

## RINGKASAN

**Maulidyah Anita. 15111022. Program Sarjana Universitas Muhammadiyah Gresik. Pengaruh Pemberian Mulsa Organik dan Model Tanam terhadap Pertumbuhan Tanaman Kubis Bunga dan Mentimun. Dosen Pembimbing I: Ir. Suhaili, M.Si, Dosen Pembimbing II: Rohmatin Agustina, SP., MP. Dosen Penguji: Ir. Rahmad Jumadi., M.Kes.**

Tanaman kubis bunga dan mentimun merupakan komoditas hortikultura yang bernilai ekonomi tinggi dan masih memerlukan penanganan yang intensif untuk meningkatkan produksi baik secara kuantitas maupun kualitas. Peningkatan produktivitas tanaman kubis bunga dan mentimun dapat dilakukan melalui penerapan model tanam tumpang sari dalam upaya optimalisasi lahan. Disamping itu, pemberian mulsa organik mampu meminimalisir kekurangan air dalam kegiatan budidaya di lahan kering pada musim kemarau karena penggunaan mulsa mampu menjaga suhu dan kelembaban tanah. Tujuan dari penelitian ini untuk menyimpulkan pengaruh interaksi pemberian mulsa organik dan model tanam terhadap pertumbuhan tanaman kubis bunga dan mentimun. Penelitian ini dilaksanakan di UPT PATPH Kebun Kebomas, Kec. Kebomas, Kab. Gresik pada bulan Mei sampai September 2019. Penelitian menggunakan Rancangan Petak Terbagi (*Split-plot design*). Petak Utama (PU) mulsa organik terdiri dari 2 taraf yaitu mulsa organik (M<sub>1</sub>), dan tanpa mulsa organik (M<sub>2</sub>). Sedangkan Anak Petak (AP) perlakuan model tanam sayuran (S) yang terdiri atas 4 (empat) taraf perlakuan yaitu tumpang sari mentimun (S<sub>1.1</sub>), tumpang sari kubis bunga (S<sub>1.2</sub>), monokultur kubis bunga (S<sub>2</sub>), dan monokultur mentimun (S<sub>3</sub>). Perlakuan diulang sebanyak 3 kali sehingga diperoleh 24 satuan percobaan, kemudian diuji menggunakan analisis sidik ragam lebih lanjut dengan Uji *Duncan's multiple range test* pada taraf uji 5%. Pada pemberian mulsa organik terdapat perbedaan nyata tertinggi terhadap variabel lingkungan yaitu suhu tanah dan kelembaban tanah dibandingkan tanpa mulsa organik. Pada pemberian mulsa organik terdapat perbedaan nyata tertinggi terhadap variabel pertumbuhan yaitu diameter batang dan panjang ruas tanaman kubis bunga dan mentimun. Perlakuan model tanam menunjukkan beda nyata tertinggi pada monokultur mentimun dan tumpang sari mentimun pada variabel tinggi tanaman dan diameter batang di semua umur pengamatan, serta jumlah daun, jumlah ruas dan panjang ruas di umur 21 sampai 35 HST. Tidak terdapat interaksi antara pemberian mulsa organik dan perlakuan model tanam pada pertumbuhan tanaman kubis bunga dan mentimun. Disarankan dilakukan penelitian lebih lanjut dalam lingkup budidaya pertanian organik yang dititikberatkan pada pengaruh pemberian mulsa organik jerami padi, perlakuan model tanam, dan perbaikan jarak tanam pada model tanam tumpang sari.

Kata Kunci : *Kubis Bunga, Mentimun, Tumpang sari, Mulsa Organik, Model Tanam*

## ABSTRACT

Flower cabbage plants and cucumbers are horticultural commodities that have high economic value and still require intensive treatment to increase production both in quantity and quality. Increased productivity of flower cabbage plants and cucumbers can be done through the application of intercropping planting models in an effort to optimize land. In addition, the provision of organic mulch is able to minimize water shortages in cultivation activities in dry land in the dry season because the use of mulch is able to maintain soil temperature and humidity. The purpose of this study was to infer the effect of the interaction of the administration of organic mulch and cropping models on the growth of the cabbage flower and cucumber plants. This research was conducted at UPT PATPH Kebun Kebomas, Kec. Kebomas, Kab. Gresik in May to September 2019. The study used a Split-plot design. Main plot (PU) of organic mulch consists of 2 levels, namely organic mulch (M<sub>1</sub>), and without organic mulch (M<sub>2</sub>). Whereas Child Plot (AP) treatment of vegetable planting model (S) consisting of 4 (four) levels of treatment namely intercropping cucumber (S<sub>1.1</sub>), intercropping cabbage flower (S<sub>1.2</sub>), monoculture of cabbage flower (S<sub>2</sub>), and cucumber monoculture (S<sub>3</sub>). The treatment was repeated 3 times to obtain 24 units of experiments, then tested using further analysis of variance with *Duncan's multiple range test* at a test level of 5%. In the provision of organic mulch there is the highest significant difference to environmental variables, namely soil temperature and soil moisture compared to without organic mulch. In organic mulch administration, there was the highest significant difference in growth variables, namely the stem diameter and the length of the cabbage flower and cucumber plant segments. Treatment of planting models showed the highest significant difference in cucumber monoculture and cucumber intercropping on plant height and stem diameter variables at all observations, as well as the number of leaves, number of segments and length of segments at ages 21 to 35 HST. There was no interaction between the administration of organic mulch and the treatment of the planting model on the growth of flowers and cucumber cabbage plants. It is recommended that further research be carried out within the scope of organic farming which emphasizes the effect of organic rice mulch mulching, treatment of cropping models, and improvement of plant spacing in intercropping cropping models.

*Keyword : Flower Cabbage, Cucumber, Intercropping, Organic Mulch, Planting Model*