

# The Produce Pages

Serving the fruit and vegetable growers of Eastern New York



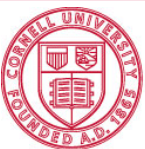
## Dormancy in Tree Fruit Pruning Considerations

December 2015

BY ANNA WALLIS

With harvest wrapped up and cooler temperatures setting in, it is time for everyone to hunker down for winter, including the trees. Dormant pruning is the next big task in the orchard. But pruning at the wrong time can lead to invigoration of your trees and winter injury. Here is some information to consider before breaking out the loppers.

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Cornell University  
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purchase actions, especially for more costly/risky purchases. A phone call, email, or letter works great.

- Keep customers involved with the company after the purchase with social media...entice them to “like” or “follow” you on Facebook or twitter.
- Offer incentives on future purchases.

There are many places throughout the consumer decision making process that marketers can intervene and “nudge” people toward their products or services. This should be an all-out effort with a strategic plan in place that influences customers during each step of the consumer decision making process. Hopefully with a great plan in place, more sales will be closed!

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“**Smart Marketing**” is a marketing newsletter for extension publication in local newsletters. Past articles are available at <http://agribusiness.dyson.cornell.edu/SmartMarketing/index.html>.

**ENY COMMERCIAL  
HORTICULTURE  
UPCOMING WINTER  
LOCAL PROGRAMS**

**February 15, 2016.**

**Northeast NY Tree Fruit School.**  
Lake George, NY.

**February 16-17, 2016.**

**Hudson Valley Fruit School –  
Tree Fruit Sessions.**

**February 18, 2016.**

**Hudson Valley Fruit School – Berry and  
Grape session.**

**New Dates Added Regularly at:  
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## Carrot Variety Trial Summary - 2015

**CRYSTAL STEWART**

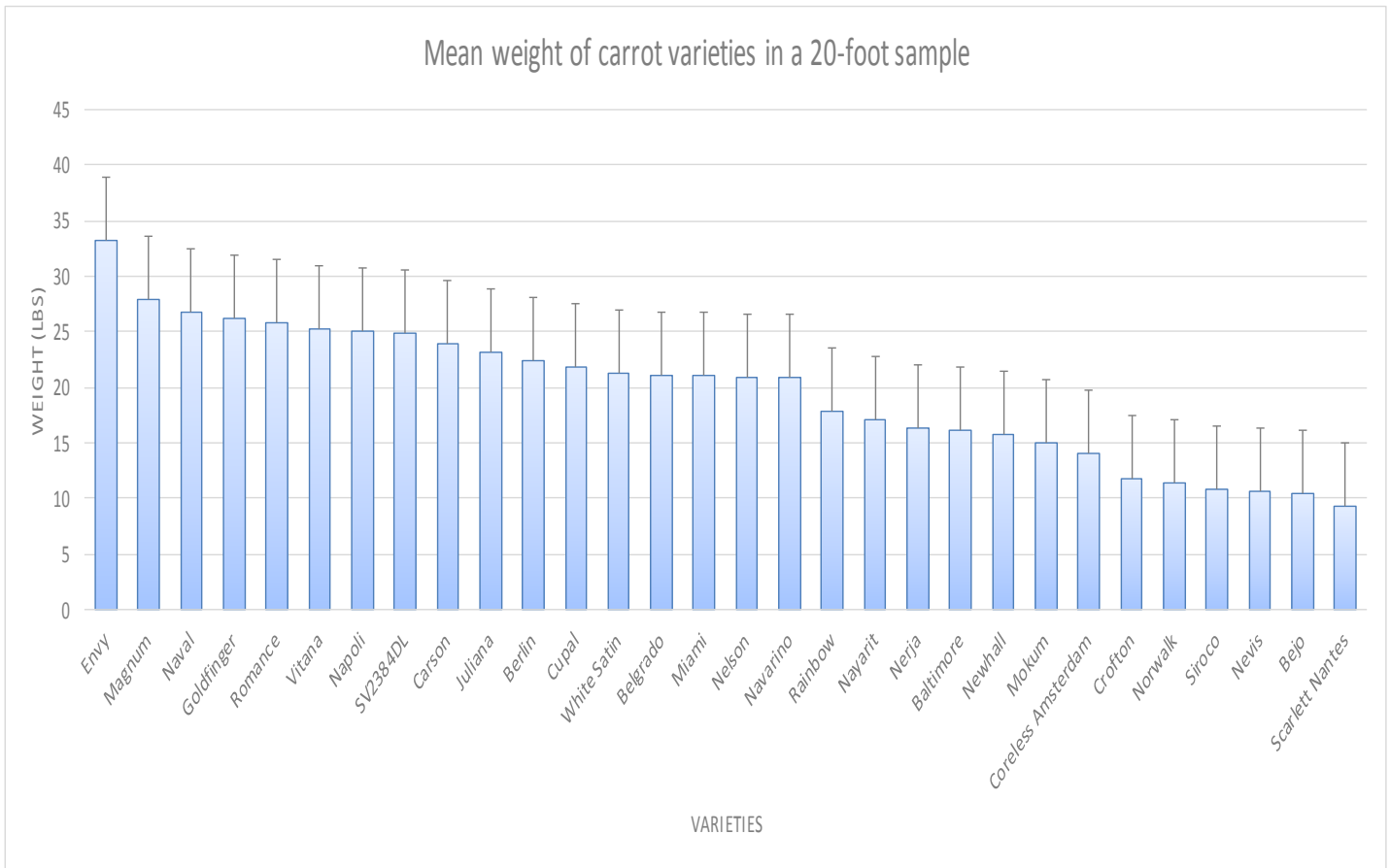
**Key conclusions:** There are significant differences in yield, quality and marketability of commercially available carrots, with some of the newer varieties providing clear improvements over old standards.

**Introduction:** Fresh market growers in Eastern New York have been asking for an evaluation of available carrot varieties for many years, in part due to an increase in foliar disease problems on many farms and in part due to demand for the next high yielding, high quality root. An assessment of 31 currently available varieties helped to start answering this question, while also leading to additional questions about how to grow a better carrot on a variety of soil types.

**Background:** The carrot variety trial was planted at the Hudson Valley Farm Hub in Hurley, NY on June 26<sup>th</sup>. The trial was planted with non-pelletized seed using an Olimpia Gaspardo vacuum precision planter at a rate of 30 seeds per foot in a two-inch band. The trial was grown organically, with optimum fertility and fairly good weed control. Carrots were harvested on September 25<sup>th</sup>. Three, twenty-foot samples of each variety were used for evaluation.

**Results:** The carrots varied dramatically in their yield, with some of the new varieties leading the field and some older varieties having the lowest yields. This information is shown graphically below, with error bars indicating which carrots are statistically different from each other. If a graph line (blue) does not overlap with the error bars around it, the carrot yields are statistically different. Bars which overlap are numerically but not statistically different.

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In addition to total yield, we also measured the percent of each variety that was marketable, and extrapolated yields too 100-foot and one-acre. These extrapolations are based on the yield picked from the three twenty foot sections. Table One shows these numbers, with varieties ranked from highest marketable yield to lowest.

There were also many qualitative differences between the varieties, including notable differences in Alternaria susceptibility of the foliage. The best tops included some of the top yielding varieties such as Envy, Magnum, Naval, and Goldfinger (figure 1). Older standards such as Scarlet Nantes, Coreless Amsterdam, and Mokum did not fare as well with Alternaria resistance or yield, nor did some new arrivals such as Sirocco or Nevis. Taste is of course a key when considering varieties, and growers rated this quality during a twilight meeting where we looked at the trial. The favored

variety was Baltimore, with Envy and Juliana also being favorites.

Another quality which was evaluated carefully during this trial was susceptibility to cracking. This plot was not irrigated, and precipitation was quite variable during this growing season. After about a month of dry weather, we received a saturating rainfall. These conditions are not ideal for growing carrots but are ideal for showing which varieties will hold up during challenging conditions. Some of the same favorites rose to the top, while varieties such as Scarlet Nantes, Belgrado (a processing carrot), and Juliana had significant culls due to cracking (Figure 2). Notably this is an issue which might be resolved by careful irrigation management.

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**Table One: Varieties ranked by marketable yield**

Variety	% Marketable	Total yield (lb) in 60'	Yield/100'	Yield per acre at 17200 row feet/acre
Envy	78%	99.7	166	28,566
Cupal	78%	65.7	110	18,834
Goldfinger	78%	78.7	131	22,561
Carson	75%	71.9	120	20,611
Vitana	74%	76.0	127	21,787
Nelson	73%	56.6	94	16,225
Romance	73%	77.5	129	22,217
Navarino	72%	62.7	105	17,974
Miami	71%	63.4	106	18,175
Nelson	70%	69.1	115	19,809
Magnum	70%	83.5	139	23,937
Baltimore	69%	48.7	81	13,946
Crofton	67%	35.3	59	10,119
Rainbow	66%	53.6	89	15,365
Berlin	66%	67.1	112	19,235
Naval	66%	80.3	134	23,019
Norwalk	65%	34.4	57	9,861
Belgrado	64%	80.1	133	22,948
SV2384DL	62%	74.7	125	21,417
Napoli	62%	75.3	125	21,572
Ingot	60%	69.7	116	19,981
Mokum	60%	44.9	75	12,871
Siroco	59%	32.4	54	9,288
Nerja	59%	48.7	81	13,961
Bejo 2976	58%	31.4	52	9,001
Juliana	57%	69.6	116	19,938
White Satin	55%	63.6	106	18,232
Newhall	52%	47.0	78	13,473
Nayarit	50%	51.1	85	14,649
Nevis	48%	32.0	53	9,173
Coreless Amsterdam	44%	41.9	70	12,011
Scarlett Nantes	39%	27.8	46	7,969



**Figure 1: Varieties with good tops. Images: Anne Bloomfield, HVFH**

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Figure 2: Carrot varieties showing susceptibility to cracking.

Images: Anne Bloomfield, HVFH



**Conclusions:** Newer varieties such as Envy, Magnum, Naval, and Goldfinger show promise in replacing older varieties such as Coreless Amsterdam, Mokum, and Scarlet Nantes. Careful selection from available new varieties can yield carrots which are smooth, straight, good-tasting, and have quality tops. As with any trial, growers should remember that varieties could respond very differently on their soils and in their microclimate. We always recommend doing your own trialing to compare current varieties to new ones in each unique system.

In order to see pictures of each of the varieties grown in this trial, visit our website at <http://enych.cce.cornell.edu/> and click on the carrots tab. If you have specific questions, please email Crystal at [cls263@cornell.edu](mailto:cls263@cornell.edu) or call 518.775.0018.

**Additional research questions:** This trial created a broad base from which to evaluate a variety of fresh-market carrot varieties of both Imperator and Nantes lineage. Another year of trial data will help determine if the results observed this year were typical for each variety. Additionally, replicating the trial with irrigation will also provide useful information about how each variety performs under ideal conditions.

The question of how ridge cultivation affects deep-rooted crops still remains following this trial. Comparing flat ground, raised-bed and ridge cultivation for germination rates, marketable yield, and overall quality is another avenue for future research.

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