

## Plum Variety Trials in Alabama

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Auburn, Alabama

In the winter of 1955-56, a plum variety orchard was planted at Auburn in connection with a project on plum breeding. More than 90 varieties were planted and most of these have now fruited for two years.

One of the main problems in this work was obtaining varieties that were true-to-name. The number of plum varieties offered by nurseries in this country is quite large and unfortunately many of the common varieties are sold under several names. Also, some of the nurseries are not aware of the true name for some of the varieties that they list. Since most of the synonyms are already reported in the literature they will not be repeated here.

Many of the plums grown in Auburn have been seriously infected with cankers on the trunk and limbs. The bacterial pathogen *Xanthomonas pruni* has been isolated from these cankers, although other pathogens may also play a part in causing the damage. The cankers are similar to those described on plums in California caused by *Pseudomonas syringae*. Furthermore, the severity of cankers does not correspond too well to the severity of bacterial spot (caused by *Xanthomonas pruni*) on the leaves and fruit. For instance, the Methley variety often is severely affected by bacterial spot on the leaves and fruit, yet it has not been very susceptible to the cankers. On the other hand, Burmosa has been killed by the cankers, but it was not badly affected with leaf and fruit spots prior to its death. Canker infection was much more severe in 1958 than in

1959, indicating that infection is related to weather conditions.

Among the varieties most seriously affected by cankers are: Abundance, Beauty, Burmosa, Eldorado, Flaming Delicious, Formosa, Howard Miracle, Kaga, Laroda, Nubiana, Queen Ann, Royal, Sierra, Twilite, Wickson, and Improved Yellow Egg. All are Japanese or Japanese hybrids with the exception of Improved Yellow Egg, which is a domestica or European plum. Improved Yellow Egg was the only domestica plum which showed any cankers.

Bacterial spot on the leaves and fruit, and brown rot on the fruit are two other diseases that have been severe on many varieties. It was almost impossible to get ripe fruit from the varieties Duarte, Red Ace, Santa Rosa, and Shiro because of bacterial spot that was followed by brown rot.

Another factor that limits the value of many plum varieties in Alabama is poor fruit set. Bonnie and Mariposa are two varieties that might otherwise have some value. Poor fruit set on the damsons and some of the domestica varieties may be caused by insufficient winter chilling. The damson and domestica type plums have been poor bearers generally and have been susceptible to bacterial spot and brown rot. The Improved French Prune has done better than any of the other domesticas and produced a fair crop of good fruit in 1959.

The following varieties have ripened fair crops of plums at Auburn and deserve further trial: Bruce, Brilliant, Endicott, Methley, Munson,

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Ozark Premier, Red Coat, Red June, Red Roy, Sapa, and Toka. Most of these have been tested elsewhere in the south and can be recommended for general use. The Ozark Premier appears to be the most promising of this group and is now being planted in several commercial orchards in Alabama and Georgia.

The following varieties have been tested and appear to be unsatisfactory under Central Alabama conditions: Abundance, Austrian prune, Beauty, Big Mackey Damson, Blue Rex Damson, Burmose, Early Italian, Eldorado, European, Fellenburg, Flaming Delicious, Formosa, Grand Duke, Grand Prize Prune, Greengage, Howard Miracle, Improved Yellow Egg, Kaga, Laredo, Lombard, Mariposa, Monarch, Mount Royal, Nubiana, President, Queen Ann, Red Ace, Royal, Shropshire, Damson, Sierra, Superior, Twilight, Wade Grand Duke, and Wickson.

The following varieties need further evaluation: America, Allred, Beach plum, Bonnie, Burbank, Chilcott, Compass, Date Prune, Duarte, Elephant Heart, Giant Cherry Plum, Gold, Gold Dust, Goldenrod, Hanska, Improved French Prune, La Crescent, Manet, Omaha, Opata, Pacific, Pipestone, Purple Flame, Redbud, Red Glow, Redheart, Redwing, Santa Rosa, Satsuma, Shiro, Stanley, Starking Delicious, Underwood, and Yakima.



### Turkish Apricots

Two apricot seedlings of Turkish origin, being tested by breeders of the U. S. D. A. in California, show promise as parents for breeding. They appear to be very resistant to frost and rainy weather during bloom. The seedling apricots also have some resistance to brown rot, shot hole and bacterial canker.

### The Royalvee Peach

The Horticultural Experiment Station at Vineland has released the peach variety Royalvee, formerly tested under breeding number 46071. Royalvee resulted from a cross between 39058 (Halehaven x Vedette) and Veteran made in 1946.

Royalvee ripens two weeks before Redhaven or three or four days before Sunhaven. The fruit is medium in size and bright all-over red in color. The flesh is bright yellow, fairly firm, slow oxidizing and of good flavor. It is a semi-freestone but in most seasons is reasonably free at full maturity.

Trees are very productive and, like Veteran, require heavy thinning most seasons. Nine full crops in succession indicate hardiness in bud and ability to set under adverse conditions. The trees are not large but appear strong. Bloom is large and showy, similar to Veteran, and the leaves have reniform glands. It is self-fruitful.

Several Ontario growers have trees in commercial production and are enthusiastic about its performance. A number of Ontario nurseries have budded trees but are probably sold out until 1961.—O. A. Bradt, *Hort. Res. Station, Vineland, Ontario*



### Black Raspberry in Kentucky

In 1959, black raspberry varieties Cumberland, New Logan, and Bristol bore their first crop in an experimental planting at the Kentucky Agr. Exp. Sta. Plants had been obtained from a virus free source. The yield of each variety in 24 pt. crates per acre was as follows:

Bristol: 123.1 crates  
Cumberland: 89.1 crates  
New Logan: 50.9 crates