-irrigated bushes.

Both fruit and young leaves have a heavy glaucescence and light blue appearance which exceeds that of any other commercial rabbiteye variety. 'Bluegem' plants are moderately

spreading, and make a limited number of new suckers. It is intermediate in plant size between 'Woodard' and 'Tifblue.'

Distribution of plant material will be handled by Florida Foundation Seed Producers, Inc., P. O. Box 14006, Gainesville, Florida 32601.

## Fruit Evaluation of Peach Cultivars

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Peach production constitutes the major share of the fruit produced in Mesa County of Western Colorado. Amounting to three-quarters of to one million bushels in a normal season. Elberta is the principle variety grown; and while it does exceedingly well locally, the newer, more highly colored varieties are favored in the market places. Evaluation of newer cultivars was undertaken at grower request, to determine those varieties best adapted to the local conditions, their season of maturity, and production capabilities. Such information enables sound recommendations to be made for new plantings.

Part of the peach cultivar evaluation program at the Orchard Mesa Unit of the C. S. U., Western Slope Branch Stations, Grand Junction, Colorado, consists of conducting taste panels on the fresh, canned and frozen fruit. This phase of the study began in 1965, and has increased in scale as new plantings came into bearing. Three and four years of panel results are now available on many varieties, while only one to two years data have been obtained on others. Each year 30 to 40 panelists evaluate the fresh, canned or frozen fruit of each cultivar.

Fruit samples measuring up to one-half bushel are brought into the lab-

oratory as each cultivar reaches the firm-ripe condition on the tree. Six representative peaches from each variety are tested for acidity, firmness, and sugar content. The samples are held at room temperature (70-75°F) until ripened sufficiently for proper processing. The peaches are then blanched, skin removed, and the fruit is sliced and placed in pint jars for canning, and in 1½ pint plastic containers for freezing. The canned fruit receives a 1:1 ratio syrup, is processed in a boiling-water-bath for 20 minutes, and then tightly sealed and labelled. For freezing, a 3:4 ratio syrup plus ascorbic acid is poured over the sliced peaches. The filled containers are then labelled and frozen in a chest type freezer. The fresh peaches are prepared for evaluation by slicing and adding sugar.

Three evaluations are made of the canned and frozen fruit during the fall and winter months. Two or more different panels are used, and each panel samples six to eight cultivars, which have been numbered. They judge each for color, shape, texture, flavor and general quality, scoring each from one to ten (ten being the highest). At the completion of panel testing, the ratings are summarized, and an average overall rating obtained

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