

ABSTRACT

SEED STORABILITY TEST ON THREE RICE VARIETY PRODUCT OF BATAN ON TWO DIFFERENT TYPES OF PACKAGE

By

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The demand of rice increases every year and it make the demand for rice seed also increases. Efforts to increase rice production can be done through improvement of varieties by mutation breeding techniques or assembly of existing varieties through crossbreeding and biotechnology and BATAN has managed to assemble three varieties, which are Mayang, Bestari and Mira-1. Storing is a technique or a way to maintain seed viability within a maximum period so it can be used for several seasons. This study aims to determine the effect of package, and shelf life of seed viability stored, and to compare packages in maintaining seed viability during storage period.

The research was conducted at the Laboratory of Seed and Plant Breeding Department of Agriculture Faculty of Agriculture, University of Lampung, from December 2009 to June 2010. The Treatments were applied to experimental plots in randomize completely block design with 3 replications. The treatments was arranged in factorial design (2x7) with the first factor is the types of packaging

(K), plastic packaging (K1) and sack packaging (K2). The second factor is 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) plastic packaging is capable of maintaining the viability of rice seed better than the sack packaging based on all observed variables; (2) rice seed viability gets decreased along with the increasing of storage period based on all observed variables, (3) the viability of rice seed stored in two types of package gets decreased start from 2 to 6 months. Plastic package is capable of maintaining the viability of rice seed remains high until the end of storage (6 months) while sack package is only able to maintain seed viability for 4 months. This is based on the observation of seed germination variables.