## Abstract

With regard to the bread wheat, all cultivated plants, the highest cultivation in the world is dedicated to this experiment to evaluate the effect of organic manures and chemical fertilizers on yield components of wheat in the central site, University of zabol for a split-plot in randomized complete block design with three replications. Treatments tested: The main factor type of fertilizer was include: (100% NPK) and (50% NPK + 50% Manure) and (50% NPK + Compost). Operating sub-steps of fertilization is in the growth stage of the plant including (Pre-sowing, tillering, Spike rate) was applied. Manure, Compost, P and K use before planting the land. To the exception of N, which is in the developmental stage (before sowing, claw, spike rate) was used. Wheat cultivar used in this experiment, was Hirmand. Parameters included: plant height, inter-node length, spike length, the flag leaf length, leaf area length, leaf area, leaf area index, number of leaf per plant, number of spike per plant, number of seed per spike, seed weight, economical yield, biological yield, harvest index, nitrogen, protein, phosphorus, potassium, calcium, magnesium, zinc the grains, nitrogen of the soil before planting and after harvesting, potassium of the soil before planting and after harvesting, phosphorus of the soil before planting and after harvesting, carbon of the soil before planting and after harvesting, soil organic matter before planting and after harvesting, pH, EC, determine the soil texture was measured. The results showed that the impact of different fertilizers (Treatment type of fertilizer) on biological yield, nitrogen, proteins, zinc, potassium, calcium, phosphorus the grains, nitrogen of the soil after harvesting, potassium of the soil before planting and after harvesting, phosphorus of the soil before planting, carbon of the soil after harvesting, soil organic matter after harvesting, on the surface 1% were significant and parameters economical yield, carbon of the soil before planting and soil organic matter before planting on the surface 5% were significant. Parameters economical yield, biological yield, zinc, magnesium, potassium, calcium, phosphorus the seed, nitrogen of the soil after planting, carbon of the soil after harvesting, soil organic matter after harvesting, under the influence of manure were in included. Compost on the surface of the nitrogen grain, proteins grain, potassium of the soil before planting and after harvesting, phosphorus of the soil before planting and magnesium the seeds affected and parameters carbon of the soil before planting, soil organic matter before planting, inter-burl length, nitrogen of the soil before planting and phosphorus of the soil after harvesting under the influence of chemical fertilizer were studied. In general, application of manure at the stage of paws, due to an increase in grain yield of wheat is suitable.

Keywords: spike, Cereals, compost, chemical fertilizer, manure



University of zabol Gradeute school Faculty of Agriculture Department of Agronomy

The Thesis Submitted for the Degree of Mastor of Science

(In the field Agroecology)

## The effect of organic and chemical fertilizers on yield and yield components of wheat (*Triticum aestivum*, L.)

Supervisors:

Dr. A. Ghanbari

## Advisor:

Dr. M. Mosavi nik

By:

Farzaneh Shafighi Ghazagh

2017