Cultivar Corner

RUBYFROST™ APPLE TESTED AS NY 2

Inventors: Susan K. Brown and Kevin E. Maloney, Cornell University

Susan Brown answers some questions about this apple cultivar, recently released from Cornell University (2013).

RubyFrost™ has evenly colored fruit with a long harvest window. Photo: S. Brown.

What makes RubyFrost™ special?

Growers appreciate the high tree vigor, long harvest window, and great red fruit coloration. Consumers appreciate its crisp, juicy snap and its balance of sweetness and tartness. RubyFrost™ has good resistance to flesh browning, valuable for fresh-cut. It is a dual-use cultivar, great for eating out of hand, as well as pies, sauce, and fruit salads. 'RubyFrost™' is also has approximately double the vitamin C of most other commercial cultivars.

How long did it take to develop this cultivar?

The cross was made in 1992, so it was about 18 years from cross to commercialization.

What is the pedigree of RubyFrost™?

Braeburn and Autumn Crisp. Autumn Crisp, another Cornell cultivar, is from the cross Golden Delicious × Monroe, and Monroe is from the cross Jonathan × Rome Beauty.

What was the size of the family from which RubyFrost™ was chosen?

1,017 seedlings, a relatively large family size for my program.

Why did you make this cross?

This cross was made to determine the inheritance of flesh browning after cutting and vitamin C content. The pollen parent, Autumn Crisp, has low flesh browning and relatively high vitamin C content. Many offspring were as good as or better than their parents for resistance to flesh browning and many were intermediate for vitamin C content.

Were there other seedlings in that family that were advanced to the next stage of selection?

Yes, several sister seedlings are still under evaluation for potential commercialization.

How will RubyFrost™ be used in the RosBREED project?

Along with some of its sister seedlings, ancestors and one offspring, it will be used for discovery and validation of genetic loci controlling important fruit quality attributes such as fruit texture, firmness and soluble solids content.

RubyFrost™ on display in a grocery store directing consumers to its excellent fruit quality traits.

USDA United States Department of Agriculture National Institute of Food and Agriculture

RosBREED is a Coordinated Agriculture Project composed of a multi-state, multi-institution, and multi-disciplinary team of scientists dedicated to the accelerated genetic improvement of U.S. rosaceous crops using diagnostic DNA tools. This project is funded through the USDA-NIFA Specialty Crop Research Initiative by a combination of federal and matching funds.

RosBREED

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