



Pest e-alerts



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Potato Leafhopper in Alfalfa

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While scouting fields in the Stillwater area I have observed an increase in leafhopper activity and damage. Potato leafhopper, *Empoasca fabae* (Harris), is a small wedge-shaped insect light-green in color and about 1/8-inch long. This species does not overwinter in Oklahoma, but migrates northward from coastal areas of the Gulf of Mexico on storm fronts each spring and is usually first collected in May. Because of wind dispersal, potato leafhoppers can be a pest of alfalfa from June to October. Potato leafhoppers feed on more than 200 cultivated and wild plants. Generally this pest poses the greatest threat (if any) in higher rainfall and humid areas of the state; however, with recent rains and increased



humidity this scenario currently applies to a broader area than normal. Populations tend to decline as hot, dry conditions prevail unless they can find a suitable host and adequate rain or irrigation. Both nymphs and adults feed on the undersides of leaves. By extracting sap, they cause stunting of plants, curling of leaf margins, and crinkling of the upper surface of leaves. The most characteristic symptom of damage by the leafhopper is chlorosis and eventual necrosis of tissues at leaf tips called, "hopperburn". As we move into mid-summer, this condition is sometimes confused with drought damage. Growth of alfalfa plants may be severely stunted, resulting in both quality and yield reductions.

Sampling and Control.

The primary means for sampling to assess the need for control of leafhoppers is sweepnet sampling. At least five sets of 20 sweeps should be taken in each field up to 40 acres. More samples should be taken in larger fields. The greatest potential for losses due to potato leafhopper occurs with infestations on new growth after a harvest has been taken. Although sweeping is difficult in alfalfa stubble, the effort should be made because the economic threshold in six inch or shorter alfalfa is an average of 0.5 leafhoppers per sweep. When alfalfa is 12 inches or taller; the threshold is two leafhoppers per sweep. When growing conditions are optimal for alfalfa, applying insecticide when these thresholds are reached can be profitable. However, when exceedingly dry conditions prevail as often occurs this time of year, the limited potential for alfalfa growth may not warrant an added expenditure for insecticide.

More information on summer insect pest management on alfalfa can be found in CR-7150, Alfalfa Forage Insect Control, which can be obtained online at:

<http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2364/EPP-7150web.pdf>

Disease and Insect Diagnostic Laboratory

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