STUDY OF BIOSTIMULATOR PRODUCTS IN MAIZE PRODUCTION

Péter Jakab¹, Levente Ódry¹, István Kristó², Mihály Sárvári³, Levente Komarek¹

¹ University of Szeged, Faculty of Agriculture, Institute of Plant Sciences and Environmental Protection, Hódmezővásárhely, Hungary
² Hungarian University of Agriculture and Life Sciences Szeged, Hungary
³University of Debrecen, Faculty of Agricultural and Food Sciences and Environmental Management, Institute of Plant Sciences, Debrecen, Hungary

In our experiment, we examined the influence of some biostimulators (foliar fertilization products) on the yield amount and grain quality of maize in 2019. The experiment was set in three replications, random blocks on the area of SZTE Tangazdaság Ltd. in Hódmezővásárhely. The soil of the experiment was meadow chernozem. We sprayed out three different foliar fertilizer products individually and combined with each other as well, so there were six treatments and the control to be examined. In 2019 the amount of precipitations was higher with 76 mm than the average, but its distribution was not favourable for maize. The monthly average temperature in the vegetative season of maize was higher with 2.45 °C than the average of the last several years. We evaluated the experimental data by single factor analysis of variance. We measured 9.90 t/ha yield amount in control treatment, and with the foliar fertilization the yield ranged between 10.40-10.90 t/ha. The foliar fertilization products increased the yield of maize, but this difference compared to the control yield was not significant. We examined the effect of foliar fertilizers on the protein and starch content of maize grain too. The foliar fertilizer products did not caused significant change in these parameters. These scientific results showed, that the examined biostimulators has positive effect on the yield of maize and small effect on the examined grain quality parameters.