



## The effect of supplemental irrigation on yield and yield components and protein content of Arman rain fed chickpea cultivar

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### Abstract

In order to investigate the effect of supplemental irrigation on yield and yield components and protein content of Arman rain fed chickpea cultivar, 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 and, once irrigation at podding stages. 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, protein percent and protein yield was significant. Also the mean comparison results showed that supplemental irrigation at different stages was increased plant height, the number of seeds per plant, hundred seed weight and seed yield, protein percent and protein yield so that the most plant height and seed yield in the supplementary irrigation at podding stage, the most protein percent in supplemental irrigation at planting stage was obtained as well as the number of seeds per plant, hundred seed weight, protein percent among supplemental irrigation at planting, 50% of flowering and also podding stages there were no statistically significant difference.

**Key words:** chickpea, Arman cultivar, supplemental irrigation, seed yield, protein percent.