MASS REARING OF THE EUROPEAN CORN BORER (*OSTRINIA NUBILALIS* HBN) IN LABORATORY CONDITIONS, SUCCESSIVE GENERATIONS AT NARDI FUNDULEA, 2010-2012

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Abstract

European Corn Borer (*Ostrinia nubilalis* Hbn) is one of the most dangerous pests of the maize crop in Transylvania and Moldova. In south and south-east of the Romania is the second pest like economical importance after maize leaf weevil (*Tanymecus dilaticollis* Gyll). In last three years it has registered higher attacks of ECB at maize plants, especially in west part of country, but in some areas of south-east of the Romania, too. At NARDI Fundulea, this insect is rearing in continuous flux, in laboratory conditions, successive generations for obtaining of the egg batches for artificial infestation of the maize plants in field conditions, for established of the maize hybrids and lines tolerance for this pest. The researches started in 1973 with testing of different types of artificial diet and mass rearing system (spaces, boxes for larvae, cages for moths, egg batches storage period depending of temperature, etc). In year 2010 it has obtained in laboratory conditions 203253 egg batches, in year 2011 it has obtained 136043 egg batches and in year 2012 it has obtained 121945 egg batches witch were used for artificial infestations of the maize plants in field conditions. The average number of the egg batches/female obtained in laboratory conditions was 3,0 in year 2010, 2,7 in year 2011 and 2,4 in year 2012. Almost every year it has started rearing in laboratory conditions of a new insect's colony. At the end of the year 2012 the insect colony created in 1979 arrived at 425th consecutive generation, the insect colony created in 2008 arrived at 59th consecutive generation, the insect colony created in 2010 arrived at 33rd consecutive generation, while the insect colony created in 2011 arrived at 22nd consecutive generation. The insects from colony started in year 1979 and grown for 425 successive generations at the end of the 2012, in laboratory conditions, don't lose capacity of producing damages at maize plants in field conditions, comparative with insects from colonies created in last years.

Key words: laboratory, continuous flux, generations, egg-batches