Pengaruh Penyimpanan Benih Secara Anoxia Pada Beberapa Kondisi Suhu Yang Berbeda Terhadap Mutu Fisiologis Benih Kedelai (Glycine Max (L.) Merril), (*The Influence of Anoxia Seed Storage Under Various Temperature Conditions on the Physiological Quality of Soybean Seeds (Glycine Max (L.) Merril)), Supervised by Putri Santika, S.ST., M.Sc.*

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ABSTRACT

The soybean plant is an important commodity and widely consumed in Indonesia. This research aims to determine the effect of the interaction of different storage temperature treatments and anoxia methods on the physiological quality of soybean seeds. The research was conducted at the Jember State Polytechnic. The experimental design used in this research was a factorial randomized complete block design consisting of 2 factors and repeated 3 times. The first factor is the storage temperature (S) consisting of (S1) refrigerator temperature, (S2) controlled room temperature, (S3) uncontrolled warehouse temperature. The second factor is the anoxia storage method (A) consisting of (A0) control, (A1) silica gel, (A2) oxygen absorber, (A3) vacuum sealing. The data obtained were then analyzed using analysis of variance followed by duncan's multiple range test at the 5% level. The research results show that both controlled room temperature treatment (S2) and refrigerator temperature treatment (S1) equally exhibit the best results in terms of water content parameter. For parameters such as germination power, maximum growth potential, growth rate, and vigor index, the treatment of warehouse temperature (S3) and refrigerator temperature (S1) show the best results. Silica gel treatment (A1) provides the best treatment for water content parameter. The combination of refrigerator temperature and silica gel treatment (S1A1) produces the best growth synchrony at 87.00%.

Keywords: Soybean, Storage Temperature, Anoxia Method