

Abstract:

Zinc is one of the essential and less used materials for plants, animals and human that in case of being insufficient can cause some crucial metabolic disorders, decreases growth process and finally induces to growth total stop. Using rubber and rubber ash as a suitable zinc fertilizer in farms; in addition of having economical advantages, is a beneficial option for resolving the problem of rubber accumulation and reduction of the environmental pollution. One of the major restrictions of the rubber, is the presence of high density of heavy metals like lead and green cd. The purpose of this study is the investigation of the effect of the corrected rubber ash of absorption and reduction of heavy metals and zinc resource and its comparison with normal rubber ash, rubber and zinc sulfate by sorghum bicolor. For this reason, green house testing has been done via factorial based on a total random design and repeated 3 times. Treatments include normal rubber ash, corrected rubber ash, rubber grand zinc sulfate in 3 levels of 20, 40, 60 mg/kg and spray zinc sulfate in 3 levels of 2,4,8 g/lit along with a control. The rooted plant of sorghum bicolor cultured speed feed and 45 days after the ended period of plant growth the leaves and stalk were picked up from the crown and after determining their weight were transferred to laboratory. Separated the roots from the roots from the soil has been done slowly by 2 millimeters sieve, washed with water and after determining the wet root weight, was transferred to laboratory for further levels. The results of variance decomposition showed that the resources and different levels if zinc had a meaningful effect on all measuring parameters, moreover, with the increase of the levels of corrected rubber ash, absorption and density of lead and green cd Decreased by the root and shoot in which the least amount of density and absorption of heavy materials in level of 60 mg/kg of corrected rubber ash was observed in which does not have a significant difference with the levels of 20 and 40 mg/kg in this treatment. The results have shown that the corrected rubber ash could decrease the amount of heavy metals of lead and green cd to the extent of 36 times than normal rubber ash in sorghum bicolor in which could be used for decreasing the heavy plant pollutants.

Key words: Heavy metals, Rubber, Rubber ash, Sorghum bicolor, Zinc sulfate



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Title

**Effect of Tire and of Tire Ash on Growth Parameters of
Forage Sorghum (*Sorghum Bicolor*)**

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