

Siska Yuliyana Toyyibah. 200311100035. Respon Pertumbuhan dan Kandungan Serat Tanaman Kailan (*Brassica oleraceae* L. Var. *Alboglabra*) Akibat Beberapa Komposisi Media Tanam. Dibimbing Oleh: Ir. Sinar Suryawati, M.Si dan Dr. Diana Nurus Sholehah, S.Farm., Apt., M.Si

ABSTRAK

Tanaman kailan (*Brassica oleracea* L. Var. *Alboglabra*) merupakan tanaman kubis-kubisan berumur pendek serta mengandung vitamin dan serat yang bermanfaat untuk kesehatan. Media tanam yang mempunyai struktur yang remah, tekstur yang tidak cepat mengeras, porositas yang baik memungkinkan akar tanaman dapat menembus, serta kemampuan aerasi dan drainase yang memadai. Kondisi ini antara lain dapat diperoleh dengan mengatur jenis dan komposisi media tanam. Tujuan penelitian ini adalah mengetahui perbedaan respon pertumbuhan dan kandungan serat tanaman akibat komposisi media tanam yang berbeda. Penelitian ini dimulai bulan Desember 2023 sampai Maret 2024 menggunakan Rancangan Acak Kelompok, meliputi perlakuan komposisi media yaitu M1 = tanah, M2 = Tanah + Pupuk Kandang Sapi (1:1), M3 = Tanah + Pupuk Kandang Kambing (1:1), M4 = Tanah + Pupuk Kandang Sapi + Kompos (2:1:1), dan M5 = Tanah + Pupuk Kandang Kambing + Kompos (2:1:1). Analisis data menggunakan ANOVA dan DMRT taraf 5%. Hasil penelitian diperoleh bahwa perlakuan komposisi media tanam tanah + pupuk kandang sapi + kompos (2:1:1) menghasilkan respon pertumbuhan terbaik disemua parameter pertumbuhan yaitu tinggi tanaman di umur 30 dan 35 HST, Jumlah daun di umur 10, 20, 25, 30, dan 35 HST, diameter batang di umur 25, 30, dan 35 HST, bobot basah, bobot kering, panjang akar, dan volume akar namun tidak berbeda dengan kontrol, sedangkan perlakuan komposisi media tanah + pupuk kandang kambing + kompos dengan perbandingan (2:1:1) cenderung menghasilkan kandungan serat total (3,31 g/100g) lebih tinggi dibandingkan perlakuan lainnya.

Kata Kunci : Kailan, Kompos, Pupuk Kandang Kambing, Pupuk Kandang Sapi

Siska Yuliyana Toyyibah. 200311100035. Growth Response and Fiber Content of Kailan Plant (*Brassica oleraceae* L. Var. *Alboglabra*) due to Several Compositions of Planting Media. Guided by: Ir. Sinar Suryawati, M.Si and Dr. Diana Nurus Sholehah, S.Farm., Apt., M.Si

ABSTRACT

Kailan plant (*Brassica oleracea* L. Var. *Alboglabra*) is a short-lived cabbage plant and contains vitamins and fiber that are beneficial for health. Planting media that has a crumbly structure, a texture that does not harden quickly, good porosity allows plant roots to penetrate, as well as adequate aeration and drainage capabilities. This condition can be obtained, among others, by regulating the type and composition of the planting medium. The purpose of this study is to determine the difference in growth response and plant fiber content due to different composition of planting media. This research started from December 2023 to March 2024 using a Group Random Design, including the treatment of media composition, namely M1 = soil, M2 = Soil + Cow Manure (1:1), M3 = Soil + Goat Manure (1:1), M4 = Soil + Cow Manure + Compost (2:1:1), and M5 = Soil + Goat Manure + Compost (2:1:1). Data analysis uses ANOVA and DMRT level of 5%. The results of the study were obtained that the composition treatment of soil planting medium + cow manure + compost (2:1:1) produced the best growth response in all growth parameters, namely plant height at the age of 30 and 35 HST, number of leaves at the age of 10, 20, 25, 30, and 35 HST, stem diameter at the age of 25, 30, and 35 HST, wet weight, dry weight, root length, and root volume but not different from control, while the treatment of soil + goat manure + compost composition with a ratio (2:1:1) tended to produce a higher total fiber content (3.31 g/100g) than other treatment.

Keywords : Compost, Cow Manure, Goat Manure, Kailan