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جامعة الفيوم

Third Article:

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| Article title | Effect of micro-nutrients foliar application on yield and quality traits of some canola genotypes under different environmental conditions |
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In order to evaluate some canola genotypes performance to micro-nutrient foliar spraying. Four field experiments in two different soil types i.e. clayey (S₁) and loamy sand (S₂) at two experimental farms, Faculty of Agriculture, Fayoum University, Egypt in the winter season of 2017/18 (Y₁) and 2018/19 (Y₂). Six canola genotypes i.e., G₁ (35/9), G₂ (26/18), G₃ (Duplo), G₄ (Drakkar), G₅ (Hanna) and G₆ (Serow4) and three micro-nutrient rates were studied. The Y₁ has higher significant values of plant height, pods dry weight, seed, oil and protein yields, Mn, Fe and Zn seed content. The S₁ significantly exceeded S₂ for most studied traits. The G₁ (35/9) line followed by G₆ (Serow4) variety recorded significantly the highest values of most growth traits, seed yield and its components as well as seed content of Mn, Fe, Zn, oil and protein. Foliar application of micro-nutrients by the highest rate significantly surpassed tap water (control) for all studied traits. The correlation coefficients showed that the seed, oil, and protein yields have significantly positively correlated with most studied traits. There are three traits, i.e. pods dry weight plant⁻¹, plant height and number of pods plant⁻¹ were significantly ($P \leq 0.001$) participated in variation in seed yield ha⁻¹. The Results suggested that the G₁ line could be promising genotype, have a stable yield in the various environments (years and soil types) and more

responsive to micro-nutrients nutrition under different environmental conditions.

