3.33%, 52.59%, and 99,26 for 0,01, 1, and 10 ppm dose rate, respectively. F1 development was also proportional to dose rate and the population growth was suppressed by 99% and 100% at 5, and 10 ppm, respectively. Results show that the spinetoram can be effectively used for the control of stored grain insects.

The effectiveness of Spinetoram against maize weevil, *Sitophilus zeamais* Motschulsky (Coleoptera: Curculionidae): influence of dose, exposure interval, and temperature

Tugba Bayer, Mevlut Emekci, A. Guray Ferizli*

Ankara University, Faculty of Agriculture, Department of Plant Protection
*Corresponding author: ferizli@agri.ankara.edu.tr
DOI 10.5073/jka.2018.463.191

In this research, the effectiveness of Spinetoram was investigated against *Sitophilus zeamais* at three temperatures of 20, 25, and 30°C and 65%RH. Radiant 120 SC was selected to test the efficacy of Spinetoram. The formulation was applied to maize at the rates of 0.00, 0.01, 0.10, 0.25, 0.50, 0.75, 1.00, 2.00, 5.00, and 10.00 mg/kg using 9 replicates each. 50 g samples of treated maize were separately put into small PVC vials along with 30 adults. Mortality of insects were observed at 1st, 2nd, 3rd, 7th, 14th, 21st and 28th days after setting up the experiment. At the end of final count at 28th day, all individuals were removed and the test vials containing maize only were additionally kept for 50 days to determine the F1 development. Mortality rates increased along with temperature and exposure time. At the dose of 1 mg/kg, 66.68% and 97,08% adult mortality were obtained at 20 and 30°C, respectively. Similarly, at 25°C at the dose of 5 mg/kg, adult mortality were 71,89%, 98,89%, and 100% for 7, 14, and 21 days of exposure, respectively.