

Abstract

In order to evaluate biological fertilizers on some quantitative and qualitative characteristics of peanut (*Arachis hypogaea*), based on nonlinear modeling, a randomized complete block design with three replications was conducted in Zabol University of Agriculture during 1993-94. Experimental treatments include, bio-fertilizer, biosulfur, nitroxin, seaweed, and fertile phosphate₂, each individually and in combination (control, biosulfur, nitroxin, seaweed, fermentation phosphate₂, seaweed

+biosulfur, seaweed+fertile phosphate₂, seaweed+Nitroxin, fermentation phosphate₂+biosulfur, fertilizer phosphate₂+Nitroxin, Biosulfur+Nitroxin, fermentation phosphate₂+biosulfur+nitroxin, ferro-phosphate₂+biosulfur+ seaweed, seaweed+biosulfur+ nitroxin+ ferrophosphate₂). The results of this study showed that the highest effect among treatments on nitrogen weights, grain weight, economic performance, harvest index and oil percentage were related to nitroxin treatment.

Nitroxin treatment increased 28, 24, 22, 28 and 47%, respectively.

It should be noted that seaweed treatment also had a significant effect on traits of 100 seed weight and biological yield, which increased 26% compared to control treatment. Combination of fermentation phosphate₂+ nitroxin increased 25, 27 and 24%, respectively, as compared to control treatment in ash percentage, protein and nitrogen percentage.

The combination of seaweed+ nitroxin treatment also had a significant effect on potassium, magnesium and calcium traits, so that seaweed+ nitroxin treatment increased 21, 15 and 74% respectively. It should be noted that fertilizer phosphate treatment also increased 39% of phosphorus absorbed by the plant.

In general, it can be stated that the combination of fertilizer treatments has a significant effect on qualitative traits (absorbed nutrients, percentage of ash and protein percentage) compared to their single use.

Key words: seaweed, biosulfur, grain protein and peanut



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**Organic fertilizers assessments on some small, qualitative characteristic of peanuts
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