

Response of Growth and Yield of True Shallot Seed Shallots (*Allium ascalonicum* L.) in Treatment of Various GA3 Concentrations and Transplanting Age

By: Imam Sumantri

Supervised By: Tuti Setyaningrum and Oktavia Sarhesti Padmini

ABSTRACT

The increasing demand for shallots in Indonesia needs to be balanced with increased production. Shallot cultivation through TSS seeds faces an obstacle, it takes a long time to germinate and the ability to germinate seeds is low. The research aims to determine the best combination of GA3 concentration and transplanting age to increase shallot the growth and TSS yield. The research was conducted in April - August 2022 at the experimental garden of the Faculty of Agriculture UPN "Veteran" Yogyakarta. Field experiment using RCBD with two factors + one control (TSS shallot seed without GA3 treatment and transplanting age at 30 DAS). The first factor is GA3 concentration consisting of (100, 150, 200) ppm. The second factor is transplanting age consisting of (15, 20, 25) DAS. The data obtained were analyzed for diversity with ANOVA at 5% level, Orthogonal Contrast test and RCBD test at 5% level. The results showed that there was an interaction between treatment combinations with a GA3 concentration of 150 ppm and transplanting age at 20 DAS. The treatment with GA3 concentration of 150 ppm was significantly more precise in germination power, bulb fresh weight per clump, bulb dry weight per clump and bulb weight per hectare. Treatment transplanting age at 20 DAS was significantly better on the parameters number of leaves at 3 WAP, bulb fresh weight per clump, bulb dry weight per clump and bulb weight per hectare.

Keywords: *TSS of shallots, Concentration, GA3, Transplanting age*