

THE STATUS OF SUGAR BEET INSECT CONTROL IN THE MID-WEST

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Are sugar beet insects increasing in importance? Should beet growers anticipate an annual pesticide treatment program? Are the new systemic-insecticides the answer to insect problems on beets in the Mid-West? These and related pest problems are becoming of increasing interest to beet growers. It is important that we understand the Mid-West situation and consider the new developments in the rapidly changing pest control field.

Beet insect problems in the Mid-West are somewhat unique. The most serious beet insect problem, the beet leafhopper, which transmits the dreaded curly top virus in the Western beet growing regions, is not a pest in the Mid-West. It is unlikely that this pest, which is primarily an arid associated insect, will expand its range and develop into an important problem.

In Michigan and adjacent beet growing areas cutworms, flea beetles and foliage and root aphids are the principal insect problems. Cutworms are the larvae of several species of moths which migrate to beet fields during the seedling stage and will often rapidly decimate a crop. Generally, it is difficult to predict the geographical distribution of these attacks or the seasonal occurrence. Flea beetles infest the young plants from the time of their emergence until the four to six leaf stage and often can be of major importance. Foliage aphid populations are completely dependent on suitable climatic factors for rapid colonization and economic importance. Aphids are generally present in noneconomic numbers in Mid-West beet fields, however, appropriate climatic factors which will trigger an explosion of the population are unpredictable and sporadic. Root aphids are increasing in importance under Michigan conditions. It is generally believed that these populations have been encouraged by several years of dry weather and perhaps this insect will disappear as normal moisture levels develop.

Mid-West insect problems are of transit nature and dependent on climatic and cultural conditions. It is becoming increasingly evident that the intensity of beet insect problems is increasing and that a great deal more attention will have to be directed to their control. As beet culture becomes more intensified, insect problems will increase in importance. This same evolution has transpired in the growing of potatoes, beans and many other cash crops. It is reasonable to assume and profitably so, I am sure, that the beet grower will shortly look forward to a planned insect control program with appropriate equipment and application techniques. The development of more applicable insecticides will be an important contribution to this program approach. I would anticipate that within the next three years beet growers will profitably

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treat, either by systemic treatment or appropriate foliar applications, more than 75 per cent of the Mid-West beet acreage.

Beet growers must be cognizant of the pest problem. Frequent visits and inspections of the fields for actual infestations or symptoms of damage are imperative. These examinations should include both consideration of the foliage as well as the soil infesting pests. Early detection of infestation will result in increased control and a more profitable crop. Beet growers must be better informed of recent pesticide and pest related developments.