

Auglaize County ANR

News from OSU Extension

Herbicide Carryover to Fall Established Cover Crops

August 26, 2022

Author Alyssa Essman, Edited by Jamie Hampton



Establishment is one of the most important factors in the management of a cover crop for weed suppression. With later planting dates this year followed by a very dry June, conditions were right for herbicide carryover to be a concern for fall planted cover crops. The increase in precipitation events throughout July likely decreased that risk. It is still important to consider which herbicides were used during the growing season when selecting cover crop species. Herbicide persistence is difficult to predict and varies by field and year. If there are

specific concerns, it is best to perform a field bioassay now to determine potential impact of herbicide residues. To do this, collect soil from the fields where carryover is a concern, and soil from a field with no herbicide residue and a similar soil type. Plant cover crop species in each soil, water, and monitor emergence after 2-3 weeks. If emergence and plant health look similar between the soil with and without the herbicide, it is likely that the cover crop can be planted without risk of injury. There has been some discussion amongst weed scientists over

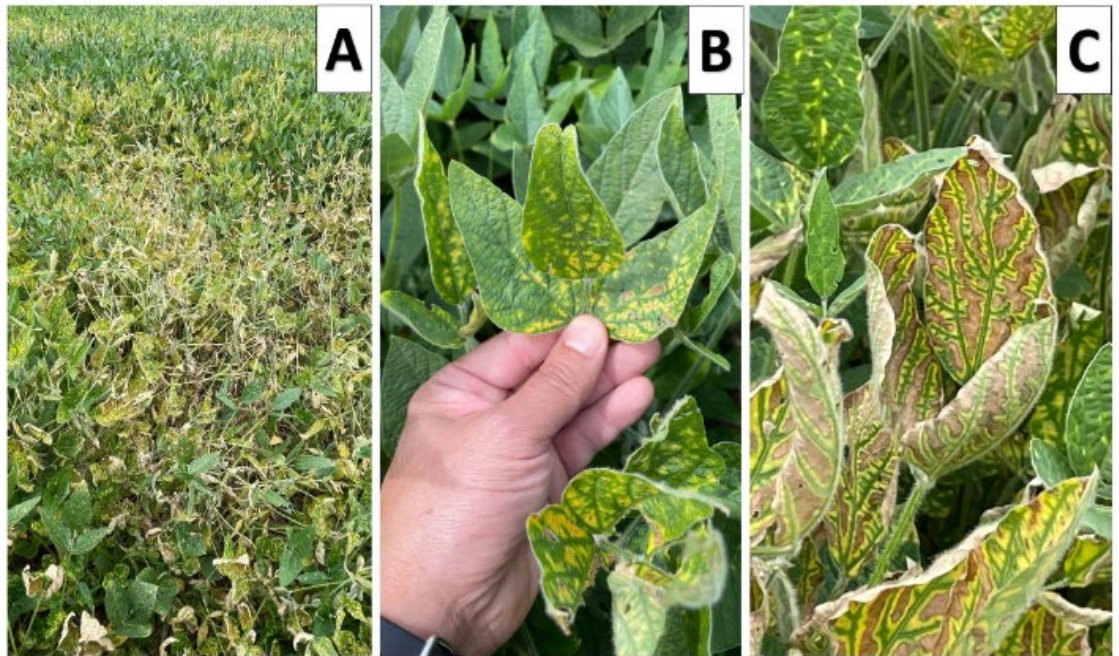
the benefit of a cover crop with reduced stand or biomass due to herbicide residue versus no cover crop, and whether a reduction in plant health has any effect on the ability to suppress weeds. More research is needed in this area. What we do know for certain is that high levels of biomass and ground cover provide the most effective weed suppressive benefits. Cereal rye tends to be the most effective species for weed suppression and is also the least sensitive species to herbicide carryover. For the full article and links to more information click [HERE](#)

Soybean Diseases are Showing up in Ohio

Authors: Horacio Lopez-Nicora, Stephanie Karhoff Edited by Jamie Hampton

In early August we recommended to start scouting fields for soybean diseases. At that time (two weeks ago), disease incidence across Ohio was very low to moderate. Conducive environmental conditions, however, are turning things around and more fields are developing disease symptoms.

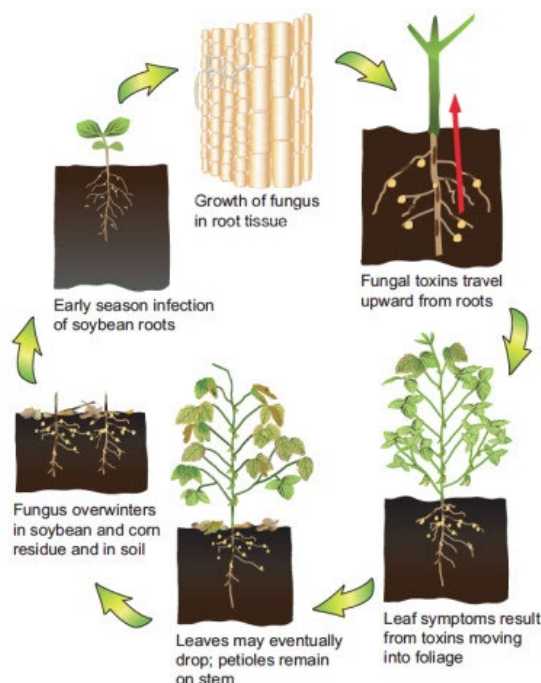
We are finding fields in Ohio severely affected by sudden death syndrome (SDS) (Image 1) SDS is caused by the fungal pathogen *Fusarium virguliforme*. Leaves of infected plants initially show scattered yellow spots between leaf veins. Spots grow to form large chlorotic and necrotic blotches between the leaf veins, while the midvein and major lateral veins remain green. Leaflets eventually drop, but petioles remain on the stem. Diseased plants have rotted taproots and lateral roots. When stems are cut lengthwise, the woody tissue of the taproot is discolored light gray to brown. This discoloration may extend up to two inches above ground.



Sudden Death Syndrome Soybeans

“We are finding fields in Ohio severely affected by sudden death syndrome (SDS)”

Soybean field in south Ohio severely affected by sudden death syndrome (SDS) with premature defoliation in the R5/R6 growth stage (A); symptoms begin with interveinal yellowing (chlorosis) of leaf (B); eventually leaf tissue dies and becomes brown but veins remain green (C). The fungus infects the root and produces toxins that are responsible for the above-ground symptoms.



SDS above-ground symptoms can be confused with those produced by a different fungus (*Cadophora gregata*) that causes brown stem rot (BSR). To distinguish SDS from BSR, symptomatic plants should be dug out and stem cut open longitudinally. SDS-infected plants have white, healthy-looking pith, while BSR-infected plants present brown discoloration of the pith. Moreover, fields with severe SDS symptoms can also have high levels of soybean cyst nematode (SCN). For more information click [HERE](#)

Walnut Toxicity in Tomatoes

University of Nebraska Lincoln

Edited by Jamie Hampton



Walnut Toxicity. Black walnut trees produce a toxic material (juglone) that can injure and kill solanaceous crops (tomatoes, potatoes, peppers and eggplant) and other juglone-sensitive vegetables in the garden. Symptoms of walnut toxicity include stunted growth, yellowing and wilting of foliage, and death of susceptible plants. Juglone is present in all parts of the black walnut tree (fruits, leaves, branches and roots).

The sources of juglone in the soil include both living and decaying plant material. Rain droplets leach juglone from the buds, leaves, and twigs. The decomposition of leaves and other plant debris by soil microorganisms also releases juglone. Living roots exude juglone into the surrounding soil. Generally, the greatest concentration of juglone in the soil exists within the

dripline of walnut trees. Nothing can be done to save juglone-damaged tomato plants. Simply remove and destroy dead plants.

Gardeners who have large walnut trees near their gardens should consider alternate sites. If alternate sites are unavailable, plant tomatoes and other susceptible plants 20 to 25 feet beyond the dripline of walnut trees to minimize walnut toxicity problems. Corn, beans, onions, beets, and carrots are tolerant of juglone and can be planted closer to walnut trees provided the area receives sufficient sunlight. Walnut trees that are 75 to 100 feet from the garden shouldn't be a big threat to tomatoes and other juglone-sensitive vegetables.

Click [HERE](#) for more information

No-Till Garden

Backyard Science Experiment

Conclusions

By Jamie Hampton



My Garden has begun to fizzle out in the last couple weeks, and I have come to a few conclusions about our backyard experiment.

1. No-till gardening can work; however, you need to do some reading and preparation before you begin.
2. No-till does not mean less weeding, I spent more time trying to control the grass and weeds that came up in my garden than I would have with regular weeding.

As I wrap this up, I want to give you some of my harvest results. I did not get much corn from my plot, I had one batch that my boys and I could eat, it was not the sweetest I have had, but was ok, The green beans did not do well at all, they grew a few inches and then the grass overtook them, and they got thin and spindly, eventually succumbing to fungal diseases, my zucchini had a borer eat it and the pepper plants didn't get very big. The tomatoes, however, are very healthy and strong, I have about a bushel of green tomatoes on the vine right now. I am disappointed in how long it has taken them to produce fruit, but they did produce. My Cantaloupe vines did outstanding! I planted them on an old stump that had been bunted a little. I ended up with 13, 5–6-inch diameter melons that were the sweetest I have had in years; we have happy neighbors this week.

Overall, not my favorite garden. I think next year I will look at container gardens or strip-till in the garden.

July Events



Auglaize County Events:

9th, Cover Crop Roundtable at Happy Daz Restaurant in Wapakoneta at 8:30am

19th, Ag Breakfast with Wayne Dellinger on Roadway Safety and Expectations for the producer.

21st, Nature Walk at the Lock Keepers House, Lock One Park, 22 S. Water Street, New Bremen Oh 45869 at 7pm featuring Neal Brady with Agriculture History on the Canal

29th, Touring Auglaize A Management Series, Niche Markets and Marketing Specialist Christi Welch. 5 Vines Winery, 12179 Buckland Holden Road, Wapakoneta. Please RSVP to Jamie Hampton at 419-910-6062 or email at Hampton.297@osu.edu

Nearby Happenings:

12th, Pasture Walk in Darke County, Jamie Hampton featured Speaker

13th, Agronomy College at Farm Science Review location

20-22nd, Farm Science Review, get your tickets online or at our office



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EXTENSION

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