DATCP'S 2018 PEST SURVEY RESULTS & OUTLOOK FOR 2019

KRISTA HAMILTON, ENTOMOLOGIST
DATCP PEST SURVEY PROGRAM

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- The Pest Survey was established in 1915 to:
  1. Collect data on economic pests of WI crops
  2. Detect regulated exotic pests
  3. Support export certification
- DATCP specialists sample more than 1,000 fields annually and receive pest data from over 60 cooperators

Volume 61 No. 18 September 1, 2016

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

Lingering humidity early in the week contrasted with cooler, drier weather as high pressure settled over Wisconsin during the last days of August. Daytime temperatures in the 80s were replaced by comfortable highs in the 70s, while nighttime lows cooled to the 40s and 50s. Rain showers continued to slow alfalfa and oat harvesting, though mild conditions promoted corn and soybean maturation. Following this summer's pattern of unseasonable warmth and plentiful precipitation, crop development remains one to two weeks ahead of last year and the long-term average. Crop condition ratings are still exceptionally favorable, despite increasing fungal disease problems intensified by high humidity and frequent rain, with 86-90% of the state's alfalfa, corn, potato and soybean acreage reported in good to excellent condition. The early-September forecast calls for a return to above-normal temperatures, which should expedite the corn silage harvest and accelerate crops toward maturity.

LOOKING AHEAD

FALL PESTS: Nuisance insects including the boxelder bug, brown marmorated stink bug, multicolored Asian lady beetle, and western conifer seedbug will begin aggregating on warm southern and western exposures of buildings later this month in advance of their indoor invasion. Exterior insecticide treatments may temporarily deter insects from entering homes, but exclusion measures such as sealing cracks around windows, doors, siding and other openings are preferred. Insecticides should be applied by a licensed pest control technician and considered only for severe infestations. Fall nuisance insects do not reproduce inside the home or cause structural damage.

CORN EARWORM: Migrants arrived in substantial numbers for the third consecutive week. Another 2,865 moths were captured in pheromone traps during the period of August 25-31, for a cumulative total of 6,372 moths in 17 traps since the primary migration began earlier this month. The weekly high count of 1,961 moths was registered near Ripon in Fond du Lac County. Sweet corn growers are advised to maintain CEW scouting and management programs as long as moth activity persists and green silks are available for oviposition.

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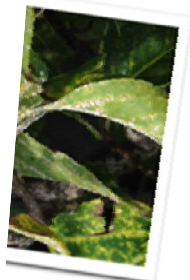

Carol Beatty

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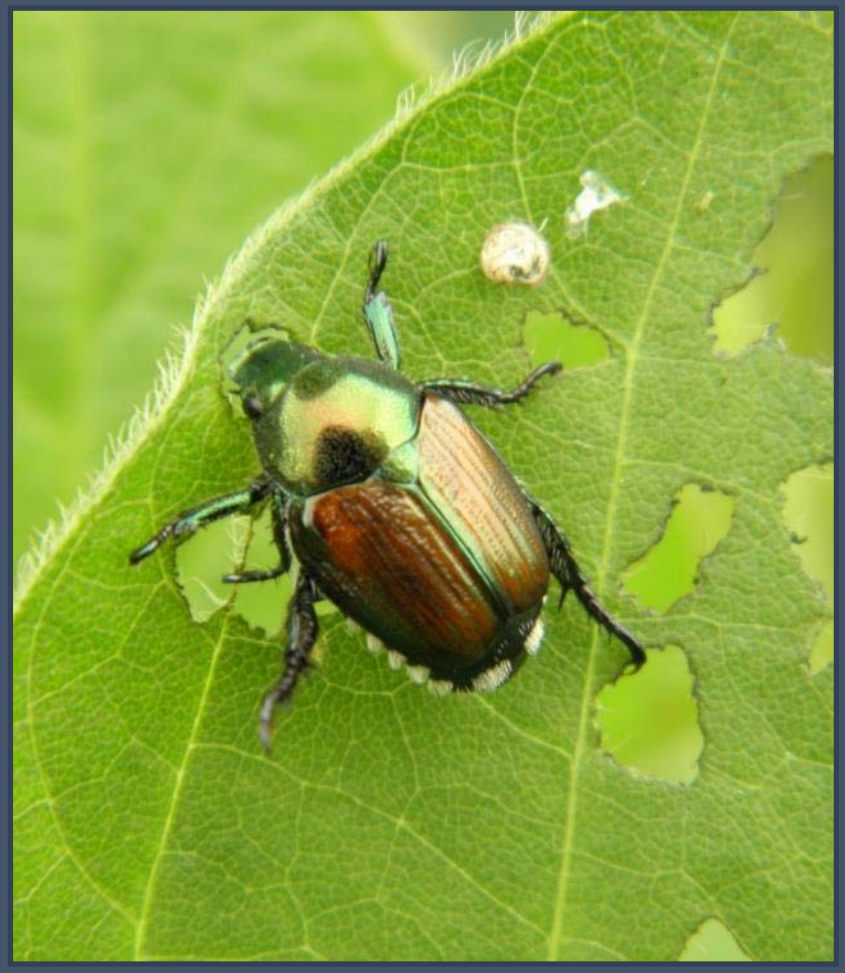
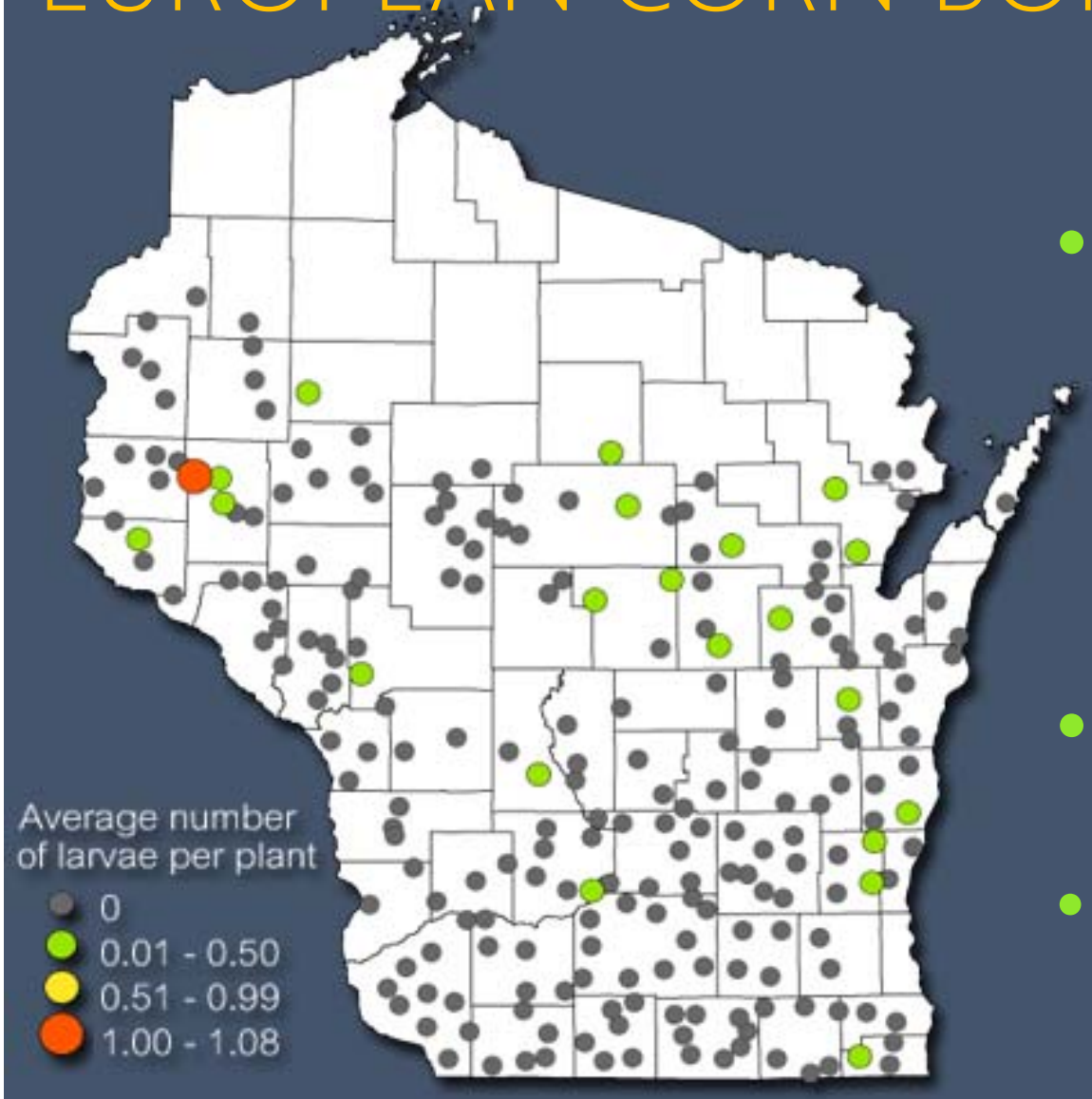
INSECT SURVEYS 2018



- European corn borer
- Corn rootworm beetle
- True armyworm
- Western bean cutworm
- Soybean aphid
- Japanese beetle
- Brown marmorated stink bug

EUROPEAN CORN BORER

EUROPEAN CORN BORER SURVEY

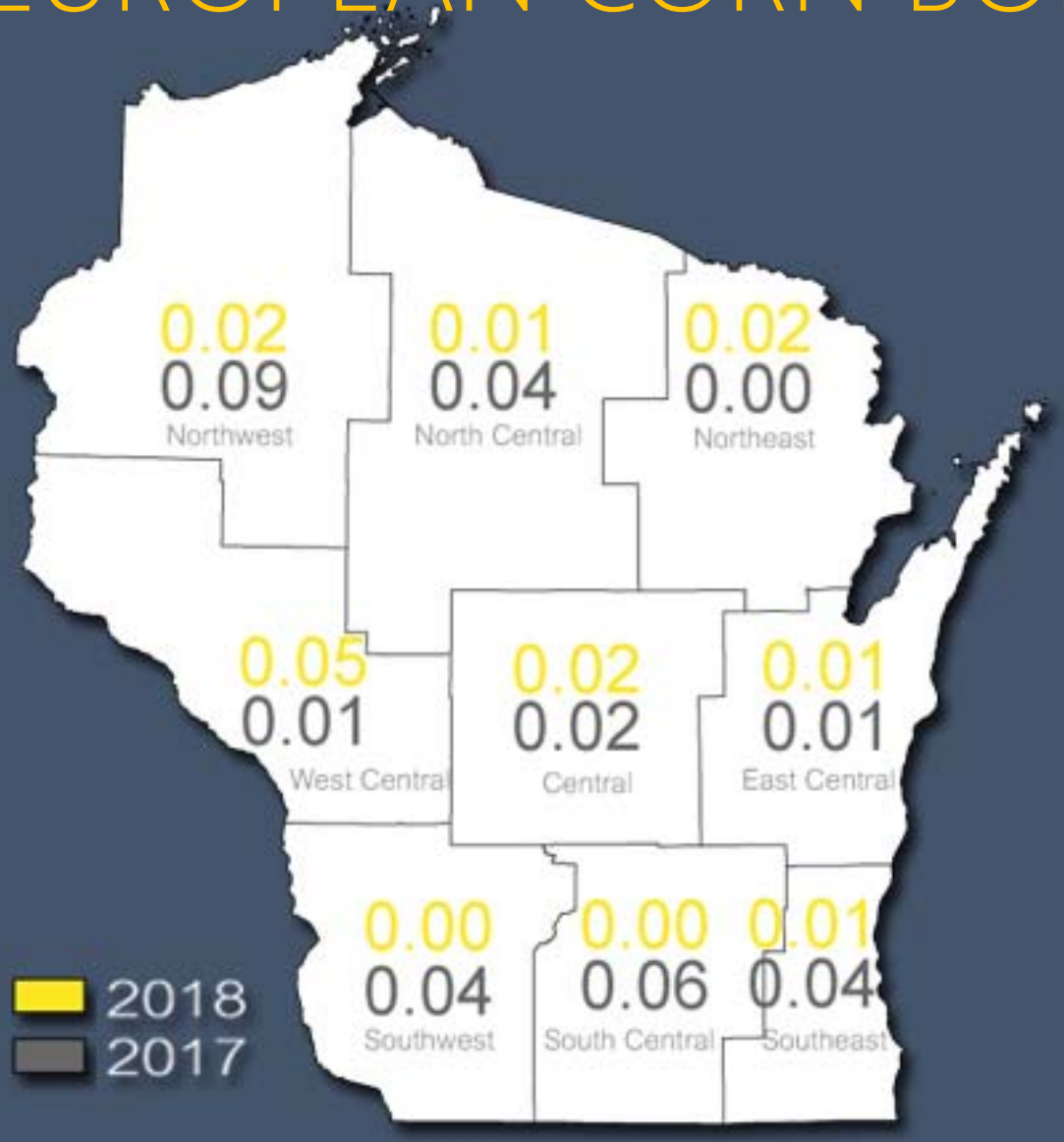


- State average number of corn borers per plant:

2018	0.01
2017	0.03
10-year	0.05
Threshold	1.00

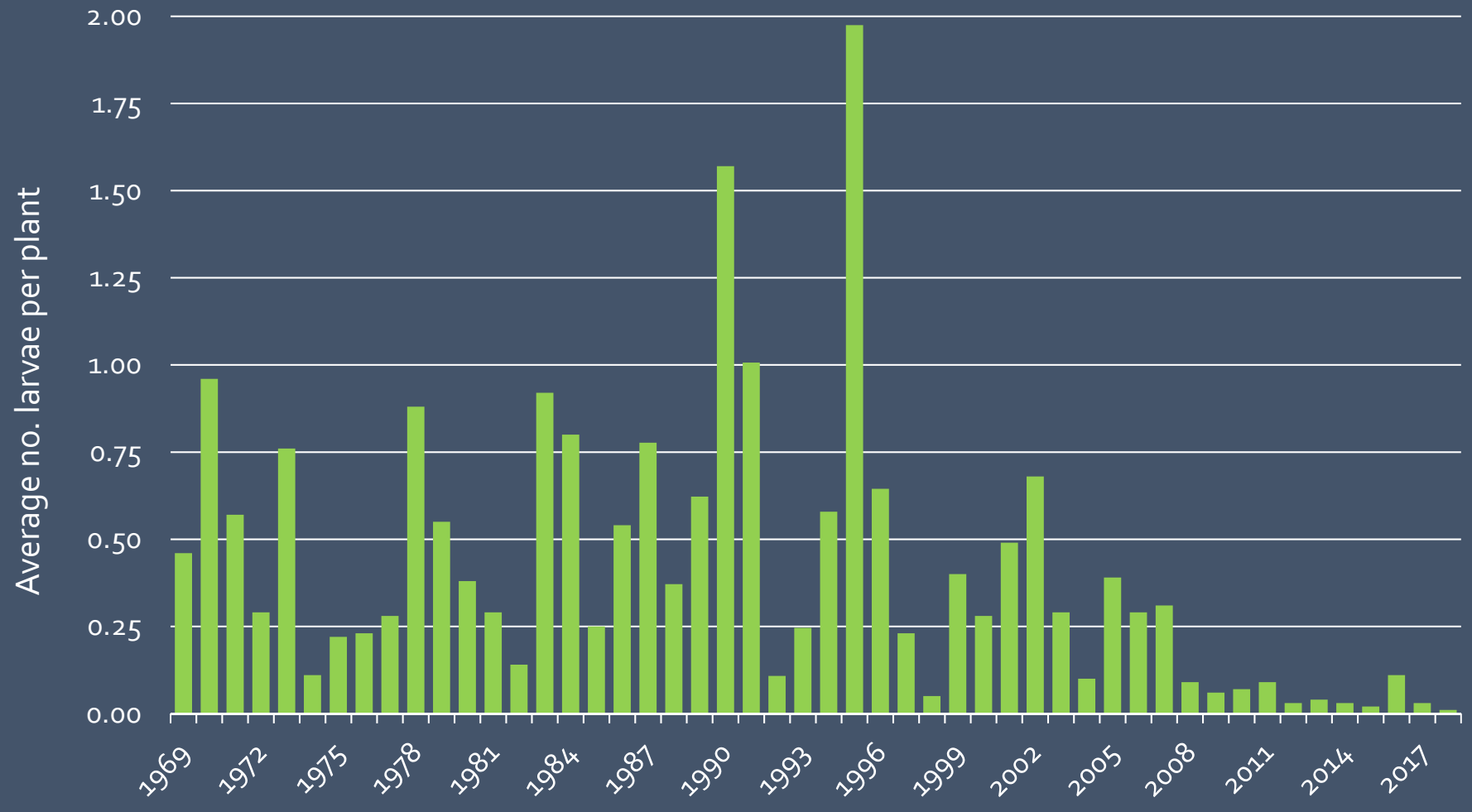
- 90% of sites had no signs of ECB infestation
- Lowest fall ECB larval population in 77 years!

EUROPEAN CORN BORER SURVEY



- State average = 0.01 corn borer larva per plant
- Averages decreased or remained unchanged in 7 of the 9 crop districts (except WC and NE areas)
- Low 2018 ECB population indicates suppression trend continues

ECB SURVEY 50-YEAR TREND

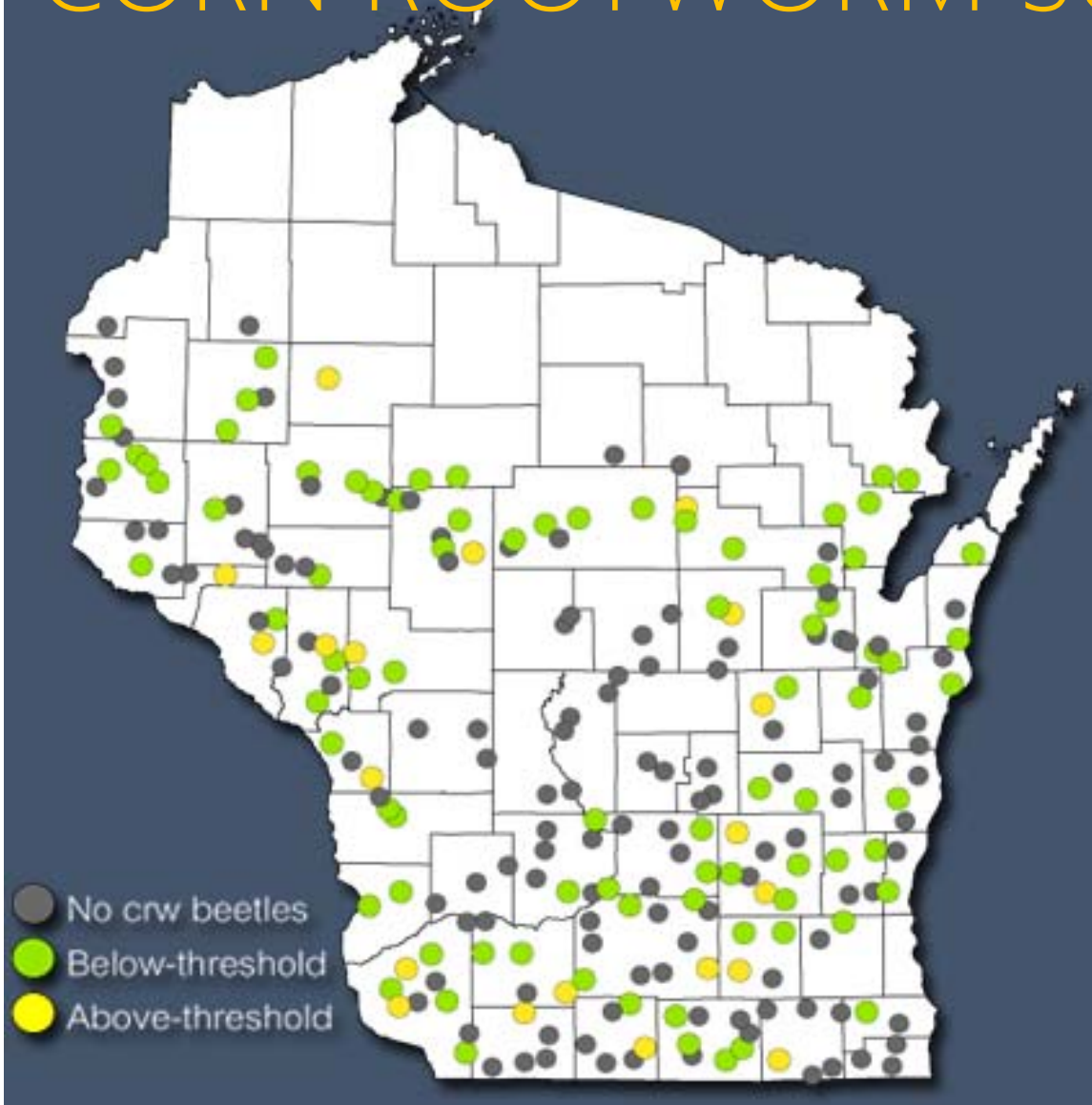


ECB OUTLOOK FOR 2019

- ECB populations in Wisconsin remain very low
- Low ECB pressure expected to continue in 2019, with localized "hot spots"
- Non-GM corn must be scouted

CORN ROOTWORM BEETLE

CORN ROOTWORM SURVEY 2018



- Crw beetle counts in 2018 tied 2017 for the lowest on record since 1971
- State average number of beetles per plant:

  2018: 0.2 per plant

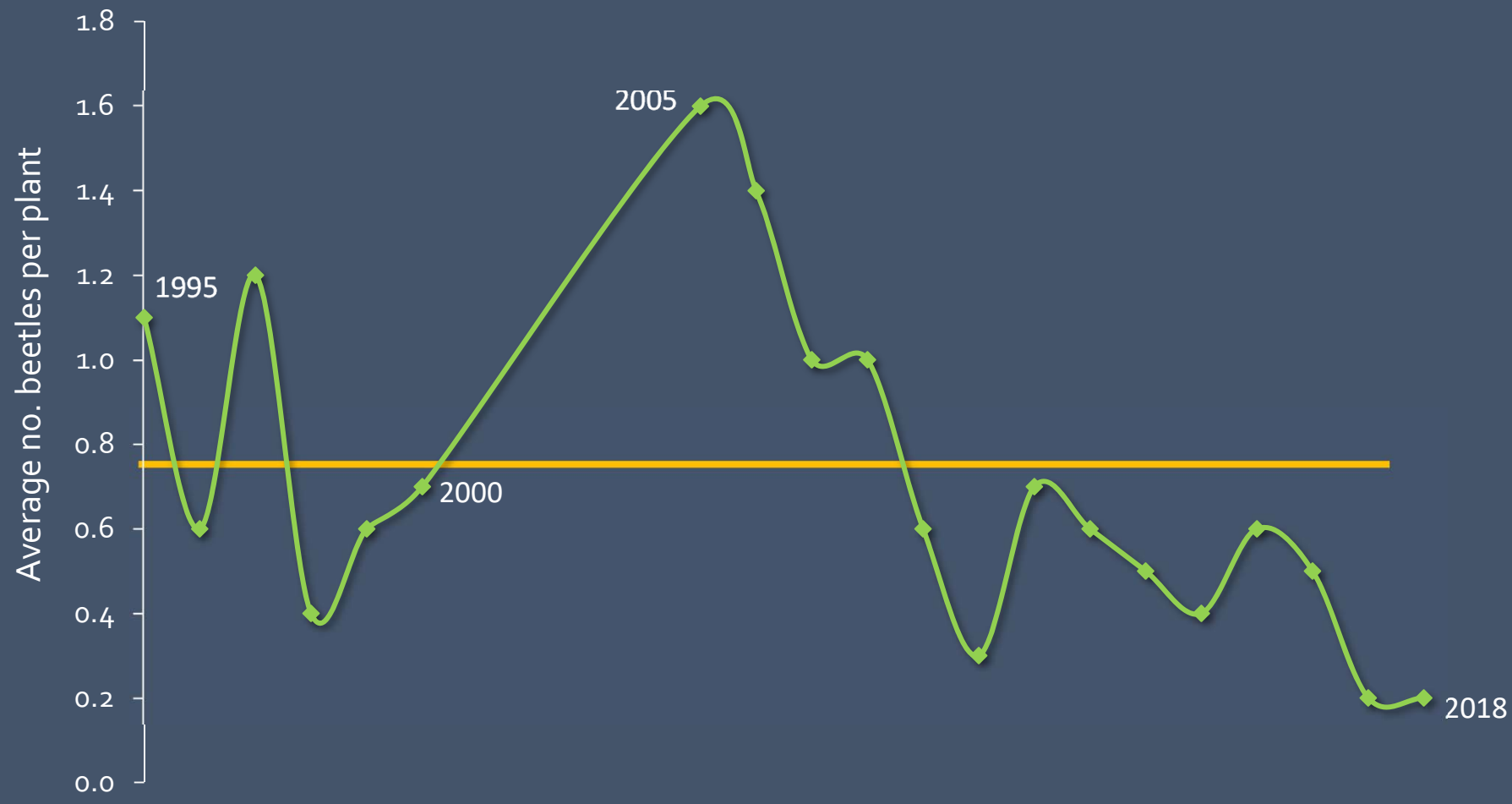
  2017: 0.2 per plant

  Threshold: 0.75 per plant
- No crw beetles found at 55% of survey sites

CORN ROOTWORM SURVEY 2018

- Averages decreased or stayed the same in 6 of the 9 crop districts from 2017 to 2018
- District averages were uniformly low, no higher than 0.4 per plant

CORN ROOTWORM AVERAGES 20-YEAR TREND 1995-2018



CORN ROOTWORM OUTLOOK 2019

- CRW beetle populations were historically low for the second year in a row
- Rotate Bt traits, rotate crops, and scout corn fields once in August and September!

TRUE ARMYWORM

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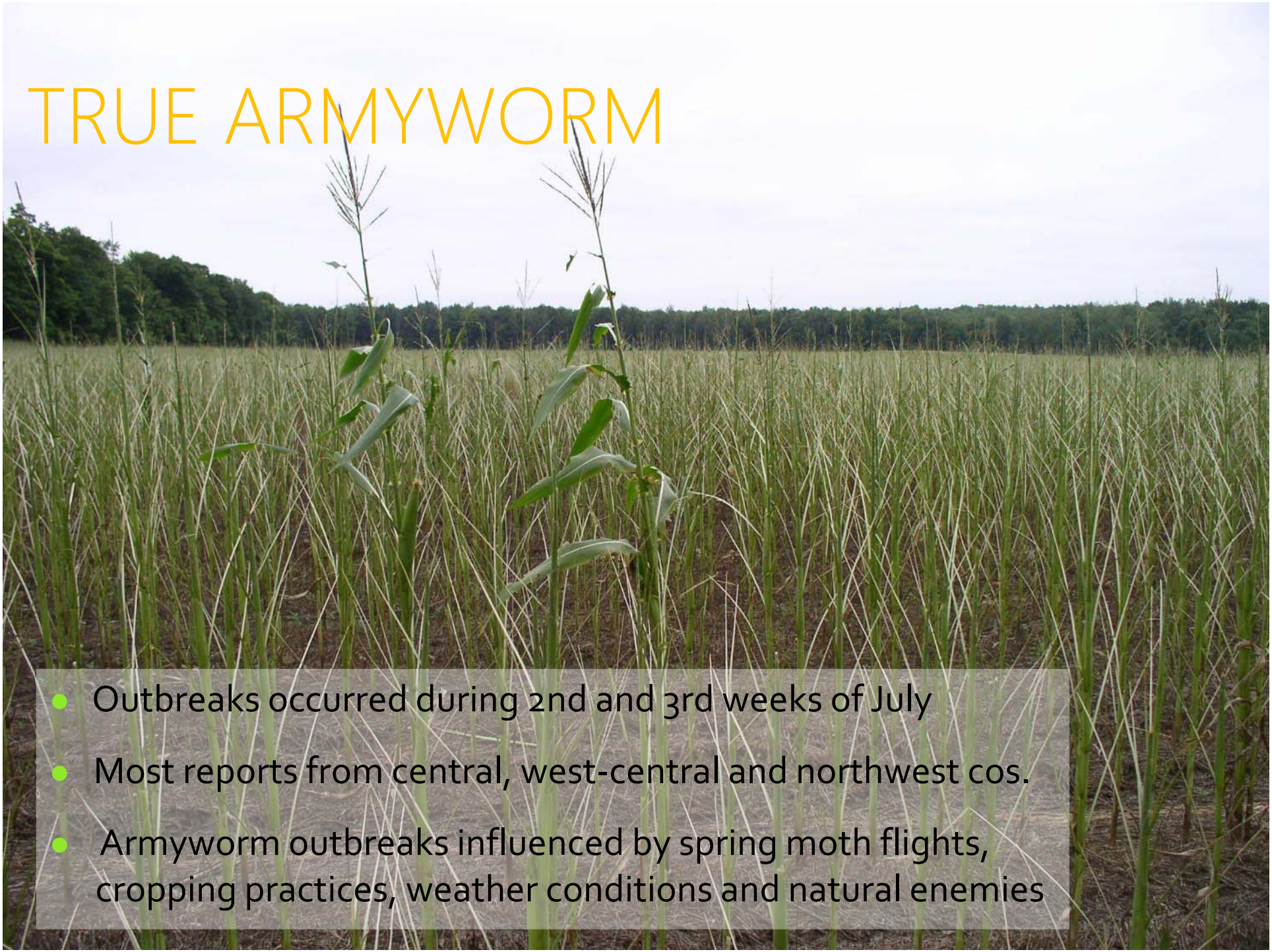
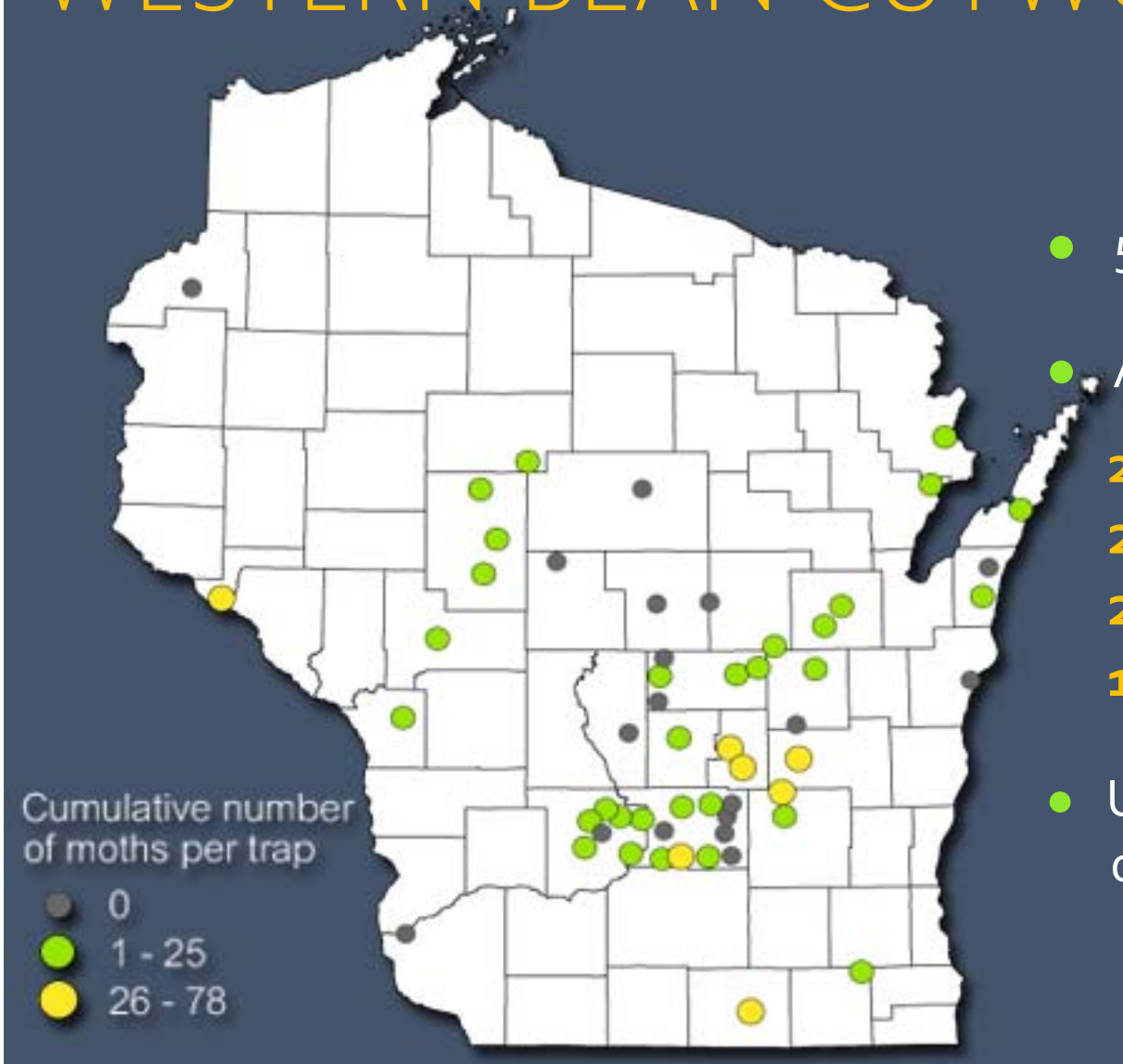


- Outbreaks occurred during 2nd and 3rd weeks of July
- Most reports from central, west-central and northwest cos.
- Armyworm outbreaks influenced by spring moth flights, cropping practices, weather conditions and natural enemies

WESTERN BEAN CUTWORM

WESTERN BEAN CUTWORM SURVEY

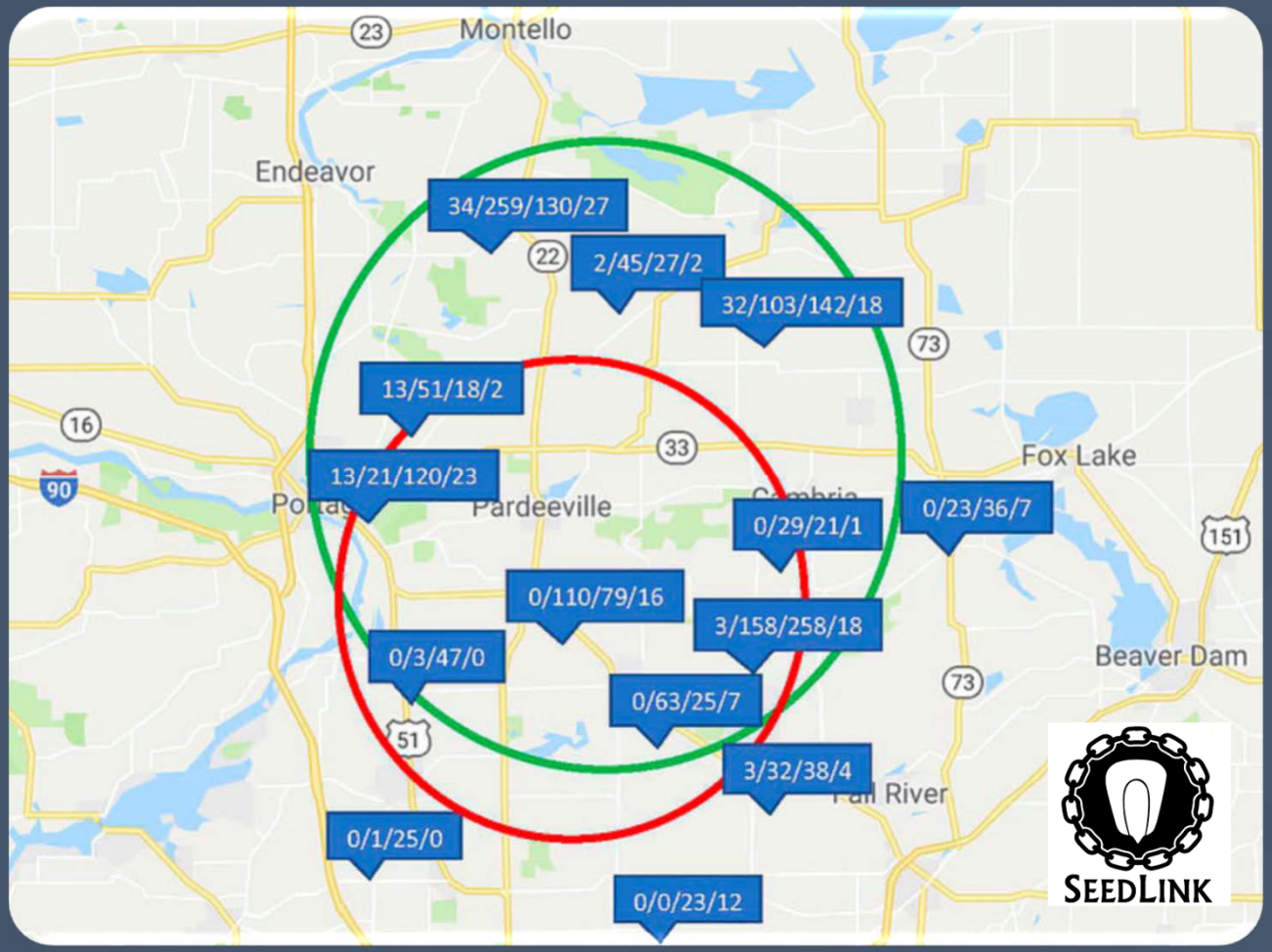


- 55 traps set June-August
- Annual Total Moth Count:

  2018: 607 or 11 per trap
  2017: 1,856 or 27 per trap
  2010: 10,807 or 79 per trap
  13-year: 23 moths per trap

- Unusually low moth counts due to defective lures

SEEDLINK LLC COUNTS July 13-Aug 3



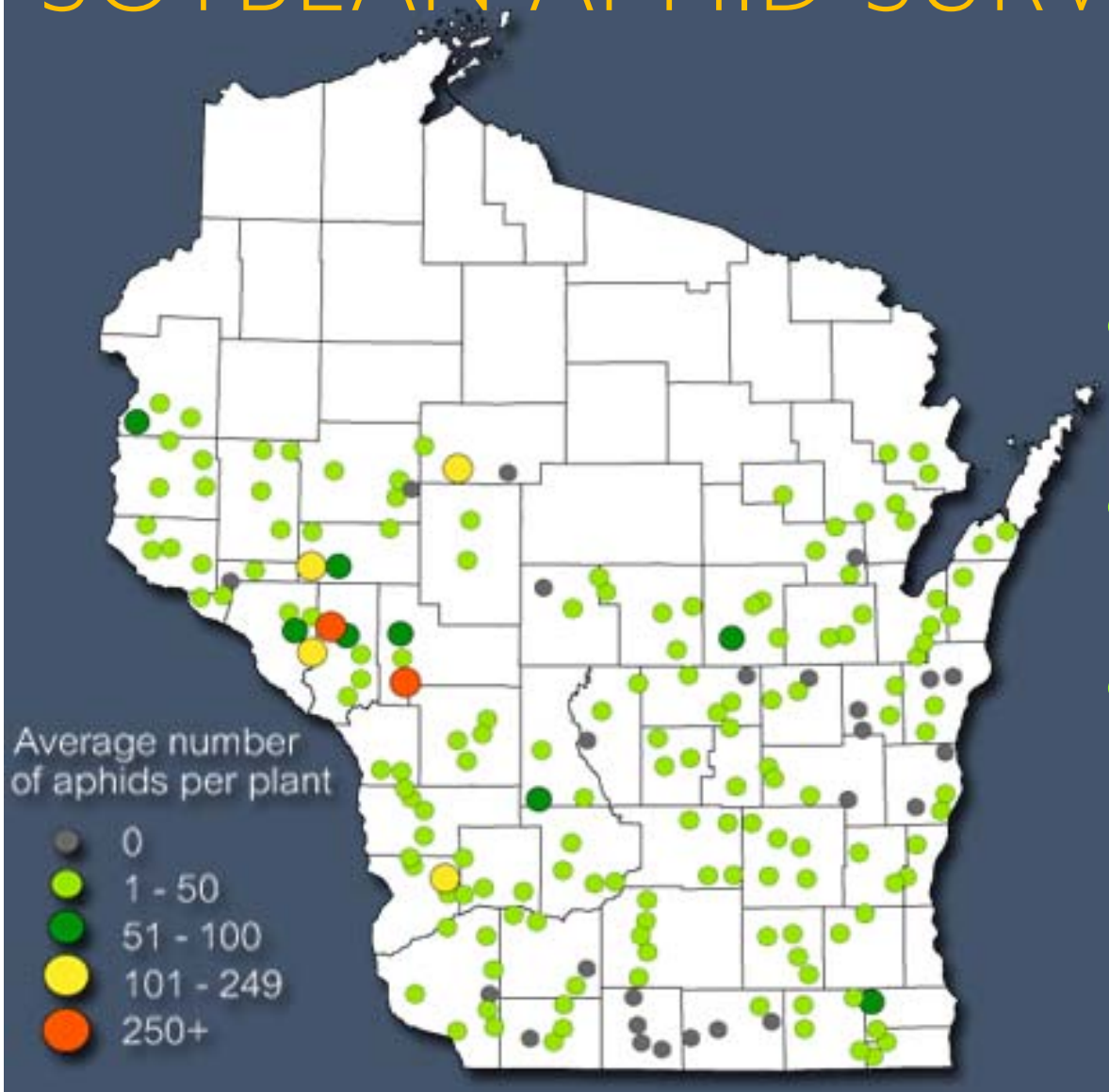
- SeedLink's 16 wbcw traps caught 2,344 moths vs. DATCP's 607 moths

WBCW OUTLOOK FOR 2019

- Pheromone load inconsistency is a common problem. Avoid using old lures
- WBCW trap catches are not a reliable predictor of field damage
- Traps should be used to time the start and peak of the moth flight, and the optimal scouting period

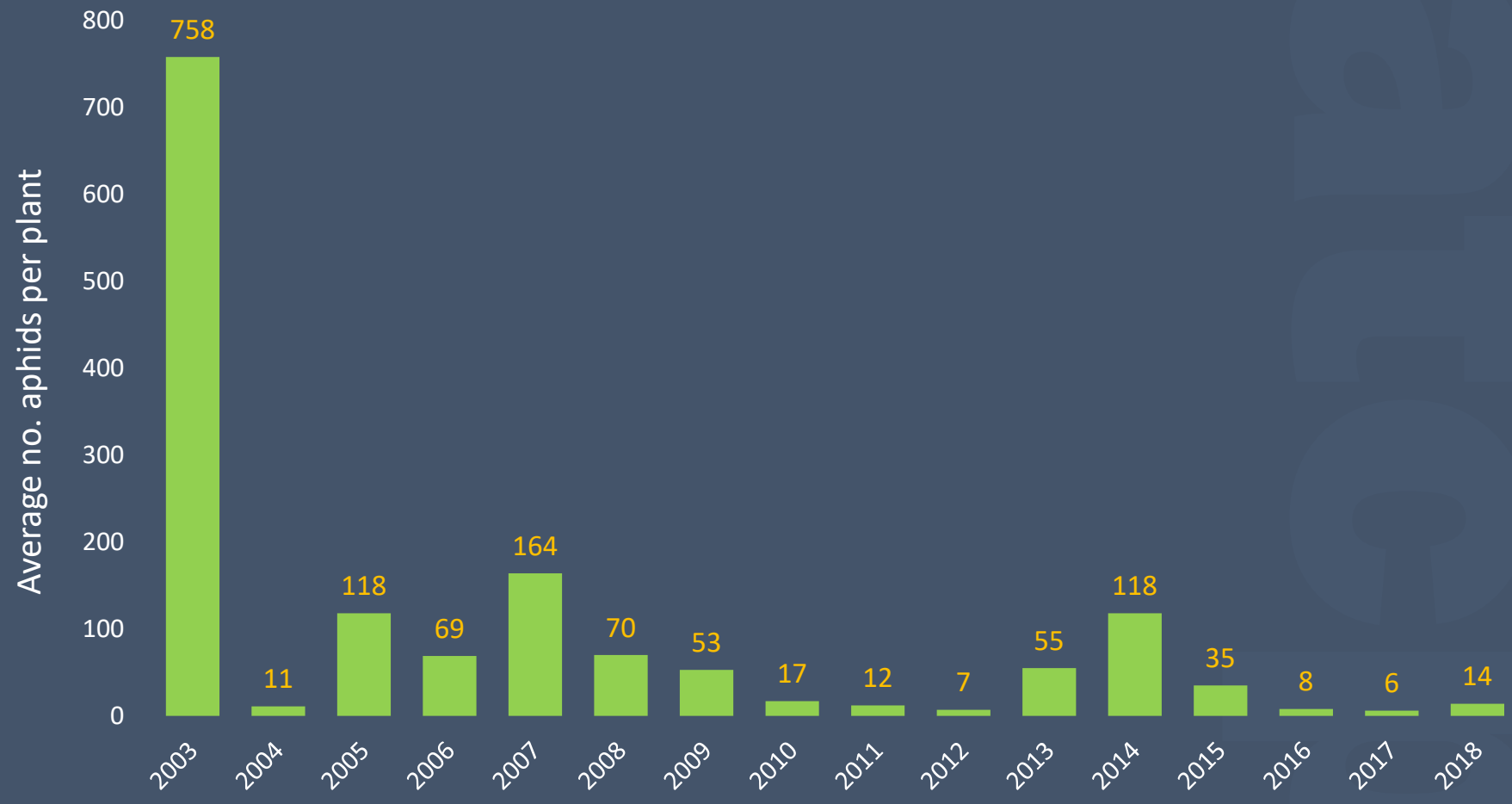
SOYBEAN APHID

SOYBEAN APHID SURVEY 2018



- 189 soybean fields sampled July 23-Aug 21
- 92% of sites had fewer than 50 aphids per plant
- State average count of 14 aphids per plant was an increase from 6 per plant in 2017

SOYBEAN APHID AVERAGES 16-YEAR TREND 2003-2018



SOYBEAN APHID OUTLOOK 2019

- DATCP surveys indicate aphid densities have been mostly low since 2010
- Natural enemies continue to be very effective at regulating aphids
- Continue to use 250 aphid per plant action and DO NOT spray early or preventively

JAPANESE BEETLE

SOYBEAN PEST SURVEY 2018

Average no. insects per 100 sweeps

DISTRICT	Bean leaf beetle	Japanese beetle	Northern CRW	Southern CRW	Western CRW	Green Cloverworm	Grasshopper	Stink Bug
NW	0.0	**3.9**	0.0	0.0	0.0	0.0	0.4	0.0
NC	0.0	**0.0**	0.0	0.0	0.0	0.2	0.2	0.4
NE	0.2	**0.2**	0.0	0.0	0.0	0.0	2.0	0.1
WC	0.0	**13.2**	0.0	0.0	0.0	0.4	1.4	0.3
C	0.0	**3.6**	0.0	0.0	0.0	0.1	1.3	0.2
EC	0.0	**0.0**	0.1	0.0	0.0	0.0	0.7	0.1
SW	0.1	**7.7**	0.9	0.1	0.1	0.6	1.4	0.2
SC	0.1	**16.6**	1.0	0.2	0.0	0.3	0.8	0.2
SE	0.4	**20.6**	0.4	0.1	0.0	2.9	1.5	0.2
STATE AVE.	0.1	**8.4**	0.3	0.1	0.0	0.5	1.2	0.2

JAPANESE BEETLE OUTLOOK 2019

- Japanese beetle control based on percent defoliation, not beetle counts
- Pull up plants and place the leaves against a sheet of paper to estimate defoliation
- Economic thresholds are:
  - 30% prior to bloom
  - 20% pod formation-pod fill


BROWN MARMORATED STINK BUG

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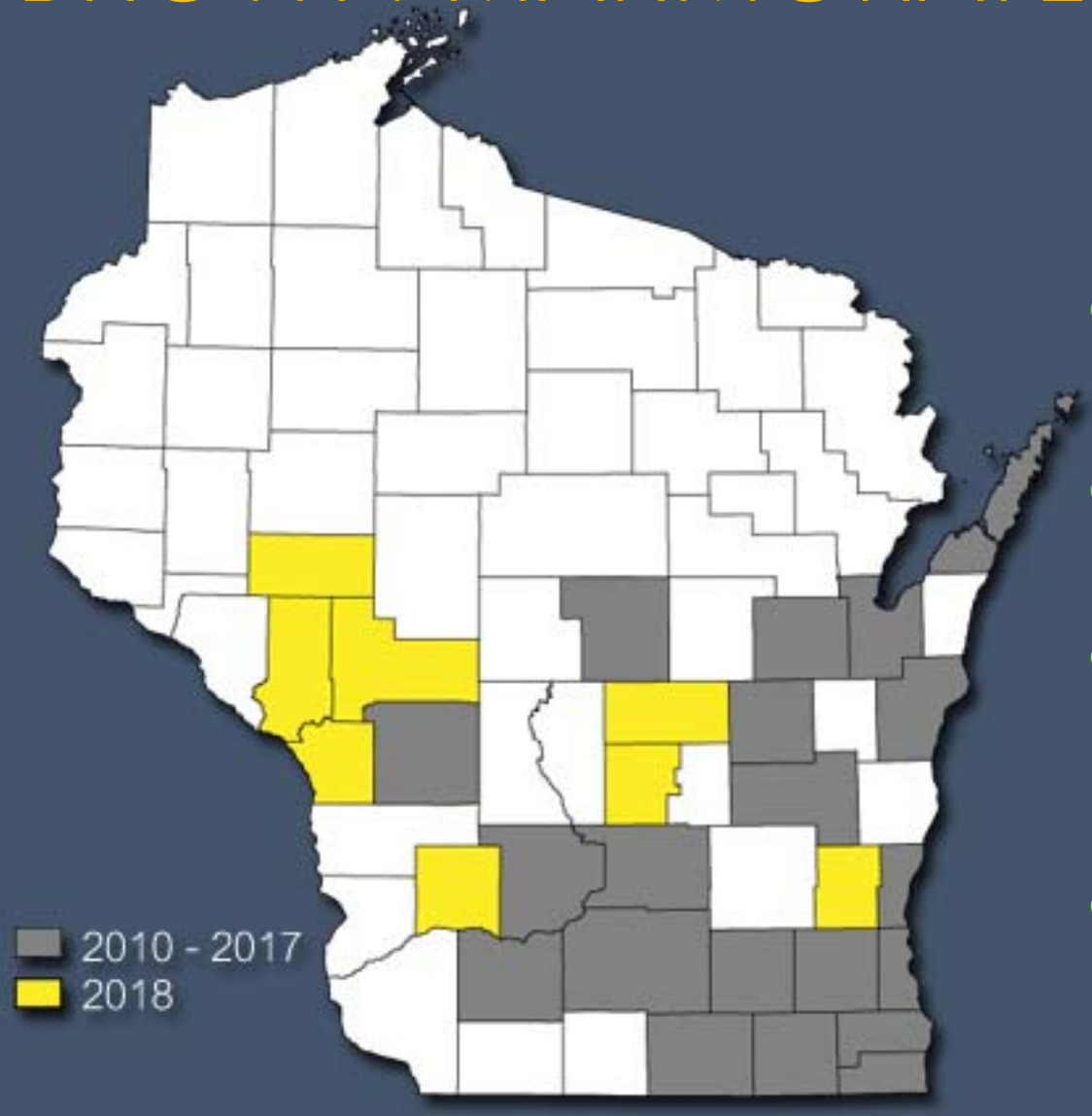

- BMSB confirmed in 28 counties since 2010
- Eight new counties added to the map last year
- Urban nuisance problems reported from Madison and Milwaukee areas
- BMSB detections in field crops expected in 2019

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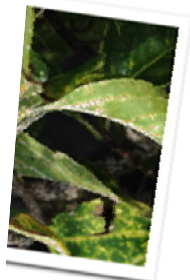

Carol Beatty

September 1, 2016

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