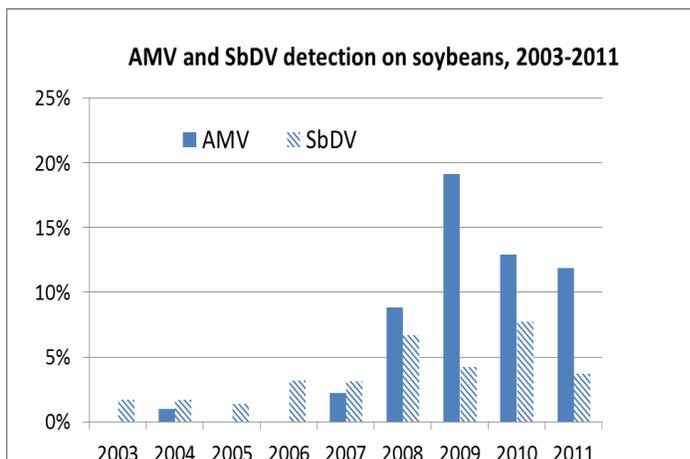


## Wisconsin Pest Survey Report

### 2011 SOYBEAN VIRUS SURVEY

Leaf samples for virus testing were collected from 135 soybean fields between July 27th and September 14th at or after the R3 stage. Samples were tested for alfalfa mosaic virus (AMV) and soybean dwarf virus (SbDV) at the Plant Industry Laboratory using reverse-transcription polymerase chain reaction (RT-PCR).

Sixteen of the 135 samples collected were determined to be positive for AMV, and five positive for SbDV. SbDV was first detected in Wisconsin in 2003 (1), and is of concern because it is aphid-vectored. Both research and many years of field observations suggests that the soybean aphid (*Aphis glycines*) is an inefficient vector of the virus, but large aphid populations could result in significant SbDV impact on soybean yield (2). Aphid counts in recent years including 2011 have been very low.



Percentage of total fields testing positive for virus.

AMV, a common virus with many hosts such as alfalfa, peas, clover, potatoes and tomatoes, continues to be frequently encountered in soybean fields. AMV is transmitted by seed and by probing aphids, while SbDV requires persistent (long term) probing by colonizing aphids such as soybean aphid. Symptoms of AMV include distorted and/or mottled leaves, stunting, a reduction in pod number and seed discoloration that lowers seed quality and marketability.

#### References

1. Phibbs et al. Plant Dis. 88:1285, 2004.

2. Darmsteegt et al. Plant Dis. 95:945, 2011.

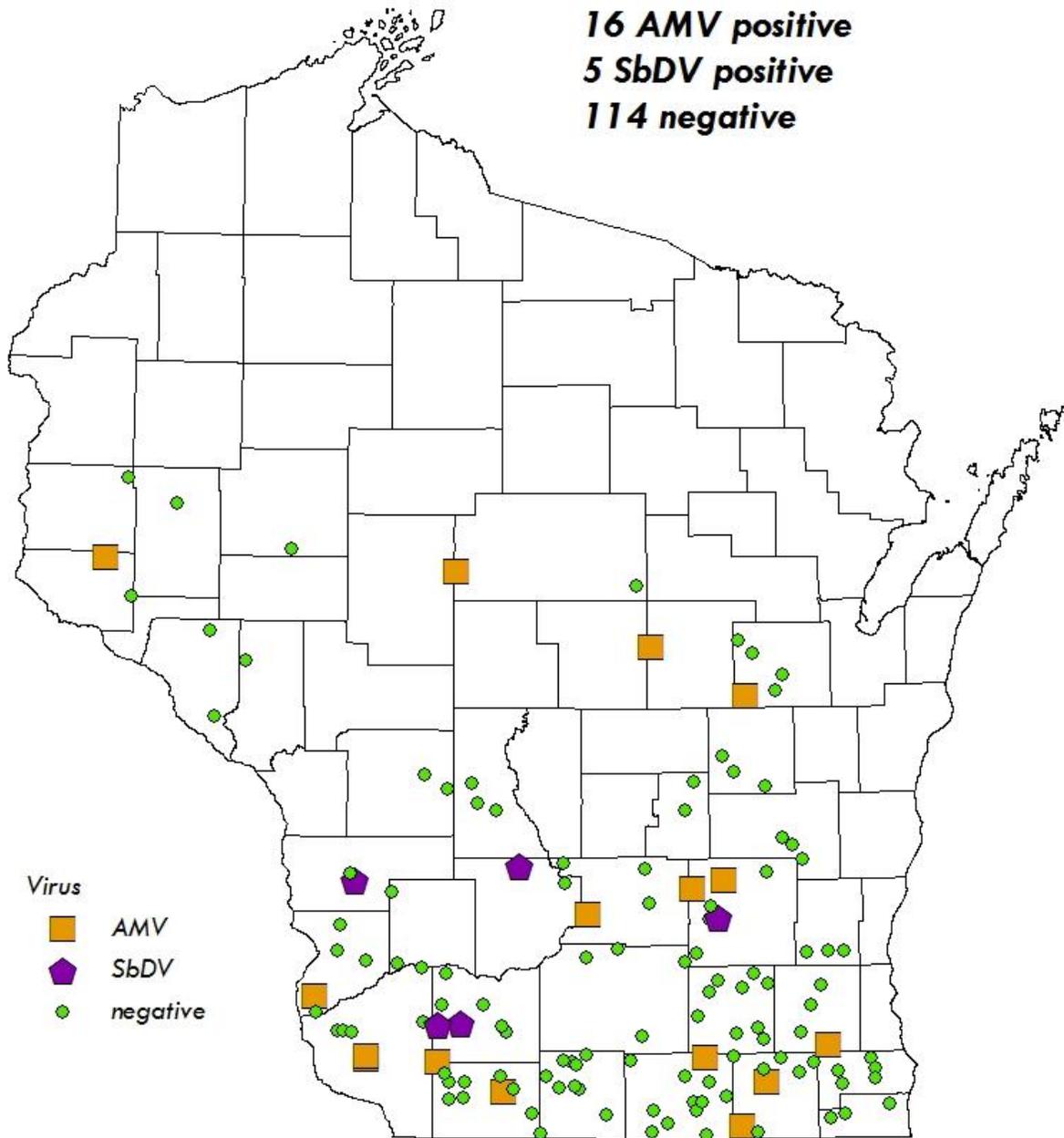
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# 2011 Soybean Virus Results

16 AMV positive  
5 SbDV positive  
114 negative



Wisconsin Department of Agriculture, Trade and Consumer Protection

