INTISARI

Tomat ceri berpotensi dibudidayakan pada lahan salinitas karena memiliki kemampuan adaptasi yang cukup baik terhadap salinitas rendah hingga sedang. Selain itu, tingginya permintaan tomat ceri baik di pasar domestik maupun ekspor, serta adanya potensi penggunaan IAA eksogen untuk meningkatkan kemampuan tanaman beradaptasi terhadap cekaman salin, menjadikan tomat ceri memiliki potensi untuk dikembangkan. Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi level salinitas dan asam indole asetat (IAA) eksogen terhadap mutu hasil buah tomat ceri (*Solanum lycopersicum* var. Ruby). Penelitian dilaksanakan pada bulan Oktober 2024 hingga Maret 2025 di Greenhouse Pusat Inovasi Agroteknologi Universitas Gadjah Mada, Sleman, Daerah Istimewa Yogyakarta, sedangkan analisis mutu hasil dilakukan di Sub Laboratorium Hortikultura, Laboratorium Manajemen dan Produksi Tanaman, Departemen Budidaya Pertanian, Fakultas Pertanian UGM. Penelitian menggunakan Rancangan Acak Kelompok Lengkap (RAKL) faktorial dengan dua faktor, yaitu konsentrasi salinitas (0,37 (kontrol), 3, dan 6 dS/m NaCl) dan konsentrasi IAA eksogen (0, 100, dan 200 ppm) dengan tiga ulangan. Variabel yang diamati meliputi mutu fisik (bobot per butir, bobot segar buah, bobot kering buah, diameter, kekerasan, dan *fruit cracking*), mutu kimia (padatan terlarut total, karotenoid, dan likopen), serta komponen hasil. Hasil penelitian menunjukkan bahwa perlakuan salinitas belum berpengaruh nyata terhadap pertumbuhan, hasil, dan mutu buah tomat ceri, sedangkan pemberian IAA meskipun menurunkan jumlah daun, luas daun dan meningkatkan laju asimilasi bersih, namun belum memberikan pengaruh yang berbeda nyata terhadap pertumbuhan, hasil, dan mutu buah tomat ceri.

Kata kunci: tomat ceri; salinitas; asam indole asetat; mutu buah.

ABSTRACT

Cherry tomato has the potential to be cultivated on salinity land because it exhibits relatively good adaptation to low to moderate salinity. In addition, the high demand for cherry tomatoes in both domestic and export markets, together with the potential use of exogenous indole-3-acetic acid (IAA) to improve plant tolerance to salinity stress, makes cherry tomato a promising crop to be further developed. This study aimed to determine the effect of combinations of salinity levels and exogenous IAA on the fruit quality of cherry tomato (*Solanum lycopersicum* var. Ruby). The experiment was conducted from October 2024 to March 2025 in the greenhouse of the Agrotechnology Innovation Center, Universitas Gadjah Mada, Sleman, Yogyakarta, Indonesia, while fruit quality analyses were carried out at the Horticulture Sub-Laboratory, Laboratory of Crop Management and Production, Department of Agronomy, Faculty of Agriculture, Universitas Gadjah Mada. A factorial Randomized Complete Block Design (RCBD) was used with two factors, namely salinity levels (0, 37 (control), 3, and 6 dS/m NaCl) and exogenous IAA concentrations (0, 100, and 200 ppm), each with three replications. The observed variables included physical fruit quality (single fruit weight, fresh fruit weight, dry fruit weight, diameter, firmness, and *fruit cracking*), chemical quality (total soluble solids, carotenoid content, and lycopene content), as well as yield components. The results showed that salinity treatments did not have a significant effect on the growth, yield, and fruit quality of cherry tomato. Meanwhile, the application of IAA, although it reduced leaf number and leaf area and increased the net assimilation rate, did not result in a significant difference in the growth, yield, and fruit quality of cherry tomato.

Keywords: cherry tomato; salinity; indole acetic acid; fruit quality.