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EFFECT OF LAST IRRIGATION AND THINNING OF PLANTS WITHIN THE ROW ON SEED YIELD AND IT'S COMPONENTS OF ALFAFA (*Medicago sativa* L.)

H. K. Khrbeet

M. S. Said*

*Professor- Dept. of Field Crop Sci. – Coll. Of Agric. – Univ. of Baghdad .

** Dept. of Field Crop Sci. – Coll. Of Agric. – Univ. of Diyala .

ABSTRACT

A study was conducted at experiment field of the college of Agriculture , University of Baghdad for two seasons 2011- 2012 and 2012- 2013 to investigate the effect of last irrigation date applied at (full bloom , beginning of pods formation , 50% of the pods with green color and 20% of the pods with brown color) and thinning treatments within the row using the ratio between reminder : removal stands as fellow (10 cm : 10 cm , 10 cm : 30 cm , 10 cm : 50 cm , 20 cm : 20 cm , 20 cm : 30 cm and 20 cm : 50 cm) on seed yield and Its components in a local cultivar of alfalfa. Layout of the experiment was in Randomize Complete Block Design (R.C.B.D.) in Nested – split plot arrangement with three replications. Last irrigation dates were used as main plot , while thinning treatments were used as sub- plot. Results showed that in both season , last irrigation had significant effect on number of stem/m² , racemes/ stem , pods/ racemes , seeds/pod and seed yield. 1000 seed weight significantly influenced only in 1st season. In both seasons , Results has also indicated a significant effect of thinning treatments on all seed yield components and seed yield except number of seeds / pod and seed yield in 2nd season. As average for two seasons , higher seed yield (578.35 Kg/ ha) can be obtained from stands thinning to 20 cm : 30 cm and last irrigation was applied at beginning of pods formation.

Key words : alfalfa , last irrigation , thinning of plants within the row , seed yield components , seed yield