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**Pengaruh Giberelin Tunggal dan Kombinasinya dengan Auksin terhadap Pertumbuhan Sucker dan Hasil
Nenas Ratoon (Ananas comosus L.)**
Annisa Al Munawwaroh, Dr. Erlina Ambarwati, S.P., M.P.; Nungki Kusuma Astuti, S.P., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

INTISARI

Produksi nenas (*Ananas comosus* (L.) Merr.) *ratoon crop* dipengaruhi oleh jumlah *sucker* yang terbentuk pada tanaman *first crop*. Aplikasi zat pengatur tumbuh (ZPT) berpotensi meningkatkan pembentukan *sucker* sehingga dapat meningkatkan produktivitas tanaman *ratooncrop*. Penelitian ini bertujuan mengetahui pengaruh giberelin (GA_3) serta kombinasi GA_3 dan *naphthalene acetic acid* (NAA) terhadap pertumbuhan *sucker* dan hasil tanaman nenas *ratoon crop*, serta menentukan perlakuan yang paling efektif. Penelitian dilaksanakan di perkebunan PT Great Giant Pineapple, Lampung Tengah, menggunakan rancangan acak kelompok dengan empat perlakuan, yaitu GA_3 40%, GA_3 90%, GA_3 80% + NAA 10%, dan kontrol. Data dianalisis menggunakan analisis ragam (ANOVA) dan dilanjutkan dengan uji Tukey pada taraf nyata 5%. Hasil penelitian menunjukkan bahwa aplikasi ZPT berpengaruh nyata terhadap pertumbuhan *sucker*. Kombinasi GA_3 80% + NAA 10% menghasilkan persentase tanaman ber-*sucker* tertinggi (86,88%), populasi *sucker* tertinggi (68.603,99 ha^{-1}), serta persentase tanaman yang menghasilkan dua *sucker* tertinggi (35,40%). Sebagian besar parameter pertumbuhan vegetatif tanaman *ratoon crop*, bobot buah dan *crown*, distribusi ukuran buah, kualitas fisik buah, serta proporsi kemasakan buah tidak menunjukkan perbedaan nyata antarperlakuan. Aplikasi ZPT hanya berpengaruh nyata terhadap nilai total padatan terlarut (°Brix), Rerata berat buah, dan potensi hasil. Perlakuan GA_3 80% + NAA 10% menghasilkan potensi hasil tertinggi sebesar 35,98 ton ha^{-1}. Dengan demikian, kombinasi GA_3 80% + NAA 10% merupakan perlakuan yang paling efektif dalam meningkatkan pertumbuhan *sucker* dan potensi hasil tanaman nenas *ratoon crop*.

Kata kunci: GA_3; NAA; nenas; *ratoon crop*; *sucker*.

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ABSTRACT

The productivity of pineapple (Ananas comosus (L.) Merr.) ratoon crop is influenced by the number of suckers produced by the first crop. Plant growth regulators (PGRs) have the potential to stimulate sucker formation and consequently improve ratoon crop productivity. This study aimed to evaluate the effects of gibberellic acid (GA_3) and a combination of GA_3 and naphthalene acetic acid (NAA) on sucker growth and ratoon crop yield, as well as to identify the most effective treatment. The experiment was conducted at PT Great Giant Pineapple plantation, Central Lampung, Indonesia, using a randomized complete block design with four treatments: GA_3 40%, GA_3 90%, GA_3 80% + NAA 10%, and an untreated control. Data were analyzed using analysis of variance (ANOVA), followed by Tukey's Honestly Significant Difference (HSD) test at the 5% significance level. The results showed that PGR application significantly affected sucker growth. The GA_3 80% + NAA 10% treatment produced the highest percentage of plants with suckers (86.88%), the highest sucker population (68,603.99 ha^{-1}), and the highest percentage of plants producing two suckers (35.40%). Most vegetative growth parameters of ratoon plants, fruit and crown biomass, fruit size distribution, physical fruit quality, and fruit maturity proportion were not significantly affected by the treatments. PGR application significantly affected only total soluble solids (°Brix), average fruit weight, and potential yield. The GA_3 80% + NAA 10% treatment produced the highest potential yield of 35.98 t ha^{-1}. Therefore, the combination of GA_3 80% + NAA 10% was the most effective treatment for improving sucker growth and the potential yield of pineapple ratoon crop.

Keywords: GA_3; NAA*; pineapple; ratoon crop; sucker.*