

THE NATIONAL PEST SURVEY AND DETECTION PROGRAM

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The Commonwealth of Massachusetts is participating in a new pest survey and detection program sponsored by APHIS-PPQ, a unit of the U.S. Department of Agriculture. All of the states in the Northeast are cooperating in this new national effort to provide information to growers about current pest situation in their crops. The goals of the program are: early detection of exotic pests, export certification for commodities, and up-to-date information on endemic pest levels.

This year we are surveying field corn, alfalfa, potatoes, and sweet corn. Although the surveys for each crop differ in technique, each is conducted in a similar manner. In order to show how the surveys work we will examine the one for alfalfa in some detail.

The alfalfa survey is being conducted on a statewide basis. Fields in Berkshire, Franklin, Hampshire, Middlesex, and Worcester Counties are visited on a regular basis. Insects are sampled weekly, diseases monthly, and weeds once/cutting. The insects we are monitoring are: Alfalfa Weevil, Potato Leafhopper, Pea Aphid, and Alfalfa Blotch Leafminer. The insects are collected in two ways. Stems are collected so that the percentage of terminals chewed by Alfalfa Weevil and percentage of leaflets mined by the leafminer can be determined. Pea Aphids, adult leafminers, leafhoppers, and weevils are also swept from the vegetation with nets.

On Friday of each week the counts for each kind of pest, crop development stage, and an estimate of damage for each collection are entered into a computer and sent over phone lines into the national USDA computer at Fort Collins, Colorado. Similar data for each of our neighboring states also go to Fort Collins. By the next Monday we can retrieve information of each of our pests from other states and use it to help predict population trends of alfalfa pests in this state. For example, the northward spread of potato leafhopper from its overwintering sites in the southern U.S. can be followed and its arrival determined quite closely by monitoring leafhopper numbers in states south of Massachusetts.

The results of the national pest survey and detection program are already of value to growers and will be even more useful as the program continues to develop. The survey shows that Alfalfa Weevil is starting to become numerous in Massachusetts again after 6 or 7 years at very low levels. Also, this year's survey shows that blotch leafminer is out of synchrony with the crop, so that very low numbers are present. Potato leafhopper is due to show up some time in July.