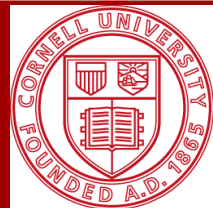




# FRUIT NOTES

## Lake Ontario Fruit Program



Volume 14 Issue 4

March 12, 2014

### March 24 – Pruning Demo with Motorized Platforms at Wafler Farms

Mario Miranda Sazo

Paul Wafler has agreed to show his new self-propelled harvest platform being used as a pruning platform in a mature Tall Spindle orchard. The demonstration of 2-3 machines and its respective pruning crews will be conducted in Wolcott, NY from **2pm until 4pm on Monday, March 24**. See and hear how the pruning platforms have worked for him and his crew after only one week of pruning work in 2014. Wafler Farms is located at 10748 Slaght Rd., Wolcott, NY 14590. Please drive to the main office/storage facility and then follow the Cornell event signs.

This meeting is **FREE**, does not require a pre-registration, and is open to all Western NY fruit growers interested to improve orchard labor efficiency during the winter months. For more details call or email Mario to 315-719-1318 - mrm67@cornell.edu. This field meeting is also posted at the new LOF website at <http://lof.cce.cornell.edu/>

### One Week Left to Register for the In-Depth School for Fruit Growers on Tuesday March 25, 2014

M. Miranda Sazo

The pre-registration closes this Saturday, March 15. This meeting will be a one-day intensive school focusing on fruit crop physiology and the applications of physiological principles in the orchard for tree fruit growers, extension educators, and crop consultants on March 25, 2014, at the Ramada Inn in Geneva, NY. The meeting will feature 6 scientists who have been the leaders of fruit physiology for the last 35-40 years and who are all retiring (alphabetically, Ted DeJong, University of California-Davis; James Flore, Michigan State University; Duane Greene, University of Massachusetts; Alan Lakso, Cornell University; John Palmer, Plant and Food Research, NZ; and James Syvertsen, University of Florida). We invite you to attend and learn how to better manage orchards from their collective knowledge.

Details and registration information are available at the Web site: <http://events.cals.cornell.edu/indepthschool2014> . For more information call Gemma Osborne at 315-787-2248, fax number 315-787-2443 or email at gro2@cornell.edu



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Cooperative Extension

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#### *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.

Every effort has been made to provide correct, complete, and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide.

# Cold-Hardiness of Geneva® Rootstocks

M. Miranda Sazo

Cold wave events affected our Lake Ontario region this winter and made us wonder about the cold-hardiness of apple rootstocks. As more high density orchards are planted in the U.S. with Geneva® rootstocks in the following years, it will be important to know Geneva's levels of cold-hardiness (Table 1) to determine their suitability for plantings in regions with subfreezing temperatures in the fall and cold winters (with thin or nonexistent snow cover).

Survival of Geneva stocks in the Champlain valley has been excellent. In a test planting made in 1991 which experienced -40°F in January 1994, G.41, G.935, G.202 and G.210 showed no damage the next spring while M.7 showed mild damage. This cold event was with about 6 inches of snow cover.

In a second test planting of Geneva stocks with Honeycrisp and McIntosh in the Champlain region in 2001 a winter cold snap in January of 2004 caused considerable tree death of several Malling stocks but not of G.16 and G.30. In this case there was no snow cover and the damage occurred to the roots and rootstock shank and not to the scion or scion buds. The damage resulted from the

combination of warm weather in late December of 2013 which melted all of the snow, followed by a sudden drop in temperature to -25°F by Jan 5. Low temperatures remained at that level each night for several weeks. When tree mortality was recorded in the spring of 2004 'G.16' exhibited very good mid-winter hardiness and survived the 2004 winter freeze event in Northern NY that killed many 'M.9', 'B.9' and 'M.26' trees. G.41 has also survived well in Minnesota as part of the NC140 rootstock testing program.

Controlled experiments conducted by Dr. Renae Moran at the University of Maine have shown that G.41, G.11, G.30, and B.9 had root tissue cold-hardiness comparable to M.26. G.935 was the only rootstock to have greater root hardiness than M.26. Cold hardiness of B.9 and P.2 in relation to hardiness of M.26 was similar to previous reports. She reports that controlled cold-hardiness studies with most of the Geneva rootstocks are lacking, but in field trials the rootstocks G.16 and G.30 have had greater survival than M.26 or B.9 after a cold event. G.41 has also had good survival after a cold event. She suggests the use of G.935 for apple areas around the world that experience injuriously cold soil temperatures.

Table 1. Parentage and cold-hardiness characteristics of some Geneva rootstocks <sup>(1)</sup>

Geneva® rootstock/cold-hardiness level	Parentage
G.935 (very hardy)	Ottawa 3 <sup>(2)</sup> X Robusta 5 <sup>(3)</sup>
G.16 (hardy)	Ottawa 3 X <i>Malus floribunda</i>
G.30 (hardy)	Malling 9 X Robusta 5
G.41 (hardy)	Malling 27 X Robusta 5
G.202 (mixed results, more research needed)	Malling 27 X Robusta 5
G.11 (mixed results, more research needed)	Malling 27 X Robusta 5

<sup>(1)</sup> Based on controlled studies and tree survival under natural conditions, B.9 and M.26 are considered hardy while M.9 and MM.111 are rated as moderately hardy and M.7 as cold sensitive.

<sup>(2)</sup> It is rated as a very cold-hardy rootstock.

<sup>(3)</sup> It is rated as hardier than M.26 in winter but loses cold-hardiness faster in spring.

## **Reminder for Pruning of Top Portion of Mature Tall Spindle Apple Trees – Call Me if Needed**

Mario Miranda Sazo

I have seen too many large branches in the top portion of mature Tall Spindle apple trees after they were pruned. At maturity the top portion of the leader must be cut annually to a small side branch and you also have to eliminate the upper large branches with a bevel cut. The upper 1/3 portion of your trees should be composed of just fine fruiting wood. Please call me if you need any assistance with pruning in trellised orchards for any orchard age or to facilitate your communication with Spanish-speaking pruning crews the following weeks. Mario 315-719-1318, mrm67@cornell.edu

## **Evaluate Peach Bud Mortality**

James Schupp (modified for WNY by M. Miranda Sazo)

Since temperatures got as low as -16°F locally this winter, you need to evaluate peach bud mortality at your site the following days. Given the colder sub-zero temperatures experienced in February and early March, it is likely that flower bud mortality may be higher than we previously anticipated in early January.

During dormancy, peach flower buds are among the most tender tissues in any of the tree fruit crops grown in our region. The health of the trees, variety, time of the season, temperature immediately before the cold event, minimum temperature observed, and the speed and duration of the temperature drop all affect the extent of the freeze damage. The general consensus is that damage to dormant peach flower buds is extensive when the minimum temperature reaches -10°F.

NY peach growers can check flower bud mortality in their own orchards as follows:

1. To get a good estimate, you should examine about 150 buds of each variety per block, so collect 5 to 8 one-year old fruiting laterals -- those optimal fruiting laterals that are pencil thick and 24-32 inches in length from the trees you wish to test.
2. Bring the fruiting laterals (peach bouquets) into a heated building and allow them to warm up overnight. Put them in a vase or container with water.
3. Count and record the total number of flower buds (the fat ones) on a branch.
4. After 2-3 or more days, slice each bud open lengthwise with an exact knife, single edged razor blade or scalpel. A box cutter or utility knife with a fresh blade can serve in a pinch.
5. With a magnifying glass or visor, examine the contents of each bud cross-section. Apart from the outer husk of bud scales, the contents should have a lime green color, with a yellowish green base.
6. Count the number of buds with internal tissue that is brown or black, and record these as dead. Calculate the number dead and number that appear to be healthy. If, for example, you have 24 live flower buds on a fruiting lateral that should carry four peaches at harvest, then you have six times as many live flower buds as are required to have a full crop.

## **Spring 2014 NYSDEC CleanSweepNY planned for Region 9.**

The Spring 2014 NYSDEC CleanSweepNY planned for pesticide collection and disposal program will take place the week of April 28th.

### **PRE-REGISTRATION IS REQUIRED**

**<http://www.cleansweepny.org/>**

Return Completed Registration forms to NYSDEC by these deadlines:

- April 4, 2014 for participants with unknown products and gas cylinders.
- April 25, 2014 for all other participants.

To obtain more information and to request a registration packet from NYSDEC, telephone 877-793-3769 or contact CleanSweepNY by email at [info@cleansweepny.org](mailto:info@cleansweepny.org).

## **Produce Safety Focus Groups**

Betsy Bihn

We are looking for two groups of 10 fruit and/or vegetable growers to participate in two focus groups. The purpose is to ask for your opinions about new decision trees that are being developed to help growers assess food safety risks on the farm and decide which risks should be addressed first. These trees are designed primarily for small to medium sized farms, but should be useful to all fresh produce growers.

These focus groups will be held in two different locations. One will be on Thursday March 20,

2014 from 2-4 pm at the New York State Agricultural Experiment Station in Geneva, NY. The other focus group will be Thursday April 3, 2014 from 1-3 pm at the Best Western Albany Airport, Albany, NY. Participants will receive \$40 to compensate for their time and travel expenses. Please call or email Betsy Bihn at 315.787.2625 or [eab38@cornell.edu](mailto:eab38@cornell.edu) if you are interested in participating or if you have any questions. These focus groups are open to all fruit and vegetable growers.

## **The Next Future Fruit Growers Meeting is March 27 – Special Guest George Lamont – please rsvp by March 25**

George Lamont, a true pioneer of the Apple Industry in the US, will be talking about the histories of the Premier Apple & Albion Co-Ops.

When: Thursday, March 27, 2:00-4:30 PM  
Where: Orleans County Cooperative Extension  
Harrington Classroom  
12690 State Rt. 31  
Albion, NY 14411

Please RSVP to David Bittner,  
[david@singerfarms.com](mailto:david@singerfarms.com) or 716-622-3203 by  
Tuesday, March 25.

## **Wanted! Cornell student in CALS interested in summer internship in Wayne Co. Award value: \$4,000\***

A new pest, black stem borer, an ambrosia beetle, was detected in apples in 2013 in 6 sites in western NY, associated with fire blight and tree death resulting in tree losses exceeding 10%. This pest has a reputation for attacking nursery trees and apparently healthy trees and has a wide host range. It has never been noted in 28 years of scouting western NY. This pest is also associated

with fungal growth in the tunnels it bores to feed the larvae, which can be damaging to the trees as well.

Agnetto and Breth will work with the intern to develop trapping equipment and procedures, and survey grower orchards starting with the originally identified sites, and expanding the search

perimeters to assess the extent of infestation. Cox and Breth will work with the intern to identify any plant pathogens that may be associated. Elizabeth Claypoole will supervise the intern and help make connections in the industry. This project will facilitate more detailed survey, collections, and identification of ambrosia beetles by species, and determine the extent of spread of this pest for future inclusion in IPM programs.

### **Student Intern's Roles and Responsibilities**

The student will install and monitor traps for black stem borer (BSB), identify and count the number of BSB in the mix with other incidental ambrosia beetles. The student will monitor the originally identified orchards where BSB was found and examine trees in the surrounding area for additional infested trees. He/she will assess tree losses. He/she will collect insects and infested tree samples for isolations to be made in the lab, and will assist in isolations in Geneva. The student will enter trap data, orchard monitoring results, tree loss counts, and identification of BSB. The student will report findings of pathogens

associated with BSB in these locations. The student will present findings on the project at the final "report out" session in the Fall semester. A literature search of this type of pest occurrence would be a valuable complement to the study.

**Contact: Sheryl Thomas at [sat6@cornell.edu](mailto:sat6@cornell.edu) or 255-2117 or Deborah Breth at 585-747-6039.**

Details of the project are listed at:

<http://cce.cornell.edu/learnAbout/GetInvolved/Pages/project.aspx?proj=49>

The deadline has been extended! The intern must satisfy the requirement of 3 years' driving experience with a good driving record. A Department of Motor Vehicle (DMV) check of driving record will be required to verify driving history. If the intern has less than 3 years driving record or you foresee any issues with the driving requirement, we will help find alternative approaches for interns to meet the driving requirements if possible. Interns are required to attend an orientation session in May. We will share additional details when available.

## **Plentiful Partnership of Niagara Workshop – April 3**

Please join us for our ***Plentiful Partnership of Niagara*** Workshop and complimentary dinner on Thursday April 3<sup>rd</sup> (5:30 pm), at the Cornell Cooperative Training Center (4487 Lake Ave., Lockport, NY) to learn how you can help keep Niagara County produce local and alleviate hunger!

We invite you to join ***Plentiful Partnership of Niagara*** in celebrating Niagara County's rich agricultural history, in recognizing our generous farmers, and in learning how your farm might partner with the Food Bank of WNY.

Representatives from the Food Bank of WNY will be present to answer questions pertaining to the following:

- Direct purchasing options of fruits and vegetables

- Donation options for imperfect or unwanted produce
- Opportunities to set aside a portion of your crop for pre-sale with the Food Bank of WNY

In Niagara County, 10.8% of residents or 23,360 people experience food insecurity, meaning they do not have access to enough food for an active, healthy lifestyle. NYS farmers, including WNY farmers, continue to offset food insecurity and stave off hunger through their abundant generosity. In 2012, NYS farmers and ranchers donated 8,583,067 pounds of food.

Please join us to learn more and to share in your successes and best practices. We will be featuring a complimentary dinner, catered by Donna Eick, complete with farm to table dishes to highlight the farmers of our region and their delicious produce!

**Please RSVP to: Margaret Lapp, 716-433-8839, ext. 232; [mml37@cornell.edu](mailto:mml37@cornell.edu)**

## Order Your 2014 Guidelines Now

Many of you have heard by now that Pesticide Education Management Program at Cornell University is facing some significant budgetary constraints due to a loss in funding. Due to these constraints, they reduced staff by 1.5 positions and have closed their distribution office, transferring distribution operations to the Cornell Store.

Because of funding reductions, they are now relying more than ever on sales of pesticide applicator training materials and Cornell Guideline products to support producing these materials and maintain the staff who provide the service and support Cornell faculty/staff and the residents of New York State expect from our program.

Items not currently meeting PMEP's cost recovery needs are the online editions of the Cornell Guidelines. When PMEP took on production of the Guidelines some seven years ago, they continued the established practice of providing free online access to them. It was justified by using the idea that print edition sales helped underwrite the costs of free online access. This assumption is no

longer valid. Overall sales for the print Guidelines have decreased in the past few years and are not adequate to help support free online Guideline access. Therefore, 2014 Cornell Guidelines (with the exception of the Vegetable Guidelines) will **NOT** be available online.

PMEP will take from now until the 2015 update cycle to evaluate ways we might effectively recapture the costs of providing the Guidelines online. A message has been posted to the main <http://ipmguidelines.org/> page telling how to purchase the new versions.

PMEP realizes this will be an unpopular decision for many of you. However, we hope that you will understand the situation PMEP is facing and bear with them as they consider a new model for providing the Guidelines online. These publications can be purchased through your local Cornell Cooperative Extension office or through the Cornell Store at Cornell University. To order through the Cornell Store, order online at <http://store.cornell.edu/c-875-guidelines.aspx> or call (800) 624-4080.

## DEC Special Permit Training Class for Non-Certified Applicators and Handlers of Federally "Restricted-Use" Pesticides

**Wayne County, Tuesday, April 8, 2014**

**Registration Begins at 8:30 am (English)  
and at 12:30 pm (Spanish)  
English Session - 9:00 am to 12:00 pm  
Spanish Session - 1:00 pm to 4:30 pm**

Cornell Cooperative Extension Wayne Co.  
1581 Rt. 88N, Intersection of Hydesville Rd.  
Newark, NY

**Orleans County, Wednesday, April 9, 2014**

**Registration Begins at 8:00 am  
English & Spanish sessions  
8:30 am to 12:00 pm**

Orleans Co. Coop. Ext. Fairgrounds Trolley Bldg.  
Rte. 31 between Albion and Medina  
Knowlesville, NY

**Certified Supervisors are required to attend the first 30 minutes of training!**

***Note: In Wayne County, supervisors who attend the first 30 minutes of training in the English session do not need to repeat the training in the Spanish session***

**\$20 per DEC Special Permit**

**DEC Special Permit allows non-certified workers to apply and handle federally restricted use pesticides:** The Special Permit does not relieve the responsibility of the certified applicator that supervises these employees, but it does relieve the requirement of “on-site, within voice contact” supervision while federally restricted pesticides are being applied. Several of the **pyrethroid, organophosphate, and carbamate insecticides** such as Warrior, Capture, Diazinon, Lorsban and Lannate, and a few herbicides such as Gramoxone and Atrazine, are federally restricted-use materials.

At Special Permit trainings, we review with non-certified applicators Worker Protection Safety (WPS) handler training and for each federally restricted-use pesticide the potential hazards to non-target species and the environment, and how to prevent the risk of exposure. Trainees also receive a packet with summaries of this information.

**A DEC Special Permit is valid for one year and needs to be renewed every year unless the pesticide applicator becomes certified. Please bring green “WPS Handler” cards.**

**DEC Special Permit Training Registration. You must pre-register by April 3!**

**To register:** Contact Kim Hazel: 585-798-4265 x26; krh5@cornell.edu or  
Mail registration and check to: CCE, Attn: Kim Hazel, CCE, 12690 NYS Rt 31, Albion, NY 14411  
Or FAX registration to: 585-798-5191

**DEC Special Permit Training Registration form:**

**Please Check Date and session**

\_\_\_\_\_ April 8, English AM, Wayne Co. \_\_\_\_\_ April 8, Spanish PM, Wayne Co. \_\_\_\_\_ April 9, Orleans  
Co.

Grower Name (supervising certified pesticide applicator) \_\_\_\_\_

Farm Name \_\_\_\_\_ DEC Applicator ID# \_\_\_\_\_

Farm Address \_\_\_\_\_

Names of non-certified applicators attending: \$20 each, choose session

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Number attending \_\_\_\_\_ x \$20 = \_\_\_\_\_ total submitted

**Make check payable to: “Cornell Cooperative Extension”**

**Lake Ontario Fruit Program  
Cornell Cooperative Extension  
12690 NYS Rt. 31  
Albion, NY 14411**

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- Cornell Summer Internship Available!
- Plentiful Partnership of Niagara Workshop
- Order Your 2014 Guidelines Now
- DEC Special Permit Training Class
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**Mark These Dates on Your Calendar Now:**

Mar 24	<b>Pruning Demo with Motorized Platforms at Wafler Farms</b>
Mar 25	<b>Horticultural Symposium</b> for Fruit Growers in Geneva – details Issue 2
March 27	<b>Future Fruit Growers</b>
April 8	<b>DEC Special Permit Training,</b> CCE Wayne Co., Newark – details in this issue
April 9	<b>DEC Special Permit Training,</b> CCE Orleans Co., Knowlesville

Please help with our strategic planning for CCE-LOF. If you have not already returned your survey, you can do it online. The online survey is anonymous and can only be submitted once by each email address. To complete this survey on-line, go to [https://cornell.qualtrics.com/SE/?SID=SV\\_6WMLHGbSTWNk3SI](https://cornell.qualtrics.com/SE/?SID=SV_6WMLHGbSTWNk3SI)