

# 2022 New England Vegetable and Fruit Conference

## Manchester, New Hampshire



**Win Cowgill**

*Professor Emeritus*

Rutgers University

*Owner and President*

Win Enterprises

International, LLC

[wincowgill@mac.com](mailto:wincowgill@mac.com)

# **21st century apples: MAIA and more!**

**Win Cowgill**

*Rutgers Emeritus Professor and Owner Win Enterprises  
International, LLC  
wincowgill@mac.com*

# *Selecting new apple varieties for production is the big challenge!*

- **Type of Sales at your farm Operation**
- *Wholesale*
- *Retail Sales- multiple types*
  - Roadside markets (or multiples)
  - Tailgate Farmers markets in towns and cities, sometimes in multiple states ( Some growers do 15+ tailgate markets)
  - PYO (some multiple locations)
  - Roadside wholesale trade (selling to other retailers)  
sometimes called  
Bin trade

.

# Variety Rank by FOB

(2018/19)

VARIETY			
HONEYCRISP	}	\$50-60	<b><i>Money Makers</i></b>
SWEETANGO			
EVER CRISP			
SNAPDRAGON	}	\$30-40	<b><i>Wannabees</i></b>
RUBYFROST			
KORU			
FUJI	}	\$25-30	<b><i>Bread and Butter</i></b>
PINK LADY			
GALA			
GOLDENs	}	\$20-25	<b><i>Traditionals</i></b>
MCINTOSH			
MACOUN			
CORTLAND	}	\$20 and lower	<b><i>On the Out</i></b>
RED DELICIOUS			
GINGERGOLD			
ACEY MAC			
EMPIRE			
JONAGOLD			



Prepared by Matt Wells



# Mid West Apple Improvement Association

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## 1,000+ ORCHARDS IN 37 STATES AND 8 COUNTRIES

Join a family of growers committed to promoting local apples through research, breeding and marketing.

[MEMBERSHIP INFO](#)

<https://maiaapples.com/>

# *MAIA selections and varieties are making a big impact*

- MAIA-SM (*SweetMAIA*) Paulared/Zestar Season
- MAIA12 (*Summerset*) Honeycrisp Season
- MAIA11 (*Rosalee*) Empire Season
- MAIA-L (*Ludacrisp*) Week before Evercrisp
- MAIA1 (*EverCrisp*) End of October



Rosalee 4<sup>th</sup> leaf  
**Brookdale Farms**  
**Hollis, NH**











# Other Newer Varieties to trial/plant:

- Kinder Krisp- aprox. 2 weeks before Gala
- Pixie Crunch -7-10 days after HC/Gala
- Crimson Gold- Sept 25-Oct 1 in North Jersey
- Autumn Crisp cv. NY 674 -Sept 25 in Northern New Jersey
- Ruby Rush (NJ150)-Just before Empire



# RubyRush™ – New Apple Cultivar Release from Rutgers University and Adams County Nursery

Jon Clements<sup>1</sup>, Win Cowgill<sup>2</sup>, Megan Muehlbauer<sup>3</sup>

<sup>1</sup>*University of Massachusetts*  
<sup>2</sup>*Professor Emeritus, Rutgers University, Win Enterprises International, LLC.*  
<sup>3</sup>*Rutgers New Jersey Agricultural Experiment Station, Rutgers University*

RubyRush (NJ150 Cv.) tested as DW18-206 is a new scab-resistant apple variety recently introduced by Adams County Nursery (ACN).

From their 2020 ACN catalog “A new release from the apple breeding program at Rutgers University/New Jersey Agricultural Experiment Station (NJAES). This selection is a GoldRush x Enterprise cross selected for its scab-resistant traits. Both GoldRush x Enterprise are from the famous Purdue, Rutgers, Univ. of Illinois (PRI) apple disease resistant breeding program, <https://www.hort.purdue.edu/newcrop/pri/default.html> RubyRush™ exhibits excellent resistance to fire blight and cedar apple rust. The fruit is juicy and aromatic with a desirable crisp texture. The tree is vigorous and should be thinned to avoid biennial bear-

ing. Trees available spring 2022. (Currently out of stock.)”

RubyRush was evaluated as DW18-206 in cooperation with Rutgers University and ACN at two locations in Massachusetts (Tougas Family Farm in Northboro, MA, and UMass Cold Spring Orchard in Belchertown) and one location in New Jersey (Rutgers Snyder Research and Extension Farm, Pittstown, NJ) beginning in 2011. A total of 24 lab and field observations for DW18-206 were entered into our [apple testers database\(s\) http://appletesters.net](http://appletesters.net), beginning in 2014 and ending in

Table 1. RubyRush fruit characteristic values.

Fruit Characteristic	Starch Index	Soluble Solids (%)	Firmness (lb.)	Fruit Weight (g)	Diameter (in)	Red Color (%)
Average Value	4.8	13	16.4	277	3.4	75

Table 2. RubyRush tree habit characteristics.

Tree Characteristic	Tree Vigor	Crop Load	Tree Habit	Branching	Pre-Harvest Drop
Average Observation	Precocious	Medium	Upright	Medium	None

and GoldRush (sweeter flavor, firmness) quite nicely. We’d describe it as a red-blush Enterprise but sweeter.

One interesting note is that Enterprise in one of the parents of CosmicCrisp (WA 38) apple crossed with HoneyCrisp.

ACNursery Catalog 2021-2022  
<https://www.acnursery.com/>

‘GoldRush’ Apple (Co-op 38)  
HortScience 29(7):827-828. 1994.  
<https://www.hort.purdue.edu/newcrop/pri/coop38-3.html>  
PRI 2750-6 = (Co-op 17 (PRI 1689-100) x Golden Delicious) (Crosby et al. 1993) Introduced as ‘GoldRush’ (Crosby et al. 1994) U.S. Plant Patent No. 9,392.



(Enterprise Apple’ (Co-op 30)  
<https://www.hort.purdue.edu/newcrop/pri/coop30.html>  
(PRI 2693-1 = PRI 1661-2 x PRI 1661-1) (Korban et al. 1990) Introduced as ‘Enterprise’ in 1993; U.S. Plant Patent No. 9,193



Figure 2. RubyRush apple at UMass Cold Spring Orchard, 30 September 2021.



Figure 3. RubyRush - UMass Cold Spring Orchard.





# Crimson Gold

## Suggested New Apple Variety: Crimson® Gold (Svatava Cv.)

Win Cowgill

*Professor Emeritus, Rutgers, Win Enterprises International, LLC*

Jon Clements

*University of Massachusetts Extension*

At Sunhigh Orchards in Randolph NJ last week, owner Phil Green was excited to show me his crop of Crimson® Gold apples grown on a 5-year-old tall spindle trellis. I ate one and my taste buds exploded with flavor. It is a very hard crunchy apple with lots of acid that forms a complex flavor balanced with high sugar. It fills a nice slot for PYO operation coming in before Golden Delicious. Trees had filled their space on M.9 NAKBT337 and were highly productive.

Crimson® Gold (Svatava Cv.) is available from Adams County Nursery. Their catalog lists Crimson Gold as "a new scab-resistant cultivar just ahead of Golden Delicious. The fruit colors nicely with a near full red-orange blush on a yellow background, and the flesh is white, firm and juicy. Apples are medium in size with a sweet-tart flavor. Fruit has storage life of up to eight months. The trees have medium vigor and are very productive, so they should be thinned accordingly." Trees at Sunhigh Orchard had fairly strong vigor on M.9 NAKBT337.

In Massachusetts, Crimson Gold

has been evaluated in two locations beginning in 2011 (per the Apple Testers database, [appletesters.net](http://appletesters.net)). Little, if any pre-harvest drop was noted when harvested from September 13 to October 30. October 30 was way too late to harvest it. Although largely a yellow apple, it has a prominent bright and very attractive red-orange blush that covers from 35 to 70% of the apple surface. It is a medium-large apple when adequately thinned, fruit diameter ranging from three to three and one-half inches. Flesh firmness centers around 20 pounds (quite firm). Brix has been as high as 16 but is more often about

14 when picked before becoming over-mature. Starch-index readings are variable but should be in the 4-7 range about October 1, the approximate recommended harvest date, just before Golden Delicious. Fruit flavor is best described as complex with both high sugar and acidity. It is admittedly not for everybody, but for those who appreciate a complex flavor. Fruit flesh is green-white, medium texture, crisp-melting, and sweet-tart. Skin is a bit chewy. Tree



Figure 1. Crimson® Gold (Svatava Cv.) grown at UMass Cold Spring Orchards Photo Credit, Jon Clements.

habit has been described as medium vigor with an upright-spreading growth habit. It can be biennial if not adequately thinned. Otherwise it is an easily managed tree. It might make a good cider apple, but is also recommended for fresh eating. Although Crimson Gold is scab-resistant, it is recommended a season-long fungicide (and insecticide) program be in place for optimum tree health and fruit quality. See the UMass maturity report: <http://ag.umass.edu/fruit/2019-apple-maturity-report>.

### *Origin of Crimson® Gold (Svatava Cv.)?*

Crimson® Gold is a Czech Republic apple variety tested as Svatava that is exclusive to ANIFIC which is an Australian Company which focus's on in Intellectual Property Management & Commercialization: <https://www.anfic.com.au/> and

<https://www.anfic.com.au/portfolio-view/svatava-2/>. Adams County Nursery <https://www.acnursery.com/> appears to be the only US nursery propagating it.

ANIFIC has the following descriptors for Crimson® Gold (Svatava Cv.).

FRUIT: medium sized with fine texture, juicy, aromatic and good acid balance. Average weight 148g.

SKIN: red striped bi-coloured apple with yellow background. Medium in thickness.

FLESH: cream, slightly crisp & slightly sweet. 13° Brix.

PRESSURE: 8kg (17.6 pounds)

MATURITY: ripens just before Golden Delicious.

COMMENTS: requires thinning similar to Golden Delicious.

STORAGE LIFE: 7-8 months.

# Other Varieties New and Old as Must Plants

- *Gala cv Pitts Gala*
- Crimson Crisp (Coop39 \_PRI)
- Snapdragon- NY
- Pink Lady cv Barnsby
- Stayman
- Goldrush ( Coop 38\_ PRI)
- Crimps Pink (Pink Lady)

# Apple Testers Data Base

<http://appletesters.net/>



## Welcome to AppleTesters

Guests may browse the AppleTesters database [here](#) (login as Guest)

AppleTesters may login to the database [here](#)

Want to become an AppleTester? Contact [Jon Clements](#)

Resources:

[Fruit symmetry/shape chart](#)

[Apple variety evaluation video](#) (10/17)



MDD-379

◀ Search

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MAIAtester (fruit.umext.umass.edu) 

🔍

MAIA apple tester

MAIA Selection

MDD 379

Status?

Keep testing

Date

9/24/2022

Name

Cowgill

Location

Baptistown NJ

Observation type

Harvest

Rootstock

Vigor

Medium-strong

Branching

Many

Growth habit

Upright-spreading

Bearing habit

Spur

Blind wood

Bloom time

Bloom density

Crop load

Medium

Size

Medium-Large

Red color

yellow

Overall appearance

Attractive

Texture

Crisp

Flavor

Sweet-tart


Overall flavor

Excellent

Comments


Excellent, patent it, Hangs well,  
First evaluated like 10 days?  
Ago

Tree pict



Season

Middle (Cortland)



DateTimestamp

9/24/2022 4:31:07 PM

Pre-harvest drop

Nil

Fruit diameter inches

Color % red

Firmness lbs

Brix

Starch index

DA index

Status?

Keep testing



**Win Cowgill**  
*Rutgers Emeritus Professor and Owner Win Enterprises  
International, LLC*

[wincowgill@mac.com](mailto:wincowgill@mac.com)  
[cowgill@njaes.rutgers.edu](mailto:cowgill@njaes.rutgers.edu)

<http://wincowgill.com/>