

ABSTRAK

PERBANDINGAN PENGGUNAAN MULSA PLASTIK DAN TANPA MULSA PLASTIK TERHADAP TANAMAN SAWI

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Penelitian Ini Dilaksanakan Dengan Tujuan Untuk Mengetahui Dan Membandingkan Pengaruh Penggunaan Mulsa Plastik Dan Tanpa Mulsa Plastik, Serta Jenis Pupuk Organik Cair (POC) Daun Lamtoro Dan Daun Gamal Terhadap Pertumbuhan Serta Hasil Tanaman Sawi (*Brassica Juncea L.*). Penelitian Berlangsung Dari Bulan Mei Hingga Juni 2026 Di Lahan Pertanian Desa Baumata, Kecamatan Taebenu, Kabupaten Kupang, Provinsi Nusa Tenggara Timur, Pada Ketinggian 218–252 Meter Di Atas Permukaan Laut. Penelitian Menggunakan Metode Rancangan Acak Lengkap (RAL) Faktorial Yang Terdiri Dari 4 Kombinasi Perlakuan Dengan 6 Kali Ulangan, Sehingga Total Terdapat 24 Unit Percobaan Dan Melibatkan 96 Tanaman Sampel. Kombinasi Perlakuan Yang Diuji Meliputi: A = Tanpa Mulsa Plastik + POC Lamtoro, B = Tanpa Mulsa Plastik + POC Gamal, C = Mulsa Plastik + POC Lamtoro, Serta D = Mulsa Plastik + POC Gamal. Parameter Pengamatan Meliputi Tinggi Tanaman, Jumlah Daun, Lebar Daun, Dan Berat Panen Tanaman, Yang Kemudian Dianalisis Menggunakan Analisis Ragam Dan Diuji Lanjut Dengan Uji Duncan Pada Taraf Kepercayaan 5%. Hasil Penelitian Menunjukkan Penggunaan Mulsa Plastik Menjaga Kestabilan Lingkungan Tanah Sehingga Pertumbuhan Dan Hasil Lebih Baik. Nilai Rata-Rata Yang Diperoleh Adalah: Tinggi Tanaman Berkisar 13,52–14,96 Cm, Tertinggi Pada Mulsa Plastik + POC Lamtoro; Jumlah Daun Berkisar 5,99–6,41 Helai, Terbanyak Pada Mulsa Plastik + POC Gamal; Lebar Daun Berkisar 6,73–7,33 Cm, Terlebar Pada Mulsa Plastik + POC Lamtoro; Serta Berat Panen Berkisar 204,11–252,68 Gram/Tanaman, Terberat Pada Mulsa Plastik + POC Gamal. Dapat Disimpulkan Bahwa Kombinasi Mulsa Plastik Dengan POC Memberikan Hasil Terbaik Dibandingkan Budidaya Tanpa Mulsa Plastik.

Kata Kunci: Mulsa Plastik, Tanpa Mulsa, POC Lamtoro, POC Gamal, Sawi, Pertumbuhan, Hasil Panen

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ABSTRACT

COMPARISON OF THE USE OF PLASTIC MULCH AND WITHOUT PLASTIC MULCH ON MUSTARD PLANTS

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This Research Was Conducted With The Aim Of Knowing And Comparing The Effect Of Using Plastic Mulch And Without Plastic Mulch, As Well As The Type Of Liquid Organic Fertilizer (POC) From Lamtoro Leaves And Gamal Leaves On The Growth And Yield Of Mustard Greens (*Brassica Juncea L.*). The Research Took Place From May To June 2026 On Agricultural Land In Baumata Village, Taebenu District, Kupang Regency, East Nusa Tenggara Province, At An Altitude Of 218-252 Meters Above Sea Level. The Study Used A Factorial Completely Randomized Design (CRD) Method Consisting Of 4 Treatment Combinations With 6 Replications, Resulting In A Total Of 24 Experimental Units And 96 Sample Plants. The Treatment Combinations Tested Included: A = No Plastic Mulch + Lamtoro POC, B = No Plastic Mulch + Gliricidia POC, C = Plastic Mulch + Lamtoro POC, And D = Plastic Mulch + Gliricidia POC. Observation Parameters Included Plant Height, Number Of Leaves, Leaf Width, And Harvest Weight. These Were Analyzed Using Analysis Of Variance And Further Tested With The Duncan Test At A 5% Confidence Level. The Results Of The Study Indicate That The Use Of Plastic Mulch Maintains Soil Environmental Stability, Resulting In Better Growth And Yields. The Average Plant Height Ranged From 13.52 To 14.96 Cm, With The Highest Growth Rate For The Lamtoro Plant Grown With Plastic Mulch And POC; The Number Of Leaves Ranged From 5.99 To 6.41 Cm, With The Highest Growth Rate For The Plastic Mulch And POC For Gamal Plants; The Leaf Width Ranged From 6.73 To 7.33 Cm, With The Widest Growth Rate For The Plastic Mulch And POC For Lamtoro Plants; And The Harvest Weight Ranged From 204.11 To 252.68 Grams Per Plant, With The Heaviest Growth Rate For The Plastic Mulch And POC For Gamal Plants. It Can Be Concluded That The Combination Of Plastic Mulch And POC Yields The Best Yield Compared To Cultivation Without Plastic Mulch.

**Keywords: Plastic Mulch, Without Mulch, Lamtoro POC, Gamal POC,
Mustard Greens, Growth, Harvsest Yield.**

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