

Wisconsin Crop Manager

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Wisconsin Pest Bulletin 7/31/14

A new issue of the Wisconsin Pest Bulletin from the Wisconsin Department of Agriculture, Trade and Consumer Protection is now available. The Wisconsin Pest Bulletin provides up-to-date pest population estimates, pest distribution and development data, pest survey and inspection results, alerts to new pest finds in the state, and forecasts for Wisconsin's most damaging plant pests.

Issue No. 13 of the Wisconsin Pest Bulletin is now available at:

<http://datcpservices.wisconsin.gov/pb/index.jsp>

<http://datcpservices.wisconsin.gov/pb/pdf/07-31-14.pdf>

Plant Disease Diagnostic Clinic (PDDC) Update

Brian Hudelson, Ann Joy, Joyce Wu, Tom Hinsenkamp, and Catherine Wendt, Plant Disease Diagnostics Clinic

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 July 26, 2014 through August 1, 2014.

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

FIELD CROPS,

Corn, Anthracnose, *Colletotrichum graminicola*, Grant, Rock

Corn, Fusarium Root Rot, *Fusarium* sp., Rock

Corn, Yellow Leaf Blight, *Phyllosticta maydis*, Rock

Soybean, Alfalfa Mosaic, *Alfalfa mosaic virus*, Columbia, Grant

Soybean, Pythium Root Rot, *Pythium* sp., Grant

Soybean, Soybean Cyst Nematode, *Heterodera glycines*, Marathon

FORAGE CROPS,

Alfalfa, Aphanomyces Root Rot, *Aphanomyces euteiches*, Wood

Alfalfa, Phytophthora Root Rot, *Phytophthora* sp., Wood

Alfalfa, Root/Crown Rot, *Fusarium oxysporum*, *Pythium* sp., Wood

FRUIT CROPS,

Peach, Root/Crown Rot, *Phytophthora* sp., *Pythium* sp., Racine

Raspberry, Raspberry Leaf Spot, *Cylindrosporium rubi*, Winnebago

Raspberry, Root/Crown Rot, *Pythium* sp., *Rhizoctonia solani*, *Fusarium* sp., *Cylindrocarpon* sp., Winnebago

NEEDED WOODY ORNAMENTALS,

Fir (Balsam), Root/Crown Rot, *Phytophthora* sp., Chippewa

VEGETABLES,

Celery, Aster Yellows, *Aster yellows phytoplasma*, Richland

Celery, Blackheart, None, Richland

Collards, Black Rot, *Xanthomonas campestris*, Crawford

Horseradish, Root Rot, *Rhizoctonia solani*, Eau Claire

Horseradish, Verticillium Wilt, *Verticillium* sp., Eau Claire

Kale, Black Rot, *Xanthomonas campestris*, Crawford

Pepper, Bacterial Spot, *Xanthomonas campestris*, Walworth

Potato, Edema, None, Crawford

Pumpkin, Powdery Mildew, *Oidium* sp., Dane

Snap Bean, Ashy Stem Blight, *Macrophomina phaseolina*, Waushara

Snap Bean, Fusarium Root Rot, *Fusarium* spp., Waushara

Snap Bean, Fusarium Yellows, *Fusarium oxysporum*, Waushara

Snap Bean, Pythium Root Rot, *Pythium* spp, Waushara

Snap Bean, Rhizoctonia Root Rot, *Rhizoctonia solani*, Waushara

Tomato, Bacterial Canker, *Clavibacter michiganensis* subsp. *Michiganensis*, Dane

Tomato, Bacterial Spot, *Xanthomonas* sp., Dane

Tomato, Septoria Leaf Spot, *Septoria lycopersici*, Dane, Waukesha

Tomato, Walnut Toxicity, None, Dane, Waukesha

SOIL,

Soybean Soil, Soybean Cyst Nematode, *Heterodera glycines*, Columbia, Jefferson, Outagamie

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

Alfalfa Mosaic Virus on Soybean in Wisconsin

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

Calls, photos, and plant samples have been coming in over the last week (8/1/2014) pertaining to soybeans exhibiting abnormal growth and varying degrees of leaf mosaic (interwoven green and yellow areas). These symptoms are indicative of Alfalfa mosaic virus (AMV) on soybean.



Figure 1. Alfalfa mosaic virus symptoms on soybean leaves in the field.

Alfalfa mosaic virus

Alfalfa mosaic virus is transmitted in low levels in soybean seed (Tolin, 1999). Aphids transmit AMV. Symptoms of AMV can vary from localized dead lesions on leaflets (Fig. 1), to large areas of yellowing (Fig. 2). Plants can also be stunted and produce few pods. In Wisconsin, research has shown that yield reductions can occur as a result of AMV. However, in those studies, only AMV incidence levels of 30% or greater resulted in yield loss (Mueller and Grau, 2007).



Figure 2. Severe symptoms of Alfalfa mosaic virus on soybean leaflets.

When trying to scout or diagnose a field with AMV consider the incidence (number of plants exhibiting symptoms) level of the symptomatic plants. Giesler and Ziemer (2006) conducted a survey of AMV, BPMV, and SMV in Nebraska in 2001 and 2002. In that survey it was possible to find an occasional field with incidence of these viruses as high as 90-100%. However, the majority of fields that tested positive for one or more of these viruses, had incidence levels of 50% or less. High incidence levels (>50%) are considered unusual for AMV in commercial soybean fields. Therefore, incidence of leaf cupping or other abnormal leaf growth at incidence levels of 90% or 100% are more likely suggestive of an abiotic disorder, such as herbicide injury.

Co-infection of soybean by AMV and Soybean mosaic virus (SMV) can also occur (Malapi-Nelson et al., 2009). Co-

infection can make symptoms of AMV much more severe. In cases where severely infected plants are identified with AMV, tests of SMV may also result in confirmation of that aphid-transmitted virus too.

How is the AMV Spread?

AMV is transmitted by mechanical wounding and also by aphids (several species, not just soybean aphid). AMV can also be transmitted at low levels in soybean seed.

Management

No in-season management is recommended. Spraying insecticides to control aphids in order to reduce virus transmission has shown to be unsuccessful. One reason for this is that many species of aphids can move into a soybean field and transmit the virus. The best solution for managing AMV (and also SMV) is to choose a soybean variety with the best resistance to AMV and SMV you can find in your area. Remember, spraying aphids below threshold with an insecticide will only control the vector and won't solve your virus problem.

To learn more about AMV and SMV click [here](#).

References

Giesler, L. J., and Ziems, A. D. 2006. Incidence of Alfalfa mosaic virus, Bean pod mottle virus, and Soybean mosaic virus in Nebraska soybean fields. Online. Plant Health Progress doi:10.1094/PHP-2006-0424-01-HM.

Malapi-Nelson, M., Wen, R.-H, Ownley, B.H., and Hajimorad, M.R. 2009. Co-infection of soybean with soybean mosaic virus and alfalfa mosaic virus results in disease synergism and alteration in accumulation level of both viruses. Plant Dis. 93:1259-1264.

Mueller, E.E. and Grau, C.R. 2007. Seasonal progression, symptom development, and yield effect of Alfalfa mosaic virus epidemics on soybean in Wisconsin. Plant Dis. 91:266-272.

Tolin, S.A. 1999. Alfalfa Mosaic. In: Compendium of Soybean Diseases, 4th Edition. G.L. Hartman, J.B. Sinclair, and J.C. Rupe, eds. APS Press.

Vegetable Crop Update 8/2/14 and Disease Supplement #4

The 16th issue of the Vegetable Crop Update is now available. This issue contains late blight updates - Portage and Milwaukee Cos., Blitecast and P-Days for late blight and early blight continued management, Cucurbit downy mildew updates - none in WI so far, Onion downy mildew in WI - first find in Jefferson Co., and Plant Disease Diagnostic Clinic updates. Click [here](#) to view this update.

The 4th Disease Supplement of the Vegetable Crop Update is now available. This supplement provides an update on the status of late blight character in Milwaukee County. The tomato late blight was typed as US-23 (A1 mating type,

sensitive to mefenoxam/metalaxyl, aggressive on tomato and potato). Click [here](#) to view this supplement.

Updating base acres and payment yields under the new Farm Bill

Paul D. Mitchell, Agricultural and Applied Economics, UW-Madison

The USDA-FSA just announced that they will begin sending letters to eligible farmers that report two types of information: 1) their current base acres and payment yields, and 2) their historical acres planted and considered planted for program crops during 2009-2012. This information will be coming at a busy time of year for most farmers, but it is important for farmers to check the accuracy of this information and begin assembling crop production records to combine with this information, as it will impact their options for commodity program signup this winter and the level of their payments under these programs.

The new Farm Bill gives farmers three sign up options for commodity support: PLC, county ARC or individual ARC. PLC is Price Loss Coverage and is essentially the same the previous counter cyclical payments programs, but with higher target prices. ARC is Agriculture Risk Coverage, a revenue support program that makes payments based on county revenue outcomes on a crop by crop basis (county ARC) or based on whole farm revenue outcomes (individual ARC). Final program details for PLC and ARC have yet to be announced, and the signup date and deadline for the decision has yet to be determined, but will likely come this winter. Expect more information about PLC and ARC this fall.

The first step for commodity program signup under the new Farm Bill is the potential for farmers to update their base acres and program yields. Once updates are completed, then the signup for PLC and ARC can begin. This letter from the FSA is the start of the base acre and program yield updating process. This short fact sheet explains what to do with the letter and who to prepare for the next step. Current information will be available on the USDA-FSA Information Page: Base Reallocation, Yield Updates, Price Loss Coverage (PLC) & Agricultural Risk Coverage (ARC): <https://www.fsa.usda.gov/FSA/webapp?area=home&subject=arpl&topic=landing>.

Confirm your Data

Total base acres for each FSA farm cannot be increased under the new Farm Bill, but farmers will be able to shift the mix of their base acres to match the crops they planted in the four years 2009-2012. Given crop prices during this period, many farmers may have planted more corn and soybeans than their current base acre allocations. Updating base acres for these farmers will allow them to shift more base acres to corn and soybeans, crops that likely have higher potential payments. Farmers should confirm that the current base acres and associated crops on their letter match the base acres and crops for which they had received direct payments in years past. Farmers should also confirm that the historical planted and considered planted acres on their report from FSA match what

they actually planted during 2009-2012, since these historical acreages will define their options for updating their base acres. Once dates for the updating process are announced, farmers can correct any discrepancies with their FSA office. Farmers will not be required to update their base acre crop mix, but many will likely find it beneficial, as the crops associated with their base acres will define their payments for PLC and/or ARC.

Prepare for the Next Step

The new Farm Bill also allows farmers to update their payment yields. If elected, the new payment yield for a crop will be 90% of the farm average yield per planted and considered planted acre during the five years 2008-2012. Farmers will likely want to update their payment yields if these yields are higher than their current payment yields, since higher payment yields improve their options under the new Farm Bill commodity support programs.

Higher payment yields increase PLC payments when these payments are triggered, and they increase the ARC Farm Guarantee for the individual ARC program, making ARC payment more likely to be triggered and larger if they are triggered. However, payment yields will not affect payments for the county ARC program, since these payments are only triggered by county yields and national prices. Another reason to update payment yields is that it may be several years before payment yields can again be updated and any new commodity support programs under future farm bills will likely use similar measures to determine payments.

The letter from the FSA will not include any of production information. To be prepared when signup dates and deadlines are announced for updating program yields, farmers may wish to pull together their 2008-2012 historical production records for their farms. For most farmers, crop insurance records will prove useful for this process, but FSA will make the final determination regarding the sufficiency of production records.

Final Comments

The new Farm Bill created several new commodity support programs. For most farmers, updating base acres and program yields will likely be their first experience with the new Farm Bill, but several more programs and options are coming. Besides PLC and ARC, for which signup has yet to be announced, signup for the new dairy Margin Protection Program (MPP) begins September 2, and the sales closing date is September 30 for the new crop insurance Supplemental Coverage Option (SCO) available for winter wheat farmers in several Wisconsin counties. In the meantime, farmers should confirm the acreage data in the letter they receive from the FSA, begin to assemble their crop production data, and wait for the FSA to announce signup dates so they can correct any crop acreage discrepancies and update their payment yields.

2014 WI Soybean Yield Contest Entry Deadline is September 1

Shawn Conley, Soybean and Wheat Extension Specialist

Wisconsin soybean growers have until September 1, 2014 to enter the Wisconsin Soybean Yield Contest. Two winners from each of four geographical districts in the state will receive awards (Image 1.). "Please note the divisional lines were redrawn for 2014 based on a rolling 10 year average yield". The first place award in each district includes a \$1,000 cash prize; second-place honors include a \$500 prize. Winners will be selected for having the highest soybean yield based on bushels per acre at 13% moisture. The awards ceremony is scheduled for January 29, 2015 during the Corn/Soy Expo at WI Dells.

For more detailed information regarding the program and contest rules please visit www.coolbean.info or 2014 Wisconsin Soybean Yield Contest Rules.

Entry forms can be found at [2014 Wisconsin Soybean Yield Contest Entry Form](#).

A list of the 2013 winners and a management summary of their practices is also provided.

For more information please contact Dr. Conley at sponley@wisc.edu. Good luck and have a safe and productive 2014 growing season!

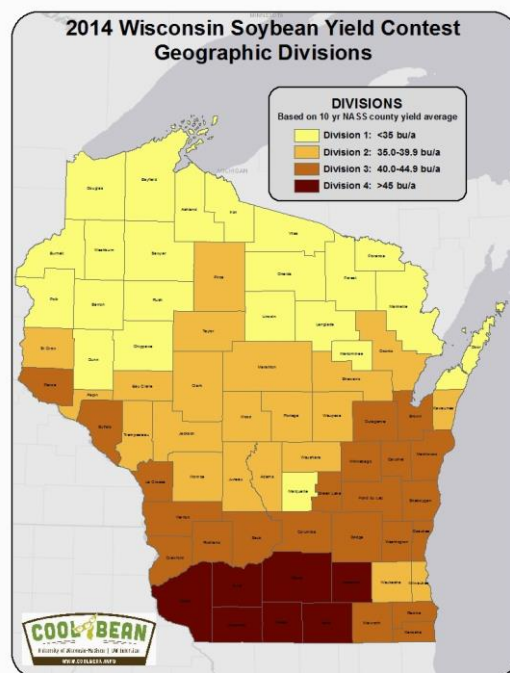


Image 1: Geographic Division Map

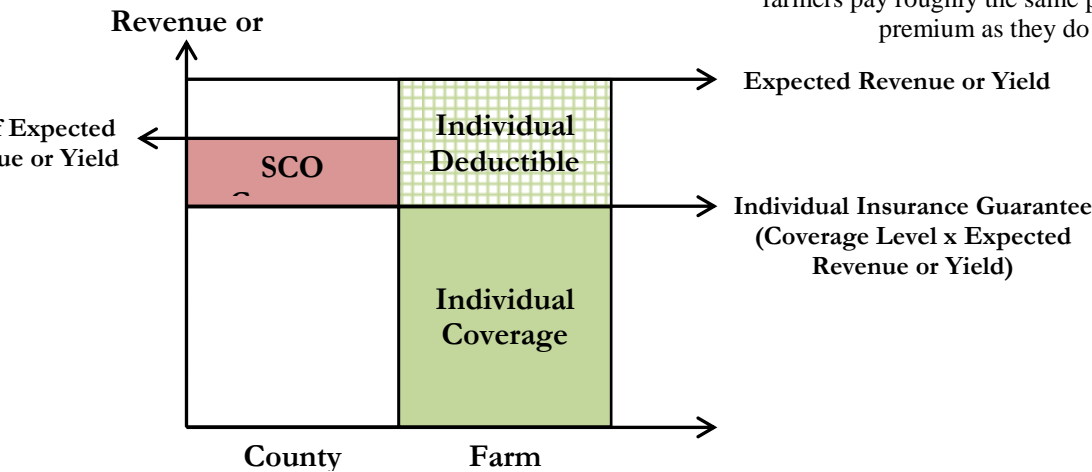
Farm Bill in Action: New Type of Crop Insurance Policy for Winter Wheat Available

Paul D. Mitchell, Agricultural and Applied Economics, UW-Madison

The USDA-Risk Management Agency (RMA) released the policy details for Supplemental Coverage Option (SCO), a new crop insurance policy mandated by the 2014 Farm Bill. This fall, SCO is available for winter wheat in select Wisconsin counties, and next spring, SCO will be available for corn and soybeans in several Wisconsin counties. This fact sheet explains how SCO works for winter wheat and the highlights some important implications of SCO for farmer signup for commodity support programs sometime this fall and winter.

The SCO Concept

SCO is a second crop insurance policy that is layered with the standard individual policies Revenue Protection (RP), RP with the Harvest Price Exclusion (RP-HPE) or Yield Protection (YP), so that a farmer must also buy RP, RP-HPE, or YP to buy SCO. For these individual crop insurance policies, expected revenue (or yield) is determined for the farm, then the farmer chooses a coverage level as a percentage of this expected revenue (or yield) as an insurance guarantee. For example, if a farmer chose a 75% coverage level, then the farmer at a minimum always gets 75% of expected revenue (or yield), since the policy indemnifies losses exceeding 25%. In other words, the first 25% of losses below expected revenue (or yield) are covered by the farmer as a deductible. SCO is a county policy that covers part of this deductible for the individual policy.



County policies are currently sold that are essentially the same as RP, RP-HPE, or YP, except that they use the USDA-NASS county yield, rather than a farm's own yields, and the same crop prices as individual policies to determine indemnities. These policies are called ARP, ARP-HPE, and AYP, where the A is for "area". SCO essentially lets a farmer combine one of these policies with their individual coverage to cover part of their individual policy's deductible. The maximum total coverage between the two layered policies is 86% of the expected revenue (or yield) for the individual policy. Thus for example, a farmer who buys 75% RP could

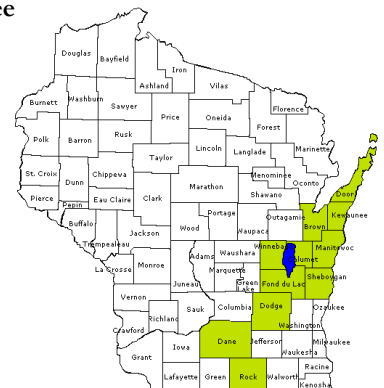
add SCO that paid indemnities like an ARP policy for county losses above 14%, up to 25%, while a farmer who buys 65% YP could add SCO that paid indemnities like an AYP policy for county losses above 14%, up to 35%. The SCO policy would cover "shallow losses" at the county level that fell between the 86% county guarantee and the farmer's individual policy guarantee. The figure above illustrates this layering for the two policies.

A key point to note is that the SCO policy pays indemnities based on county yield outcomes, while the individual policy pays indemnities based on farm yield outcomes. These yield outcomes are correlated, but not exactly connected, so that four payment outcomes are possible: 1) Individual policy and SCO do not pay, 2) Individual policy pays, but SCO does not, 3) SCO pays, but individual policy does not, and 4) Both individual and SCO policies pay. In other words, just because a farm has a shallow loss that does not trigger indemnities for the individual policy, SCO does not necessarily pay; the county yield and revenue outcomes must be right to trigger an SCO payment.

SCO Policy Details for Winter Wheat

SCO is a crop insurance policy that is bought from a crop insurance agent just like any other policy. For the 2015 crop year, SCO is available in 11 counties, roughly in a line from Door County down to Rock County (see map to the left). After setting the details for the underlying RP, RP-HPE or YP policy, a farmer can then evaluate SCO in terms of cost and risk management benefits. At this time, crop insurance premiums cannot be determined, since the final wheat price and volatility factors have yet to be set based on futures prices. However, the SCO premium is subsidized at 65%, so that farmers pay roughly the same proportion of the actuarially fair premium as they do for other policies. All eligible

winter wheat acres a farmer has in a county will be insured under a single SCO policy.



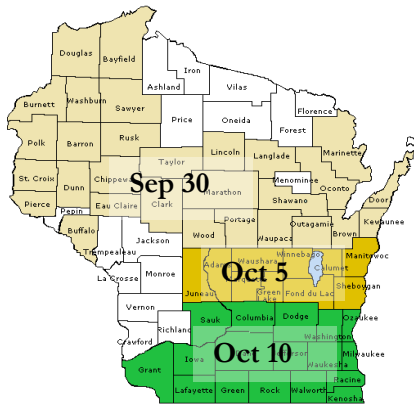
Counties with SCO available for winter wheat

The sales closing date is September 30 for any winter wheat crop insurance policy in Wisconsin. The final planting date for insured winter wheat varies across Wisconsin counties, from September 30 across the north to October 5 in east and central Wisconsin to October 10 in the south (see map to the right). Winter wheat is insurable in every Wisconsin county, but a

written agreement is needed to insure it in the counties in white on the map.

SCO and Commodity Support

The 2014 Farm Bill created two new commodity support programs: Price Loss Coverage (PLC) and Agriculture Risk Coverage (ARC). Signup dates and program details have yet to be announced for these programs, but the expectation is for updating of base acres and payment yields to occur this fall, and then program signup in winter. PLC is very similar to the previous counter cyclical payments program, but with higher support prices, while ARC is a revenue support program. An important issue is that SCO can only be purchased if a farm is enrolled in PLC, but not ARC. In other words, crop acres enrolled in ARC are not eligible for SCO coverage (though individual coverage can still be purchased). This restriction puts farmers considering SCO for winter wheat in a tough spot, since if they purchase SCO, they have implicitly decided to sign up for PLC without knowing the programmatic details or even when the signup date is. As a result, for this year only, farmers can buy SCO and then decide by December 15 whether to pay the premium or to opt out at no cost. December 15 is the acreage reporting date for the winter wheat crop insurance policy and the expectation is that programmatic details for PLC and ARC will be available by then so that farmers can make more informed decisions about SCO, PLC and ARC.



Final plant dates for insured winter wheat

SCO Recommendations

At this time, it is difficult to make recommendations regarding signup for PLC versus ARC. The Farm Bill funded development of farmer decision aids and these should be released soon, but must await the release of programmatic details for PLC and ARC. Thus the recommendation at this time is for farmers potentially interested in PLC to maintain their options and wait for more information. Thus, farmers who grow wheat in the 11 counties where SCO is now available for 2015 may want to “buy” SCO by the September 30 sales closing date to maintain their options. These farmers can then delay SCO premium payment and the actual PLC/SCO versus ARC decision until December 15 when the actual decision for SCO must be finalized (i.e., SCO premiums are due). Note that farmers can sign up for PLC for some crops and ARC for other crops, so that conceptually a farm

could enroll their winter wheat base acres in PLC and buy SCO, but use county ARC for their corn and soybean acres (or vice versa). Also, SCO will be available for corn and soybeans in most Wisconsin counties in 2015. Finally, though the PLC versus ARC decision is a onetime decision for the life of this Farm Bill, SCO is an annual purchase decision. As a result, farmers who decide to enroll in PLC for winter wheat do not have to buy SCO this fall in order to be able to buy it in subsequent years.

In general, SCO was developed to give farmers support in years with “shallow losses” when revenues are lower than normal, but above levels that trigger crop insurance indemnities. Farmers who do not find such shallow losses a problematic risk will not find SCO particularly beneficial. The layering of coverage from individual policies and county-level SCO policies is not exact, since farm yields are only correlated with county yield. Farmers whose yields are more closely correlated with the county yield will likely find more value from SCO. The layering of coverage between SCO and the PLC price support program is also not exact. SCO uses the same futures-based price as crop insurance, while PLC uses the national marketing year average price, plus both have different levels for triggering payments. PLC uses a reference price of \$5.50 for wheat (\$3.70 for corn and \$8.40 for soybeans), while the SCO price trigger depends on the chosen coverage level. As a result, in any given year, one of the programs could make payments due to low prices while the other would not.

Additional Resources

USDA-RMA SCO Fact Sheet (July 2014) available at <http://tinyurl.com/mxa2dxr> or <http://www.rma.usda.gov/news/currentissues/farmbill/2014NationalSupplementalCoverageOption.pdf>.

SCO in Wheat: University of Illinois FarmDOC Fact Sheet that includes numerical examples: http://farmdoc.illinois.edu/manage/newsletters/fefo14_14/fefo14_14.pdf.

Advanced Cropping Technologies Field Days

A field day highlighting new technologies that can be incorporated in no-till and conventional production will be held Wednesday, August 20, on the Evenstad Farm just east of Belmont on County Hwy G. The program will run from 10:00 a.m. to 1:00 p.m. with lunch served at noon.

The Evenstads are experimenting with nitrogen levels on a field size scale in their no-till production and their study will provide the background for topics to be covered. Dr. Carrie Laboski, UW-Extension Soils Specialist, will explain how maximum return to nitrogen is determined in the Evenstad study and she will discuss the crop sensing technology that is being evaluated as part of this study. Crop sensing is being

studied to determine the accuracy of using crop color to assess nitrogen status and N fertilizer need. The equipment used to apply the range of nitrogen levels studied across the field will be on display.

Dr. Brian Luck, UW-Extension Precision Ag Specialist, will be discussing remote sensing and the sensing technology that is available to farmers. Remote sensing uses color or visible wavelengths and undetectable wavelengths to assess crop condition and help identify nutrient deficiencies, disease problems and weed infestations. This technology will help in treating only affected areas in time to remedy the problem and reduce yield losses. Dr. Luck will also address precision ag technologies that improve equipment control, and the impact this technology has on production management.

Tim Youngquist, Iowa State University Agricultural Specialist, will be discussing his research on prairie buffer strips as an alternative to traditional sod buffers. Prairie buffers can help reduce sediment movement off the field which can be reduced by as much as 95 percent, while phosphorus loss can be reduced by 90 percent and total nitrogen loss by nearly 85 percent.

The public is welcome to attend this field day. Please call the Grant County Extension Office at 608-723-2125 or the Lafayette County Extension Office at 608-776-4820 to register for this event. This program is being presented at no charge but registering will help the Extension Office determine food and refreshment needs. Call Ted Bay at either Extension office if you have questions about this event.

third, but the slender stature of this plant failed to surpass the enormous knotweed plant. Think you have a big weed, pull it and submit it next week; you might have a winning entry.

Follow us on



Biggest Weed Contest to be held at the Weed Doctor's Booth at Farm Technology Days in Stevens Point, Wisconsin

Mark Renz, UW-Madison Extension Weed Scientist

What does a cold winter, a wet spring, and a moderate summer produce? A bumper crop of big weeds! Yes once again weed scientists with University of Wisconsin Extension are holding the biggest weed contest at the 2014 Farm Technology days in Stevens Point Wisconsin (August 12-14). Reports have already been coming in of people nurturing big weeds to be the 2014 prize winner. Have a weed in your field that you think is big? Cut it down and bring it to Farm Technology days and enter it in the contest.

To submit an entry stop by the Weed Doctors booth in the Progress Pavilion. We will measure the height and width of the specimen and enter it into the daily and overall contests for biggest weed. Winners will not only receive the notoriety as an expert grower of big weeds, but have a choice of weed identification books. The only rules of the contest are that

1. weeds can't be woody plants (e.g. trees)
2. weeds can't be poisonous plants
3. weeds must be "donated" for display at the Doctors booth.

Last year's winner (Japanese knotweed) was 15 ft tall and 6 ft wide. It beat out giant ragweed which came in second and