

ABSTRACT

THE SEED STORABILITY TEST OF RICE THE VARIETIES OF CIHERANG, CIGEULIS, AND CILAMAYA MUNCUL VARIETY IN TWO TYPES OF PACKAGES

By

Rizki Amelia Febrina

During the storage period, seeds will deteriorate. Seed deterioration is a process that cannot be prevented and stopped so that the viability decrease. The application of the appropriate technology is expected to control seed deterioration and inhibit the influence of environmental factors. One way to do that is by using appropriate types of packaging. Sacks are often used for seeds package because they are easy to be found but they accelerate the decline in viability which becomes their weakness. Therefore, it is required other alternatives by using plastic as the packaging to maintain seed viability remain high during storage period. This research aims to compare the type of package that is better in maintaining seed viability, to know the declining seed viability during storage period and to know how long the two types of packaging are able to maintain viability remain high with above 80% germination during storage period of rice.

The research was conducted at the Laboratory of Seed and Plant Breeding Department of Agronomy Faculty of Agriculture, University of Lampung, from December 2009 to June 2010. The treatments were applied to experimental plots in completely randomized block design with 3 replications. The treatment was arranged in factorial design (2x7) with the first factor was the types of packaging (K), plastic packaging (K1) and sack packaging (K2). The second factor was the duration of seed storage (U), 0 (U0), 1 (U1), 2 (U2), 3 (U3), 4 (U4), 5 (U5), and 6 (U6) months. Uniformity mean value among the treatments was tested using Barlett test and the aditivity data were tested with Tukey test. The separation of mean value is being conducted with orthogonal polynomial test at 5% significance level.

The results of this research showed that: (1) Up to 6 months of storage, plastic packaging was able to maintain rice seeds viability better than sack packaging, (2) Seeds viability keep decreasing through the increasing storage period, (3) The viability of seeds stored in two types of storage containers began to decline at 2 to 6 months but plastic packaging was able to maintain the viability of rice seed with above 80% germination.