

Wisconsin Crop Manager

Volume 20 Number 6 --- University of Wisconsin Crop Manager --- April 18, 2013

Crops

WI Soy Pod Updates	18
Planting alfalfa-grass mixtures? Check the plant-back restrictions from previous herbicide applications.....	18
2013 WI Soybean Yield Contest is Announced.....	20

Plant Disease

More New Field Crops Disease Fact Sheets.....	20
Disease Profile – Aphanomyces Root Rot of Alfalfa	20

WI Soy Pod Updates

The Wisconsin Soybean Marketing Board is happy to provide the Wisconsin Soy Pod Updates! These informational features give Wisconsin soybean growers the latest planting suggestions; insect and disease updates; and outlook on Wisconsin soybean research.

To read more or listen to the Soy Pod Updates follow the link below:

<http://www.wisconsinfarmreport.com/content/WI-Soy-Pod-Updates-100.html>

Planting alfalfa-grass mixtures? Check the plant-back restrictions from previous herbicide applications

Mark Renz Extension Weed Scientist, University of Wisconsin-Madison

Alfalfa plantings are predicted to be higher in 2013 than the past several years in Wisconsin. While most fields will likely be direct seeded with alfalfa, many will include a companion crop (e.g. oats), and some will include one to several perennial forage grasses. Whichever options you consider, makes sure to check your field records for the previous years to ensure you will not be in violation of any plant-back restrictions BEFORE PLANTING. While crop injury may not occur as a result of not following the plant-back interval on the label, residues of the herbicide could be passed through the harvested plant and

into the food system (e.g. milk, beef). Below I discuss the plant-back restrictions for alfalfa, companion crops planted with alfalfa, and perennial forage grasses that many of you are facing in Wisconsin. For a summary of the restrictions for alfalfa, oats, ryegrass, and perennial grasses from herbicides that are commonly used in corn or soybeans in Wisconsin See table 1 at the end of this article.

Alfalfa: Historically we have seen injury to alfalfa from corn or soybean residual herbicides, but due to the reduction in use of active ingredients with a long residual in these crops many people may not be familiar with this. Alfalfa plant-back restrictions are present on nearly all labels, providing a clear timeframe when you can and can't replant.

Companion crops: While companion crops are widely used in Wisconsin when establishing alfalfa, I expect even more use in 2013 due to the reduced feed from the drought. Oats, the most common companion crop planted, is listed on almost all labels so planting restrictions are clear. Many are using alternative companion crops like Italian or annual ryegrass. I have yet to see annual or Italian ryegrass listed on ANY label. If not listed the maximum stated plant-back interval on the label must be followed. I have heard of several failed Italian ryegrass plantings with alfalfa (no harm to the alfalfa), and this could be from residual herbicides in the soil.

Perennial grasses: While use of perennial grasses (e.g. meadow fescue, orchardgrass, tall fescue) with alfalfa continues to increase in use, few labels mention these perennial grasses and plant-back intervals. Read the plant-back sections carefully, as some may give timings for grass crops or forage grasses, instead of the specific species (e.g. Milestone). But again if the crop species is not listed the maximum stated plant-back interval should be followed.

While this can be confusing, it is important to follow the label instructions. So before planting take a moment to check the field history to ensure a mistake isn't made. *It is a lot easier to change a seed order than replant a field.*

Table 1. Plant-back restrictions of common herbicides used in corn and soybeans for alfalfa, oats, Italian/annual ryegrass, and perennial forage grasses[^].

Product	Active ingredient	Alfalfa	oats	Annual or Italian ryegrass	Perennial forage grasses [^]
COMMON CORN PRODUCTS					
MANY	atrazine	2 Y	2 Y	2Y	2Y
MANY	acetochlor	9 M	FY	18 M	18 M
MANY	glyphosate	0 D	0 D	0 D	0 D
Callisto	mesotrione	10 M	0 D	NOL = 18 M	NOL= 18 M
Dual II Magnum	metolachlor	4 M	4.5 M	NOL = 12 M	NOL= 12 M
Hornet	clopyralid + flumetsulam	10.5 M ¹	4 M	10.5 M	10.5 M
Laudis	tembotrione	10 M	4 M	BA	BA
Lumax EZ	metolachlor + atrazine + mesotrione	18 M	FY	18 M	18 M
Surestart/TripleFLEX	Acetochlor + flumetsulam + clopyralid	FY ¹	FY	26 M + BA	26 M + BA
COMMON SOYBEAN PRODUCTS					
Authority First	sulfentrazone + cloransulam	12 M	12 M	30 M	30 M
MANY	glyphosate	0 D	0 D	0 D	0 D
FirstRate	cloransulam	9 M	9 M	18 M + BA	18 M + BA
Flexstar	fomesafen	18 M	4 M ²	18 M	18 M
Gangster	cloransulam + flumioxazin	30 M + BA	9 M	30 M + BA	30 M + BA
Prefix	metolachlor + fomesafen	18 M	4.5 M	18 M	18 M
Pursuit	imazethapyr	4 M	18 M	40 M	40 M
Valor SX³	flumioxazin	5M if tilled, 10 M no till + BA	5M if tilled, 10 M no till + BA	6M if tilled, 12 M no till + BA	6M if tilled, 12 M no till + BA

Abbreviations : Y=year, M=month, D = day, FY= full year, NOL = not on label, BA = Bioassay required.

[^] Looked for meadow fescue, orchardgrass, tall fescue, or perennial ryegrass on labels.

¹Plant-back interval may increase in areas with less than 15 inches of precipitation and < 2% organic matter.

² Small grains listed as 4 months, oats not listed on label.

³ Application of reduced rates may result in lower plant-back intervals.

2013 WI Soybean Yield Contest is Announced

Shawn Conley, WI State Soybean and Wheat Extension Specialist

The Wisconsin Soybean Marketing Board launches the 4th annual Wisconsin Soybean Yield Contest. The objective of this program is to encourage the development of new, innovative management practices and show the importance of sound cultural practices in Wisconsin soybean production.

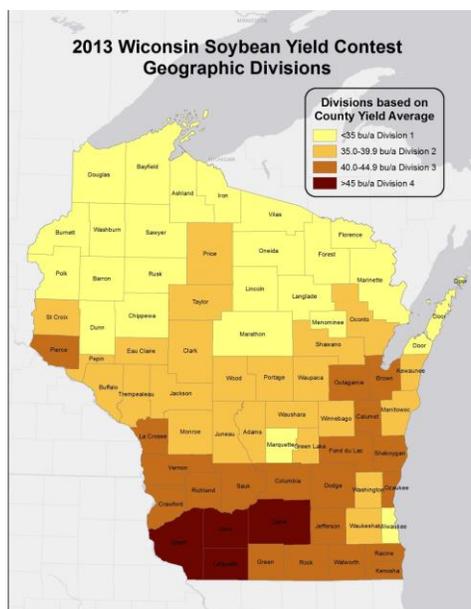
Wisconsin soybean growers have until August 1, 2013 to enter the Wisconsin Soybean Yield Contest. Two winners from each of four geographical districts in the state will receive awards (Image 1.). The first place award in each district includes a \$1,000 cash prize; second-place honors include a \$500 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 February 6, 2014 during the Corn/Soy Expo at WI Dells.

For more detailed information regarding the program and contest rules please visit www.coolbean.info or 2013 Wisconsin Soybean Yield Contest Rules.

Entry forms can be found at 2013 Wisconsin Soybean Yield Contest Entry Form.

A list of the 2012 winners and a management summary of their practices is also provided.

For more information please contact Dr. Conley at spconley@wisc.edu. Good luck and have a safe and productive 2013 growing season!



More New Field Crops Disease Fact Sheets

Damon Smith, Field Crops Extension Pathologist, UW Department of Plant Pathology

Two more new fact sheets on diseases of soybean have been developed and uploaded to the UW-Extension Field Crops Pathology website at

<http://fyi.uwex.edu/fieldcroppathology/fact-sheets/>.

Fact sheet XGT1015 provides detailed information about Soybean vein necrosis disease (SVND). SVND was first found in Wisconsin in 2012. Fact sheet XGT1017 provides information about sudden death syndrome of soybean. As always, University of Wisconsin extension personnel reviewed these fact sheets. You can download PDF or Microsoft Word formatted versions of these and other field crops pathology fact sheets at the link above.

Disease Profile – *Aphanomyces* Root Rot of Alfalfa

Quinn Watson (Plant Pathology, UW-Madison), Damon L. Smith (Plant Pathology, UW-Madison/Extension)

Aphanomyces Root Rot (ARR) is a significant monocyclic seedling disease caused by the fungus-like plant pathogen, *Aphanomyces euteiches*. The disease afflicts a variety of legumes, including soybean, alfalfa, snap bean, faba bean, red kidney bean, red clover, and white clover, and causes a dramatic reduction in foliage and yields. Currently, there are two different confirmed races of *Aphanomyces euteiches* that cause ARR on alfalfa, Race 1 and Race 2.



Aphanomyces root rot on alfalfa. Photo Credit: Craig Grau

Aphanomyces euteiches infects roots of alfalfa early after seedling emergence. The first symptoms of ARR develop in the roots, which typically consist of a gray, water soaked appearance. The roots eventually lose volume with above-ground symptoms manifesting as a reduction in of foliar growth, yellowing cotyledons and the death of the hypocotyls and epicotyls. ARR does not typically result in pre-emergent damping off of seedlings but instead stunted growth, thereby reducing the plant's ability to compete with weeds.

Aphanomyces euteiches is commonly isolated from fields that are poorly drained, including fields that are excessively

watered, compacted, or have a large clay composition. *Aphanomyces euteiches* is spread via water-motile spores that are not visible to the naked eye, and has the same optimal growth environment as its host. *Aphanomyces* develops survival structures called oospores within dead plant tissue. Oospores are also not visible with the naked eye, and can remain dormant in the soil for as many as 10 years in the absence of a host.

The most important step in avoiding ARR is to maintain properly drained fields. Because ARR is caused by a water-motile pathogen, eliminating standing water is important in reducing the proliferation of the pathogen. If ARR has already been diagnosed in a field, a second measure is to use alfalfa cultivars bred with resistance to the specific race of *Aphanomyces euteiches* present in the field. Identification of the race in a particular field can be determined using a soil bioassay. Contact your local extension office to arrange for the soil bioassay. Cultivars with partial resistance to both confirmed races of *A. euteiches* are available in Wisconsin. Contact a seed company representative to determine which cultivar is best suited for your location after the soil bioassay has been performed. Crop rotations aren't an effective treatment due to the longevity of the oospores. Rotating with cruciferous green manure crops has been recognized to have some ability to reduce the severity of ARR on smaller scales. Unfortunately, there are no fungicides, fumigants or other biological control methods that have been effective in decreasing ARR severity.

To download a PDF of this disease profile [CLICK HERE](#).

