

**LOF Program
Publications and Events**

"Fruit Notes"

Newsletter,
22 issues per year with enrollment,
by mail or email.

- Time sensitive pest & horticultural reminders by fax or email
- Reports critical disease infections and control timing for insects
- Timing models for increasing fruit size by thinning, predicting irrigation needs, etc.
- Berry production, and more...
- By subscription



Apple Maturity Report



- Reports fruit ripening indicators for over 20 apple varieties.
- Helps growers schedule harvest of specific varieties for best quality.
- Faxed or emailed to growers, packinghouse and storage managers.
- By subscription.

Events:

- Winter Fruit School
- EXPO Educational Sessions
- Pruning workshops
- Field meetings
- Summer tours
- Labor Workshops
- Special Topic Workshops
- Pesticide Safety Trainings
- Farm visits

<http://www.fruit.cornell.edu/lof/>

**Cornell Cooperative Extension
Lake Ontario Fruit Program**



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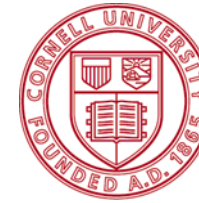
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**Cornell University
Cooperative Extension**

Lake Ontario Fruit Program

2012 Year in Review

Objectives:

- ⇒ Maintain competitiveness and profitability of NY fruit farms in a global market.
- ⇒ Evaluate new technology for potential increases in efficiency through applied research.
- ⇒ Assist in the adoption and implementation of appropriate technologies.
- ⇒ Reduce financial, legal, labor, environmental, and health risks.
- ⇒ Improve production and delivery of high quality fruit to consumers.



Your Trusted Source for

Research-Based Fruit Production Knowledge.

We partner with Cornell Cooperative Extension of Wayne, Orleans, Niagara, Monroe, and Oswego Counties, Cornell University Cooperative Extension and faculty to provide educational programs for the commercial fruit industry, using research-based information to help the tree fruit and berry industries in New York compete in the world market and provide safe, high-quality produce for consumers.

Highlights of 2012



WNY Fruit Business Summary for 2011

Financial data is collected from 18 farms managing over 11% of NY apple acreage. Data show average annual operating expenses of \$5,950 per bearing acre of fruit (including operators' labor). This study allows extension to use grower costs in constructing budgets for new planting systems, and analysis of various scenarios such as crop loss due to frost, poor thinning resulting in small fruit size, and more. The average farm in the study is 230 bearing acres and 13.2% nonbearing acres, producing 177,477 bushels of apples, at 786 bushels/acre.

Impact: Growers have adopted new planting systems, rootstocks, and other new technology to increase fruit quality, yield and efficiency. The average state yield/acre in the past five years has been 730 bu. per acre, a 166 bushel increase over the previous five-year average with added value of \$1000-2000/acre. This increase in yield and the increase in returns per bushel due to improvements in fruit quality have had even greater impact on farm profitability. This has allowed growers to invest \$1,106 per bearing acre in capital purchases. These capital investments include: new orchards, land, machinery, equipment, on-farm buildings (spray sheds, cold storage, packing & grading facilities) and cooperative ventures (managed apple varieties, packing and storage facilities) contributing to the local economy.

The early spring frost reduced the NY apple crop by 50% (~14 M bushels) across the state and all other tree fruit crops were very light as well. The Lake Ontario Fruit Program of CCE responded to the seasonal weather challenges in many ways. The LOF Spring Field Summit focused on managing pests, fertilizer, and fruit crop thinning practices in a light crop year and introduced growers to various agencies that could help during this stressful season. Alison DeMarree responded to the seasonal disaster by bringing crop insurance adjusters, FSA personnel working with emergency loans, and Farm Credit into a forum to discuss how their agencies assist growers experiencing crop losses, and explained the documentation required for substantiating yield records and fresh apple production. The LOF Summer Tour featured various aspects of tree fruit and berry production with a focus on 2012 weather vs. climate change and tools growers could use to prevent future losses such as the Orchard Rite wind machine.

Emerging Pests! Debbie is collaborating with many faculty to monitor for new pests and new challenges in pest management. The new challenges include:

- Spotted wing drosophila, a new vinegar fruit fly that will attack berry crops and perhaps stone fruit.
- Brown Marmorated stink bug which will attack all fruit crops.
- Fire blight bacteria that are resistant to streptomycin and require less effective alternatives for control. This orchard is slated for removal due to loss of >50% of the trees with fire blight.



Researching Optimal Harvest Timing for New Apple Varieties!

Craig has been helping to develop harvest timing recommendations for NY-1 & NY-2 in cooperation with fruit breeder Dr. Susan Brown and the grower cooperative holding the license to these varieties. With the help of Kevin Maloney (NYSAES), local crop consultants and growers, Craig tests the varieties for internal ethylene production, firmness, sweetness (total soluble solids) and conversion of starch to sugar in the apples as they mature. Color, size, and flavor are also evaluated. The goal is to maximize flavor and texture which will insure that consumers receive tasty, crisp apples EVERY time they purchase these apples.

Pruning Demonstrations and Mechanization for WNY Fruit Industry

Each year the Lake Ontario Fruit Program and Cornell faculty provide several outdoor pruning workshops to learn about the benefits of proper pruning, minimal pruning, limb renewal pruning, and limb bending. At each of the pruning sites, the team shows platforms available for growers to prune with loppers, pneumatic pruners, and a chainsaw on a pole. The use of motorized platforms has increased in WNY in the last three years. Several growers have realized that dormant pruning can be done more efficiently, cheaper, and faster with the use of platforms (self-propelled or pulled by a tractor and single row or 2-row types). By using platforms, dormant pruning work is definitely less physically demanding for workers when they no longer have to climb ladders while carrying pruning tools.



Weed Control in High Density Orchards

Debbie Breth partnered with NESARE, Rod Farrow of Orleans Co., and Doug Mason of Wayne Co., to demonstrate weed management using safe herbicides (investing \$60 per acre) in newly planted high density orchards. Weed control increased returns to growers after 1 season by \$700 - \$1000 per acre., and the second season by \$1300-1900 per acre.



Building Strong and Vibrant New York Communities

Cornell Cooperative Extension provides equal program and employment opportunities. NYS College of Agriculture and Life Sciences, NYS College of Human Ecology, and NYS College of Veterinary Medicine at Cornell University, Cooperative Extension associations, county governing bodies, and U.S. Department of Agriculture, cooperating.



The NY-1, a Honeycrisp cross, has phenomenal flavor and unique texture.