

The Madison Peach

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The Virginia Agricultural Experiment Station of Virginia Polytechnic Institute at Blacksburg, Virginia, on August 1, 1963, announced the releasing of a new frost tolerant variety of peach under the name 'Madison.' This is the third introduction of V.P.I.'s "Presidential Series" of peach varieties.

Madison is a seedling of Ideal crossed with Redhaven. The cross was made in 1952 after severe blossoming season frosts in 1950 and 1951 had demonstrated at Blacksburg that Redhaven and Ideal had the ability to come through with moderate crops of fruit under conditions of frost that destroyed essentially all of the potential crop of fruit on most varieties of peaches grown commercially in Virginia.

Ninety-one seedlings of this cross were planted in the seedling orchard in June of 1953. Most of the trees had heavy sets of fruit buds in the spring of 1955. The buds had developed to the pink or balloon stage by March 27, when a freeze accompanied by high winds lowered the official temperature to 10° F. at the V.P.I. weather station. A thermometer in the peach orchard recorded a low temperature of 12° F. Severe damage to fruit buds and blossoms was observed immediately in the Experiment Station orchards. Complete loss of the peach crop in commercial orchards of Virginia, except for two or three counties in extreme northern Virginia, was evident. In a few days, however,

it also became evident that trees of a few varieties and some seedlings had considerable numbers of apparently undamaged fruit buds, blossoms and pistils.† Among these were Veteran, Vedette, V.P.I. 8, V.P.I. 15, Cavalier, Redhaven, Ideal and others that had demonstrated similar frost tolerance in 1950 and 1951. Among the seedling selections that came through with good sets of fruit, were V.P.I. 49 and V.P.I. 48, which were named Washington and Jefferson, respectively, in 1959 and 1960.

Several seedlings of the Ideal X Redhaven cross also came through with good crops of fruit, and were held for further testing. The fruit of one of these was of outstanding skin color, firmness of flesh, and much above average in dessert quality. It was propagated for further testing in 1956. This selection again demonstrated outstanding tolerance to blossoming season frosts in 1957, 1960 and 1962. In the meantime, evaluation of the fruit and tree characters had shown this selection to be an outstanding one. It was assigned the selection number V.P.I. 54 in 1960. In 1961 the decision was made to name and introduce it as soon as trees could be made available through commercial channels. Budwood in limited quantities was distributed to nurseries interested in propagating it at that time.

The name 'Madison' was selected for V.P.I. 54 in accordance with the suggestion made by Director H. N.

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†Oberle, G. D. 1957. Breeding peaches and nectarines resistant to spring frosts. Amer. Soc. Hort. Sci., Proc. 70:85-92.

MADISON PEACH

Young of the Virginia Agricultural Experiment Station that new peach varieties produced by the V.P.I. fruit breeding program be named after Virginians who became President of the United States.

The fruits of Madison ripen at Blacksburg about August 18, or an average of seven days before Elberta, on the basis of eight consecutive crops from 1955 through 1962. The tree is of average vigor. It produces a very heavy set of fruit buds. The blossoms are of the semi-showy type. They produce good pollen and are self-fruitful. The leaf glands are of the reniform type.

Representative fruits have averaged 2 $\frac{5}{8}$ " in diameter through eight consecutive crop years. The skin is highly colored with about two-thirds bright red over a bright, orange-yellow ground color. The skin pubescence is very short, and the fruit have been rated as much above average in attractiveness. The flesh is bright, orange-yellow, with attractive contrasting pinkish-red adjacent to the pit. The fruits have been fully freestone during the eight seasons of production. The flesh has been rated as the most firm of any of the freestone varieties and selections under test at Blacksburg. It has fine texture and is remarkably free from stringiness. The flavor is mild and rich, with considerable resemblance to its Redhaven parent. Its quality has been rated to be about as good as Redhaven.

Trees of Madison will be available from a number of commercial nurseries for the 1964 planting season.

Reports from 1963 Amherst Meeting of American Society for Horticultural Science

Pear Heredity: Pear breeding experiments by Quentin Zielinski, at Oregon State University, indicate that seedlings carrying the red color gene transmitted by the Red Bartlett flower, tend to be more precocious than seedlings without this gene.

Fruit Pollen Storage: Y. K. Choi and Catherine Bailey, of Rutgers University, reported that apple, pear, peach, apricot and grape pollen stored best at -20° C and 50% rel. humidity.

Red Stele Resistance in Strawberry: After screening some 30,000 strawberry seedlings, Hugh A. Daubeny, of Aggasiz, B. C., concluded that the Yaquina clone of *Fragaria chiloensis* was the most effective parent for transmission of resistance to a composite of races of red stele (*Phytophthora fragariae*). Auchincruive 6 is also of some value in breeding for resistance to this fungus. Sparkle was among the poorer parents.

Raspberry Incompatibility: Chester C. Zych, of the University of Illinois, reporting on pollination studies with raspberries, stated that, under greenhouse conditions, combinations of red x black and purple x black raspberries were all incompatible. He also observed partial incompatibility in red x purple, purple x purple, and purple selfed.—G. M. Kessler