GROWING DEGREE DAY ACCUMULATIONS THROUGH AUGUST 4th AT THE NWMHRS

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Weather Report

The weather has been warm and dry for the past few weeks, which has been good for harvesting cherries. Not much rain has fallen in the last week, and overall rainfall for July was 2.27 inches. The total rainfall for 2008 is 13.31 inches. The forecast is calling for isolated thundershowers today. Total degree day accumulations as of Tuesday morning are 2214 base 42 and 1406 base 50, only slightly behind our 18 year average.

Crop Report

Sweet cherry harvest is finished in the region, and quality was a challenge with lots of brown rot and alternaria. Tart cherry harvest is still underway, and again quality has been less than optimal. Wind whip, and its related issues, is the primary cause of downgrades at the processor. Fruit is large in size, and processor reports have mentioned that fruit is so big that it has been difficult to pit. Harvest is expected to continue through this week. Balaton fruit set is light, and harvest is beginning in southern orchards of the northwest region. Red raspberry harvest has finished, and plums are starting to ripen. Later varieties of apricots were harvested at the station last week.

Pest Report

Cherry

Oblique banded leafroller numbers are down with an average of 7 per trap in the station trap line. Lesser peach tree borer and American plum borer numbers remain low, with less than 10 per trap for the third week in a row. Greater peach tree borer emergence is averaging 20 per trap for the second week. Cherry fruit fly numbers continue to be a concern. Last week, we caught 86 flies, this week the traps are averaging in the teens. Powdery mildew is quite prevalent on new growth in tart cherry orchards. American brown rot has been widespread and severe this year with many growers choosing to partially or completely abandon some sweet cherry blocks. Brown
rot and *Alternaria* has been observed in tart cherries. We have been observing high levels of *cherry leaf spot* around the region. Post-harvest chlorothalonil applications will be critical in helping to reduce early defoliation this year and inoculum levels next year.

**Apple**

*Spotted tentiform leafminer* trap catches are down from last week’s high trap catch of 186, averaging 26 per trap this week. We caught just one *oblique banded leafroller*. *Oriental fruit moth* catches are rising at the station, but remain relatively low at 3-15 per trap. We have accumulated 1105 DD50 since first generation *codling moth* emergence so we are expecting second generation flight any time now. One area scout reported an *apple maggot* weeks ago, but we still have not caught any at the station nor received any other reports of apple maggot from growers. *European red mites* and *two-spotted spider mites* have reached threshold levels in some area orchards.

**Grape**

Little has changed over the past weeks. We are starting to see *powdery mildew* in clusters and on foliage. Isolated *phomopsis* infections have also been observed. *Downy mildew* has been seen in area vineyards, and we are starting to see *grape berry moth* webbing. *Potato leafhopper* populations are still at low levels. Lastly, *sunscald* has been seen where hedging has occurred prior to the intense sun we have seen over the past week. Symptoms of sunscald include brown spots isolated on berries where they are exposed to the sun.

**SAN JOSE SCALE BIOLOGY AND CONTROL IN FRUIT CROPS**

Nikki Rothwell and Erin Lizotte, NW MI Horticultural Research Station  
John Wise and David Epstein, MSU Entomology

San Jose scale (SJS) crawlers have been spotted in an area apple orchard this week. Apples are considered hosts of this introduced pest, but we can see San Jose scale in sweet cherry, peach, pear and plum. Scales are unusual insects with a very unique life cycle that makes them difficult to control. Adult females live underneath a waxy, turtle-like covering, giving birth to live young rather than laying eggs—these nymphs are the "crawler" stage of the life cycle. Because crawlers do not possess any waxy covering, this is the best stage for control. Crawler females will develop a wax covering; males develop wings for dispersal (Figure 1).
San Jose scale feed on sap of trees, and a large population is needed to cause injury. Depending on the size of the population, scale can kill a young tree in two to three years. Older trees can also be killed by scale, but they will withstand more damage than younger trees. In addition to bark feeding, San Jose scale can also feed on the fruit and leaves. Feeding on fruit causes bright red spots, most commonly seen on apple. The SJS we spotted this week were concentrated near the calyx of the apples.

San Jose scale spend the winter as partially grown scales where they adhere themselves tightly to the bark. When the sap begins to run in the spring, the scales grow, and they reach full grown status in late May. At that time, males come out from under the scale to mate with females. Females will start to produce young, and are each capable of bearing 150-500 offspring. These crawlers start to suck sap with their needle-like mouthparts. In three weeks, the young crawlers molt and lose their old skins, legs, and antennae to become a flattened sac with waxy caps (Figure 1). They remain attached to the trees with their mouthparts.

Because these insects have two generations per year, we have two chances for treatment. An oil application during pre-bloom is highly effective at targeting adults. Insecticides applied mid-June and mid-August target crawlers before they mate, the stage we are currently observing. Table 1 lists the insecticidal activity of several compounds in research conducted at the MSU Trevor Nichols Research Complex in Fennville, MI.

Table 1. Insecticidal Activity on San Jose Scale

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<td>Delayed-dormant</td>
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<td>Pome and stone fruits</td>
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<tr>
<td></td>
<td></td>
<td>Crawlers</td>
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</tr>
<tr>
<td>Calypso</td>
<td>Pome fruits</td>
<td>Adult scale</td>
<td>Pre-Pink</td>
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</tbody>
</table>
| Warrior/Asana | All fruits* | Crawlers | ≈ 700 & 1700 DD 
| Assail | Pome and stone fruits (not on blueberry label) | Adult scale Crawlers | Delayed-dormant ≈ 700 & 1700 DD 
| Centaur | Pome fruits, peaches | Crawlers | ≈ 700 & 1700 DD 

*Pome and stone fruits, blueberry for scale control.

**CHERRY PILOT PROGRAM MEETING**
Matt Kamphoefner, Specialty Crops Coordinator

The Federal Crop Insurance Corporation’s Board of Directors approved the implementation of the Actual Revenue History (ARH) Cherry Pilot Program on April 24, 2008. This pilot plan’s design replaces the Fixed Dollar plan of insurance for cherries for the 2009 crop year. The Michigan counties approved for the program are Grand Traverse and Leelanau. On **August 19, 2008**, RMA will be sponsoring an ARH Cherry meeting in which you all are invited to attend. Watts and Associates, the program developer, will be presenting at the informational seminar. This will be an excellent opportunity for Michigan cherry growers to become familiar with the design of the new insurance program for crop year 2009.

Where: NW Michigan Horticultural Research Station
6686 S Center Highway
Traverse City, Michigan 49684
Time: 1:30-3:30 p.m.

**2008 NW STATION OPEN HOUSE**

The Northwest Michigan Horticultural Research Station Open House will be held **Thursday, Aug. 21** in Traverse City, Mich. The education sessions will begin at 3:30 p.m. and will conclude with a wine tasting event at 5:15 p.m. and dinner at 6 p.m. Featured speakers during the event will be Dr. George Sundin presenting information about diseases; Dr. Paolo Sabbatini and Dr. Tom Zabadal discussing a new wine grape variety trial planted at the Northwest Station; and Dr. Diane Alston, a visiting researcher from Utah State University, providing preliminary results in her cherry entomological research here in Michigan.

A Michigan Agriculture Environmental Assurance Program educational session will also be held in the research station conference room starting at noon. The session will begin with a free salmon/trout boiled lunch courtesy of Lake Michigan. Lunch will be followed by an update on the changes to the Water Use Legislation and what it means to agriculture. To RSVP for the lunchtime program or for more information, call Dan Busby at 941-4191 or 883-9962 or e-mail dbusby@gtcd.org

The Northwest Station Open House is hosted by the Michigan Agricultural Experiment Station, Michigan State University Extension, the Leelanau Horticultural Society, the Northwest Michigan Horticultural Research Foundation and Parallel 45. The education sessions are free and open to all who would like to attend. Tickets for the wine tasting and dinner are available by calling the Leelanau County Extension office at 231-256-9888!

**Northern Michigan Farmers Invited to Free Workshop**
Everything You need to know to Grow Canola

Lake Leelanau, MI - 7/31/08 - A free workshop on successfully growing canola will be offered on **Wednesday, August 13**, from **10:00-12:00** in the Community Room at the new Governmental Center near Lake Leelanau.
Find out everything you'll need to know to successfully grow canola in Michigan. The workshop is being sponsored by Blue Northern, a biodiesel manufacturing company and oil seed crush facility. Blue Northern is creating local and sustainable alternative energy right here in our community and we need your help to be successful.

Michigan State University professor Russ Freed, a canola variety expert, and biodiesel manufacturer William Koucky will be on hand to provide information and answer questions to those interested in either growing canola or in investing in canola manufacturing in Northern Michigan.

Please call Bill at 231-590-2180 to pre-register or he can be reached at wkoucky@gmail.com

BIRD DAMAGE IN MI FRUITS
Erin Lizotte
IFP/IPM District Educator, MSU-E

As all fruit growers know, bird damage causes significant loss of fruit crops each year in this region. The last bird damage survey in Michigan was performed in 1972 and estimated tart cherry damage at 17.4%. These numbers are considered minor compared to losses in the wine grape and blueberry industries each year. We are lucky to have attracted the interest of Dr. Catherine Lindell, Dept of Zoology, MSU, who has worked extensively with bird pests in Costa Rica and has been visiting apple, cherry, and grape growers to learn more about our industry. Dr. Lindell will be helping us gather information on species structure and bird behavior in fruit systems.

We are distributing surveys to growers to record your observations on your farm. These surveys are meant to determine what species of birds are in the fruit, what they are doing in the orchard/vineyard, and how many of them are present. These surveys will be used to develop a season-long bird species profile for different crops. As we go into the busy harvesting season, this information becomes even more important, as most of the damage will take place as the fruit ripens.

Please go to [http://www.maes.msu.edu/nwmihort/birdsurvey.pdf](http://www.maes.msu.edu/nwmihort/birdsurvey.pdf) to print the survey form and fill out the survey for observations made during a one week period. You don’t have to fill one out every week to participate as the information will be consolidated across counties. Bird surveys will also be available from the Research Station in paper form. The data collected in these surveys will be used to prove impact during grant application, and will help direct future research.

To return your survey via fax, please send it to (231)946-1404, attention Erin. You may also e-mail them as an attachment to taylo548@msu.edu.

"KEEP OUR FARMERS FARMING" AUCTION

The Northwest Michigan Horticultural Research Foundation will be having an auction on October 4, 2008. It will be held at 10:00 am at the Horticultural Research Station, 6686 S. Center Highway in Leelanau County. The Foundation is currently seeking items for the auction. Individuals or businesses can donate or consign farm equipment, lawnmowers, 4 wheelers, antiques, collectibles, or miscellaneous items worth over $25.00. The commission rate on consigned items is 10% to the Auction House, 20% to the Foundation and 70% to the individual or business. Proceeds will be used to fund horticultural research in northwest Michigan. Auction services will be provided by Century Asset Management, Inc. Everyone is welcome to attend.

Questions should be addressed to:

Jeff Winegard, Event Coordinator, Phone: (231) 348-8273 E-mail: winegard@charter.net

Dennis Kubesh, Auctioneer, Phone: (231) 228 6667 Fax (231) 228-7518 Web : [www.centuryassets.com](http://www.centuryassets.com)

WEBSITES OF INTEREST

Weekly CIAB Raw Product Report

[http://www.cherryboard.org/Production2008.htm](http://www.cherryboard.org/Production2008.htm)
Information on cherries is available at the new cherry website: http://www.cherries.msu.edu/

Insect and disease predictive information is available at: http://www.enviroweather.msu.edu/home.asp

This issue and past issues of the weekly FruitNet report are posted on our website at: http://www.maes.msu.edu/nwmihort/faxnet.htm

**ACTUAL AND PREDICTED DEGREE-DAY ACCUMULATIONS SINCE MARCH 1, 2008**

Please send any comments or suggestions regarding this site to:
Bill Klein, kleinw@msu.edu

Last Revised: 8-5-08
Northern Michigan FruitNet 2008
Weekly Update
NW Michigan Horticultural Research Station

August 12, 2008

GROWING DEGREE DAY ACCUMULATIONS THROUGH AUGUST 11th AT THE NWMHRS

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Weather Report

Again weather remains dry in the north. A few acres in southern Grand Traverse and Benzie counties had rain showers on Friday. Night temperatures, both day and night, have been cooler over the weekend. Total growing degree day accumulations are 2401 base 42 and 1537 base 50.

Crop Report

Sweet cherry harvest is officially over in the region. Most tart cherry harvest is winding down – Balaton harvest is underway and is anticipated to be quick with the light crop. Peaches are ripening and early varieties are on the fruit stands. With the lack of rain, apple size is small.

Pest Report

Cherry

Oblique banded leafroller numbers remain relatively low with an average of 4 per trap in the station trap line. However, we are finding 2nd generation larvae in both cherry and apple terminals. Lesser peach tree borer and American plum borer numbers are low with less than 10 per trap for the fourth week in a row. Greater peach tree borer emergence is averaging around 25 per trap. On one cherry fruit fly trap, we caught 86 flies this week. Powdery mildew is quite prevalent on new growth in tart cherry orchards. American brown rot is beginning to show on cherries not removed from the trees. We have seen varying levels of cherry leaf spot around the region. Just a reminder that growers should apply a post harvest chlorothalonil spray to help reduce early defoliation and leaf spot inoculum levels next year. Additionally, the removal of leaf litter from the orchard floor helos
reduce inoculum in subsequent years.

Apple

Spotted tentiform leafminer trap catches are down, averaging 40 per trap. We caught no oblique banded leafroller this week. Oriental fruit moth catches are rising at the station with 12-30 per trap compared with last week’s catch of 3-15. We have accumulated adequate degree days to see second generation codling moth flight at any time; we caught 10 moths at the station this past week. We never saw codling moth emergence stop completely and at this time in the season growers should be keeping the fruit covered to avoid feeding scars and larvae in fruit from both codling moth and oblique banded leafroller.

Grape

Little has changed over past weeks. Powdery mildew is prevalent, even on clusters. Downy mildew has been seen in area vineyards and we see grape berry moth webbing in the clusters.

EARLY CHERRY LEAF SPOT DEFOLIATION
N.L. Rothwell, District Horticulturist, MSUE

A few orchards in the region have been hit hard by cherry leaf spot (CLS) this season. We recommend keeping leaves on the tree through September, but due to this year’s difficult spraying conditions, many trees are defoliating early. If a particular orchard is losing its leaves now, there are a few things growers should keep in mind as we head into fall. First and foremost, we recommend applying a full cover of chlorothalonil (Bravo) post-harvest. This application is absolutely necessary for defoliating orchards as we want to reduce the CLS inoculum for next season. Secondly, growers should avoid a late summer and early fall pruning. We want to make sure to keep as many leaves on possible as we head into winter. There have also been questions about foliar nutrient sprays. If the orchard is worth spraying with a post-harvest Bravo, then combining it with a nutrient application is a good plan. Foliar sprays will not be effective on trees with substantial defoliation as the nutrients must have leaves for uptake; very little nutrients will enter the tree through buds or wood. Therefore, growers must evaluate their defoliation level to determine if a foliar nutrient spray is worth the money. Growers with early defoliation should plan to give the trees a good dormant pruning. Also, growers should keep in mind that moderate CLS infection levels compounded over multiple years can decrease fruit set and increase the potential for winter injury/mortality.

BIRD DAMAGE IN MI FRUITS
Erin Lizotte
IFP/IPM District Educator, MSU-E

As all fruit growers know, bird damage causes significant loss of fruit crops each year in this region. The last bird damage survey in Michigan was performed in 1972 and estimated tart cherry damage at 17.4%. These numbers are considered minor compared to losses in the wine grape and blueberry industries each year. We are lucky to have attracted the interest of Dr. Catherine Lindell, Dept of Zoology, MSU, who has worked extensively with bird pests in Costa Rica and has been visiting apple, cherry, and grape growers to learn more about our industry. Dr. Lindell will be helping us gather information on species structure and bird behavior in fruit systems.

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To fill in the survey, please fill out every week to participate as the information will be consolidated across counties. Bird surveys will also be available from the Research Station in paper form. The data collected in these surveys will be used to prove impact during grant application, and will help direct future research.

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Please send any comments or suggestions regarding this site to:
Bill Klein, kleinw@msu.edu

Last Revised: 8-12-08
Northern Michigan FruitNet 2008
Weekly Update
NW Michigan Horticultural Research Station

August 19, 2008

GROWING DEGREE DAY ACCUMULATIONS THROUGH AUGUST 18TH AT THE NWMHRS

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Weather Report

Weather continues to be extremely dry in the north. We have not received significant rainfall near the NWMHRS since July 20. Daytime temperatures are seasonal, but nighttime temperatures remain cool. Overall degree day accumulations are similar to our 18 year average, and we have accumulated 2597 GDD base 42 and 1667 GDD base 50.

Crop Report

Cherry harvest is finished for 2008. Tart cherries picked out long, and we are well over the USDA estimate for the northwest. Quality was a challenge with the windy conditions and wind whip. The Balaton crop was light, and both Balaton and Montmorency size was good. The apples are coloring, but size is a major concern with the lack of rain.

Pest Report

Cherry

Oblique banded leafroller numbers remain relatively low for the second week in a row, with an average of 7 per trap in the station trap line. Lesser peach tree borer and American plum borer numbers are remaining low but steady, with less than 10 per trap for the fifth week in a row. Greater peach tree borer emergence is increasing with an average of 33 per trap at the station. One cherry fruit fly trap caught 74 flies this week, but the majority of the traps ranged between 0 and 3. Powdery mildew is quite prevalent on new growth in tart cherry orchards. We have seen varying levels of cherry leaf spot around the region. Just a reminder that growers should apply a post harvest chlorothalonil to help reduce early defoliation and leaf spot inoculum levels next year. Additionally, the removal of leaf litter from the orchard floor helps reduce inoculum in subsequent years.
Apple

Spotted tentiform leafminer trap catches remain relatively steady with an average of 65 per trap. We caught 7 obliquebanded leafroller in the apples this week. Oriental fruit moth catches continue to vary from week to week at the station, with 0-9 per trap. We are seeing the second generation of codling moth. The trap line at the station caught 7-8 this past week. We never saw codling moth emergence stop completely and, at this time in the season, growers should be keeping the fruit covered to avoid feeding scars and larvae in fruit from both codling moth and obliquebanded leafroller. San Jose scale crawlers were detected last week.

Grape

We are seeing powdery mildew moving in, but it has been an unusually slow progression this year and properly covered orchards still look pretty clean. Downy mildew is being seen in area vineyards and we have also seen grape berry moth webbing in the vineyards. Potato leafhopper populations continue to be at low levels. Phomopsis and black rot also appear to be popping up in some area vineyards.

CHERRY PILOT INSURANCE PROGRAM MEETING FOR GROWERS
Matt Kamphoefner, Specialty Crops Coordinator

The Federal Crop Insurance Corporation’s Board of Directors approved the implementation of the Actual Revenue History (ARH) Cherry Pilot Program on April 24, 2008. This pilot plan’s design replaces the Fixed Dollar plan of insurance for cherries for the 2009 crop year. The Michigan counties approved for the program are Grand Traverse and Leelanau. On August 19, 2008, RMA will be sponsoring an ARH Cherry meeting for growers. Watts and Associates, the program developer, will be presenting at the informational seminar. This will be an excellent opportunity for Michigan cherry growers to become familiar with the design of the new insurance program for crop year 2009.

Where: NW Michigan Horticultural Research Station
6686 S Center Highway
Traverse City, Michigan 49684
Time: 1:30-3:30 p.m.

NW MICHIGAN HORTICULTURAL RESEARCH STATION OPEN HOUSE

The Northwest Michigan Horticultural Research Station Open House will be held Thursday, August 21, 2008. The educational sessions will begin at 3:30 p.m. and will conclude with a wine and juice tasting event at 5:15 p.m. and dinner at 6 p.m. Featured speakers during the afternoon event will be Dr. George Sundin, Dept of Plant Pathology, MSU, presenting information about cherry diseases; Dr. Paolo Sabbatini, Dept of Horticulture, MSU discussing a new wine grape variety trial planted at the Northwest Station; and Dr. Diane Alston, a visiting researcher from Utah State University, providing preliminary results in her cherry entomological research here in Michigan. During the evening program, there will be a special presentation to the family of Dr. Dom Iezzoni in his memory for his work with the cherry industry.

The Northwest Station Open House is hosted by the Michigan Agricultural Experiment Station, Michigan State University Extension, the Leelanau Horticultural Society, the Northwest Michigan Horticultural Research Foundation and Parallel 45. The educational sessions are free and open to all who would like to attend. Dinner, to be catered by Ethnic Garden Catering, is available for $12 per person for those who make reservations by AUGUST 19 or purchased at the door for $15. Call MSU Extension-Leelanau County at 231-256-9888 or email to msue45@msu.edu to make dinner reservations.

For more information, contact the NW Michigan Horticultural Research Station at 231-946-1510 or Leelanau County MSU Extension at 231-256-9888.
BIRD DAMAGE IN MI FRUITS

Erin Lizotte
IFP/IPM District Educator, MSU-E

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Jeff Winegard, Event Coordinator, Phone: (231) 348-8273 E-mail: winegard@charter.net
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WEBSITES OF INTEREST

Weekly CIAB Raw Product Report
http://www.cherryboard.org/Production2008.htm
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http://www.maes.msu.edu/nwmihort/faxnet.htm

ACTUAL AND PREDICTED DEGREE-DAY ACCUMULATIONS SINCE MARCH 1, 2008
Northern Michigan FruitNet 2008
Weekly Update
NW Michigan Horticultural Research Station

August 26, 2008

GROWING DEGREE DAY ACCUMULATIONS THROUGH AUGUST 25th AT THE NWMHRS

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Weather

After a long dry spell, the region received approximately 0.5” in most areas. Daytime temperatures are seasonal, but nighttime temperatures remain cool, forming heavy fog and dew in low lying areas. Overall degree day accumulations are similar to our 18-year average, and we have accumulated 2782 GDD base 42 and 1806 GDD base 50.

Crop report

Cherry harvest is finished for 2008. The apples are coloring, but size is still a major concern with the lack of rain over the past few weeks.

Pest report

Cherry: Obliquebanded leafroller numbers are on the rise, with an average of almost 30 in the station traps. Lesser peach tree borer and American plum borer are emerging in lower numbers now, with less than 10 per trap for the sixth week in a row. Greater peach tree borer emergence has decreased from last week’s average of 33 per trap to an average of 14 this week. One cherry fruit fly trap caught 32 flies this week, but the majority of the traps caught no flies. Powdery mildew is quite prevalent on new growth in tart cherry orchards. We have seen varying levels of cherry leaf spot around the region. Just a reminder that growers should apply a post harvest chlorothalonil to help reduce early defoliation and leaf spot inoculum levels next year. Additionally, the removal of leaf litter from the orchard floor helps reduce inoculum in subsequent years.

Apple: Spotted tentiform leafminer trap catches are on the rise, with an average of 90 per trap. The number of obliquebanded leafrollers is increasing steadily from week to week. Oriental fruit moth catches continue to vary from week to week at the station, with an average of 16 per trap this week. We are seeing the second generation of codling moth. The trap line at the station caught four this week and 15 last week. We never saw codling moth emergence stop completely and, at this time in the season, growers should be keeping the fruit covered to avoid feeding scars and larvae in fruit from both codling moth and obliquebanded leafroller.

Grapes: We are seeing powdery mildew moving in on grapes, but it has been an unusually slow progression this year and properly covered orchards still look pretty clean. Downy mildew is being seen in area vineyards, and we have also seen grape berry moth webbing in the vineyards and have caught three adults in the station traps this week. There are still very few potato leafhoppers being spotted in the region. Phomopsis and black rot also appear to be popping up in some area vineyards.

RETAIN USE ON APPLES IN STRESS YEARS
Philip Schwaller
Clarksville Horticultural Research Station Coordinator

This article was originally published in the August 7, 2007 issue of the Fruit CAT Alert.

ReTain is a very useful growth regulator on apples that has the following benefits. It will:
- delay fruit maturity of any variety,
- decrease fruit drop,
- improve the condition of treated fruit in storage,
- and improve fruit quality and size.

ReTain needs to be applied 30 days before anticipated harvest to achieve the best results and highest effectiveness of the material. Full rate ReTain will delay maturity of most varieties seven to ten days and some very sensitive varieties up to 21 days. ‘Gala’ and ‘Jonagold’ are very sensitive to ReTain. ‘Honeycrisp’ appears to be moderately sensitive and other varieties are less sensitive, but still respond to the ReTain treatment. Some growers will use half rate on ‘Gala’, ‘Jonagold’ and ‘Honeycrisp’ because of the sensitivity, but realize that this also will reduce the response.

ReTain will delay harvest, reduce fruit drop, improve storage condition life, reduce shoulder cracking in some years and sometimes
increase fruit size if the fruit hang long enough. The delayed maturity is very useful to pick-your-own operations. The delayed maturity extends when varieties are available for U-pick customers to pick in excellent condition.

Growers with large acreage can use ReTain to help program harvest. For example, if a grower has large acreages of one variety like 'Red Delicious', then a portion of the Reds can be treated with full rate Retain to reduce drop and delay maturity. Another portion of the Reds could be treated with half rate to only slightly delay maturity. This will allow the picking to be more orderly, less drop and all the Reds will be picked in excellent condition.

ReTain is a helpful growth regulator with benefits to small and large growers. Time the applications 30 days ahead of anticipated normal harvest and then plan on picking treated fruit later than normal. ReTain full rate is labeled at 50 grams/acre active ingredient. That is equal to 333 grams (1 pouch) of ReTain.

Stressful Years

Apple trees under stress do not respond well to ReTain treatments. Hot, dry years seem to reduce the ReTain response. In those situations where trees' stress is a factor, consider not applying ReTain or use the higher rate. One-third and half rate will not provide good results on stressed trees. ReTain is also more effective closer to the 28 days before harvest timing rather than the 30 to 35 days before anticipated harvest.

**BIRD DAMAGE IN MI FRUITS**

Erin Lizotte  
IFP/IPM District Educator, MSU-E

As all fruit growers know, bird damage causes significant loss of fruit crops each year in this region. The last bird damage survey in Michigan was performed in 1972 and estimated tart cherry damage at 17.4%. These numbers are considered minor compared to losses in the wine grape and blueberry industries each year. We are lucky to have attracted the interest of Dr. Catherine Lindell, Dept of Zoology, MSU, who has worked extensively with bird pests in Costa Rica and has been visiting apple, cherry, and grape growers to learn more about our industry. Dr. Lindell will be helping us gather information on species structure and bird behavior in fruit systems.

We are distributing surveys to growers to record your observations on your farm. These surveys are meant to determine what species of birds are in the fruit, what they are doing in the orchard/vineyard, and how many of them are present. These surveys will be used to develop a season-long bird species profile for different crops. As we go into the busy harvesting season, this information becomes even more important, as most of the damage will take place as the fruit ripens.

Please go to [http://www.maes.msu.edu/nwmihort/birdsurvey.pdf](http://www.maes.msu.edu/nwmihort/birdsurvey.pdf) to print the survey form and fill out the survey for observations made during a one week period. You don’t have to fill one out every week to participate as the information will be consolidated across counties. Bird surveys will also be available from the Research Station in paper form. The data collected in these surveys will be used to prove impact during grant application, and will help direct future research.

To return your survey via fax, please send it to (231)946-1404, attention Erin. You may also e-mail them as an attachment to taylo548@msu.edu.

"KEEP OUR FARMERS FARMING" AUCTION

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**PROGRAM DATES**

Saskatoon Workshop, Sept. 20, NWMHRS  
Pesticide Core Manual Review - December 1 at the Banks’ Township Hall and December 2 at the NWMHRS  
Great Lakes Expo, December 8-10, DeVos Center, Grand Rapids  
Irrigation School, December 11-12, DeVos Center, Grand Rapids  
IPM Tree Fruit School, February 16-18th, 2009, KBS

Program details will be given closer to the dates.

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Please send any comments or suggestions regarding this site to:  
Bill Klein, kleinw@msu.edu

Last Revised: 8-26-08