

Wisconsin Crop Manager

Volume 24 Number 10 -- University of Wisconsin Crop Manager -- May 25, 2017

Contents

Managing Rained-on Alfalfa for Haylage	50
Considerations for 2017 Cover Crop Interseeding ..	51
Managing 2,4-D and Dicamba in Enlist™ and Xtend® Soybean	52
Grain Management in Low-Margin Years	53
Rain Rain Go Away Do I Switch to Soybean From Zea May(s)	53
Corn Late Planting/Replanting Guidelines	54
UW-Madison/Extension Plant Disease Diagnostic Clinic (PDDC) Update	54
Vegetable Crop Update May 22, 2017	54
Wisconsin Pest Bulletin 5-25-16	54

Managing Rained-on Alfalfa for Haylage

Dan Undersander, Forage Agronomist

When alfalfa is rained on after mowing, forage quality and dry matter are lost. Rain amount and intensity are the significant factors affecting the amount of loss:

- A light drizzle will have little effect (other than to lengthen drying time and increase respiratory losses of starch and sugar.)
- A prolonged rain additionally will leach out some of the soluble nonstructural carbohydrates (sugars) and soluble protein.
- An intense rain will additionally cause leaf loss, resulting in dry matter loss and quality loss since the

leaves are low in fiber and the stems remaining are higher in fiber.

Some common questions about rained-on alfalfa are;

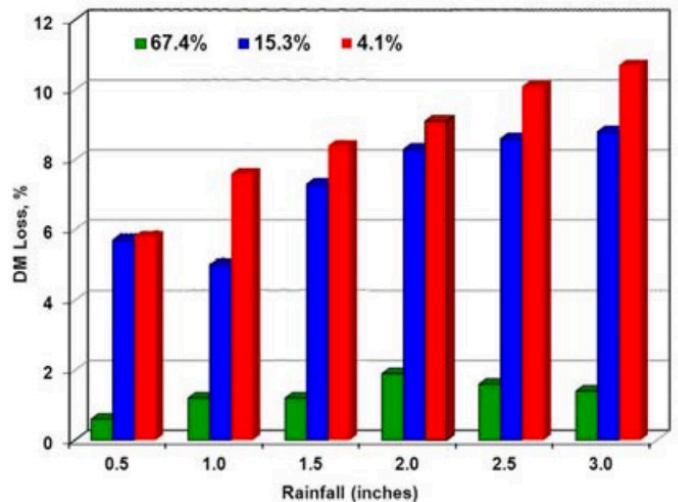
Is it better to have alfalfa in a wide swath or a windrow when rain occurs?

Generally, leaching loss is highest on freshly cut material while leaf shattering is low on wet forage and highest on drier forage (shattering is more of an issue for hay making than haylage

at 60% moisture, graph below from Scarbrough et al.



2005). Leaching and leaf loss will generally be less in a windrow. On the other hand, the windrow must be turned or spread out to dry again after a prolonged or intense rain which will cause leaf loss. A swath may also



be compressed by moderate to heavy rain and need to be turned to enhance drying. Thus, when making haylage, it is often best to leave forage in a wide swath and rake/merge into windrow just ahead of chopping.

How long can I leave alfalfa in the field to dry and still harvest for haylage? (Alternatively, when do I decide to chop the alfalfa back onto the field rather than harvest?)

The major concern with harvesting rained-on forage are accumulation of mold and mycotoxins and ability of forage to ferment in silo. Generally, alfalfa is worth harvesting (at least for heifer feed) as long as slime molds have not developed on the forage. When such molds have developed, palatability and fermentability of forage are reduced and likelihood of secondary microorganisms producing mycotoxins is increased. Therefore, recommendation is to chop slimy forage back onto the field. This will at least return nutrients to the soil for regrowth. Forage left in the field for more than 3 days will have lost much of the nonstructural carbohydrates (starch and sugars) which are the foodstuffs of silage fermentation bacteria. Should I apply an inoculant to rained-on alfalfa?

The data from Rich Muck in the graph in the lower left show that lack of starch and sugars for fermentation will reduce likelihood of profitable *Lactobacillus plantarum* inoculant use as forage is left in the field longer. The probability of successful inoculant benefit is also reduced as air temperature increases. Beyond three days in the field, sufficient starch and sugar have been lost to suggest that inoculant is generally not beneficial. At this point, silage should be ensiled with propionic acid (preferably mixed with some acetic and/or benzoic acid). The recommended rate of acid application is 2 lb. active ingredient/fresh weight ton of forage.

Considerations for 2017 Cover Crop Interseeding

Daniel H. Smith, Nutrient and Pest Management Program
 Matt Ruark, Soil Science Extension Specialist, Department of Soil Science

University of Wisconsin-Madison

Cover crop establishment following wheat, silage corn, and canning crops can be relatively easy. Corn and soybean production practices allow for a short window for cover crop establishment in the fall and this may not be enough time for some cover crop species to establish and provide agronomic benefits. Corn and soybean growers interested in using cover crops following corn and soybean crops may look to interseeding to establish a cover crop earlier in the season. Interseeding is defined as planting a cover crop during the vegetative growth stage of a crop, whereas overseeding typically occurs near harvest.

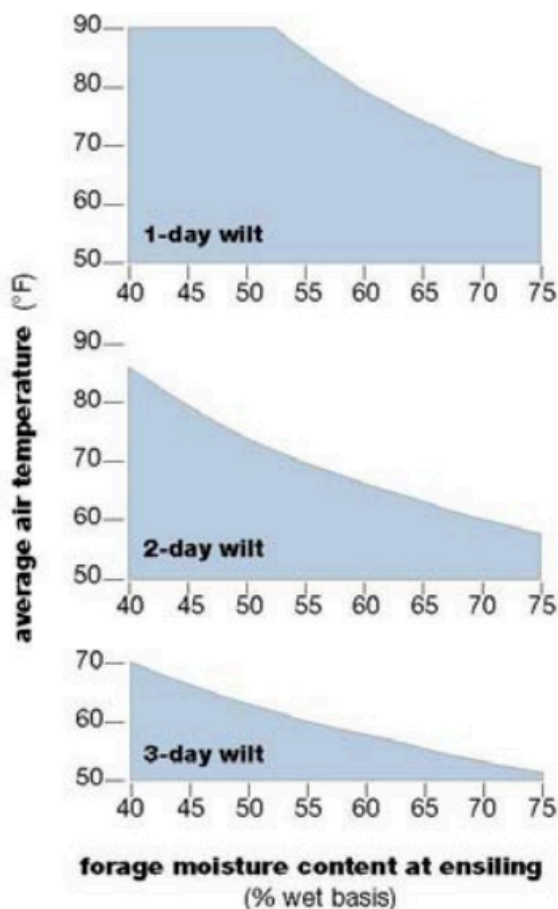
Goal of Cover Crop

A goal is needed to achieve maximum cover crop success. Cover crop species often have common benefits but each species may contribute more of one benefit over another. Several cover crop goals include reducing soil erosion, scavenging for nutrients, nitrogen source, forage quality, or winter kill. It is also important to consider interseeding cover crops a long-term strategy for soil improvement. One year of interseeding will have little effect on soil health. It is the long-term and continual use of cover crops that lead to improvements in the soil condition.

Cover Crop Species

Wisconsin research has demonstrated red clover interseeded into V5 growth stage corn successfully the past three years with no significant difference in grain yield

Figure 28. Conditions for profitable use of inoculant on silage. Shaded areas indicate profitable conditions.



Source: Adapted from Muck, USDA, 1993.

when compared to a non-interseeded plot. Red clover was seeded with a modified no-till drill at university recommended rates and depths. Many cover crop species may work in an interseeding system, however, experimentation in any unproven species may result in reduction in yield, future cover crop management issues, and lack of desired cover crop performance.

Herbicide History

The herbicides previously applied on the desired field for interseeding may dictate whether interseeding is possible or not. In general, residual herbicides may reduce cover crop growth. Interseeding and using residual herbicides is not impossible but is challenging. Herbicide resistant weed management should be considered when planning herbicide applications. The field should be weed free prior to interseeding. The cost of herbicide program, cover crop benefits, and resistance management should all be considered. More information on cover crop interseeding and herbicides is available through Penn State Extension: <http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-appliator/improving-the-success-of-interseeding-cover-crops-in-corn>

Crop Insurance

For crop insurance purposes, overseeding and interseeding are defined as planting one or more cover crop species into an existing crop. If the cover crop and insured grain crop are established in such a way that separate agronomic practices and management cannot occur, then the cash crop is not insurable. Overseeding and interseeding a conservation cover crop does not affect the insurability of the grain crop as long as the cover crop is established in a way that does not affect harvest and yield of the cash crop. Any damage or yield loss to the grain crop caused by interseeding or overseeding a cover crop will not be covered by crop insurance and will be applied to appraised value of cash crop, thus reducing any insurance indemnity that may be paid. Finally, note that for crop insurance purposes, interplanting is defined as planting multiple species that are grown together with no distinct row pattern and in this case, separate agronomic practices are not possible and so the grain crop is not insurable. Always talk with your crop insurance agent before interseeding any cover crops.

Seeding Method

Recent Wisconsin research has focused on interseeding using a modified no-till drill. However, there are many ways of interseeding cover crops. Cover crops can be interseeded using specialized commercially made equipment commercially, fertilizer spinner, or an air spreader.

Larger growers have relied on overseeding cover crops in late summer via aerial applications or using specialized high clearance seeding equipment that often mounts onto a high clearance sprayer. Cover crop seeding rate, soil moisture levels, and environmental conditions should be considered prior to seeding the cover crop with a cash crop. Cover crop seeding rate can be reduced when drilling a cover crop vs. overseeding.

Cover Crops for Forage Use

A crop is classified as a cover crop when no biomass is harvested. A cover crop becomes a forage crop when biomass is harvested for feed. A cover crop can be used for forage, however, most pesticide labels do not provide the plant back restriction time required from pesticide application to grazing or harvest for cover crops, only forage crops. If a cover crop will be planted later this cropping season, consider the rotational restrictions for any herbicides used in the field the past few seasons

For more information on Wisconsin cover crop interseeding research:

<https://www.youtube.com/watch?v=ipw2lsyYZ0E>

<http://ipcm.wisc.edu/blog/2015/08/interseeding-cover-crops-into-v5-corn/>

<http://fyi.uwex.edu/covercrop/>

For more information on cover crops and cover crop species selection:

<http://mccc.msu.edu/>

<http://mccc.msu.edu/selector-tool/>

Managing 2,4-D and Dicamba in Enlist™ and Xtend® Soybean

Shawn P. Conley, Soybean and Wheat Extension Specialist

Enlist™ and Xtend® traits are engineered to provide resistance to the group 4 synthetic auxin herbicides 2,4-D and dicamba, respectively. These traits allow, for the first time, POST applications for control of broadleaf weeds in soybean and cotton. However, many broadleaf plants are inherently sensitive to 2,4-D and dicamba, and the use of the Enlist and Xtend technologies requires proactive stewardship of the herbicides.

[Click here to read our United Soybean Board grant funded Take Action publication.](#)

Grain Management in Low-Margin Years

Shawn P. Conley, Soybean and Wheat Extension Specialist

The Winter Grain Meeting series entitled: Grain Management in Low-Margin Years was a new focused series of outreach events that aimed to help grain farmers in Wisconsin increase their profitability and reduce their debt load. Click here to review a program assessment of our winter Extension meeting series.

Program Highlights:

- 455 total participants (245 returned assessment surveys)
- 66% of the respondents thought the topics were “very relevant”, and 33% “moderately relevant”
- 99.6% thought that “Overall, attending the meeting was a valuable use of my time”
- 94% thought that “as a result of attending today’s meeting it will help increase my profitability”
- 56% thought that “attending the meeting helped alleviate my stress level about my farm operation”
- All of the respondents (100%) answered yes to the statement: “One part of a county agent’s job is to bring research and unbiased, science-based information to the county. Do you feel this meeting helped fulfill that goal?”

This meeting series was a joint effort led by Dr. Damon Smith and Ted Bay among UWEX state specialists and UW Agriculture and Natural Resources Extension agents.

Here is a summary publication of the information that was handed out at the meetings. [“A4137 – Grain Management Considerations in Low-Margin Years” available online for download.](#)

Below also please find a specific video, or view the full playlist on the [UWIPM YouTube channel](#). There is a table of contents below each video on YouTube with quick links to jump to key parts in longer videos.

- [Soybean Inputs that Deliver the Highest ROI in a Low-Margin Year](#) – Shawn Conley, UW Agronomy, Soybean and Small Grains Specialist (40 min)
- [Practical Weed Management for Low-Margin Years](#) – Dan Smith, UW NPM, Southwest Regional Specialist (14 min)
- [Fundamental Soil Fertility Strategies for Success](#) –

Carrie Laboski, UW Soil Science, Soil Fertility/Nutrient Management Specialist (37 min)

- [How to Survive and Thrive on Current Corn Price Projections](#) – Joe Lauer, UW Agronomy, Corn Specialist (41 min)
- [Low Grain Prices = Smart Disease Management Decisions](#) – Damon Smith, UW Plant Pathology, Field Crops Pathology Specialist (29 min)
- [Managing Insects Economically Using Conventional Hybrids and Thresholds](#) – Bryan Jensen, UW Entomology, Field Crops Entomology Specialist (38 min)
- [Machinery/Technology Management and Tillage Considerations to Reduce Operational Costs](#) – Francisco Arriaga, UW Soil Science, Soil Science Specialist and Brian Luck, UW Biological System Engineering, Machinery Specialist (16 & 10 min)
- [Partial Budget Analysis: A Practical Tool for Low Margin Years](#) – Paul Mitchell, UW Ag & Applied Econ, Cropping Systems Specialist (31 min)

Rain Rain Go Away Do I Switch to Soybean From Zea May(s)

Shawn P. Conley, Soybean and Wheat Extension Specialist

As growers begin to contemplate switching intended corn acres to soybean, here is a quick checklist of points and questions to consider or reconsider before making that switch.

- Do I have a residual corn herbicide down that is not labeled for soybean? If the answer to this question is yes, then Don’t Switch Crops. It doesn’t matter how much rain we have had. Plant back label restrictions must be followed.
- What is my cost of production and weather outlook for finally getting this crop in the ground? Dr. Joe Lauer just posted his corn replanting and yield loss guide. Expected corn grain yield if planted in the next 8 days would range from ~70 to 85% of maximum yield. Soybean yield would roughly be 85 to 90% of maximum yield based on your maturity group and final planting date. Run your numbers, talk to your lender, and see what gives you the greatest ROI.
- I already put out all my nitrogen (or for WI growers – I am following alfalfa). What potential impacts will that have on my soybean crop?

1. Dr. Emerson Nafziger did a great job shedding light on question #1 regarding N management... How Much Nitrogen is Gone?
 2. Knowing that most of the N will likely be available to the soybean crop, there is a risk of lush vegetative growth, possible lodging (harvest efficiencies) and higher risk for white mold. However soybean total dry matter and growth will be behind due to its late planting so this risk is lessened. I would most be concerned about white mold. Luckily, we have Dr. Damon Smith at UW Madison and he will keep us updated as to potential white mold risk this summer so stay tuned for possible next steps!
 3. Soybean is very efficient at N uptake and partitioning so that N will likely still see its way to the elevator.
 4. If you decide to plant soybeans into these high N fields, I would pull the inoculant from the seed treatment mix if this field has seen regular soybean cropping (2 years out of the last 5). Biological nitrogen fixation will be delayed due to free N availability and the soybean crop will rely on background soil rhizobia for subsequent infection.
- Will I be planting elite soybean genetics if I switch or will I be planting a dog? Even in late planted situations, we are still roughly at 90% maximum yield potential. Don't ditch your elite corn genetics to plant junk beans. Please see our Wisconsin Soybean Performance Trials for more information on variety selection.
 - Lastly, how much of my 2017 crop is marketed and how flexible are my options. Even though plantings of both crops are delayed, if we continue to see poor corn crop ratings across the 'I'- states and then see another million acres of corn go to soybeans, I believe this will put significant pricing pressure on both crops.

Corn Late Planting/Replanting Guidelines

Joe Lauer, Corn Agronomist

This week many farmers will be evaluating corn stands. Find useful links to publications below.

<http://corn.agronomy.wisc.edu/Pubs/UWEX/A3353.pdf>

<http://corn.agronomy.wisc.edu/Management/L004.aspx>

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

Brian Hudelson, Sean Toporek, Jake Kurczewski and Ann Joy

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 April 29, 2017 through May 5, 2017.

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

Vegetable Crops

Potato, Black Dot, *Colletotrichum sp.*, Portage

Rhubarb, Root/Crown Rot, *Pythium sp.*, *Rhizoctonia sp.*, Dane

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

Follow the clinic on Facebook and Twitter @UWPDDC.

Vegetable Crop Update May 22, 2017

Amanda J. Gevens, Associate Professor & Extension Vegetable Plant Pathologist

2017's 5th issue of the Vegetable Crop Update is now available. [Click here to view this issue.](#)

In this edition, please find information on:

- Disease updates for late blight and cucurbit downy mildew
- An updated list of registered fungicides for potato late blight for Wisconsin (as of May 22, 2017). [Click here for the list of Potato Late Blight Fungicides](#)

Wisconsin Pest Bulletin 5-25-16

Krista Hamilton, Entomologist, WI Dept of Agriculture, Trade and Consumer Protection

Volume 62 Issue No. 5 of the Wisconsin Pest Bulletin is now available. [Click here to view this issue.](#)

INSIDE THIS ISSUE

LOOKING AHEAD: Black cutworm peak damage period now open

FORAGES & GRAINS: Alfalfa weevil larvae pressure increasing as alfalfa harvest is delayed

CORN: Continue scouting for evidence of black cutworm infestation

SOYBEANS: First soybean aphids expected to colonize fields by early June

FRUITS: Codling moth emergence now underway across southern and central Wisconsin

VEGETABLES: Colorado potato beetle adults migrating into potato fields

NURSERY & FOREST: Assorted observations from this week's nursery inspections

DEGREE DAYS: Degree day accumulations through May 24, 2017

Follow us

