

Checking the Back Forty



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Potato leafhoppers have arrived

Over the past week we have seen potato leafhopper (PLH) numbers and damage increase. You should be scouting alfalfa fields now; a sweep net works best for this purpose. Sampling should be done at 5 different locations in a field with 10 sweeps per location. The table below relates management to the height of the alfalfa and the number of leafhoppers per sweep.

<i>Average stem length</i>	<i>Leafhopper/sweep</i>
less than 3 in. (new seedlings)	0.2
3 to 7 in.	0.5
8 to 10 in.	1.0
11 to 14 in.	2.0
15 in. or above	If leafhoppers exceed 2.0 per sweep and if regrowth is within 1 week of harvest, no action needed. If not, use a short-residue insecticide.



So look at the height of your alfalfa and the average number of PLH per sweep. If your average number per sweep is greater than the number indicated for your alfalfa height then some kind of treatment is warranted. In the past week I have found fields more than 12 inches tall with more than 2 leafhoppers per sweep.

Potato leafhoppers in a sweep net. Adults are typically 1/8 inch long. Trifoliate leaf inserts show typical reddening or yellowing from leafhopper injury.

Treatment really depends on how tall the alfalfa. If alfalfa is greater than 15 inches tall and harvest is scheduled in the next week plan to harvest as the treatment. The leafhoppers will move on to another field after harvest. Shorter alfalfa with more time to harvest will need an insecticide application.

Although we don't usually think of PLH resistant varieties having at threshold for treatment but at extremely PLH high populations they can cause economic injury to resistant varieties. The threshold becomes 3 times the normal number per sweep.

Reference:
<https://fieldcrops.cals.cornell.edu/forages/insects-forage-crops/potato-leafhopper>

Crusted soils can take a toll on plants and population

This is a year that one could just be thankful that corn got planted at all and that some fields look rough may just be a sign of the growing season you have to live with. But I have seen a number of fields that have crusted or surface compacted soils that might be avoided so that in these tough rainy growing season plants have more of a chance.



The picture above shows two plants that leafed out under the crust while a third was able to come through a crack in the crust. Rainfall packs a punch so we might expect the soils to be crusted this year. But a more important issue is really the loss of soil structure over time due to too much tillage and lack of soil cover. Cover crops and greater soil residue intercepts those raindrops and reducing the beating the soil takes. Keeping the years in corn shorter and rotating with hay crops is another means of keeping soil structure.

<http://crops.extension.iastate.edu/cropnews/2012/04/pay-attention-soil-crusting-after-heavy-rain-events>

https://soilhealth.cals.cornell.edu/files/2016/12/03_Soil_Constraints_Fact_Sheet_122016-2k4snso.pdf