

The Stella Cherry

K. O. LAPINS*

Stella is the first self-fertile sweet cherry named. It resulted from the program initiated by Dr. D. Lewis and L. K. Crowe at the John Innes Institute, England, about 25 years ago. (1, 2). The first stage of the program resulted in three self-fertile cherries, numbered as John Innes seedlings. These have been used in crosses with high quality parents at Summerland and elsewhere. One Summerland cross, Lambert x John Innes Seedling 2420, produced the Stella variety. The cross was made in 1956 and the selection made in 1964; it was tested under the selection number 2C-27-19.

Tree

The tree of Stella is very vigorous, upright and spreading. In the test winter of 1968-69, fruit buds of Stella were more susceptible to cold than those of Lambert and Van, but hardier than those of Bing (3). Stella comes into bearing fairly early, and carries moderate to heavy crops, although lighter than Van, which over-sets at Summerland.

Fruit

The fruit of Stella is black, large, heart-shaped to oval, of the Lambert type (Figure 1). Under comparable conditions, Stella usually produces slightly larger fruit than Lambert. The flesh is medium coarse, moderately firm. The flavor is fair to good, comparable to that of Lambert. The skin of Stella is moderately susceptible to cracking in rain, and is comparable to Van in this respect. Stella ripens with Van or a week before Lambert.

The outstanding feature of the Stella cherry is its self-fertility. The variety has set fruit from isolated

(bagged) blossoms, both artificially pollinized and left unpollinized. Orchard tests of isolated blocks of the Stella variety have not been conducted. Tests indicate that Stella should be a universal pollinizer. In respect to self-incompatibility alleles, S, Stella should be either S 3.4¹ or S 4.4¹, resulting from Lambert, S 3.4 x John Innes Seedling 2420, S 3.4¹. In either case, Stella contains S 4¹, which means that the incompatibility reaction has been lost in the pollen but not in the style.



Fig. 1. Fruiting branch of Stella. The variety combines moderate to heavy set and large size of fruit with self-fruitfulness.

*Research Horticulturist, Canada Department of Agriculture, Research Station, Summerland, British Columbia, Canada.

Work is in progress to produce compact-tree mutants of Stella by ionizing radiation. Some promising mutants have been selected. They should be very valuable both for commercial plantings and home gardens. Virus free propagation material of the standard-sized Stella is available at the Research Station, Summerland, B. C.

Literature Cited

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2. P. Matthews and K. Lapins. Self-fertile sweet cherries. Fruit Var. & Hort. Digest 21, 36-37, 1967.
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Prima—an Early Fall Red Apple with Resistance to Apple Scab¹

D. F. DAYTON AND J. B. MOWRY,²

L. F. HOUGH AND CATHERINE H. BAILEY,³

E. B. WILLIAMS, JULES JANICK, AND F. H. EMERSON⁴

'Prima' is a new, red apple cultivar introduced from a cooperative breeding program carried out by the Agricultural Experiment Stations of Illinois, New Jersey, and Indiana, and informally cooperative with a number of other states and countries. The program was initiated in 1945 by J. R. Shay, then of Purdue University, and L. F. Hough, then of the University of Illinois. As the name implies, 'Prima' is the first cultivar to be

released under this cooperative effort. The prefix PRI in the name is an acrostic formed from the three institutions involved, *viz.*, Purdue, Rutgers, Illinois. The apple was formerly designated as Co-op 2 and by its breeding number 1225-100 (3). The selection at present is widely planted under the Apple Breeders Cooperative testing program.

The original seedling was planted in 1958 in the breeding orchard of the Department of Horticulture at the Illinois Experiment Station, Urbana, Illinois. It was produced from crossing the seedling 14-510 as the seed parent and the selection, N.J. 123249, as the pollen parent in 1957. The complete pedigree is shown in Fig. 2. 'Prima' is heterozygous for a dominant genetic factor V_f inherited from *Malus floribunda* 821 which causes it to be highly resistant to the apple scab organism, *Venturia inaequalis* (Cke.) Wint., and will only rarely

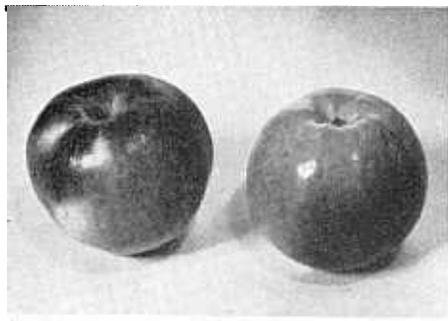


Fig. 2. Fruits of 'Prima'

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²Department of Horticulture, University of Illinois, Urbana.

³Department of Horticulture and Forestry, Rutgers University, the State University of New Jersey, New Brunswick.

⁴Departments of Botany and Plant Pathology, and of Horticulture, Purdue University, Lafayette, Indiana.