

Wisconsin Department of Agriculture, Trade and Consumer Protection

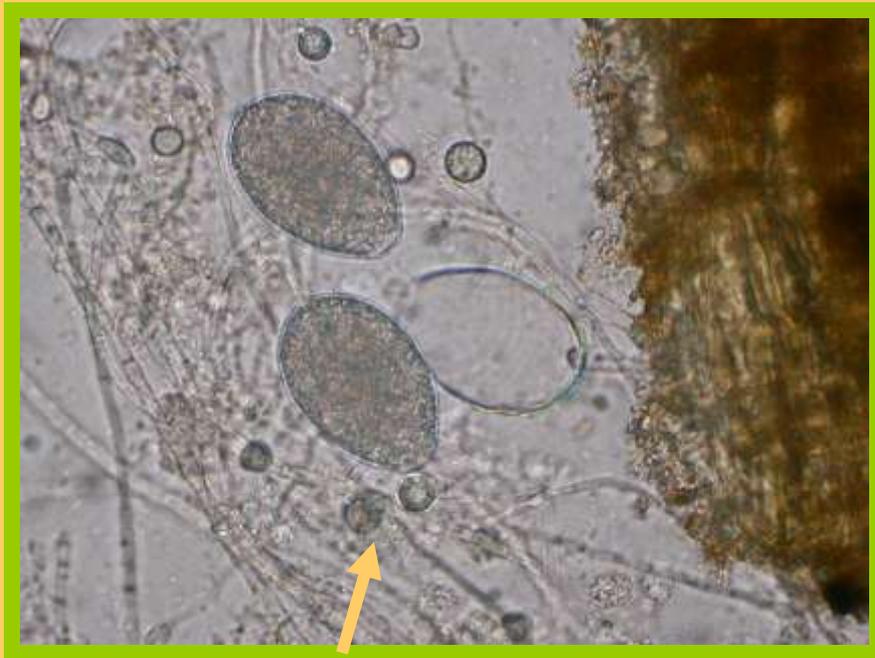
Wisconsin Pest Survey Reports 2009

<http://pestsurvey.wi.gov/>

- ◆ **Phytophthora Root Rot of Soybean Seedlings**
- ◆ **Viruses of Soybeans**
- ◆ **Viruses of Snap Beans**
- ◆ **Foliar Diseases of Winter Wheat**
- ◆ **Seed Corn Survey**
- ◆ **Potato Surveys**

Wisconsin Pest Survey Report

2009 PHYTOPHTHORA ROOT ROT SURVEY OF SOYBEAN SEEDLINGS



Sporangia of *Phytophthora sojae* on soybean root

<http://www.plantpath.wisc.edu/soyhealth/prr.htm>

http://www.planthealth.info/prr_basics.htm

Location:

Wisconsin soybean growing area.

Total fields tested: 50

Field sampling:

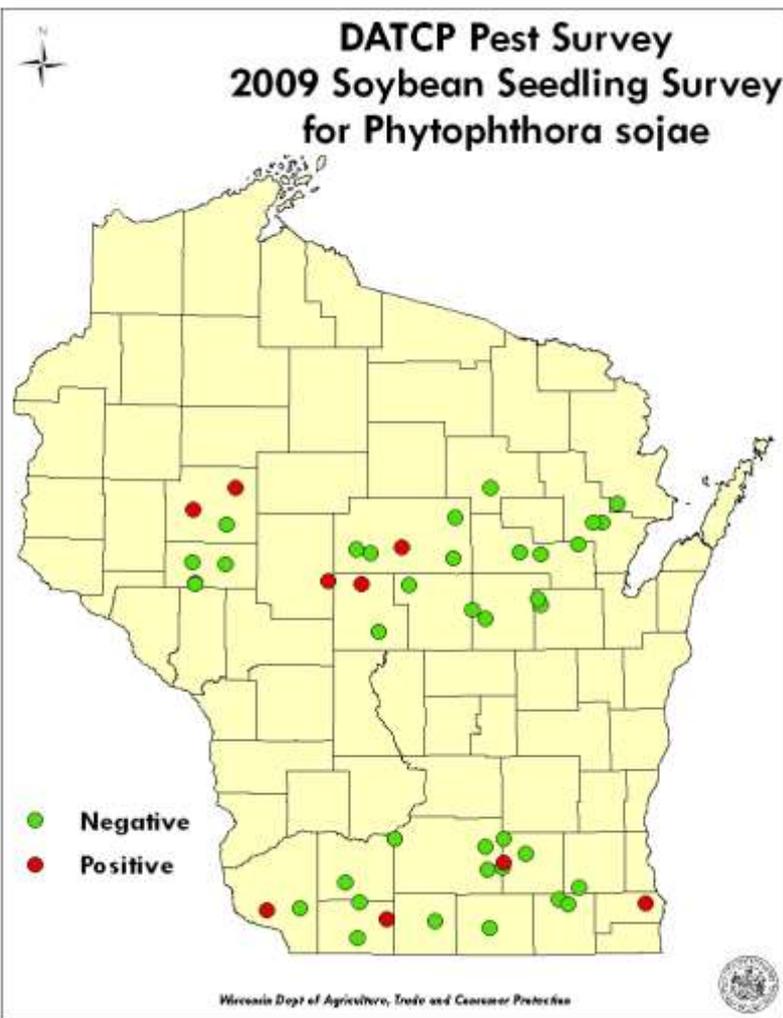
Symptomatic seedlings in randomly chosen fields.

Time frame: July 6 - 17

early vegetative stages.
Cool spring delayed seedling development.

Wisconsin Pest Survey Report

2009 PHYTOPHTHORA ROOT ROT SURVEY OF SOYBEAN SEEDLINGS



Result:

One fifth of all fields surveyed, tested positive for *P. sojae* for two years in a row.

18% in 2009 and 20% in 2008

Infected fields were found across the state from Racine to Chippewa County.

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Wisconsin Pest Survey Report

2009 Soybean Virus Survey



- Total soybean fields surveyed: 47
- Later than usual, mid-August to early September.
- R2-R6 growth stages. Surveyors randomly collected leaves from five plants at four sites from each field.

Wisconsin Pest Survey

Plant Industry Laboratory



- Laboratory testing is performed at Plant Industry Laboratory.
- We use ELISA (enzyme linked immunosorbent assay) and nucleic acid assays, PCR (polymerase chain reaction).

References:

AMV detection as described by Martinez-Priego et al., Plant Dis. 88:908, 2004;
SbDV detection, Harrison et al. Plant Dis. 89:28-32, 2005.
ELISA reagents from Agdia Corp.

Wisconsin Pest Survey Report

Soybean Virus Surveys 2002-2009

Year	Total No. of Fields Surveyed	AMV	BPMV	CMV	Potyvirus group	SbDV
2002	177	NA	29.9%	NA	NA	NA
2003	286	NA	4.2%	0.3%	0.3%	1.7%
2004	293	1.0%	0.0%	0.0%	0.0%	1.7%
2005	276	NA	0.0%	NA	0.0%	1.4%
2006	188	NA	0.0%	NA	0.0%	3.2%
2007	227	2.2%	0.4%	0.0%	0.4%	3.1%
2008	238	8.8%	NA	NA	NA	6.7%
2009	47	19.1%	NA	NA	NA	pending

Wisconsin Pest Survey Report

2009 SNAP BEAN SURVEY



Location: Participating vegetable processors and fresh market producers.

Total fields tested: 101

Time frame: July 6 – Aug 13, 2009
~48 days post planting.

Field sampling: Ten leaves (five from the top of the plants and five mature leaves) from four locations in each sampled field.

Lab testing: AMV, BPMV, CMV, Potyvirus.

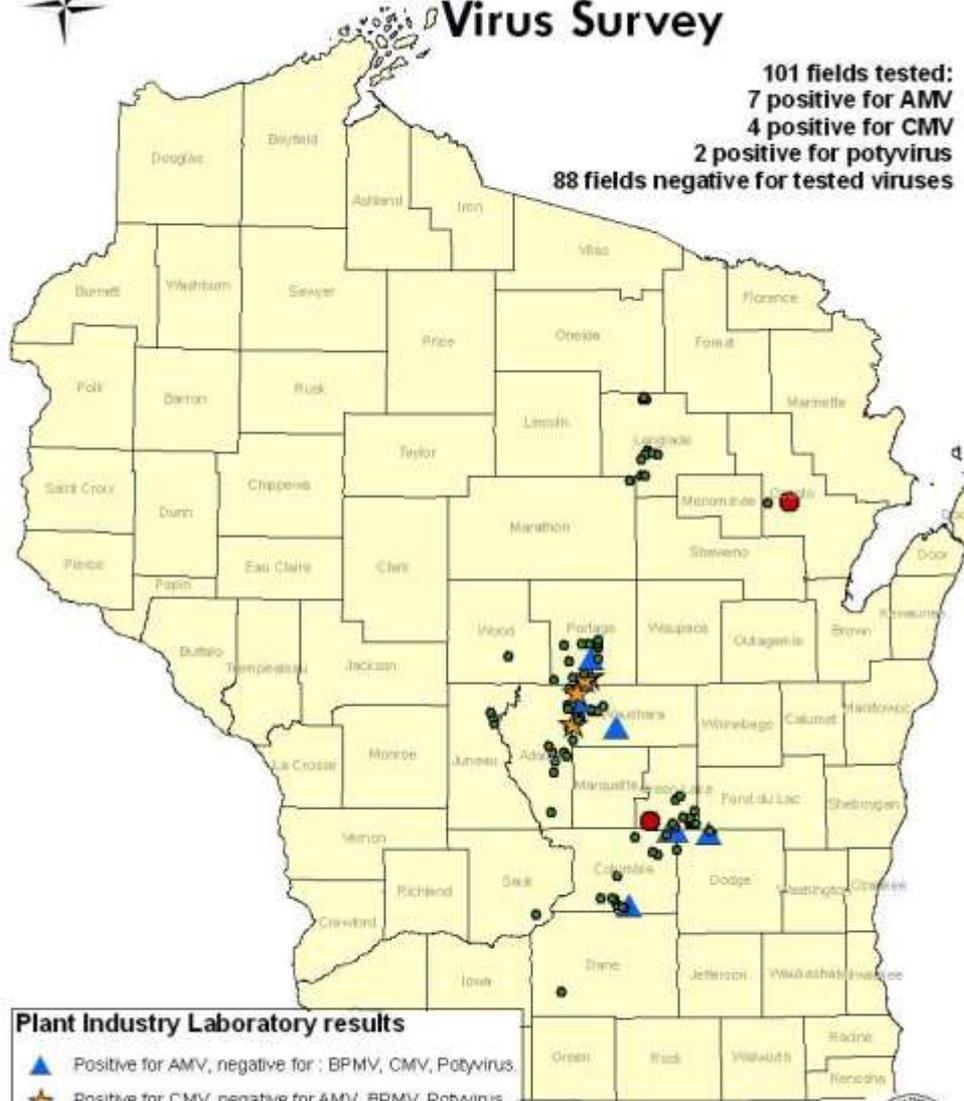
Wisconsin Pest Survey Report

2009 SNAP BEAN SURVEY

Year	Total No of Fields Surveyed	AMV (%)	BPMV (%)	CMV (%)	Potyvirus (%)	SbDV (%)
2003	25	NA	0	72	4	0
2005	33	NA	0	3	9	NA
2006	62	NA	0	0	0	NA
2008	25	4	0	8	0	0
2009	101	7	0	4	2	0

2009 DATCP Snap Bean Virus Survey

101 fields tested:
7 positive for AMV
4 positive for CMV
2 positive for potyvirus
88 fields negative for tested viruses



laboratory data by A. Phibbs,
map 9/21/09 by A. Barta



2009 SNAP BEAN SURVEY

- Survey will be continued in 2010.
- Snap bean growers are invited to participate!
- Contact Adrian Barta
Adrian.Barta@wi.gov
(608) 224-4592

Wisconsin Pest Survey Report

2009 Winter Wheat Survey

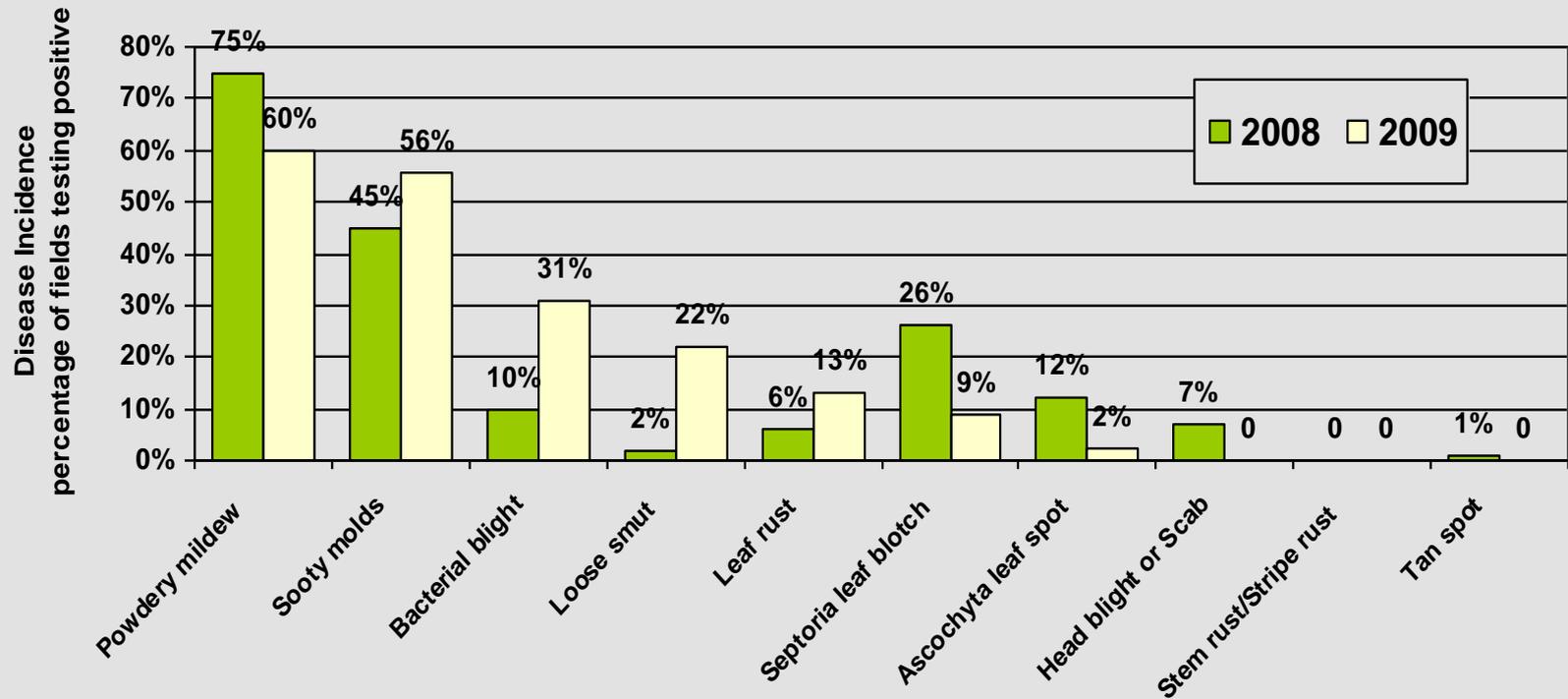
- Total fields tested:
45 fields in 13 counties.
- Time frame: June 2009
Feekes Stage 8 (flag leaf visible) to Feekes 10.5.3 (flowering complete to base of spike).
- Field sampling:
In each field, at 5 sites, 10 plants were examined.
- Collected foliar samples for future virus and phytoplasma testing.



Powdery Mildew
Blumeria graminis

Wisconsin Pest Survey Report

2008 & 2009 Winter Wheat Survey



Wisconsin Pest Survey Report

2009 Seed Corn Survey



Gray leaf spot (*Cercospora zeae-maydis*) on corn.

Export Certification

- 62 seed corn inspections in 7 counties (Columbia, Dane, Eau Claire, Grant, Rock Portage and Pierce Counties).
- 4 Stewart's wilt finds in Dane and Eau Claire Co.
- Gray leaf spot in Grant and Pierce Counties.

Wisconsin Pest Survey Report

2009 Potato Survey for Corky Ringspot Survey

- Total fields tested: 150 as of December 2009
- All samples tested negative for *Tobacco rattle virus*, the virus that causes Corky ringspot disease in potatoes.
- Testing will continue in 2010.



Potato growers are invited to participate!

Contact Tim Leege (715) 623-4039 or Sara Ott (715)486-0429.

Wisconsin Pest Survey Report

2009 Potato Survey for Powdery Scab

- Total fields tested:
150 as of December 2009.
- Disease causing organisms:
Spongospora subterranea
subterranea.
- Infested potato fields in Adams,
Oconto, Portage, Langlade and
Waushara Counties.
- Testing will continue in 2010.



Powdery scab on Shepody potato



Sporeballs of Powdery scab.

Potato growers are invited to participate!

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For more information:

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