## Peningkatan Pembungaan dan Hasil *True Shallot Seed* (TSS) Bawang Merah Melalui Vernalisasi serta Aplikasi *Benzylaminopurine* di Dataran Rendah Mayang

(Improvement of Flowering and True Shallot Seed (TSS) Yield of Shallots Through Vernalization and Application of Benzylaminopurine in the Lowlands of Mayang) Advisored by Leli Kurniasari, S.P., M.Si.

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## ABSTRACT

The problem of shallot seed production in Indonesia lies in the generally low productivity due to the difficulty in obtaining quality seeds, low vigor, susceptibility to diseases, and high costs. True Shallot Seed (TSS) is an alternative to address these issues. However, shallots are difficult to flower when planted in lowland areas. This research was conducted to optimalize flowering and TSS vield in lowland areas through vernalization and BAP application. The study was carried out from June to November 2024 in Krajan Hamlet, Mayang Village, Mayang Subdistrict, Jember Regency, at an elevation of 200 meters above sea level. The research used a Factorial Randomized Block Design with three replications. The treatments consisted of two factors: vernalization duration (3, 4, and 5 weeks) and Benzylaminopurine (BAP) concentration (50, 100, 150, and 200 ppm). The results showed that 3 weeks of vernalization positively influenced the average number of leaves (88.38 leaves) and the number of productive tillers (28.61 tillers). The best BAP concentration was 100 ppm, which produced the highest number of leaves per plant (20.3 leaves) and the highest number of productive tillers (4.95 tillers), also BAP 50 ppm was better, which increased the weight of 100 seeds (0.2595 grams) and the TSS growth potential (36%). The best combination was 3 weeks of vernalization with 50 ppm BAP (V1B1), which resulted in the highest number of umbels per plot (11 umbels) and the highest number of flowers per umbel (64.7 flowers).

*Key Words*: *Allium ascalonicum*, BAP, *Vernalization Duration, Flowering Improvement*, TSS.