Soybean Aphids

Bryan Jensen; UW Extension

I have been getting a few phone calls regarding increasing soybean aphid populations. Nothing extreme but some fields have been slightly over or under thresholds. Treatment decisions at this time of the year are very difficult to make, especially when populations hover around the economic threshold. I’ll offer a few thoughts and comments.

First a comment on crop stage. The economic threshold for soybean aphids on R1-R5 soybeans is 250 aphids on 80% of the plants and the population is increasing. Soybeans at R6 are very unlikely to suffer significant yield loss unless that field is under drought stress. In a short conversation with Shawn Conley, many fields are in the R4-R5.5 stage of development. Therefore, the window for treatment will be closing soon.

When scouting, look for “white dwarf” soybean aphids which are, of course, soybean aphids but do not live as long (50%) or reproduce as fast (70%) as the yellow-green form. White dwarfs are smaller in size and cream colored. Other species of aphids will produce these morphs in response to environment conditions. For soybean aphids, it is possible that high temperature, humidity and/or shorter day length may bring about a higher percentage of white dwarfs. Count the white dwarfs and include them in your total plant counts. However consider their presence when you are on the fence and deciding to spray or not. One might expect the percentage of white dwarfs to increase because the forecast calls for high temperatures through the weekend.

Also, consider if you plan ground application of insecticides that wheel tracks will reduce yield. That reduction is dependent on the boom width. Research by Dr. Conley and others at Purdue indicate that reduction can be as high as 4.9% (30 ft boom) to as little as 1.3% (120 ft. boom).

Predators and parasitoids can negatively influence aphid populations if timing and conditions are right. We are all familiar with the adult and larval stage of lady beetles. Both life stages will feed on aphids and can rapidly reduce aphid populations if numbers are high. When scouting, observe relative numbers of lady beetle life stages (adults, larvae and pupae) over time. This observation will also indicate if their numbers are decreasing, increasing or are stabilized. If lady beetle numbers are increasing faster than aphids it may be a good sign that treatment may not be needed for the time being. Parasitoids, indicated by the presence of aphid mummies, can also negatively affect aphid populations. Their effect, however, tends to take place over a longer period of time.

Our typical mid to late-August weather patterns favor entomopathogenic fungi. If environmental conditions (cool/humid) are expected, you may see a reduction in soybean aphids. Early symptoms of this fungus are aphids that are rose colored.

One final comment on soybean aphid management. Some areas of Wisconsin have been dry if not very dry. While scouting for aphids look for twospotted spider...
mites and/or signs of their damage. Choose insecticides wisely if mites are present. Use of synthetic pyrethroid insecticides will have limited effects on spider mites but will kill beneficial mites and insects leading to higher mite populations. Insecticides with the active ingredients chlorpyrifos and dimethoate can control both aphids and spider mites. However, plan on revisiting sprayed fields to verify control and check on possible aphids and mite resurgence.

### Pasture walk highlights research results on organic pastures

Mark Renz, Associate Professor and Extension Weed Specialist, University of Wisconsin-Madison

Forage from pastures is critical for organic milk production, however many farms are not maximizing the potential of their pastures. Researchers from the University of Wisconsin-Madison, UW-Extension, and USDA ARS Dairy Forage set out to identify common factors associated with high and low milk production on forty paddocks across twenty farms throughout Wisconsin.

Initial results of the study will be presented during a pasture walk at Don and Sam Frei’s farm (N3808 Duncan Hill Rd Argyle, WI 53504) on Aug. 12 from 10:30 a.m.-3 p.m. Pasture walk attendees will also learn how to apply this information to improve pasture performance. The host farmers will share some of their experiences on grazing sorghum during the summer slump as well as benefits from new lane construction.

“We wanted to focus broadly across Wisconsin to try to identify common issues found across the state,” said Mark Renz, UW-Extension weed scientist at UW-Madison and the project leader. “Results will allow us to not only identify problems but allow farmers to prioritize which should be resolved first and have the largest return on investment.”

With funding from CERES Trust this team of researchers have been collecting data from forty paddocks over the last two years.

“Support from Organic Valley has been crucial in helping to identify farms that were willing to be involved in this project”, said Erin Silva, assistant professor and UW-Extension organic specialist at UW-Madison.

Attendees are invited to a lunch which is provided through a generous donation from Organic Valley.

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

Brian Hudelson, Sean Toporek, Ann Joy 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 August 1, 2015 through August 7, 2015.

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

**Field Crops**
- Corn, Anthracnose Stalk Rot, *Colletotrichum graminicola*, Iowa
- Corn, Common Rust, *Puccinia sorghi*, Iowa
- Corn, Eyespot, *Kabatiella zeae*, Iowa
- Corn, Goss’ Wilt, *Clavibacter michiganensis subsp. nebraskensis*, Grant
- Corn, Gray Leaf Spot, *Cercospora sp.*, Iowa
- Corn, Northern Corn Leaf Blight, *Exserohilum turcicum*, Grant
- Corn, Northern Corn Leaf Spot, *Bipolaris zeicola*, Iowa
- Soybean, Downy Mildew, *Peronospora manshurica*, Sauk, Walworth

**Fruit Crops**

**Vegetables**
- Squash, Blossom End Rot, None, Dane
- Tomato, Bacterial Speck, *Pseudomonas syringae pv. tomato*, Dane
- Tomato, Septoria Leaf Spot, *Septoria lycopersici*, Burnett, Dane, Dunn, Jackson
- Tomato, Zippering, None, Dunn

**Soil**
- Soybean, Soybean Cyst Nematode, *Heterodera glycines*, Dane

For additional information on plant diseases and their control, visit the PDDC website at [pddc.wisc.edu](http://pddc.wisc.edu)
Vegetable Crop Update August 7, 2015

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

The 26th issue of the Vegetable Crop Update is now available which includes the following topics:

- early blight updates
- late blight DSV accumulations and updates (Polk Co. first report)
- cucurbit downy mildew updates
- hop grower workshop agenda/directions
- Langlade Co. Field Day agenda

Click here to view this update.

Wisconsin Pest Bulletin 8-13-15

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

Issue No. 17 of the Wisconsin Pest Bulletin is now available at:


INSIDE THIS ISSUE

LOOKING AHEAD: Western bean cutworm flight subsiding across Wisconsin

FORAGES & GRAINS: Grasshopper populations increasing in alfalfa and other crops

CORN: Moderate corn earworm flights registered in Dodge and Green Lake Cos.

SOYBEAN: Soybean aphid densities unlikely to reach threshold in most fields this season

FRUITS: Apple maggot flies continue to emerge in orchards

VEGETABLES: Potato and tomato crops remain at risk of late blight infection

NURSERY & FOREST: Redbud trees in Dane County diagnosed with Verticillium wilt

DEGREE DAYS: Growing degree day accumulations through August 12, 2015