

6-12-2012

Should you be scouting for Goss's wilt?

Alison E. Robertson

Iowa State University, alisonr@iastate.edu

Follow this and additional works at: <http://lib.dr.iastate.edu/cropnews>

 Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), and the [Plant Pathology Commons](#)

Recommended Citation

Robertson, Alison E., "Should you be scouting for Goss's wilt?" (2012). *Integrated Crop Management News*. 209.
<http://lib.dr.iastate.edu/cropnews/209>

The Iowa State University Digital Repository provides access to Integrated Crop Management News for historical purposes only. Users are hereby notified that the content may be inaccurate, out of date, incomplete and/or may not meet the needs and requirements of the user. Users should make their own assessment of the information and whether it is suitable for their intended purpose. For current information on integrated crop management from Iowa State University Extension and Outreach, please visit <https://crops.extension.iastate.edu/>.

Should you be scouting for Goss's wilt?

Abstract

This weekend, Dr Tamra Jackson-Ziems at University of Nebraska-Lincoln reported that [Goss's wilt had been spotted](#) in multiple cornfields in three counties in south central and eastern Nebraska. She suspects that infection may have occurred as a result of plant wounding due to severe storms earlier in the growing season. The infected corn plants were at the V6 growth stage and had characteristic lesions of Goss's wilt. A few plants were systemically infected.

Keywords

Plant Pathology and Microbiology

Disciplines

Agricultural Science | Agriculture | Plant Pathology

search

Subscribe to Crop News

Archives

2014

2013

2012

2011

2010

2009

2008

Previous Years

ISU Crop Resources

Extension Field Agronomists

Crop & Soils Info

Pesticide Applicator Training

Agronomy Extension

Entomology Extension

Plant Pathology Extension

Ag and Biosystems Engineering Extension

Agribusiness Education Program

Iowa Grain Quality Initiative

College of Agriculture and Life Sciences

ISU Extension

Integrated Crop Management NEWS

-  PRINT STORY
-  EMAIL STORY
-  ADD TO DELICIOUS
-  ATOM FEED
-  FOLLOW ON TWITTER

Should you be scouting for Goss's wilt?

By Alison Robertson, Department of Plant Pathology and Microbiology

This weekend, Dr Tamra Jackson-Ziems at University of Nebraska-Lincoln reported that [Goss's wilt had been spotted](#) in multiple cornfields in three counties in south central and eastern Nebraska. She suspects that infection may have occurred as a result of plant wounding due to severe storms earlier in the growing season. The infected corn plants were at the V6 growth stage and had characteristic lesions of Goss's wilt. A few plants were systemically infected.

Goss's wilt was found on a few plants in a field Calhoun County on Monday, June 11 (Figure 1). The field had been planted to a very susceptible hybrid in 2011, had severe Goss's wilt and surface residue was present. Strong winds that have occurred in the area likely caused damage to the leaves and enabled infection.



Figure 1. Typical Goss's leaf blight symptoms on corn in Calhoun County on June 11, 2012. Photo courtesy of E. Lerdal, District Sales Manager, Asgrow/DEKALB.

The Goss's wilt bacterium, *Clavibacter michiganensis* subsp. *nebraskensis* (CMN), survives well in infested surface residue. Infection is usually associated with severe weather events that injure the corn leaves and thereby enable entry of the bacterium into leaf tissues. In the greenhouse, we typically see symptoms on corn seedlings 10 to 21 days after inoculation with CMN.

Scouting tips

If you are scouting for Goss's wilt, focus your attention on fields that are:

- planted to a Goss's susceptible hybrid,
- have a history of Goss's wilt,
- have surface corn residue, and
- may have recently been injured by severe weather.

The most characteristic symptoms of Goss's wilt are "freckles" (Figure 2) within large reddish-brown lesions that usually occur along the edge of the leaves. Bacterial ooze may also occur on the lesion, giving it a wet or greasy appearance. When the ooze dries, it leaves a shiny residue on the surface of the lesion.

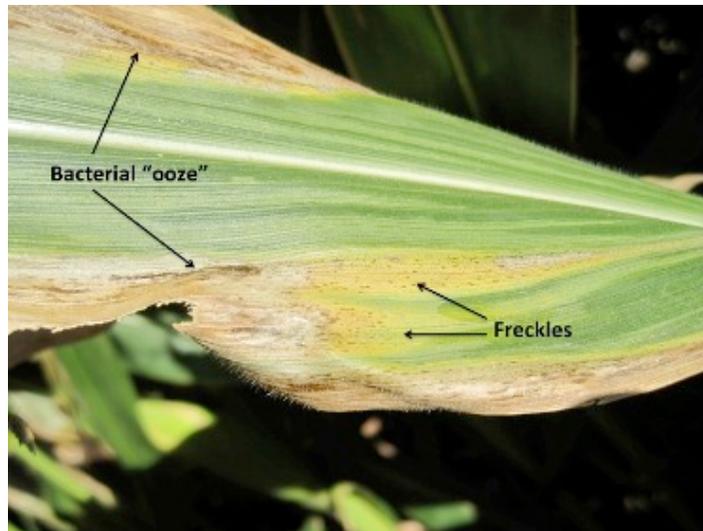


Figure 2. Freckles, which are small, dark green to black spots that usually occur in the edge of Goss's leaf blight lesions, are distinct to this disease. Bacterial ooze may also be seen.

Management

Planting a tolerant hybrid is the most effective way to manage Goss's wilt.

There are several foliar products being marketed for Goss's wilt management. Unfortunately there are no field data available on their efficacy. Preliminary trials in the greenhouse on V3 corn seedlings indicated some products might slow disease development. Because greenhouse conditions are very different from field conditions, further evaluations in field situations are needed.

This growing season, we have field trials to evaluate foliar products at three locations in Iowa. On-farm trials in collaboration with ISU-FARM also are being done in northwest Iowa. Furthermore, participants at the Crop Management Clinic and Corn Disease workshops, which will be held in July

and August, respectively, at the ISU Extension and Outreach Field and Education Laboratory (FEEL) near Boone, will evaluate foliar products in CMN-inoculated trials.

Holcus leaf spot

ISU Extension and Outreach field agronomist Joel De Jong from northwest Iowa reported seeing Holcus leaf spot in corn. Characteristic symptoms of this disease are round (~1/4 inch diameter), pale yellow to white spots with a water-soaked halo. On some hybrids, the spot may have a purple or brown margin.

Carl Bradley from University of Illinois and Kiersten Wise from Purdue University also reported Holcus leaf spot in their recent newsletters ([The Bulletin](#) and [Pest and Crop](#), respectively).

Holcus is another disease of corn caused by a bacterium, *Pseudomonas syringae* pv. *syringae*. Infection of leaves occurs through wounds or stomates. Holcus rarely gets severe enough to impact yield.

Alison Robertson is an associate professor and an extension field crops pathologist in the Department of Plant Pathology and Microbiology. She can be reached at 515-294-6708 or e-mail alisonr@iastate.edu.

This article was published originally on 6/12/2012. The information contained within the article may or may not be up to date depending on when you are accessing the information.

Links to this material are strongly encouraged. This article may be republished without further permission if it is published as written and includes credit to the author, Integrated Crop Management News and Iowa State University Extension. Prior permission from the author is required if this article is republished in any other manner.