



INTISARI

Penelitian ini bertujuan untuk menghitung jumlah bunga terpolinasi untuk setiap 0.5 ml polen, mengetahui viabilitas benih yang dipolinasi dengan berbagai macam ukuran alat penyerbukan (*cotton bud swab okulatif*, *cotton bud swab stick small head*, dan *cotton bud swab stick big head*), serta ukuran alat penyerbukan yang paling efektif dan efisien berdasarkan kualitas dan kuantitas benih. Penelitian dilaksanakan di PT BISI International Tbk Farm Karangploso, Malang, Jawa Timur pada bulan September 2023 hingga Januari 2024 menggunakan Rancangan Acak Lengkap (RAL) yang terdiri dari 4 perlakuan dan 5 ulangan, kemudian dianalisis menggunakan uji analisis varian (ANOVA) dengan tingkat kepercayaan 95%, apabila jika berbeda nyata dilakukan uji lanjut menggunakan HSD Tukey 5%. Hasil penelitian menunjukkan setiap 0.5 ml polen, *cotton bud swab okulatif* dapat mempolinasi 293 bunga, *cotton bud swab stick small head* dapat mempolinasi 133 bunga, *cotton bud swab stick big head* dapat mempolinasi 130 bunga. Sementara itu, daya berkecambah yang dihasilkan tidak berbeda nyata antar perlakuan. Akan tetapi hasil dinilai kurang representatif karena perbedaan jumlah benih uji daya berkecambah. Bunga jantan *fresh* adalah teknik yang paling baik digunakan dalam produksi benih. Akan tetapi, karena tanaman jantan lebih rentan terhadap virus, dan adanya faktor lain seperti kendala penyimpanan dalam jumlah banyak dan kondisi lingkungan, bunga *fresh* tidak menjadi opsi yang efektif, sehingga sebagai alternatif disarankan menggunakan polen simpan dengan alat bantu *cotton bud swab stick small head*.

Kata kunci: polen, alat penyerbukan, viabilitas benih



ABSTRACT

This study aims to determine the number of pollinated flowers for every 0.5 ml of pollen, the viability of seeds pollinated with various sizes of pollination tools (cotton bud swab occlusive, cotton bud swab stick small head, and cotton bud swab stick big head), as well as the most effective and efficient pollination tool size based on seed quality and quantity. The research was conducted at PT BISI International Tbk Farm Karangploso, Malang, East Java from September 2023 to January 2024 using a Completely Randomized Design (CRD) consisting of 4 treatments and 5 replications, then analyzed using the analysis of variance test (ANOVA) with a confidence level of 95%, if it is significantly different, a further test is carried out using Tukey's HSD 5%. The research results show that for every 0.5 ml of pollen, the cotton bud swab occlusive can pollinate 293 flowers, the cotton bud swab stick small head can pollinate 133 flowers, the cotton bud swab stick big head can pollinate 130 flowers. Meanwhile, the seed germination was not significantly different between treatments. However, the results were considered less representative due to differences in the number of seeds for germination test. Fresh male flowers are the best technique used in seed production. However, because male plants are more susceptible to viruses, and due to other factors such as storage constraints in large quantities and environmental conditions, fresh flowers are not an effective option, so as an alternative it is recommended to use stored pollen using cotton bud swab stick small head.

Key words: pollen, pollination tools, seed viability