as soon as the McIntosh harvest is over.

Looking to the future, we hope that a McIntosh type apple will be developed which is resistant to apple scab. We will want a better early apple to replace Quinte and Julyred, a red apple which will ripen in early August, be of good eating quality, and not require more than two pickings.

The variety picture is changing so rapidly that we are inclined to believe the college professor who stated that, by the year 2000, none of our present varieties would be grown commercially; that all would be replaced by better apples before that time.

We used to test the new hybrids by grafting, thus getting a look at the apple in three or four years time. Now we plant them on one of the dwarfing stocks and get a better look at it in three years time. Hereafter, undesirable varieties will be pulled out rather than grafted, thus saving time and labor. For example, some of our three-year-old Julyreds on EM VII stock produced more apples than the five year old grafts on standard stocks. Times are changing!

Jerseymac — Earlier and Prettier than McIntosh*

L. F. HOUGH AND CATHERINE H. BAILEY**

Jerseymac is a McIntosh type apple that ripens one month earlier than, and is more attractive than McIntosh, wherever it has been tested. Since Jerseymac ripens just after Raritan, the three varieties Julyred (1), Raritan (2), and Jerseymac give a sequence of about 3 weeks of good quality, red, summer apples during late July and early August in central New Jersey.

Jerseymac has been tested as NJ38, and also under the seedling number 160456. It was selected from the cross NJ24 ♀ x Julyred ♂ made in 1956. NJ24 is a seedling of [117637 = Melba x (Wealthy x Starr)] x (NJ12 = Red Rome x Melba). The first fruits of Jerseymac were seen in 1961. When the late Dr. A. F. Yeager of the University of New Hampshire saw the first fruit he observed that it was just a good early McIntosh that ought to be widely accepted in its season. In 1964 it was introduced for trial as NJ38.

Jerseymac is very similar to McIntosh in many respects. It makes a strong, upright spreading tree. The period of bloom is about the same time as that of McIntosh. Typical fruit of Jerseymac are round and uniform in size, 2¾-2⅞ inches in diameter. They are comparable in size to those of McIntosh with a comparable crop load.

Preharvest fruit drop is less severe in Jerseymac than in McIntosh. The fruit of Jerseymac colors well in the southern counties of New Jersey—usually ½ to ¾ uniformally washed with bright red over a light green or light straw ground color. Jerseymac fruit produced in the northeastern McIntosh growing regions are usually nearly fully colored with bright red. At the time of harvesting for commercial shipment, the color is brighter and more attractive than that of McIntosh when it is picked commercially. Jerseymac has stored well for a month

*Paper of the journal series, College of Agriculture and Environmental Science, Rutgers—the State University of New Jersey.

**Research Professor and Associate Research Professor in the Department of Horticulture and Forestry, New Brunswick, New Jersey.

to six weeks.

The skin of Jerseymac is thin and tough like McIntosh; the flesh is tender, juicy and aromatic like McIntosh; the flesh is white when the fruit is fully ripe. The edible quality (texture, flavor and aroma) is equal, if not superior, to that of McIntosh.

Jerseymac has been propagated successfully on several size controlling understocks, but performance records are not available at this time.

Experience with the new red, summer dessert apples in New Jersey, including Jerseymac, suggests very strongly that they will not produce fruit with good eating and keeping quality if the trees are overly vegetative. If properly thinned, good crops of well-colored and good quality fruit are produced at nitrogen levels much less than that which growers are accustomed to using on Red Delicious. There is an indication that all summer dessert apple varieties will not necessarily respond similarly to chemical thinners. Commercial growers will have to build upon their own experience.

Trees are available from the New Jersey Apple Institute, RD 3, Princeton, N. J. 08540 and the New York State Fruit Testing Association, Geneva, New York 14456.

Literature Cited

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Titan, a Seed Source for F_1 Almond x Nemaguard Peach Hybrids

R. W. JONES*

The late flowering almond selection 92-54 has been named Titan. It blooms cimultaneously with Nemaguard peach. When planted adjacent to one another in isolated situations, it is readily pollinated by Nemaguard to produce a very high proportion of F_1 almond x Nemaguard peach hybrid seed. Certain Nemaguard seedlings pollinate Titan equally well.

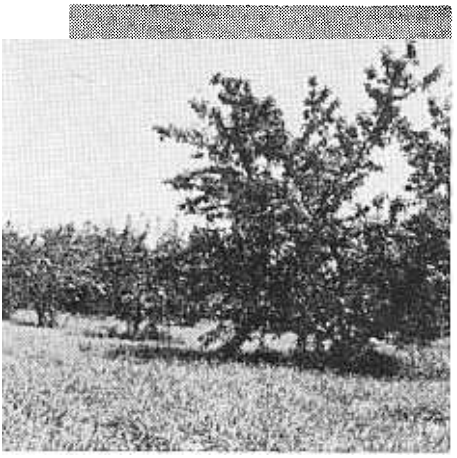

Fig. 1. Right foreground: Texas almond on an F_1 almond x Nemaguard peach hybrid root. Background: Dwarfed trees which are Texas on Nemaguard, planted at the same time, January 1961. This is a very sandy, nematode area on a ranch near Kingsburg, California.

Titan is an open-pollinated seedling of a late flowering mutant of Nonpareil. It was selected in 1964 by Robert W. Jones at the U. S. Horticultural Field Station in Fresno, California, in plots operated cooperatively with the Fresno State College Foun-

*USDA Horticultural Station, 2021 Peach Ave., Fresno, Cal. 93727. Present address: U. S. Pecan Field Station, P. O. Box 579, Brownwood, Texas 76801.