

DATCP 2011 INSECT SURVEYS
& OUTLOOK FOR 2012

Danuel

KRISTA HAMILTON, DATCP

WISCONSIN PEST SURVEY PROGRAM

DATCP PEST SURVEY PROGRAM

- The Wisconsin Pest Survey Program was established in 1915 to:
 - Collect data on economic pests affecting WI crops
 - Detect exotic pests of regulatory significance
 - Support export certification
- All surveyed fields are selected objectively and pest levels are measured using standard sampling methods
- Results are published in the Wisconsin Pest Bulletin

WISCONSIN PEST SURVEY PROGRAM

DATCP PEST SURVEY PROGRAM

Wisconsin PEST BULLETIN

your weekly source for first alerts, weather
and crop pest information for Wisconsin



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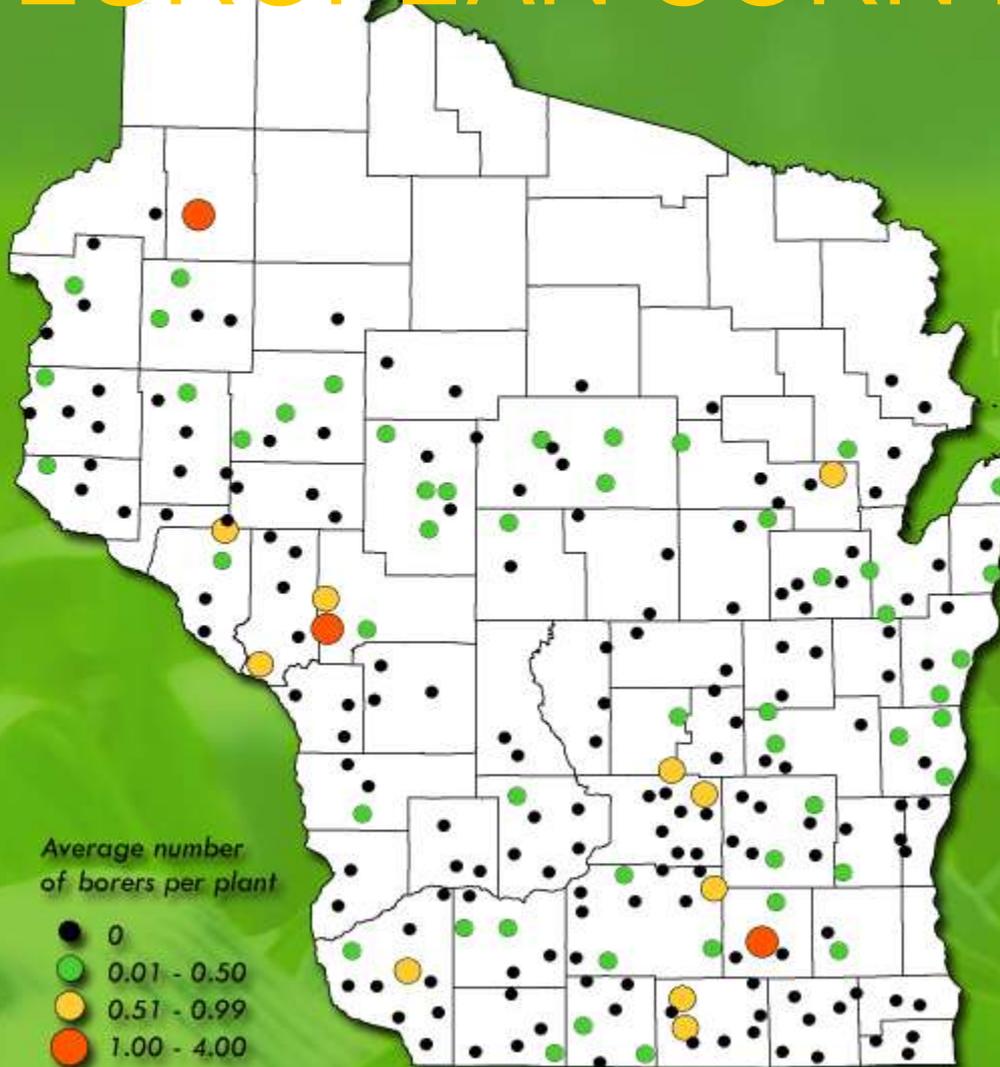
WISCONSIN PEST SURVEY

INSECT SURVEYS 2011



- European corn borer
- Corn rootworm beetle
- Western bean cutworm
- Black cutworm
- Soybean aphid
- Japanese beetle
- Exotic pest ALERT

EUROPEAN CORN BORER SURVEY



- State Ave. No. Borers per Plant:

2011 0.09

2010 0.07

10-year 0.24

50-year 0.45

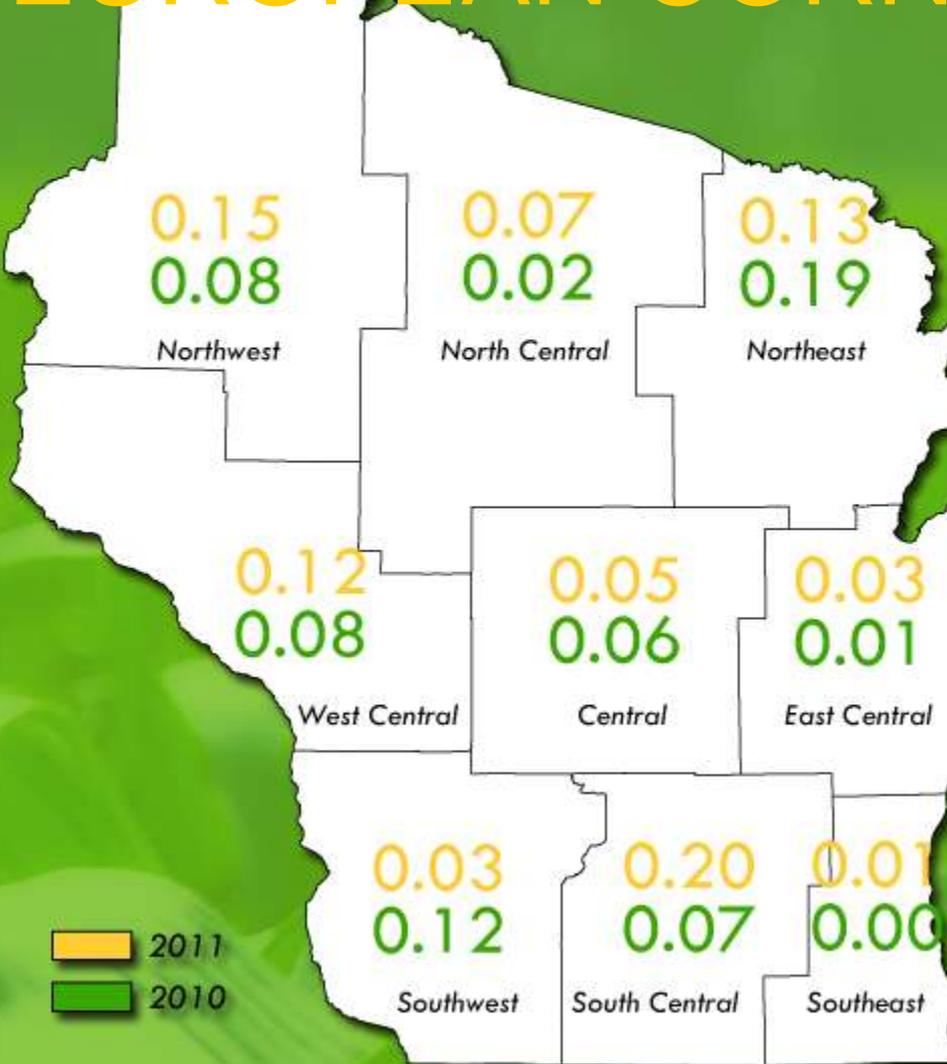
Threshold 1.00

- Fourth lowest fall population since surveys began in 1942

Average number of borers per plant

- 0
- 0.01 - 0.50
- 0.51 - 0.99
- 1.00 - 4.00

EUROPEAN CORN BORER SURVEY



- Minor population increases in the SC, SE, WC, EC, NW and NC districts
- Only 1% of 229 fields had HIGH averages of > 1.0 borer per plant
- 65% of surveyed fields had no larvae or signs of infestation

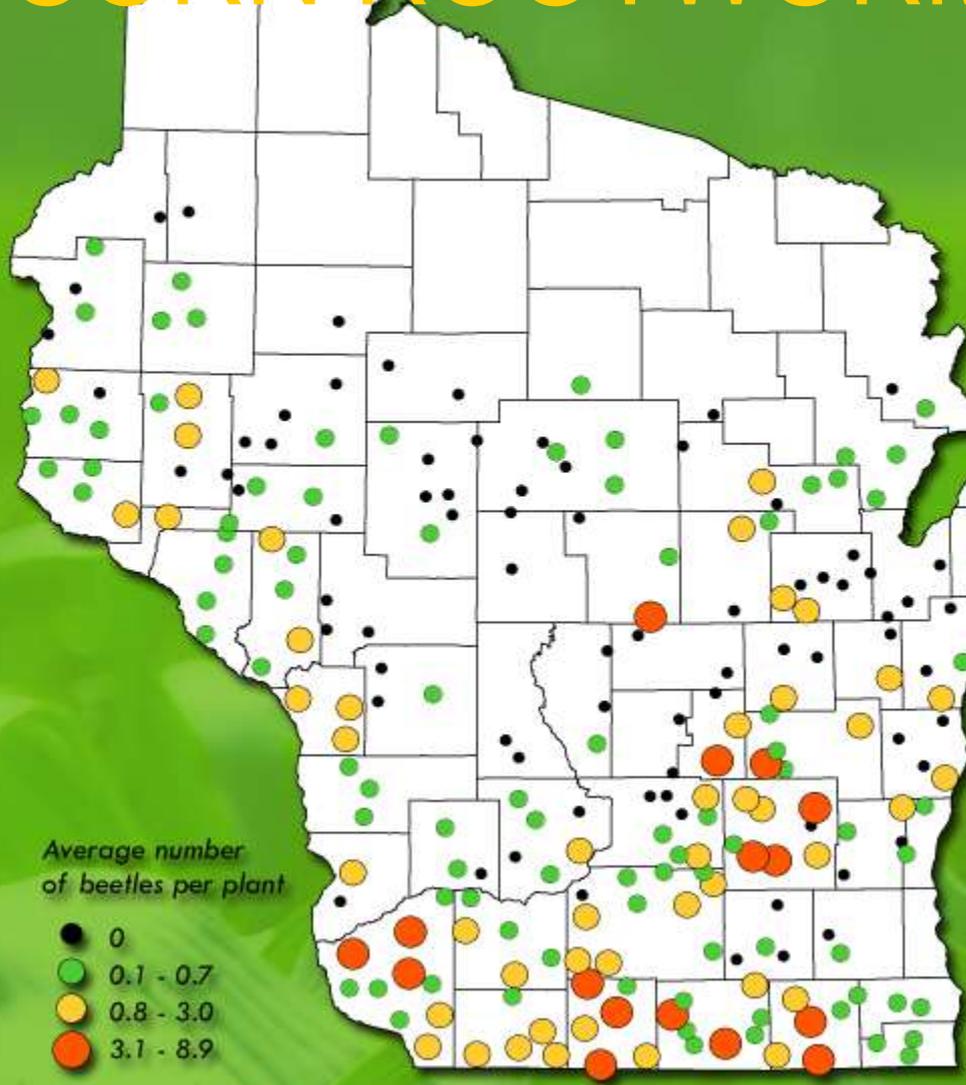
2011
2010

WISCONSIN PEST SURVEY CORN BORER OUTLOOK FOR 2012



- Populations in WI and Midwest are at historically low levels
- Regional suppression of ECB associated with Bt corn use
- Spring flight of moths next May-early June should be very small

CORN ROOTWORM SURVEY



● State Ave. No. Beetles per Plant:

2011 0.70

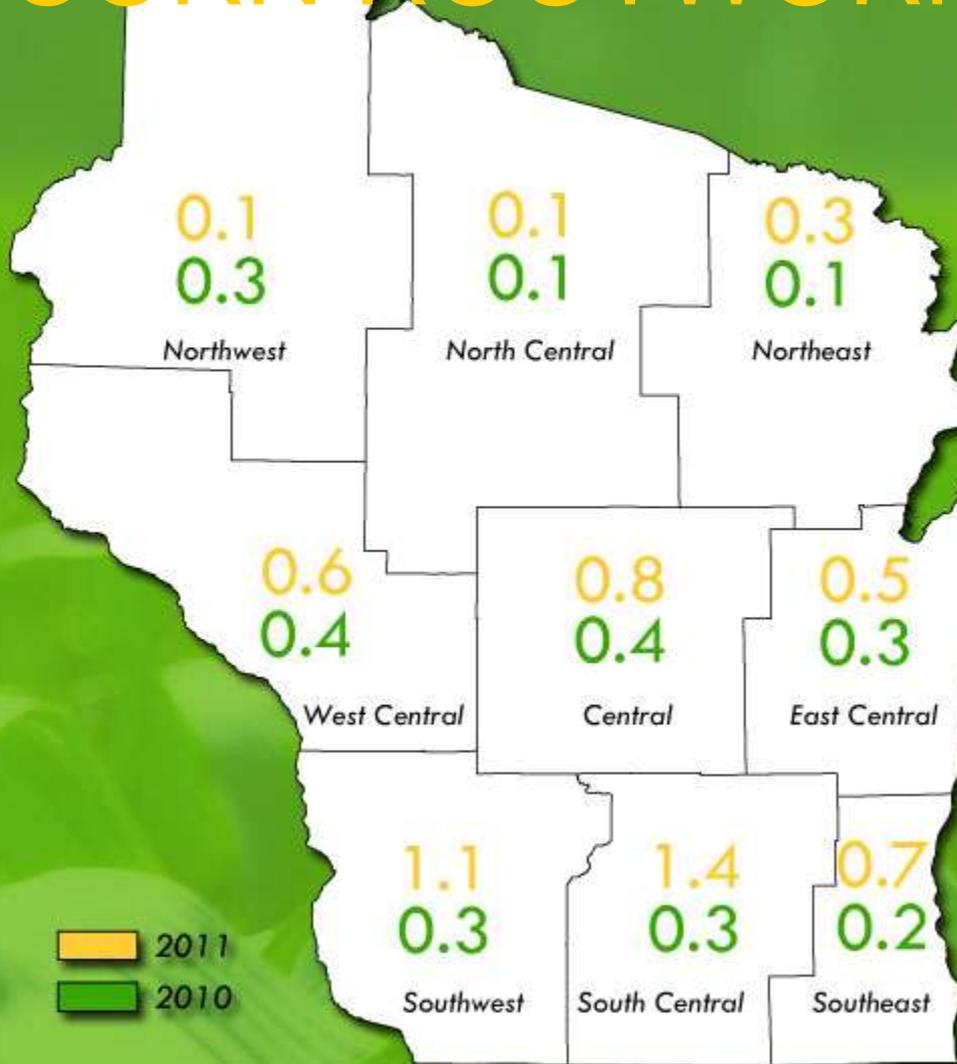
2010 0.30

10-year 0.80

Threshold 0.75

● Beetle populations increased markedly across southern WI

CORN ROOTWORM SURVEY



- Populations increased in all districts, except NORTHWEST
- Largest increases recorded in SC, SW and SE
- A total of 27% of sites had >0.75 beetle per plant compared to only 10% in 2010

CORN ROOTWORM OUTLOOK 2012



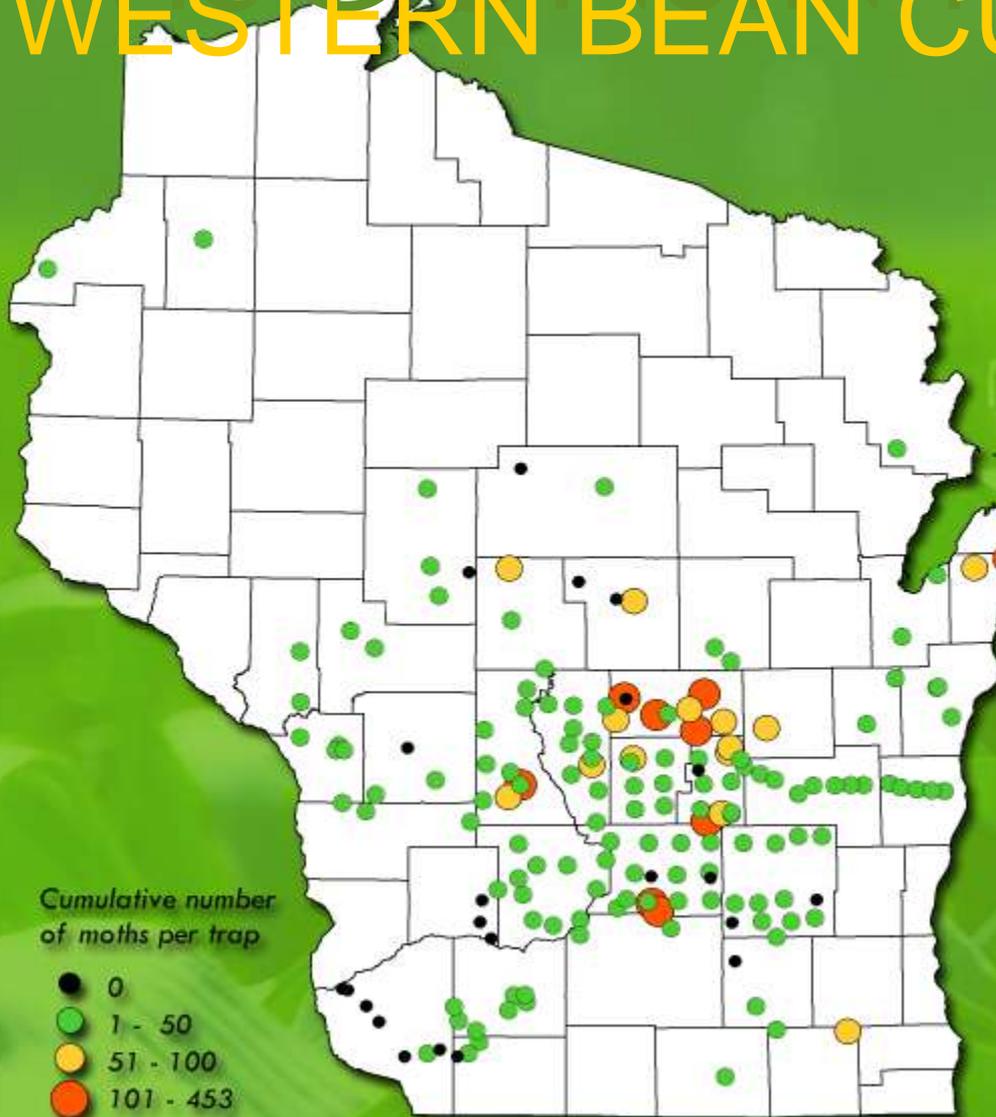
- Beetle counts returned to more “normal” levels in 2011
- Continuous corn in southern and parts of central Wisconsin is at risk of root injury in 2012
- Approx 27% of survey sites at HIGH risk of root injury

CRW RESISTANCE TO Bt CORN

- Fields with resistance to Cry3Bb1 corn reported in Illinois, Iowa, Minnesota, Nebraska and South Dakota (suspected in Wisconsin)
- All problem fields have a production history of at least three years of continuous corn with the Cry3Bb1 protein
- Recommendations:
 - Consider rotating Bt proteins if planting continuous corn
 - Comply with refuge requirements (5-20%)
 - Evaluate corn fields annually for crw pressure
- Crop rotation is still an effective management strategy

WISCONSIN PEST SURVEY

WESTERN BEAN CUTWORM



- State moth count was 55% LOWER than in 2010
 - 4,895 moths in 2011
 - 10,807 moths in 2010
- 175 traps set in 37 counties
- First moth collected June 28
- Average number of moths per trap was 28, compared to 80 per trap in 2010

4,895

2011



10,807

2010



4,928

2009



2,433

2008



2,178

2007



1,741

2006



WISCONSIN PEST SURVEY

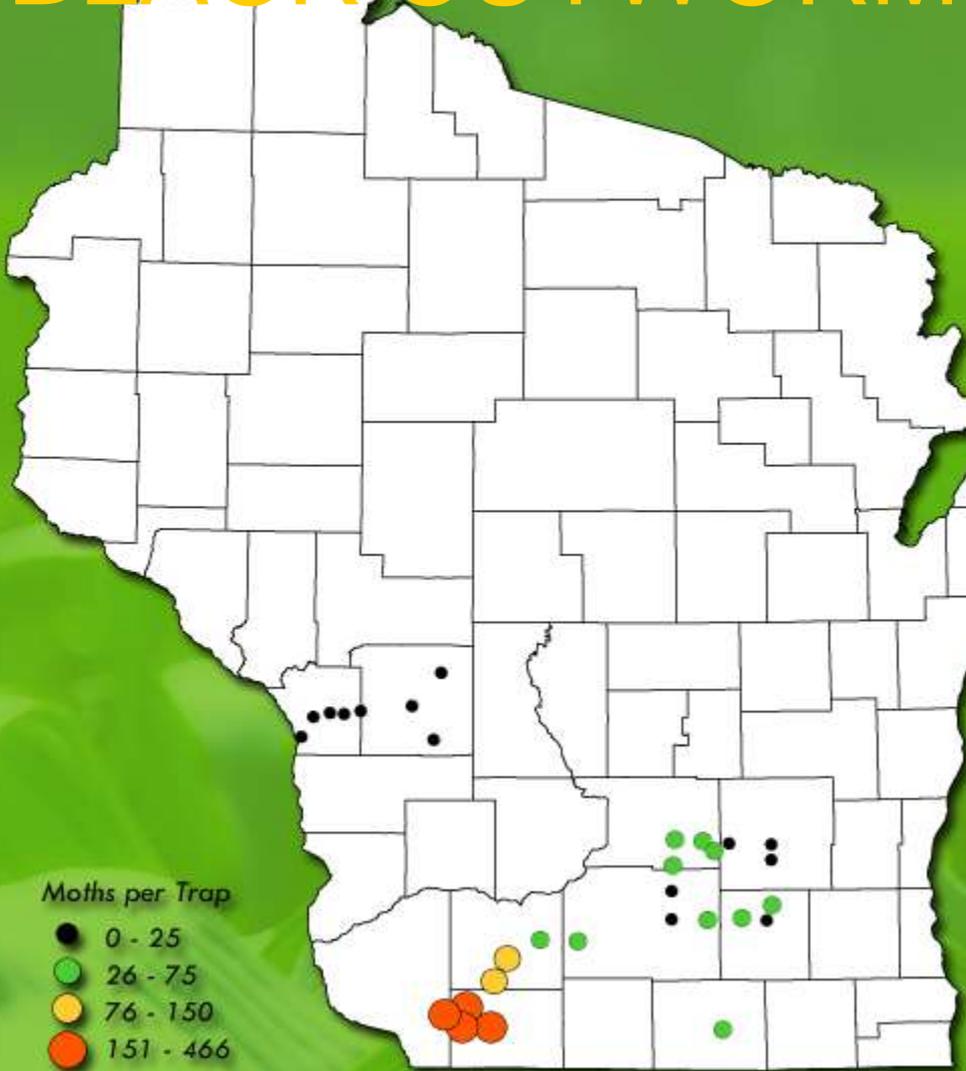
WBCW OUTLOOK FOR 2012



- Will moth counts and infestations increase or decrease?
- WBCW is a consistent problem in Adams, Columbia, Green Lake, Marquette, Waushara, etc.
- Only corn hybrids with the Bt protein Cry1F control WBCW
- Begin scouting at 1,320 gdd

WISCONSIN PEST SURVEY

BLACK CUTWORM



- Delayed planting, late weed control and largest moth migration in 10 years resulted in bcw problems in 2011
- Localized infestations developed by early June in Dane, Dodge, Jefferson, La Crosse, Vernon counties
- 2,090 moths in 30 traps from April 1-May 31

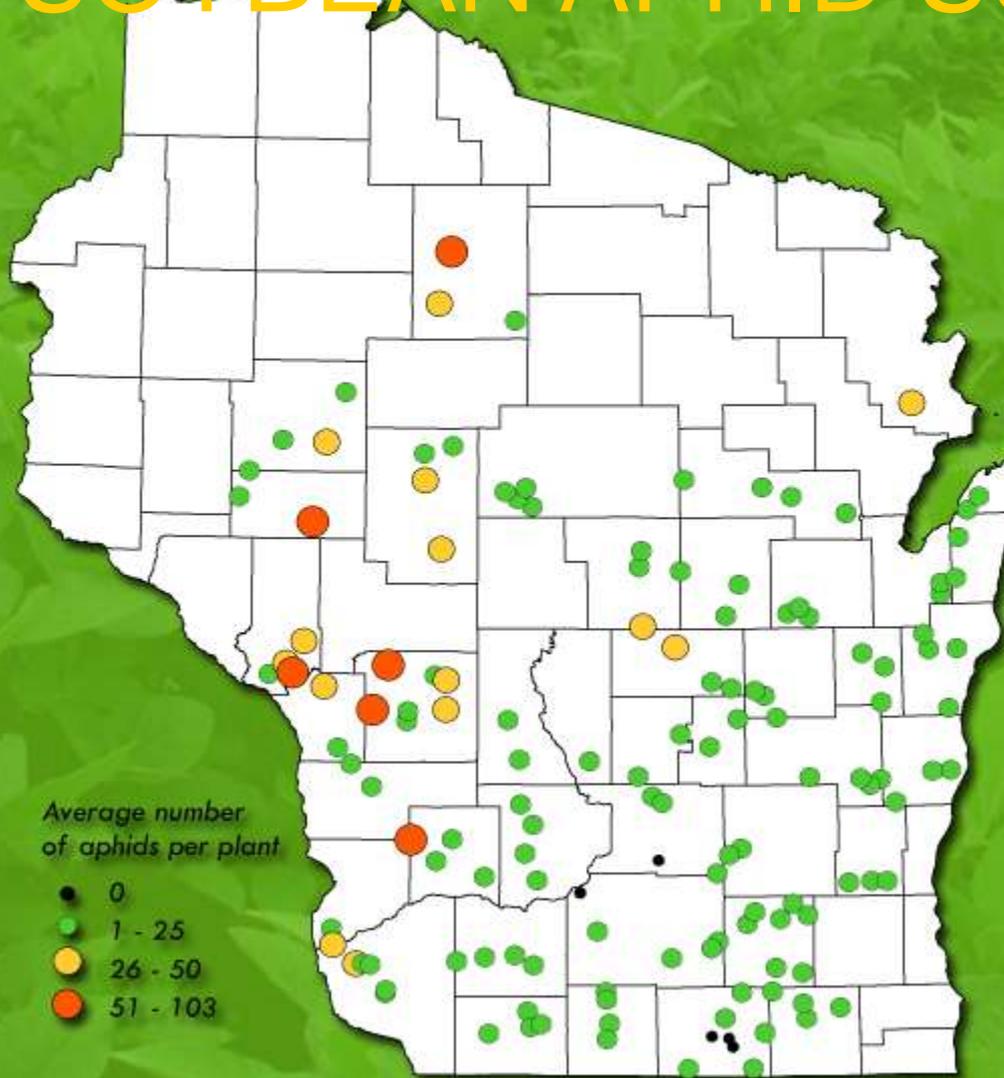
BCW OUTLOOK FOR 2012



- Risk of outbreaks depends on size and timing of spring moth migration
- Reduced and no-till systems with winter annual weed cover, during peak BCW egg laying, have highest potential for infestation
- Follow WPB migration reports and scout fields from VE-V5

WISCONSIN PEST SURVEY

SOYBEAN APHID SURVEY



- Densities were very low in 2011
- State Ave. No. Aphids per Plant:

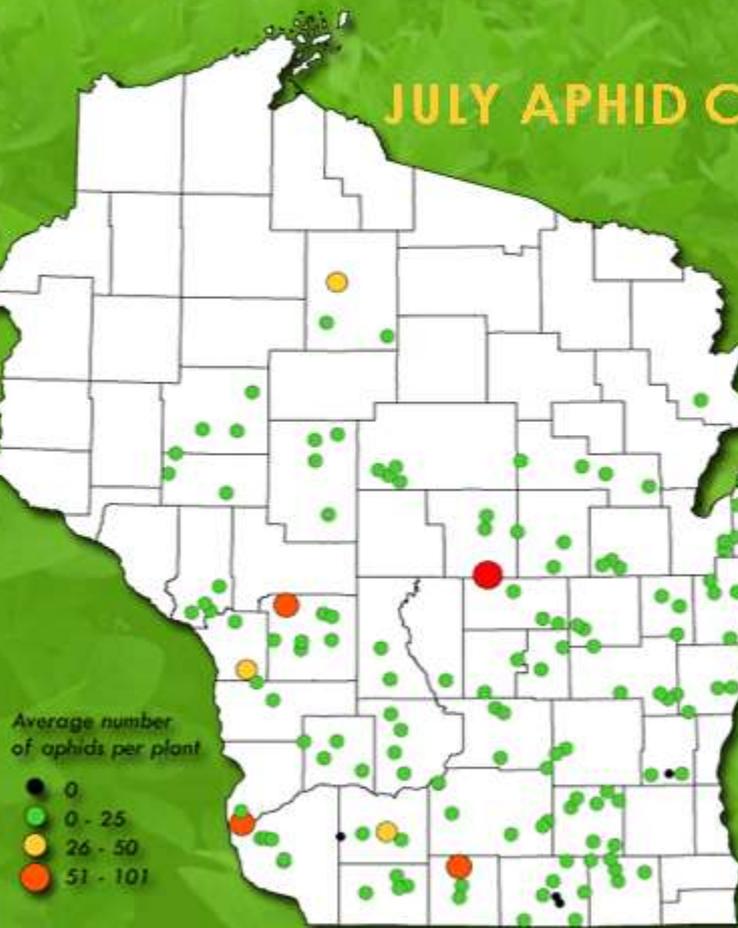
2011	12	2007	164
2010	16	2006	69
2009	53	2005	118
2008	70	2004	11
		2003	758

- 142 soybean fields surveyed
- Only 1 field had >250 aphids per plant. All other counts were <103 per plant

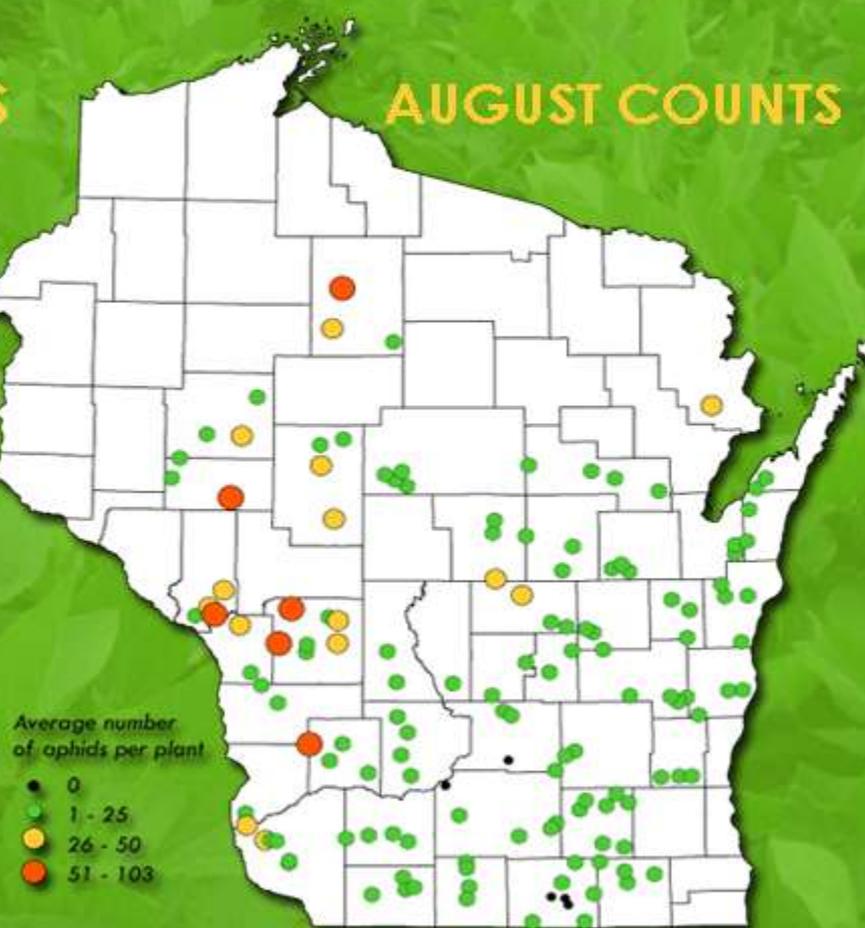
WISCONSIN PEST SURVEY

SOYBEAN APHID SURVEY

JULY APHID COUNTS



AUGUST COUNTS



WISCONSIN PEST SURVEY

SOYBEAN APHID OUTLOOK 2012



- Early indications are for higher aphid levels in 2012
- Aphids not following typical two-year cycle
- Establishment on buckthorn was very good last fall
- Higher populations likely for 2012, but outbreak potential is uncertain

WISCONSIN PEST SURVEY

JAPANESE BEETLE 2011



- Populations higher than normal in 2011 in the SE, SC and NW areas
- Controls applied to many fields during first two weeks in August
- Economic thresholds based on percent defoliation and stage of soybean development:
 - 30% prior to bloom
 - 20% pod formation-pod fill

WISCONSIN PEST SURVEY

EXOTIC SOYBEAN PEST ALERT



BROWN MARMORATED
STINK BUG



BEAN PLATASPID
KUDZU BUG

WISCONSIN PEST SURVEY

BROWN MARMORATED STINK BUG



- First detected in Allentown, PA in 1998, now occurs in 34 states
- “Hitchhikers” found in Dane, Jefferson and Manitowoc Cos, since 2010, but no established population yet
- BMSB is a fruit and seed feeder with a wide host range (includes corn)
- Household nuisance pest in fall

WISCONSIN PEST SURVEY

BEAN PLATASPID or KUDZU BUG



- First detected near Atlanta, GA in 2009 (native to East Asia)
- Rapidly spreading across southeastern US and now occurs in most of GA, NC, all of SC, and several counties in AL
- Host plants are kudzu, soybean and other legumes (attacks stems and petioles, not pods or leaves)
- Also a fall nuisance pest

WISCONSIN PEST SURVEY

EXOTIC SOYBEAN PEST ALERT



REPORT SUSPECTS TO WI PEST HOTLINE 1-866-440-7523
OR KRISTA.HAMILTON@WI.GOV

WISCONSIN PEST SURVEY

DATCP PEST SURVEY PROGRAM



COOPERATORS NEEDED FOR
THE FOLLOWING SURVEYS:

- Soybean aphid
- Western bean cutworm
- Corn earworm
- Black cutworm

1-866-440-7523

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WISCONSIN PEST SURVEY

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