

METHODS FOR MAIZE PROTECTION AGAINST DIABROTICA VIRGIFERA VIRGIFERA LE CONTE (THE WESTERN ROOT WORM) IN THE CRIȘURILOR PLAIN CONDITIONS

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Abstract

Diabrotica virgifera virgifera Le Conte is present in Romania for over 10 years (1996) and became very dangerous pest for corn crop. It's spreading in a big area was favored by the ecological conditions and by the great weight of corn crop and especially of monoculture. Taking in to consideration that almost all the developing pest stages are living in soil with exception of adults for limitation of area extension and for diminishing of produced damage, a very important role play the agrophytotechnically measures together with chemical methods. The made researches in the period 2005-2007 in long term field experiments (1990) in different crop rotation types in which the corn is present in monoculture, in two and three years rotation (in irrigation and unirrigation conditions) and in six years crop rotation (unirrigated), has shown that monoculture is the most responsible for the pest multiplication. In corn monoculture the larvae number on the roots was ranged between 4,91-8,23 and root attack degree in IOWA scale (with marks from 1 to 6 in which maximum attack is 6), had values between 3,84 and 5,62 and the frequent of attacked plants with the symptom "goose neck" ranged between 16,4% and 31,2% and larval aggressiveness being higher in the case of favorable soil moisture in irrigated condition. The corn rotation with other plants interrupts the biologic pest cycle. Later corn sowing alongside by the utilizing of lower plant density level contribute to multiplication pest prevention, while earlier sowing at high density favor the larvae developing. Chemical control method of larvae is necessary when infestation pressure is moderate to high utilizing the granulated insecticides for soil at sowing or seeds treatment. Insecticides application for adults control will be applied for an economic damage threshold by 10 adults per plant in the case of commercial corn and by 5 adults per plant in the case of corn for seeds.

Key words: *Diabrotica virgifera virgifera Le Conte*, corn, attack degree, crop rotation, density and sowing periods, chemical method.