ABSTRACT

THE INFLUENCES OF ADDITIONAL DOSAGES OF NPK FERTILIZER IN BLOOMING PHASE TO SOYBEAN VIABILITY (*Glycine max* [L.] Merr.) OF GROBOGAN VARIETY AFTER FOUR, FIVE, AND SIX MONTHS OF STORAGE PERIODS

By

Maity Fitriani Permatasari

Agronomic principles during the period of seed development is closely related with the seed ability when seed is stored. The relative high food reserve is attained from additional NPK fertilizer when the plant enters blooming phase where this is a period of seed building in seed viability period. Besides being supported with early high viability and vigor, the storing environment factors such as air temperature and humidity influence the durability of seed storing.

This research purposes to find out the pattern of viability inclination of Grobogan variety soybean seed product yield with additional NPK fertilizer treatment when the plant enters blooming phase that has passed four, five, and six months storing. This research was conducted in seed laboratory and plant breeding of agriculture faculty in Lampung University from February to March 2010. The seed viability test came from soybean planting with additional NPK fertilizer in blooming phase with 0 kg/ha,

20 kg/ha, 40 kg/ha, 60 kg/ha, and 80 kg/ha dosages. The research uses single structured regression design and applies perfect random group design. Treatments were repeated three times. Bartlett test was used to test the homogeneity of variances among treatment test. The further analysis uses polynomial orthogonal test with $\square$=0,05.

The results show that increasing additional NPK fertilizer until 80 kg/ha dosages when the soybean plant enters blooming phase is generally able to increase soybean seed (*Glycine max* [L] Merr.) of Grobogan variety. Seed viability did not showed kuadratic after four, five, and six months storing however adding NPK fertilizer dosage until 80 kg/ha. This can be seen from the percentage of germination, normal and strong seedling, germination rate, dry weight of normal and strong sprout, and length of normal and strong sprout variables.