

Two New Varieties Just a Beginning in Blackberry Breeding at Geneva, N. Y.

Introduction of the Hedrick and Bailey blackberries by fruit breeders at the Geneva Experiment Station is just the beginning of better varieties for the blackberry grower.

Many stocks of older varieties now in the trade are not true to name and it is difficult for growers to procure plants of good varieties of blackberries.

Partial and complete sterility of the flowers resulting in imperfect berries is common. In fact, blackberry growing in New York has declined nearly to the vanishing point and if commercial production is to be re-established in the State, suitable new varieties must be developed.

The Station's breeding program has as its chief objectives reliability of production, freedom from im-

perfect berries, sorts that bear fruit out in the open for ease of picking, and other plant and fruit characters necessary for a good variety.

Our present-day blackberry varieties are mostly selections from the wild and they often do not perform well under cultivation.

The breeding work at Geneva is based on Eldorado, a variety which is highly resistant to orange rust and relatively free from the trouble causing imperfect berries. Twenty-two varieties and selections have been used as parents in forty different combinations to produce 3,588 seedlings. From these 126 selections have been made to date and 75 of these have now fruited sufficiently to indicate the value of certain varieties and combination as parents.—Progress Report, N. Y. State Agr. Exp. Sta., Geneva, N. Y.

A Dutch Raspberry Proving Valuable in Breeding

A Dutch raspberry known as **St. Walfried** has proved itself to be outstanding in producing promising seedlings in the raspberry breeding program at the Geneva Experiment Station.

St. Walfried is closely related to **Lloyd George**, an English variety, which has also given excellent results at Geneva. Both of these va-

rieties belong to the European species of raspberry, **Rubus idaeus**, and thus are not closely related genetically to our American raspberries.

Crosses between representatives of this European species and native raspberries produce seedlings with markedly greater hybrid vigor than found in crosses between varieties

of the American species.

Twenty-four crosses made in 1945 involving ten varieties and seven selections produced 11,028 seedlings. From these, 164 selections have been made for further trial as possible new varieties or as sources of desirable characteristics in further breeding work.

The crosses involving St. Walfried have been outstanding in producing good seedlings and have paralleled the results obtained at Geneva from the use of Lloyd George. Fur-

ther attempts are being made to exploit the advantages of using this European species as a parent for crossing with American types.

Seedlings from St. Walfried crosses were conspicuous for their vigor and heavy yields, many of them being the best in the entire planting in these respects. Berry size was excellent and the fruit was generally firm, medium to light red in color, and with fair to good quality.—Progress Report, N. Y. State Agr. Exp. Station, Geneva, N. Y.

Apple Varieties for the Future

The best qualities of apples from all over the world are going into the making of new varieties in this country. Possibilities exist for the improvement of present day high quality varieties by: (1) immeasurably increasing their vitamin C content; (2) adding the spicelike flavor of the better English varieties; or (3) imparting the smooth, after-cooking flesh texture of certain of the German and New Zealand apples.

Breeding material incorporating qualities for improvement has recently been distributed to apple breeder from 1,500 varieties under study in test plantings at the U. S. Plant Garden at Glenn Dale, Md. This material includes:

A German apple—Schoner aus Nordhausen—with flesh that does

not turn brown even when exposed to the air for as long as 24 hours. This holds promise for originating apples especially desirable for salads and for freezing.

Three European varieties that have unusually high vitamin C content.

Selections representing the best of the bitter, sharp French and English cider apples. These and certain of our native crab apples will furnish material for originating hardier new "drinking" apple varieties with higher juice content and more appealing flavor than those now used for this purpose.

We have some fine apple varieties, but our changing market conditions will likely demand just such things in apples as are outlined in this program.—W. E. Whitehouse, U.S.D.A.