

RESULTS OF FOLIAR FERTILIZER TREATMENTS ON MAIZE YIELD IN DRY YEAR

Péter Jakab¹-Györgyi Csontos¹-Melinda Tar¹-István Kristó²

¹University of Szeged, Faculty of Agriculture, Hódmezővásárhely, Hungary

² Hungarian University of Agriculture and Life Sciences Szeged, Hungary

Abstract: The aim of our study was to evaluate the effect of different foliar fertilizers on the yield and grain protein, oil and starch content of maize. The examined year was dry. The foliar fertilizers resulted minimal and not significant changes in maize yield, grain protein, starch and oil contents.

• Introduction

Nowadays farmers can use lots of biostimulants in maize production. Biostimulants may contain macro, meso-, and microelements as well as biologically active ingredients. These products have positive effect on the physiological processes of the plants, thus increasing yield stability and profitability.

• Material and method

The research was carried out at the Hungarian University of Agriculture and Life Sciences in Szeged Öthalom in 2021. We applied three biostimulants individually and combined with each other. The amount of rain was lower by 113.58 mm in the vegetative period of maize in 2021. We evaluated the obtained data by single factor variant analysis.

• Results and discussions

The yield was the lowest in the control treatment (2.44 t/ha) and was the highest in Amalgerol+Fitohorm Zn treatment (3.14 t/ha). (Table 1).

Table 1. Evaluation of foliar fertilizers

Treatment	Yield (t/ha)	Difference (t/ha)
Control	2.44	-
Algafix	2.51	0.07
Amalgerol	2.50	0.06
Fitohorm Turbo Zn	2.48	0.04
Algafix+Amalgerol	2.66	0.22
Algafix+Fitohorm Turbo Zn	2.97	0.53
Amalgerol+Fitohorm Turbo Zn	3.14	0.7
LSD 5%	1.18	

• Conclusions

Based on our results we can conclude, that in unfavourable relatively dry year caused low effectiveness of foliar fertilizers in maize production.

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