

## Apple Tree - GoldRush (Coop 38)

**Purdue's apple breeding program delivers disease-resistant apple varieties that minimize the need for orchard pesticides.**

Purdue University began breeding apples in 1945 and now has about 48 varieties. The apple-breeding program started in 1934 as part of a Purdue, Rutgers University, and University of Illinois, or PRI, program to develop disease-resistant apples.

Sixteen of the Purdue apple varieties are being grown or tested in the United States. Europe, Canada, Chile, South Africa, Turkey, New Zealand, Australia and elsewhere around the world. Many are being used as "parents" in breeding programs.

Purdue is recognized globally as a source of apples that are resistant to a scab caused by the fungal pathogen *Venturia inaequalis*. In addition to mitigating the scab, these apples require a much reduced use of pesticides in orchards, according to Jules Janick, the James Troop Distinguished Professor of Horticulture and a founder of the Purdue apple program.

Some of the more popular Purdue apple breeds include GoldRush®, which has a crisp, tart flavor with long storage that has become a cult apple; Crimson Crisp®, a crunchy, spicy apple; and Pixie Crunch®, an apple ideal for kids because of its smaller size.

**TRL:** 9

### **Intellectual Property:**

Plant Patent, 1993-06-02, United States | Plant Patent, 1995-03-23, Canada | Plant Patent, 1995-10-10, Europe | Trademark, 1997-10-10, European Patent | Trademark, 2019-02-22, United States

**Keywords:** apple breeding program, disease-resistant apples, scab resistance, *Venturia inaequalis*, reduced pesticide use, horticultural breeding, apple cultivars, GoldRush, Crimson Crisp, Pixie Crunch, Agriculture, Apples, Crop Improvements

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### **Technology ID**

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### **Category**

Agriculture, Nutrition, &  
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