Harmfulness of leaf miners (*Agromyzidae*) on winter wheat plantations in Poland

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Abstract

Nowadays the higher occurrence of cereal insects has been observed. Until recently it was considered to be of little economic relevance. Today cereal insects develop better thanks to the climate warming, simplification of agricultural techniques and extensive farming in large areas. One of the most pervasive species is leaf miners from the *Agromyzidae* family, which larvae feed on inner side of the cereal leaves. In Poland there is more than a dozen species of leaf miners. They may occur locally in large numbers, and cause substantial damage to the crops which reduce quality and quantity of the harvest. Larvae of the leaf miner feed on the parenchyma, causing damages (so-called mines).

Effective methodology of fighting the insects with chemical means has not been developed yet. Studies carried out so far in terms of integrated methods of protection for cereals have shown that a good practical method of chemical signaling control these insects is to control the number of adults trapped on yellow traps.

Monitoring of cereal leaf miner flights in winter wheat was carried out in Baborówko (Greater Poland Voivodeship). Yellow traps were placed above the tops of wheat during vegetation period. The number of damaged wheat stems was recorded. Fluctuations in weather conditions during the research affected the dynamics of leaf miner flies considerably. The most common species were: *Chromatomyia nigra* (Ztt.), *Chromatomyia fuscula* (Ztt.) and *Poemyza superciliosa* (Ztt.).

Key words: Agromyzidae, leaf miners, cereals, winter wheat, occurrence dynamic