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# EFFECT OF ORGANIC AND ORGANO-MINERAL FERTILIZATION ON PRODUCTIVITY TRAITS OF SWEET CORN (*Zea mays L. var. saccharata*) CULTIVAR ZEATON

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**Abstract** – Sweet corn productivity is strongly influenced by nutrient availability and environmental conditions during the growing season. Optimizing fertilization strategies is essential for maintaining stable yield under climate stress. The objective of this study was to assess the effect of organic and organo-mineral fertilization on the productivity traits of sweet corn cultivar Zeaton grown in Plovdiv, Bulgaria. The experiment was carried out during 2024–2025 at the Agricultural University of Plovdiv and included three treatments: non-fertilized control, fertilization with the organo-mineral fertilizer Gold Forte, and fertilization with the organic fertilizer Triumfal. Yield-related parameters were evaluated at consumer maturity. Both fertilization treatments significantly improved yield components compared to the control. Plants fertilized with organic fertilizer achieved the highest ear mass, kernel number, kernel weight per ear, and thousand-kernel weight, demonstrating superior productivity under the given agro-climatic conditions.

**Keywords** – *Agro-climatic conditions; ear characteristics; field trial; kernel traits; nutrient management; yield stability; yield structure*

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