

## **EFFECT OF LASER EXPOSURE AS PRE SOWING SEED PRIMING IN THREE FLAX CULTIVARS (*Linum usitatissimum* L.)**

In order to stimulate the germination and enhancing growth parameters and yield components of flax, Seeds of three cultivars were exposed by a Helium-Neon laser power using HUAFEI system with 1Hz of repetition rate, 10 ns of the width of the pulse with three powers of intensity 40, 60, and 80 mW/m<sup>2</sup> set on laser beam for 2, 4 and 6cycles per minute as pre sowing seed priming technique. The field experiment was conducted during the winter season2018/ 2019. The cultivars showed variation in their response to the laser exposure when the Egyptian and Iraqi cultivars were the most responsive to laser application. Laser power 60 was more effective in improving growth and yield components compared to the other two powers. Laser cycling beam at 4cyclesper minute showed more consistency to utilize laser energy. The results conclusively support using laser exposure as an efficient, low-cost, and highly stable pre sowing seed priming technique.