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Warm Fall Temperatures, SCN and Winter Annual Weeds

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Warm Fall Temperatures, SCN and Winter Annual Weeds

Abstract

We have had a wonderfully sunny, warm, dry fall so far this year. How could anyone complain about the weather? Leave it to a nematologist. Yesterday's ICM News article reminded growers and agronomists to delay application of anhydrous ammonia fertilizer until soil temperatures drop below 50F. It turns out that 50F is also an important temperature to consider for soybean cyst nematode (SCN).

Keywords

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Integrated Crop Management NEWS



Warm Fall Temperatures, SCN and Winter Annual Weeds

By Greg Tylka, Department of Plant Pathology

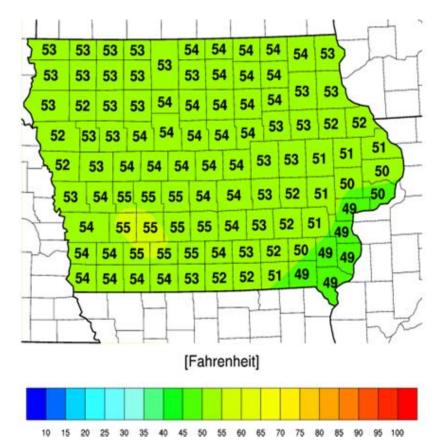
We have had a wonderfully sunny, warm, dry fall so far this year. How could anyone complain about the weather? Leave it to a nematologist.

Yesterday's <u>ICM News article</u> reminded growers and agronomists to delay application of anhydrous ammonia fertilizer until soil temperatures drop below 50F. It turns out that 50F is also an important temperature to consider for soybean cyst nematode (SCN).

The winter annual weeds chickweed, henbit and purple deadnettle are good hosts for the SCN. But SCN juveniles do not develop in roots when temperatures are below 50F. So cool fall and spring temperatures usually keep SCN reproduction on these winter annual weeds in check. Such may not be the case this fall.

The chances of having soil temperatures in Ames, lowa below 50F on Oct. 19 are estimated to be 75 percent (see <u>ISU 4 inch soil temperature probabilities</u>). But today - Oct. 20, most of lowa still has soil temperatures in the mid 50sF (see figure).

Growers and agronomists managing SCN-infested fields with significant populations of winter annual weeds should be aware that considerable SCN reproduction could be occurring on these alternative hosts this year. See the ISU Soybean Cyst Nematode web page more information about the <u>biology</u>, scouting and management of SCN.



Soil temperatures on October 20, 2010, at a 4 inch depth (source: Elwynn Taylor, <u>ISU 4 inch soil temperature map</u>).

Greg Tylka is a professor of plant pathology with extension and research responsibilities in management of plant-parasitic nematodes.

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