

Abstract

To study the effects of magnesium and zinc levels fertilizers on quantitative and qualitative characteristics of peanut, experiment was conducted as factorial in base of randomized complete block design in Agricultural Research Institute of Zabol University (chahenimeh) with three replication. The first Factor was zinc sulfate fertilizer in three levels (0, 20 and 30 kg/ha) and second factor was magnesium sulfate fertilizer in five levels (0, 20, 30, 40 and 50 kg/ha). The characteristics that was measured in this study include: yield, 1000-seed weight, number of pod per 1 square meter, number of seeds inside pod, ratio of seed weight to weight, length and width of seed, leaf chlorophyll, oil and protein percentage, magnesium and zinc of seed, Result showed that among of quantitative traits, seed length, seed with, and number of pod per square meter affected by different levels of magnesium and zinc fertilizer on level of %1. Seed yield that is one of quantitative traits, was very significant under different levels of magnesium and zinc fertilizers. Means of comparisons showed that highest seed yield obtained by consumption of 20 and 30 kg/ha zinc fertilizer and control (without use of zinc fertilizer) had lowest yield. Among of qualitative traits. Seed magnesium was very significant with application of magnesium and zinc fertilizer, also interaction effects of magnesium and zinc fertilizer caused seed magnesium be significant. Seed protein affected by zinc fertilizer and interaction of magnesium and zinc fertilizer in level of %1. Use of magnesium fertilizer had not significant difference on seed protein. Application of magnesium and zinc fertilizer created significant difference on chlorophyll content and highest chlorophyll content was belong to use of 30 kg/ha zinc fertilizer. Result showed that use of 30 kg/ha zinc and 30 & 40 kg/ha magnesium fertilizer had highest effects on quantitative and qualitative traits of peanut that show desired effects of magnesium and zinc fertilizer on yield and yield components of peanut.

Key words: Peanuts, Magnesium, Zinc, Yield components, Yield



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**Effects of different levels of magnesium
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