

Courthouse  
1926 Hall Avenue  
Marinette, WI 54143  
Phone: 715-732-7510



If you will need any type of accommodation or assistance as you attend any UW-Extension sponsored event, please contact the host county or Scott at the Marinette County office at least two days prior to the event. All requests will be confidential.

Scott Reuss  
715-732-7510  
1-877-884-4408  
cell 715-923-0807  
[scott.reuss@ces.uwex.edu](mailto:scott.reuss@ces.uwex.edu)

Sarah Mills-Lloyd  
920-834-6845  
[sarah.mills-lloyd@co.oconto.wi.us](mailto:sarah.mills-lloyd@co.oconto.wi.us)

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## July, 2016 Newsletter

What a concept, huh? I'm actually getting a newsletter out ahead of schedule. If I wouldn't be doing this now, Breakfast on the Farm prep would take over all of next week and then it wouldn't get out until after the 4<sup>th</sup>.

Scott Reuss

### Tractor & Machinery Safety Training

If you employ anyone on your farm that does not have a driver's license, please make sure they are legal. Read the flier on the last page of this newsletter or call me to double-check.

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#### Calendar of Events

June 26	Marinette County Breakfast on the Farm at Fendryk Brothers Farm. Contact Corey Kuchta at 920-660-4182 if you want to donate, volunteer, or otherwise assist.
June 29	Coleman Ice Cream Social @ library - 12:30 pm
June 30	Harmony Super Fruits - 6:30 pm
July 6, 8, 13, 15	Coleman & Pound Tractor Safety Training
July 7	Harmony Onion Family Pest Management - 6:30 pm
July 12	Harmony Sensory Gardens - 6:30 pm
July 13	County Line Young Producer & Ag Professionals - 7 pm
July 16	various Garden Walk - Harmony fundraiser
July 19-21	Lake Geneva Farm Technology Days
July 21	Oc. Falls Oconto County Dairy at Dusk
July 26	Rhinelanders NRCS EQIP Work Group meeting (Florence, Forest, Oneida, Vilas Cties.)
July 28	Harmony Onion Family Harvest & Storage - 6:30 pm
July 29	Loomis Marinette County Holstein Association annual twilight meeting (see page 7)
July 29/30	Luck, WI Silvopasture Workshop - contact Scott for details
August 2	Gillett Breezing into Learning (Oconto County HCE and Family Living sponsors)
August 3	Harmony Soil Health in the Garden - 6:30 pm

## Disease to watch for:

Many corn fields in our area were extremely adversely affected by Northern Corn Leaf Blight last year. It has already been found in the state this year. Please consider checking with your seed dealer to see if the hybrids you planted are susceptible to NCLB and, if they are, institute a scouting protocol and be ready & willing to spray if necessary.

## Northern Corn Leaf Blight Positively Identified in Wisconsin in 2016

Written by Damon Smith, UW Field Crops Plant Pathologist, Posted on [June 16, 2016](#)

**Damon L. Smith, Extension Field Crops Pathologist, University of Wisconsin-Madison**

I was hoping that I would write this article later in the year. But it has happened relatively early for us. We have positively confirmed northern corn leaf blight (NCLB) on field corn at about the V7-V8 growth stage near Janesville, WI this week. This is a bit early for us, however, not entirely surprising given the levels of residual inoculum from the fungus that causes NCLB left from 2015 in many fields and the cool wet conditions we have had this spring. The situation has been similar to that in Iowa. Dr. Alison Robertson also reported the first find of NCLB in southeast Iowa this week. While this find is relatively early for

Wisconsin, I don't think the world is going to come to an end. Patience will be key over the next couple of weeks. I'll explain why folks should be cautious in making management decisions below.



Figure 1. Northern Corn Leaf Blight symptoms on a corn leaf

### What is the Organism that Causes Northern Corn Leaf Blight (NCLB)?

A fungus called *Setosphaeria turcica* (synonym: *Exserohilum turcicum*) causes NCLB (Fig. 1). The fungus loves it wet and cool. The fungus is most active when wet weather coincides with temperatures between 65 F and 80 F. During these conditions, the fungus will readily make microscopic spores (called conidia) inside the symptomatic areas of leaves and those spores (Fig. 2) will get splashed onto more leaves. Therefore, the disease typically moves from the lower canopy, up the corn plant as the season progresses. When temperatures get above 80 F and it is dry, growth and spread of the fungus slows dramatically. Remember the disease triangle? It takes three things for a plant disease to occur – susceptible plants, fungal inoculum present near those susceptible plants, and favorable weather. Early this season, all three legs of the triangle were present. We have lots of residual inoculum left from 2015, we have lots of corn planted again in many fields that had corn last year, and we had cool rainy conditions early on this season. However, as we think about the disease triangle moving forward, and look at forecasts over the next 7-10 days, weather is not going to be conducive for the NCLB fungus. Temperatures are forecasts to be above 80 F and there isn't much rain in site. Without the weather component of the triangle, fungal growth, spread, and subsequent disease development will be halted.



Figure 2. A photo-micrograph of spore produced by the NCLB fungus

## What should I do About Managing NCLB in 2016?

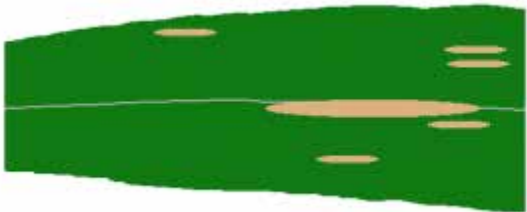


Figure 3. A computer simulation of 5% NCLB severity on a corn leaf.

Farmers and consultants should start actively scouting corn fields in Wisconsin and keep track of disease and disease development. Remember, that while the disease is manifesting early, it is currently affecting leaves that will be in the lower canopy of the plant and are not responsible for a large portion of grain yield. While I hate talking about threshold levels for managing disease, it can be helpful in your decision making process to know what might be severe disease. While scouting look in the lower portion of the canopy. If some symptoms are present in the lower canopy, make a visual estimation of how

frequent (percentage of plants with lesions) NCLB is in a particular area and how severe (how much leaf area is covered by NCLB lesions). The lower leaves aren't responsible for much yield accumulation in corn, but spores produced in NCLB lesions on these leaves can be splashed up to the ear leaves where disease can be very impactful. So by scouting the lower canopy and getting an idea of how much disease is present, you can "predict" what might happen later on the ear leaves to make an informed spray decision. The other consideration you should make while scouting is the resistance rating that the hybrid has for NCLB. If it is rated as resistant, then NCLB severity might not be predicted to get very severe, while in a susceptible hybrid, NCLB might be present on 50% or more of plants at high severity levels. Note however, that even if a hybrid is rated as resistant, it can still get some disease. Resistance isn't immunity! If NCLB is present on at least half the plants and severity is at least 5-10% and weather is forecast to be rainy and cool, a fungicide application will likely be needed to manage the disease. So what does 5% leaf severity look like? Figure 3 is a computer generated image that shows 5% of the corn leaf area with NCLB lesions. You can use this image to train your brain to visually estimate how severe the disease might be on a particular leaf. As for fungicide choice and timing, I consider that further below.

## When Should I Spray and What Should I Spray?

While it might seem tempting to spray fungicide now (between the V6-V8 growth Stages) because of NCLB, remember that the disease will likely slow due to the hot dry weather pattern we are about to encounter. I would encourage you to be patient and save your fungicide spray until as close to tassel (VT growth Stage) as you can. Over the last several years corn pathologists in the U.S. corn belt have conducted fungicide application timing trials on corn for grain. Programs included various products, but applications focused on an early (V5-V8) timing, a VT-R2 timing, or a combination of V5-V8 plus a VT-R2 application (two fungicide applications). Over a 6 year period and well over 1,500 observations, the average yield gain when using fungicide at V5-V8 alone was 1.9 bu/acre, while that at the VT-R2 timing was 4.7 bu/acre, and 5.6 bu/acre for the two-pass program. Now consider the price of corn and the fungicide cost. Figure 4 is a breakeven table for fungicide cost compared to corn price. You will see that I have called out a couple of possibilities depending on the price of your fungicide. If we consider the price of corn grain to be somewhere between \$3 and \$4 and the cost of a fungicide to be in the \$10 to \$14 range, you can see from the table that you would need 2.5 to 4.7 bu/acre of additional corn grain in the treated fields, over not treating, to cover the cost of fungicide. Considering these numbers, and the nationwide average bushel return when using fungicide at various corn growth stages, you can see that the VT application timing for fungicide seems to make the most sense.

**Break-even scenarios for corn**  
(bushels needed to cover cost)

Corn Price (\$/bu)	Cost Per Fungicide Application (\$/A)						
	\$10.00	\$12.00	\$14.00	\$16.00	\$18.00	\$22.00	\$24.00
\$2.00	5.0	6.0	7.0	8.0	9.0	11.0	12.0
\$3.00	3.3	4.0	4.7	5.3	6.0	7.3	8.0
\$4.00	2.5	3.0	3.5	4.0	4.5	5.5	6.0
\$5.00	2.0	2.4	2.8	3.2	3.6	4.4	4.8
\$6.00	Generic Formulations			2.7	Original Formulations		
\$7.00	1.4	1.7	2.0	2.3	2.6	3.1	3.4
\$8.00	1.3	1.5	1.8	2.0	2.3	2.8	3.0

Figure 4. 2016 Break-even table for corn fungicide application

### Effect of Disease Level Highly Significant on Yield Response to Fungicide

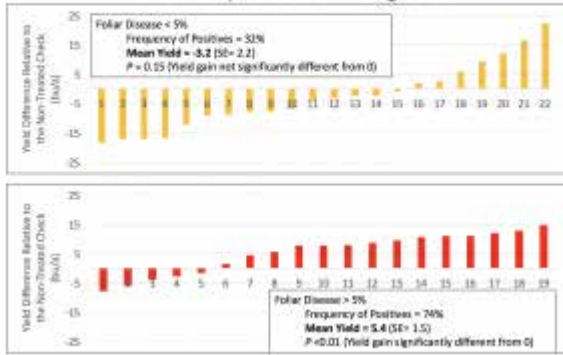


Figure 5. Yield Gain in field corn where there was little disease activity or high disease activity in Wisconsin

So what about fungicide application on corn in Wisconsin? We have compiled a 3-year dataset where we have looked at return on investment when using fungicide in fields where little disease was active (< 5% NCLB ear-leaf severity) or where diseases active (>5% NCLB ear-leaf severity). When NCLB was active, we found that there was a positive yield response when using fungicide about 74% of the time with an average yield gain of 5.4 bushels per acre (Figure 5). When disease activity was low, that positive yield response dropped to just 32% with little gain over zero bushels (Figure 5).

How about the return on investment in the current corn market? If we consider the current corn pricing and a fungicide cost of \$10 to \$14, Figure 6 shows that in

Wisconsin a positive return on investment (ROI) occurs about 50-65% of the time when disease is active on ear-leaves (Figure 6). When disease is not active, the odds of positive ROI drop to just 12% – 20%.

Also be aware that in some cases, application of fungicide in combination with nonionic surfactant (NIS) at growth stages between V8 and VT in hybrid field corn can result in a phenomenon known as arrested ear development. The damage is thought to be caused by the combination of NIS and fungicide and not by the fungicide alone.

For information on fungicide efficacy for NCLB you can consult fungicide efficacy trial data by consulting the National Corn Disease Working Group fungicide efficacy table that was recently updated.

### Summary

While it is earlier than normal to see NCLB in Wisconsin, I would encourage people to be patient in managing this disease with fungicide. Remember that conditions are going to be hot and dry over the next 1 – 2 weeks, which will dramatically slow the progress of NCLB. Also, considering that the best response out of a fungicide application seems to be between VT-R2, and the issues with fungicide plus NIS application between V8 and VT, I would suggest holding off for any fungicide applications until closer to VT. With the price of corn grain comparatively lower than in years past, one application of fungicide is about all that Wisconsin farmers can afford, therefore I would maximize that application and apply it as close to the VT growth stage as you can. As you approach that growth stage, continue scouting and consider if the disease is active. If it isn't active and the weather pattern continues to be hot and dry, a fungicide application may not be needed at all.

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*Note: The full article with links is on our website.*

UW-Extension is conducting a field pest scouting tutorial event in conjunction with the Young Producers' Group meeting at Finger Family Farms on Wednesday, July 13<sup>th</sup>. If

### Probability Of Recovering the Cost of A Fungicide Application Under **High** Foliar Disease Pressure

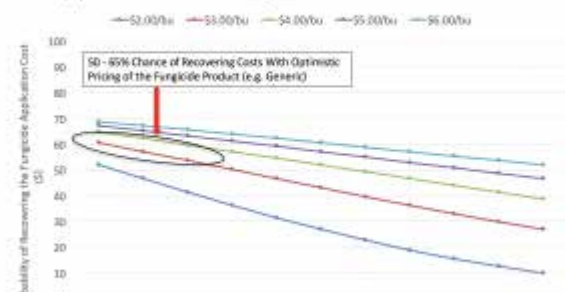


Figure 6. Return on Investment calculations fungicide application on field corn when disease activity is high.

you want to host a neighborhood pest scouting event, let me know and I will get it set up with you. Scott R. – 715-923-0807

# Farm Service Agency Deadlines & Nominations

June 15 – August 1, 2016 – County Committee Nomination Period \*

July 15, 2016 – Crop Reporting Deadline

August 1, 2016 – Enrollment deadline for ARC/PLC

The nomination period for the Oconto-Marinette FSA county committee began on June 15, 2016 and ends Aug. 1, 2016. County Committees are unique to FSA and allow producers to have a voice on federal farm program implementation at the local level.

This year, nominations and elections will be held in Local Administrative Area (LAA) 3 and 5. Included in LAA 3 are the townships of Lake, Beaver, Pound, Brazeau, Spruce, Bagley, Breed, How, and Maple Valley. The townships of Underhill, Gillett, Oconto Falls, Stiles, Morgan, Abrams, Pensaukee, Chase, and Little Suamico are in LAA 5.

For more information about county committees, please contact the Oconto-Marinette County FSA office at (920) 829-5406 or visit [www.fsa.usda.gov/elections](http://www.fsa.usda.gov/elections).

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## Educational Species Clinics for Youth Producers (Open to all youth!)

### Sheep Clinic

Monday, June 27<sup>th</sup> 6:30-7:30PM

Oconto County Fairgrounds—Gillett

Contact Keith Simpson for more information [Keith.Simpson@thedacare.org](mailto:Keith.Simpson@thedacare.org).

### Swine Clinic

Tuesday, July 12<sup>th</sup> 7:30PM

Oconto County Fairgrounds Exhibition Building—Gillett

Contact Kurt or Ann Steffel for more information at [steffel.farms@yahoo.com](mailto:steffel.farms@yahoo.com).

### Dairy Showing & Fitting Clinic

Thursday, July 14<sup>th</sup> 5:30PM

Oconto County Fairgrounds—Gillett

Contact Erin Buhrandt for more information at [ehbuhrandt711@yahoo.com](mailto:ehbuhrandt711@yahoo.com).

### Beef Clinic

Saturday, July 16<sup>th</sup> 10AM

Oconto County Fairgrounds—Gillett

Contact Julie Yonker [julie.yonker@gaasinc.com](mailto:julie.yonker@gaasinc.com) for more information.

### Rabbit Clinic

Tuesday, July 26<sup>th</sup> 6 PM

Oconto County Fairgrounds—Gillett

Contact Stacie Pienta [stacie.pienta@gmail.com](mailto:stacie.pienta@gmail.com) for more information.

### Poultry Clinic

Tuesday, July 26<sup>th</sup> 7:30 PM

Oconto County Fairgrounds—Gillett

Contact Keith Schardt 920.590.0397 or [Keith.schardt@gmail.com](mailto:Keith.schardt@gmail.com) for more information.

### Goat Clinic

Wednesday, August 3<sup>rd</sup> 4PM

Oconto County Fairgrounds—Gillett

Contact Carol Nelson 920.855.2873 for more information.

## Mid and Early Career Dairy Producer and Agribusiness Professionals Group Gathering

Mid and early-career dairy producers and agribusiness professionals in Shawano, Oconto and Marinette counties are invited to attend a gathering on Wednesday, July 13<sup>th</sup> at the Finger Family Farms, 8831 Old 41 Road, Oconto, WI. The meeting will begin at 7:00 pm. Attendees will discuss and practice crop scouting and have a brief farm tour.

There is no cost to attend the program and light refreshments will be provided. If you cannot attend this program, but are interested in being involved or have suggestions for future programs, contact Sarah or Jamie to share your contact information and/or your ideas.

If you have more questions about this event, please contact Sarah Mills-Lloyd at 920-834-6845 or [sarah.millsloyd@uwex.edu](mailto:sarah.millsloyd@uwex.edu) or Jamie Patton at 715-526-6136 or [jamie.patton@uwex.edu](mailto:jamie.patton@uwex.edu).

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# Marinette County Holstein Association

## Annual Twilight Meeting

### July 29, 2016

The annual Marinette County Holstein Association Twilight meeting is set for Friday July 29<sup>th</sup> at Kaufman Farms, operated by Harold & Pat and Ben & Annessa Kaufman.

The farm will be open to the public at 6:00 p.m. The lunch line will start at 6:30pm with dairy judging results and door prizes to follow at approximately 7:30pm. There will be no formal speaker this year. Instead Harold is excited to open up his museum and display his incredible collection of antiques ranging from tractors and farm equipment to logging and old kitchen tools.

Farm location: W6110 Wee Lane Porterfield, WI 54159. Use County Road W and turn East at Loomis Road for one and half miles. Wee Lane will be on West side of the road.

Association members are asked to bring bars.

Sincerely,  
Phil Finger  
Secretary



# Upcoming Horticulture Programs

All events are free, with the exception of the July 16<sup>th</sup> Garden Walk - although admission to Harmony Arboretum is free that day, as well.

**Harmony Arboretum Programs:** The following programs are all held at the Harmony Arboretum, within the Demonstration Gardens. They are all held, rain or shine, as there is a pavilion. The entrance to the demonstration gardens is located ½ mile south of Hwy. 64 on Mar. Cty. Hwy. E, which is 7 miles west of Marinette, or about 10 miles east of Hwy. 141.

June 30 6:30 pm **Super Fruits** No, this is not a new comic book super hero, but a term for a group of lesser known fruits such as aronia, goji berry, elder berry, and many others. This workshop will explore which ones can be grown in our area, selection and placement, and other management practices.

July 7 6:30 pm **Onion Diseases and Pests** The onion family vegetables have fewer pests than most other vegetables, but this workshop will review identification and management of those diseases and insects that do affect them. Attendees are welcome to bring samples for identification and discussion.

July 12 6:30 pm **Sensory Gardens** Growing specific plants that allow both youth and adults to experience the variety of textures, smells, and sounds in the garden can increase their interest and appreciation of growing plants. We will also explore how plants and planned gardens can assist in human health.

July 14 9 pm **Astronomy at the Arboretum** An introduction to stars, constellations, star lore, and other space-related topics - including a stargazing tour. If rain or overcast, event will be cancelled.

July 16 9 am - 4 pm **Garden Walk** Enjoy 5 private gardens plus the demonstration gardens at Harmony Arboretum. Tickets are \$10 in advance or \$12 the day of event. A plant pest clinic will be ongoing the entire day at Harmony, as well, so bring any pest samples along for identification and management info.

July 20 6:30 pm **Raspberries** Raspberries are a great summer or fall fruit, but there are definitely some pest issues we need to be able to manage. In addition, plant management practices and selection of the right types for your interests will increase both your enjoyment of them and make their care simpler.

July 28 6:30 pm **Harvesting and Storing Garlic & Onions** Garlic, onions, and their relatives can store very well when harvested, cured, and stored correctly. Learn the proper timing and techniques to allow for maximum flavor and quality retention.

August 3 6:30 pm **Soil Health in the Garden** Soil health is critical to optimum plant growth and health. Learn how to use cover crops and other soil management techniques effectively in the garden to maximize production potential.

August 6 9 am - Noon **Art in the Garden** Northern Lights Master Gardener Volunteers lead various demonstrations and hands-on workshops focused on art and creativity in the garden. Fees may apply if you wish to participate in certain projects.

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## **Florence - Crossroads Community Garden Programs**

July 27<sup>th</sup> 5 pm **Planting Fall Vegetable Gardens** Learn about the different vegetable types that can yield well in late summer and early fall with late-season plantings. Focus will be on selection and proper management to get the most from them.

September 8<sup>th</sup> 4-7 pm **Harvest Party & Harvesting/Storage of Vegetables**



# 2016 Youth Tractor and Machinery Safety Training

Pound Town Hall – Coleman, WI

Wednesdays & Fridays, July 6, 8, 13, and 15

Makeup days will be scheduled if needed.

Cost: \$35/person

9 a.m. to 3:15 pm each day

 **UW**  
**Extension**  
Cooperative Extension



*Your county  
extension office*

**Who Needs To Attend the Training?** Any 12 to 15-year old who may need to drive any type of farm machinery on a public road in Wisconsin. Others are welcome to attend the course, but only those older than 12 will receive certification. Those 16 years old and older without a valid driver's license can also utilize this training to be legal to drive farm machinery on public roads.

**Legal Review:** In Wisconsin, 14 and 15 year-olds who have successfully passed the Wisconsin Safe Operation of Tractor and Farm Machinery Course can legally drive farm machinery on public roads for their parents or grandparents' farms AND can work for other farms and do the same. 12 and 13-year olds who have completed the course can legally drive farm machinery on public roads only when working for their parents or grandparents' farms. If you employ persons under 15 years or who do not have a driver's license, it is highly recommended that you have them attend the training, whether they drive on public roads or not, as this is a good all-around safety training (and you should be collecting a copy of their federal permit from them). You may want to talk to your insurance agent to double-check about requirements based on your insurance policy.

### Some Logistics:

- State law mandates 24 hours of training for this program. If participants are not going to be able to attend one of the scheduled days, we will figure out an acceptable make-up day that matches our schedules to allow them to complete the course. **Friday, July 15 is testing day and all participants MUST be in attendance.**
- Participants need to bring their own lunches, a refrigerator will be available for storage. Families are welcome to provide snacks, Scott will have water and/or lemonade and/or milk available.
- The course will emphasize hands-on and skill-building exercises, including first aid and fire safety from local emergency response personnel. We will be analyzing machinery for safety aspects, conducting on-farm safety assessments, and dozens of other activities, along with videos and course material review.

Call Scott or Gina at the Marinette County UWEX office, at either 715-732-7510 or toll-free 1-877-884-4408 if you have any questions, or you can e-mail to [scott.reuss@ces.uwex.edu](mailto:scott.reuss@ces.uwex.edu)

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Registration Form - Tractor & Machinery Safety Training - please print

Name(s): \_\_\_\_\_ Age(s): \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ Zipcode: \_\_\_\_\_

Emergency Contact Telephone Number: \_\_\_\_\_

Please complete this form and mail to the following address by July 5, with a check for \$35 per participant and made payable to UW-Extension. OR contact Scott with the above information by then!

Marinette County UW-Extension  
1926 Hall Avenue  
Marinette, WI 54143