

## INTISARI

Produktivitas tanaman jahe merah di Indonesia tidak konsisten sejak tahun 2019 hingga 2021. Hal tersebut disebabkan belum optimalnya penggunaan pupuk organik dan jenis pupuk kandang yang efektif untuk pertumbuhan jahe. Pemilihan penggunaan pupuk kandang sapi dan kambing karena merupakan mamalia yang banyak ditemukan di lingkungan sekitar. Penelitian bertujuan untuk mengetahui dan mengevaluasi pengaruh perbedaan jenis pupuk kandang dan jumlah mata tunas pada pertumbuhan vegetatif jahe merah di polibag. Penelitian dilaksanakan pada bulan Januari-Juli 2022 di Desa Sidoarum, Godean, Sleman, Daerah Istimewa Yogyakarta. Percobaan dilakukan dengan rancangan acak kelompok lengkap (RAKL) dengan tiga blok sebagai ulangan. Faktor pertama adalah jenis pupuk kandang yang terdiri atas tanpa pupuk kandang, pupuk kandang sapi, dan pupuk kandang kambing. Faktor kedua adalah jumlah mata tunas yang terdiri atas satu, dua, dan tiga mata tunas. Variabel penelitian adalah tinggi tanaman, jumlah daun, diameter batang, jumlah anakan, luas daun, luas dan panjang akar total, bobot segar, bobot kering, indeks luas daun, bobot daun khas, laju asimilasi bersih, laju pertumbuhan nisbi dan laju pertumbuhan tanaman. Interaksi antar perlakuan hanya terjadi pada variabel bobot segar akar pada 16 mst. Pupuk kandang kambing memberikan hasil yang terbaik karena mampu meningkatkan bobot kering daun sebesar 41%, bobot kering batang sebesar 64%, dan bobot kering akar sebesar 51% lebih tinggi dari perlakuan tanpa pupuk kandang dan pemberian pupuk kandang sapi. Penggunaan satu mata tunas memberikan hasil terbaik karena dapat meningkatkan bobot kering daun sebesar 38%, dan bobot kering akar sebesar 39% lebih tinggi dari dua dan tiga mata tunas rimpang.

Kata kunci: jahe merah, jenis pupuk kandang, jumlah mata tunas, pertumbuhan vegetatif

## ***ABSTRACT***

The productivity of red ginger plants in Indonesia is inconsistent from 2019 to 2021. This is due to the not yet optimal use of organic fertilizers and effective types of manure for ginger growth. The choice of using cow and goat manure is because they are mammals that are commonly found in the surrounding environment. The aim of this study was to determine and evaluate the effect of different types of manure and the number of buds on the vegetative growth of red ginger in polybags. The research was conducted in January-July 2022 in Sidoarum Subdistrict, Godean District, Sleman Regency, Yogyakarta Special Region. The experiment was conducted in a randomized complete block design (RCBD) with three blocks as replication. The first factor was the type of manure which consists of without manure, cow manure, and goat manure. The second factor is the number of buds consisting of one, two, and three buds. The research variables were plant height, number of leaves, stem diameter, number of tillers, leaf area, total root area and length, fresh weight, dry weight, leaf area index, typical leaf weight, net assimilation rate, relative growth rate and plant growth rate. Goat manure gave the best results because it was able to increase the total dry weight by 12.8% higher than the treatment without manure and cow manure. The treatment of three buds gave the best results because it could increase the number of tillers per clump more. The interaction between treatments only occurred in the variable of the roots at 16 weak after plant. Goat manure gave the best results because it was able to increase the dry weight of leaves by 41%, the dry weight of stems by 64%, and the dry weight of roots by 51% higher than the non-treated treatment. manure and cow manure application. The use of one bud gave the best results because it increased the dry weight of leaves by 38%, and the dry weight of roots by 39% was higher than two and three buds of rhizomes.

**Keywords:** red ginger, number of buds, type of manure, vegetative growth