

JANUARY 17, 2008

DATCP Insect Surveys 2007 and Outlook for 2008

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DATCP PEST SURVEY PROGRAM

WISCONSIN PEST SURVEY

Wisconsin Dept of Agriculture, Trade & Consumer Protection

Insect Surveys 2007

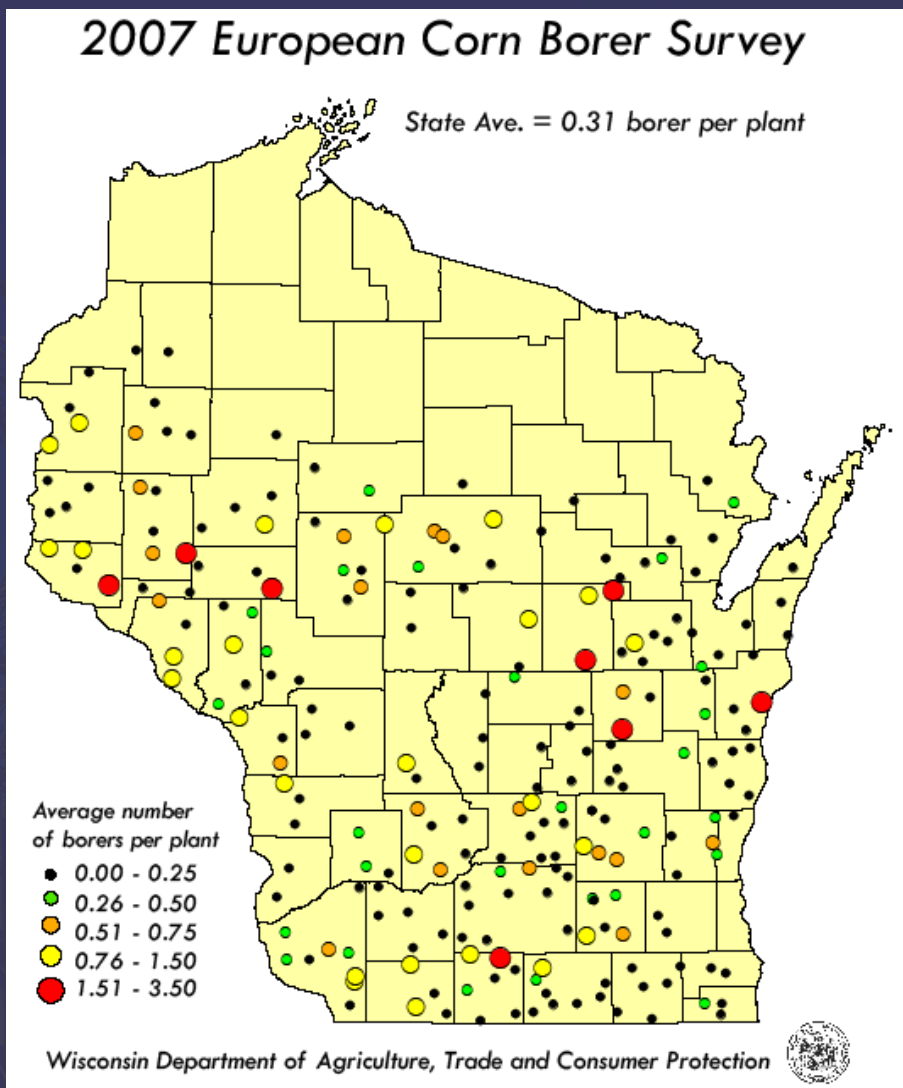


ECB Survey Summary

● State Average No. Borers/Plant:

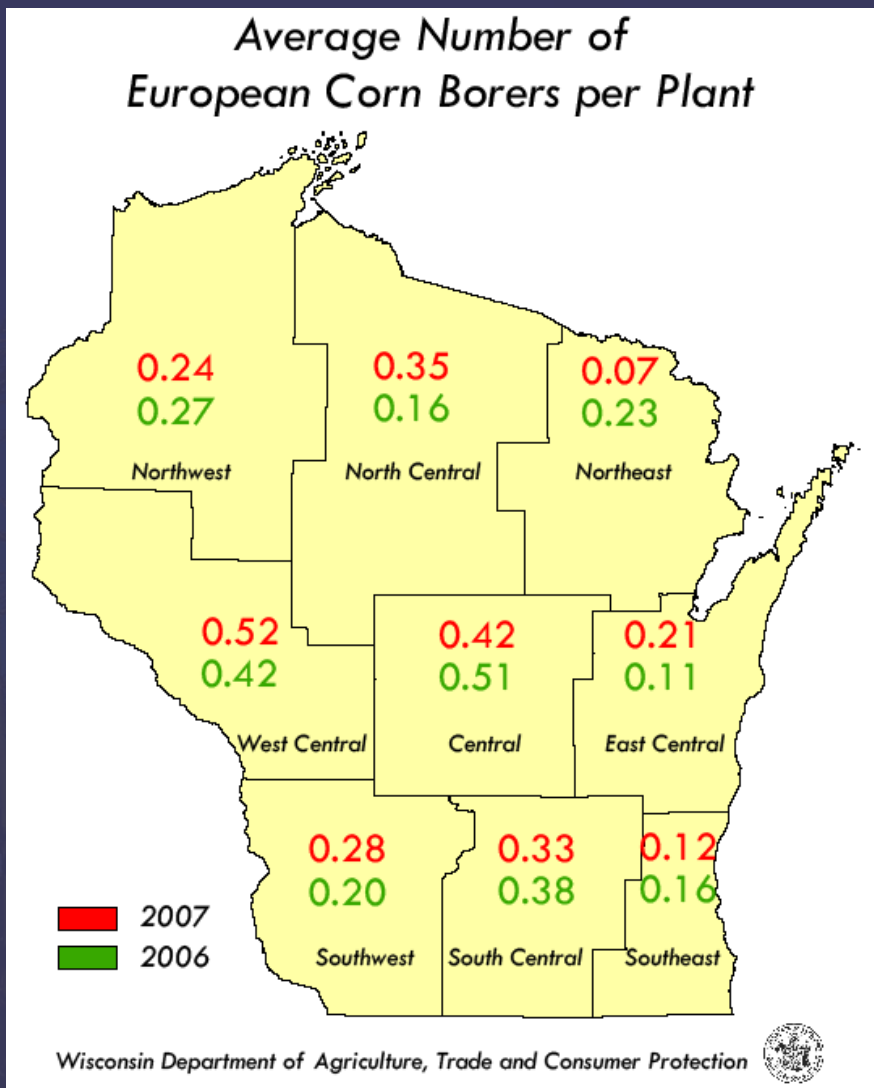
2007	0.31
2006	0.29
10-year	0.31
50-year	0.48
Threshold	1.00

- 92% (211 of 230) of the fields had populations < 1.0 per plant
- 8% (19 of 230) had populations > 1.0 per plant



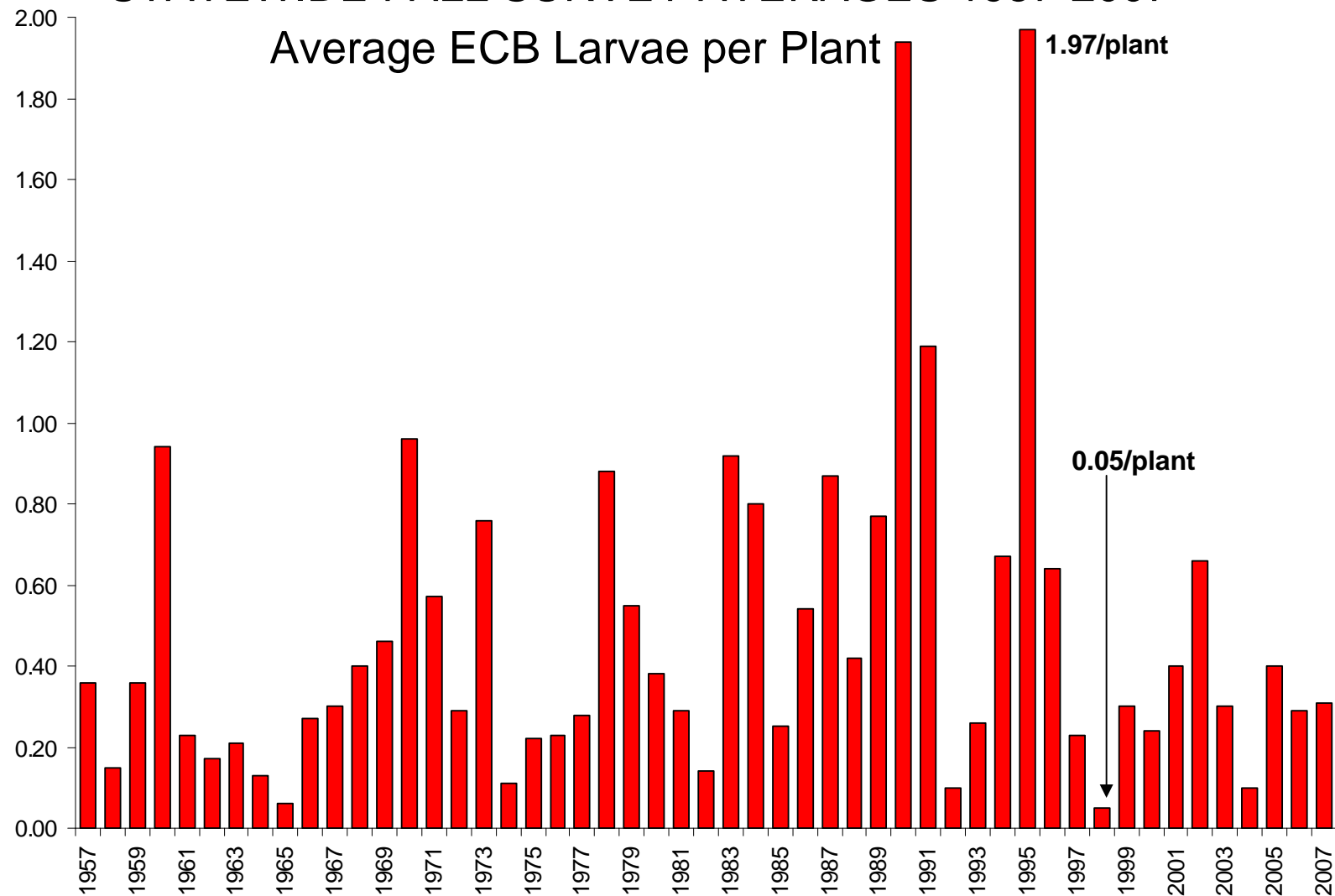
District ECB Averages

- Population increases recorded in southwest, west central, east central, and north central districts
- Eau Claire, Waupaca, and Pierce counties had average densities > 1.0 borer per plant



STATEWIDE FALL SURVEY AVERAGES 1957-2007

Average ECB Larvae per Plant



Outlook for ECB in 2008

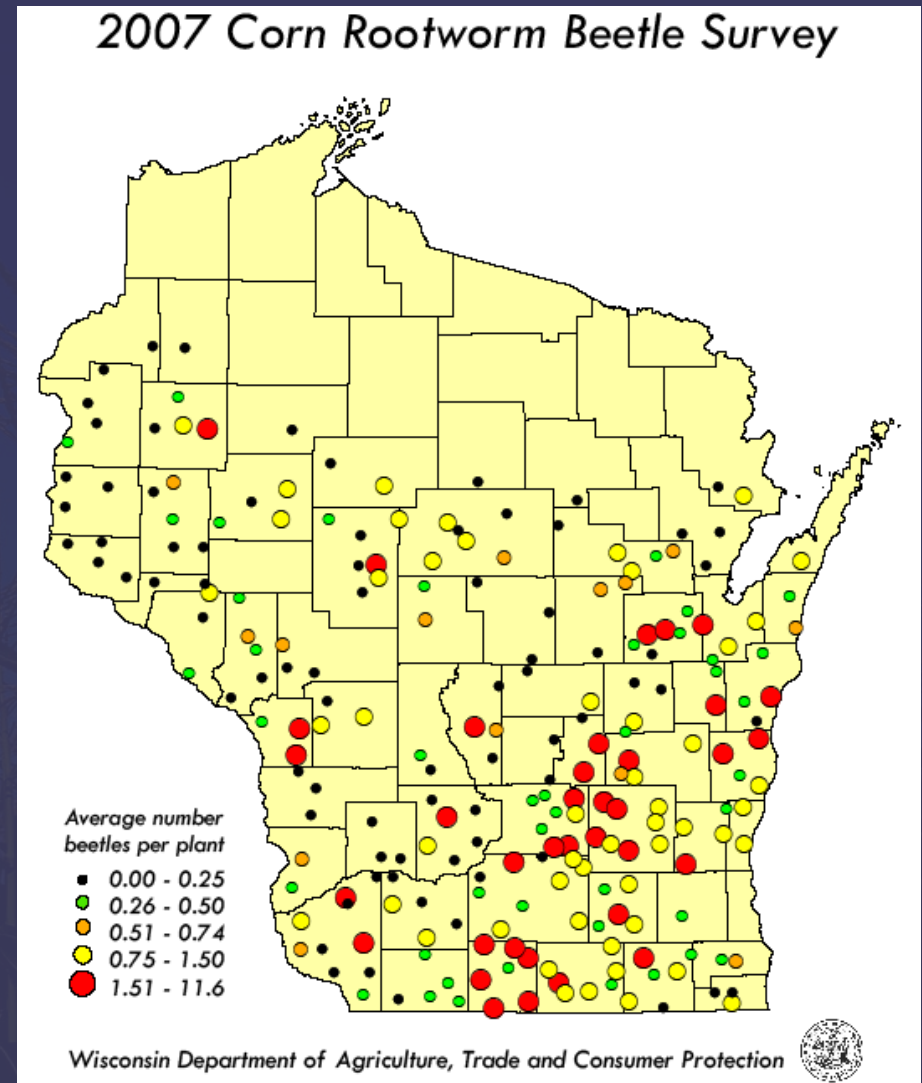
- Relatively low overwintering population
- Light first flight of moths next May-early June



CRW Beetle Survey

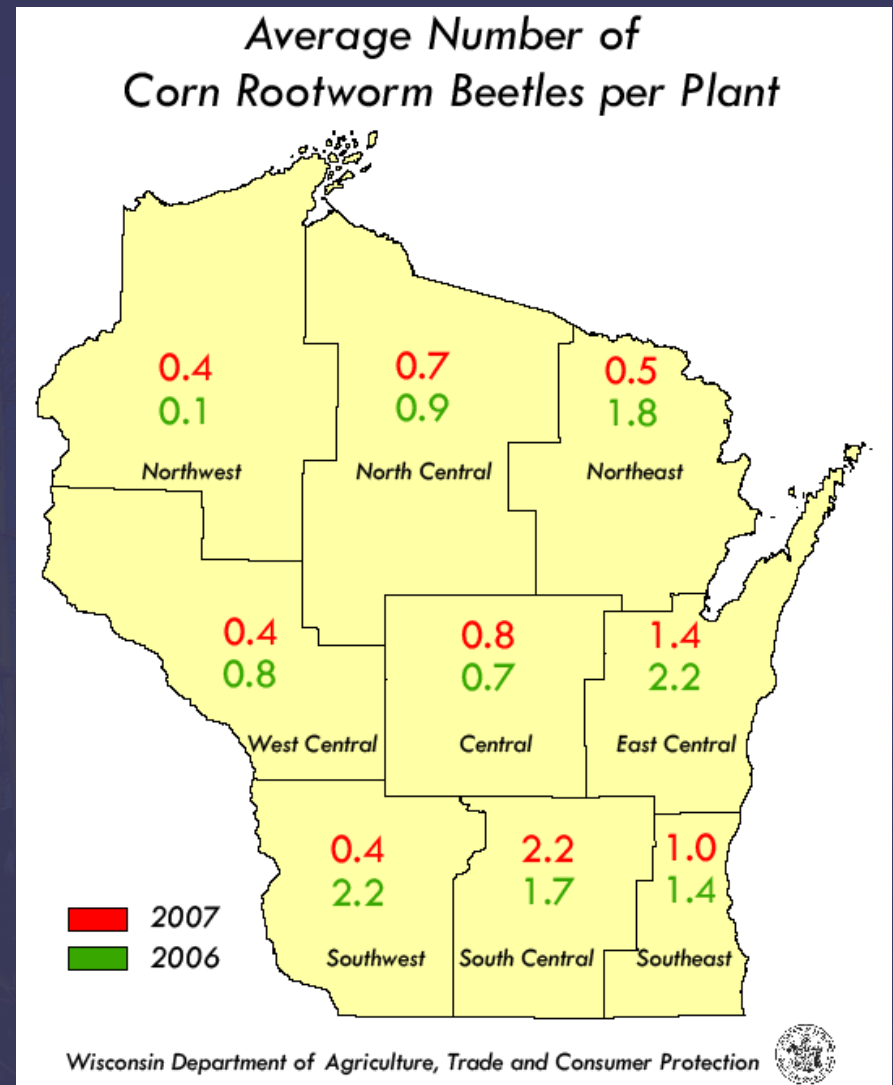
- August 1 to 24 2007
- Total of 222 corn fields
- Statewide Average No. Beetles per Plant:

2007	1.0
2006	1.4
2005	1.6
Threshold	0.75
- 39% of sites with averages > 0.75 beetle per plant



CRW Beetle Survey

- Largest population increase in the SC district
- Largest population decreases in the SW, EC and NE districts
- Heavy CRW beetle populations found in 2007, particularly in the SC, SE, C and EC districts
- Low populations in western WI due to heavy rains and flooding in August



CORN ROOTWORM BEETLE

Wisconsin Dept of Agriculture, Trade & Consumer Protection

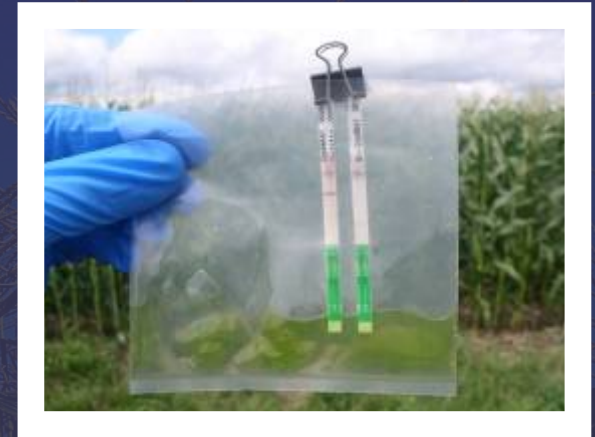
Mobile Testing for BT-ROOTWORM Corn



MOBILE LAB



LEAF SAMPLES

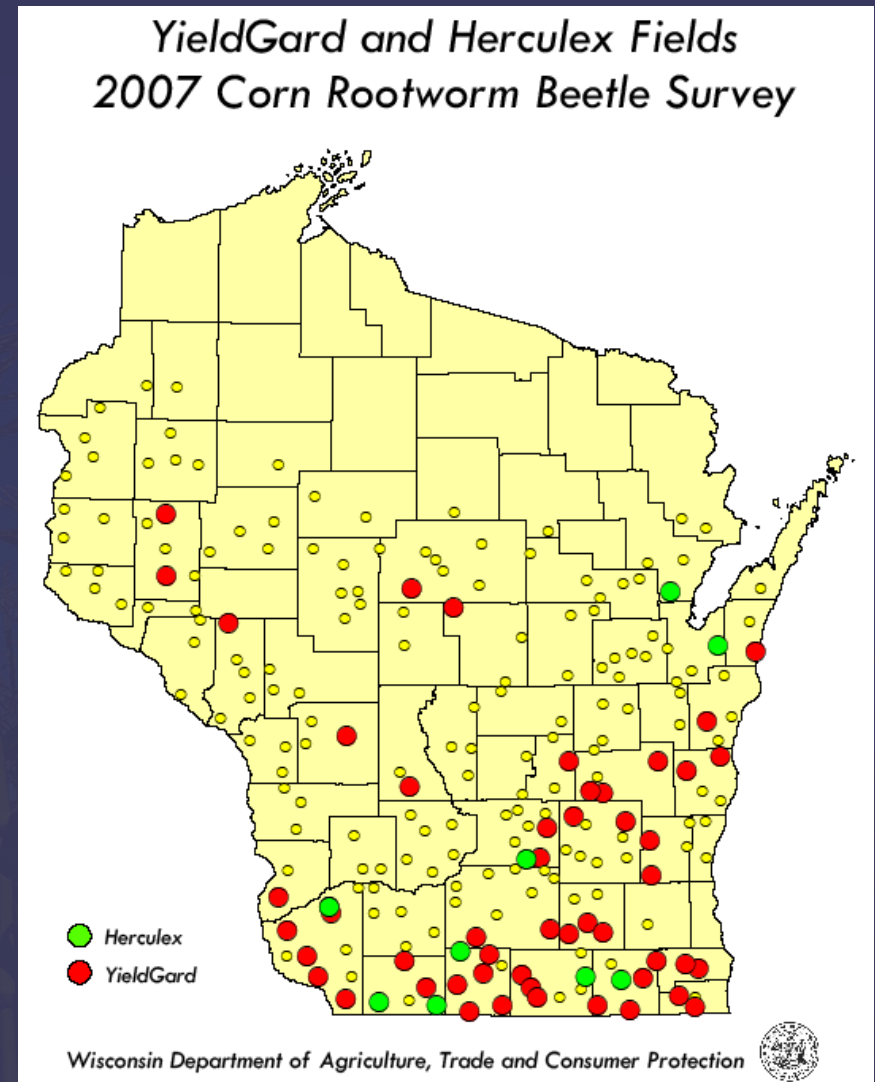


TEST STRIPS

CRW Beetle Survey

- Percentage of Bt-rootworm sites doubled from 2006 to 2007
- 23% tested + for YieldGard® Bt-Cry3b1 protein
- 4% tested + for Herculex® Bt-Cry34/35Ab1 protein
- Economic populations in 57% of YieldGard® fields and 56% of Herculex® fields
- Average No. Beetles per Plant:

Non Bt-rootworm	0.9
Herculex®	1.0
YieldGard®	1.4



CORN ROOTWORM BEETLE

Wisconsin Dept of Agriculture, Trade & Consumer Protection

Outlook for CRW in 2008

- **HIGH** risk in SC, SE, C and EC districts
- **MODERATE** risk in NC, NE, SW, WC, and NW districts
- Growers in **HIGH RISK** areas should consider crop rotation, a Bt-rootworm hybrid, seed treatment, or crw soil insecticide

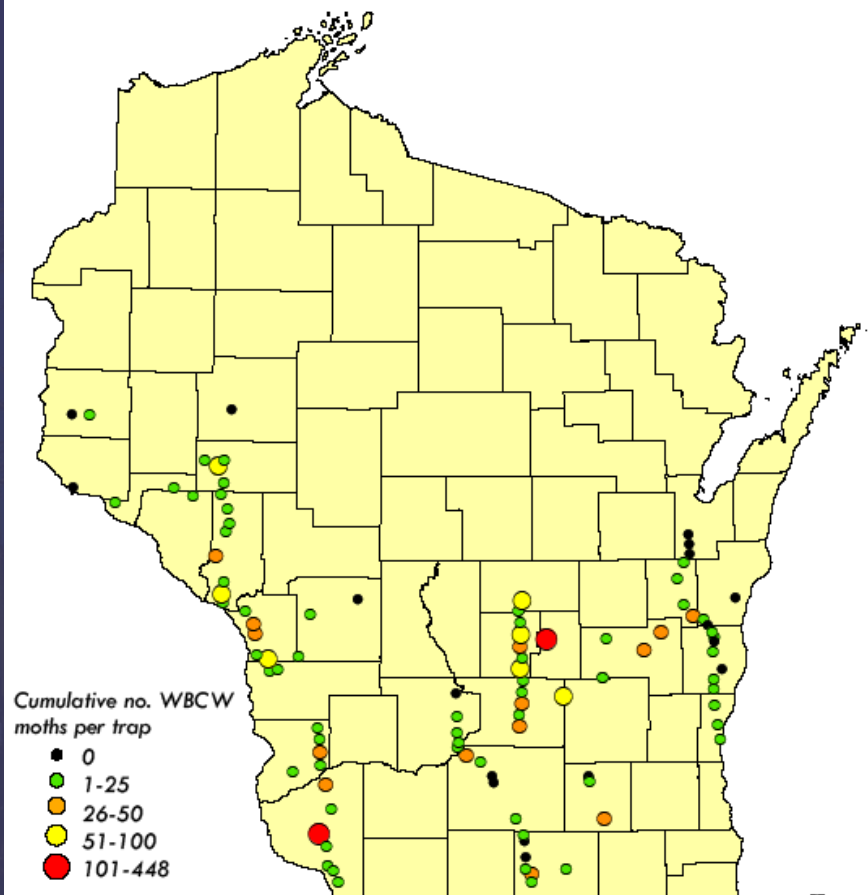




WBCW Trapping Survey

- 103 milk carton pheromone traps set in 2007
- Most traps set by mid-June
First moth captured on June 20
- 78% of traps caught 0-25 moths
- 14% of traps caught 26-50 moths
- 8% of traps caught 51-100 moths
- Total of 2,178 WBCW moths trapped in 2007

2007 Western Bean Cutworm
Cumulative Pheromone Trap Counts



Wisconsin Department of Agriculture, Trade and Consumer Protection



WESTERN BEAN CUTWORM

Wisconsin Dept of Agriculture, Trade & Consumer Protection

WBCW Trapping Survey

- Highest single nightly capture was 83 moths at Princeton on July 13
- Highest cumulative capture was 448 moths at Princeton in Green Lake County
- Peak flight registered from July 12 to August 7 at all sites
- Flights peaked earlier at western and central trap sites (mid- to late July) compared to eastern sites (first week of August)



WESTERN BEAN CUTWORM

Wisconsin Dept of Agriculture, Trade & Consumer Protection

Outlook for WBCW in 2008

- WBCW probably occurs statewide, but at very low levels
- Not yet a MAJOR threat to WI corn production
- Begin scouting as soon as the 1st moth is noticed
- Expect peak flight (and larvae in corn ears) by mid-to late July in west and central areas, about last week of July in the east (earlier than corn earworm)
- Action threshold = 8% of plants have egg masses and/or small larvae



CORN EARWORM



WESTERN BEAN CUTWORM

VARIANT CORN ROOTWORM

Wisconsin Dept of Agriculture, Trade & Consumer Protection

Variant WCRW Survey

- **The Variant WCRW Network monitored 53 soybean fields in 2007**
- **12 yellow sticky traps per soybean field**
- **Four-week sampling period in August**
- **Threshold = 5 B/T/D for the four-week period**

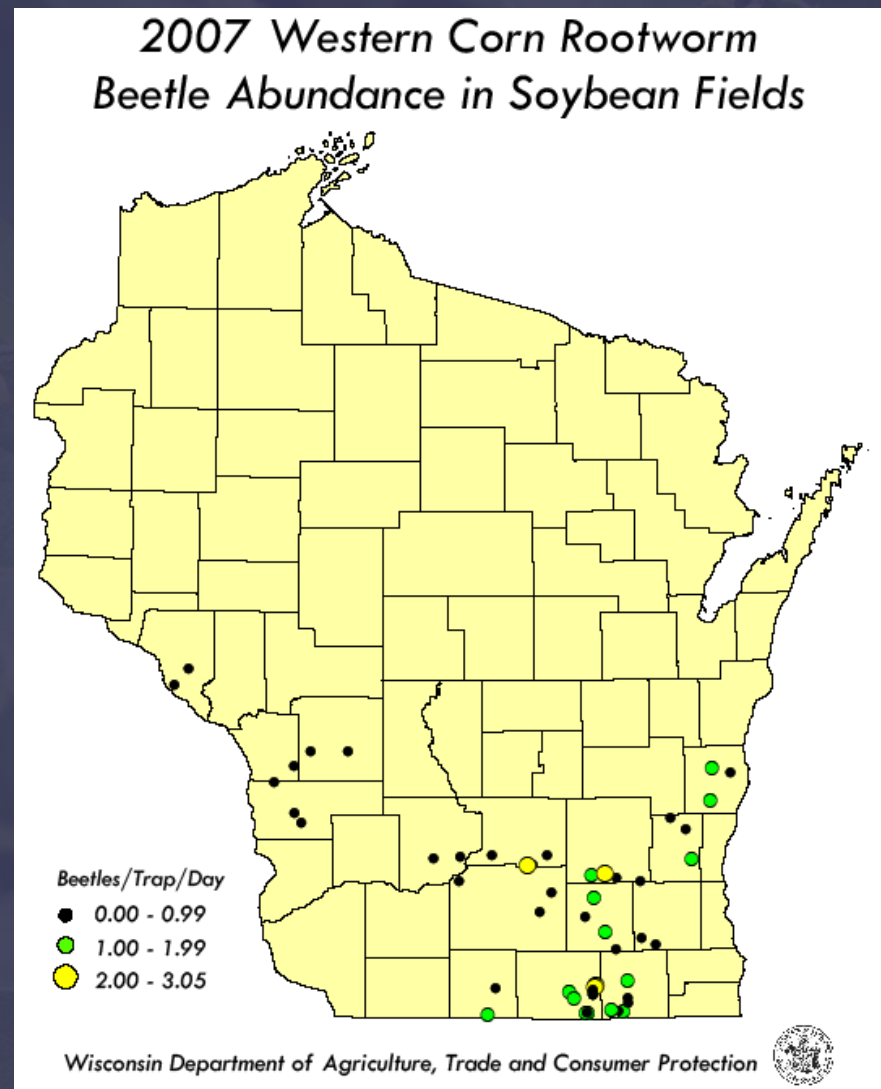


VARIANT CORN ROOTWORM

Wisconsin Dept of Agriculture, Trade & Consumer Protection

Variant WCRW Survey

- No fields with Variant WCRW populations > 5 B/T/D
- Highest averages were 3.05 B/T/D and 2.17 B/T/D in Columbia, Dodge, and Rock counties
- Averages in Rock and Walworth counties fell below 5 B/T/D for first time since 2003



VARIANT CORN ROOTWORM

Wisconsin Dept of Agriculture, Trade & Consumer Protection

Outlook for Variant WCRW in 2008

- **WCRW populations LOWER** due to heavy rains and standing water in August
- **First year corn in fields monitored at LOW risk** for root injury by WCRW larvae in 2008
- **If you suspect VWCRW damage to first year corn, dig up plants in July to have roots assessed**

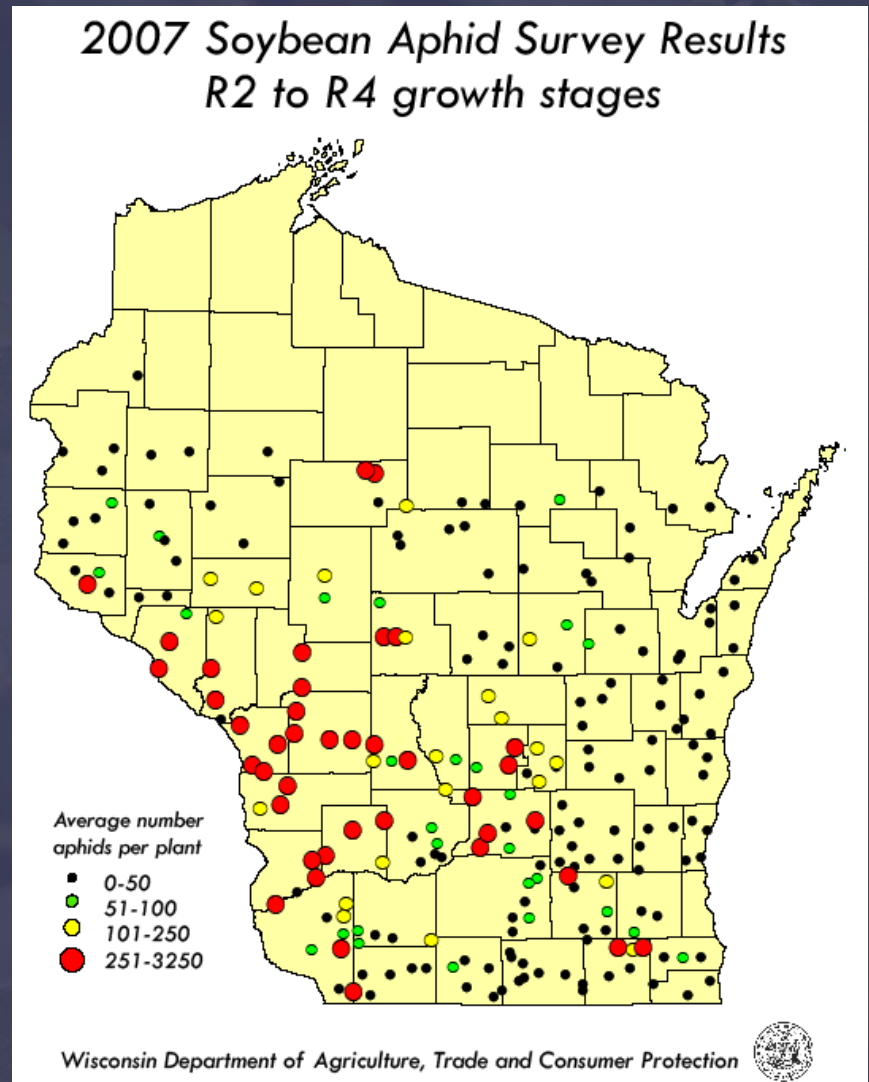


Soybean Aphid Survey

- **Statewide Average No. of Soybean Aphids per Plant:**

2007	164
2006	69
2005	118
2004	11
2003	758

- 73% fields with < 100 per plant
- 10% fields with 101-250 per plant
- 17% fields with 251-3250 per plant



SOYBEAN APHID SURVEY

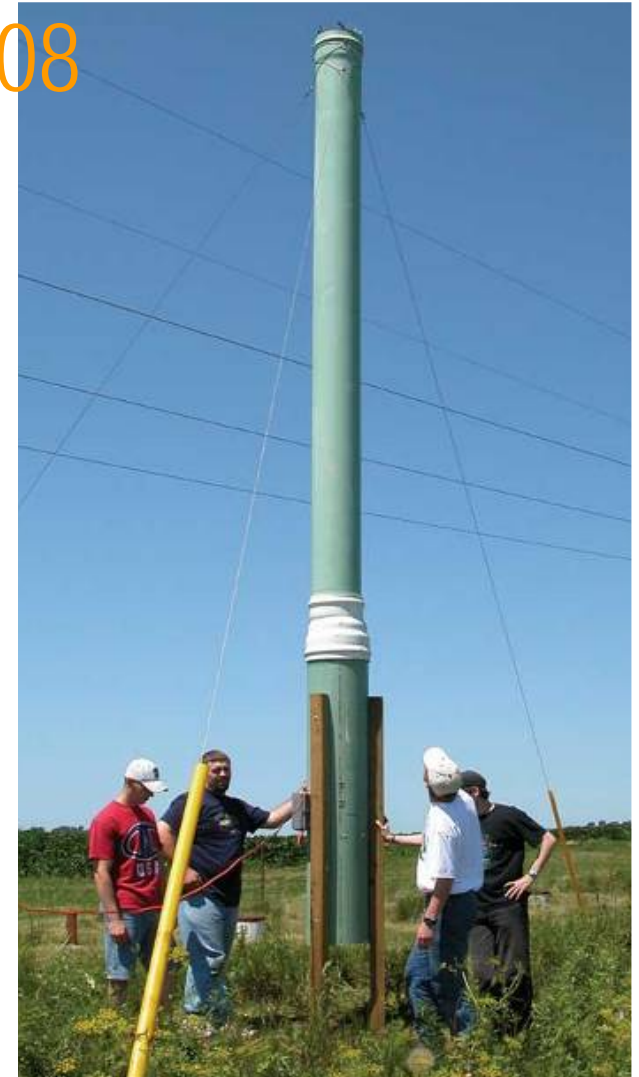
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Outlook for Soybean Aphid in 2008

Soybean Aphid Overwintering Flight **Suction trap counts from Sept-Oct**

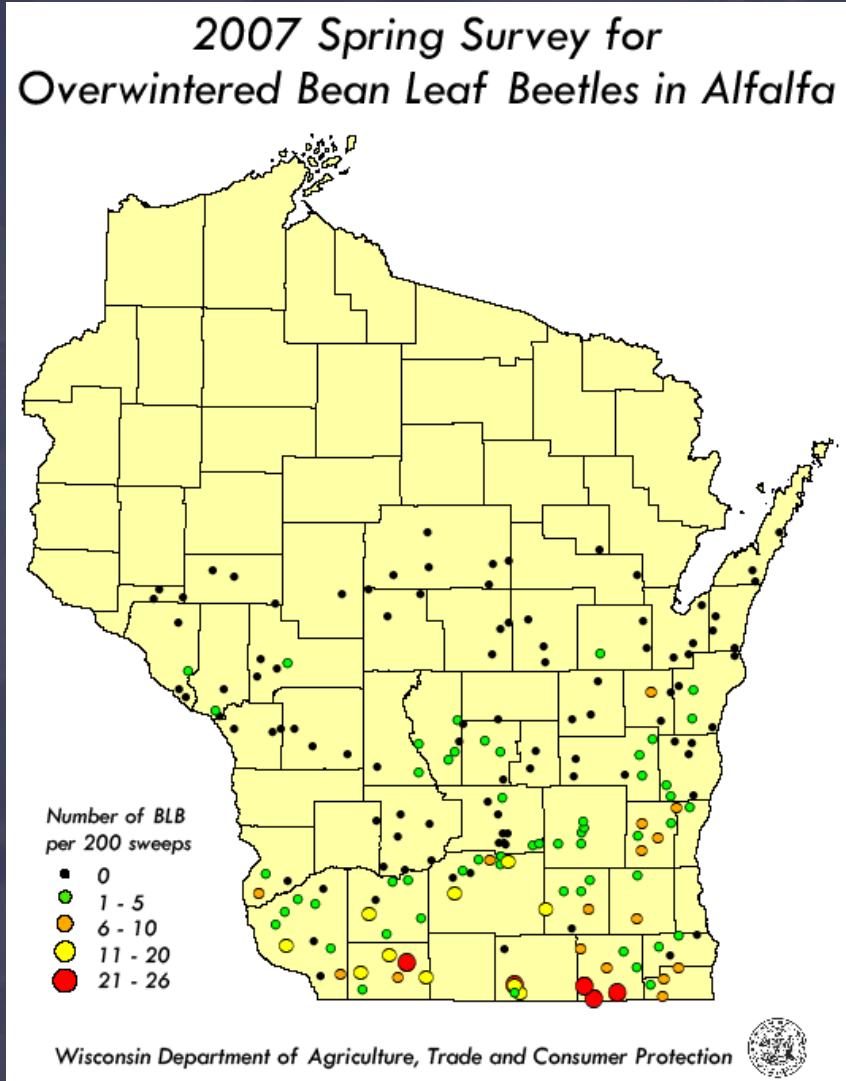
State	No. Traps	2006	2007
WI	7	213	17
MN	5	376	104
IL	9	1762	31
IA	4	532	9
IN	6	8322	59
MI	5	209	156

**A very low overwintering flight
may indicate lower aphid
densities in 2008**



Bean Leaf Beetle Survey

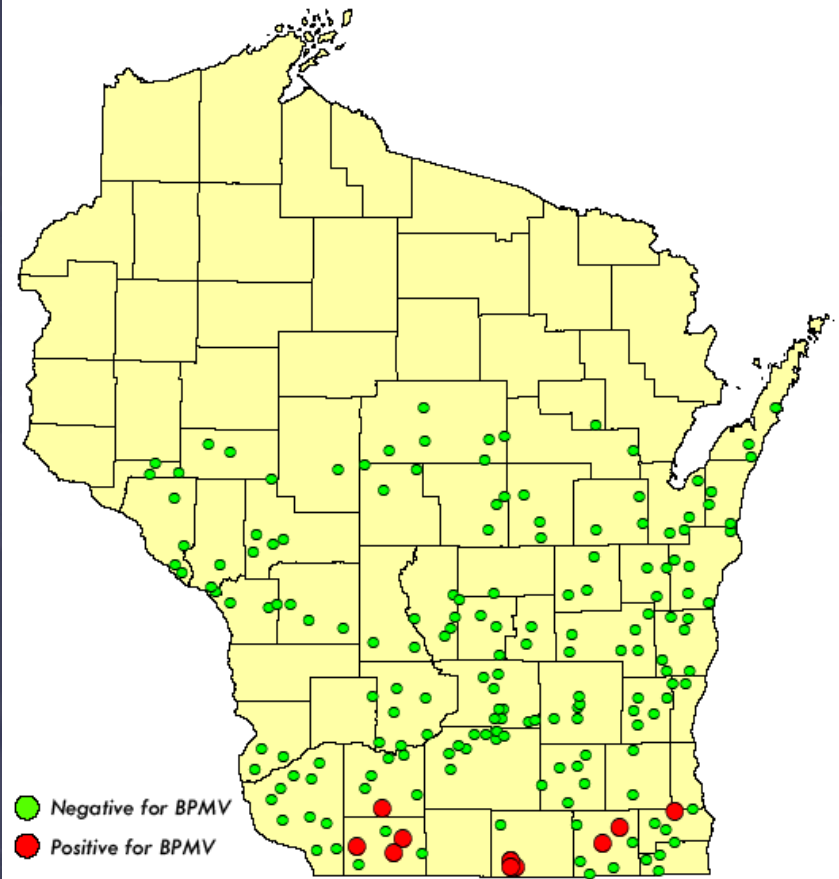
- 5th annual survey detected highest numbers of bean leaf beetles since 2003
- 183 survey sites (alfalfa fields)
- Total of 509 BLB swept
- BLB found at 86 sites (47%)
- Highest counts detected in Lafayette, Rock and Walworth counties



Bean Leaf Beetle Survey

- 509 BLB collected from 86 alfalfa fields
- BLB from 11 of 86 alfalfa fields tested positive for BPMV
- BPMV-positive beetles found in Iowa, Lafayette, Racine, Rock and Walworth counties

2007 Spring Survey for Overwintered Bean Leaf Beetles and BPMV in Alfalfa



Wisconsin Department of Agriculture, Trade and Consumer Protection

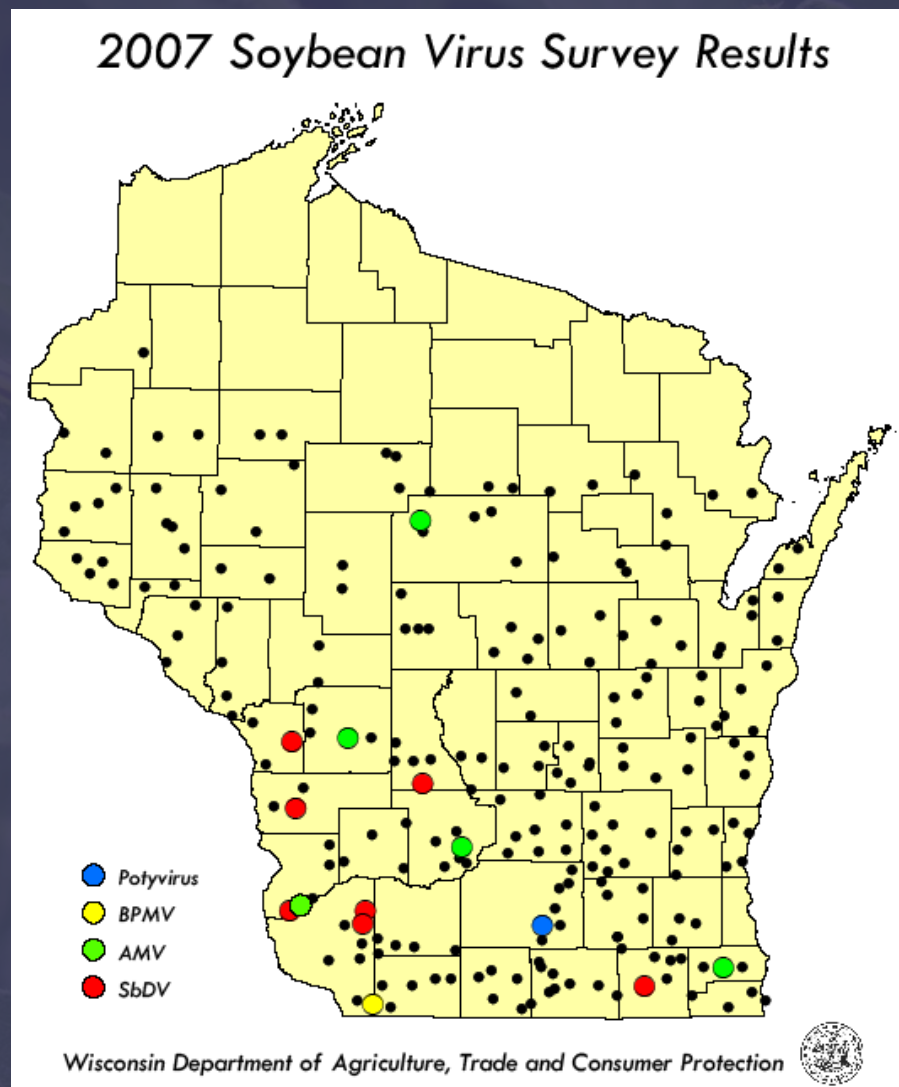


BEAN LEAF BEETLE SURVEY

Wisconsin Dept of Agriculture, Trade & Consumer Protection

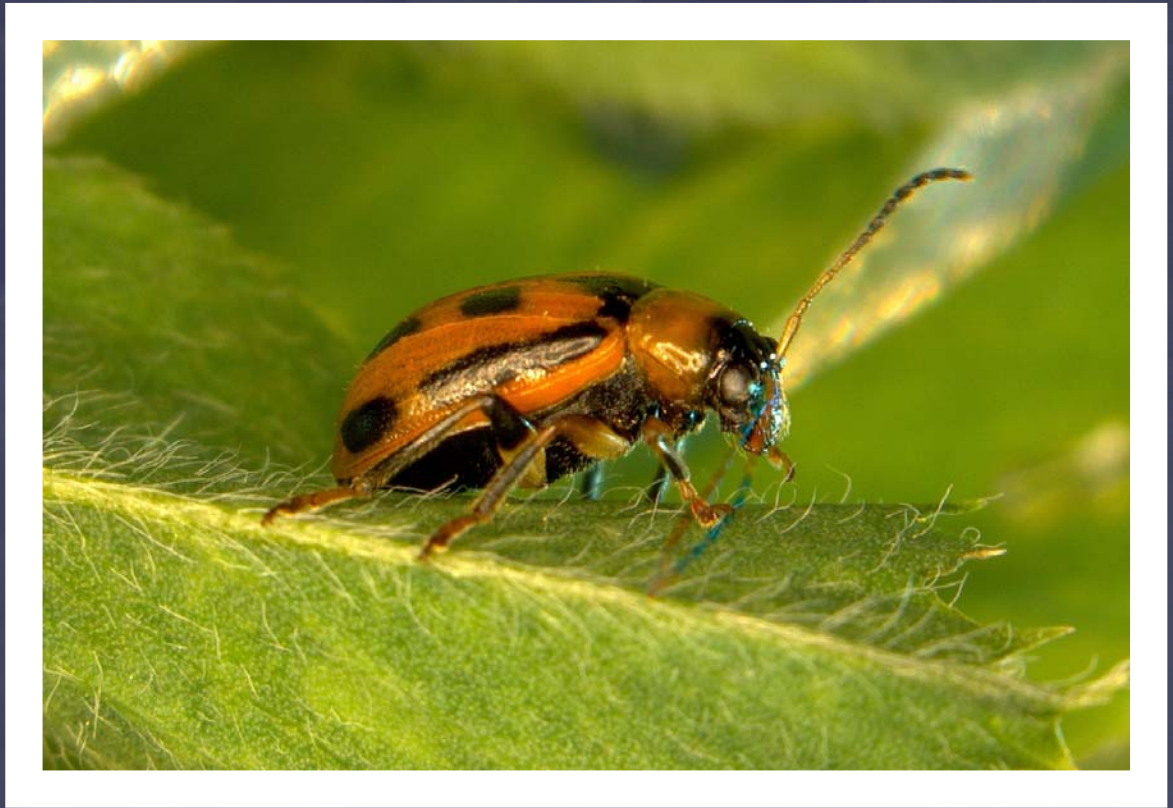
Soybean Virus Survey

- **BPMV detected in one Grant County field during 2007 soybean virus survey**



Outlook for Bean Leaf Beetle in 2008

- **Appears to be a LOW risk for early-season BPMV transmission**
- **Scout earliest emerging soybeans for defoliation**



WISCONSIN PEST BULLETIN

Wisconsin Dept of Agriculture, Trade & Consumer Protection

The Wisconsin Pest Bulletin

Wisconsin PEST BULLETIN

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

<http://pestbulletin.wisconsin.gov>

email: krista.hamilton@wisconsin.gov



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