

Growth of Cocoa Seedlings (*Theobroma cacao* L.) Towards Various Types of Packaging and Seed Storage Duration

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ABSTRACT

Good and maximum cocoa seedling growth comes from good quality seeds. Variations in growth rate are influenced by the same factors that affect the germination of cocoa seeds, namely the water content in the seeds. The demand for cocoa in the global market continues to increase, thus triggering the need to increase the productivity and quality of cocoa plants. In cocoa cultivation, quality seedlings are one of the most important aspects, which significantly depends on the way the seeds are handled during the sowing process. This study aims to analyze the effect of packaging types and storage times on seedling growth, with the hope of providing a better understanding in choosing the most effective storage method. The experiment was conducted at the Jember State Polytechnic from January - Mei. This study used a Factorial Randomized Block Design (RAK) consisting of 2 factors. The first factor is the type of packaging (W) with 2 levels W1: rice paper W2: zipper plastic and the second factor is the storage period (P) with 3 levels, namely P1: storage for 8 days P2: storage for 12 days P3: storage for 16 days. The results of the study showed that the type of packaging factor had a very significant effect on seedling height, had a significant effect on the number of leaves, wet weight, and had no significant effect on seedling diameter, root length, and dry weight. The storage period factor had a significant effect on seedling diameter, root length, and had no significant effect on seedling height, number of leaves, wet weight, and dry weight. There was an interaction between the type of packaging and the storage period which had a very significant effect on seedling height. There was no interaction between the type of packaging and the storage period on seedling diameter, number of leaves, root length, wet weight and dry weight.

Keywords: cocoa, type of packaging, and length of storage