

WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE & CONSUMER PROTECTION

# wisconsin insect survey results and outlook for 2006

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Plant Industry Bureau  
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bean leaf beetle



european corn borer



corn rootworm



western bean cutworm



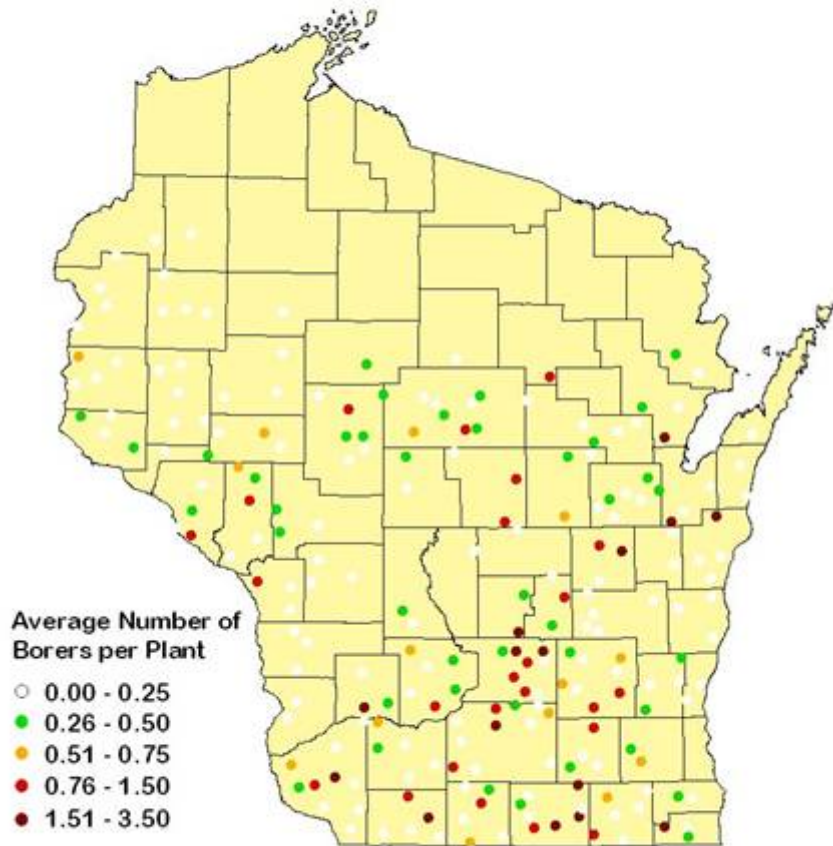
soybean aphid



true armyworm

## 2005 European Corn Borer Survey

August 29 - October 13, 2005



Wisconsin Department of Agriculture, Trade & Consumer Protection



## fall ecb survey summary

statewide average ecb larvae per plant

2005: 0.39

2004: 0.10

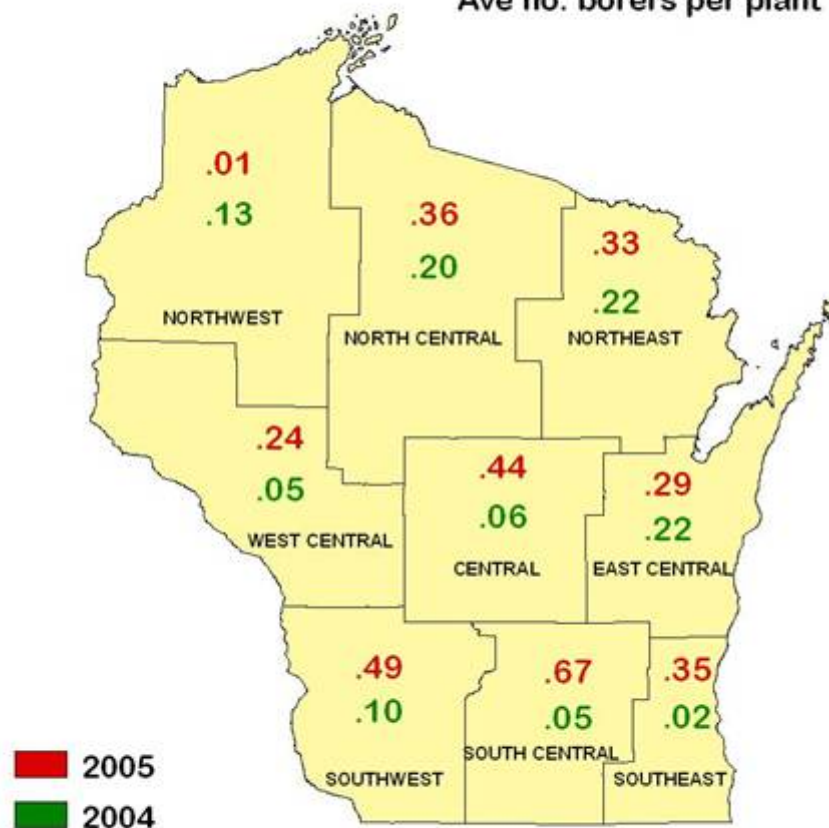
10-year: 0.33

50-year: 0.49

223 survey sites in 2005

## European Corn Borer Fall Population

Ave no. borers per plant



Wisconsin Department of Agriculture, Trade & Consumer Protection



district ecb averages

Population increases occurred in all districts but Northwest

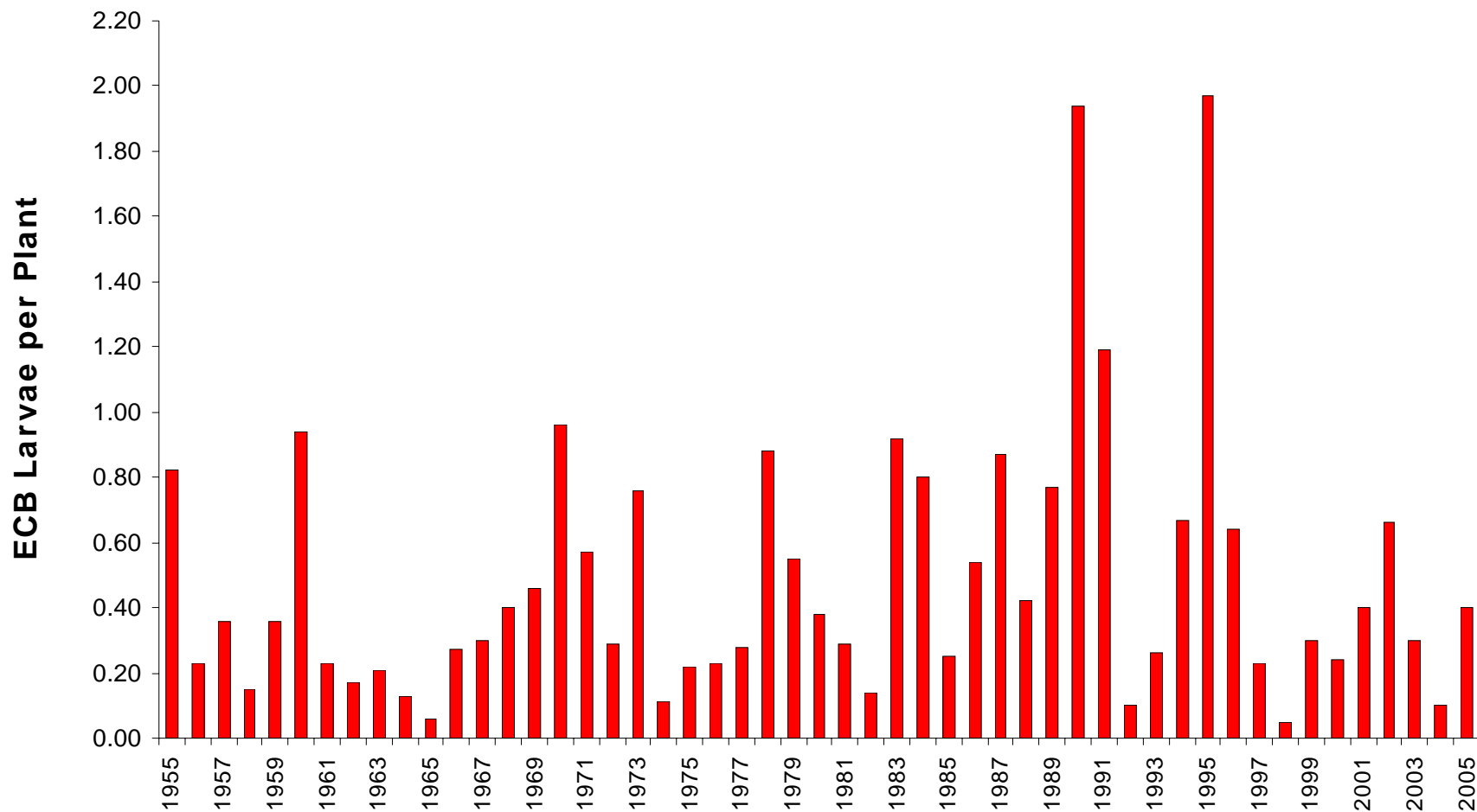
Districts with the largest increases were:

South central  
Southwest  
Southeast  
Central



# Statewide Fall Survey Averages 1955-2005

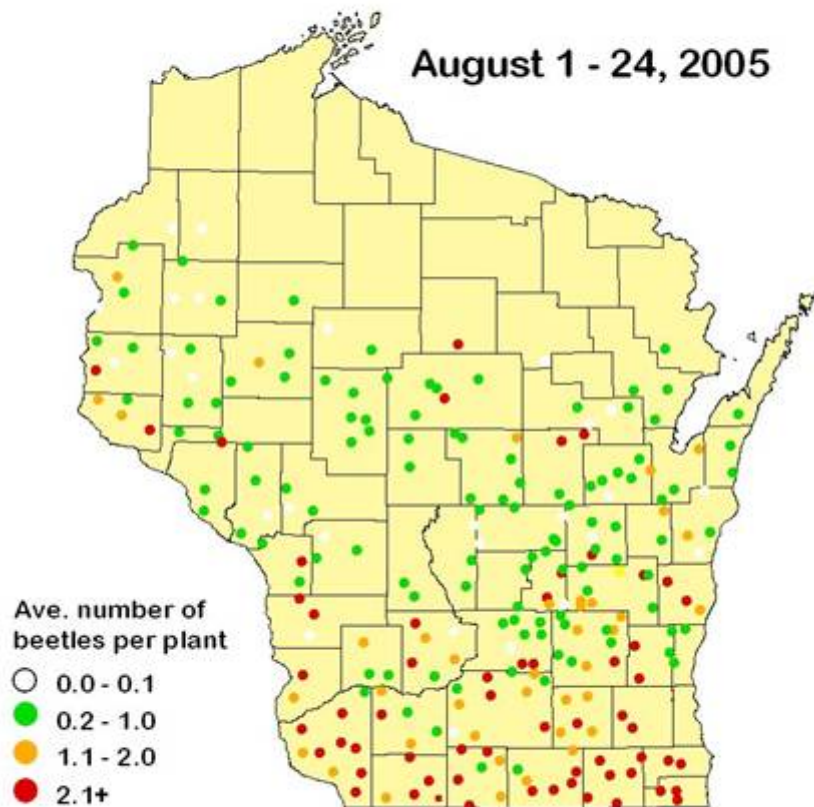
## Average ECB Larvae per Plant



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 Wisconsin Department of Agriculture, Trade & Consumer Protection - Pest Survey Program  
<http://pestbulletin.wi.gov/>

## 2005 Corn Rootworm Beetle Survey Results

August 1 - 24, 2005



243 fields surveyed

Wisconsin Department of Agriculture, Trade & Consumer Protection



## corn rootworm beetle survey

average number of beetles per plant

Statewide average	1.6
Northwest	0.4
North central	0.8
Northeast	0.3
West central	0.8
Central	0.9
East central	1.1
Southwest	3.2
South central	1.9
Southeast	3.8

## outlook for corn rootworm in 2006

Heavy corn rootworm beetle populations found in 2005, especially in the SW, SC and SE districts

Lots of crw adults = lots of crw eggs

Expect heavy larval populations and instances of severe lodging in 2006





# western bean cutworm

Set 14 milk carton pheromone traps in 2005

Traps deployed week of July 15

First moths captured week of July 22

Peak flight registered July 30 - August 4

WBCW detected for the first time in Calumet, Kewaunee, Manitowoc, Outagamie and Shawano counties





# results & recommendations for wbcw in 2006

Moth flight begins early to mid-July in WI

Place pheromone traps by late June

Begin scouting as soon as the 1st moth is noticed

Expect peak flight by late July

Look for larvae in ears and damage in July and August (earlier than corn earworm)

Threshold = 8% of plants have egg masses and/or small larvae



corn earworm



western bean cutworm





# true armyworm



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Migratory pest arrives late April-early May

Impact depends on heavy moth flights reaching WI

Three generations per season

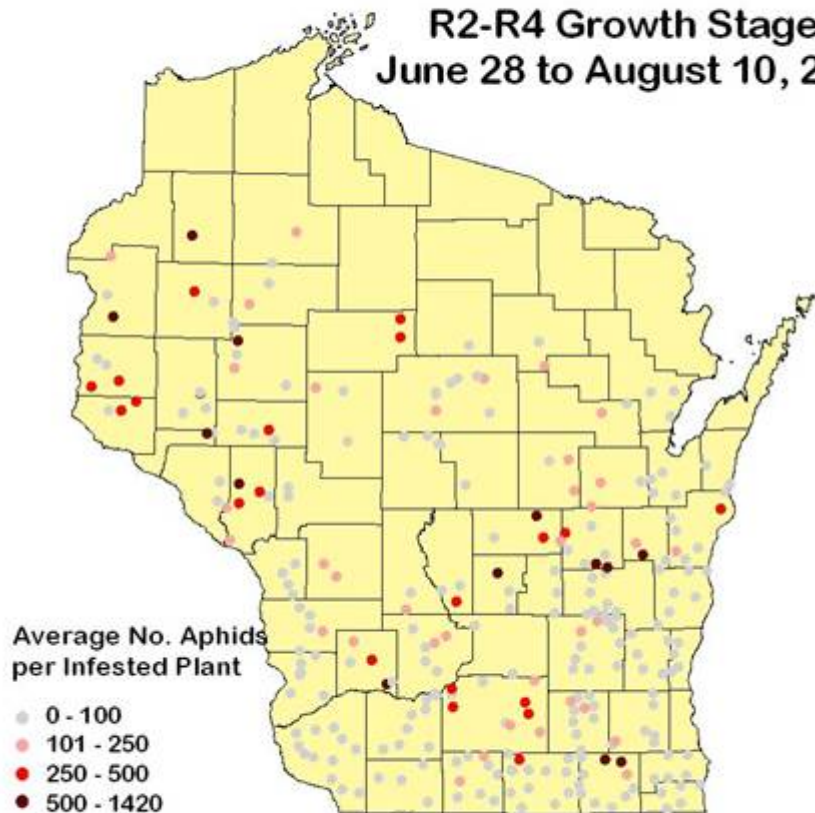
Second generation in July is often most damaging

Grass weeds attract females for egg laying or larvae migrate in from nearby pastures

Weedy fields are most at risk, and no-till fields planted with small grains or cover crops

## Soybean Aphid Peak Densities Summer 2005

R2-R4 Growth Stages  
June 28 to August 10, 2005



274 fields surveyed

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## soybean aphid survey

Statewide average number  
of aphids per plant:

2005	120
2004	15
2003	770

88% fields with < 250 aphids/plant

12% fields with > 250 aphid/plant

Overall moderate densities in 2005

# outlook for soybean aphid in 2006

## IL suction trap counts in Sept & Oct

- 2002 (8 traps) 732 aphids
- 2003 (9 traps) 71 aphids
- 2004 (9 traps) 1,700 aphids
- 2005 (9 traps) 269 aphids

## WI suction trap counts in Sept & Oct

- 2005 (5 traps) 77 aphids

Do low suction trap counts indicate fewer soybean aphids in 2006?



(Matt O'Neal, Iowa State University)

# bean leaf beetle

DATCP conducted two surveys for BLB in 2005:

1. Spring survey for OVERWINTERED beetles (May 4 - June 1)
2. Summer survey for FIRST GENERATION beetles (June 28 - August 22)

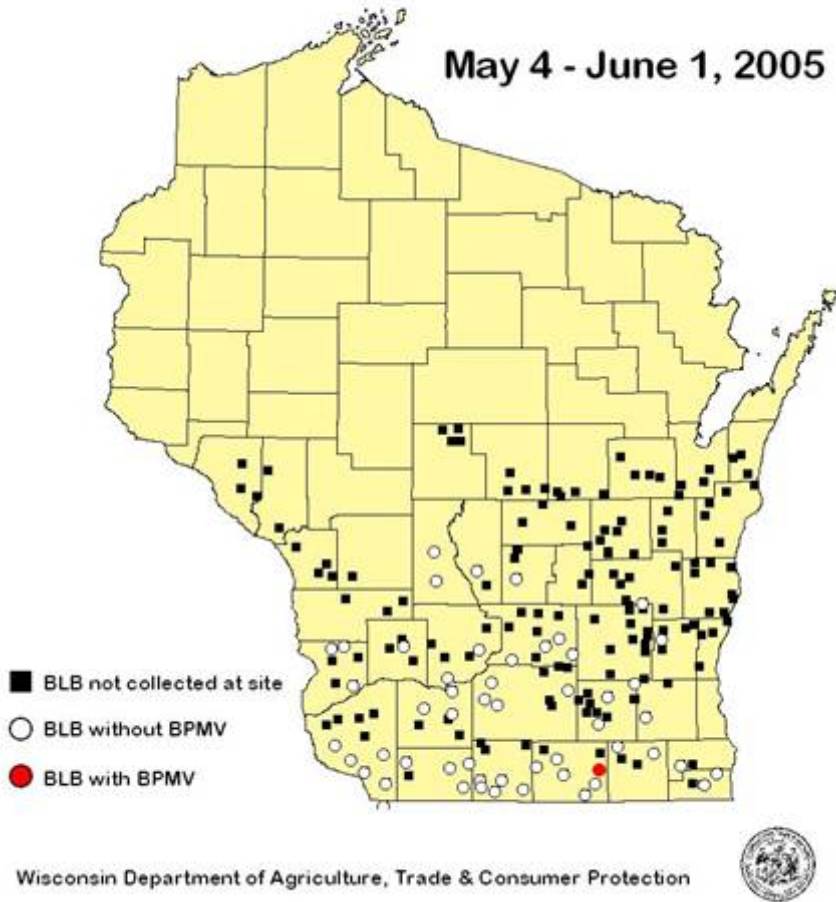
Bean leaf beetles collected during both surveys were tested for Bean Pod Mottle Virus (BPMV) using DAS ELISA





## 2005 Spring Survey for Overwintered Bean Leaf Beetle and BPMV in Alfalfa

May 4 - June 1, 2005

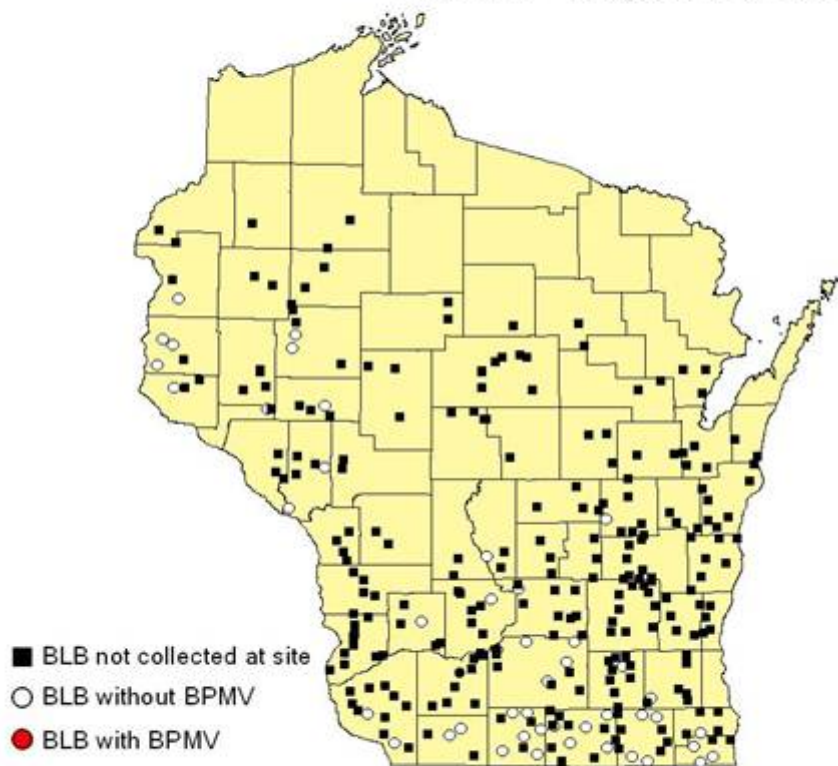


## spring blb survey

- 204 survey sites (alfalfa fields)
- BLB found at 51 sites (25%)
- BLB from 1 of 51 sites tested positive for BPMV
- BPMV<sup>+</sup> beetle found in Rock Co.

## 2005 Summer Survey for BLB & BPMV

June 28 - August 22, 2005



- BLB not collected at site
- BLB without BPMV
- BLB with BPMV

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276 fields surveyed

## summer blb survey

- 276 survey sites (soybean fields)
- BLB collected from 47 sites (17%)
- No BLB tested positive for BPMV
- No soybean leaf samples tested positive for BPMV

# blb survey conclusions & outlook for 2006

BPMV found in **one** overwintered beetle collected in spring of 2005

BPMV not found in any first generation beetles collected in summer 2005

BPMV not present in any of the 276 soybean fields surveyed in 2005

Early season BPMV transmission not expected to be an issue in 2006



for weekly updates on pest conditions  
throughout the growing season:



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