

Grape IPM program

Rufus Isaacs, Keith Mason, Annemiek Schilder,
Brad Baughman, Duke Elsner, and Joy Landis

Departments of Entomology and Plant & Soil Microbial Sciences
and MSU Extension

Questions to
isaacsr@msu.edu



Grape Insect Pests Over The Season

Bud Swell



Bloom



Post-Bloom



Grape Flea Beetle



Rose Chafers



Grape Berry Moth



Climbing Cutworms



Grape Insect Pests Over The Season

Mid-Season



Veraison



Pre-Harvest



Leafhoppers



Grape Berry Moth



Japanese Beetles



Multi-colored Asian Ladybeetle



Grape Berry Moth



Weekly scouting report to cooperating growers

GBM Trap Information



GBM Infested Clusters



Leafhopper Information



JB Information



Disease Information



MICHIGAN STATE UNIVERSITY

Grape IPM Scouting Report
2005 Weekly Insect Report

Grower: _____ County: Allegan Vineyard: IPM Time in: 3:20pm

Scout: Steven Van Timmeren Sample Date: 18-Aug-05 Weather: cloudy breezy 80°F Time out: 4:15pm

Growth Stage: _____
 Bud Burst 1-3" Shoots 4-8" Shoots 9-16" Shoots First Bloom Bloom Buckshot Berries Berry Touch Green Fruit Veraison Soft Fruit Harvest

GRAPE BERRY MOTH TRAP		Week of:													
Trap #	Trap Location	June 2	June 9	June 16	June 23	June 30	July 7	July 14	July 21	July 28	Aug 4	Aug 11	Aug 18	Aug 25	Sept 1
1	Border	0	3	9	0	0	1	1	0	0	1	1	0		
2	Border	0	1	0	1	0	1	0	5	11	4	0	4		
3	Interior	2	28	35	10	9	3	8	2	0	3	0	3		
4	Interior	0	2	0	3	2	4	12	10	29	16	6	28		

INSECT SCOUTING DATA		2004 Trap Average:													
GBM On Clusters		Week of:													
Scouting Location	June 2	June 9	June 16	June 23	June 30	July 7	July 14	July 21	July 28	Aug 4	Aug 11	Aug 18	Aug 25	Sept 1	
1 Border	0	0	0	1	0	1	2	1	3	2	7	11			
2 Border	0	0	0	0	0	0	0	1	0	0	2	0			
3 Interior	0	0	0	0	0	0	0	0	1	1	1	1			
4 Interior	0	0	0	0	1	0	0	0	0	1	0	0			

2004 Cluster Infestation Average: 0.0 0.0 0.0 0.1 0.2 0.4 0.2 0.0 0.7 0.3 0.7

Leafhoppers On Leaves		Leafhoppers Scouted This Week: Potato Leafhopper Grape Leafhopper													
Scouting Location	June 2	June 9	June 16	June 23	June 30	July 7	July 14	July 21	July 28	Aug 4	Aug 11	Aug 18	Aug 25	Sept 1	
1 Border	-	0	0	0	0	0	1 PLH	0	1 PLH	0	0	0	0		
2 Border	-	2 PLH	0	0	1 PLH	0	0	1 PLH	2 PLH	0	1 PLH	0	0		
3 Interior	-	0	1 PLH	0	0	0	0	0	2 PLH	2 PLH	0	0	0		
4 Interior	-	0	1 PLH	0	1 PLH	0	0	0	0	0	1 PLH	0	0		

Beetle Infestation		Beetles Scouted This Week: Japanese Beetle													
Scouting Location	June 2	June 9	June 16	June 23	June 30	July 7	July 14	July 21	July 28	Aug 4	Aug 11	Aug 18	Aug 25	Sept 1	
1 Border	0	0	2 RC	0	0	3 JB	0	25 JB	0	0	0	6			
2 Border	0	1 RC	1 RC	0	0	7 JB	13 JB	26 JB	0	0	0	0			
3 Interior	0	0	0	0	0	3 JB	0	6 JB	1 JB	0	0	0			
4 Interior	0	0	1 RC	0	0	2 JB	0	4 JB	0	0	0	0			

2004 JB Average: 0.0 0.0 0.0 1.0 3.5 10.0 0.0 0.0 0.0 0.0 0.0 0.0

DISEASE SCOUTING DATA		Week of:													
Diseases Scouted	June 2	June 9	June 16	June 23	June 30	July 7	July 14	July 21	July 28	Aug 4	Aug 11	Aug 18	Aug 25	Sept 1	
Black Rot-Leaf Infections	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
Downy Mildew-Leaf Infections	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
Phomopsis-Leaf Infections	Trace	Trace	Trace	Trace	Trace	Trace	Trace	None	None	None	None	None	None	None	
Powdery Mildew-Leaf Infections	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notes:
 → GBM infestation is up at the north border; elsewhere it's down or same as last week.
 → Found a few JB's at the north border, not enough to worry about though.
 Done

Contact Info:
 Steven Van Timmeren
 Office Phone: (268) 561-5040
 Cell Phone: (517) 242-1282

Weekly scouting summary posted at www.grapes.msu.edu



Weekly Vineyard IPM Scouting Summary
Report for the week of August 3, 2006



BEYOND THE LAND THAT FEEDS US

Site	Average Number of GBM in Traps <small>(Average of 4 Traps Per Site)</small>				Site	Percent Clusters Infested With GBM <small>(% of Clusters Scored at 4 Locations at Each Site)</small>			
	7/13	7/20	7/27	8/3		7/13	7/20	7/27	8/3
Allegan	0	0	1	4	Allegan	5	4	0	3
Berrien 1	1	3	1	7	Berrien 1	6	3	9	6
Berrien 2	4	4	5	2	Berrien 2	4	9	3	4
Van Buren	11	11	10	22	Van Buren	30	18	16	23
Average	4	5	4	9		11.3	8.5	7.0	9.0
2005 Average	7	6	7	9		8.4	9.2	8.4	7.9
2004 Average	2	4	2	4		1.2	2.8	3.9	2.8

Grape Berry Moth Notes:
** Grape berry moth appears to be on the upswing again based on both trap catches and infested clusters. Three of the four sites saw increases in infested clusters with the highest pressure site, Van Buren, showing a 7 percent increase. Take a close look at your vineyards to see how much pressure you have and whether a spray is necessary. If you would like to see what GBM infested berries look like in different varieties [click here](#).



GBM infestation in Chardonnay grapes at Allegan site.

Japanese Beetle Notes:
** Japanese beetle numbers were down this week, most likely because of a combination of some growers spraying and because scouting took place in the rain. Overall it looks like JB's are on the decline and will probably only become an issue in high pressure vineyards from here on out.



Japanese beetle and feeding damage at the Van Buren site.

Leafhopper Notes:
** Leafhoppers were low at all sites, including the Berrien 2 site which applied an insecticide spray to control grape leafhoppers. Make sure you know where leafhoppers are at in your own vineyards.



Leafhopper on a leaf.

Disease Notes:
** Powdery mildew remained about the same at the Allegan site while black rot decreased as infested berries began dropping off the clusters.



Scouting your vineyard for diseases now can help you determine how well your spray program worked this year, as well as keeping an eye out for late season disease threats. Black rot infested berries at Allegan 7.

Disease Level Rankings: None, Trace, Low, Moderate, High, Very High

Farm	Variety	Black Rot	Botrytis Bunch Rot	Phomopsis	Powdery Mildew
		Cluster-Berry	Cluster-Berry	Cluster-Rachis	Cluster-Berry
Allegan	Chardonnay	Low	None	None	Moderate
Berrien 1	Vignoles	None	None	Trace	Trace
Berrien 2	Concord	None	None	Low	None
Van Buren	Concord	Moderate	None	Low	None

Current Growth Stages:

Concord-Berrien 2



As of August 3

Chardonnay-Allegan



As of August 4

Vignoles-Berrien 1



As of August 3

[Click Here](#) for more detailed growth information from the sites.

Growing Degree Days (Base 50)

SITE	Starting March 1:		Starting April 1:	
	7/30	8/6	7/30	8/6
Ann Arbor	1534	1726	1506	1698
Oshtemo	1771	1977	1733	1940
Hawthorn	1553	1738	1521	1706
Lawton	NA	NA	1685	1876
St. Joseph	1723	1918	1684	1879
SWMREC	1652	1846	1617	1811
Waterloo	1707	1901	1671	1864

Click here for more information on GDDs

Year	2006	2004	2003	2002	2001	5 Year Avg.
Ann Arbor	1854	1520	1407	1718	1745	1648
Oshtemo	2082	1796	1667	1841	1737	1841
Hawthorn	1827	1629	NA	NA	NA	NA
Lawton	NA	NA	NA	NA	NA	NA
St. Joseph	NA	NA	NA	NA	NA	NA
SWMREC	2000	1729	1613	1923	1870	1827
Waterloo	2037	1776	1641	1829	NA	1846

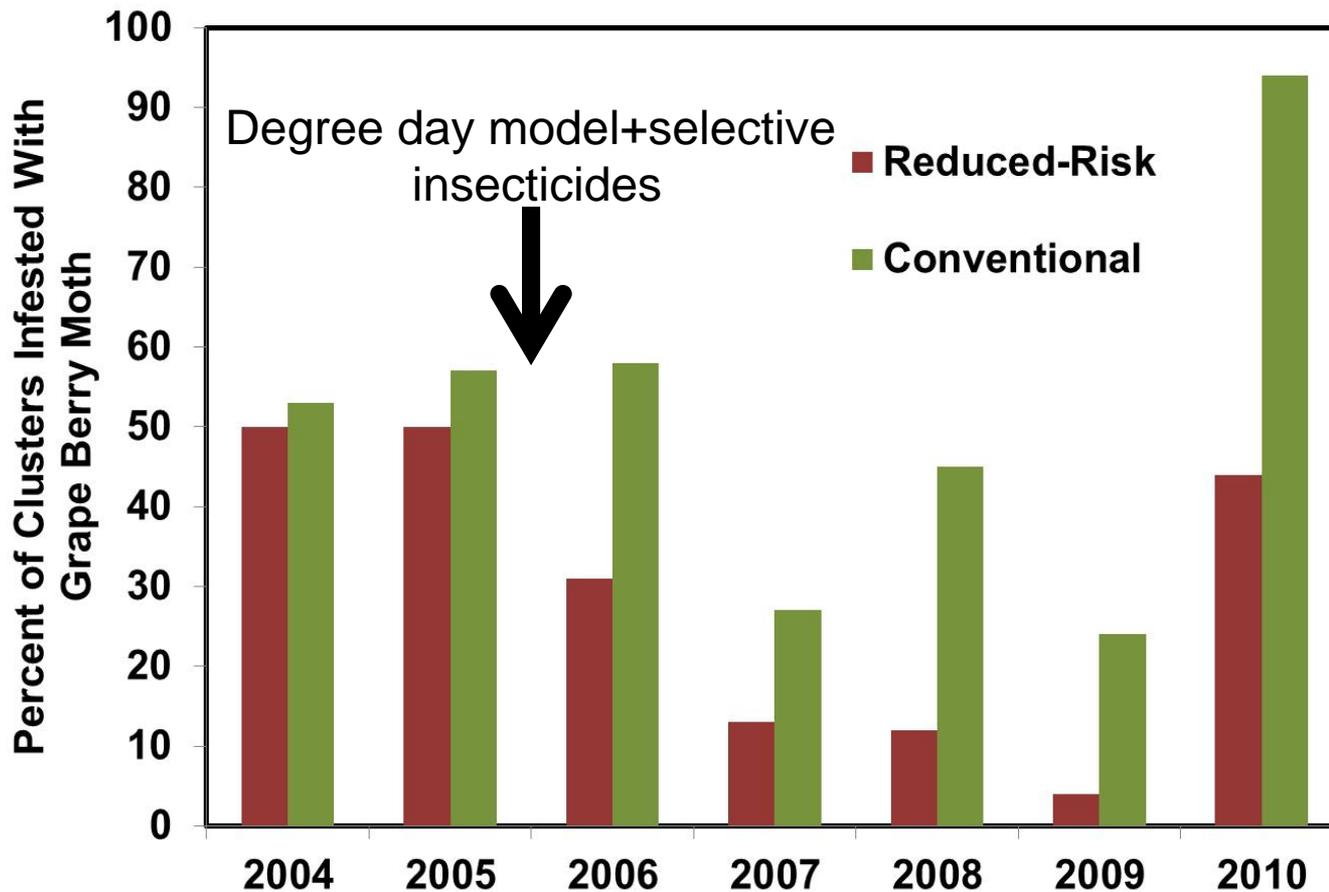
This report is a summary of weekly scouting from winegrape and juicegrape vineyards in southwest Michigan. It should be used only as a general guide, because pests vary greatly in their abundance from site to site. Scouting your own vineyards is the best way to know whether pest problems are developing in your farm.

For more information on this project, contact Steve at (517) 242 1282
 More information on Vineyard IPM is available online at: www.grapes.msu.edu
 All photos: Steven Van Timmeren





Multi-year demonstration of berry moth control



Project objectives, 2016

Demonstrate performance of scouting and reduced-risk management in commercial vineyards.

Deliver information on IPM and cultural controls to the Michigan grape industry.

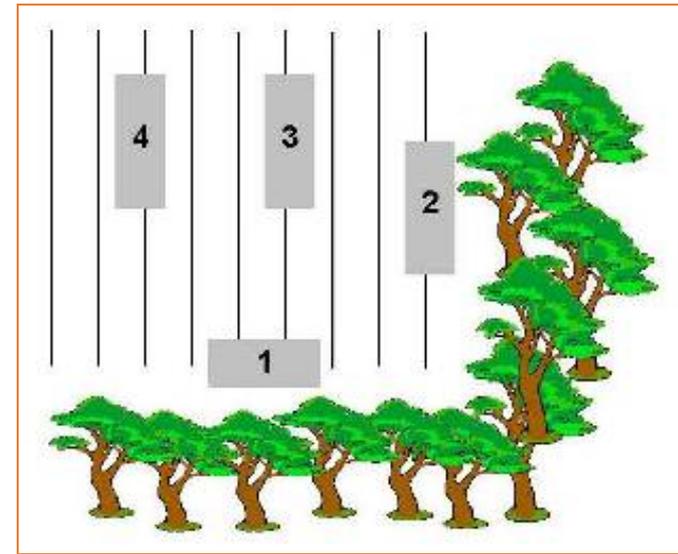
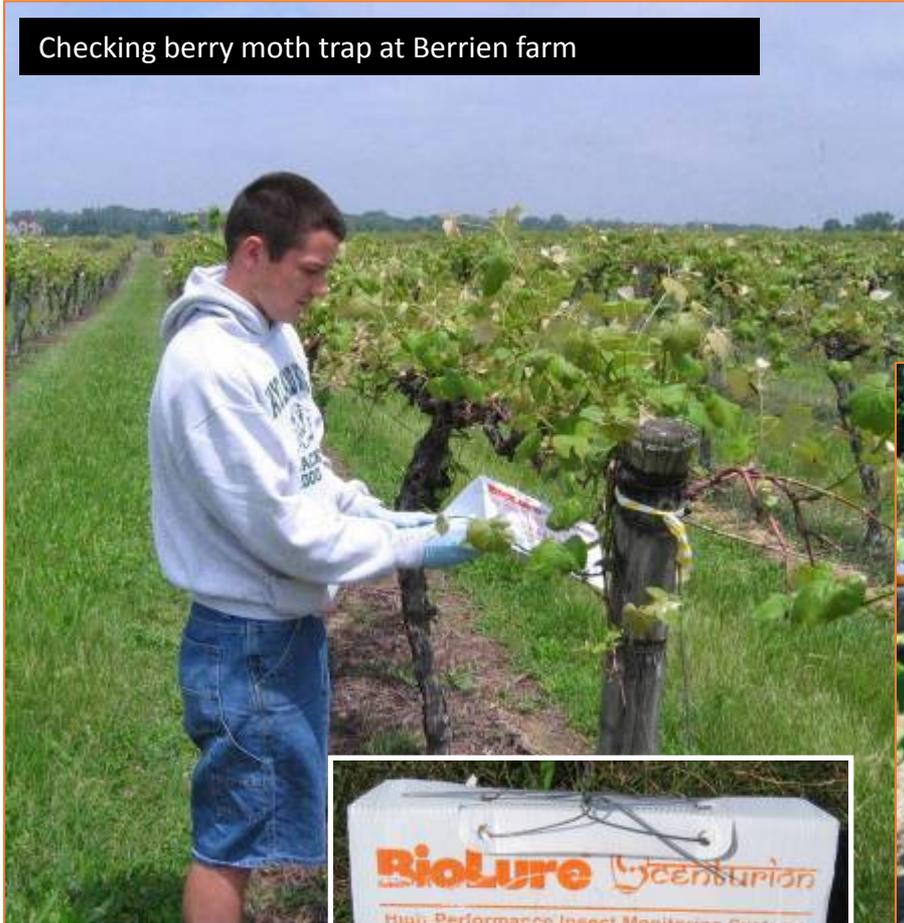
Deliver training programs on harvest-time pest concerns in 2016.

Project manager, Keith Mason



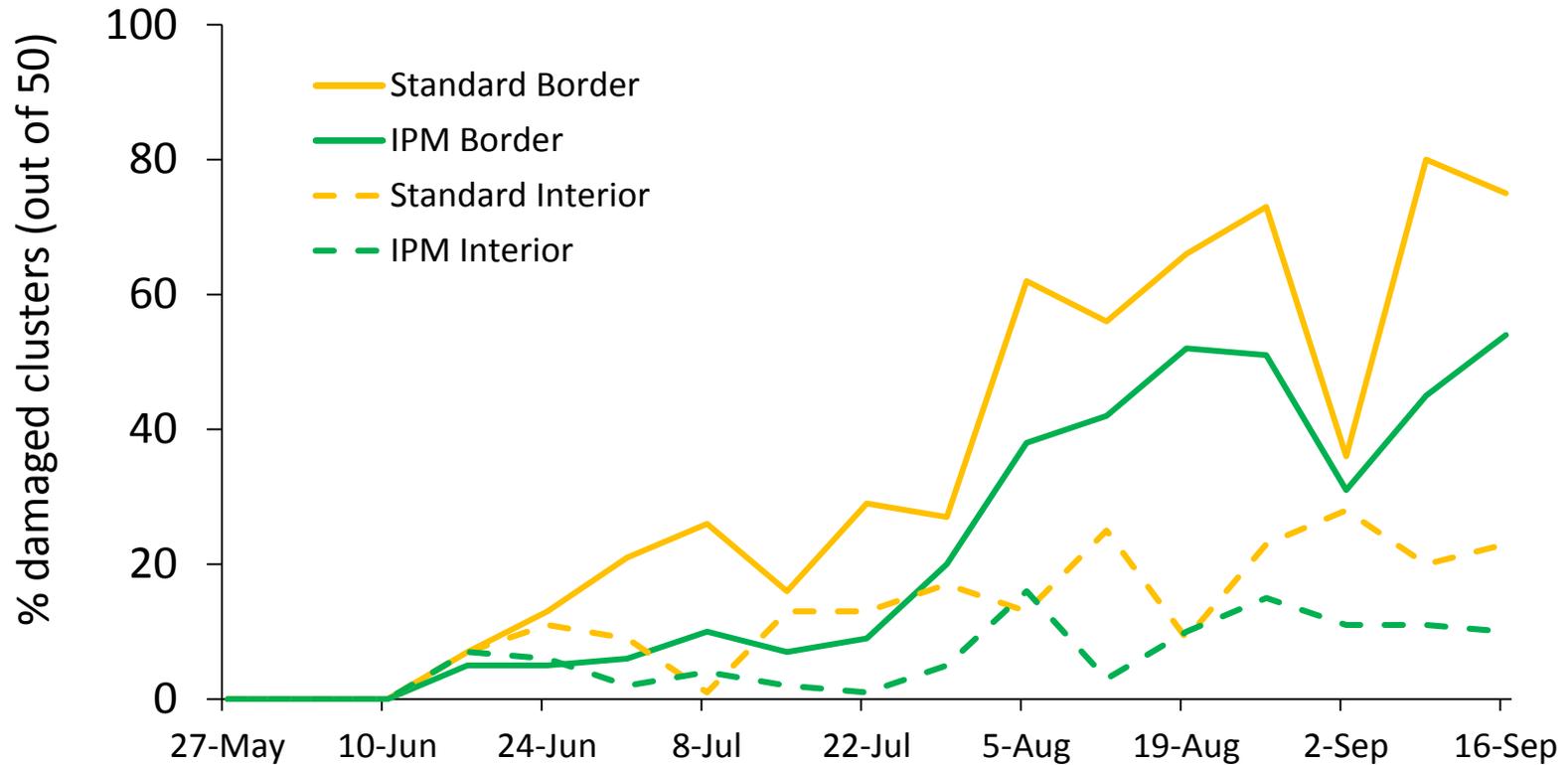
Weekly vineyard scouting

Checking berry moth trap at Berrien farm

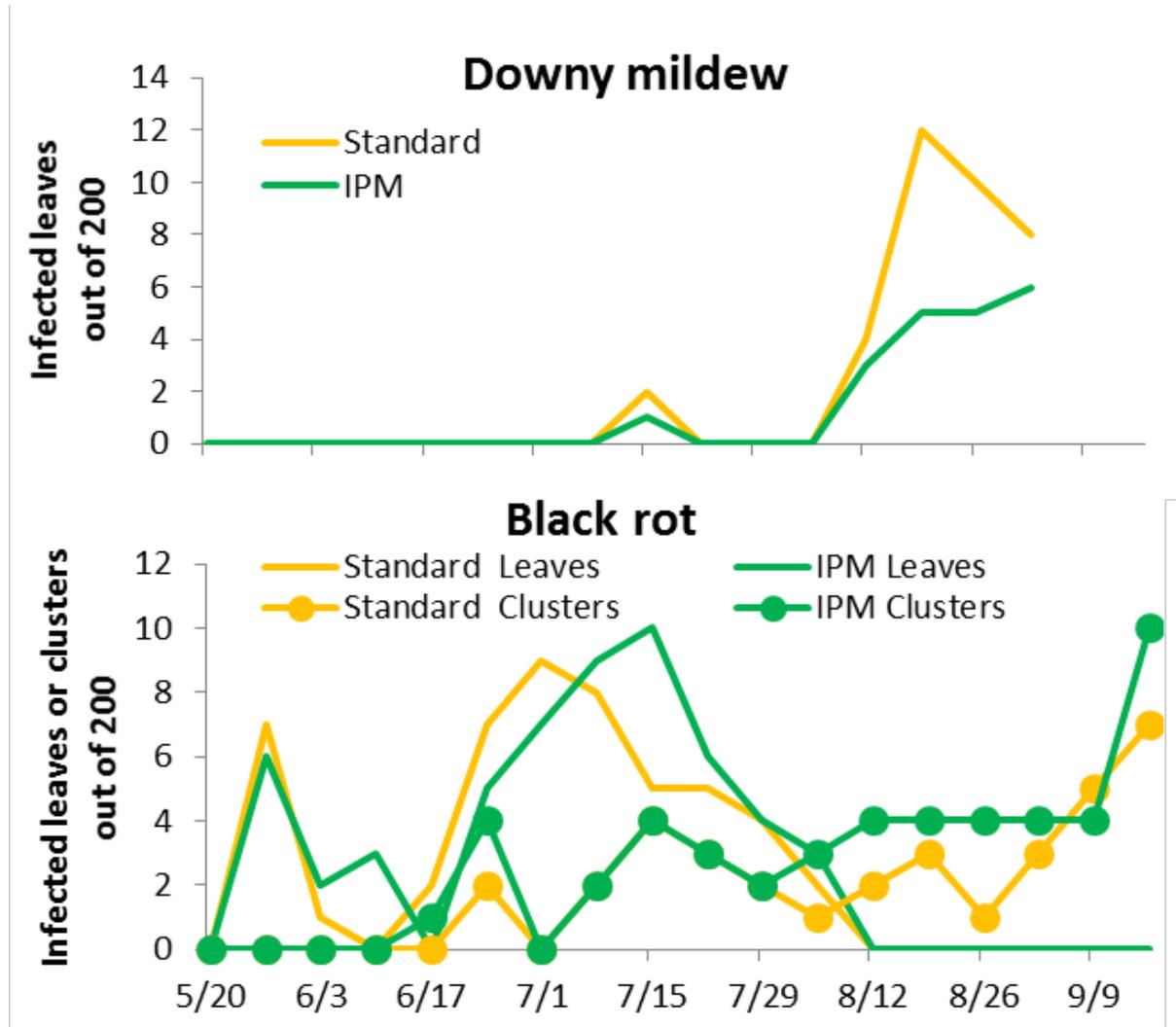


Scouting at Van Buren farm

Lower berry moth pressure in IPM vineyards, 2016



Similar disease in IPM and standard vineyards, 2016



Downy Mildew Control with ProPhyt

Berrien Concord Vineyard

ProPhyt Applied

No ProPhyt Applied



3.6% of Leaf Surface With
Downy Mildew

14.1% of Leaf Surface With
Downy Mildew

ProPhyt Applied on August 16 at 3
pints/acre

Implementing Scouting In Your Vineyard

- Options for growers
 - independent scout
 - distributor representative
 - do it yourself
 - * not hard to learn
 - * learn as you go
 - * increase knowledge of your own vineyard
- MSU Extension can help you get started



Delivering I.P.M. programs



SW Hort Days
Great Lakes Expo
NW Vineyard Show
First Fridays
Summer IPM meetings
Viticulture Field Day



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News



Annual Northwest Michigan Orchard and Vineyard Show will be Jan. 17-18, 2017

December 15, 2016 | **Nikki Rothwell** | Growers are encouraged to attend this two-day, premier educational program to discuss important issues for Michigan fruit industry and much more.

Managing spotted wing Drosophila in organic small fruit

December 13, 2016 | **Heather Leach** | Michigan State University releases new resource on useful information for managing spotted wing Drosophila in organic small fruit production.

Combing through Michigan's pollinator planning efforts

November 21, 2016 | **Meghan Milbrath** | Why are so many Michigan pollinator planning efforts being developed? Let's take a closer look at three programs and plans currently forming.

Pollination Forum will shine a spotlight on issues facing pollinators

November 11, 2016 | **Meghan Milbrath** | Join us Nov. 28, 2016, for the latest information on issues facing bees and the solutions being developed to support crop pollination.

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2017 Northwest Michigan Orchard and Vineyard Show

Jan 17, 2017 – Jan 18, 2017 | Grand Traverse Resort, 100 Grand Traverse Resort Village Boulevard, Williamsburg, MI 49690

2017 Winter Grower Produce Safety Course

Jan 19, 2017 | MSU Northwest Horticultural Research Center, 6686 S. Center Hwy, Traverse City, MI 49684

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Southwest Michigan grape scouting report – June 28, 2016

Grape berries are beginning to size, disease incidence remains relatively low and treatment date for grape berry moth approaches.

Posted on **June 28, 2016** by [Brad Baughman](#), Michigan State University Extension, and Keith Mason, MSU Department of Entomology








Weather and development

Concord and Niagara berries in Berrien County are sizing rapidly, and are above 1 centimeter in diameter. Bloom has ended in *vinifera* wine grapes.

Growing degree-day base 50 accumulations for 2016		
Location	June 27	July 3 (projected)
Berrien Springs	1,084	1,174
Lawton	1,192	1,294

Diseases

Low incidence of fungal diseases has continued. Low percentages of [Phomopsis](#) shoot lesions and leaf lesions and [black rot](#) on leaves are present in many vineyards. The first black rot infections have begun to appear on clusters. Recent rains resulted in infection periods for numerous diseases, but we still have not observed [downy mildew](#) or [powdery mildew](#) infections in commercial vineyards.

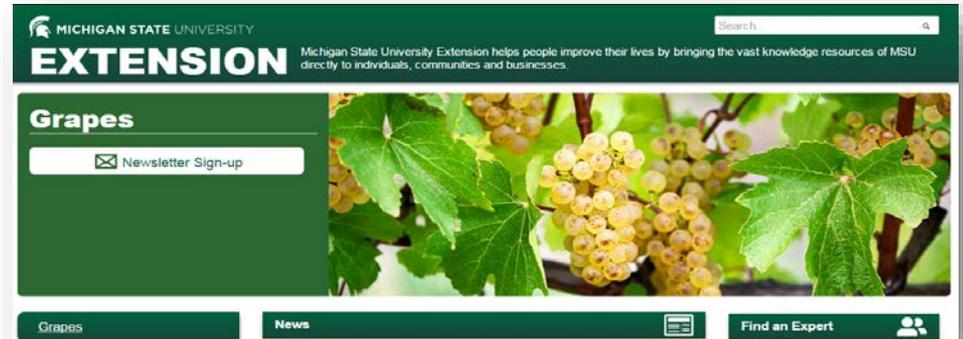
Though we are two weeks post-bloom in juice grapes, primary inoculum for black rot are likely still being produced from overwintering sites – dry weather often delays release of primary inoculum. In wine grapes, fruit are still in the most vulnerable period of disease infection. Wine grape clusters should remain covered in protectant materials for all major diseases at this time.



Current development of Concord grapes near Benton Harbor, Michigan. Photo: Brad Baughman, MSU.

Online extension - grape website traffic

MSU Grape Update subscribers:
1,133 in 2015 to 1,875 in 2016.



During 2016, articles containing “grapes” received 30,500+ views of which 26,700+ were unique pageviews.

Grape navigational pages (e.g., “Viticulture,” “Education,”) had 58,000 views.

Tom Zabadal videos on pruning and tying vines have been viewed over 277,000 times, an increase of 27,000 over last year.

Thanks to....

The grower cooperators and vineyard managers for their vineyards and time to help with this research

Michigan Grape and Wine Industry Council for the financial support.