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Pesticide Applicator Training with Simultaneous Spanish Translation on Jan 31

Glen Nice, PAT Program, UW-Madison

A pesticide applicator training designed specifically for Spanish-speaking individuals will be held on January 31 at UW Fond du Lac in Fond du Lac County. The training will be presented in English and simultaneously interpreted into Spanish by a team of professional language interpreters. The day will also include Worker Protection Standard training for workers and show the EPA approved training video in Spanish. Participants will have the option of taking the private applicator certification test following the training. Please note: The training is offered in both English and Spanish, but the test is only offered in English.

January 31st, UW Fond du Lac, 400 University Drive, Room AE-205/206. Registration is required – $30.

Entrenamiento de Aplicador de Pesticida– Español

Read more or register on the PAT website.

–> http://ipcm.wisc.edu/pat/2016/10/pat-spanish/

Best Management Practices for Growing Second Year Soybeans

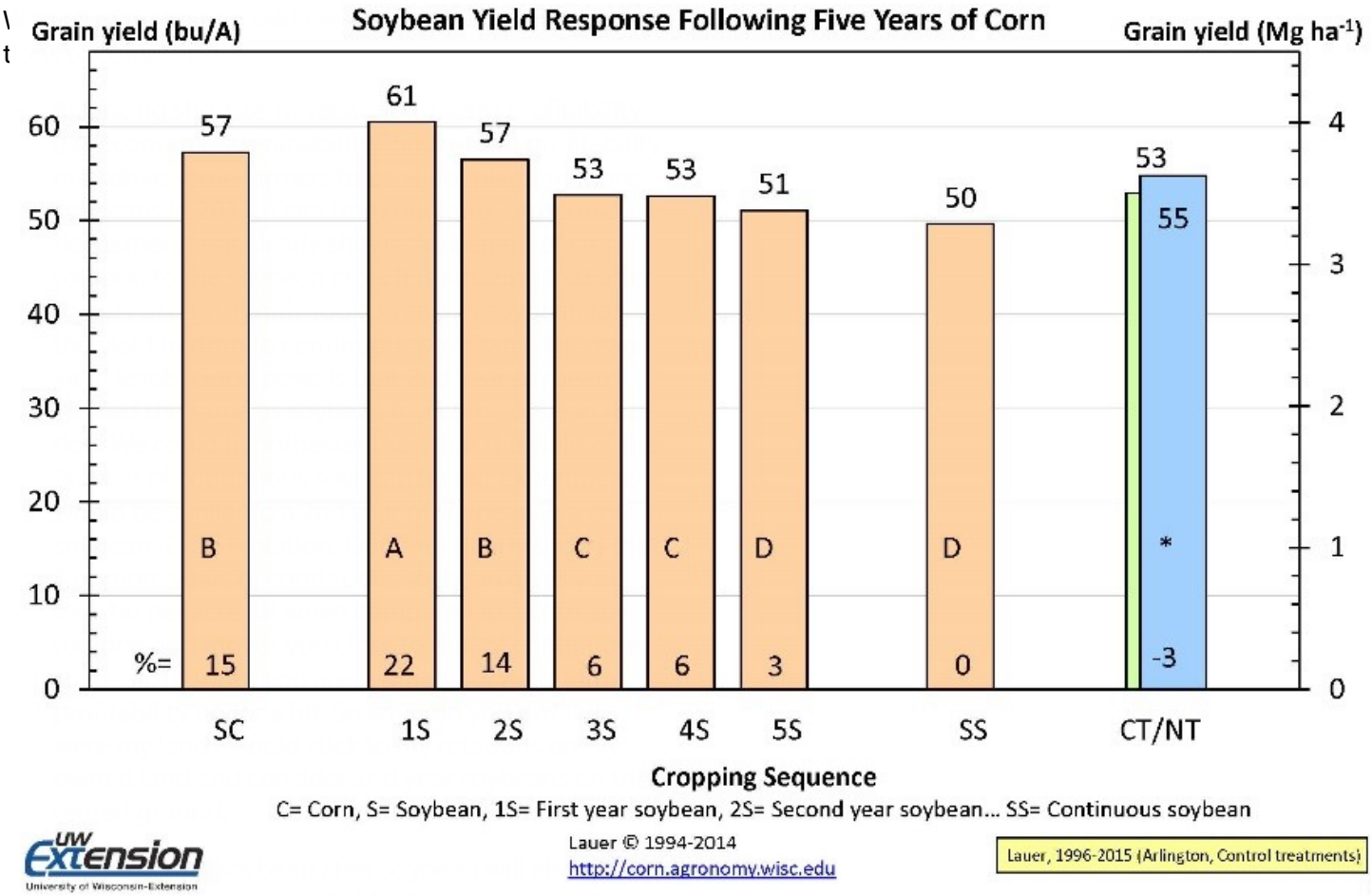
Shawn P. Conley, Seth Naeve, John Gaska

Before we start, we fully acknowledge our title "Best management practices for growing second year soybeans" is a bit misleading as we do not advocate this practice (its not a BMP!) but we thought we could sucker you into reading this article if it had an enticing title!

Our main reason for writing this article stems from growers questioning their 2017 bottom line. This issue was highlighted in the article written by Gary Schnitkey and Darrel Good entitled 2017 Crop Budgets and Current Prices Say Switch to Soybeans and Expect Low Returns. It is thought that farmers may plant 5 million more acres of soybean in 2017 than they did in 2016 based on current corn:soybean price ratios and input prices. Those acres have to come from somewhere and many of them will be from second-year soybean.

tions may take years to undo as you will be making a long-term impact on your soil and resulting soil health. Also don't automatically think that simply adding a cover crop to this S-S rotation will "fix" these issues.

- Plant a different variety than was planted in that field last year and make sure it has strong disease resistance traits to the problems you have in that field! Every variety has a weakness and planting the same variety on the same land 2 years in a row will expose that weakness. Note that these varieties must be truly different. The same bean in a different color bag will greatly increase your risk of disease losses. Please see our 2016 Wisconsin Soybean Variety Performance Trials for information.
- Test for SCN and select SCN resistant varieties. SCN proliferates in long-term soybean cropping systems.
- Be prepared to scout your fields more intensively to get ahead of any disease problems. Increased disease pressure may provide an opportunity to see yield responses from fungicides and insecticides. You may need to include these costs into your original economic decisions.



pest complexes in your fields. Some of these altera-

- Keep seeding rates lower if white mold was a problem in the field
- Use a seed treatment at the max a.i. fungicide rate.
- Use a pre-emergence herbicide and use multiple modes of action. If you had weed escapes, expect even larger problems in soybean after soybean.
- Soil sample and replace K if needed: I know growers are going to want to cut back on inputs but 2016 brought us record yields. An 80 bushel soybean crop meant you removed ~98 pounds per acre of K20 equivalent fertilizer. Growers often routinely rely on carryover fertilizers for soybean when rotated with well-fertilized corn. Soybean after soybean may require additional fertilizer, especially K.

Team Grains Tackles Profitability in Low-Margin Years

Damon Smith, Extension Field Crops Plant Pathologist

Team grains specialists are hitting the road with a series of talks, "Grain Management in Low-Margin Years" and an accompanying fact sheet that address how to best handle different aspects of production during low-margin years. The talks will start in in February of 2017 and will take place at locations throughout the state. Each talk is about a half-hour long with time for Q& A. If one of the presenters is not available for any of the dates, the talks will also be available as high quality video presentations. For each location, the agent or sponsor can decide what topics to include and a flyer template is available to customize and promote the event.

Talks and speakers include:

1. **Soybean Inputs that Deliver the Highest ROI in a Low-Margin Year**
   –Shawn Conley, UW Agronomy, Soybean and Small Grains Specialist
2. **Practical Weed Management for Low-Margin Years**
   – Dan Smith, UW NPM, Southwest Regional Specialist
3. **Fundamental Soil Fertility Strategies for Success**
   – Carrie Laboski, UW Soil Science, Soil Fertility/Nutrient Management Specialist
4. **How to Survive and Thrive on Current Corn Price Projections**
   – Joe Lauer, UW Agronomy, Corn Specialist

5. **Low Grain Prices = Smart Disease Management Decisions**
   – Damon Smith, UW Plant Pathology, Field Crops Pathology Specialist
6. **Managing Insects Economically Using Conventional Hybrids and Thresholds**
   – Bryan Jensen, UW Entomology, Field Crops Entomology Specialist
7. **Machinery/Technology Management and Tillage Considerations to Reduce Operational Costs**
   – Francisco Arriaga, UW Soil Science, Soil Science Specialist and Brian Luck, UW Biological System Engineering, Machinery Specialist
8. **Partial Budget Analysis: A Practical Tool for Low Margin Years**
   – Paul Mitchell, UW Ag & Applied Econ, Cropping Systems Specialist

CLICK HERE For information on specific locations and host agent contact e-mail.

2016 Wisconsin Oats and Barley Performance Test Results

Lucia Gutierrez and Shawn Conley

The Wisconsin oats and barley performance trials are conducted each year and include released varieties, experimental lines from Wisconsin and Midwestern States, and lines from private companies. The main objective of these trials is to obtain data on how varieties perform in di erent locations and years. Growers can use this data to help choose the best varieties to plant, and breeders can use the data to decide on whether or not to release a new variety and to select parents to make new crosses.

View or download the full PDF report–> http://www.coolbean.info/library/documents/2016_UW_Oat_Barley-PerformanceTrials.pdf

2016 Wisconsin Field Crops Pathology Fungicide Tests Summary

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

The 2016 Wisconsin Field Crops Pathology Fungicide Tests Summary is now available online as a downloadable PDF. This report is a concise summary of pesticide related research trials conducted in 2016 under the direction of the Wisconsin Field Crops Pathology program in the Department of Plant Pathology at the University of Wisconsin-Madison.

Click here –> 2016 Wisconsin Field Crops Pathology Fungicide Tests Summary

2017 OGRAIN Organic Grain Production and Marketing Workshop

Anders Gurda, Associate Researcher in Organic and Sustainable Cropping Systems

Registration is open for the 2017 OGRAIN Organic Grain Production and Marketing Workshop on January 21st and 22nd, 2017!

Two days of expert presentations, engaging panels, productive discussions, and plenty of time to meet other farmers interested in organic grain production in the Upper Midwest.

For more information and to register go to: http://ograin.bpt.me

Come get the tools, techniques, and network necessary to get started and succeed in producing and marketing organic grains:

- Enterprise budgeting and doing the numbers on transition with Paul Dietmann of
- Badgerland Financial
- Organic weed management with Gary McDonald, cultivation guru
- Organic certification with Jackie DeMinter of MOSA
- Organic grain 101 with Carmen Fernholz, A-Frame Farm and University of MN
- Beginning farmer panel
- Organic Marketing panel
- Food-grade grain production with Dr. Julie Dawson (UW-Madison) and Gilbert
- Williams (Lonesome Stone Milling LLC)
- Organic No-Till production with Dr. Erin Silva and farmer panel
- Finding the right rotation for you (workshop led by successful organic grain farmers)
- And many more….

Response of Broad Spectrum and Target Specific Seed Treatments and Seeding Rate on Soybean Seed Yield, Profitability and Economic Risk

Adam P. Gaspar, Daren S. Mueller, Kiersten A. Wise, Martin I. Chilvers, Albert U. Tenuta and Shawn P. Conley, UW Extension

- The commercial base (CB) and ILeVO (CB + fluopyram) seed treatments decreased risk and substantially increase profit across a wide range of seeding rates.
- X Yield response to seed treatment was environment specific, and across all environments, the yield response to ILeVO was 2.8% compared to 5.3% (WI-SDS) and 6.1% (IA) when visual SDS symptoms were present.
- X At 2016 and 2017 seed and seed treatment costs, CB and ILeVO seed treatments at 140,000 seeds/a reduced risk greater than 70% of the time and increased average profit ($4 –19/a) across an array of environments and grain sale prices ($8 –11/bu).
- X The CB or ILeVO seed treatments realized the lowest risk and highest average profit increase when seeding rates were lowered to the economically optimal seeding rate of 103,000 – 112,000 seeds/a.

- X Increase seeding rates as grain sales prices increase to reduce economic risk and maximize profit, especially for untreated seed. CB and ILeVO seed treatments maintain higher break-even probabilities and profit margins at reduced seeding rates.
- X Particularly target these seed treatments for fields with a history of SDS and damage from early

Click here to read the full publication.

Evaluation of Ascend®: Hormones that stimulate corn root growth – Experiment 2

Joe Lauer, Corn Agronomist

During good times and bad, but especially years with strong grain prices, numerous products appear on the market that seem too good to be true. Often these products come with wild claims. Little information is available for growers to make an informed decision, so it often becomes a case of "buyer beware."

Ascend® is touted by Winfield Solutions, LLC, as a "… tool to increase plant efficiency" and "… can stimulate higher yields through a larger root mass …" Ascend® contains the plant growth regulators cytokinin (0.09%), gibberellic acid (0.03%) and indole butyric acid (0.045%). It can be applied at rates of 4.5 to 6 oz/A in-furrow at planting, 2×2 inches below the seed at planting, at 6.4 to 10 oz/A at the 3 to 10 leaf stage, and/or at 6.4 oz/A at the R1-R3 leaf stage. We tested the plant growth regulator Ascend® at eleven locations in Wisconsin by applying it to an adapted hybrid and comparing it to the same hybrid left untreated during 2012 (4 reps) and 2016 (3 reps).

The 2012 results have been posted earlier (click here). If there was any growing season when a corn root growth enhancer should work it was during the drought of 2012. During 2012, locations that exhibited significant drought stress included Chippewa Falls, Lancaster, Janesville, Arlington and Fond du Lac. Hancock was an irrigated site. At seven of eleven locations there was no statistical difference when using Ascend®. At three of eleven locations, the untreated plots yielded more than plots treated with Ascend®. At one of eleven locations, Ascend® treated plots yielded more than untreated plots. At none of the sites that had significant drought stress during the growing season did Ascend® stimulate higher yields. Across all locations there was no statistical difference between corn treated with Ascend® (196 bu/A) and untreated corn (200 bu/A).

During 2016, we expanded the number of Ascend® treatments to in-furrow and foliar treatments. All were applied within the labelled rates and timings. The 2016 growing season was an ideal season throughout the state. Little stress was observed. We measured no signifi-

Table 1. Corn grain yield (bu/A) response of Ascend® plant growth regulator treatments compared to an untreated

Location	Ascend® In-furrow	Ascend® Foliar	Ascend® In-furrow + Foliar	Untreated	LSD(0.10)
Arlington	270	268	256	272	NS
Chippewa Falls	196	178	184	180	NS
Coleman	215	218	221	214	NS
Fond du Lac	238	247	241	246	NS
Galesville	233	241	231	231	NS
Hancock	216	**228**	219	**230**	10
Janesville	259	255	256	253	NS
Marshfield	208	211	215	211	NS
Montfort	254	257	255	267	NS
Seymour	209	204	199	204	NS
Valders	226	214	226	219	NS
All locations	230	229	228	230	NS

Table 2. Agronomic response of Ascend® plant growth regulator treatments compared to an untreated check during 2016. Values are means across 11 locations.

Location	Ascend® In-furrow	Ascend® Foliar	Ascend® In-furrow + Foliar	Untreated	LSD(0.10)
Grain yield (bu/A)	230	229	228	230	NS
Grain moisture (%)	21.1	21.3	21.2	21.3	NS
Grain test weight (lb/bu)	55	55	55	55	NS
Plant lodging (%)	1	1	1	1	NS
Plant harvest density (no./A)	33900	34100	34000	34500	NS

cant yield response using Ascend® plant growth regulator (Table 1). At only one location, Hancock, was there a statistical difference using Ascend® when the control and the Ascend® foliar treatment were higher yielding than the Ascend® in-furrow and Ascend® in-furrow + foliar treatment. Across all locations there was no statistical difference between corn treated with Ascend® (228-230 bu/A) and untreated corn (230 bu/A). No statistical differences were observed for other agronomic measurements (Table 2).

*Ascend® is a "buyer beware" product. Across all locations, the yield range due to treatment response is 2 bu/A, with the untreated check as responsive as the best Ascend® treatment.The evidence from 11 locations across two years seems to confirm the conclusion to be "wary" of this product. However, I always encourage people who may want to try it on their farm to do so by buying a small amount and testing it across a few acres. You may find a response on your farm. If you do, you can always buy more next year.

New Resource Available for Grain Production in Low-Margin Years

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

A new resource "A4137 – Grain Management Considerations in Low-Margin Years" is now available online for download. This fact sheet is meant to assist you in making informed decisions about your production system in a low-margin production year.

To further complement this new resource, the authors which are team Grains specialists, are hitting the road with a series of talks, "Grain Management in Low-Margin Years" that address how to best handle different aspects of production during low-margin years. The talks will start in in February of 2017 and will take place at locations throughout the state. Each talk is about a half-hour long with time for Q& A. If one of the presenters is not available for any of the dates, the talks will also be available as high quality video presentations. A hardcopy of the A4137 fact sheet will also be handed out at each meeting.

Talks and speakers (authors) include:

- **Soybean Inputs that Deliver the Highest ROI in a Low-Margin Year** – Shawn Conley, UW Agronomy, Soybean and Small Grains Specialist
- **Practical Weed Management for Low-Margin Years** – Dan Smith, UW NPM, Southwest Regional Specialist
- **Fundamental Soil Fertility Strategies for Success** – Carrie Laboski, UW Soil Science, Soil Fertility/Nutrient Management Specialist
- **How to Survive and Thrive on Current Corn Price Projections** – Joe Lauer, UW Agronomy, Corn Specialist
- **Low Grain Prices = Smart Disease Management Decisions** – Damon Smith, UW Plant Pathology, Field Crops Pathology Specialist
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Margin Years – Paul Mitchell, UW Ag & Applied Econ, Cropping Systems Specialist

CLICK HERE For information on specific locations and host agent contact e-mail.

Pest Management in Wisconsin Field Crops, A3646

P. J. Liesch, Glenn Nice, Mark Renz, Damon Smith and Bryan Jensen

There have been changes in location and distribution of UW Extension's, Pest Management in Wisconsin Field Crops Bulletin (A3646). This publication can now be purchased ($30, plus $1.65 third party credit card acceptance fee) or downloaded at the Pesticide Applicators Training Program's Store https://patstore.wisc.edu/secure/browse_cat.asp?category_id=39

Pest Management in Wisconsin Field Crops is updated annually and contains general and specific pest management recommendations for corn, soybean, forages, small grains and stored grain. Including rates, remarks and performance data for pesticides.

Nutrient Management Farmer Education Curriculum Revised

Scott Sturgul – NPM Program

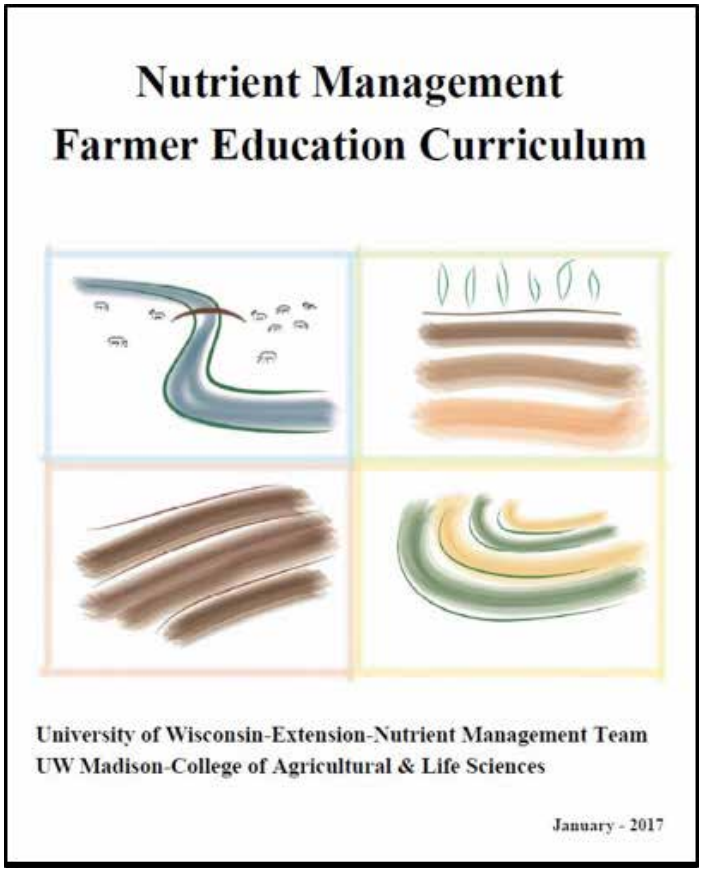
An updated Nutrient Management Farmer Education Curriculum was released in early January 2017. This popular collection of nutrient management education tools is produced by the UW-Extension Nutrient Management Team with contributions from numerous programs and individuals. The curriculum contains training materials required for Wisconsin Dept. of Agriculture, Trade and Consumer Protection (WDATCP) certification of farmers writing their own nutrient management plans.

Revisions to the curriculum include:

- A module on the 2015 version of the USDA-NRCS 590 Nutrient Management Standard and associated Technical Note. Please note that the revised curriculum still retains a module on the 2005 590 USDA-NRCS Nutrient Management Standard and Technical Note as well.
- Information on the SnapPlus nutrient management planning software program. The SnapPlus module includes the December 2016 version of the SnapPlus training manual, SnapPlus "how to" videos, and information about the SnapMaps feature of SnapPlus.
- Links to useful nutrient management mobile applications.
- A collection of informative nutrient management videos.
- Updated information from WDATCP, WDNR and USDA-NRCS on their nutrient management programs.

The 2017 edition of the curriculum is contained on a USB flash drive. The flash drive contains multiple PowerPoint presentations for the farmer workshops. Also included are speaker notes, associated publications and worksheets, program evaluation materials, and a user's manual.

If you have not yet received a 2017 version of the curriculum and would like a copy, please contact Scott Sturgul at ssturgul@wisc.edu.



Cover Crops Do's & Don't's

Shawn P. Conley, Soybean and Wheat Extension Specialist, Department of Agronomy

Click here to read the full publication, uncovering cover crop facts and myths about weed, insect, and disease management.

Preventing Cover Crops From Becoming Your Next Weed Problem

Daniel H. Smith, Mimi Broeske, and Kevin Shelley- Nutrient and Pest Management Program, University of Wisconsin-Madison

Termination of cover crops can be a challenge. A new publication from the Nutrient and Pest Management program details termination techniques, herbicide considerations, herbicides and weather, cover crop vs. forage crop concerns, and finally termination and crop insurance. As farmers and agronomists plan for spring cover crop termination, please follow the link below to read the full article detailing the termination recommendations.

Click here to view the PDF.

UW-Madison/Extension Plant Disease Diagnostic Clinic (PDDC) Update

Brian Hudelson, Sean Toporek, Jake Kurczewski 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 Novemeber 26, 2016 through December 2, 2016.

Plant/Sample Type, Disease/Disorder, *Pathogen*, County

Field Crops

Wheat, Barley Yellow Dwarf, Barley yellow dwarf virus, Walworth

Forage Crops

Alfalfa, Aphanomyces Root Rot, Aphanomyces euteiches, Dane
Alfalfa, Common Leaf Spot, Pseudopeziza medicaginis, Dane
Alfalfa,Pythium Root Rot, Pythium sp., Dane
Alfalfa, Rust, Uromyces sp., Dane

Vegetable Crops

Broccoli, Tobacco Mosaic, Tobacco mosaic virus, Milwaukee
Potato, Late Blight, Phytophthora infestans, Rock
Tomato, Tobacco Mosaic, Tobacco mosaic virus, Jackson

For additional information on plant diseases and their control, visit the PDDC website at pddc.wisc.edu.

UW-Madison/Extension Plant Disease Diagnostic Clinic (PDDC) Update

Brian Hudelson, Sean Toporek, Jake Kurczewski 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 December10, 2016 through December 16, 2016.

Plant/Sample Type, Disease/Disorder, *Pathogen*, County

Vegetable Crops
Cucumber, Powdery Mildew, Sphaerotheca fuliginea, Waukesha
Potato, Black Dot, Colletotrichum coccodes, Portage
Potato, Fusarium Dry Rot, Fusarium sambucinum, Dane
Potato, Leak, Pythium sp., Dane
Tomato, Powdery Mildew, Oidium sp., Dane

Soil

Alfalfa Soil, Aphanomyces Seedling Blight, Aphanomyces euteiches race 2, Waukesha
Soybean Soil, Soybean Cyst Nematode, Heterodera glycines, Brown, Dane, Iowa

For additional information on plant diseases and their control, visit the PDDC website at pddc.wisc.edu.

UW-Madison/Extension Plant Disease Diagnostic Clinic (PDDC) Update

Brian Hudelson, Sean Toporek, Jake Kurczewski 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 December 17, 2016 through December 23, 2016.

Plant/Sample Type, Disease/Disorder, *Pathogen*, County

Vegetable Crops
Lettuce, Root Rot, Pythium sp., Winnebago

For additional information on plant diseases and their control, visit the PDDC website at pddc.wisc.edu.

UW-Madison/Extension Plant Disease Diagnostic Clinic (PDDC) Update

Brian Hudelson, Sean Toporek, Jake Kurczewski 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 January 7, 2016 through January 13, 2016.

Plant/Sample Type, Disease/Disorder, *Pathogen*, County

Fruit Crops

Apple, Bitter Pit/Cork Spot, None, Lafayette

Vegetable Crops

Spinach, Downy Mildew, Peronospora farinosa f. sp. spinaceae, Lafayette

For additional information on plant diseases and their control, visit the PDDC website at pddc.wisc.edu.

Vegetable Crop Update December 22, 2016

Amanda J. Gevens, Associate Professor & Extension Vegetable Plant Pathologist

The 29th issue of the Vegetable Crop Update is now available. In this edition, please find information on:

- An update on WI's 24(c) Special Registration for Omega 500F for powdery scab management of potato
- Agendas and information for upcoming vegetable education meetings in Wisconsin.

Click here to view this update.

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