RESULTS CONCERNING *TANYMECUS DILATICOLLIS* CONTROL IN A COMMERCIAL FARM FROM THE SOUTH-EAST OF ROMANIA, IN THE CONDITIONS OF THE YEAR 2020

Emil GEORGESCU[1], Alina CRETU[2], Cristina RADU[2], Lidia CANA[1]

emilgeorgescu2013@gmail.com

Abstract

The maize leaf weevil (*Tanymecus dilaticollis* Gyllenhal, 1834) represent one of the most destructive pests of maize crops in Romania, especially in the south and south-east of the country. Every year was attacked more than 1 million hectares cultivated with maize. This pest is very dangerous when maize is in early vegetation stages, from plant emergence until four leaves (BBCH 10-BBCH 14). After the ban of the seeds treatment with neonicotinoids in the Europe Union, no alternatives for seed treatment to control this pest remain available in our country. In this article, it has assessed both, seeds treatment with neonicotinoids and possible alternatives for controlling of the maize leaf weevil in conditions of the commercial farm located in the south-east of Romania. Seeds treatment with imidacloprid (600 g/l), cyantraniliprole (625 g/l) active ingredients, maize foliar treatment with acetamiprid (20 %), lambda-cyhalothrin (50 g/l) active ingredients, granules application at maize sowing, with chlorpyrifos (5 %), lambda-cyhalothrin (4 g/kg) active ingredients or two granules application, at maize sowing and after plants emergence with cypermethrin (0.8 %) active ingredients were assessed. The efficacy of the applied insecticides was determined by evaluating weevils attack intensity at the maize plants, at BBCH 14 stage, using a scale from 1 (plant not attacked) to 9 (plant destroyed). In the spring of 2020, weather conditions from the experimental site, during assessments period were unfavorable for weevils activity at the soil surface. Even if the pest density from the experimental location was high (10-15 insects/m^2) however weevils attack at maize plants was low. At variant with seeds treated with imidacloprid active ingredient, maize attack intensity at maize plant was 3.86, at untreated variant attack intensity was 4.47 while at rest of the experimental variants, attack intensity ranged between 4.29 and 4.46. It has registered significant statistical differences between weevils attack at maize plants from variant with seeds treated with imidacloprid active ingredient and the rest of the variants from this assessment ($p<0.05$). In the weather conditions of the year 2020, from the experimental location from the south-east of Romania, there weren't registered significant statistical differences between seeds treatment with cyantraniliprole active ingredient, maize foliar treatment with acetamiprid, lambda-cyhalothrin active ingredients, granules application with chlorpyrifos, cypermethrin, lambda-cyhalothrin active ingredients, and untreated variant ($p<0.05$).

Key words: maize, weevils, control, alternatives, farm