

Goss's Wilt Spreads Across Illinois

URBANA, ILL.

Goss's wilt is making a widespread appearance across Illinois, said Suzanne Bissonnette, director of the University of Illinois Plant Clinic. Tests have now identified Goss's wilt in Sangamon, Knox, Livingston, Bureau, Edgar, Shelby, Woodford and Piatt counties.

"In the past two weeks, we've received numerous field corn leaf samples as growers and agriculturalists are noticing the dramatic symptoms in fields across the central and northern parts of the state," she said.

Prior to 2011, Goss's wilt has been observed only sporadically in Illinois, said U of I Extension plant pathologist Carl Bradley. While the bacterial disease was positively identified in a few fields in the 2010 growing season, it appears to be much more widespread this season.

"Bacterial diseases require some type of wounding to infect a plant," Bissonnette said. "Goss's wilt, caused by the bacterium *Clavibacter michiganense* subspecies *nebraskensis*, finds easy infection from tissue damage after hail, high winds and heavy rainfall."

Fields that are corn-on-corn, fields that have detected or undetected Goss's wilt from previous seasons, fields with high corn residue, and fields with weed hosts such as green foxtail or shattercane are at a higher risk for infection, she added.

Leaf symptoms of this disease appear as large tannish to gray lesions that run lengthwise on the leaves. Within the lesions are dark flecks that are dark forest green or black in color. These flecks are frequently referred to as "freck-

les."

Plant wilt can also be a symptom because the bacteria infect and effectively clog the xylem in the plant. On wilted plants, splitting the stalk may show dark streaking of the vascular tissue. This is easiest to see if you cut the stalk at about a 45-degree angle.

Growers shouldn't assume that if their corn is exhibiting bacterial symptoms that they have Goss's wilt, Bradley said. Another bacterial disease of corn in Illinois, Stewart's wilt, causes very similar symptoms.

In order to properly diagnose this disease, send suspicious samples to the U of I Plant Clinic.

Visit <http://web.extension.illinois.edu/plantclinic/> for more information. In states where the disease occurs regularly, yield losses of up to 50 percent in very susceptible hybrids have been noted.

Research indicates that dent corn inbred A632 and hybrids in which this and related inbreds are used are highly susceptible, she added.

No in-season control options are available to protect against Goss's wilt infection or to reduce disease spread within a field. Foliar fungicides are not effective for bacterial infection either.

"The best method of controlling Goss's wilt is to plant corn hybrids with high levels of resistance," Bradley said. "Check with your seed dealer to obtain Goss's wilt ratings. Management for next season should include tillage to bury infected residue, weed host management, and rotation to a non-host crop." Δ



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