

**Second Article:**

<b>Article title</b>	<b>Estimation of Straw, Seed and Oil Yields for Flax Plants (<i>Linum usitatissimum</i> L.) Cultivars of Foliar Application of Mn, Fe and Zn under Dry Environment</b>
<b>Participants</b>	<b>Salah Eldin Mohamed Emam</b> Agronomy Department, Faculty of Agriculture, Fayoum Univ., Fayoum, Egypt.
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Two years field work were accomplished at Demo experimental farm, Faculty of Agriculture, Fayoum University, Egypt during 2015/2016 and 2016/2017 years to study the effect of Mn, Fe and Zn foliar spraying on three flax cultivars productivity. The arrangement of split-plot in RCBD with three replications was applied. Three flax cultivars (Sakha-1, Sakha-2 and Giza-9) occupied the main plots while, three micro-nutrients levels (Zero, 300 and 600ppm fed<sup>-1</sup>) distributed in the sub-plot. The form of applied micro-nutrients was EDTA 13% Mn, EDDHSA 6% Fe and EDTA 14% Zn. Results showed that Sakha-1 exceeded other cultivars in straw yield parameters (i.e., plant height, technical stem height and straw yield. While, Sakha-2 cultivar gave utmost values of stem diameter and number of branches plant<sup>-1</sup> as well as seed yield traits (i.e., number of fruiting branches plant<sup>-1</sup>, fruiting zone length, number of capsules plant<sup>-1</sup>, 1000-seed weight and seed and oil yields. Seed oil and micro-nutrients (Mn, Fe and Zn) content were highest with Sakha-2 variety. Micro-nutrients foliar spraying at 600ppm/feddan gave significantly the highest values for all traits two years as compared to zero or 300 ppm/feddan. There are two traits, i.e., 1000-seed weight and number of fruiting branches plant<sup>-1</sup> in 2015/2016 year and two ones, i.e., seed yield plant<sup>-1</sup> and number of capsules plant<sup>-1</sup> in 2016/2017

year, were significantly ( $P \leq 0.001$ ) participated to variation in seed yield/feddan.

