

ABSTRAK

PENGARUH PERBEDAAN WAKTU APLIKASI *GIBBERELLIC ACID* (GA₃) TERHADAP PENINGKATAN PRODUKSI BUAH NANAS *RATOON* KLON GP3 DI PT GREAT GIANT PINEAPPLE

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Nanas (*Ananas comosus* L. Merr.) merupakan buah tropis bernilai gizi tinggi dengan permintaan pasar yang terus meningkat, sehingga diperlukan teknologi budidaya yang mampu meningkatkan produksi. Upaya yang dapat dilakukan adalah optimalisasi tanaman *ratoon* melalui aplikasi giberelin (GA₃). Penelitian ini bertujuan untuk mengetahui pengaruh waktu aplikasi GA₃ terhadap produksi baik kuantitas dan kualitas buah nanas *ratoon* klon GP3 di PT Great Giant Pineapple. Penelitian dilaksanakan di Lokasi 095E, *Plantation Group* 1, PT Great Giant Pineapple, Lampung Tengah, pada Oktober hingga Desember 2025. Rancangan percobaan yang digunakan adalah rancangan acak kelompok (RAK) *non*-faktorial dengan tujuh perlakuan dan empat ulangan yaitu kontrol berupa aplikasi air pada 11, 13, dan 15 msf, serta aplikasi GA₃ pada 11 dan 13 msf, 12 dan 14 msf, 12 dan 15 msf, 13 dan 15 msf, 13 dan 16 msf, dan 14 dan 16 msf. Data penelitian diuji homogenitas ragam menggunakan uji Bartlett dan aditivitas data menggunakan uji Tukey, kemudian dianalisis menggunakan analisis ragam dan uji *Duncan's Multiple Range Test* (DMRT) pada taraf 5%, sedangkan pada variabel pengamatan buah per mata dianalisis menggunakan simpangan baku. Hasil penelitian menunjukkan bahwa pemberian GA₃ pada tanaman nanas *ratoon* mampu meningkatkan kuantitas buah, yaitu bobot buah, diameter buah, indeks panen, dan potensi produksi, serta memengaruhi kualitas buah melalui penurunan *total soluble solid* dan keterjadian penyakit. Aplikasi GA₃ pada 12 dan 14 msf merupakan perlakuan terbaik karena menghasilkan bobot buah rata-rata, diameter buah, dan potensi produksi tertinggi.

Kata kunci: Bobot buah, giberelin (GA₃), kualitas buah, tanaman nanas *ratoon*, waktu aplikasi.

ABSTRACT

EFFECT OF DIFFERENT TIMING APPLICATION OF GIBBERELLIC ACID (GA₃) ON INCREASING THE FRUIT PRODUCTION OF RATOON PINEAPPLE CLONE GP3 AT PT GREAT GIANT PINEAPPLE

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*Pineapple (*Ananas comosus* L. Merr.) is a tropical fruit with high nutritional value and steadily increasing market demand, necessitating cultivation techniques capable of boosting production. One approach is the optimisation of ratoon plants through the application of gibberellin (GA₃). This study aimed to determine the effect of GA₃ application timing on both the quantity and quality of GP3 clone ratoon pineapple fruit at PT Great Giant Pineapple. The research was conducted at Location 095E, Plantation Group 1, PT Great Giant Pineapple, Central Lampung, from October to December 2025. The experimental design used was a non-factorial randomised block design (RBD) with seven treatments and four replicates, namely a control involving water application at 11, 13, and 15 msf, and GA₃ application at 11 and 13 msf, 12 and 14 msf, 12 and 15 msf, 13 and 15 msf, 13 and 16 msf, and 14 and 16 msf. The research data were tested for homogeneity of variance using Bartlett's test and for data additivity using Tukey's test, then analysed using analysis of variance (ANOVA) and Duncan's Multiple Range Test (DMRT) at the 5% level, whilst the observed variable of fruit per eye was analysed using standard deviation. The results of the study showed that the application of GA₃ to ratoon pineapple plants was able to increase fruit quantity, namely fruit weight, fruit diameter, harvest index, and production potential, as well as influencing fruit quality through a reduction in total soluble solids and the incidence of disease. The application of GA₃ at 12 and 14 msf was the best treatment as it produced the highest average fruit weight, fruit diameter, and production potential.*

Kerwords: Application timing, fruit quality, fruit weight, gibberellin (GA₃), pineapple ratoon crop.