datcp

# PEST SURVEY

progra

m

## 2014 INSECT SURVEYS AND OUTLOOK FOR 2015

KRISTA HAMILTON, DATCP ENTOMOLOGIST

# DATCP PEST SURVEY PROGRAM

- The Pest Survey was established in 1915 to:
  - Collect data on economic pests of WI crops
  - Detect exotic pests of regulatory significance
  - Support export certification
- Surveys are conducted in the major agronomic crops and specialty crops
- DATCP specialists sample thousands of fields annually and receive pest data from over 60 trained cooperators

Volume 57 No. 02 April 19, 2012

# WISCONSIN PEST BULLETIN

Timely crop pest news, forecasts, and growing season conditions for Wisconsin

STATE OF WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION PLANT INDUSTRY BUREAU
2811 Agriculture Dr. Madison, WI 53718 • http://pestbulletin.wisconsin.gov

## WEATHER & PESTS

Erratic weather characterized by blustery winds, occasional rainfall, and brief periods of sunshine prevailed in the past week. Temperatures varied widely from the low 20s to the high 70s. A low pressure system centered over the state on Monday generated scattered light rain in the east and a mixture of rain and snow in the northwest. Portions of southern and western Wisconsin were under a wind advisory during the day. In Ashland, Bayfield and Washburn counties, some locations recorded snowfall totals of 1.4-3.0 inches on April 16. High pressure brought mostly sunny skies and light winds to the state on Tuesday before rain showers returned on Wednesday and Thursday. Meanwhile, the state's fruit growers continued to monitor the effects of April freezes on early-blooming fruits and other temperature-sensitive plants, while row crop producers were cultivating and applying fertilizer before planting this year's crops. Intermittent precipitation during the week disrupted fieldwork but provided much-needed moisture after a drier-than-normal winter and early spring.

## LOOKING AHEAD

ALFALFA WEEVIL: Many alfalfa fields still have no detectable larval population. The average number collected in the last reporting period was 3 per 50 sweeps, although an exceptional field near Darlington in Lafayette County contained 18 per 50 sweeps. Surveys for larvae in La Crosse, Monroe and Vernon counties were negative. Close inspection of fields for small larvae and leaf tip feeding should begin next week.

BLACK CUTWORM: The primary damage period is expected to begin by May 15, or 300 degree days after the first significant migration event on April 1. Near Janesville in Rock County, 101 degree days (base 50°F) have accumulated since the first major flight was documented. Routine scouting will be required from corn emergence until the 5-leaf stage (V5).

PLUM CURCULIO: Migration into apple orchards has started. The first overwintered adults were observed on perimeter trees in southern Wisconsin orchards last week. Signs of infestation should become evident in early-blooming varieties in the 14 days after petal fall.

EUROPEAN CORN BORER: The first spring moths could appear in black light trap collections in the week ahead. The degree day accumulation at Beloit, Lone Rock and Platteville is expected to surpass the 374 (base 50°F) standard at which corn borer flight begins over the weekend. Black light trappers are advised to carefully examine trap contents during the next two weeks for early moths.

EMERALD ASH BORER: Preventive treatment of ash trees should be initiated at this time. Optimal timing for soil injections and drenches is between mid-April and mid-

November 21, 2013

AINS

The first distinct migration of
14-20 and leafhoppers were
e southern two-thirds of the
phs appeared in second crop
ys found low to moderate
with representative counts
low 1.9 per sweep statewide.
more leafhoppers per sweep
ny alfalfa field sampled this
enerally not required.

were collected for the first time
y on May 13, more than one
Development accelerated in
alent by early June. Persist-
d competing corn and soy-
layed the first alfalfa harvest
nounced in some fields.
-13 at 5-10 larvae per sweep.
e second crop was common
ubsided by early July as

This fungal vascular wilt
e wheat field in Calumet
the second confirmed
cted sample was collected
d wheat disease surveys.
st documented in the state
. The recent detections
ce the disease is wide-
in parts of Canada.

val surveys in the fall of
opulation in 72 years,
t state average recorded
0.03 per plant last year.
2012 were charted in
utheast, northwest and
, and decreases occur-
ast areas (see table on
e central and east-
ged at 0.01 borer per
lants. Only 18% of the

July 18, 2013

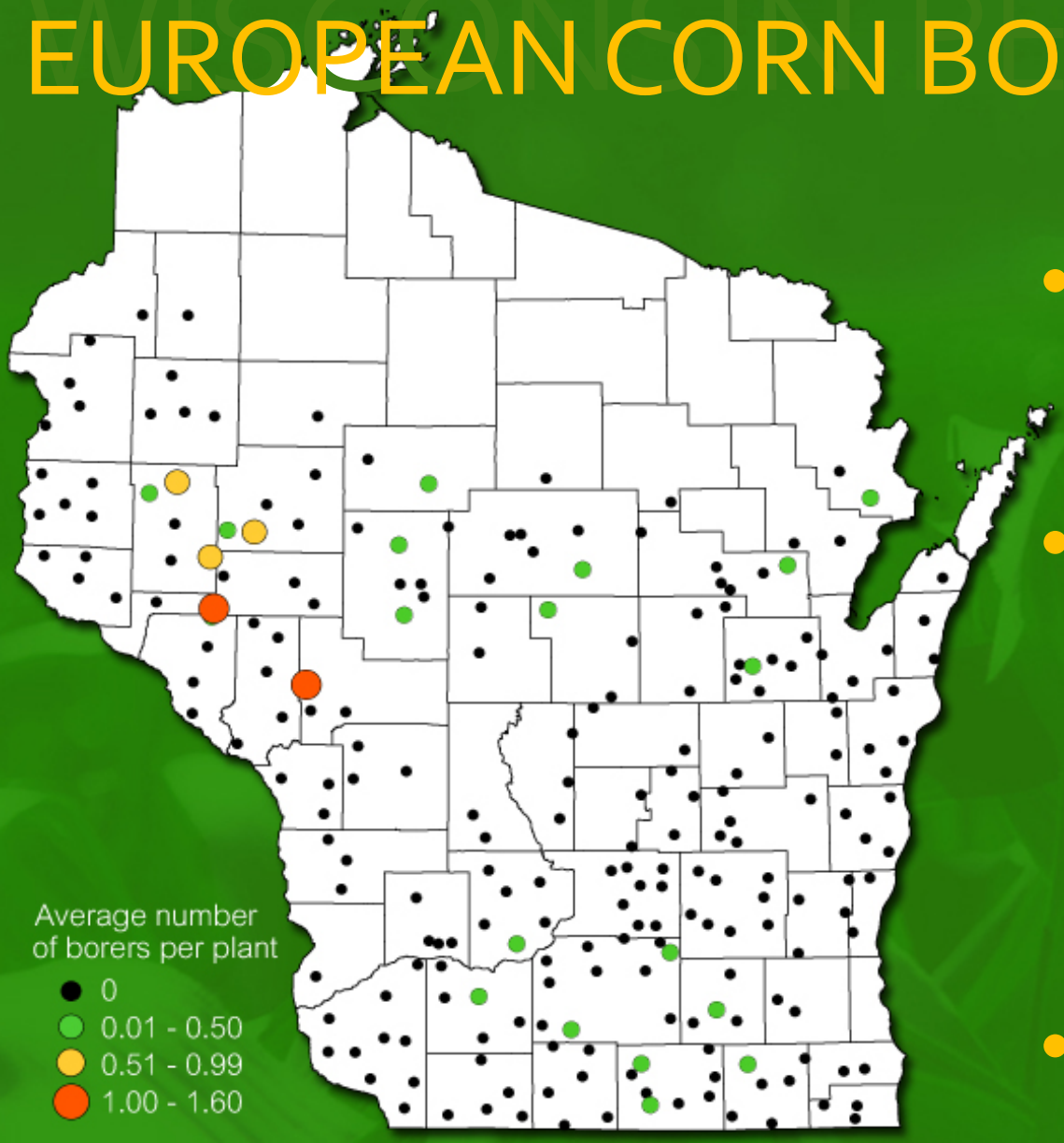
**Subscribe here: http://pestbulletin.wi.gov/**

# INSECT SURVEYS 2014

- European corn borer
- Corn rootworm beetle
- Western bean cutworm
- Black cutworm
- Soybean aphid

# EUROPEAN CORN BORER

# EUROPEAN CORN BORER SURVEY

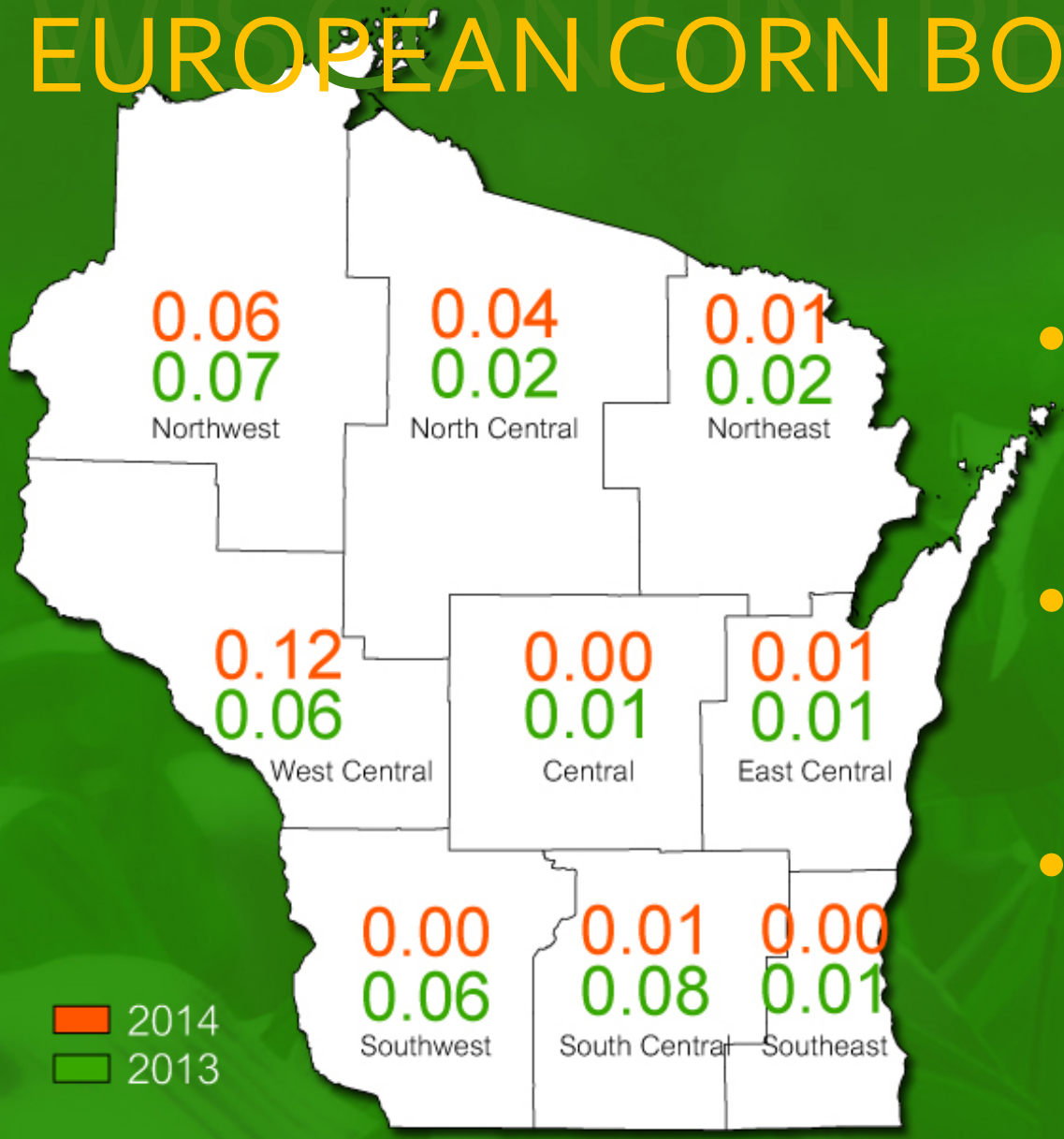



- ECB population tied 1998 as the lowest average in the last 73 years
- Ave. Borers per Plant:

| | |
|---|---|
| 2014 | 0.03 |
| 2013 | 0.04 |
| 10-year | 0.13 |
| 50-year | 0.40 |
| Threshold | 1.00 |

- 84% of surveyed fields had no signs of ECB larvae

# EUROPEAN CORN BORER SURVEY



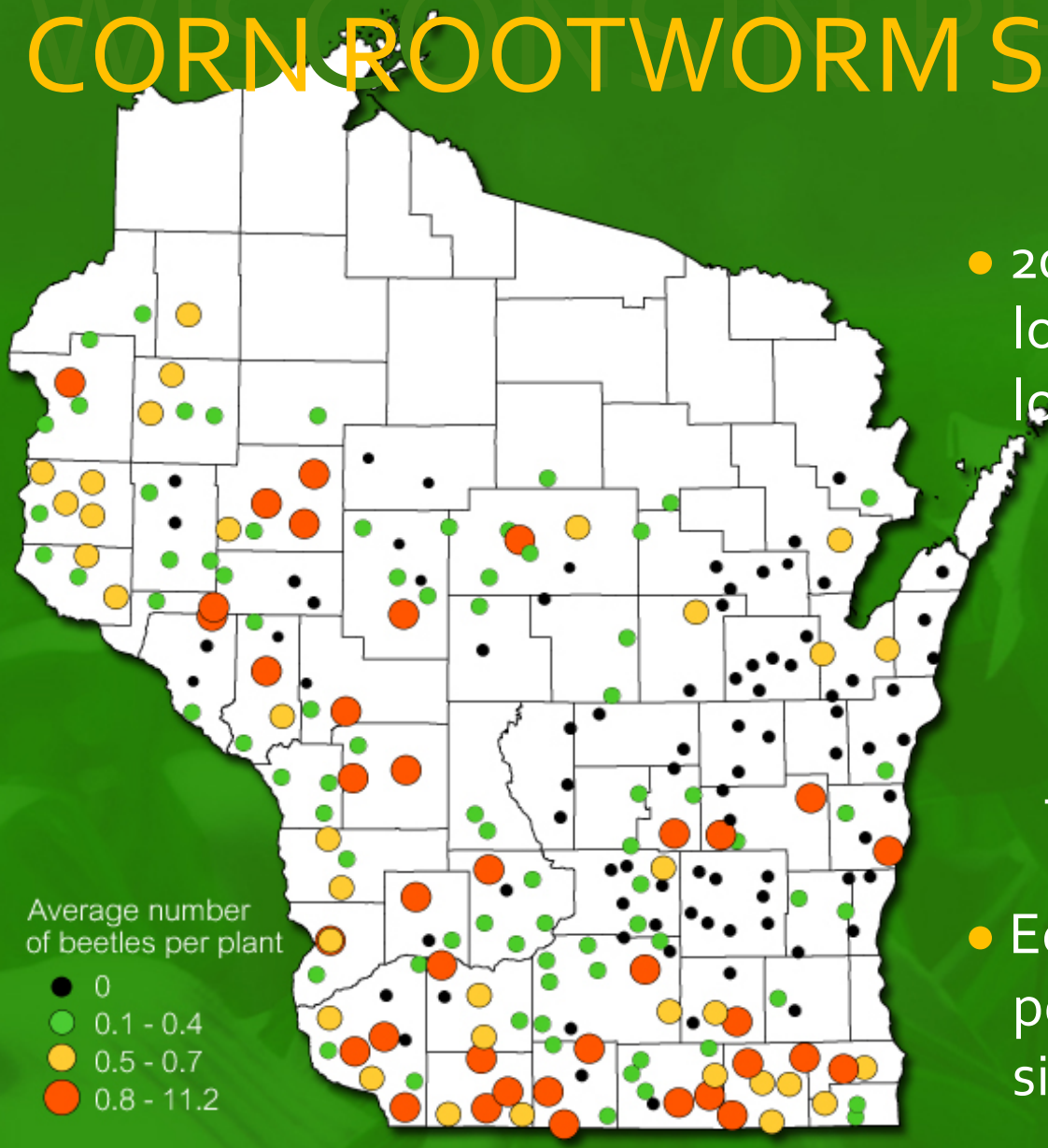

- Six of the nine crop districts had averages of 0.01 borer per plant or lower!
- Minor population increases in the WC and NC crop districts
- Some of the lowest averages documented in the last 73 years!

# CORN BORER OUTLOOK FOR 2015

- Populations in WI and Midwest remain historically low
- Spring flight of moths next May-early June should again be very small

# CORN ROOTWORM BEETLE

# CORN ROOTWORM SURVEY




- 2014 state average is the lowest since 2010 and 2nd lowest in survey's history

  2014: 0.4 beetle per plant

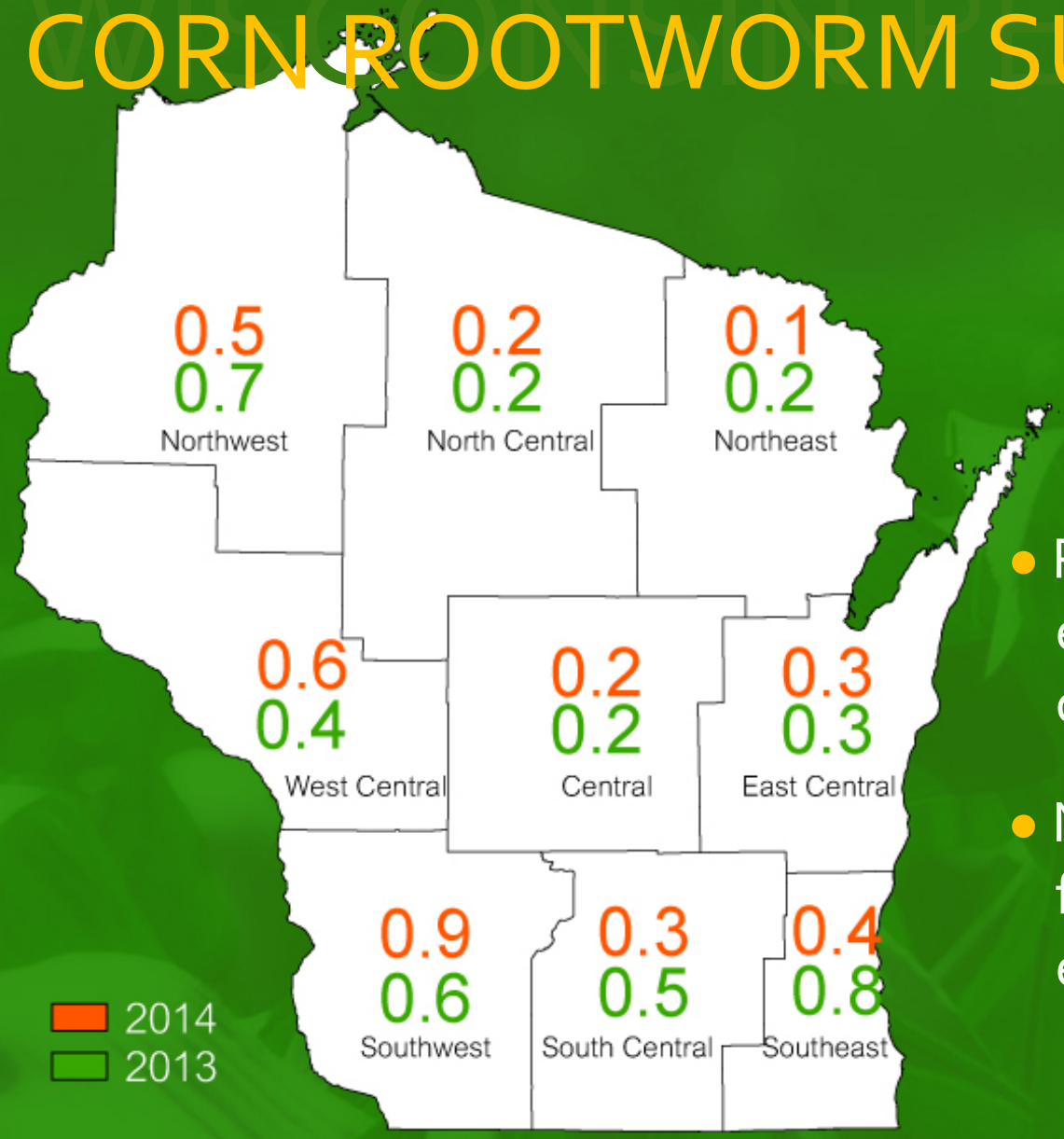
  2013: 0.5 beetle per plant

  10-year: 0.7 per plant

  Threshold: 0.75 per plant

- Economic counts >0.75 beetle per plant found at 16% of 229 sites compared to 17% in 2013

# CORN ROOTWORM SURVEY



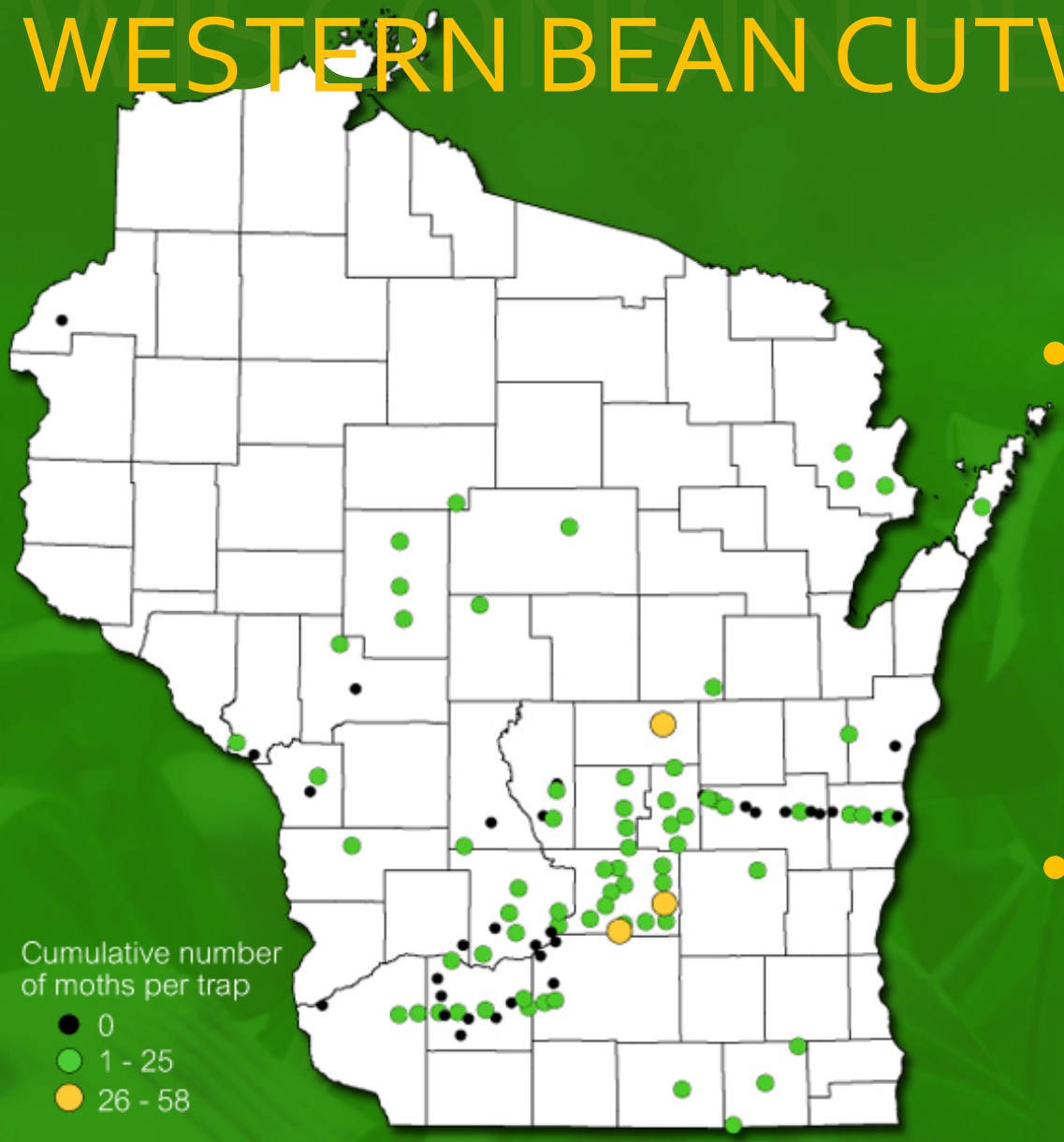

- Populations decreased in east and increased in parts of western WI
- Non-economic averages found in all crop districts except SW

# CORN ROOTWORM OUTLOOK 2015

- Lower beetle counts in 2014 may indicate lower root damage potential for 2015
- Continuous corn in parts of southern and western WI at risk of crw injury next season
- Recommendations:
  - Rotate out of corn
  - Use a new Bt trait
  - Scout your fields!

# WESTERN BEAN CUTWORM

# WESTERN BEAN CUTWORM



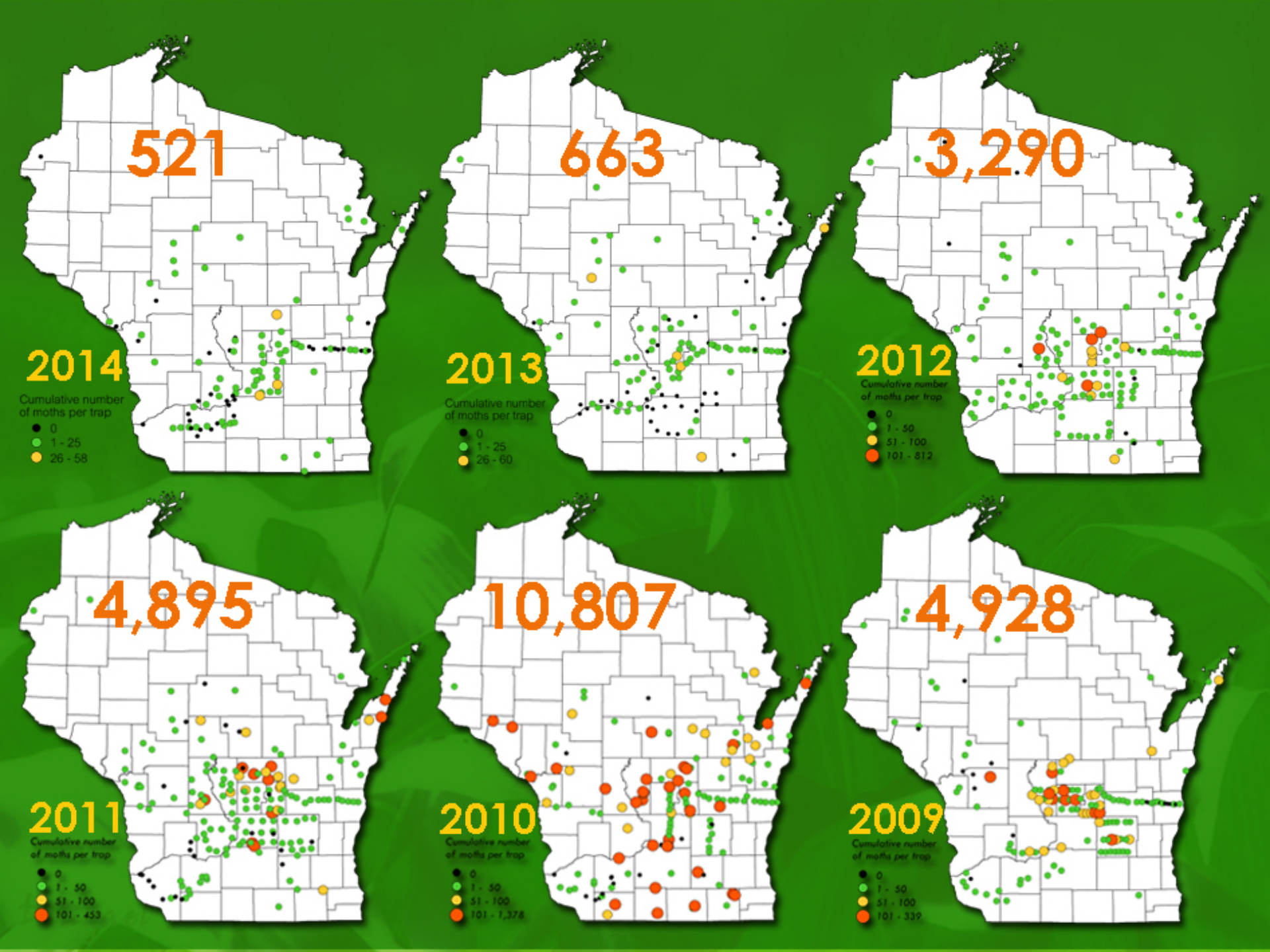

- Moth counts declined to 10-year low in 2014

  2014: 521 moths (5 per trap)

  2013: 663 moths (6 per trap)

  2010: 10,807 (79 per trap)

- Highest individual trap count was only 58 moths in Waushara County


521
2014
Cumulative number of moths per trap
0
1 - 25
26 - 58
663
2013
Cumulative number of moths per trap
0
1 - 25
26 - 60
3,290
2012
Cumulative number of moths per trap
0
1 - 50
51 - 100
101 - 812
4,895
2011
Cumulative number of moths per trap
0
1 - 50
51 - 100
101 - 453
10,807
2010
Cumulative number of moths per trap
0
1 - 50
51 - 100
101 - 1,378
4,928
2009
Cumulative number of moths per trap
0
1 - 50
51 - 100
101 - 339

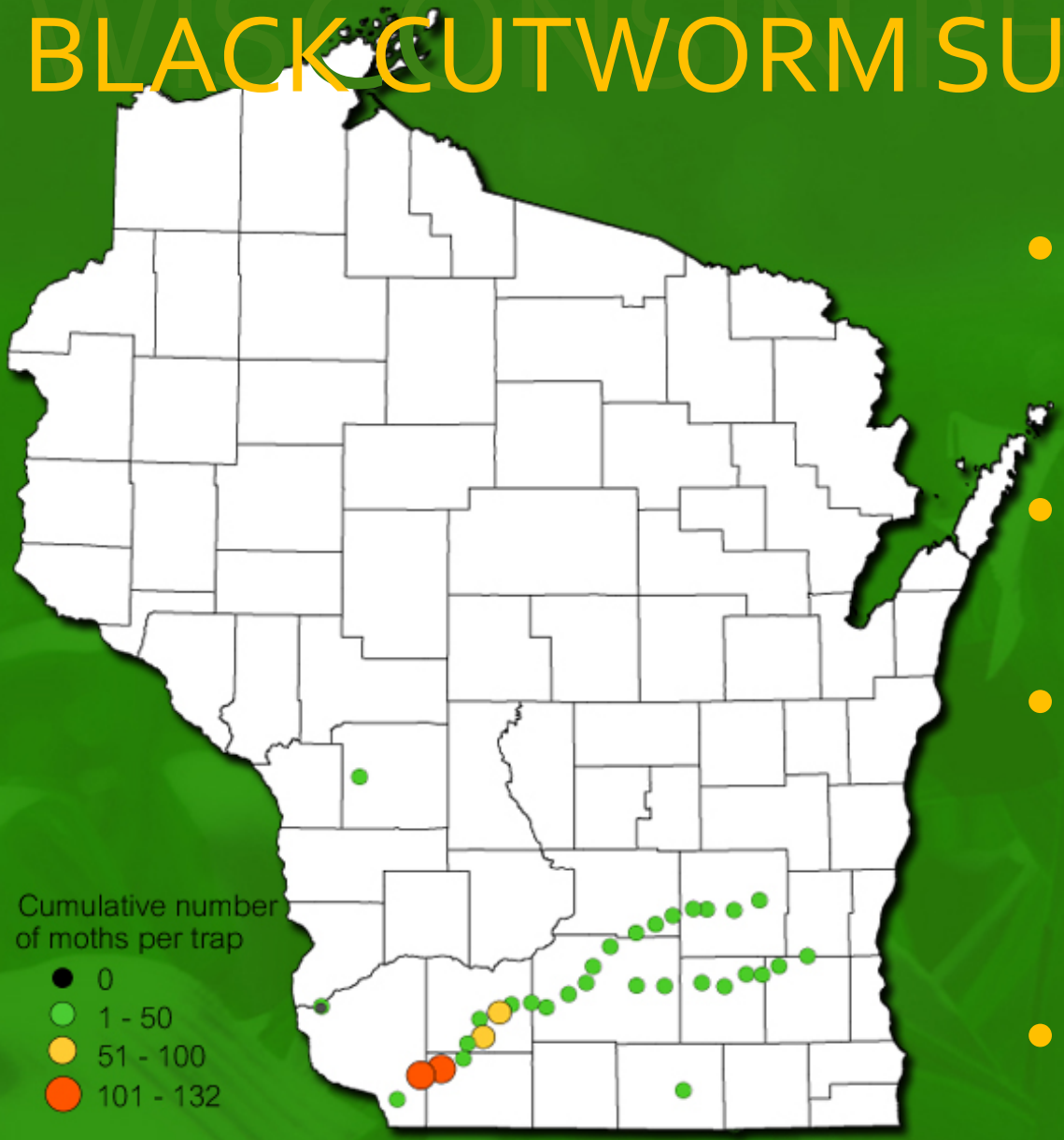
# WBCW OUTLOOK FOR 2015

- Scouting for egg masses and small larvae at 1,320 gdd is recommended
- Know your Bt hybrid. Cry1F trait performs inconsistently under heavy wbcw pressure

# BLACK CUTWORM

Roger Schmidt UW-Madison

# BLACK CUTWORM SURVEY



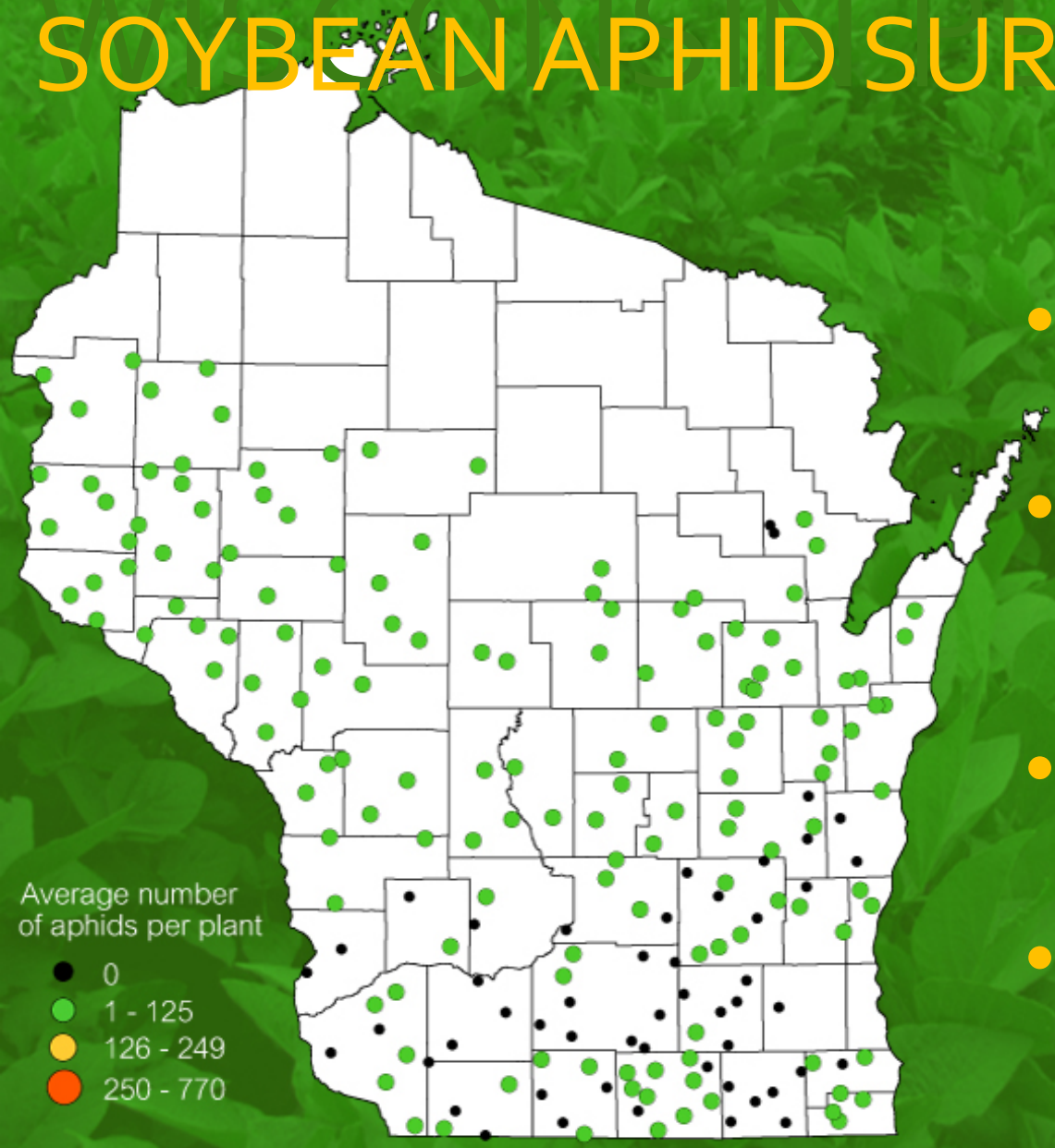

- 34 pheromone traps monitored from March 31-June 1
- 1,068 moths captured in 2014 (average 31 per trap)
- 2014 flight was MODERATE in comparison to previous flights (19 per trap in 2013 and 84 per trap in 2012)
- Economic bcw damage not observed in 2014

# BLACK CUTWORM OUTLOOK 2015

- Risk of outbreaks influenced by size and timing of spring moth migration
- Reduced and no-till systems with winter annual weed cover, during peak BCW egg laying, at highest risk of infestation
- Follow WPB migration reports and scout fields from VE-V5

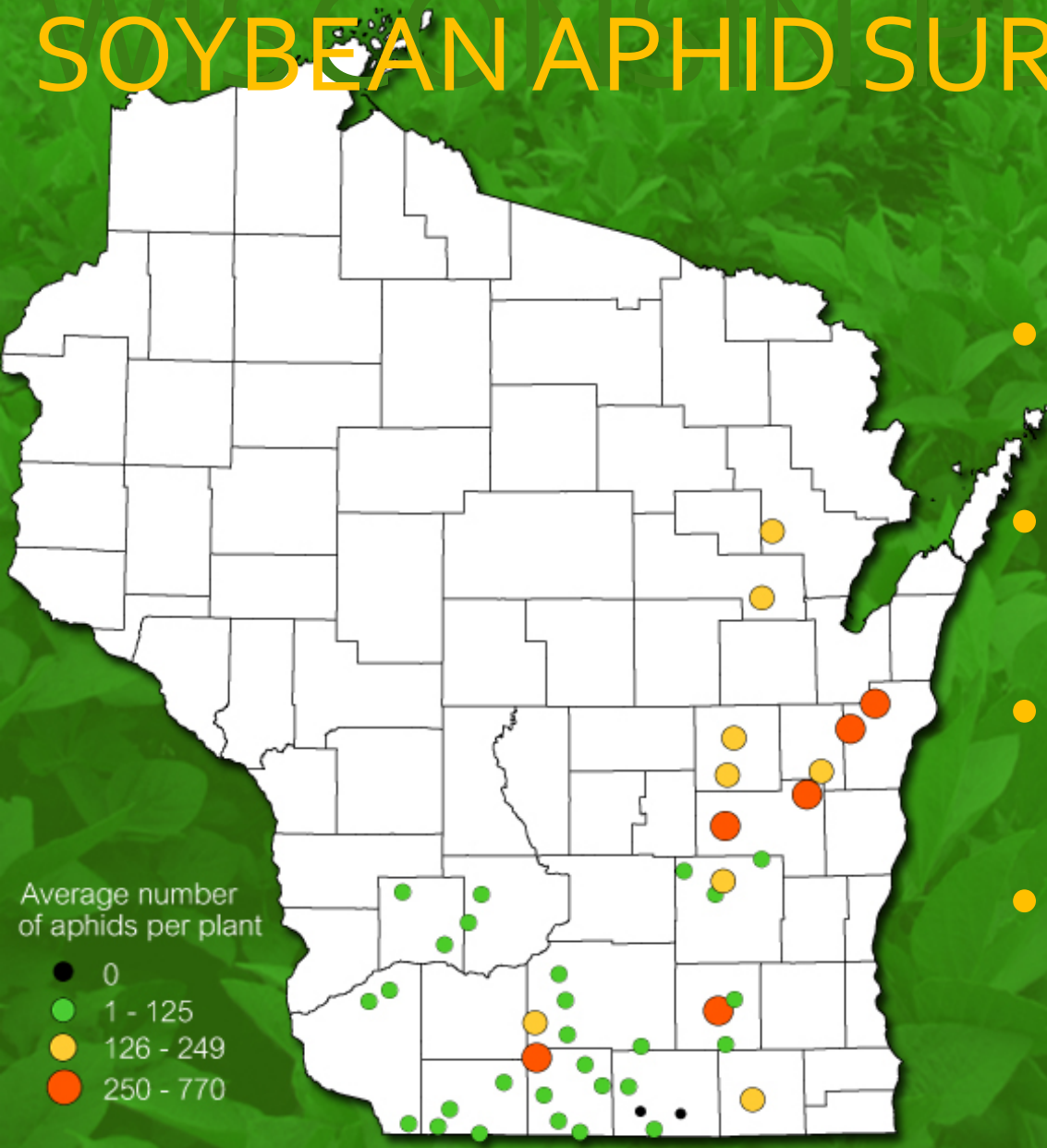
# SOYBEAN APHID

# SOYBEAN APHID SURVEY - JULY




- 196 soybean fields sampled from July 14-August 11
- Densities remained very low in July at less than 5 aphids per plant
- 97% of sites had fewer than 25 aphids per plant
- Highest average was 93 aphids per plant

# SOYBEAN APHID SURVEY - AUGUST




- 43 soybean fields resampled from August 18-28
- Average density in August increased to 118 per plant
- 14% of sites had averages ≥250 aphids per plant
- Highest average was 770 aphids per plant

# SOYBEAN APHID OUTLOOK 2015

- Early indications are for higher densities in 2015, if aphids follow typical two-year cycle
- Fall 2014 suction trap counts suggest a larger aphid migration to buckthorn than in 2013

Volume 57 No. 02 April 19, 2012

# WISCONSIN PEST BULLETIN

Timely crop pest news, forecasts, and growing season conditions for Wisconsin

STATE OF WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION PLANT INDUSTRY BUREAU
2811 Agriculture Dr. Madison, WI 53718 • http://pestbulletin.wisconsin.gov

## WEATHER & PESTS

Erratic weather characterized by blustery winds, occasional rainfall, and brief periods of sunshine prevailed in the past week. Temperatures varied widely from the low 20s to the high 70s. A low pressure system centered over the state on Monday generated scattered light rain in the east and a mixture of rain and snow in the northwest. Portions of southern and western Wisconsin were under a wind advisory during the day. In Ashland, Bayfield and Washburn counties, some locations recorded snowfall totals of 1.4-3.0 inches on April 16. High pressure brought mostly sunny skies and light winds to the state on Tuesday before rain showers returned on Wednesday and Thursday. Meanwhile, the state's fruit growers continued to monitor the effects of April freezes on early-blooming fruits and other temperature-sensitive plants, while row crop producers were cultivating and applying fertilizer before planting this year's crops. Intermittent precipitation during the week disrupted fieldwork but provided much-needed moisture after a drier-than-normal winter and early spring.

## LOOKING AHEAD

ALFALFA WEEVIL: Many alfalfa fields still have no detectable larval population. The average number collected in the last reporting period was 3 per 50 sweeps, although an exceptional field near Darlington in Lafayette County contained 18 per 50 sweeps. Surveys for larvae in La Crosse, Monroe and Vernon counties were negative. Close inspection of fields for small larvae and leaf tip feeding should begin next week.

BLACK CUTWORM: The primary damage period is expected to begin by May 15, or 300 degree days after the first significant migration event on April 1. Near Janesville in Rock County, 101 degree days (base 50°F) have accumulated since the first major flight was documented. Routine scouting will be required from corn emergence until the 5-leaf stage (V5).

PLUM CURCULIO: Migration into apple orchards has started. The first overwintered adults were observed on perimeter trees in southern Wisconsin orchards last week. Signs of infestation should become evident in early-blooming varieties in the 14 days after petal fall.

EUROPEAN CORN BORER: The first spring moths could appear in black light trap collections in the week ahead. The degree day accumulation at Beloit, Lone Rock and Platteville is expected to surpass the 374 (base 50°F) standard at which corn borer flight begins over the weekend. Black light trappers are advised to carefully examine trap contents during the next two weeks for early moths.

EMERALD ASH BORER: Preventive treatment of ash trees should be initiated at this time. Optimal timing for soil injections and drenches is between mid-April and mid-

November 21, 2013

AINS

The first distinct migration of
14-20 and leafhoppers were
e southern two-thirds of the
phs appeared in second crop
ys found low to moderate
with representative counts
low 1.9 per sweep statewide.
more leafhoppers per sweep
ny alfalfa field sampled this
enerally not required.

were collected for the first time
y on May 13, more than one
Development accelerated in
alent by early June. Persist-
d competing corn and soy-
layed the first alfalfa harvest
nounced in some fields.
-13 at 5-10 larvae per sweep.
e second crop was common
ubsided by early July as

This fungal vascular wilt
e wheat field in Calumet
the second confirmed
cted sample was collected
d wheat disease surveys.
st documented in the state
. The recent detections
ce the disease is wide-
in parts of Canada.

val surveys in the fall of
opulation in 72 years,
t state average recorded
0.03 per plant last year.
2012 were charted in
utheast, northwest and
, and decreases occur-
ast areas (see table on
e central and east-
ged at 0.01 borer per
ants. Only 18% of the

July 18, 2013

**Subscribe here: http://pestbulletin.wi.gov/**

# ACKNOWLEDGEMENTS


Adrian Barta, DATCP
Amber Gotch, Hancock Research Station
Bill Halfman, UWEX Monroe Co.
Bill Veith, Seneca Foods
Ebony Murrell, UW-Madison Entomology
Eric Birschbach, Ag Site Crop Consulting
Jeff Osterhaus, Progressive Crop Solutions
Jerry Mollet, Seneca Foods
Jim Stute, Rock Co. UWEX
John Domino, DATCP
Josh Bushee, DATCP
Kelly Renner, Grant Co.
Ken Williams, Waushara Co. UWEX
Kevin Schoessow, Washburn Co. UWEX
Kevin Traastad, Coon Valley
Mark Weihing, Pioneer Hi-Bred
Michael Theis, Lodi Canning Co.
Mike Weiss, Monsanto
Nick Clemens, DATCP
Paul Whitaker, Marathon Co. UWEX
Peg Reedy, Walworth Co. UWEX
Pete Krueger, Burnett Dairy Co-op
Richard Halopka, Clark Co. UWEX
Rob Shields, WI River Co-op
Sara Ott, DATCP
Scott Reuss, Marinette Co. UWEX
Steve Hoffman, Hoffman Crop Consulting
Todd Schaumberg, Polenske Agronomic
Tracy Schilder, DATCP
Trisha Wagner, Jackson Co. UWEX
Warren Pickar, Western Tech