

The Effect of Pre-soaking Peanut Seed (Cultivar NC2) with Methanol and Calcium Chloride on Seed Vigor and Its Growth Characteristics

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In order to investigate the effect of pre-soaking peanut seed with methanol and calcium chloride on seed vigor and its growth characteristics, a factorial experiment was conducted in a randomized complete block design with three replications. The first factor was the amount consumption of methanol (at three levels of 0, 2, 4 ml / per liter of distilled water) and the second factor was the amount consumption of calcium chloride (at three levels of 0, 2, 4 g / per liter of distilled water). Peanut seeds (cultivar NC2) were extracted dried pods under sunlight and medium seeds were used for germination experiments. Seeds were pre- soaking for 24 hour before germination test and then dried for 2 hour in laboratory air. After this stage, the seeds were germinated. In standard germination test, paper towel seed germination method was used. In cold test, seeds were subjected to standard germination test after cold treatment. Characteristics studied included number of natural seedlings, seedling fresh weight, root length, hypocotyl length, shoot length and seedling length. The results of variance of feeding in the studied characteristics revealed that methanol consumption had no effect on pre- soaking of peanut seeds, however, there is a positive and significant relationship between calcium chloride and pre- soaking of peanut seeds. The findings of mean comparison of the studied characteristics suggested that the highest values of characteristics were obtained 6 mg / L calcium chloride. Interaction of methanol intake with calcium chloride intake was not significant for all traits evaluated.

Keywords : Pre-Soaking Seed, Calcium Chloride, Methanol, Seed Vigor

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