

## INTISARI

Penurunan produksi tanaman sawi hijau salah satunya disebabkan oleh penggunaan pupuk anorganik secara berlebihan, sehingga diperlukan pemupukan secara tepat salah satunya dengan penggunaan pupuk organik cair. Tujuan penelitian adalah mengetahui respon pertumbuhan dan hasil sawi hijau terhadap perlakuan konsentrasi pupuk organik cair limbah pisang, serta menentukan konsentrasi pupuk organik cair limbah pisang yang optimal untuk pertumbuhan dan hasil sawi hijau. Percobaan dilaksanakan pada bulan Agustus-September 2024 di Rumah Kaca Fakultas Pertanian, Universitas Gadjah Mada. Percobaan ini menggunakan Rancangan Acak Kelompok Lengkap (RAKL) faktor tunggal dengan tiga blok sebagai ulangan. Perlakuan terdiri dari konsentrasi pupuk organik cair limbah pisang 0 ml/l air, 100 ml/l air, 200 ml/l air, 300 ml/l air, 400 ml/l air, 500 ml/l air, dan 600 ml/l air. Hasil penelitian menunjukkan pengaruh pemberian POC limbah pisang nyata terhadap luas daun, bobot segar tajuk, bobot kering akar dan tajuk, laju pertumbuhan nisbi, bobot daun khas, indeks luas daun, dan durasi luas daun. Namun, penulis belum dapat memberikan rekomendasi konsentrasi POC limbah pisang untuk meningkatkan produktivitas sawi hijau secara signifikan sehingga diperlukan penelitian lanjutan terkait konsentrasi POC limbah pisang terkhusus untuk pertumbuhan sawi hijau.

Kata Kunci: pupuk organik cair, sawi hijau, pemupukan, konsentrasi, limbah pisang

## ABSTRACT

Decreasing of green mustard plant production is partly caused by excessive use of inorganic fertilizers, highlighting the need for more appropriate fertilization methods, such as the application of organic fertilizers. The purpose of this research is to evaluate the response of growth and yield of green mustard to different concentrations of banana waste liquid organic fertilizer (LOF), and to determine the optimal concentration for green mustard growth and yield. The experiment was conducted from August to September 2024 at the Greenhouse of the Faculty of Agriculture, Gadjah Mada University. The study used a Randomized Completely Block Design (RCBD) with a single factor and three blocks as replication. Treatments consisted of banana waste LOF concentrations of 0 ml/l water, 100 ml/l water, 200 ml/l water, 300 ml/l water, 400 ml/l water, 500 ml/l water, and 600 ml/l water. The results showed that the application of banana waste LOF had a significant effect on leaf area, fresh weight, dry weight, Relative Growth Rate, Specific Leaf Weight, Leaf Area Index, and Leaf Area Duration. However, the author has not been able to provide a recommendation for the banana waste LOF concentration to significantly increase the productivity of green mustard, thus requiring further research regarding the concentration of banana waste LOF specifically for the growth of green mustards.

**Keywords:** liquid organic fertilizer, green mustard, fertilization, concentration, banana waste