

## **Abstract**

To investigate the effect of chemical and biological fertilizers on yield and some qualitative and quantitative properties of medicinal pumpkin, an experiment was carried out in split plot based on Randomized Completely Block Design (RCBD) with three replications, at the Zabol University research farm in 2016. 280 kilogram per hactar nitrogen, 140 kg/ha phosphorus and 160 kg/ha potassium with three lavel of ziro, 50 and 100 percentage were the major factor. Nitroxin, Phosphate Barvar-2, fifty percent Nitroxin and fifty percent Phosphate Barvar-2 and NPK nanoclat fertilizer were the subplot factor. According to the results all treatments had a significant effect on complete seeds, nitrogen and phosphorus of leaves. Interaction of biological and chemical fertilizers was significant on plant height, number of flowers, 1000 seed weight, fruit length, fruit diameter, fruit weight, plant dry weight, proline, chlorophyll a and b. The highest amount of plant height was obtained from seeds were inoculated with nano fertilizer under the application of 100% chemical fertilizer. Also, the highest length of fruit was obtained from seeds were inoculated with nano fertilizer. The interaction of biological and chemical fertilizers had nonsignificant effect on fruit diameter. The most fruit weight was obtained from phosphate barvar-2 under the application of 100% chemical fertilizer. The application of nitroxin fertilizer was significant on nitrogen of plant. In addition, the highest amount of phosphorus was coralated with Seeds that inoculated with nitroxin. In general, it seems that application biological and chemical fevtilizer tegethet is suitable for pumpkin production in Zabol.

**key words:** Herb plant, Nitroxin, Nutrition elements, Pumpkin, Photosynthetic pigments



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**Effects of biofertilizers, chemical fertilizers and their Combination on  
quantitative and qualitative characteristics of pumpkin (Cocurbita pepo)**

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