

Ohio Fruit ICM News

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In This Issue

Calendar
Comments from the Editor
Frost Damage in Ohio Vineyards
Fruit Observations and Trap Reports
Ohio Poison Control Phone Number

Calendar - Newly added in ***Bold***

June 11-17, International Fruit Tree Association Summer Orchard Tour to Mexico
www.ifta.org.

June 16, Illinois State Horticultural Society Summer Field Day, Boggio's Little Mountain Orchards, Granville, Ill. For more information phone Don Naylor, (309) 828-8929.

June 28, OFGS Summer Tour at White House Fruit Farm in Canfield, Ohio. For more information on the tour, contact Tom Sachs or Kathy Lutz at (614) 246-8292 or via email at klutz@ofbf.org.

Aug. 1 UK Horticultural Research Farm Twilight Tour, Horticultural Research Farm, Lexington, KY. Contact John Strang 859-257-5685; e-mail: jstrang@uky.edu

Aug. 30-Sept.1 North American Fruit, Explorers (NAFEX) and SFF Annual Meeting, Holiday Inn North, Lexington, KY. Contact John Strang 859-257-5685; e-mail: jstrang@uky.edu

December 5-7, Great Lakes Fruit, Vegetable and Farm Market EXPO. DeVos Place, Grand Rapids, Mich., www.glexpo.com.

December 11-13, New England Vegetable and Berry Conference www.nevbc.org.

January 7-9, 2007, Wisconsin Fresh Fruit and Vegetable Conference, Olympia Resort and Conference Center, Oconomowoc, www.wisconsinfreshproduce.org

Jan. 8-9, 2007 Kentucky Fruit and Vegetable Conference and Trade Show, Holiday Inn North, Lexington, KY. Contact John Strang 859-257-5685; e-mail jstrang@uky.edu

Comments from the Editor

I spoke too soon in the last newsletter when I said we would make it through without another night of frost protection. Based on our AWIS forecast we will be ready by 3 AM to turn on the water again. It is important though. We had our first harvest from our plasticulture strawberries on Friday and while we were picking we did a quick count of potential fruit and we are in the range of 50-60 per plant which is a very good yield. It looks like next week will be our last week for picking strawberries from our high tunnel.

Ron Becker sent me an update on conditions from the frost event on May 26th.

Frost Damage in OH Vineyards By Dr. Imed Dami, HCS-OARDC (Source: O-GEN 2 May 2006)

Last Wednesday April 26, several vineyards in the northeastern corner of the state experienced temperatures below freezing. Several commercial grape producers, in the Lake Erie Region and south all the way down to Coshocton, have reported severe damage. Reported temperatures ranged between low to high twenties, and vine growth stages ranged from bud swell to bud break. Varieties that sustained the most damage are those with most advanced growth such as many hybrid and labrusca grapes. Wind machines were turned on between April 26 and 28 and vineyard owners reported that they were effective in reducing the extent of damage. Other vineyards, however, were not so fortunate even those in good sites. Some producers have reported that the frost on 26 April was one of the worst they have experienced in over 20 years.

At the research vineyard in Unit 2, Wooster, we recorded 27.2 F using a temperature logger placed in the vineyard at 5 feet from the ground. Concord is our earliest variety in the vineyard and bud break occurred on 24 April which is about normal for our site. The critical temperature for Concord at the bud break stage is 27 F. When Frost occurred on 26 April growth was even further advanced and I estimated 90-100% damage in Concord from my visual assessment. Normally, temperature below 28 F on April 26 occurs once in ten years in Wooster. Unfortunately, that happened this year. The median of last occurrence of spring frost where temperature drops below 32F in Wooster is May 1st.

It is too early to have an accurate assessment of the extent of damage. Greg Johns, Manager at the Ashtabula Agricultural Research Station in Kingsville and I have interviewed several producers and more information will be gathered from juice and wine grape producers in the Lake Erie region. Please contact me or Greg to report in the following: lowest temperatures on 26-28 April in your vineyard, the growth stage of varieties when the frost hit, and an estimated percent of damage. More information will be posted in future O-GEN issues.

Low Temperatures on 26 April at some OARDC Stations in NE-OH.

Weather Station Location

Temperatures (F) on 26 April 2006

Ashtabula Agricultural Research Station, Kingsville

Elevation: 789 ft

26.8

OARDC-Campus, Wooster

Elevation: 1020 ft

24.5

OARDC-Research Vineyard in Unit 2, Wooster

Elevation: 1100 ft.

27.2

Madison Station

USDA Research Station at Sunleaf Nursery

27.6

Here are some facts and tips on spring frost injury:

Extent of damage depends on the stage of development of buds and shoots. The more advanced the stage the warmer the critical temperature (or LT50). For example, LT50 = 24F at first swell, and LT50 = 27 F at bud burst in Concord. The critical temperature also varies with air relative humidity and corresponding dew point. Visit <http://web1.msue.msu.edu/fruit/grpfrost.htm> to see critical temperatures of Concord with pictures of different growth stages.

If leaves are already apparent and they are damaged they first look water-soaked, oily, and droopy. In a day or two and when it warms up again, the small shoots turn brown and crispy.

Swollen buds in a wooly stage are difficult to assess visually. However, by touching the buds you could feel they're crispy, crunchy, and brittle and fall off readily.

Generally, varieties bear fruit on shoots originated from primary buds. Some bear fruit from secondary and base buds. Examples include hybrids such as Seyval, Vidal. Secondary and base buds of Vinifera and Native grapes are not as fruitful and thus may sustain more crop loss than French Hybrids.

It is early to make an assessment of the extent of crop loss. The best way to assess is to wait another month or until the clusters are visible. Cluster number per vine should give you an idea about percent cluster number loss. However, this does not mean you would have a reduction in yield. Grapevines have an amazing ability to compensate for yield.

Early frost can be advantageous for secondary clusters to develop larger. Even primary shoots can still develop and produce a crop.

Last year, we had a great summer with plenty of sunlight and heat. Those conditions are ideal for high fruitfulness of buds this year. You may be surprised by a normal crop. Michigan experienced this phenomenon a few years ago where they had severe spring frost damage and almost looked like it wiped out the Niagara crop during an assessment in the spring. At harvest, growers experienced record crop that year.

If you have any questions regarding this, please contact me at 330-263-3882 (dami.1@osu.edu), or David Scurlock at 330-2633825 (scurlock.2@osu.edu), or Greg Johns at 440-224-0273 (johns.1@osu.edu).

Fruit Observations and Trap Reports Trap reports for Columbus are posted at least once per week on the internet at <http://bugs.osu.edu/welty/tree-traps.html>

Site: Waterman Lab Apple Orchards, Columbus

Dates: 4/27/06 to 5/3/06

Pests: Redbanded leafroller: 2 (down from 4 last week)
Spotted tentiform leafminer: 1 (down from 19 last week)
San Jose scale: 4 (up from 1 last week)
Codling moth (mean of 3): .66 (up from 0 last week)
Lesser appleworm: 5 (up from 0 last week)
Tufted apple budmoth: (set 5/3/06)
Variegated leafroller: (set 5/3/06)
Obliquebanded leafroller: (set 5/3/06)

Site: Holmes, Medina, and Wayne Counties

Ron Becker, IPM Program Assistant

Dates: As of May 5th, Peaches had at least a 90% loss due to the frost on April 26th.

Temperatures at most locations were reported as low as 22, however one grower reported a cold pocket at 13 degrees. Apples had approximately 50% blossom loss. Strawberries came through with only about a 15% loss of mostly king fruit. Grapes we are checking had near 100% loss of existing buds, though we are waiting to see if there might be any further bloom. Blueberries have not shown any damage from the frost. Orange Rust is very evident on black raspberry and blackberry plants and growers are in the process of removing them. Insect activity has been very light. Insects found have been aphids in apples and spittle bug and strawberry root weevil adults in strawberries.

Pests: no trap reports this week, report to resume next week

Wayne County:

Holmes:

Medina:

Site: Sandusky, Ottawa and Richland Counties
Ted Gastier - West District IPM Scout, - North Central Tree Fruit IPM Program

Date - 5/1/2006

Apples

Redbanded leafroller - 52 down from 55
Spotted tentiform leafminer - 844 up from 716
San Jose Scale - 0
Oriental Fruit Moth - 16 up from 6

Peaches

Redbanded leafroller - 23.3 down from 49.6
Oriental Fruit Moth - 0.6 down from 1.4

Site: Erie and Lorain Counties
Jim Mutchler - East District IPM Scout

Dates - 5/1/06 - 5/3/06 First report

Apples

Spotted Tentiform Leafminer - 850
Redbanded leafroller - 48
Oriental Fruit Moth - 6
San Jose Scale - 0

NOTE: Disclaimer - This publication may contain pesticide recommendations that are subject to change at any time. These recommendations are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. Due to constantly changing labels and product registrations, some of the recommendations given in this writing may no longer be legal by the time you read them. If any information in these recommendations disagrees with the label, the recommendation must be disregarded. No endorsement is intended for products mentioned, nor is criticism meant for products not mentioned. The author and Ohio State University Extension assume no liability resulting from the use of these recommendations.

Ohio Poison Control Number

(800) 222-1222
TDD # is (614) 228-2272