

## **The effect of irrigation timing and different fertilizer systems (NPK application) and manure on remobilization and current photosynthesis in bread wheat (*Triticum aestivum* L.)**

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### **Abstract**

This field experiment was conducted for evaluation of irrigation timing on different fertilizer systems on yield and yield components of wheat (Chamran v.) in 2009-2010. The experiment was performed in RCBD with three replications (split plot design) at Ramin of Agriculture and Natural Resources University. To evaluate the effect of irrigation time the following treatments were applied: cut irrigation I<sub>1</sub>) from spike formation to harvesting, I<sub>2</sub>) from anthesis stage to harvesting, and I<sub>3</sub>) control with complete irrigation. For fertilizer systems, treatments included NPK Chemical NPK chemical sources manure, biological fertilizer and biological and manure. The effect of irrigation timing and fertilizer systems had a significant effect at 1% on remobilization, percent of organic matter remobilization efficiency, seed fraction of remobilization and current photosynthesis. The I<sub>3</sub> had minimum remobilization content and maximum current photosynthesis, but I<sub>1</sub> treatment had opposite trend. The biological fertilizer together with manure had maximum remobilization and current photosynthesis. Therefore, biological fertilizer together with manure can provide a good condition for high yield production in wheat, even under drought stress at the end of the ripening period.

**Keywords:** *Dry matte, Fertilizer, Irrigation cut, Remobilization, Wheat*