



The effect of supplemental irrigation on yield and yield components of Arman rain fed chickpea cultivar in the kharghan region of Markazi province

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Abstract

In order to investigate the effect of supplemental irrigation on yield and yield components of Arman rain fed chickpea cultivar in the kharghan region of Markazi province, an experiment as a randomized complete block with 3 replications in 2014-2015 was conducted. The applied factor in this supplemental irrigation experiment was included no irrigation (control), once irrigation at planting, once irrigation at 50% of flowering stage and, once irrigation at podding stage. According to the obtained results, supplementary irrigation effect at one percent probable on the plant height, the number of seeds per plant, hundred seed weight and seed yield and at five percent probable on the plant dry weight was significant and also was not observed a significant effect on the number of pods per plant. As well as by applying supplemental irrigation at different stages, measured characteristics was increased so that the most plant height and seed yield in the supplementary irrigation at podding stage, the most number of pods per plant in supplemental irrigation at planting and podding stages were obtained as well as on the plant dry weight, number of seeds per plant and hundred seed weigh among supplemental irrigation at planting, 50% of flowering and also podding stages there was no statistically significant difference.

Key words: chickpea, supplemental irrigation, seed yield, hundred seed weight, flowering stage.