

Wisconsin Crop Manager

Volume 22 Number 5 - - - University of Wisconsin Crop Manager - - - April 2, 2015

Crops

Soybean Management Strategies to Facilitate Timely Winter Wheat Establishment 15

Wisconsin Soybean Marketing Board Continues Free Nematode Testing Program for 2015 17

Plant Disease

Plant Disease Diagnostic Clinic (PDDC) Update..... 18

Soybean Management Strategies to Facilitate Timely Winter Wheat Establishment

Shawn Conley, Soybean and Wheat Extension Specialist

Winter wheat acres across WI have declined over the past few years due to high corn and soybean prices and late grain harvests. As farmers get ready to kick off the 2015 growing season here are a few suggestions to help get your 2016 winter wheat crop established on time.

- **Plant early.** If weather and soil conditions allow for it plant the acreage you intend to go to winter wheat first. This is

regardless of which crop you plan to follow (soybean, corn silage or field corn). Remember the [optimal planting date window](#) for most of our WI winter wheat acres is the last week of September through the first week in October. In Figure 1 below you will notice a 17 day delay in planting (May 5 to May 22) led to an average 7-10 day delay in when the soybean varieties hit R7. For a majority of the varieties examined (80%) this equates to roughly 21-28 days for that soybean crop to progress to the harvest ripe growth stage so we can establish our wheat crop on time.

Table 1. Calendar date for reaching R5 (beginning seed fill) and R7 (beginning maturity) growth stage (G.S.) by planting date and maturity group (M.G.) for the 2014 growing season at Hancock WI.

Planting Date	M.G.	Timing of G.S. Initiation	
		R5	R7
5-May	1.9	29-Jul	3-Sep
	2.1	3-Aug	13-Sep
	2.1	29-Jul	3-Sep
	2.1	29-Jul	3-Sep
	2.3	29-Jul	3-Sep
	2.3	1-Aug	6-Sep
	2.4	3-Aug	6-Sep
22-May	2.5	29-Jul	6-Sep
	2.5	30-Jul	6-Sep
	2.5	31-Jul	13-Sep
	1.9	12-Aug	12-Sep
	2.1	9-Aug	20-Sep

	2.1	12-Aug	16-Sep
	2.1	12-Aug	20-Sep
	2.3	12-Aug	20-Sep
	2.3	9-Aug	20-Sep
	2.4	12-Aug	16-Sep
	2.5	12-Aug	16-Sep
	2.5	12-Aug	20-Sep
	2.5	12-Aug	20-Sep
11-Jun	1.9	23-Aug	27-Sep
	2.1	23-Aug	2-Oct
	2.1	23-Aug	30-Sep
	2.1	23-Aug	2-Oct
	2.3	23-Aug	2-Oct
	2.3	23-Aug	30-Sep
	2.4	23-Aug	1-Oct
	2.5	23-Aug	2-Oct
	2.5	23-Aug	2-Oct
	2.5	23-Aug	2-Oct

- **Crop rotation matters.** Our long-term rotation data suggests winter wheat yields are greatest following soybean, followed by corn silage and lastly corn for grain. Therefore plan your rotation accordingly to maximize yield and system efficiency.
- **Consider an earlier maturity group soybean.** Plant a high yielding, earlier maturity group soybean to help get that soybean crop harvested on time. Though [later maturing varieties](#) "on-average" produce the greatest yields, data from our [2014 WI Soybean Variety Test Results](#) show the maturity group range that included a starred variety (starred varieties do not differ from the highest yield variety in that test) was 1.9-2.8, 1.1-2.4, and 0.9-2.0 in our southern, central and north central regions respectively. This suggests that the "relative" maturity group rating is trumped by individual cultivar genetic yield potential. Therefore growers have options to plant an early maturity group soybean that will be harvested on time and not sacrifice yield.
- **Manage for the system not necessarily the crop.** If you are serious about maximizing wheat grain and straw yield on your farm one of the biggest contributing factors for both of these in WI is timely wheat planting. Make management decisions to facilitate that. ***We all know what inputs can extend maturity that don't necessarily guarantee greater yields. So instead of listing them and fielding angry emails all weekend I am being strategically vague here*** As a producer is it better to sacrifice 0-2 bushels of soybean yield or 10-20 bushels of wheat grain yield and 0.5 tons of straw?

As we all know mother nature holds the ultimate trump card on whether we will get our winter wheat crop established in that optimal window. These aforementioned strategies are relatively low risk to the farmer and regardless of what weather patterns we run into are agronomically sound.

Wisconsin Soybean Marketing Board Continues Free Nematode Testing Program for 2015

Shawn Conley, Soybean and Wheat Extension Specialist

Four out of every five animals on earth today is a nematode so it is not surprising that agricultural fields are home to many nematode species. Fortunately, most nematodes are beneficial to crop growth and soil health because their activities help decompose crop residues and cycle nitrogen and other nutrients. Pest nematodes do not threaten yield if their numbers remain low. The key to avoiding population explosions of nematode pests is to be proactive – know what the situation is and take appropriate measures when nematode numbers indicate a problem is brewing.

The WSMB sponsors [free nematode testing](#) to help producers stay ahead of the most important nematode pest of soybean, the soybean cyst nematode (SCN) (Figure 1). Eggs of SCN persist in the soil between soybean crops so a sample can be submitted any time that is convenient. The soil test report indicates the number of eggs in the sample and is useful for selecting the right variety for the next soybean crop. Retests of fields planted with SCN-resistant varieties over multiple years shows how the nematode population is responding to variety resistance and provides an early warning should the nematode population adapt to host genetics.

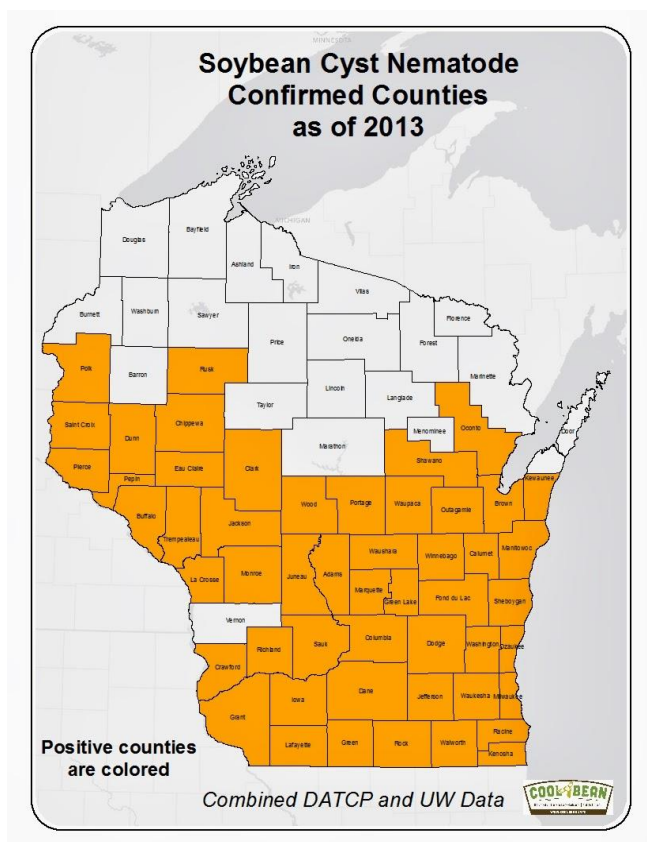


Figure 1. WI Counties Confirmed to Have SCN as of 2013.

In 2015, the WSMB is again offering the expanded nematode testing program to include other pest nematodes in addition to SCN. These nematodes are less damaging to soybean than SCN but can cause enough yield loss to warrant treatment. As is the case for SCN, there are no rescue treatments for nematodes so the primary purpose of this year's soil test is to plan for next year's crop. Soil samples collected in corn for nematode analysis have predictive value for explaining yield if they are collected before the corn V6 growth stage. Sampling early in the season will provide information about the risk potential for the current corn crop AND the next soybean crop.

The assays used to recover nematode pests other than SCN in soil require that the nematodes are alive. So, it is important to keep the samples moist and at least room temperature cool. Collecting a sample that includes multiple cores ensures that there will be plenty of root pieces to assay. It is not necessary to include live plants in the sample. The soil test report will indicate which pest nematodes are present and at what quantities and their damage potential to soybean and corn based on the numbers recovered.

Free soil sample test kits are available now and can be requested at (freescntest@mailplus.wisc.edu).

For more information on [SCN testing and management practices](#) to help reduce the losses from this pest, please contact: Shawn Conley: spconley@wisc.edu; 608-262-7975 or visit www.coolbean.info.

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

Brian Hudelson, Sean Toporek and Joyce Wu

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 March 14, 2015 through March 20, 2015

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
FRUIT CROPS			
<i>Apple</i>	<i>Phomopsis Canker</i>	<i>Phomopsis sp.</i>	<i>Eau Claire</i>
SOIL			
<i>Alfalfa Soil</i>	<i>Aphanomyces Seedling Blight</i>	<i>Aphanomyces euteiches</i> <i>race 1 and race 2</i>	<i>Dodge (MN)</i>

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

Follow us on

