RINGKASAN

Penelitian bertujuan untuk memperoleh jenis zat pengatur tumbuh alami, lama perendaman, dan kombinasi antara jenis zat pengatur tumbuh alami dan lama perendaman yang terbaik terhadap pertumbuhan setek tanaman buah naga merah. Penelitian dilaksanakan sejak September 2022 sampai Desember 2022 di Desa Karangjambe, Kecamatan Wanadadi, Kabupaten Banjarnegara dan Laboratorium Agronomi dan Hortikultura Fakultas Pertanian, Universitas Jenderal Soedirman. Rancangan penelitian yang digunakan yaitu Rancangan Acak Kelompok (RAK) yang terdiri atas 2 faktor dan 3 kali ulangan. Faktor pertama yaitu jenis zat pengatur tumbuh alami yang terdiri dari 4 macam, yaitu kontrol, air kelapa muda (50 ml/l), ekstrak bawang merah (50 ml/l), dan ekstrak kecambah kacang hijau (50 ml/l). Faktor kedua yaitu lama perendaman yang terdiri dari 3 macam, yaitu 6 jam, 8 jam, dan 10 jam. Variabel pengamatan meliputi jumlah persentase tumbuh (%), waktu muncul tunas (hari), panjang tunas (cm), jumlah tunas (tunas), bobot tunas segar (g), bobot tunas kering (g), panjang akar (cm), jumlah akar (buah), bobot akar segar (g), bobot akar kering (g), volume akar (cm^3), diameter batang utama (cm), dan tebal batang tunas (cm). Data yang diperoleh dianalisis menggunakan uji F taraf 5%, apabila terdapat keragaman dilanjutkan *Uji Duncan's Multiple Range Test* (DMRT) dan analisis regresi. Hasil penelitian menunjukan bahwa jenis zat pengatur tumbuh air kelapa muda meningkatkan variabel jumlah tunas yaitu 1,125 buah. Lama perendaman 10 jam meningkatkan variabel panjang tunas yaitu 12,43 cm, bobot tunas kering yaitu 1,24 g, dan bobot akar kering yaitu 0,19 g. Terdapat interaksi antara kombinasi jenis zat pengatur tumbuh alami dan lama perendaman yang memacu pertumbuhan setek batang buah naga merah.

Kata Kunci: buah naga merah, lama perendaman, setek, dan zat pengatur tumbuh alami.

SUMMARY

The study aims to obtain the best types of natural growth regulators, soaking time, and the best combination of natural growth regulators and soaking time for the growth of red dragon fruit cuttings. The research was conducted from September 2022 to December 2022 in Karangjambe Village, Wanadadi District, Banjarnegara Regency, and the Agronomy and Horticulture Laboratory, Faculty of Agriculture, Jenderal Soedirman University. The research design used was a randomized block design consisting of 2 factors and 3 replications. The first factor is the type of natural growth regulator which consists of 4 types, namely control, young coconut water (50 ml/l), red onion extract (50 ml/l), and bean sprouts Green extract (50 ml/l). The second factor is the immersion time, which consists of 3 types, namely 6 hours, 8 hours, and 10 hours. Observational variables included the percentage of growth (%), time of emergence of shoots (days), length of shoots (cm), number of shoots (shoots), the weight of fresh shoots (g), the weight of dry shoots (g), root length (cm), number root (fruit), fresh root weight (g), dry root weight (g), root volume (cm^3), the diameter of the main stem (cm), and the thickness of the shoot stem (cm). The data obtained were analyzed using the F test 5% level, when there was heterogeneity was extended to Duncan's Multiple Range Test (DMRT) and regression analysis. The results showed that the type of young coconut water growth regulator increase on the variable number of shoots, namely 1.125 pieces. The soaking time of 10 hours increase on the shoot length variable, which was 12.43 cm, the dry shoot weight was 1.24 g, and the dry root weight was 0.19 g. There is an interaction between the combination of types of natural growth regulators and soaking time which stimulates the growth of red dragon fruit stem cuttings.

Keywords: red dragon fruit, soaking time, cuttings, and natural growth regulator.