

APRIL 2007 REGIONAL FRUIT GROWER NEWSLETTER

CALENDAR OF EVENTS

4/6	Wine Grape IPM Day
4/11	Sweet Cherry Pruning Demo
4/17	3 rd Annual Spring IPM Kickoff
5/4	Antique Apple Pruning Workshop Port Oneida Rural Historic District
5/4 – 8/3	Wine Grape IPM Updates
5/12	Tractor Safety Training Ends
5/15	Last Fruitful Horizons Session
5/15 – 6/26	Antrim Co. IPM Updates
5/15 - 6/26	Benzie Co. IPM Updates
5/16 – 7/11	Grand Traverse Co. IPM Updates
5/16 – 7/11	Leelanau Co. IPM Updates
8/23	NWMHRS Annual Open House

SEASONAL IPM UPDATE SERIES

Dr. Nikki Rothwell, District Horticulturist

A summer series of hands-on IPM workshops will be held throughout northwest Michigan for the 2007 growing season. For these meetings, growers are encouraged to bring samples of pests and damage found on the farm. Recommendations as a result of diagnosis will be discussed based on integrated pest management strategies. Each week will characterize a different time in the season and distinct weather patterns, which in turn will present a unique set of pest problems and management strategies.

Leelanau County

Location: Jim Bardenhagen Farm, Pertner Road, MI

Dates: May 16, May 23, May 30, June 6, June 13, June 20, June 27, July 11

Time: 1-3pm

Grand Traverse County

Location: Josh Wunsch Farm, Old Mission Peninsula, Phelps Road, Traverse City, MI

Dates: May 16, May 23, May 30, June 6, June 13, June 20, June 27, July 11

Time: 4-6pm

Benzie County

Location: Putney Farms, 4290 Joyfield Road, Frankfort, MI

Dates: May 15, May 29, June 12, June 26
Time: 3-5pm

Antrim County

Location: Jack White Farm, M-31, just south of Elk Rapids on right, Elk Rapids, MI

Dates: May 15, May 29, June 12, June 26

Time: 11:30-1:30

New Wine Grape IPM Summer Updates!

Duke Elsner and Nikki Rothwell will be holding IPM updates for grape growers and vineyard managers this season. The meetings will be held on the first Friday of every month beginning in May and running through August (5/4, 6/1, 7/6, and 8/3). The meetings will begin at 3pm. We will hold two updates on Old Mission Peninsula and two on Leelanau Peninsula. In order to be sure to see 'good' insect and disease problems, locations will be announced one week prior to the event. If you miss a reminder, you can always call Duke at 922-4822 for the location.

WINE GRAPE IPM DAY REMINDER

Dr. Nikki Rothwell, District Horticulturist

Dr. Duke Elsner, Grape and Wine Agent, Grand Traverse County

Don't forget to register for the third annual grape IPM meeting on **April 6, 2007** held at the NWMHRS from 9am – 2 pm. The morning will feature Drs. Annemiek Schilder, and Rufus Isaacs discussing what's new for vineyard insect and disease management, including new pesticide registrants for grapes. In the afternoon, we will host an interactive brainstorming session with our new viticulturist, Dr. Paolo Sabbatini as well as Drs. Schilder and Isaacs. The researchers are looking for input and direction from the growers. They are also interested in hearing from you on how entomological, pathological, and horticulture methods worked or did not work in your vineyards. We hope this session will generate new ideas for the future of our industry. Please come and give us your two cents!

The meeting will cost \$15 for the catered lunch. So that we may have a count for lunch, please call Jackie at 946-1510 by **April 2**.

COLONY COLLAPSE DISORDER

Dr. Nikki Rothwell, District Horticulturist

Karen Powers, Research Technician

As most of you have probably heard, there is a new complication impacting honeybee hives around the country. Experts are calling this affliction 'Colony Collapse Disorder' (CCD) and unfortunately, entomologists are unsure of the cause of this disorder at this time. When beekeepers opened their hives this spring, apparently healthy colonies were simply missing. Bees are literally disappearing--very few dead (or live) bees are found inside the hive or near the hive entrance. Bee specialists have conducted 'autopsies' on bees remaining in the hive, but they can draw no conclusions as to the cause of this sudden decline.

There are currently many hypotheses as to cause of CCD: pesticides, mites, winterkill, but no evidence points directly at one of these potential causes. However, only migrating hives, those that travel to different parts of the country to fulfill pollination

needs, have incurred the highest losses: 50-90%. The most recent reports show that twenty two states have been affected by CCD, but the bottom line is that these losses will impact hive availability for crop pollination for the upcoming season in Michigan. Even if growers are able to obtain sufficient hives for pollination, costs are predicted to be much higher than in recent years.

A research group composed of university faculty researchers, state regulatory officials, cooperative extension educators and industry representatives are working diligently to find the cause of CCD and to develop management strategies for beekeepers. In the meantime, we suggest that all growers **contact their honeybee supplier** to determine hive availability for 2007.

SWEET CHERRY PRUNING DEMONSTRATION

Good news! Jim Nugent has agreed to come back and give us one last pruning demonstration for sweet cherries. We will focus our pruning efforts on dwarf sweet cherries at the Bardenhagen Farm where they have 1, 2, and 3 year old sweet cherries on Gisela rootstocks. We will take a good look at the strategies for pruning these trees to adequately manage fruit load and vegetative growth. Please come join us on April 11 at 1pm at 7881 Pertner Road in Leelanau County. Please call the NWMHRS for directions: 946-1510.

3rd ANNUAL SPRING IPM KICK-OFF

Dr. Nikki Rothwell, District Horticulturist

An evening presentation will be held at the NWMHRS to discuss important pest management strategies before we start the 2007 season. We will talk about the latest changes in pesticide labels for both fungicides and insecticides as well as management tactics for codling moth, fire blight, brown rot, and cherry leaf spot. We have new evidence for successful dodine use in cherry as well as data about SI-resistance in brown rot.

We will hold the meeting at the research station from 7-9pm on April 17th. We hope you can all make it!

REMINDER FOR POLLINATION OF TREE FRUIT

Dr. Nikki Rothwell, District Horticulturist

Recommended density of good quality honeybee hive per acre:	
Crop	Hive density
Apple and Pear	1-3
Sweet cherry & Balaton®	2-3
Montmorency tart cherry, plum and peach	1

Newer, higher density apple plantings, with a single cultivar interplanted with a few pollenizers, require more bees per acre than the older, multi-variety traditional plantings. Likewise, use higher bee rates in sweets where one non-self fertile variety represents 76% or more of the planting.

Hive Placement. Pallets of bees should be spread out to minimize flight distance to flowers, with a maximum of 300 yards between colonies. Place in a sunny location if possible.

Place bees in orchards prior to the first blossom opening. The first blooms to open in the apple (king blooms) generally produce the largest fruit. The first blossoms to open in the cherry have a higher percent fruit set.

Control dandelion to reduce competition for bees.

FRUIT CAT ALERTS

Joy Landis, Assistant IPM Program Director

The *Fruit Crop Advisory Team (CAT) Alerts* consist of 18 issues each season: 16 during the growing season plus pre- and post- season issues. **The price for a mail subscription is \$35.** Print the form below to subscribe and receive the printed/mailed version of the newsletter. The CAT Alerts are also available *free* on the web.

Name:		
Company (if applicable):		
Address:		
City:	State:	Zip Code (9 digit, if avail.)
County (if in Michigan):	Phone (please include area code):	

I am subscribing to the following editions of the *CAT Alerts* for the 2007 season (place check mark in front of the editions):

___ Field Crop CAT Alert (\$35 each)

___ Fruit CAT Alert (\$35 each)

___ Vegetable CAT Alert (\$35 each)

___ Landscape CAT Alert (\$35 each)

Total amount enclosed: \$_____

Make check payable to **Michigan State University**. Send your check and this form to: CAT Alerts, 243 Natural Sciences Bldg, Michigan State University, East Lansing, MI 48824 (Phone 517-353-4703).

To receive a brief e-mail announcement when a new issue of MSU's *Fruit CAT Alert* newsletter is posted to the web, follow the instructions below (the announcements are sent through an automated system called a listserv).

1. Send the following one line e-mail message to listserv@list.msu.edu:
2. SUBSCRIBE FRUITCAT (your first and last name)
3. You will receive a confirmation e-mail asking you to reply in order to complete your subscription. This ensures that the address came with your permission.

If you need help with the listserv, please send an e-mail to landisj@msu.edu indicating which edition (field crop, fruit, vegetable, landscape, or greenhouse) you would like to receive.

The *Fruit CAT Alert* begins its annual publishing season in late March.

SEASONAL FRUIT INFORMATION

Dr. Nikki Rothwell, District Horticulturist

The **code-a-phone** will be up and running for the 2007 season, and it will be updated every **Tuesday** or more frequently if needed. To access this information, dial 231-947-3063 or 1-877-722-3388 (you will need a touch-tone phone). Press 1 for stone fruit information and 2 for pome fruit information and 5 for grape information. Thanks to the area horticulture societies for supporting this program.

FruitNet will also be available for 2007 by email or fax for NW Michigan fruit growers. This weekly information system is compiled by area extension educators and sent out through the NWMHRS. Past subscribers will remain on the list, but contact the NWMHRS (231-946-1510) to be added to, or removed from, the subscription list. Thanks again to our local horticulture societies for their support.

60 Hour Weather Forecast, which is a weather forecast tool for the Grand Traverse region that predicts weather in 3-hour increments, is also on hand this season. This information can be obtained via the web at:

www.agweather.geo.msu.edu/agwx/forecasts/fcst.asp?fileid=fous14ktvc or a grower can subscribe to receive this information via email. Please contact the NWMHRS (231-946-1510) to sign up for the emailed version.

Don't Forget Enviroweather!

Enviroweather, is a website designed to give you real-time weather based information to help in management decisions. This system accesses a network of 46 automated weather stations, Michigan Agricultural Weather Network (MAWN), from around the state to retrieve current weather data; this weather information is then fed into pest management models that can be used to help predict pest development. Disease and insect prediction reports will be updated hourly. This system contains historical data, so if a grower misses an infection period, he/she can call on past information for disease control. This information can be obtained via the web at www.enviroweather.msu.edu/.

FARM WORKER'S CLINIC

The Northwest Michigan Health Services, Inc. (NMHSI) is the NW Lower Michigan seven counties best kept secret. The NWMHSI is also known as "The Farm Worker's Clinic." Since 1968, NMHSI, with its three separate clinics and satellite locations, has provided high quality, bilingual (if needed), primary medical and dental services to seasonal and migrant farm workers.

NMHSI offers a sliding fee scale to ensure that services are affordable for everyone. It is their goal to increase access to medical and dental services, provide health education, and serve as a bridge between farm workers and their host communities.

For more information, contact Gladys Munoz at 947-1112 or visit NMHSI's web site at www.nmhsi.org

SPRING FERTILIZERS

Steve Hoying, Senior Research Associate, Dept of Horticultural Sciences,
Cornell University's Hudson Valley Lab, Highland, NY

With the increase in the price of gas and oil, fertilizer prices have also gone through the roof. It is more important than ever to carefully assess your tree fruits' fertility needs. Leaf and soil analysis and careful observations of last year's tree vigor combined with crop load, fruit quality and other orchard circumstances can be used to craft a program that will satisfy the nutritional needs of your orchards and maximize their performance. Mature apple orchards require nitrogen, potassium, and boron on an annual basis. Nitrogen needs vary according to the N carrying capacity of the soil and the variety. In New York, 20–40 lbs of additional N are needed to sustain tree growth and fruiting. Leaf analysis values should be between 1.8–2.0 for soft varieties and 2.0–2.2 for hard varieties, with average terminal shoot growth between 8–12 inches. Nonbearing trees should have leaf analysis values about 2.4 with 12–18 inches of terminal shoot growth. Apply 10% more or less nitrogen for every 0.10 analysis values are above or below recommended levels. If leaf analysis values and shoot growth are adequate, early ground applications of N can be reduced or eliminated and if conditions dictate, foliar urea can be used to boost early growth and strengthen flowers and fruit set.

Apples are a heavy user of potassium and a full crop removes 70–80 lbs of K₂O per acre per year which must be replaced annually. Muriate of potash or sulpomag are the most common fertilizers and can be applied in either late fall or early spring. Soil boron is also important and should be applied in addition to foliar boron since this nutrient does not easily move from foliage to roots where it is also needed. The easiest and most economical way to apply the 2 lbs of B needed per acre is to have it mixed with your nitrogen and potassium for a single spring application. Your fertilizer supplier should be able to make custom mixes that satisfy N, K, and B needs for each of your orchard blocks. These mixes should be in a 1-0-2 ratio for fresh fruit and closer to a 1-0-1 for processing fruit. Complete fertilizers are unnecessary and a waste of money since phosphorous does not move through the soil to established tree roots. Phosphorous should only be applied pre-plant and mixed deeply into the soil.

Stone fruit nutrient needs are similar to apple but have important differences. The common orchard fertilizer mix suggested above is not recommended for stone fruit. Stone fruit do not use the same large amount of potassium that apples do and careful analyses of leaf samples are important to judge the amount of potassium needed. In addition, stone fruit are very sensitive to chlorides and large applications of the muriate form should be substituted with the sulfate form when applications of K₂O is called for in the leaf analysis. Both excess and deficiency of Boron can reduce fruit quality in stone fruit—especially increasing the number of soft fruit in the orchard. Rates of boron for soil application in stone fruit orchards should not exceed 1/2 of the rate indicated for apples and pears unless both soil and leaf analysis results indicated that greater amounts are required.

Nitrogen needs for stone fruit are generally higher than for pome fruit. Desired leaf analysis levels for cherries, plums and apricots should be between 2.4–3.4% and

peaches which set fruit on one year old wood and require more annual growth for maximum fruiting potential should exceed 3.0%, and be closer to 4.0%.