Five New Canning Clingstone Peach Varieties[1]

L. F. HOUGH,[2] CATHERINE H. BAILEY[2] and C. O. BALL[3]
New Brunswick, New Jersey

During his lifetime, Professor M. A. Blake assembled a valuable pool of peach genes with the help of the U. S. D. A. Plant Introduction Section, and pomologists and fruit breeders from other countries, such as N. I. Vavilov, the great Russian plant breeder and plant explorer. Professor Blake called this collection the "Foreign Legion" (5). In this collection there were canning clingstone varieties, some clear yellow, and some with much red at the pit, which proved to be productive at the New Jersey Agricultural Experiment Station. But none of these seemed wholly acceptable for commercial purposes. During the process of exploring the genetic potential of the "Foreign Legion", Professor Blake used some of the clingstones in crosses with standard freestone varieties, as well as with other freestone peaches in the collection. At his death, he left several good quality, large-sized, productive, yellow, canning clingstone selections.

Although these selections were very promising, they all ripened at approximately the same time. In order to build a clingstone industry in the East which would permit efficient harvesting and processing procedures, a sequence of varieties was needed that would make it possible to harvest similar clingstone peaches over a period of a month or more. Consequently, in 1951 crosses were made in an effort to produce varieties that would both extend the season of ripening and combine the most desirable characters of Blake's clingstone selections, i.e., productivity, large size, superior quality and little or no red at the pit.

A series of five canning clingstone varieties have been developed ripening over a period of a month, namely, Babygold 5, Babygold 6, Babygold 7, Babygold 8, Babygold 9.

Extra seeds from some of the crosses made in 1951 were sent to Professor Stanley Johnston at the Michigan Agricultural Experiment Station, South Haven, and to Dr. George Oberle of the Virginia Polytechnic Institute, Blacksburg. From these seedlings, Suncling has been introduced by Professor Johnston (3), and Dr. Oberle has several selections on test.

Testing and Suggested Uses

Limited samples of clingstone selections from the breeding program were tested by Dr. Olin Ball of the Food Science Department, Rutgers University, and/or by the research laboratories of a few commercial processors. Processed samples of puree and halves in cans and jars, prepared at Rutgers, were sampled at the National Canners Association meeting held in Chicago, February, 1957. The present series of five varieties were selected on the basis of their performance in these processing tests and on the field performance of the original trees. Trees were first released to processing firms for semi-commercial trial plantings in the eastern U. S. in the fall of 1959 and spring of 1960.

On the basis of the limited processing tests that have been made, com-

[1]Paper of the Journal Series, New Jersey Agricultural Experiment Station, Rutgers—The State University of New Jersey, Department of Horticulture.
[2]Department of Horticulture, Rutgers—The State University of New Jersey.
[3]Department of Food Science, Rutgers—The State University of New Jersey.

mercial processors feel that this series of clingstones will be fully acceptable for puree for baby food. They should also make a high quality product as canned halves because of their color, texture, and superior edible quality.

Choice of Names

The name of any one of these clingstone peaches will not be a factor in the sale of the processed fruit to the ultimate customer. It is only important to the nurseryman, grower, and the processor as a means of identifying clones of a given quality and ripening season. The significant difference between these varieties is season of ripening, since they have a similar appearance and processing quality. Consequently, we have given them all a single name, Babygold, and differentiated the season of ripening by a sequence of numbers. Each digit represents approximately a week's difference in season of ripening. The smaller the number the earlier the ripening.

In keeping with the practice of other authors describing peaches for eastern North America (1, 2, 4), we have used the season of ripening for Elberta as the base for calculating season of ripening for these new varieties. The Elberta base season is identified by the digit "8", since it is anticipated that similar large, good quality clingstone peaches may be produced which will ripen as early as seven weeks before Elberta.

The name "Babygold" has been chosen since these varieties were first tested on the basis of their suitability as puree for baby food.

Parentage and Descriptions of Varieties

Babygold 5, tested as NJC3, is a

Fig. 1. **Dr. Carl Smith (right), Produce Director of Gerber Baby Foods and Dr. L. F. Hough (left) examining one of the clingstone peach selections at the N. J. Agr. Exp. Station. (Photo, Gerber Baby Foods)**

seedling of Plant Introduction No. 35201 pollinated with pollen of NJ196, which is an open-pollinated seedling of (J. H. Hale × Goldfinch). The cross was made in 1951. Babygold 5 is a non-melting clingstone ripening about a week before Ambergem. The skin color is a bright yellow with up to one-half of the surface covered with red. The flesh color is yellow with just a little red at the pit. This red is removed in the pitting process. The fruits are large. The tree is productive, it has non-showy flowers and reniform leaf glands.

Babygold 6, tested as NJC15, is a seedling of [(J. H. Hale × Bolivian Cling PI 36126) open-pollinated] pollinated with pollen of NJ196 in 1951. Babygold 6 ripens with Ambergem or about two weeks before Elberta. The skin is yellow with up to one-half of the surface covered with red. It is yellow-fleshed with just a little red at the pit. The fruits are large. The tree is productive, and has non-showy flowers, and reniform leaf glands.

Babygold 7, tested as NJC19, is a seedling of (Lemon Free × PI 35201) pollinated with NJ196 in 1951. Babygold 7 ripens about one week after Ambergem and Babygold 6. It is yellow-skinned with up to one-half of the surface covered with red. The flesh is yellow with very slight red at the pit. It has a small pit. The fruits are large and of superior quality. The tree is productive, and has non-showy flowers, and reniform leaf glands.

Babygold 8, tested as NJC64, is from a cross of PI 35201 pollinated with Ambergem. The cross was made by Professor Blake in 1938. Babygold 8 ripens about with Elberta. The skin is yellow with very little red at the pit. The fruits are large. The tree is productive. It has non-showy flowers and reniform leaf glands. Babygold 8 has been tested for several years at the Michigan Agricultural Experiment Station, South Haven, as well as at the New Jersey Agricultural Experiment Station. The fruit buds of Babygold 8 have been hardier than those of Elberta at South Haven, Michigan.

Babygold 9, tested as NJC66, is a cross of PI 35201 pollinated with Up-to-Date (PI 43137). This cross was made in 1938 by Professor Blake. Babygold 9 ripens one week after Elberta and Babygold 8. The skin is yellow with up to one-half of the surface covered with red. The flesh is yellow with very slight red at the pit. The fruit is large. The tree is productive, has showy flowers and reniform leaf glands.

It is assumed that trees of these new clingstone peach varieties will be grown only under contract, since the fruit of these new varieties should be used for commercial processing. A limited number of buds may be obtained from the Department of Horticulture, New Jersey Agricultural Experiment Station, New Brunswick, New Jersey.

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