ABSTRACT

SOYBEAN (*Glycine max* [L.] Merr.) SEED VIABILITY TESTING RESULT OF NPK SUPPLEMENT FERTILIZER ON 5 MONTH SEED AGE

By

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Agronomic principles during the seed development such as the way to apply fertilizer and dosage of NPK supplement fertilizer in an effort to maximize seed viability. Viability was obtained during the period of seed development can be maintained within a certain storage period. This study aims to determine the decreased viability of soybean seed varieties Grobogan in 5 months storage age result of the way application of NPK fertilizer and NPK supplement fertilizer during flowering. Seed production research conducted at the experimental Politeknik Negeri Lampung from March to June 2009. Seed viability testing on five month storage age conducted in the Laboratory of Plant Breeding and Seed Technology Faculty of Agriculture, University of Lampung, from November 2009 to December 2009. Application of NPK supplement conducted by crushed and dissolved; NPK supplement dosage given during flowering is 0, 20, 40, 60, and 80 kg/ha. Seeds obtained from the treatment of those two factors were tested for viability on 5 month storage age. Treatment effect apply fertilizer and dosage of NPK supplement during flowering will be analyzed, explained, and presented

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using histograms and standard deviation. The results showed that the viability of soybean seed varieties Grobogan on five months storage age generally have shown a decreased of seed viability. Dissolve NPK fertilizer application better then the crushed NPK fertilizer application in maintaining seed viability based on all variables; germination, germination speed, simultaneity of germination, seedling dry weight, normal hypocotyl seedling length, and electrical conductivity. Increasing dosage of NPK supplement fertilizer until of 80 kg/ha have a better seed viability compared with no supplement fertilizer.