

Wisconsin Crop Manager

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Vegetable Crop Update 9/22/13

The 21st issue of the Vegetable Crop Update is now available. This issue contains updates on late blight in Wisconsin as well as the final DSV and PDay values for Grand Marsh and Plover. Click [here](#) to view this issue.

Using a roller-crimper for no-till organic soybeans

Erin Silva, University of Wisconsin, Organic Production Scientist



This organic no-till production technique uses fall-sown cover crops to suppress weeds the following production season. Using a roller-crimper, the overwintering cover crop is terminated at the time of cash crop planting, leaving a thick mat of plant residue on the soil surface. The cash crop is sown directly into the cover crop residue, allowing the cash crop to emerge through the terminated cover crop while suppressing weeds throughout the season.

Fall Soil Sampling: Another Challenging Prospect?

Carrie A.M. Laboski, Extension Soil Fertility/Nutrient Management Specialist

The dry conditions over the past four plus weeks may be giving you flash backs to 2012 and leave you wondering when you should soil sample this fall. Keep in mind that sampling very dry soil may provide erroneous soil test results for several reasons:

1. It is difficult to sample to the desired depth consistently.
2. The soil core does not stay intact, particularly when the surface soil is very dry, and some of the soil is lost between taking the probe out of the ground and placing the sample in the bucket.
3. Soil test P and K may be lower with smaller differences for P and larger differences for K.
4. pH may be slightly lower because of salt build up from a lack of rain.

Once rainfall has occurred, soils will begin to re-equilibrate and the effects of dry conditions on soil test P, K and pH will diminish. It is hard to provide an exact amount of rainfall that is needed to alleviate the effects of dry conditions on soil test results because it depends upon how dry the soil was, soil mineralogy, and likely other site specific conditions. Wait to soil sample until fields are moist enough to easily insert a probe 2 inches below your desired sampling depth. Doing so should help ensure a consistent depth of sampling and adequate re-equilibration.

Last year the guidance was to wait to sample until the probe could be inserted to the desired sampling depth. Feedback from some agronomists using this guidance suggests that waiting a little longer to sample may be prudent. Thus, the new guidance

to wait to sample until the probe can be inserted 2 inches below the desired sampling depth.

Soybean Vein Necrosis Disease in Wisconsin with Video

Damon Smith, Extension Field Crops Pathologist, Department of Plant Pathology, University of Wisconsin-Madison



In 2012 soybean vein necrosis disease (SVND) was described for the first time in Wisconsin (<http://fyi.uwex.edu/fieldcroppathology/files/2012/10/SVNaV.pdf>). This is a relatively new disease of soybean, which is caused by *Soybean vein necrosis virus* (SVNV). SVNV was first described in 2008 in the Mid-south soybean production region. Since then, SVND has been found in much of the major soybean production region of the U.S. including the North Central region.

SVNV is a *Tospovirus* similar to *Tomato spotted wilt virus*. It is the first *Tospovirus* known to infect soybean. *Tospoviruses* are known to be very destructive on other plant crops, therefore, there is a lot of interest in determining the importance of SVNV in soybean production systems. Very little is actually understood about the epidemiology and also the management of SVND. Researchers around the country are working on various aspects of the system and several state and regional soybean commodity boards have funded research on SVND.

Recently Zhou and Tzanetakis (2013) described some of the first studies on the epidemiology of SVNV. Their findings suggest that SVNV is like other *Tospoviruses* in that it is primarily transmitted by thrips vectors. Soybean thrips are a commonly occurring insect in the Mid-south and were used in their studies to demonstrate that the virus can be transmitted via thrips vectors. In Wisconsin, soybean thrips are not as common. However, other species of thrips can be found in soybean fields depending on the time of the season. Through funding granted by the Wisconsin Soybean Marketing board,

our laboratory is currently monitoring thrips populations in soybean fields around the state. We are evaluating thrips species and populations over time through trapping methods. We are also surveying these fields for SVND severity and documenting any variety resistance in soybean cultivars commonly grown in Wisconsin. Finally, we have separate trials where we are evaluating yield loss due to SVNV. Our research will complement research in other states and the results will be used to develop and disseminate management recommendations for SVND in the North Central Region over the next several years.

To learn more about SVNV download a new UWEX fact sheet at <http://fyi.uwex.edu/fieldcroppathology/files/2013/04/Soybean-Vein-Necrosis-Disease.pdf>.

A new video was recently developed on SVNV in Wisconsin. Dr. Damon Smith talks about SVND, which includes tips on spotting symptoms of SVND and information about the likely vectors of the pathogen. The video can be found at the top of this article.

References:

- Khatabi, B., Wen, R.-H., Hershman, D.E., Kennedy, B.S., Newman, M.A., and Hajimorad, M.R. 2012. Generation of polyclonal antibodies and serological analyses of nucleocapsid protein of *Soybean vein necrosis-associated virus*: A distinct soybean infecting tospovirus serotype. *Eur. J. Plant Pathol.* 133:783-790.
- Smith, D.L. Fritz, C. Watson, Q. Willis, D.K. German, T.L. Phibbs, A., Mueller, D., Dittman, D., Saalau-Rojas, E., Whitham, S.A. 2013. First Report of Soybean Vein Necrosis Disease Caused by *Soybean vein necrosis-associated virus* in Wisconsin and Iowa. *Plant Dis.* 97:693.
- Zhou, J., and Tzanetakis, I. E. 2013. Epidemiology of Soybean vein necrosis-associated virus. *Phytopathology* 103:966-971.
- Zhou, J., Kanatartzi, S.K., Wen, R.-H. Newman, M., Hajimorad, M.R., Rupe, J.C., and Tzanetakis, I.E. 2011. Molecular characterization of a new tospovirus infecting soybean. *Virus Genes* 43:289-295.

2013 Pest Management Update Meetings

Eileen Cullen, Extension Entomologist

We are pleased to announce the schedule and topics for the 2013 Pest Management Update Meetings. See the table with this article for the schedule. Please check the dates and locations and reserve a date on your calendar. Registration details are listed at the top of the schedule. **Please pre-register with the host agent** so they can make meal reservations. Registration for a particular location is firm. It is not possible for host agents to switch attendees and meal counts between locations on the day of the meeting. Most host agents add an additional “walk-in” fee for those who have not pre-registered.

Topics at the meeting will review the 2013 crop year and provide field and forage crop management updates for 2014. The speakers will be extension specialists, Mark Renz, weed scientist, perennial cropping systems; Vince Davis, weed scientist, annual cropping systems; Damon Smith, field crop plant pathologist; and Eileen Cullen, field crop entomologist.

On behalf of the speakers and host agents, we hope to see you this November at the meetings and wish you a good harvest season in the meantime.

2013 Pest Management Update Topics:

Weed Management: Annual Crops: 1) New herbicide updates 2) Efficacy and fit of pyroxasulfone products 3) Late season weed survey and herbicide resistance in WI update.

Perennial Crops: 1) New weeds invading your forage crops 2) Benefits of managing weeds in establishing alfalfa 3) Alfalfa stand removal with herbicides 4) Pest Management Mobile, a new resource for key pesticide information in Wisconsin Agronomic Crops.

Disease Management: 1) New fungicide products in field crops 2) Utility of fungicides in field crops 3) Head scab and other wheat disease updates 4) 2013 soybean diseases in Wisconsin 5) Roundup Ready alfalfa and *Aphanomyces euteiches* Race 2 resistance.

Insect Management: 1) New insecticide and Bt trait updates 2) Bt corn rootworm resistance and trait stewardship 3) Impact, management and range expansion of Brown Marmorated Stink Bug in field crops 4) Seasonal fluctuation and research updates for soybean aphid, Japanese beetle, and western bean cutworm 5) Pest Management Mobile, demo of insecticide and Bt trait features.

Scroll down to the end of this newsletter to view the schedule.

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2013 Wisconsin Pest Management Update Meetings

The schedule for the Wisconsin Pest Management Update meeting series is listed below. Presentations will include pest management information for Wisconsin field and forage crops. Speakers will include Mark Renz and Vince Davis, weed scientists, Damon Smith, plant pathologist, and Eileen Cullen, entomologist.

All meetings will start with check-in registration and coffee at 9:30 a.m. Presentations start promptly at 10 a.m. and will conclude by 3:00 p.m. Four hours of Certified Crop Advisor CEU credits in pest management are requested for each session. The \$40 registration fee per participant includes a noon meal and information packet.

Please make your reservation with host agent one week prior to the scheduled meeting date.

DATE	LOCATION	HOST AGENT
Monday November 11	<u>Marshfield</u> Marshfield Agricultural Research Station 2611 Yellowstone Drive Marshfield, WI 54449	Richard Halopka Clark County Extension Courthouse Room 104 517 Court Street Neillsville, WI 54456 (715) 743-5121
Tuesday November 12	<u>Chippewa Falls</u> Lake Hallie Eagles Club 2588 Hallie Road Chippewa Falls, WI 54729	Jerry Clark Chippewa County Extension 711 N. Bridge Street Chippewa Falls, WI 54729 (715) 726-7950
Wednesday November 13	<u>Sparta</u> Jake's Northwoods 1132 Angelo Road Sparta, WI 54656	Bill Halfman Monroe County Extension 14345 County Hwy B Sparta, WI 54656 (608) 269-8722
Thursday November 14	<u>Arlington</u> Arlington Agricultural Research Station Public Events Building N695 Hopkins Road Arlington, WI 53911	George Koepp Columbia County Extension 120 W. Conant St., Ste. 201 Portage, WI 53901 (608) 742-9682
Monday November 18	<u>Fond du Lac</u> University of Wisconsin – Fond du Lac Rm 113 University Center 400 University Drive Fond du Lac, WI 54935	Mike Rankin Fond du Lac County Extension 227 Admin/Extension Bldg. 400 University Dr. Fond du Lac, WI 54935 (920) 929-3170
Tuesday November 19	<u>Green Bay</u> Rock Garden (at the Comfort Suites Hotel) 1951 Bond Street Green Bay, WI 54303	Contact: Kathy DeChamps Ag & Extension Service Center 1150 Bellevue St Green Bay, WI 54302 (920) 391-4653
Wednesday November 20	<u>Belmont</u> Belmont Inn & Suites (formerly Baymont Inn) 103 West Mound View Avenue Belmont, WI 53510	Ted Bay Grant County Extension P.O. Box 31 Lancaster, WI 53813 (608) 723-2125
Thursday November 21	<u>Janesville</u> Ramada Inn (formerly America's Best Value Inn) 3900 Milton Avenue Janesville, WI 53546	Jim Stute Rock County Extension 51 S. Main Street Janesville, WI 53545 (608) 757-5696