

Bugs: The more things change the
more they
stay the same....

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2013 Lab Summary

- 2209 lab samples- 4% increase over 2013- makes no sense ???
- No major “plagues” in AG area
- Only one new state record- European Chafer in Door co.

Exotic Insects

- 2/3 of our “pest insects” are non native
- Historically most were from Europe
- Last 20 years most problems from Asia

“Outbreaks”

- Hard to predict –
- Native insects that get out of balance

Variegated cutworm -2012



Photo- Mike Weiss/
Syngenta



May -1978







Alfalfa weevil

- In 1978- 40% + of the 1st crop in the state should have been treated or cut
- First significant pest of 1st crop- before crop scouting
- Now if 10% is a real bad year.
- Release of parasitic wasps (WDATCP)-

Alfalfa weevil parasites



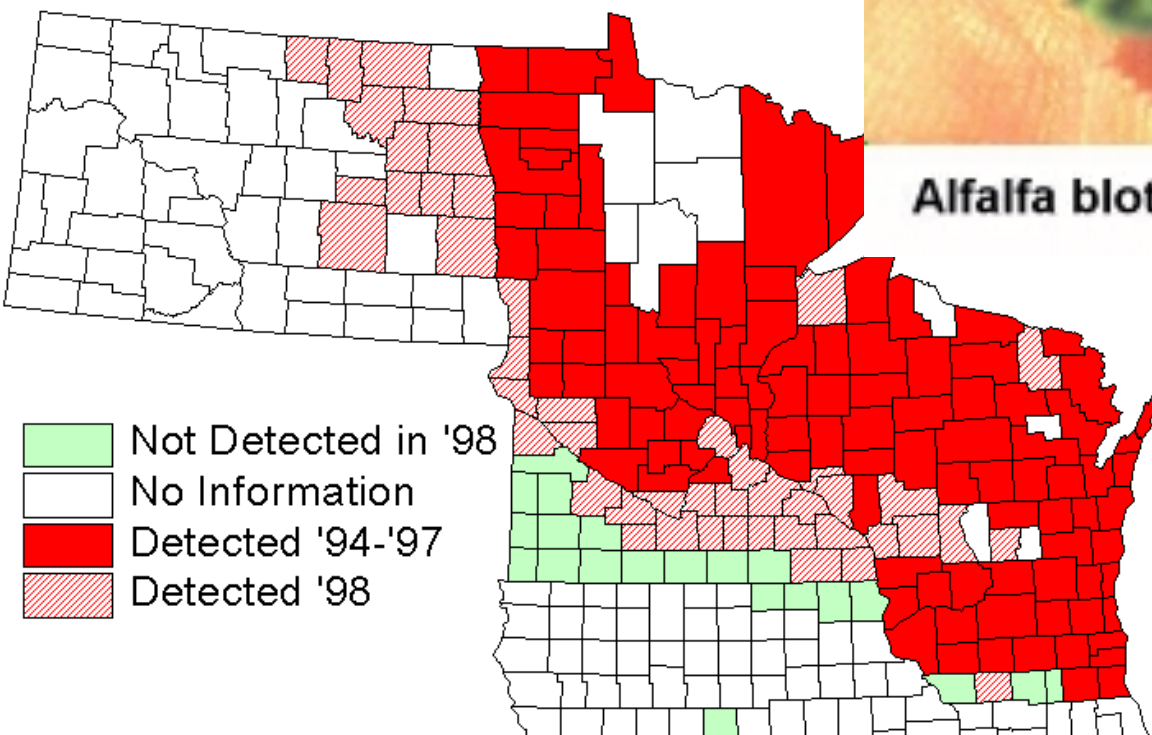


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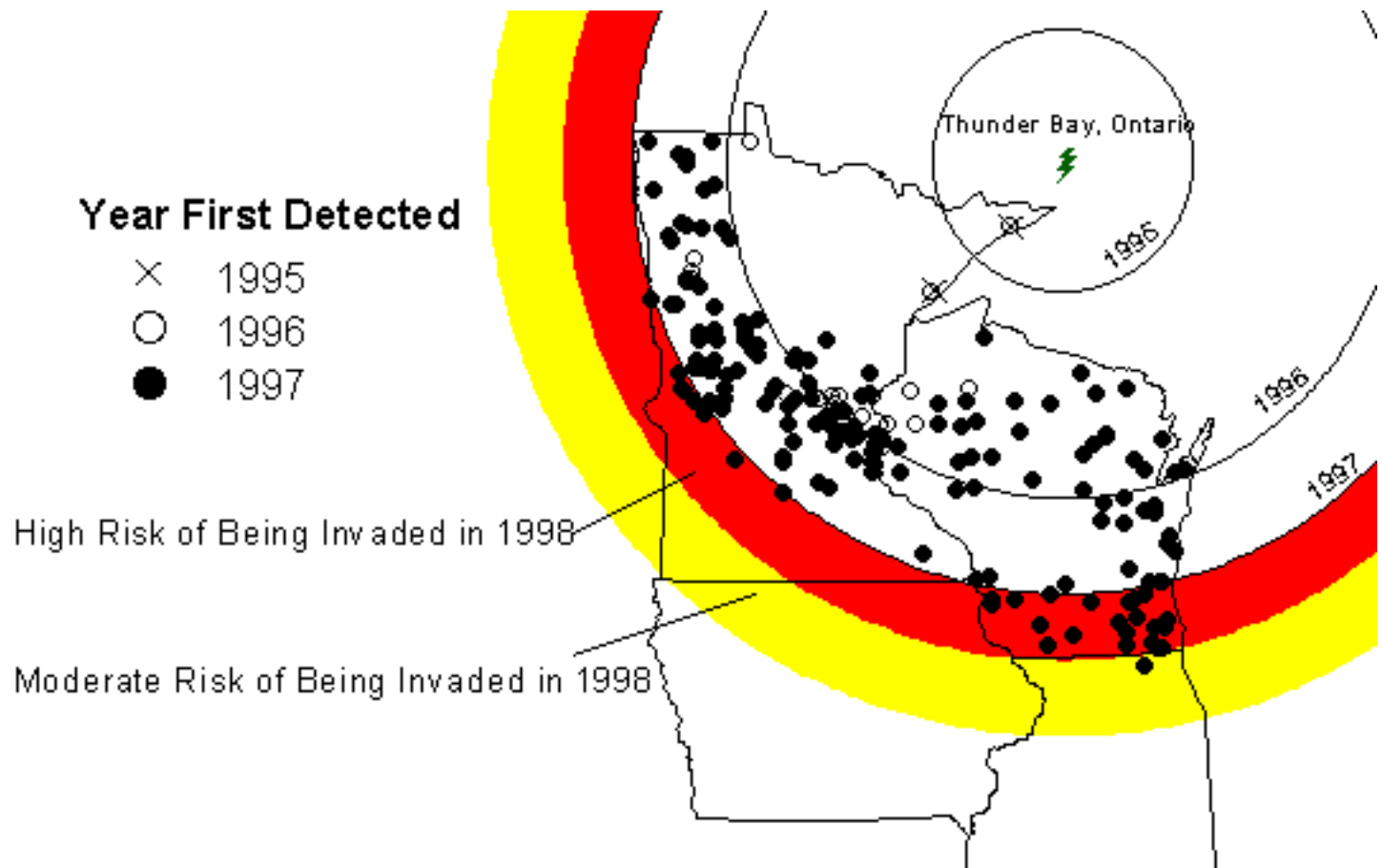
Alfalfa blotch leafminer



Alfalfa blotch leafminer larva & blotch mine



- European insect found in 1968 in MASS
- 1st seen in Minnesota in 1994
- Widespread in Wisconsin by 1997



Biological control

Introduced parasite, *Dacnusa dryas*

- In NE controlled 98% of ABL
- Native parasites hear?
- THRESHOLDS- 30-40% leaflets show pinhole feeding
- Three generations/ year



2003





Cowpea nymph

Cow pea aphid



- Problem in 2003
- Only Black aphid in alfalfa
- Use same thresholds and treatments
- Seem to move out of SW US New strain?

Spotted Alfalfa Aphid







BILLBUGS



- A type of weevil
- See problems next to swamps and 1st year corn
- Only see adult feeding damage in Wisconsin
- DIFFERENT SPECIES THAN IN SOUTH

Hop vine borer damage







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Common stalk borer



Common Stalk Borer

- Switch to no-till
- Chemicals not very good(pre-pyrethroids)
- Dealing with a native prairie insect

European Corn borer





European corn borer

- Agronomic improvements before BT
- Was “economic” about every $\frac{1}{4}$ years
- GMO's/BT has made it a minor issue...



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Untreated

160 bu/A

**YieldGard[®]
Rootworm**

190 bu/A

St. Johns, MI

Yields estimated from counting rows/kernels





Rootworm issues

- Pre-chemicals- ROTATION
- Pesticide resistance 1950
- Soil degradation of chemical- (carbofuran)
- Cropping systems causing selection pressure
 - Egg diapause (Northerns)
 - Egg laying preferences in soybeans (Westerns)
- GMO Resistance - issues

Soybean aphid



Soybean aphid-first seen in US in
July 2000 from Walworth county



Soybean aphids

- Was an insect of “ Major concern” before 2000
- First significant annual pest of beans in the state.....
- Every year is a new scenario does not seem to follow a predictable pattern.....

Multicolored Asian Beetle





FRAME





Japanese beetle

- South of a line from Barron county- Oconto county
- Most or problems with grubs in turf and adults on grapes, raspberries and ornamentals.....
- Ag issues in Rock, Walworth, Dane....





Brown marmorated stink bug- from Asian

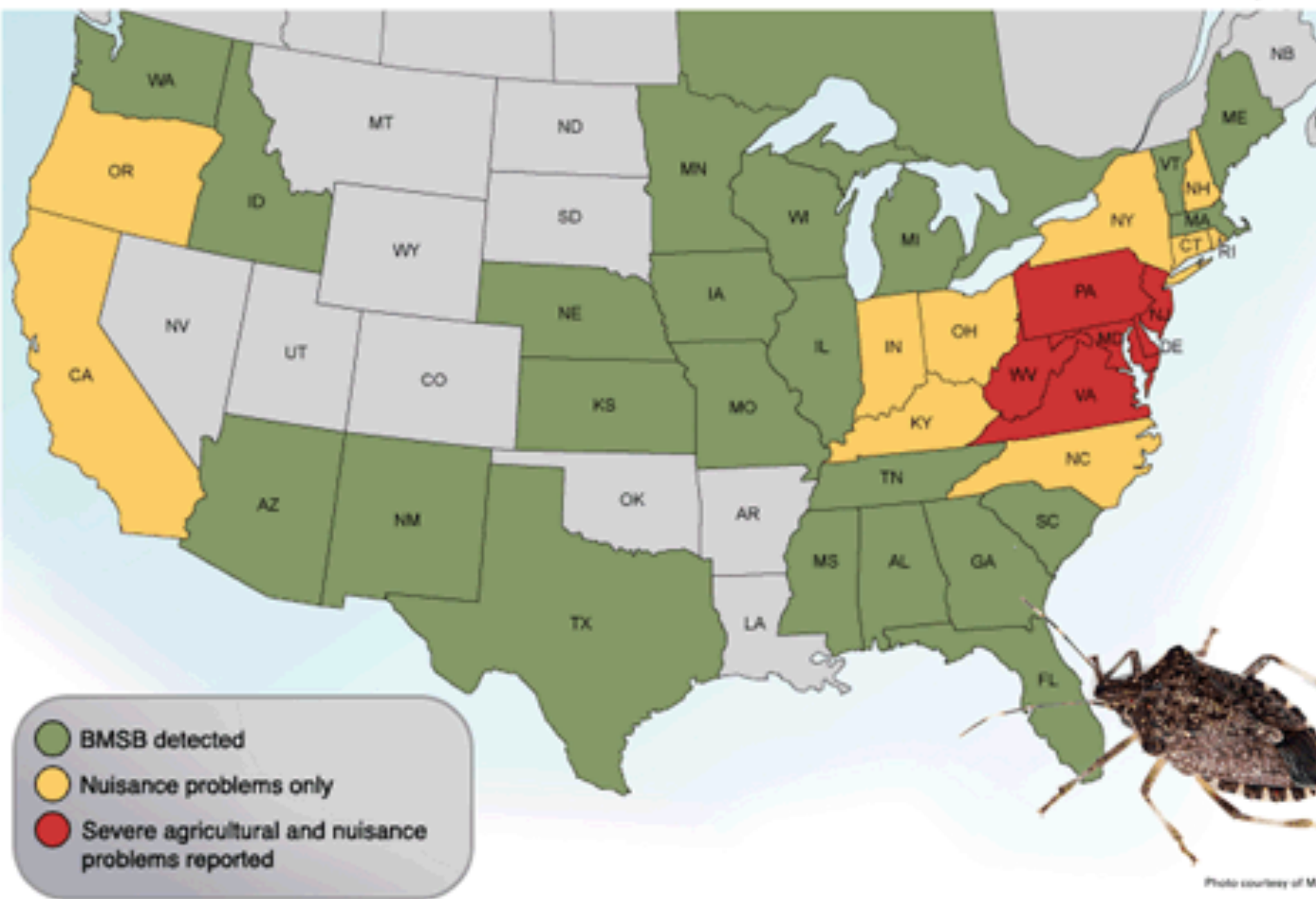
**Distinct black and white pattern
around abdomen**

Smooth “shoulder”

**White bands on dark
antennae**

Original photo by Jeff Wildonger, USDA-ARS-BIIR

Brown Marmorated Stink Bug (BMSB) Distribution Map

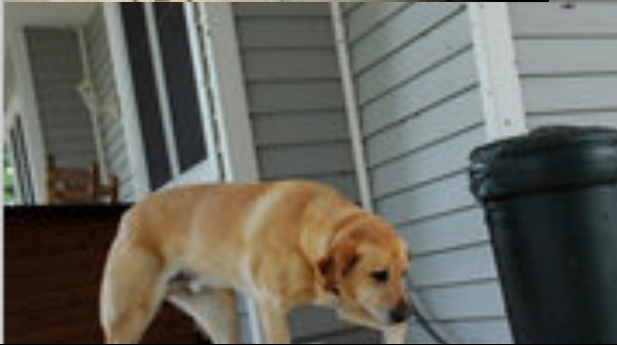


BM Stink bug

- 2011- overwintering adults on East side of Madison @ hotel (mid April)
- 2011 Jefferson- (Dec) 2012 Winter-overwintering adults from BROWN (Jan 13), DANE (Jan 19)

STILL SEEING A TRCIKE

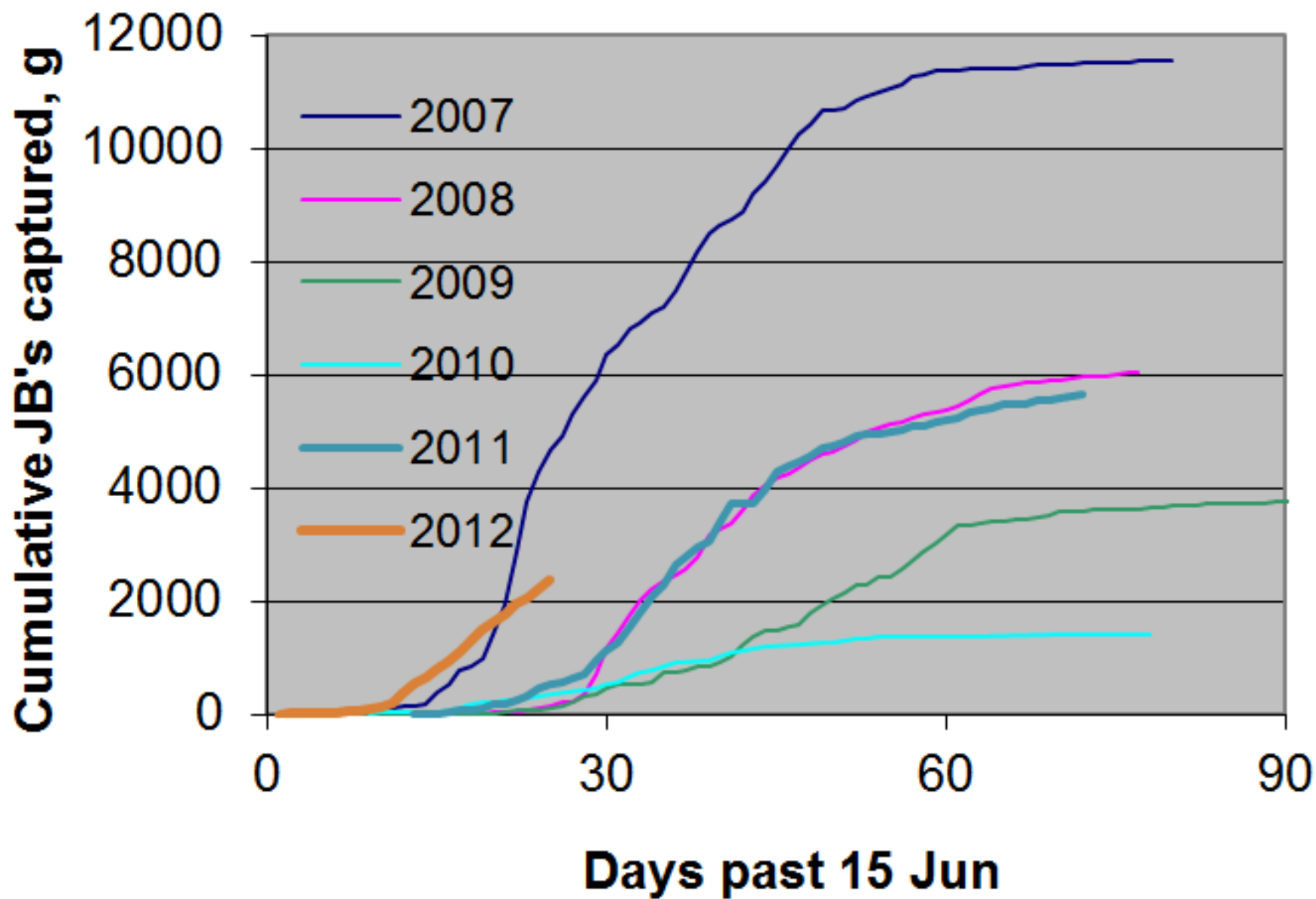
Brown Marmorated Stink Bug





What to expect in future?

- Nothing stays the same
- Expect “new pests” to have biggest impact in first few years of establishment and become less of an issue over time.....
- THERE WILL BE NEW PESTS!!!!



Keep your eyes open!!

- You are the “first detectors”
- Some of the problems will fizzle out – but we will not know that until we get some experience

