

Abstract

Iron essential micronutrients in crop yield, preserving the environment and its importance in cereal production has been let to one of the most important notable parameters in the production of agricultural products. In the present study, the effect of foliar application of Iron sulfate on yield, yield components and some morpho-physiological traits examined on four varieties of corn (Maxima Hungarian, K.SC704, Iranian Maxima and Limagryn) through factorial randomized complete block design in the Agricultural Research Station, University of Zabol. Spraying was conducted in two phases of 6 leaf and before flowering and each plot has 4 rows with a distance of 40 cm and 15 cm row spacing. The results showed that the economic yield, the yield of forage and hay, grain weight, number of kernels per row, chlorophyll a and b, carotenoids, Ash, organic matter, carbohydrates, ADF and NDF, the percentage of sodium and potassium, oil content, nitrogen and grain protein were significant. The effect of foliar application of Iron sulfate on plant height, stem diameter, ear length, economic yield, the yield of forage and hay, grain weight, number of rows per ear, number of grains per row and the number of grains per ear, chlorophyll a and b, carotenoids, grains carbohydrates, NDF, potassium, nitrogen and protein content were significant. Most of the economic yield obtained through spraying 6 gr/lit. But most carbohydrates, NDF, nitrogen and grain protein were 3 gr/lit. Interaction between maize varieties and foliar application of Iron sulfate levels were significant in stem diameter, economic yield, the yield of forage and hay, Ash, organic matter content, and potassium. Most economic yield obtained by Limagryn and Iranian Maxima through spraying 6 gr/lit.

Keywords: Maize cultivars, Carotenoids, Chlorophyll a, Economic yield.



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The effect of foliar application of Iron sulfate on yield, yield components and some morpho- physiological traits of corn varieties

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