

**EFFECT OF *OSMOCONDITIONING* AND *MATRICONDITIONING* ON  
VIGOR, VIABILITY, GROWTH AND YIELD OF STORED SOYBEAN  
SEEDS (*Glycine max* (L.) Meriil.)**

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**ABSTRACT**

Soybean is legumes are high in protein and fat which 43,9% of protein and 18,4% of fat results in a low seed shelf life. Priming is a seed treatment aimed at improving the vigor and viability of stored seeds. This study aimed to determine the effect of osmoconditioning and matricconditioning treatments on the viability, vigor, growth, and yield of stored soybean seeds. The experimental design used in both laboratory and field trials was a completely randomized design with a single factor, namely the type of osmoconditioning and matricconditioning materials with various concentrations. The osmoconditioning material used was young coconut water with concentrations of 15% and 30% without EM-4 and with the addition of EM-4. The matricconditioning material used was rice husk charcoal with a ratio of 1:1:1 and 10:6:7 without EM-4 and with the addition of EM-4. The data obtained were analyzed using ANOVA at a 5% significance level, followed by an ortogonal contrast analysis with a 5% significance level. The results showed that the osmoconditioning and matricconditioning treatment was significantly better than the control in all variables. The matricconditioning treatment using rice husk charcoal with a ratio of 10:6:7+EM-4 0.3% had the best effect on the vigor, viability, growth, and yield of stored soybean seeds.

**Keyword** : Soybean, osmoconditioning, matricconditioning, EM-4