

# DATCP'S INSECT SURVEY RESULTS: 20 YEARS IN REVIEW

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DATCP PEST SURVEY PROGRAM





# DATCP PEST SURVEY PROGRAM

- 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 crop fields annually and receive pest data from over 50 cooperators
- The program is unique in the state for its consistent, large-scale surveys



# INSECT SURVEYS 2019

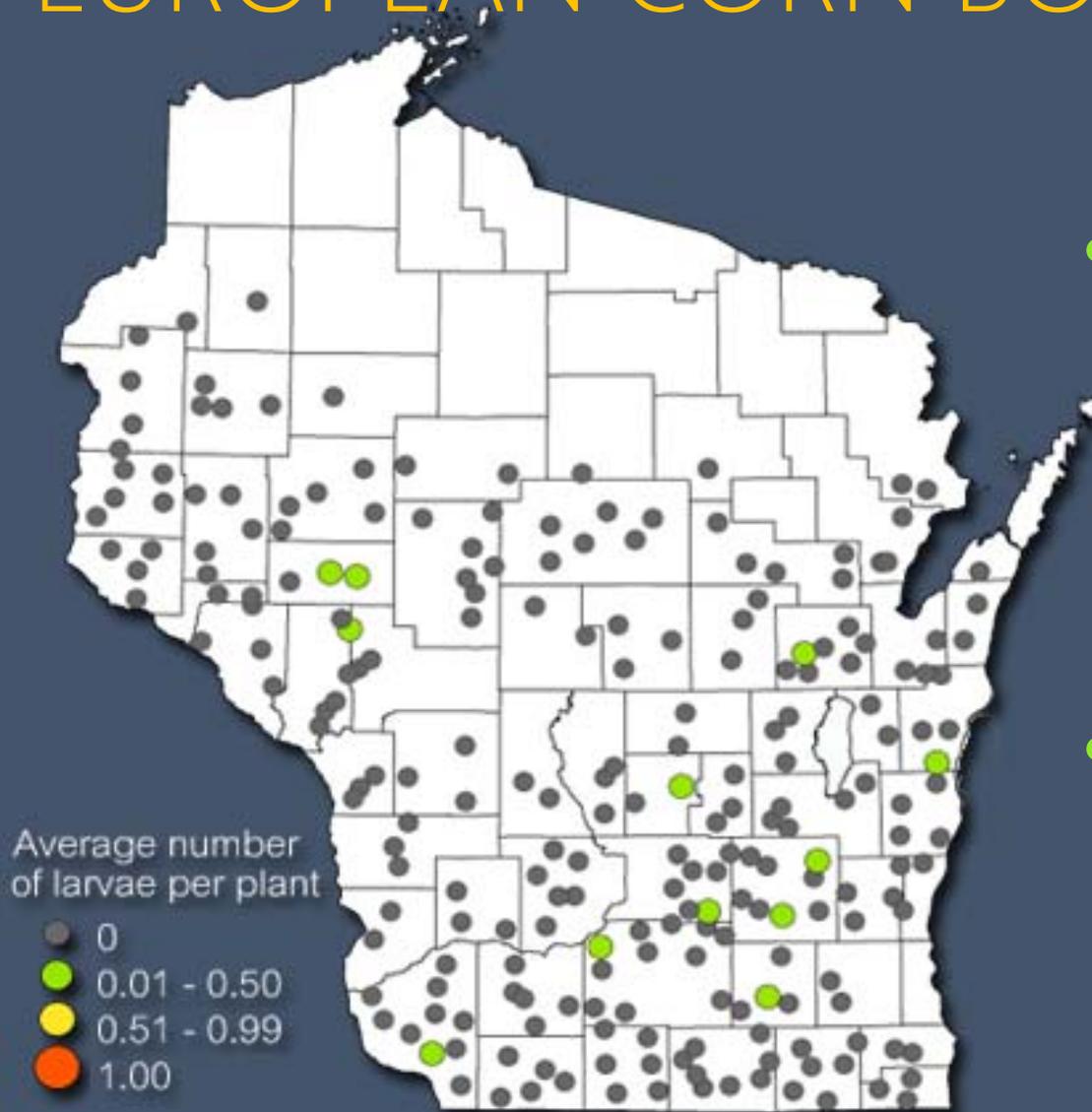


- European corn borer
- Corn rootworm beetle
- Western bean cutworm
- Soybean aphid
- Japanese beetle
- Brown marmorated stink bug

# EUROPEAN CORN BORER



# EUROPEAN CORN BORER SURVEY



- State average number of ECB larvae per plant:

**2019** 0.01

**2018** 0.01

**20-year** 0.17

**Threshold** 1.00

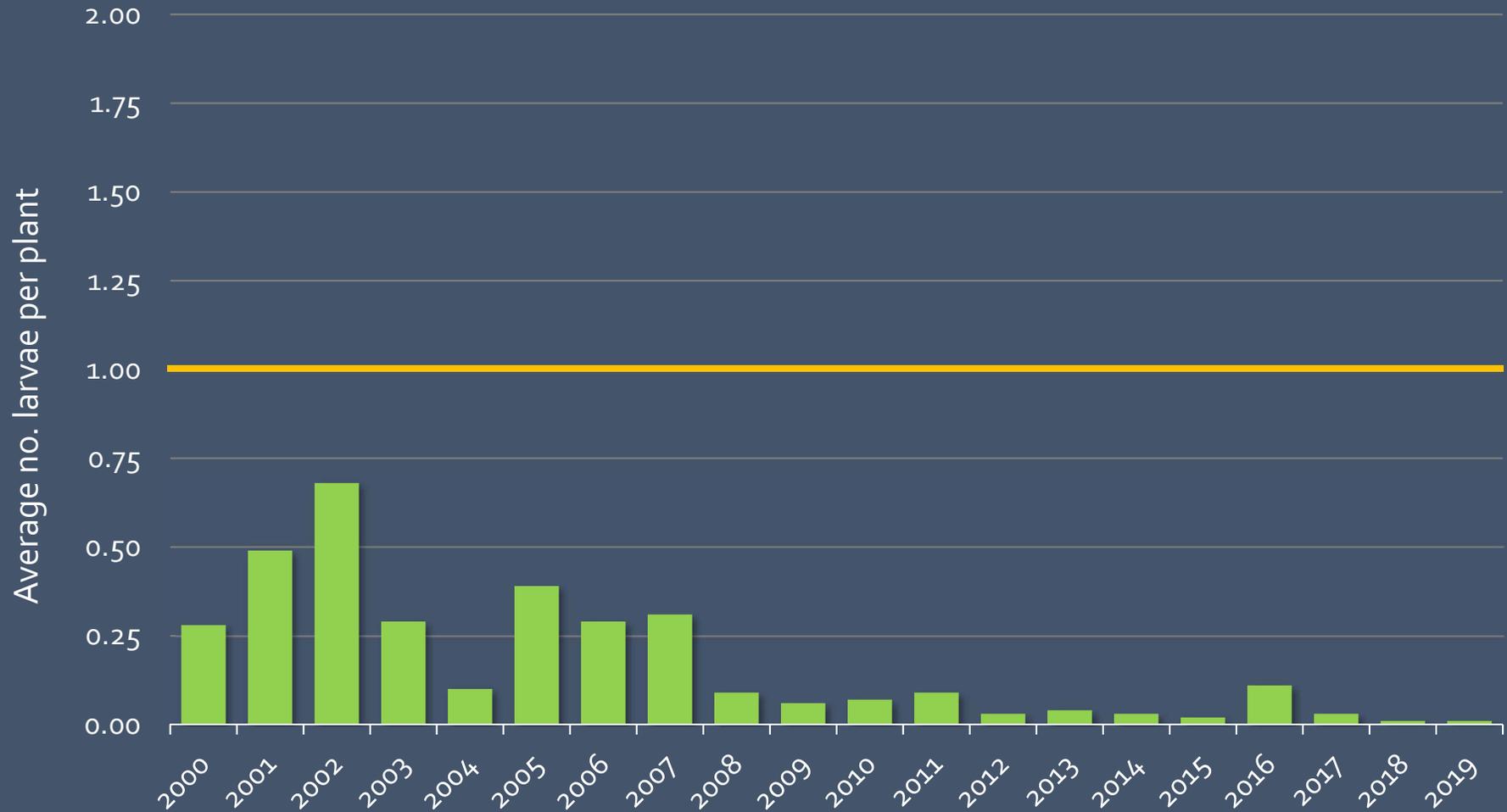
- 89% of sites had no signs of ECB infestation

# EUROPEAN CORN BORER SURVEY

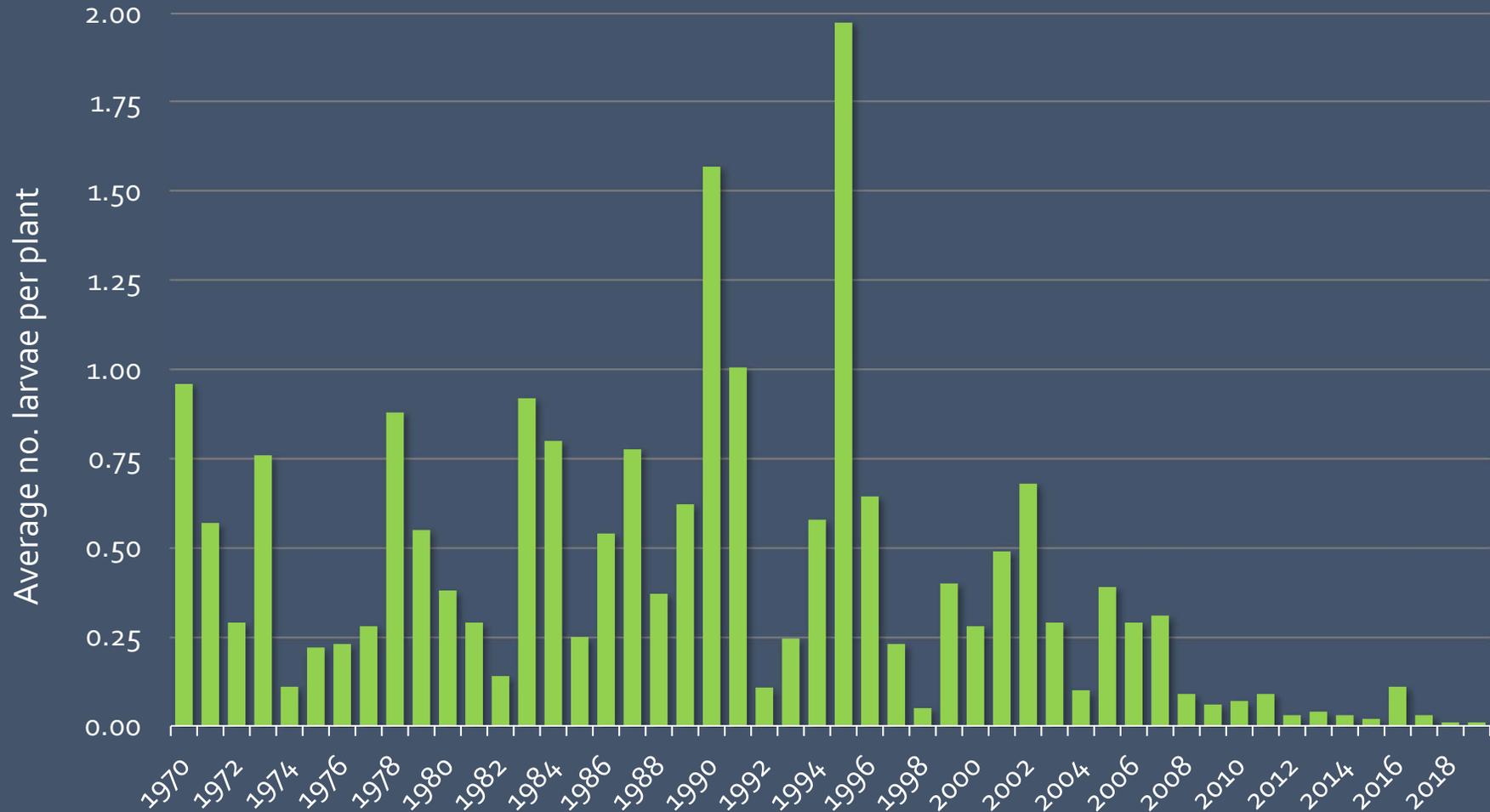


- State average = 0.01 corn borer larva per plant
- Averages decreased or remained unchanged in 7 of the 9 crop districts (except SW and SC areas)

# ECB SURVEY RESULTS 20 YEARS



# ECB SURVEY RESULTS 50 YEARS



# ECB OUTLOOK FOR 2020

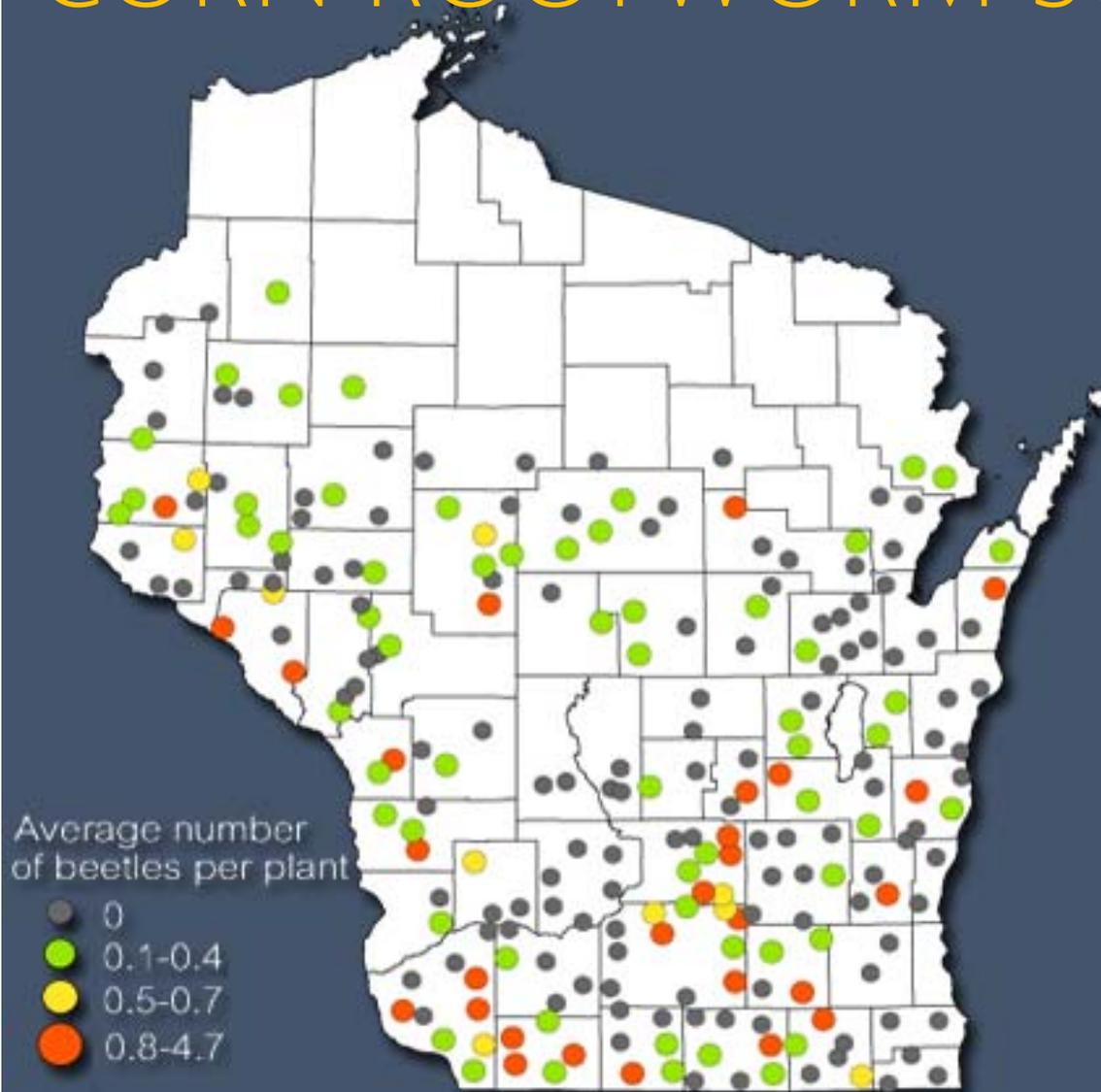


- Fall ECB counts in 2019 tied 2018 for the lowest on record since 1942
- Low ECB pressure expected to continue in 2020, with localized “hot spots”
- Non-GM corn must be scouted

# CORN ROOTWORM BEETLE



# CORN ROOTWORM SURVEY 2019



- State average number of CRW beetles per plant:

**2019** 0.3

**2018** 0.2

**20-year** 0.7

**Threshold** 0.75

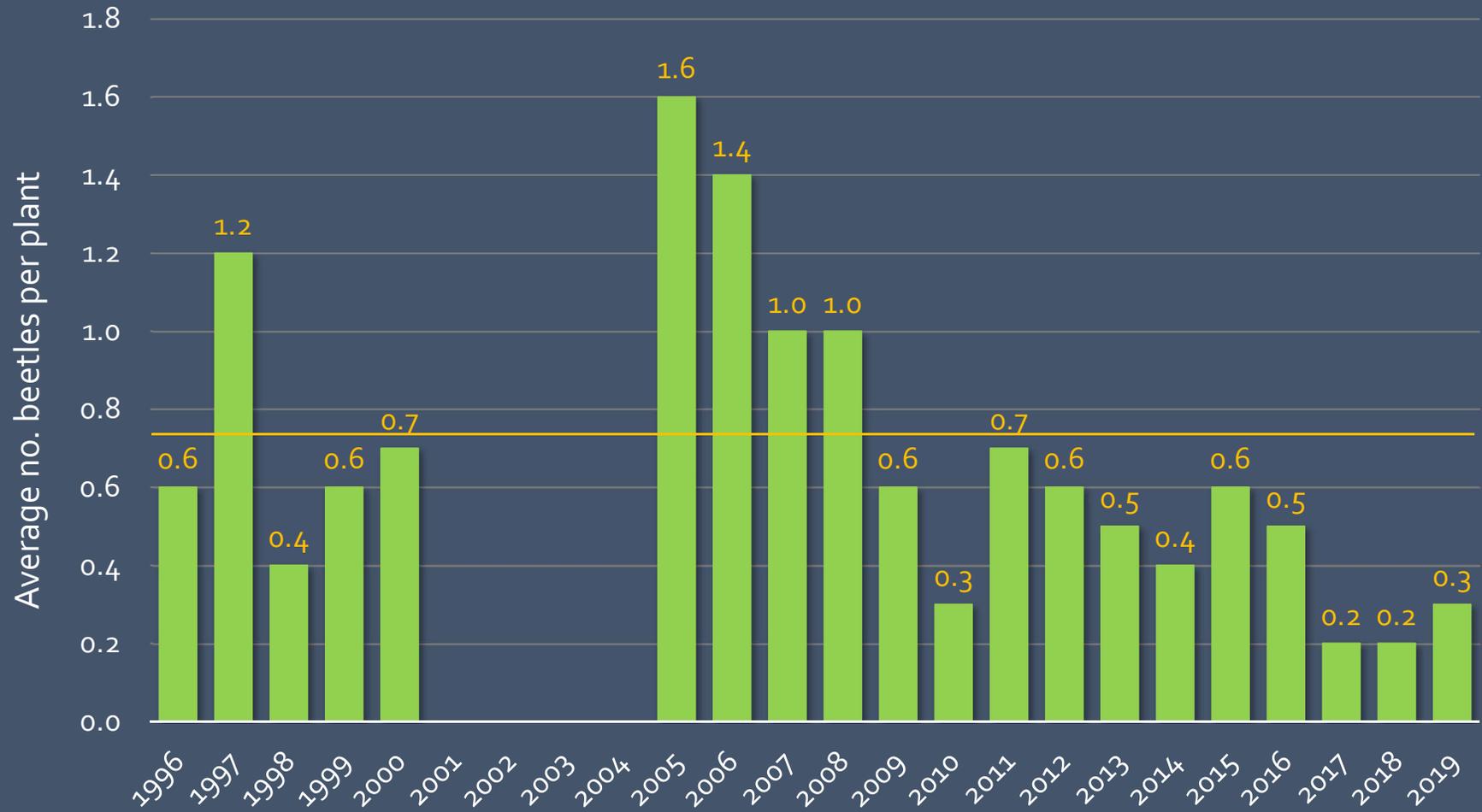
- 52% of sites had no crw beetles

# CORN ROOTWORM SURVEY 2019



- State average = 0.3 crw beetles per plant
- Averages decreased or remained unchanged in 7 of the 9 crop districts
- Higher crw pressure found in SW and SC areas in 2019

# CRW SURVEY RESULTS 20 YEARS



# CORN ROOTWORM OUTLOOK 2020

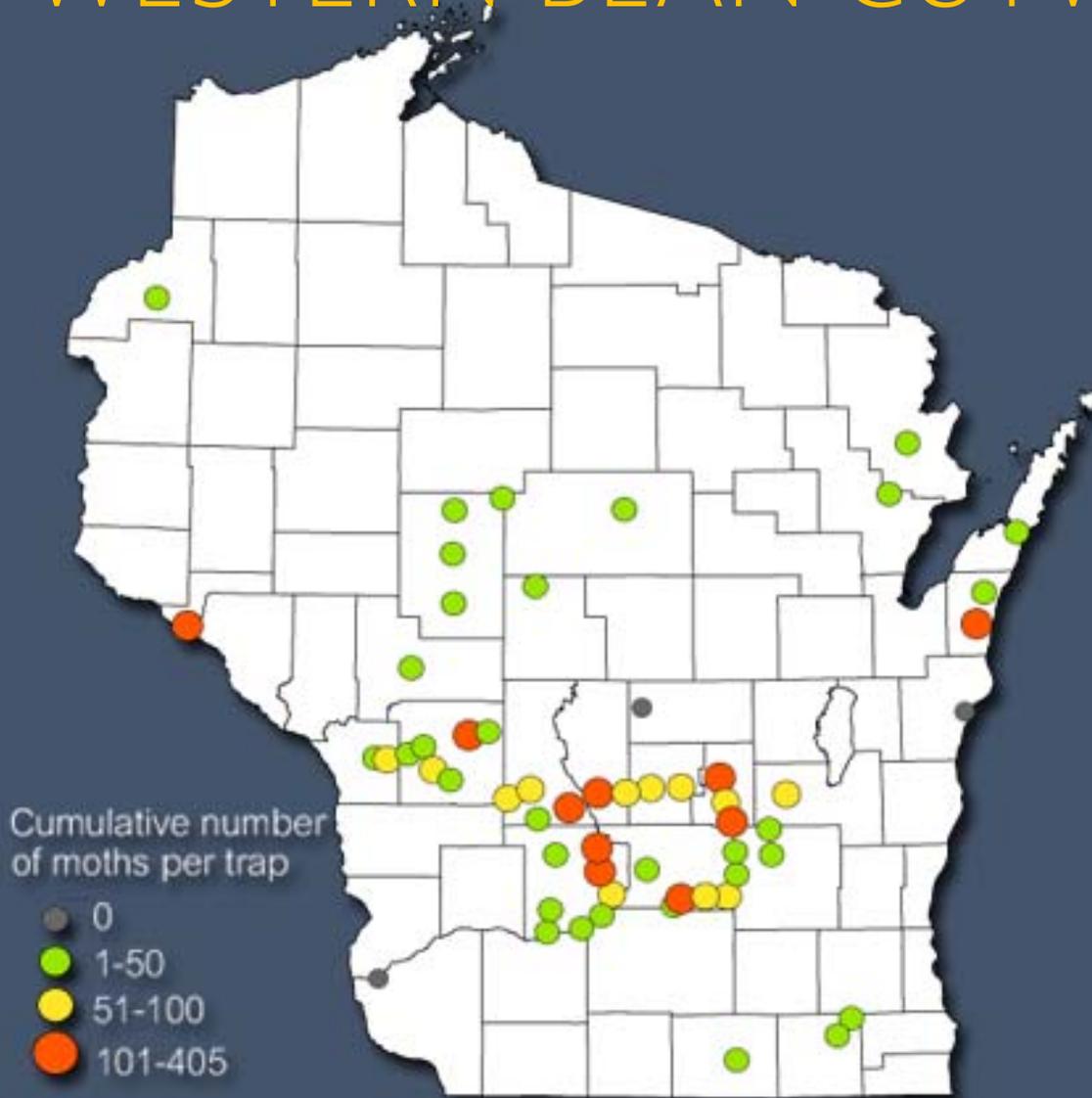


- Beetle counts increased from historic lows in 2017-18, but remained low overall
- Population increases were limited to SW and SC areas
- Rotate Bt traits, rotate crops, and scout corn fields in August and September

# WESTERN BEAN CUTWORM

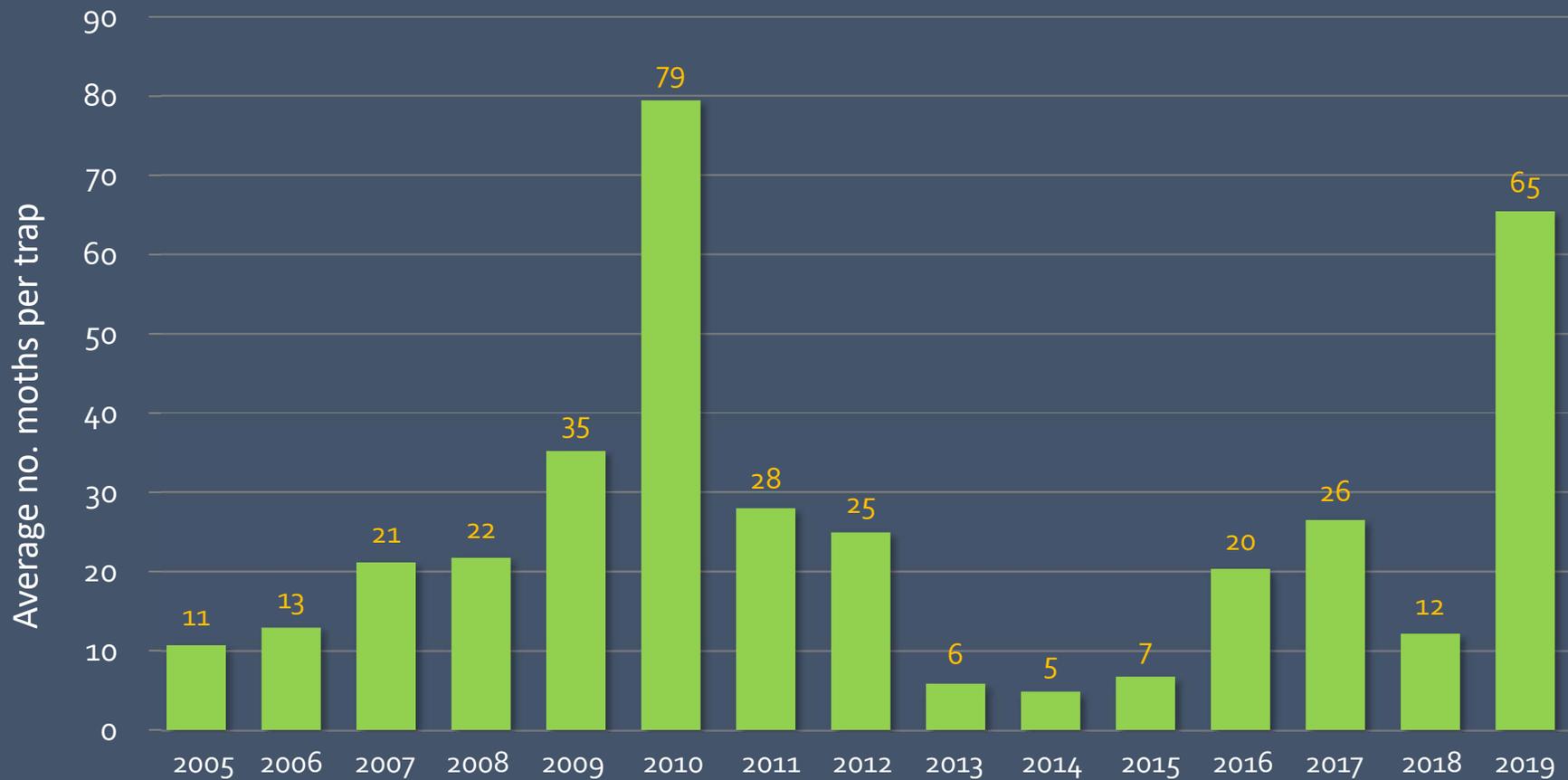


# WESTERN BEAN CUTWORM SURVEY



- Annual total moth count:
  - 2019:** 3,600 or 65 per trap
  - 2018:** 607 or 12 per trap
  - 2010:** 10,807 or 79 per trap
  - 15-year:** 25 moths per trap
- Highest individual count was 405 moths in a Green Lake County trap

# WBCW SURVEY RESULTS 15 YEARS



# WBCW OUTLOOK FOR 2020

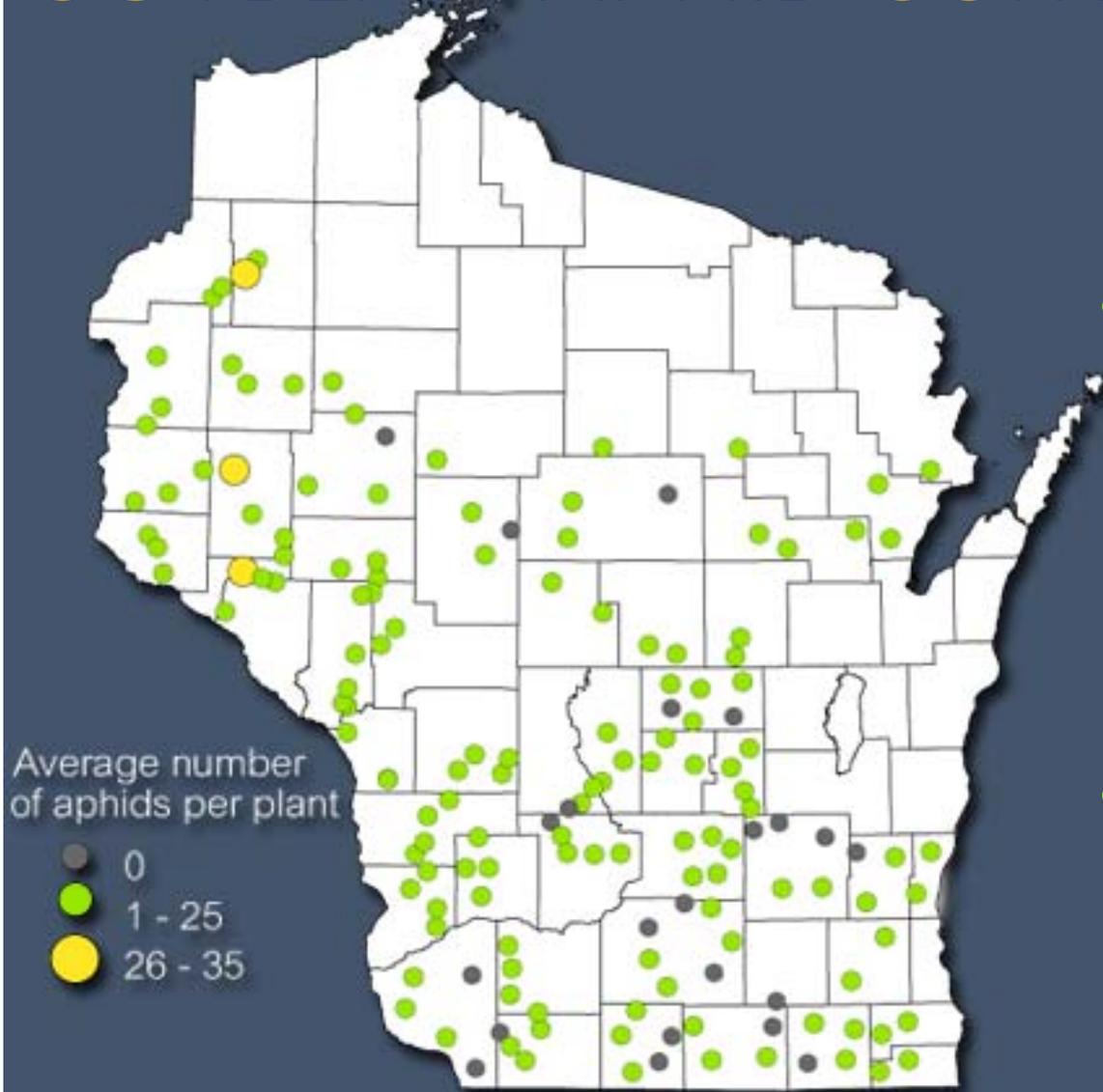


- Average moth count in 2019 was second highest in 15 years
- WBCW trap catches are not a reliable predictor of field damage
- Traps should be used to time start and peak of the moth flight, and optimal scouting period

# SOYBEAN APHID



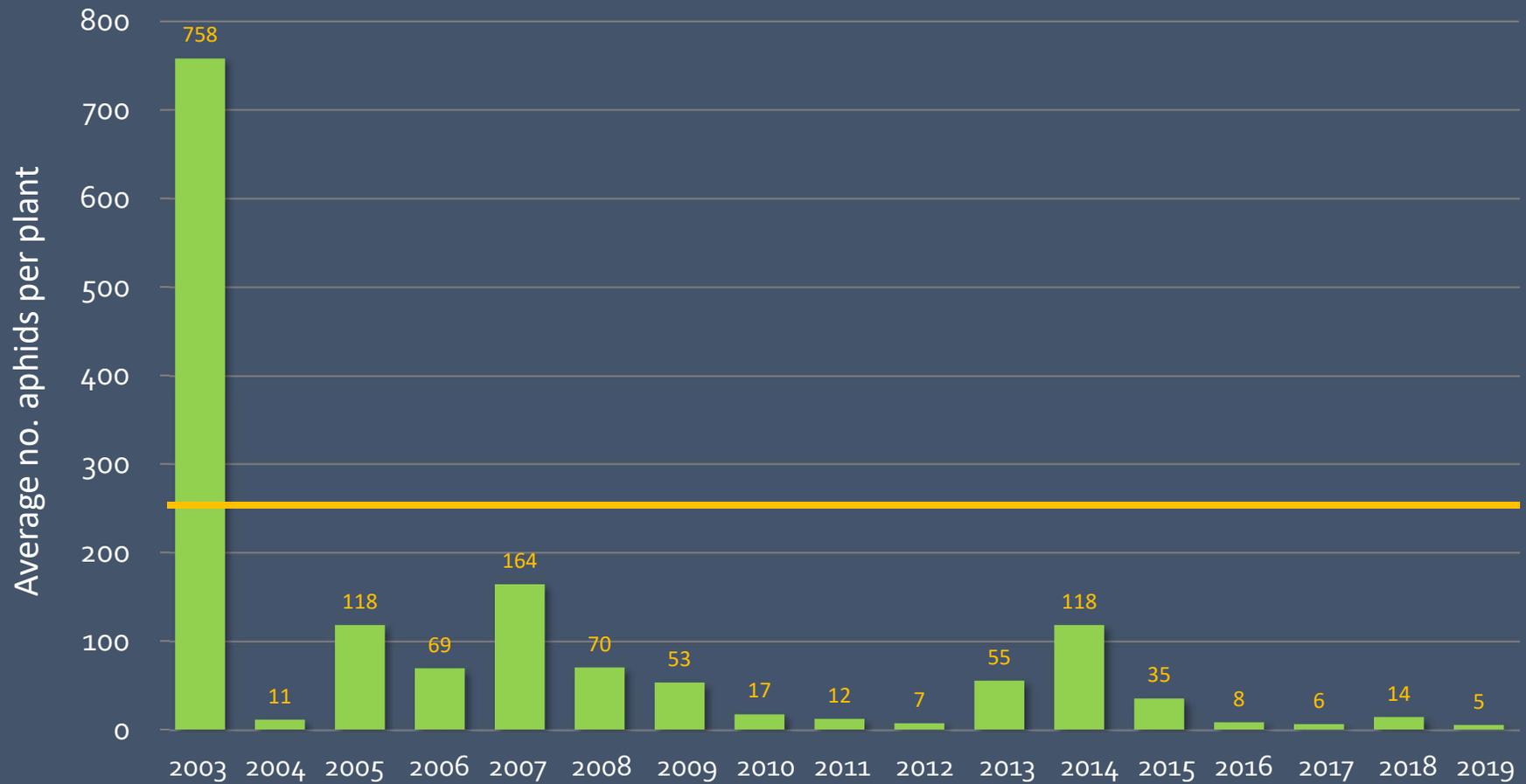
# SOYBEAN APHID SURVEY 2019



- State average number of aphids per plant:

<b>2019</b>	5
<b>2018</b>	14
<b>17-year</b>	89
<b>Threshold</b>	250
- 98% of sites had an average below 25 aphids per plant

# SOYBEAN APHID RESULTS 17 YEARS



# SOYBEAN APHID OUTLOOK 2020



- Aphid counts in 2019 were the lowest on record
- 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 DEFOLIATOR SURVEY

Average no. insects per 100 sweeps

DISTRICT	Bean leaf beetle		Japanese beetle		Northern CRW		Western CRW		Green Cloverworm		Grasshopper		Stink Bug	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
NW	0.3	0.0	1.5	3.9	0.1	0.0	0.0	0.0	5.2	0.0	3.5	0.4	0.7	0.0
NC	0.0	0.0	0.6	0.0	0.1	0.0	0.0	0.0	3.0	0.2	5.8	0.2	0.6	0.4
NE	1.3	0.2	2.7	0.2	0.0	0.0	0.0	0.0	2.0	0.0	2.6	2.0	1.0	0.1
WC	0.1	0.0	27.0	13.2	0.9	0.0	0.2	0.0	12.8	0.4	3.3	1.4	1.3	0.3
C	1.1	0.0	7.9	3.6	1.9	0.0	1.5	0.0	2.8	0.1	7.2	1.3	1.2	0.2
EC	NA	0.0	NA	0.0	NA	0.1	NA	0.0	NA	0.0	NA	0.7	NA	0.1
SW	0.3	0.1	17.3	7.7	1.7	0.9	1.0	0.1	1.0	0.6	4.5	1.4	1.5	0.2
SC	0.2	0.1	14.9	16.6	1.8	1.0	0.0	0.0	7.1	0.3	1.7	0.8	0.4	0.2
SE	0.1	0.4	18.3	20.6	7.7	0.4	0.5	0.0	16.3	2.9	1.1	1.5	0.3	0.2
STATE AVE.	0.4	0.1	14.4	8.4	1.8	0.3	0.5	0.0	6.6	0.5	3.8	1.2	1.0	0.2

# JAPANESE BEETLE OUTLOOK 2020

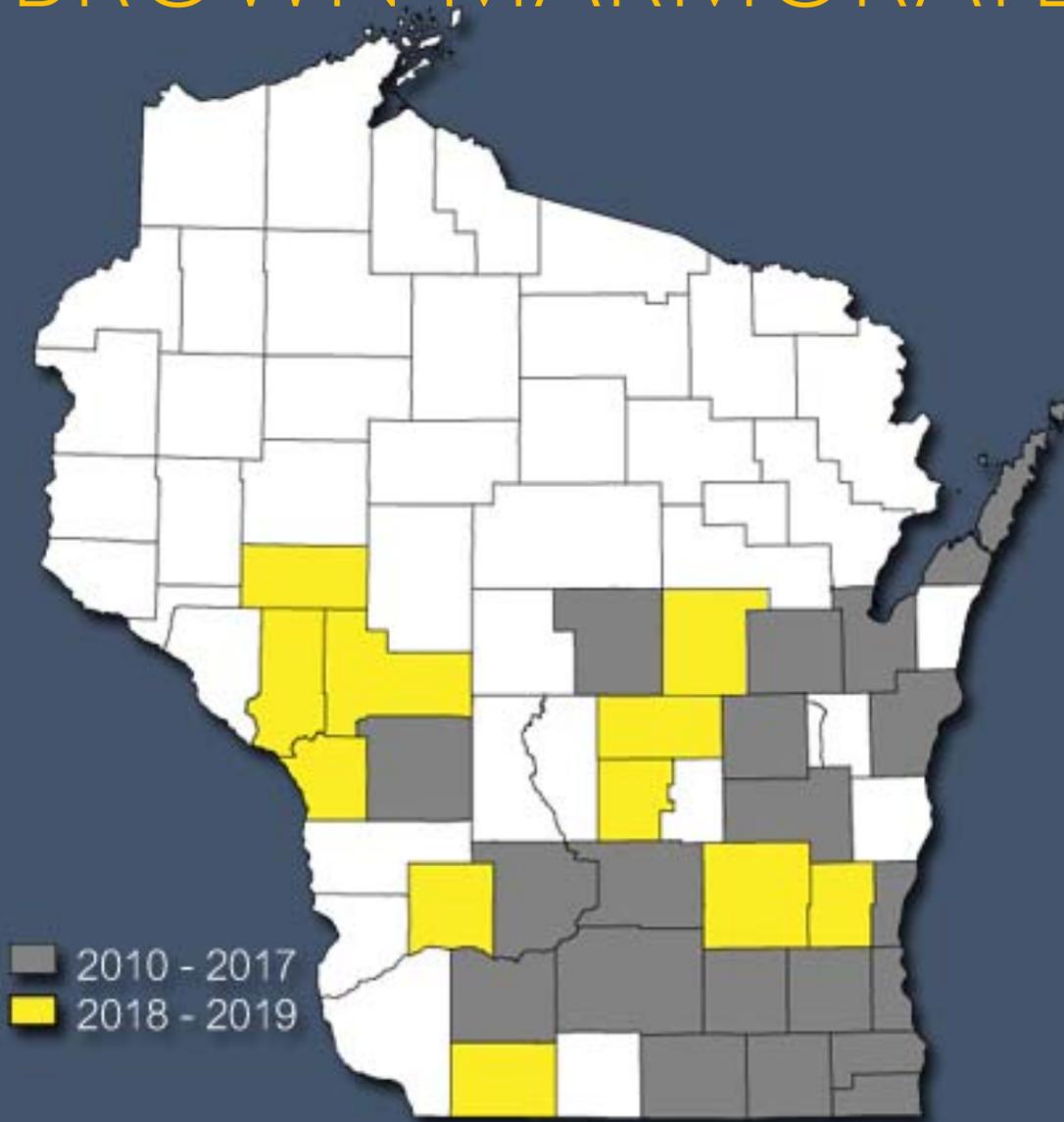


- Japanese beetle control based on percent defoliation, not beetle counts
- Economic thresholds are:
  - 30% prior to bloom
  - 20% pod formation-pod fill

# BROWN MARMORATED STINK BUG



# BROWN MARMORATED STINK BUG



- BMSB confirmed in 31 counties since 2010
- Three new counties last year: Dodge, Lafayette, Waupaca
- Urban nuisance problems in Green Bay, Fond du Lac, Madison and Milwaukee
- BMSB detections in field crops expected in 2020



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