such as loss in stalk integrity or a plant that is left susceptible to other pathogens. I have written a previous article describing some of these issues, and how to deal with them.

To manage some of these foliar issues, increasing interest has been placed on using fungicides, especially in grain corn. Over the last several seasons, interest is growing from dairy producers who are also treating corn silage hybrids with fungicide. Why all the interest in treating silage corn with fungicides? Some of the intent is to improve feed digestibility. Dr. Felipe Cardoso's animal science laboratory at the University of Illinois has published several peer-reviewed papers describing the physiological changes in the corn plant treated with fungicides, that result in improved feed digestibility. In those studies, yield was often not directly impacted by the fungicide application, but fibrous changes in the corn plant improved feed conversion to milk production in cows fed silage corn treated with fungicide (Haerr et al., J. Dairy Sci., 2015; Kalebich et al., J. Animal Feed Sci., 2017).

Our laboratory at the University of Wisconsin-Madison is also interested in the effects that fungicides might have on mycotoxin accumulation in silage corn hybrids. We are especially interested in the accumulation of deoxynivalenol (DON or vomitoxin). In corn, DON is primarily produced by a fungus called Fusarium graminearum. Fusarium graminearum can cause Gibberella ear rot (Fig. 1) and also Gibberella stalk and crown rot of corn (Fig. 2).

**Figure 1. Gibberella ear rot on corn.**
Mycotoxins are secondary metabolites produced by fungi, that can be toxic to plants and/or animals (including humans). These are termed secondary metabolites as they are not produced by primary metabolism in fungi. We understand some things about secondary metabolism in fungi, but there is much left to learn. Stressors on fungi can be responsible for inducing secondary metabolism, but other environmental and substrate cues might also be important. The inconsistency in induction of secondary metabolism in fungi, might be one reason that we see no linear relationship between ear rot in corn and vomitoxin accumulation. It is not uncommon to find low levels of ear rot, yet find high levels of vomitoxin in finished corn grain.

Animal nutritionists have observed many impacts of mycotoxins on animals, including dairy cattle. These can range from simple reductions in milk production all the way on up to feed refusal, hemorrhaging, and death. For this reason, nutritionists have devised guidelines for dietary limits of some mycotoxins to reduce harm to the animal. Dr. John Goeser has assembled the “Mycotoxin Guidelines and Dietary Limits” fact sheet to help producers better understand the potentially harmful toxin levels in the total diet (DM). You will see in that chart that for DON, the suggested limit is just 0.5 to 1.0 ppm for dairy cattle. The fact sheet also provides a helpful formula to understand the contribution of toxin in a particular component of feed, relative to the total diet.

So how do fungicides affect DON in corn plants at harvest? Let’s look at some data from Wisconsin in 2017 and 2018.

This article continues on Damon Smith’s blog with several more research graphs and charts.

To read the rest of this article, click here.
• Friday, November 30: Marshfield at Marshfield Ag Research Station Auditorium, 2611 Yellowstone Dr. Contact: Evan Henthorne, UW-Extension Adams County, 569 N. Cedar St. Ste. 3, Adams, WI 53910; 608-339-4237.

• Monday, December 3: Juneau at Dodge County Admin Bldg., 127 Oak St. Contact: Laure Dei, UW-Extension Dodge County, Admin Bldg. 127 Oak St., Juneau, WI 53039; 920-386-3790.

• Tuesday, December 4: Kiel at Millhome Super Club, 3 miles East on Hwy. 57/31. Contact: Mike Ballweg, UW-Extension Sheboygan County, 5 University Dr., Sheboygan, WI 53081; 920-459-5904.

• Wednesday, December 5: Cecil at The Main Event, 206 North Lemke St. Contact: Kimberly Kassube, UW-Extension Shawano County, Courthouse, Rm. 101, 311 N. Main St., Shawano, WI 54166; 715-526-6136.

• Thursday, December 6: Dodgeville at Iowa County Health and Human Services Bldg., 303 W. Chapel St. Contact: Gene Schriefer, UW-Extension Iowa County, 303 W. Chapel St., Ste. 1200, Dodgeville, WI 53533; 608-930-9850.

*For more information, see the flyer attached at the end of this pdf.

Can Conservation Pay? Iowa County Uplands Watershed Group Farm Tour

Daniel H. Smith, Nutrient and Pest Management Program, University of Wisconsin-Madison

An upcoming field day on October 24th in northern Iowa County will provide insight into the economics of conservation. The field day will showcase speakers on the economics of no-till and nutrient management planning. Additionally, speakers will discuss cover crops following silage corn and manure in cover crop systems.

The field day will include a tour of the farm’s cover crop fields. The field day will begin around 9:45 a.m. and conclude by 12:00 p.m. A complimentary lunch will be served with guest speaker Lance Nacio, a Gulf of Mexico fisherman. The field day is free, however, registration is required.

Please see the attached flyer for more information.

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2019 Agronomy Update Meetings

This is the first announcement for the 2019 Agronomy Update meeting series. The Department of Agronomy and UWEX will offer Crop Production and Management meetings at eight locations during 2019. Joe Lauer and Shawn Conley will present the latest information on hybrid/variety performance, an analysis and discussion of last year’s growing season, and updated recommendations for field crop production.

We invite you to be a part of these meetings. The meeting dates and locations for the 2019 Agronomy Update meetings are:

• Janesville Monday, Jan. 7 at 12:00
• Madison Tuesday, Jan. 8 at 7:30 am
• Fond du Lac Tuesday, Jan. 8 at 12:00
• Kimberly Wednesday, Jan. 9 at 7:30 am
• Wausau Wednesday, Jan. 9 at 12:00
• Eau Claire Thursday, Jan. 10 at 7:30 am
• Sparta Thursday, Jan. 10 at 12:00
• Belmont Friday, Jan. 11 at 12:00

Please join us at a meeting in your area. Help us spread the word by informing seed dealers and the ag industry from your county or area, and encourage them to attend.

If you have any questions, or if I can be of any assistance, please contact Joe Lauer:

Office: (608) 263-743
Cell: (608) 575-0731
Fax: (608) 262-5217
Lab: (608) 262-1840
Farm: (608) 846-3761 x120
Email: jglauer@wisc.edu
Website: http://corn.agronomy.wisc.edu

For more information, see the flyer attached at the end of this pdf.
Herbicide Site of Action Key for Crop Injury Symptoms

by Rodrigo Werle (UW-Madison Extension Cropping Systems Weed Scientist) and Maxwel Oliveira (UW-Madison Weed Science Postdoctoral Research Associate)

With the widespread occurrence of herbicide-resistant weeds, corn and soybean farmers are having to diversify their herbicide programs to obtain adequate levels of weed control. The increased herbicide diversification increases the likelihood of crop injury due to carryover, misapplication, tank contamination, and/or drift.

To help you determine which herbicide(s) may be responsible for suspected injury on crops, this key uses the herbicide’s site of action (SoA) and respective Weed Science Society of America group number; herbicides within the same SoA can cause similar symptoms. After reaching a specific SoA, you can check if any of the herbicides from that group are the source of crop response. Herbicide control (selectivity) is specified for broadleaf and/or grass weed species and remember to also observe weeds for injury symptoms.

To download the “Herbicide Site of Action Key for Crop Injury Symptoms” click HERE

UW/UWEX Plant Disease Diagnostic Clinic (PDDC) Update
October 12

Brian Hudelson, Sue Lueloff, John Lake and Ann Joy

The PDDC receives samples of many plant and soil samples from around the state. The following diseases/disorders have been identified at the PDDC from October 6, 2018 through October 12, 2018.

The 10/12/18 PDDC Wisconsin Disease Almanac (i.e., weekly disease summary) is now available at:

OTHER PROGRAMS OF INTEREST

2019 Wisconsin Agribusiness Classic

January 15-17, 2019
Alliant Energy Center, Madison
For more details, see
http://agclassic.org

2018 SOIL, WATER & NUTRIENT MANAGEMENT MEETINGS

November 27 through
December 6, 2018
Schedule and Contacts

The Department of Soil Science, in conjunction with University of Wisconsin-Cooperative Extension, will conduct eight Soil, Water, and Nutrient Management Meetings in 2018 (from November 27 to December 6).

Meetings will be held from 10:00am to 3:00pm (with lunch from 12:00pm to 1:00 pm).

The purpose of these meetings is to provide research and information updates in the field of soil, water, and nutrient management.

Francisco Arriaga, Matt Ruark, Carrie Laboski, Andrew Stammer (UW-Madison and UW-Extension), and Sue Porter (Wis. DATCP) will present current soil, water, and nutrient management information.

Registration is $45 per person. Lunch and relevant materials packet are included with registration. Pre-register with the host at least 1 week before the meeting you wish to attend to save your spot.

Continuing Education Units (CEUs) for Certified Crop Advisers will be provided (2.0 NM and 2.0 SW).

For program content questions, contact
- Francisco Arriaga
- Email: farriaga@wisc.edu
- Phone: 608-263-3913
Field Day and Seafood Lunch: Can Conservation Pay?
Wednesday, October 24, 2018
WI Conservation Farming With Gulf Seafood!

Join Iowa County’s Uplands Watershed Group at Dolan Farms, followed by brats and seafood

5443 County Rd ZZ, Dodgeville, WI 53533

9:45 – Refreshments
10:00 – Speakers on Economics of No-Till, Nutrient Management Plans
10:40 - Tour Ryan Dolan’s cover crops
11:20 – Speakers – Cover crops following corn silage - manure in cover crop systems
12:00 – Lunch (Hear from Gulf fishermen)

Come discuss the economics of conservation. (Bring your own examples and experiences to share.) Then enjoy brats, plus seafood caught by fishermen in the Gulf – whose challenges with nutrient build-up and biological die-off in the Gulf Dead Zone we aid with our conservation practices.

For more information, contact: Margaret Krome, Michael Fields Agricultural Institute 608-238-1440 or Gene Schriever, Iowa County Extension 608-930-9850
**2019 Wisconsin Agronomy Update Meetings**

The Department of Agronomy will offer Crop Production and Management Meetings at eight locations during 2019. Joe Lauer and Shawn Conley will present the latest information on hybrid/variety performance, an analysis and discussion of last year's growing season, and updated recommendations for field crop production. The registration fee includes a meal and information materials. Certified Crop Advisor CEU credits have been requested (3.0 CEU hours-Crop Management). Below is a list of meeting sites, dates and times. A $45.00 registration fee (which includes the meal) will be charged for the meeting. A “walk-in” fee will be charged to those who have not preregistered. Extra information packets are available for $21.00 each. **Make your reservations with the host agent one week prior to the scheduled meeting date.**

<table>
<thead>
<tr>
<th>Location, date and time</th>
<th>Address</th>
<th>Host Agent</th>
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<tbody>
<tr>
<td><strong>Janesville</strong>&lt;br&gt;Monday, Jan. 7 at 12:00</td>
<td>Holiday Inn Express&lt;br&gt;3100 Wellington Dr.</td>
<td>Nick Baker&lt;br&gt;Rock Co. Extension Office&lt;br&gt;51 S. Main St.&lt;br&gt;Janesville, WI 53545-3978&lt;br&gt;(608) 757-5696 <a href="mailto:nick.baker@ces.uwex.edu">nick.baker@ces.uwex.edu</a></td>
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<tr>
<td><strong>Madison</strong>&lt;br&gt;Tuesday, Jan. 8 at 7:30 am</td>
<td>Comfort Inn&lt;br&gt;5025 County Hwy. V, De Forest, WI&lt;br&gt;(Hwy V exit off of 90/94)</td>
<td>Heidi Johnson&lt;br&gt;Dane Co. Extension Office&lt;br&gt;5201 Fen Oak Drive, Rm. 138&lt;br&gt;Madison, WI 53718&lt;br&gt;<a href="http://fyi.uwex.edu/danecountyag">http://fyi.uwex.edu/danecountyag</a>&lt;br&gt;(608) 224-3716 <a href="mailto:Heidi.johnson@ces.uwex.edu">Heidi.johnson@ces.uwex.edu</a></td>
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<tr>
<td><strong>Fond du Lac</strong>&lt;br&gt;Tuesday, Jan. 8 at 12:00</td>
<td>UW Fond du Lac&lt;br&gt;Rm. 114 University Center&lt;br&gt;400 University Drive</td>
<td>Tina Kohlman&lt;br&gt;Fond du Lac Co. Extension Office&lt;br&gt;400 University Drive&lt;br&gt;Fond du Lac, WI 54935-2998&lt;br&gt;(920) 929-3171 <a href="mailto:tina.kohlman@ces.uwex.edu">tina.kohlman@ces.uwex.edu</a></td>
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<tr>
<td><strong>Kimberly</strong>&lt;br&gt;Wednesday, Jan. 9 at 7:30 am</td>
<td>Liberty Hall&lt;br&gt;800 Eisenhower Drive&lt;br&gt;(Hwy. 441, College Avenue Exit, East 1 block)</td>
<td>Kevin Jarek&lt;br&gt;Outagamie County&lt;br&gt;3365 W Brewster St.&lt;br&gt;Appleton, WI 54914&lt;br&gt;(920) 832-5121 <a href="mailto:kevin.jarek@ces.uwex.edu">kevin.jarek@ces.uwex.edu</a></td>
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<tr>
<td><strong>Wausau</strong>&lt;br&gt;Wednesday, Jan. 9 at 12:00</td>
<td>Marathon County UWEX Office, Room 5&lt;br&gt;212 River Drive</td>
<td>Heather Schlesser&lt;br&gt;Marathon County UW-Extension Office&lt;br&gt;212 River Drive&lt;br&gt;Wausau, WI 54403&lt;br&gt;(715) 261-1230 <a href="mailto:heather.schlesser@ces.uwex.edu">heather.schlesser@ces.uwex.edu</a></td>
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<td><strong>Eau Claire</strong>&lt;br&gt;Thursday, Jan. 10 at 7:30 am</td>
<td>Clarion Hotel Campus Area/Green Mill Restaurant and Bar (Campus area)&lt;br&gt;2703 Craig Road</td>
<td>Mark Hagedorn&lt;br&gt;Eau Claire Co. Extension Office&lt;br&gt;227 1st Street West&lt;br&gt;Altoona, WI 54720-1601&lt;br&gt;(715) 839-4712 <a href="mailto:mark.hagedorn@ces.uwex.edu">mark.hagedorn@ces.uwex.edu</a></td>
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<tr>
<td><strong>Sparta</strong>&lt;br&gt;Thursday, Jan. 10 at 12:00</td>
<td>Jakes Northwoods&lt;br&gt;Hwy 21 (NE side of town)&lt;br&gt;1132 Angelo Rd.</td>
<td>Bill Halfman&lt;br&gt;Monroe County - UW Extension&lt;br&gt;14345 County Highway B, Room 1&lt;br&gt;Sparta, WI 54656-0309&lt;br&gt;(608) 269-8722 <a href="mailto:bill.halfman@ces.uwex.edu">bill.halfman@ces.uwex.edu</a></td>
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<td><strong>Belmont</strong>&lt;br&gt;Friday, Jan. 11 at 12:00</td>
<td>Belmont Inn &amp; Suites Convention Center103 W Mound View Ave. (North of Hwy 151 at Belmont)</td>
<td>Gene Schriefer&lt;br&gt;Lafayette County – UW Extension Agriculture Center&lt;br&gt;627 Washington Street&lt;br&gt;Darlington, WI 53530-1396&lt;br&gt;(608) 776-4820 <a href="mailto:gene.schriefer@ces.uwex.edu">gene.schriefer@ces.uwex.edu</a></td>
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**Wisconsin Agribusiness Classic**<br>January 15-17, 2019<br>Alliant Energy Center, Madison

**Midwest Forage Association Forage Production and Use Symposium**<br>February 18-20, 2019<br>Chula Vista, Wisconsin Dells

**Wisconsin Corn Growers Association CORN / SOY EXPO**<br>January 31-February 1, 2019<br>Kalahari Resort, Wisconsin Dells