Growth of Cacao Seeds (*Theobroma cacao* L.) ICCRI 03 and MCC 01 Clone on Multiple Seed Storage Duration

Ir. Titien Fatimah, MP.

Fennaldy Bambang Agusta

Study Program of Cultivation of Plantation Crops Majoring of Agriculture Production

ABSTRACT

Cocoa seeds are recalcitrant seeds that have an inability to store long enough. As a result of storage, cocoa seeds can experience seed deterioration as well as in the growth process in nurseries. To find out that cocoa seeds that have been stored can grow well in the nursery, it is necessary to do a nursery based on the cocoa seeds that have been stored. This research was carried out at the Seed Production Technology Laboratory, from August to October 2020, Wire House, and the Jember State Polytechnic Soil Laboratory from October 2020 to March 2021. The design used was a Factorial Randomized Design (RAKF) consisting of 2 factors and 4 replicates. The first factor is clones (K) consisting of 2 types, namely K1 = ICCRI03: K2 = MCC 01, and the second factor is Storage Time (P) with 4 levels, namely: $P0 = Directly \ planted \ (control) : P1 = Stored 5 \ Days : P2 = Saved 10 \ Days : P3 =$ Saved 15 Days. Parameters observed were seedling stem diameter, seedling height, number of seedling leaves, seedling wet weight, seedling dry weight and seedling root length. The results showed that the differences in clones had a very significant effect on the observed parameters of seedling height, number of seedling leaves, seedling stem diameter, wet and dry weight of seeds on stored seeds. The storage time treatment had a very significant effect on the observation parameters of seedling height, number of seedling leaves, and seedling stem diameter. And the interaction between clones and storage time had a very significant effect on seedling height and number of seedling leaves.

Keywords: Nurseries, Cocoa Clones, Storage Time.