

Seven Disease Resistant Apple Selections Released for Grower Testing

J. A. CROSBY,¹ JULES JANICK, P. C. PECKNOLD,¹ S. S. KORBAN, S. M. RIES,²
J. GOFFREDA,³ AND A. VOORDECKERS³

Co-op 32 to 38 are seven new disease-resistant apple selections released for advanced testing by Purdue University, Rutgers University, and the University of Illinois as part of a cooperative apple breeding program. This is the seventh series of such releases since 1967. All seven selections derive a high level of field resistance (essentially field immunity) to apple scab caused by *Venturia inaequalis* (derived from *Malus floribunda* 821) and varying resistances to powdery mildew caused by *Podosphaera leucotricha*, fire blight caused by *Erwinia amylovora* and cedar apple rust caused by *Gymnosporangium juniperi-virginianae*. Resistance to apple scab was confirmed by repeated greenhouse inoculations of seedlings as well as 10 years or more of field observations in unsprayed breeding orchards; resistances to other diseases was determined by repeated field observations.

Co-op 32 (PRI 2946-1 = HFRow 34) is a medium sized, yellow apple which matures 8.5 weeks before 'Delicious' (July 20 to August 1 at Lafayette, IN). It is a pleasant, mild summer apple with a smooth, attractive finish and adequate storage life for retail sales. Quality and shelf-life is significantly better than 'Lodi' or 'Yellow Transparent.'

Co-op 33 (PRI 2712-1 = CLR19T60) is a red apple that matures one week before 'Delicious' (September 12 to 18 at Lafayette, IN); a smallish apple with exceptionally crisp, breaking flesh texture and excellent flavor at harvest.

Co-op 34 (PRI 1571-2 = TNR10T11) is a medium sized red apple that ma-

tures one week after 'Delicious' (October 5 to 15 at Lafayette, IN). It has good annual cropping with high over-all disease resistance. The conic-shaped fruit has 'Jonathan'-like quality and appears well adapted to the mid-west.

Co-op 35 (PRI 2750-15 = HER3T139) is a yellow apple maturing two weeks after 'Delicious' (October 5 to 15 at Lafayette, IN). Flavor is mild and pleasant with crisp, breaking flesh. Fruit size is smaller than 'Golden Delicious' but storage-life is superior.

Co-op 36 (PRI 2720-18 = CLR13T40) is a yellow apple maturing 2.5 weeks after 'Delicious' (October 15 to 20 at Lafayette, IN). The apple has a fruity flavor; flesh is crisp and breaking yet melting. Tree has a good over-all level of disease resistance. Fruit size is smaller than 'Golden Delicious' but storage life is superior.

Co-op 37 (PRI 2750-7 = HER4T20) is a yellow apple that matures 2.5 weeks after 'Delicious' (October 10 to 20 at Lafayette, IN). Fruit has a full rich, complex flavor, crisp and breaking yet melting flesh type. Fruit size is smaller than 'Golden Delicious' but storage life is superior.

Co-op 38 (PRI 2750-6 = HER4T16) is being named 'ColdRush.' It is a moderately-sized yellow apple that matures 3.5 weeks after 'Delicious' (October 20 to 30 at Lafayette, IN). 'ColdRush' is a long term winter storage apple with tart, rich flavor and exceptional crispness. The flavor improves after a month in storage; outstanding texture and quality is retained seven months or more in refrigerated storage.

¹Purdue University, West Lafayette, IN 47907.

²University of Illinois, Urbana, IL 71901.

³Rutgers, The State University of New Jersey, New Brunswick, NJ 08903.