

ABSTRACT

Susanti, Evi. 2014. **The Influence of Osmoconditioning with PEG (Polyethylene Glycol) 6000 Kenaf (*Hibiscus cannabinus* L.) Seed Viability.** Thesis. Department of Biology Faculty of Science and Technology State Islamic University of Maulana Malik Ibarahim Malang.

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Osmoconditioning is a method that imbibe seed in an aqueous solution of osmotic at certain concentration to improve physical properties, physiological and for biochemical seeds that related to the speed and simultaneity of germination, and the potential improvement of germination. PEG 6000 is one of a compound used in *osmoconditioning*. Peg 6000 have a role in helping the imbibition of water by the seed. Viability of seed is the potential of living seed that can be shown by growth process of the seed or symptoms at its metabolic. Kenaf is plant that producing fiber derived from the bark of its stock. The porpose of this research is to find out the concentration and long immersion in certain PEG (*Polyethylene Glycol*) 6000) against kenaf seed (*Hibiscus cannabinus* L.) viability, covers germination, growing simultaneity, length of sprouts and sprouts water content.

This research used PEG 6000 and kenaf seed taken from balai research plant sweetener and fibers (balittas) karangploso, Malang. The design of research that used was Completely Randomized Design (RAL) factorial 2 factors. Factor 1 is concentration of PEG 6000 namely K0, K1 (0%) (3%), K2 (6%), K3 (9%) and K4 (12%). The factor 2 is a soaking time, L1 (2 hours), L2 (4 hours) and L3 (6 hours), so obtained 15 combinations of treatment with each treatment 3 replicates. The observed parameter are germination, growing simultaneity, length of sprouts and sprouts water content. Data were analyzed by analysis of variance (ANAVA) and when significantly different, followed by Test DMRT (*Duncan Multiple Range Test*) 5%.

The results of research showed that the effective concentration of PEG 6000 to increase the percentage of germination, percentage of growing simultaneity and sprouts water content is 3%. While the effective time soaking in PEG 6000 to increase the length of the sprouts is 2 hours. There are interaction of concentration and long soaking on the length of sprouts, that is 3% concentration and soaking time is 2 hours.