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EVALUATION, ESTIMATION AND MONITORING *DIABROTICA VIRGIFERA VIRGIFERA* LE CONTE

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In the Republic of Moldova, corn (*Zea mais*) is one of the most important cereal crops for the food industry and feed reserves. Annually, this crop occupies an area of over 270.0 thousand ha, which constitutes approximately the 5th part of the area of arable land. The emergence of one of the most dangerous corn pests, such as the western corn rootworm (*Diabrotica virgifera virgifera* Le Conte) DVV, which has already managed to spread throughout the country, creates a real danger to corn production and the country's economy in general. Although, in the countries of the European Union, DVV was considered a harmful organism, regulated with a state of quarantine, but its spread could not be prevented. A number of recommendations have been developed based on the application of crop rotation, adequate monitoring of pest populations and other relevant measures to prevent the spread of harmful organisms and control measures.

Traps with synthetic sex pheromone have proven to be an effective tool for both monitoring the pest population (accumulating specimens for study) and a total control method, such as sterilization and mass capture. The active component of the sex pheromone of DVV *Diabrotica virgifera virgifera* Le Conte, it is 1,7-dimethylnonyl propanoate. The optimization of the synthesis scheme, the obtaining of the high purity substance as well as its analysis, is important and necessary.

Subsequently, the synthesized substance was impregnated on synthetic rubber septa with a dose of: 1 mg per dispenser. DVV synthetic sex pheromone dispensers were fixed on the "open-type" trap - a piece of laminated cardboard with entomological glue and then attached directly to the plant, in the corn field, with a distance of about 20m between them and further verification were made 1 -3 times a week. As usual, the first catches of the imago phase of the pest were recorded in the second half of June. The peak of the pest's flight falls in mid-July, with a considerable decrease in the number of pests caught by mid-August.

The economic damage threshold is 5,5 imago per plant. In the northern part of the country, in the village of Ocnita, the village of Girbova, the pest exceeded 7 times the economic threshold of damage, which is explained by the relief shape of the field, the rotation of crops and the location of the corn field compared to others. Pests have been recorded in technical corn and seed fields, where the principle of monoculture is followed. The effectiveness of protection measures is hampered by high pest migration capacity and an effective control scheme.

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