Wisconsin Crop Manager

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Contents

Brush Management on Working Landscapes in Southwest Wisconsin Field-day

Mark Renz Associate Professor and Extension Weed Specialist

Do you have large multiflora rose plants in your pastures? Do you cut back prickly ash only to see it resprout the next spring? Are bush honeysuckles taking over your fence-line? If you answered yes to any of these then consider attending this brush management in pastures field-day to be held on August 11th in Dodgeville from 10-1 pm on the Ruppert/Condon farm (2326 Ruppert Rd Dodgeville WI).

This event will highlight the efforts one farm has taken to reclaim their pastures from brush. This field day will feature an overview of the history of SW Wisconsin "working lands" and how it has changed as well as focus on key skillsets required for effective management. These

include an overview of the common brush species found in Wisconsin's pastures as well as an overview of common management techniques including herbicides, fire, mowing and grazing. NRCS staff will also be present to discuss federal programs available to assist and how to apply for these. Experts will also be available to answer specific questions on management options a producer may have. At the conclusion of this event, registered attendees, will receive a free barbeque lunch thanks to Dow Agrosciences.

See below for an abbreviated schedule, and if interested and available please contact Gene Schriefer (Iowa County Extension Agent) at gene.schriefer@ces.uwex.edu or (608)930-9850 to register for the event.

At the conclusion of lunch attendees are welcome to view field research plots that demonstrate the effectiveness of specific herbicides on bush honeysuckle, multiflora rose, and prickly ash.

AGENDA (10 am -1 pm)

- Welcome and History of SW Wisconsin- Gene Schriefer (UWEX Iowa County)

- Host Introductions and history of farm- Karin Condon and Ken Ruppert
- Identification of Brush Species in Pastures- Mark Renz (UW-Madison / UWEX)
- EQIP and other Federal Programs Available- Marie Raboin (NRCS)
- Herbicide application methods- Jamie Baumgardner (Dow Agrosciences)
- Factors to consider when selecting a herbicide- Scott Flynn (Dow Agrosciences)
- Goats & fire for managing shrubs in pastures- Cherrie Nolden (UW Madison), Gene Schriefer

Scouting for Corn Rootworm Beetles

Bryan Jensen, UW Extension and IPM Program

Although northern and western corn rootworm beetles have been emerged for a while, we are rapidly approaching that time period (early/mid-August through early September) when oviposition will be in full swing. Never before have beetle counts been more important than at the present time. By establishing the level of adult infestation during the current year, you can determine whether rotation or preventative treatments will be necessary in the following year's corn crop. Not only will #'s/plant give you an idea if the field needs to be treated next year, but counts will give insight for the best treatment options for resistance management.

To determine the larval damage potential in continuous corn, count the number of beetles on five non-consecutive plants in each of 10 random areas of the field. First, grasp the ear tip tightly enclosing the silks in the palm of your hand and count beetles on all other areas of the plant. The silks often have the most beetles on the plant, so a tight hold on the ear tip keeps beetles from dropping out. Pull leaves away from the stalk to examine leaf axils and expose hiding beetles. Once the entire plant is examined, open your hand slowly and count the beetles that come out of the silks as you strip the husk away from the ear tip. Record the total number of beetles and divide by the number of plants counted (50). The grower will need to manage corn rootworm larval populations if you find an average of 0.75 beetles per plant during the egg laying period. Because beetles are mobile, a minimum of 2 counts, 7-10 days apart will be needed to make a reliable no-treat decision. However, if on the first scouting, beetle numbers are > 0.75 beetles/plant, a second if not third count would be useful to help decide on the appropriate treatment option next year.

Western (L) and Northern (R) corn rootworm beetles

Click the video to learn about how to scout corn for rootworm bettles.

Diversifying your management practices is an important resistance management tool. Having the field data (i.e., beetle counts) will increase your comfort level when making recommendations and can give you a point of reference for future years.

Two-Spotted Spider Mite and Soybean Aphid Update

Bryan Jensen, UW Extension and IPM Program

I recently received a phone call from an independent crop consultant who is finding treatable populations of two-spotted spider mites (TSSM) on soybean. I was surprised because I didn't think our weather patterns would positively impact TSSM populations. However, the field background fits. That is, sandy soil and/or droughty areas where soybeans were moisture stressed. This information is important because it could be a sign of things to come. Or, ……maybe not. However, it does indicate to me that some field scouting for TSSM (and aphids) is necessary. I would suggest spot-checking fields or field areas that you think could be drought stressed. Look for leaf stippling and active mite infestation Use a handlense to confirm. At the same time survey the field for soybean aphids. TSSM control decision can positively

Leaf Stippling caused by TSSM

impact aphid populations by removing natural enemies. The reverse is also true because aphid control decisions can impact TSSM populations. Choose products which fit your pest populations. General statements that one insecticide class is strong on TSSM but weak on aphids are impossible to make. Read each label and match products and rates for the pest(s) you have. Read the fine print, some labels may have the pest listed but only for suppression. For pests with a high reproductive potential, such as aphids and mites, I want a product that indicates control, not suppression.

Soybean aphid numbers are rather light but recent reports indicate numbers are building. With a few fields at or near threshold. Managing late-season aphid populations is not easy because of the number of factors you need to consider. For example, crop stage, natural enemies and whether or not the aphid populations are building or declining. For other factors to consider please review this article at http://ipcm.wisc.edu/download/pubsPM/Soybean-aphid-IPM.pdf

Wisconsin Winter Wheat Performance Trials 2016

Shawn Conley, Adam Roth, John Gaska and Damon Smith

The Wisconsin Winter Wheat Performance Trials are conducted each year to give growers information to select the best- performing varieties that will satisfy their specific goals. The performance trials are conducted each year at four loca- tions in Wisconsin: Arlington, Chilton, Fond du Lac and Sharon. Trials include released varieties, experimental lines from University breeding programs and lines from private seed companies. The primary objective of these trials is to quantify how varieties perform at different locations and across years. Growers can use this data to help select which varieties to plant; breeders can use performance data to determine whether to release a new variety.

Click here to see the complete document.

What is happening in the corn plant during the month of August?

Joe Lauer, Wisconsin Corn Agronomist

By August two of three corn yield components, ear number and kernel number, have been determined. The final yield component, kernel weight, will largely be determined during the month of August. Preliminary yield estimates can be made and depending upon the success of pollination, decisions regarding harvest use strategies can be planned.

Corn kernel development begins with silking (R1) and is marked by the blister stage (R2), milk (R3), dough (R4), and dent (R5) stages. The final stage called black layer formation (R6) marks the end of kernel development. The corn kernel accumulates weight in a sigmoidal pattern over a 55-60 day period beginning with a 7-10 day "lag" phase and ending with a 7-10 "maturation" phase (Figure 1). The linear phase of the sigmoidal curve lasts about 40 days.

For a 200 bushel per acre yield level about 5 bushels per day (200 / 40) accumulates during the linear phase of kernel development. About 60% of the starch that accumulates within the kernel is produced by the ear leaf. Leaves above and below the ear are also important sources for developing kernels, but as the distance from

Figure 1. Kernel weight accumulation pattern of corn.

the ear increases less starch is translocated to kernels and more to other plant parts. The stalk serves as a temporary storage organ during the day and photosynthate will be translocated to the kernels throughout the night.

Photosynthesis is maximized at about 1/3 of full sunlight, so even cloudy days can produce the starch needed to sustain accumulation in the kernel. Other plant parts (leaves, stalk and roots) demand photosynthate for respiration and are competitors with kernels. Temperatures that are comfortable for us (65-80 degrees F during the day and 50-65 degrees at night) provide the best trade-off between maximizing photosynthesis production and minimizing respiration in corn.

About 0.25 to 0.30 inches of water is being transpired by the plant during August. Every day that corn plants are stressed can lower yields 5% per stress day. Nutrients (N-P-K) are still being taken up by the plant until about the R3 to R4 stages. Brace roots are acting as a nutrient scavenger system in the upper layers of the soil profile, while roots deeper in the profile are used primarily for water uptake. During August it is important to protect the ear leaf since that is the plant part where most of the photsynthate is produced for a developing kernel.

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

Brian Hudelson, Sean Toporek, 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 July 16, 2016 through July22, 2016.

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

Field Crops
Corn, Common Rust, *Puccinia sorghi,* Sauk
Corn, Eyespot, *Kabatiella zeae,* Sauk
Corn, Goss' Wilt, *Clavibacter michiganensis subsp. nebraskensis*, Grant
Corn, Norther Corn Leaf Spot, *Bipolar zeicola,* Sauk
Soybean, Herbicide Toxicity, None, Lafayette
Soybean, Phytophthora Root and Stem Rot, *Phytophthora sp.,* Brown, Grant, Iowa, Rock

Forage Crops
Intermediate Wheatgrass, Crown Rust, *Puccinia coronata,* Columbia
Intermediate Wheatgrass, Ergot, *Claviceps sp.,* Columbia

Fruit Crops
Apple, Cedar-Apple Rust, *Gymnosporangium sp.,* Dane, Eau Claire
Apple, Cork Spot, None, Oneida
Blackberry, Botryosphaeria Cane Canker, *Botryosphaeria sp.,* Rock
Blackberry, Septoria Leaf Spot, *Septoria rubi*, Taylor
Pear, Entomosporium Leaf Spot, *Entomosporium sp.*, Oneida
Raspberry, Anthracnose, *Sphaceloma necator,* Sheboygan
Raspberry, Raspberry Leaf Spot, *Cylindrosporium rubi,* Price
Raspberry, Verticillium Wilt, *Verticillium sp.,* Sheboygan

Vegetable Crops
Basil, Root Rot, *Fusarium sp.*, Eau Claire
Garlic, Garlic Mosaic, *Unidentified potyvirus*, Cook (IL)
Kale, Fusarium Yellows, *Fusarium oxysporum,* Vernon
Melon, Bacterial Wilt, *Erwinia tracheiphila*, Buffalo
Pea, Aphanomyces Root Rot, *Aphanomyces euteiches,* Baraga (MI)
Potato, Black Leg, *Dickeya sp.*, Langlade, Portage, Suffolk (NY)
Potato, Rhizoctonia Canker, *Rhizoctonia solani,* Marathon
Snap Bean, Herbicide Damage, None, Jefferson
Tomato, Bacterial Canker, *Clavibacter michiganensis subsp. michiganensis*, Rock
Tomato, Bacterial Speck, *Pseudomonas syringae pv. tomato,* Portage
Tomato, Cucumber Mosaic, *Cucumber mosaic virus*, Jefferson
Tomato, Early Blight, *Alternaria solani,* Marquette
Tomato, Herbicide Damage, None, Jefferson
Tomato, Septoria Leaf Spot, *Septoria lycopersici,* Marquette, Portage
Tomato, Tobacco Mosaic, *Tobacco mosaic virus,* Jefferson

Specialty Crops
Hop, Apple mosaic, *Apple mosaic virus,* Dane, Champaign (IL)
Hop, Carlavirus, Unidentified carlavirus, Champaign (IL)
Hop, *Fusarium Canker/ Wilt,* Fusarium sp., Dane

Soil
Alfalfa Soil, Aphanomyces Seedling Blight, *Aphanomyces euteiches race 2,* Buffalo

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

Vegetable Crop Update Aug. 1, 2016

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

21th issue of the Vegetable Crop Update is now available. In this newsletter we focus on:

- DSV and P-Day Updates
- Late blight updates for WI and the nation
- Cucurbit Downy mildew updates
- Cucurbit powdery mildew is starting up in WI (management recommendations)
- Conventional fungicide list for tomato late blight control
- Abbreviated and edited version of a summary on potato blackleg

http://ipcm.wisc.edu/download/vgu/VegCropUpdateJuly-22-2016.pdf

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