

Weekly Ag & Natural Resources Column

OSU Extension Clinton County

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Potato Leaf Hopper in Alfalfa

Finally, some rain! Growing up in New Richmond we were able to hear the “rain train”. The rain train was simply the train on the other side of the Ohio river in Campbell County Kentucky, and during a low-pressure system (that brings rain with it) we could hear the train in the distance from across the river. It was always a relief to hear in drought situations, and as I was at grandma’s farm earlier this week and heard the rain train, I was hoping a significant rain event would also be happening in Clinton County. As I was at 4-H camp on Monday, I found myself talking about Alfalfa with a camp counselor and young farmer, and because alfalfa has been on my mind lets talk a little bit about scouting for potato leaf hopper in alfalfa.

Unlike the alfalfa weevil, we do have alfalfa cultivars that are resistant to the potato leaf hopper. What makes the alfalfa resistant to the potato leaf hopper is physical characteristics, granular hairs have been bred into commercially available alfalfa plants and these hairs ooze a sticky liquid that traps the leaf hopper and impedes feeding. But in years of high potato leaf hopper numbers, resistant varieties still need to be scouted and if above threshold need to be treated. To assess leafhopper populations and the potential for damage, take at least 5 sets of 20 sweeps with a 15” diameter sweep net in representative areas of a field. After sweeping, check the net and count the number of adults and nymphs and divide by number of sweeps and this will provide you with the average number of leaf hoppers per sweep. Research at Iowa State University has shown that treatment thresholds for tolerant cultivars are nearly 10 times the number of potato leafhopper to traditional alfalfa. Older varieties like vernal alfalfa have a threshold of anywhere from 0.2 potato leaf hoppers per sweep in alfalfa plants that are three inches or less in height, to 1.5 leaf hoppers in plants 12 inches or taller, this would be your threshold where pesticide treatment is recommended. In comparison, potato leaf hopper resistant alfalfa varieties have a much larger threshold, with 2 leaf hoppers being found in alfalfa plants three inches or less and up to 15 leaf hoppers in plants 12 inches or taller per sweep. For this reason, you can see how if the area has a history with high potato leaf hopper infestations it could be very beneficial in investing in potato leaf hopper resistant varieties.

If threshold is reached the options you have for mitigation could be Commonly used insecticides include Mustang, Warrior, Baythroid, and Lorsban or products with the same active ingredients. For further information of registered insecticides for alfalfa, consult the 2023 Tri-state weed control guide, publication ANR-789 / WS-16 / IL15 / M171.