

## **EFFECT OF DIFFERENT NITROGEN FERTILIZER AND PLANT DENSITY ON YIELD OF FOUR HYBRIDS OF SWEET CORN (ZEA MAYS L. SACCHARATES)**

**Sidahmed, H.M<sup>1,2\*</sup>., Arpad Illes<sup>1</sup>., A. Vad<sup>1</sup>., Nagy Janos.<sup>1</sup>**

<sup>1</sup> Institute of Land Utilisation, Technology and Regional Development, Faculty of Agricultural and Food Sciences and Environmental Management, University of Debrecen, 138 Boszomenyi street, 4032, Debrecen, Hungary.

<sup>2</sup>National Center For Research - Medicinal and Aromatic Plants Research and Traditional Medicine Institute. Department of Agrotechnology-Mac Nimir Street -P.O.Box 2404 Khartoum -Sudan.

\*corresponding author: [hajermohamed65@gmail.com](mailto:hajermohamed65@gmail.com)

The experiment was carried out at the Látókép Plant Cultivation Research center of Debrecen University During season 2022. The experiment was conducted in a randomized complete block design with four replications of Sweet corn. To investigate the effect of nutrient reaction and plant density on yield of sweet corn used four hybrids of sweet corn. Based on the Results of plant density experiment it was concluded that the successful production of the examined hybrids is possible with lower plant density (60,000 plants per ha) Averaged over the examined sweet maize hybrids, a yield reduction of 1923 kg and 1407 kg was realised in the case of 70 000 and 80. 000 plants per ha respectively compared to the plant density of 60. 000 plants per ha (17 519 kg/ha). The performed N dose experiments in sweet maize showed the successfulness of applying 100 kg N/ha. Doses of 150 and 200 kg N/ha have unfavourable effect resulting in a yield reduction of 461 and 1405 kg/ha, respectively.