



# Vegetable Crop Update

A newsletter for commercial potato and vegetable growers prepared by the University of Wisconsin-Madison vegetable research and extension specialists

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Spinach downy mildew in winter tunnel production  
2017 UWEX Commercial Vegetable Production Guide  
A3422 is now available  
Updated agenda for UWEX/WPVG Grower Education  
Conference Stevens Point

## Calendar of Events

**January 22-24, 2017** – WI Fresh Fruit & Vegetable Growers Conf. WI Dells  
**February 7-9, 2017** – UWEX/WPVG Grower Ed. Conf., Stevens Point, WI  
**March 1, 2017** – UWEX Processing Vegetable Crops Meeting, Hancock, WI

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**Spinach downy mildew detected in Wisconsin tunnel production systems:** Downy mildew of spinach caused by the oomycete pathogen *Peronospora farinosa* f. sp. *spinaciae*, has been confirmed in several season extension production systems of Wisconsin this past Fall and currently this Winter. Many vegetable crops can get downy mildew, but this particular pathogen infects just spinach and possibly some Chenopodium weed species. While this disease may have been around in previous years without a confirmed diagnosis, this is the first year in which multiple locations across the state have experienced the disease with such severity. Dr. Meg McGrath of Cornell University Long Island Horticultural Research and Extension Center has developed a very informative website for further information on this disease (symptoms, fungicides for conventional and organic systems), including a link to confirmed reports. <http://livegpath.cals.cornell.edu/2016/11/15/disease-alert-spinach-downy-mildew/>

Dr. Brian Hudelson of the UWEX Plant Disease Diagnostic Clinic and I are glad to assist with diagnosing and providing recommendation for managing this disease. Cultural management approaches can provide some control, but because the season extension systems cool, moist, and contain highly concentrated plantings of susceptible spinach, fungicides may be necessary to control this disease. There is some varietal resistance that can be utilized but resistance is dependent upon the right combination of variety and likely pathogen strain.



Photos courtesy of Dr. Meg McGrath, Cornell University Long Island Horticultural Research and Extension Center, Riverhead, NY.

**The 2017 A3422 Commercial Vegetable Production in Wisconsin Guide is now available** for 2017. As in past years, the guide can be downloaded for free (link below) or a hard copy can be purchased from UWEX Learning Store for \$10.

<https://learningstore.uwex.edu/Assets/pdfs/A3422.pdf>

**2017 UWEX/WPVGA Grower Education Conference has an updated agenda:** February 7-9, 2017: University of Wisconsin Extension/Wisconsin Potato & Vegetable Growers Association Grower Education Conference, Holiday Inn Convention Center, Stevens Point, Wisconsin

Coordinated by the Wisconsin Potato and Vegetable Growers Association and University of Wisconsin Extension. The detailed agenda follows in this newsletter.

Agenda for the conference and details on the industry show, as well as registration and lodging information can be found online:

<http://wisconsinpotatoes.com/admin/wp-content/uploads/2017/01/AGENDA-2017-1.pdf>

## 2017 UW Extension & WPVGA Grower Conference

Tuesday, February 7, 2017

Holiday Inn Hotel & Convention Center, Stevens Point WI

Time	<b>General Session - Moderator T. Houlihan Expo 1 and 2</b>		
7:30 - 8:20	<b>Registration</b>		
8:20 - 8:30	Welcome and opening remarks - <b>Tamas Houlihan</b> , Executive Director, Wisconsin Potato and Vegetable Growers Association, Antigo, WI		
8:30 - 9:00	Water Resources in the Central Sands: Balancing Supply and Demands for Today and Tomorrow - <b>Elizabeth Stapleton / Jim Drought</b> , Hydrogeologist, GZA GeoEnvironmental, Inc., Waukesha, WI		
9:00 - 9:30	Towards developing potato varieties resistant to necrotic viruses - <b>Walter DeJong</b> , Professor, Cornell University, NY		
9:30 - 10:30	<b>Morning Break - Visit Exhibit Hall/Poster Session</b>		
10:30 - 11:00	Connections between geology and groundwater in the Central Sands of Wisconsin - <b>David Hart</b> , Program Leader, Hydrogeologist, Wisconsin Geological and Natural History Survey, Madison, WI		
11:00-11:30	Groundwater Issues in Wisconsin - <b>Russ Rasmussen</b> , Deputy Administrator, Division of Water, Wisconsin Department of Natural Resources, Madison, WI		
11:30-12:00	Frontiers in the remote sensing of agriculture - <b>Phil Townsend</b> , Professor, University of Wisconsin - Forest and Wildlife Ecology, Madison, WI		
12:00 - 1:15	Lunch: Legislative Update - (1) <b>Ron Kuehn</b> , DeWitt Ross & Stevens, (2) <b>Feeding America</b> Update		
Breakout Sessions	Expo 1 Water Quality Moderator - R. Groves	Expo 2 Water and Natural Resource Conservation Moderator - K. Schroeder	Sands/Spruce Soil Microbial Ecology and Plant Health Moderator K. Williams
1:30 - 1:50	<b>Russ Groves &amp; Ben Bradford</b> - Pesticide detections in central WI groundwater	<b>Robert Smail</b> - Water stewardship through targeted conservation planning	<b>Jose Pablo Dundore</b> - Managing soil microbiomes post-fumigation to enhance potato health and yields
1:50 - 2:10	<b>Chuck Bolte</b> - Reducing phosphorus runoff on the Antigo flats	<b>Mallika Nocco</b> - Estimating crop ET at different spatiotemporal scales	<b>Ann MacGuidwin</b> - Life in the rhizosphere: the nematode perspective and implications for managing root health
2:10 - 2:30	<b>Stan Senger</b> - Results summary of targeted well sampling	<b>Paul Mitchell</b> - Economic impact of irrigated agriculture in Wisconsin	<b>Richard Lankau</b> - Trade offs and synergies in microbially mediated functions for potato crops
2:30 - 3:30	<b>Afternoon Break - Visit Exhibit Hall/Poster Session</b>		
Breakout Sessions	Expo 1 Nutrient Management Moderator- M. Ruark	Expo 2 Bringing Value to Agriculture Moderator - Associate Division	Sands/Spruce Variety Improvement Moderator- J. Endelman
3:30 - 3:50	<b>Judy Derricks</b> - Nutrient management and other practices relating to soil health	<b>WPVGA Associate Division</b> - 5 min presentations featuring new technologies and approaches in agricultural management of potato and vegetable production systems.	<b>Maria Caraza</b> - Using image analysis to quantify skin set and color in red potatoes
3:50 - 4:10	<b>Matt Ruark</b> - How nitrogen fertilizer recommendations for potato are made		<b>Walter DeJong</b> - What's new from the Cornell potato breeding program
4:10 - 4:30	<b>AJ Bussan</b> - Comprehensive look at potato crop fertility		<b>Jeff Endelman</b> - Advanced selections from the UW potato breeding program
4:30 - 8:00	<b>Wisconsin Seed Potato Improvement Association and WPVGA Associate Division Reception</b>		

## 2017 UW Extension & WPVGA Grower Conference

Wednesday, February 8, 2017

Holiday Inn Hotel & Convention Center, Stevens Point WI

Time	<b>General Session - Moderator J. Wyman Expo 1 and 2</b>		
8:00 - 8:30	Potatoes USA - <b>Ross Johnson</b> , Global Marketing Manager		
8:30 - 9:00	Potatoes USA Industry Update - <b>Blair Richardson</b> , Chief Executive Officer, Potatoes USA		
9:00 - 9:30	Tracking Dickeya in North America - <b>Gary Secor</b> , Professor, North Dakota State University		
9:30 - 10:30	<b>Morning Break - Visit Exhibit Hall/Poster Session</b>		
10:30 - 11:00	Wetlands and water management in agricultural landscapes - <b>Tracy Hames</b> , Executive Director, Wisconsin Wetlands Association, Madison, WI		
11:00 - 11:30	Germplasm development for diploid potato breeding - <b>David Douches</b> , Professor, Michigan State University, East Lansing, MI		
11:30 - 12:00	Overview and update of Wisconsin's high capacity well application process - <b>Adam Freihofer</b> , Section Chief, Div of Environmental Management, Water Use Section Madison, WI		
12:00 - 1:15	Lunch - (1) <b>John Keeling</b> , NPC, and (2) <b>Industry Appreciation Awards</b>		
Breakout Sessions	Expo 1 Potato Disease Updates Moderator <i>A. Gevens</i>	Expo 2 Market Development and Food Safety Moderator <i>D. Rady</i>	Sands/Spruce Wisconsin Muck Meeting Moderator <i>K. Williams</i>
1:30 - 2:00	<b>Wisconsin Room:</b> <b>Madhu Jamallamudi</b> , Agrometrics, "How to use and benefit from the new potato grade slip reports system."		
1:30 - 1:50	<b>Amanda Gevens</b> - Updates on late blight findings and management	<b>Dana Rady &amp; Deana Knuteson</b> -Healthy Grown Program: updates for 2017	<b>Lindsey J. du Toit</b> , Washington State University - It takes two to tango: Management of Stemphylium leaf blight and downy mildew in the onion leaf blight complex.
1:50 - 2:10	<b>Brooke Babler</b> - Dickeya diagnostics: examining conventional PCR tests	<b>Paul Zedler</b> - Conservation in agricultural landscapes	
2:10 - 2:30	<b>Gary Secor</b> - Seed handling and treatments for decay management	FSMA - Produce Safety and Preventive Controls	<b>Sofia Macchiavelli-Giron</b> - Silver scurf control with at-plant and seed-applied fungicides for control of potato diseases
2:30 - 3:30	<b>Afternoon Break - Visit Exhibit Hall/Poster Session</b>		
Breakout Sessions	Expo 1 Disease Resistance Moderator <i>K. Schroeder</i>	Expo 2 Remote Sensing and Imaging Technologies Moderator <i>P. Bethke</i>	Sands/Spruce Wisconsin Muck Meeting Moderator <i>K. Williams</i>
3:30-3:50	<b>Dennis Halterman</b> - Using new genetic tools to identify potato resistance genes	<b>Shelley Jansky, Paul Bethke and Felix Navarro</b> - Remote Sensing: tools of the trade. Remote Sensing: current and future applications. Remote Sensing - Panel Discussion: where do we go from here	<b>Brian Nault</b> , Cornell University - Onion insect pest management update
3:50 - 4:10	<b>Ana Cristina Fulladolsa</b> -PVY resistance in North American potatoes		
4:10 - 4:30	<b>David Douches</b> - Progress in breeding for Late Blight, Scab and PVY resistance		<b>Mike Copas</b> - Re-designing research priorities in muck soil vegetable systems
5:15 - 6:00	<b>Social Hour</b>		
6:00 - 10:00	<b>WPVGA Associate Division Banquet</b>		

## 2017 UW Extension & WPVGA Grower Conference

Thursday, February 9, 2017

Holiday Inn Hotel & Convention Center, Stevens Point WI

<b>Time</b>	<b>General Session - Moderator <i>W. Stevenson</i> Expo 1 and 2</b>
8:00 - 8:30	<b>Jeff Endelman, UW Horticulture</b> - Potato breeding and genetics
8:30 - 9:00	<b>Matt Ruark, UW Soil Science</b> - Nitrogen use efficiency in the potato variety Goldrush
9:00 - 9:30	<b>Ann MacGuidwin, UW Plant Pathology</b> - Predicting nematode "hot spots" within fields
9:30 - 10:00	<b>Alex Crockford, WCSP Director</b> - Enhanced disease detection methods and certification
10:00 - 10:15	<b>Morning Break</b>
10:15 - 10:45	<b>Russ Groves, UW Entomology</b> - Evidence for delayed emergence in CPB - management implications
10:45 - 11:15	<b>Jed Colquhoun, UW Horticulture</b> - Weed management and potato desiccation update
11:15 - 11:45	<b>Amanda Gevens, UW Plant Pathology</b> - Unique early blight and brown spot pathogen ecology and management considerations
11:45 - 12:15	<b>Felix Navarro, UW ARS</b> - Performance of new potato varieties under limited N and deficit irrigation
12:15	<b>Adjourn</b> - <i>and Thanks for your Attendance and Participation</i>
1:00	<b>WPVGA Annual Meeting</b>