

2014 Statewide Small Grains Pest Survey

Cooperator: Minnesota Association of Wheat Growers, NDSU IPM Survey

Purpose of Study:

The objective of this project was to allow for timely small grain crop staging and pest identification across the state of MN in order to inform producers of current crop conditions and potential threats. Information was released through media (e.g., radio, internet-based news releases, archived web pages, consultant conversations and e-mail. The survey was conducted in coordination with the established NDSU IPM Survey, providing extensive, continuous coverage of small grains across MN and ND.

Results:

Field surveys were initiated the last week of May. Delayed planting conditions resulted in most of the crop being in the initial leaf to tillering stages, however there was earlier planting of a portion of the crop and reflected in some locations in the jointing stage (see map for Growth Stages - June 9 to 20).

The most important insect related production issues were the appearance of cereal aphids which reached threshold levels in some regions of both states.

Small grain diseases by prevalence were Tan Spot, occurring throughout the region; Bacterial Leaf Streak in SW and WC MN; *Septoria* occurring with high incidences in NW MN; Barley Yellow Dwarf incidence was found where aphids established in WC MN; and, Head blight (scab) in SW and WC MN where wet conditions during heading contributed to higher than forecasted infections.

When reviewing the maps, **Incidence** is defined as “the percent of sampled plants with the disease.” **Severity** is defined as “the percent of plant tissue that is diseased on affected plants.” Therefore, maps that report incidence are reporting percent plants affected. Severity tells us how bad infections were.

To receive notification of the survey, subscribe to the Northwest Cropping Issues Newsletter at:

http://nwroc.umn.edu/Cropping_Issues/index.htm

Archived maps are maintained by NDSU and can be found at:

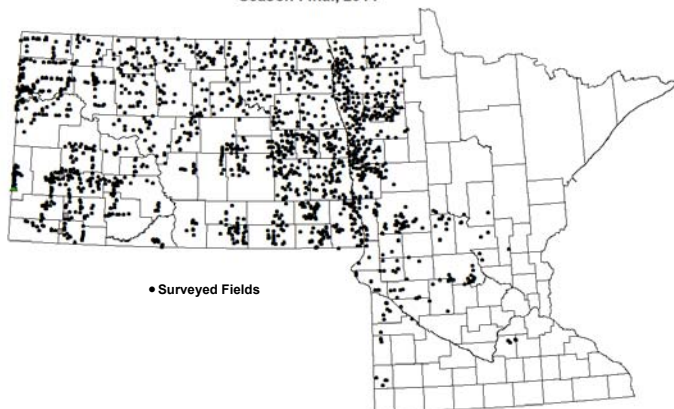
http://nwroc.umn.edu/Cropping_Issues/index.htm

For Additional Information:

Phil Glogoza, Doug Holen, Jochum Wiersma, and Madeleine Smith

Small Grain Field Locations Visited for Survey

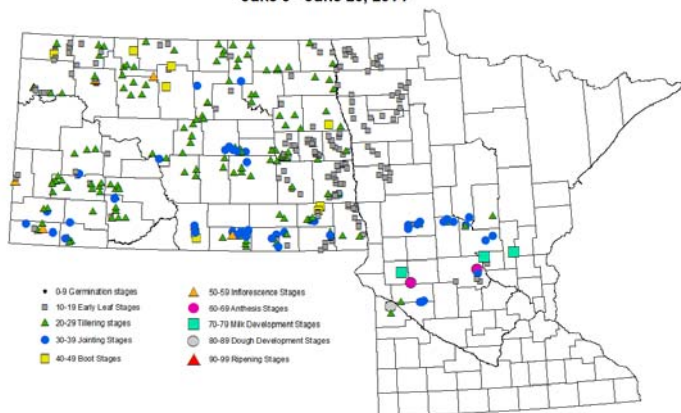
Season Final, 2014



• Surveyed Fields

Wheat Growth Stages

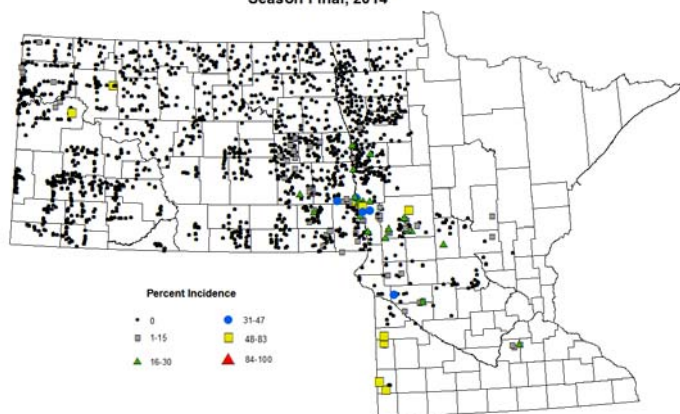
June 9 - June 20, 2014



- 0-9 Germination stages
- 10-19 Early Leaf Stages
- ▲ 20-29 Tillering stages
- 30-39 Jointing stages
- 40-49 Boot Stages
- ▲ 50-59 Inflorescence Stages
- 60-69 Anthesis Stages
- 70-79 Milk Development Stages
- 80-89 Dough Development Stages
- ▲ 90-99 Ripening Stages

Wheat BYDV

Season Final, 2014



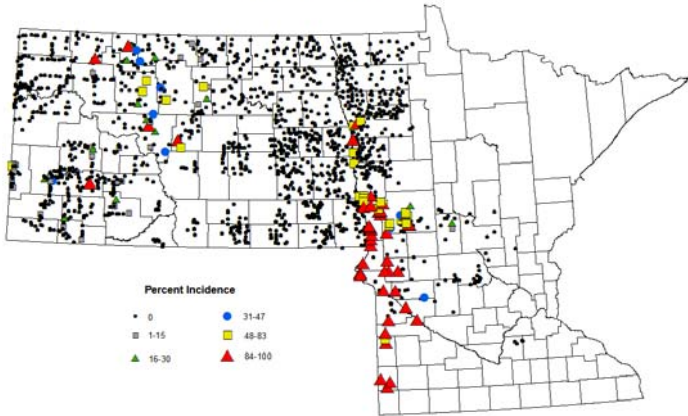
- Percent Incidence
- 0
 - 1-15
 - ▲ 16-30
 - 31-47
 - 48-63
 - ▲ 64-100

Project Funding Provided by:
Minnesota Association of Wheat Growers

Small Grains Crop Survey (continued) — Statewide

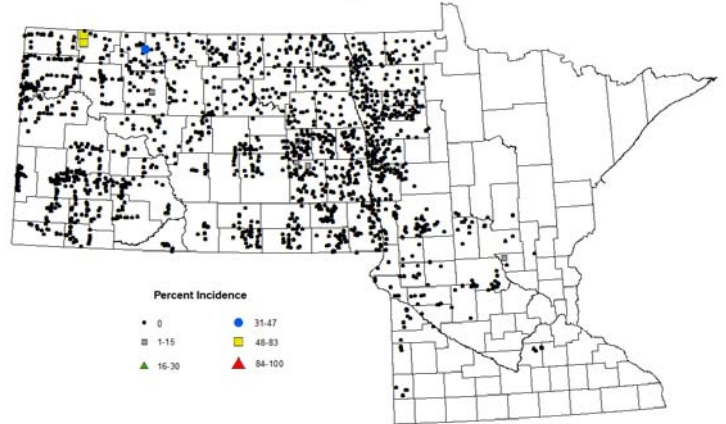
Wheat Bacterial Leaf Blight Incidence

Season Final, 2014



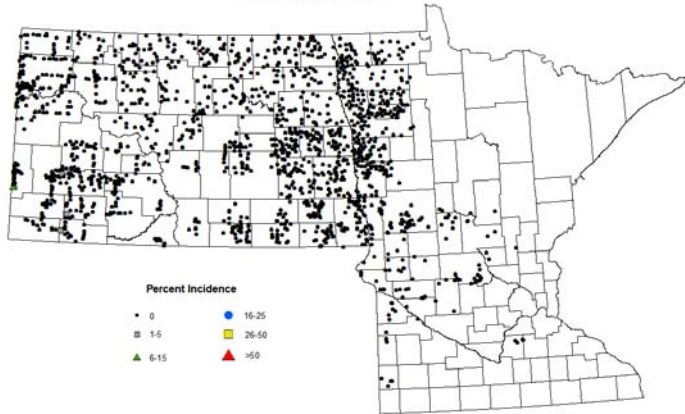
Wheat Streak Mosaic Virus

Season Final, 2014



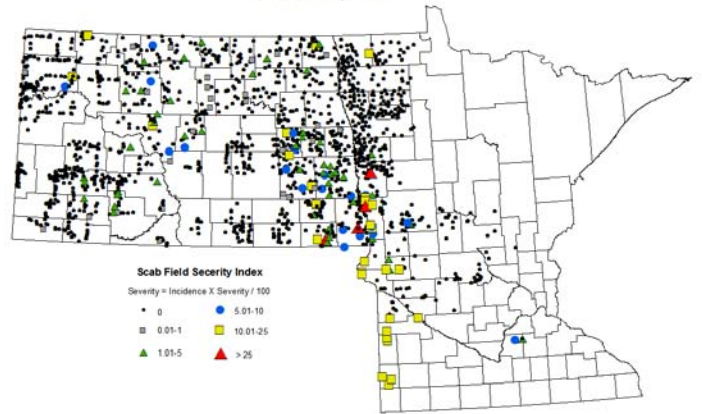
Wheat Stripe Rust Incidence

Season Final, 2014



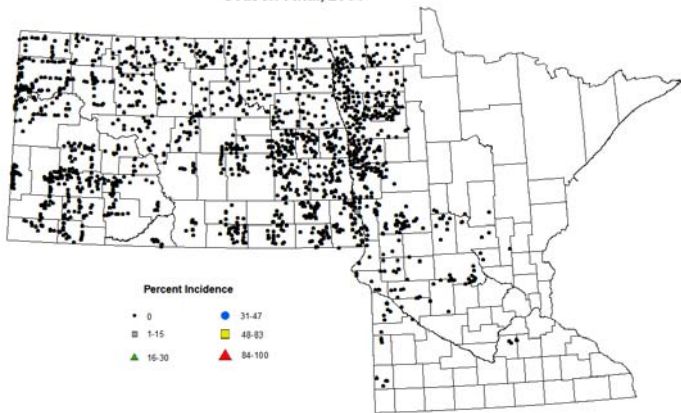
Wheat Scab Field Severity Index

Season Final, 2014



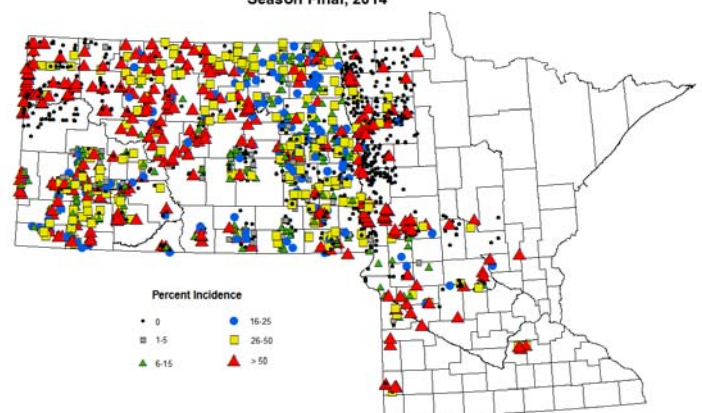
Wheat Stem Rust Incidence

Season Final, 2014



Tan Spot Percent Incidence

Season Final, 2014



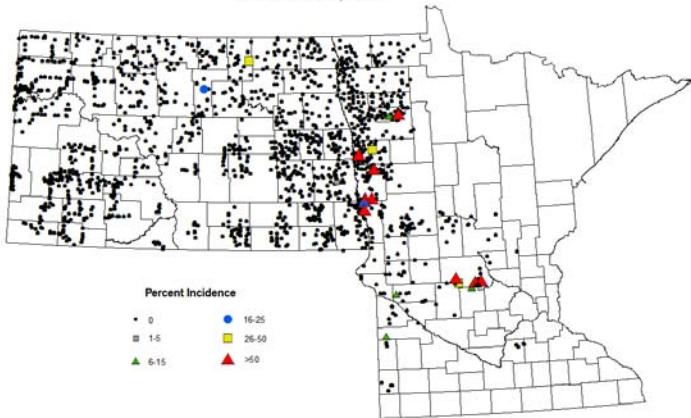
For Additional Information:

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Small Grains Crop Survey (continued)— Statewide

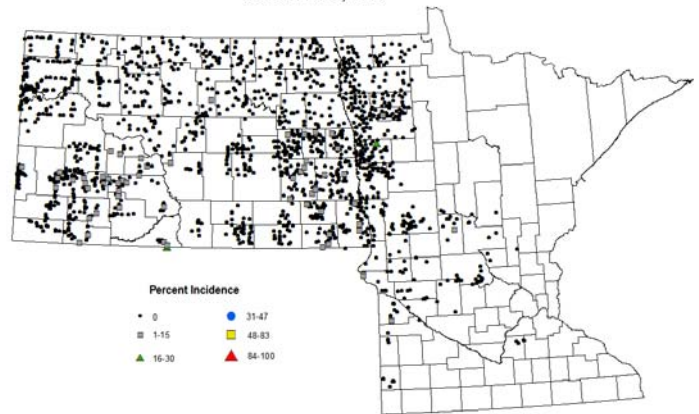
Wheat Leaf Rust Percent Incidence

Season Final, 2014



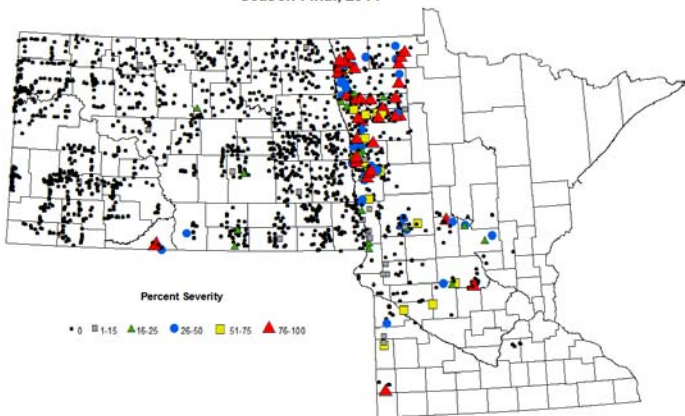
Wheat Ergot Percent Incidence

Season Final, 2014



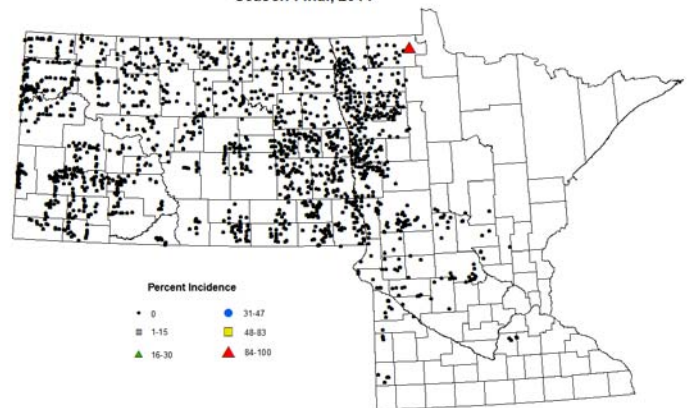
Wheat Septoria SSP Incidence

Season Final, 2014



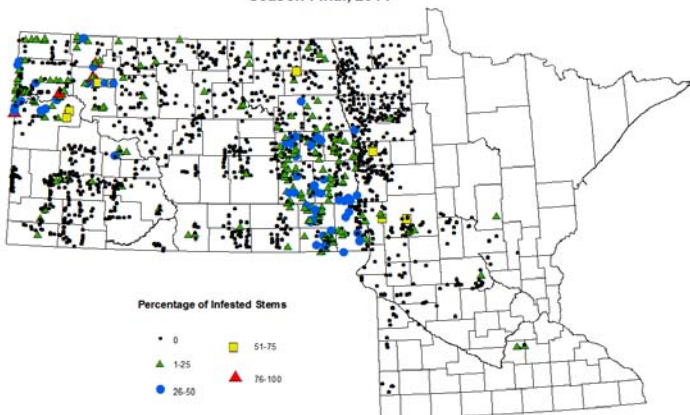
Wheat Powdery Mildew Incidence

Season Final, 2014



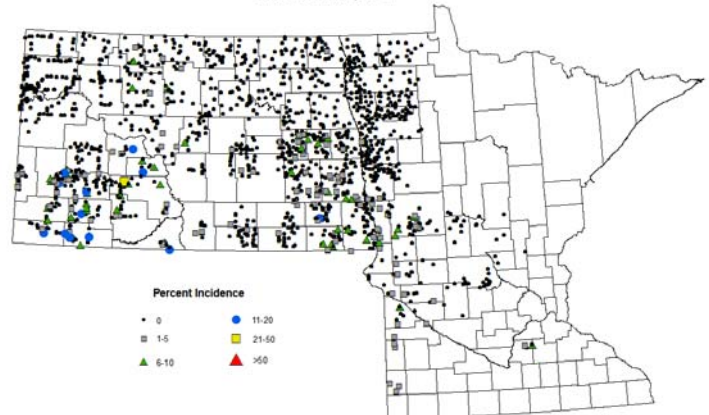
Aphids in Wheat

Season Final, 2014



Wheat Stem Maggot

Season Final, 2014



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