

INTISARI

Manfaat mentimun (*Cucumis sativus* L. var. *Zatavy*) sebagai bahan pangan segar, olahan, obat dan kosmetik masih belum optimal karena produktivitas masih rendah (34,3 ton/ha (BPS,2020) dari potensi 50 ton/ha). Selain itu, produk hortikultura mudah mengalami kerusakan nutrisi. Peningkatan kuantitas produksi dan kualitas nutrisi dapat dicapai dengan upaya penanaman mentimun di lahan terbuka diantara musim tanam padi. Selain itu juga diperlukan biaya rutin seperti pupuk. Tanaman Titonia (*Tithonia diversifolia* Hems. A Grey.) berpotensi menjadi bahan pupuk kompos. Penelitian ini bertujuan untuk mengetahui respon pertumbuhan dan hasil timun varietas *Zatavy* melalui dosis pemupukan kompos Titonia yang berbeda untuk penanaman teknik vertikal dan horizontal. Penelitian ini dilakukan di area persawahan tadah hujan di Tirtorahayu, Galur, Kulon Progo (elevasi 6 mdpl) pada bulan Juni-Agustus 2021. Rancangan lingkungan petak terbagi 2 faktor. Petak utama model penanaman para-para/vertikal dan mulsa/horizontal dengan jarak tanam 80 cm x 120 cm. Sedangkan anak petak takaran kompos Titonia 0 gram/tanaman, 8 gram/tanaman, 16 gram/tanaman dan 24 gram/tanaman. Satuan percobaan terdiri dari 10 tanaman dengan 3 sampel dan 3 blok sebagai ulangan. Data penelitian dianalisis varians (ANOVA) dengan taraf kepercayaan 95%, dilanjutkan dengan uji lanjut HSD Tukey. Penelitian menunjukkan teknik penanaman vertikal memiliki pengaruh yang lebih baik pada parameter pertumbuhan dan produktivitas karena menghasilkan buah yang lebih panjang dan lebih berat dibandingkan perlakuan horizontal. Takaran pupuk tithonia 250 kg/ha (24 gram/tanaman) masih terlalu sedikit, dibawah kebutuhan tanaman untuk mengetahui pengaruh dan respon pada pertumbuhan dan hasil pada mentimun varietas *Zatavy*.

Kata kunci: mentimun (*Cucumis sativus* L.), Titonia (*Tithonia diversifolia* Hems. A. Grey.), kompos, teknik penanaman

ABSTRACT

Cucumber (Cucumis sativus L.) benefit as fresh food, processed food, medicine and cosmetics are still not optimal because productivity is still low (34.3 tons/ha (BPS, 2020) out of a potential of 50 tons/ha). In addition, horticultural products are susceptible to nutritional and quality loss. Increased production quantity and nutritional quality can be achieved by planting cucumbers in the home garden. Different garden have different limitations such as area, shape and design. In addition, regular costs such as fertilizer are also needed. Titonia plant (Tithonia diversifolia Hems. A Grey.) has the potential to be used as compost material. This study aims to determine the growth response and yield of Zatavy variety cucumbers through different doses of Titonia compost for vertical and horizontal planting techniques. This research was conducted in a rain-fed rice field area in Tirtorahayu, Galur, Kulon Progo (elevation 6 masl) in June-August 2021. The environmental design was split plot (RPT) 2 factors. Main plot cultivating technique vertical and horizontal with spacing (80 x 120) cm. While the sub-plots of Titonia compost were 0 gram/plant, 8 gram/plant, 16 gram/plant and 24 gram/plant. The experimental unit consisted of 10 plants with 3 samples and 3 blocks as replicates. The research data were analyzed for variance (ANOVA) with a 95% confidence level, followed by Tukey's HSD test. Research has shown that vertical planting techniques have a better effect on growth and productivity parameters because they produce longer and heavier fruit than horizontal treatments. Titonia fertilizer dose of 250 kg/ha (24 grams/plant) is still too small, below plant's nutrient requirements to determine the effect and response on growth and yield of cucumbers of the Zatavy variety.

Keywords: *cucumber (Cucumis sativus L.), Titonia (Tithonia diversifolia Hems. A. Grey.), kompos, planting tehcniaues*