

Efektivitas Konsentrasi Perendaman Zat GA₃ Dan NAA Terhadap Viabilitas Dan Vigor Benih Kedelai (*Glycine max* (L.) Merrill) Kedaluwarsa
*Effectiveness of Immersion Concentration of GA₃ and NAA on Viability and Vigor of Soybean Seeds (*Glycine max* (L.) Merrill) Expired. Supervised by Ir. Titien Sehermiation, MP*

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ABSTRACT

*Research on the **Effectiveness of Immersion Concentration of GA₃ and NAA on Viability and Vigor of Soybean Seeds (*Glycine max* (L.) Merrill) Expired.** To determine the immersion concentration of GA₃ and NAA Substances Against Viability and Vigor of Soybean Seeds (*Glycine max* (L.) Merrill) After being stored, one way to improve the quality of soybean seeds after being stored using GA₃ and NAA. This research will be carried out in January - May 2018 at the Seed Technology Laboratory greenhouse, Jember State Polytechnic. This study was arranged using Completely Randomized Design consist of 2 factors. The first factor is the concentration of GA₃ (G) consists of G1 = 50 ppm, G2 = 100 ppm, and G3 = 150 ppm. The second factor is the concentration of NAA (N) which consists of N1 = 50 ppm, N2 = 100 ppm and N3 = 150 ppm. There is immersion interaction using giberelin GA₃ and auxin NAA which has a significant effect (*) on the germination parameters and simultaneous growth of seeds, the best interaction is G3N1 treatment which is GA₃ 150 ppm and NAA 50 ppm. Immersion treatment using giberelin GA₃ and auxin NAA shows a very real effect (**) on the parameters of seedling growth rate, the best concentration is G1N1.*

Key words: Soybean Seeds, Ga3, NAA, Viability, Vigor