EMERGING PLANT DISEASE PROBLEMS FOR 2001-2002

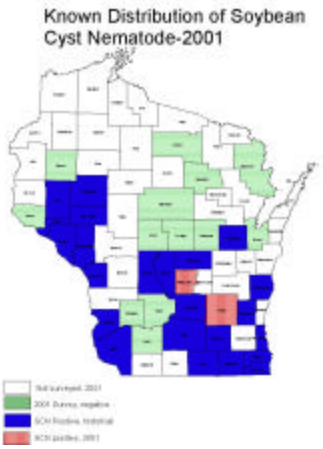
Adrian Barta[1]

The Wisconsin Department of Agriculture, Trade and Consumer Protection Pest Survey reported several new or uncommon plant diseases during the 2001 growing season, notably stripe rust of wheat and frogeye leaf spot of soybean.

WHAT WAS NOT FOUND IN 2001

Perhaps more remarkable than the finds were the things not found: Stewart's wilt of corn (*Pantoea stewartii*), which had been found in 1999 and was widespread in 2000, was not detected in 2001 either during the corn disease survey or the seed field inspection program. The corn flea beetle (*Chaetocnema pulicaria*), the insect vector of Stewart's Wilt, may have been adversely affected by the harsh winter of 2000-2001.

Also not reported in 2001 was southern rust of corn, *Puccinia polysora*. This rust has been widespread the last several years; again, the winter of 2000-2001 is presumed to have stopped the northward expansion of this traditionally warmer-climate pathogen.



And despite sampling in 13 counties, with extensive sampling in Pierce and Brown counties, no new counties were added by DATCP to the list of counties known to have soybean cyst nematode, *Heterodera glycines*. HOWEVER, THE LACK OF ADDITIONAL POSITIVE COUNTIES ON THE MAP DOES NOT MEAN THAT SCN IS NOT A GROWING (AND PROBABLY UNDER-ESTIMATED) THREAT TO SOYBEAN PRODUCTION**.** Ann MacGuidwin of UW detected SCN in two new counties in 2001—Marquette and Dodge.

WHAT WAS FOUND IN 2001

Frogeye leaf spot of soybean (caused by *Cercospora sojina)* was found for the second consecutive year in WI. In 2000, the disease was found in Iowa and Green counties; in 2001, in Dane county. Frogeye leaf spot is considered a southern disease, and has been known to cause significant yield losses in the Mississippi Delta region.

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[1] Wisconsin Department of Agriculture, Trade and Consumer Protection

The summer of 2001 saw the most widespread distribution of stripe rust of wheat (*Puccinia striiformis*) in 40 years (according to reports from the USDA Cereal Disease Laboratory), and Wisconsin saw the disease for the first time in many years. A cool, wet spring in the South and the West provided inoculum for a rare stripe rust epidemic in the Midwest. The disease was observed in Dodge, Dane, Columbia and Jefferson counties the third week of June, and was gone three weeks later when the temperature rose in the summer months.

CONCERNS FOR 2002 AND BEYOND

Among a long list of concerns warranting attention during survey efforts next year are soybean viruses which may be associated with the soybean aphid. Soybean Mosaic Virus (SMV) and Alfalfa Mosaic Virus (AMV) are both common in Wisconsin and should be monitored more closely. The association of the soybean aphid with Soybean Dwarf Virus (SbDV) in Japan raises concerns about the possible presence of SbDV in North America. Fortunately, SbDV has not been observed in Wisconsin.

Soybean Sudden Death Syndrome has been found in Wisconsin periodically, and is common and causing yield losses in Illinois, Indiana and states to the south. Continued efforts should be made to monitor its emergence as a disease of significance in Wisconsin.

The survey incidence of Gray Leaf Spot of corn (caused by *Cercospora zea-maydis*) was down in 2001. This reverses a trend of steady increase over the last four or five years. It is possible that the reduction in GLS incidence was a temporary one. If the trend to short rotations and corn-on-corn continues, growers should expect to see the incidence of this foliar disease continue to increase.