

INTISARI

Ketinggian tempat merupakan faktor yang mempengaruhi pertumbuhan dan perkembangan tanaman stevia. Percobaan ini dilakukan di Kabupaten Sleman, Yogyakarta pada bulan Juli hingga November 2017 untuk mempelajari pengaruh ketinggian tempat terhadap pertumbuhan, hasil dan kandungan steviol glikosida tanaman stevia. Tanaman stevia ditanam di tiga ketinggian tempat yang berbeda yaitu 167 mdpl, 582 mdpl dan 897 mdpl. Pengamatan dilakukan terhadap variabel lingkungan, variabel pertumbuhan (tinggi tanaman, jumlah daun, biomasa tanaman), rasio tajuk/akar, variabel hasil, dan kandungan steviol glikosida (steviosida dan rebaudiosida A). Berdasarkan data tersebut, digunakan analisis regresi untuk mengetahui pengaruh ketinggian tempat terhadap variabel yang diamati. Hasil percobaan menunjukkan ketinggian tempat berkorelasi secara signifikan terhadap suhu udara yang kemudian mempengaruhi pertumbuhan (bobot segar akar dan bobot kering akar), hasil (bobot kering daun dan tajuk) dan kandungan steviol glikosida (kandungan total steviosida dan rasio rebaudiosida A/steviosida). Pertumbuhan dan perkembangan tanaman stevia dipengaruhi oleh ketinggian tempat sehingga umur panen di dataran rendah lebih pendek dibandingkan dataran tinggi. Di ketinggian 167 mdpl, kandungan rebaudiosida A lebih tinggi dibandingkan kandungan steviosida.

Kata kunci : Stevia, ketinggian tempat, kandungan steviol glikosida

ABSTRACT

Altitude is a factor affecting growth and development of plant, including stevia plants. This experiment was conducted in Sleman Regency, Yogyakarta from July to November 2017 to learn the effect of altitude on growth, yield and steviol glycoside content of stevia plant. Stevia planted at 167 masl, 582 masl and 897 masl. Observations were made on environmental variables, growth variables (plant height, number of leaves, plant biomass), shoot/root ratio, yield variables, and steviol glycoside content (stevioside and rebaudiosida A). Regression was used to assess effect of altitude to the observed variables. The results showed that altitude is significantly correlated to air temperature which then affects growth (fresh and dry weight of root), yield (leaf and shoot dry weight) and steviol glycoside content (total stevioside content and ratio of rebaudiosida A to stevioside). Growth and development of stevia was also affected by altitude, thus the harvest time in the lowland was shorter than in the highland. At 167 masl, content of rebaudioside A in leaf was higher than stevioside.

Keyword : *Stevia, altitude, steviol glycoside*