

**APLIKASI EKSTRAK DAUN CENGKEH (*Syzygium aromaticum* L.)
UNTUK MENGENDALIKAN GULMA DAN PENGARUHNYA
TERHADAP PERTUMBUHAN SERTA HASIL TERONG UNGU (*Solanum
melongena* L.)**

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ABSTRAK

Terong ungu (*Solanum melongena* L.) adalah salah satu tanaman pangan yang digemari masyarakat Indonesia. Terdapat penurunan hasil terong ungu di beberapa wilayah Indonesia, gulma menjadi salah satu hambatan utama dalam upaya meningkatkan hasil tanaman. Pengendalian gulma menggunakan herbisida kimia secara terus-menerus memberikan dampak kerusakan lingkungan dan resistensi gulma. Bioherbisida dapat menjadi bentuk alternatif dalam mengendalikan gulma dengan sifatnya yang ramah lingkungan, serta dapat meningkatkan sistem pertanian berkelanjutan. Penelitian bertujuan untuk mengetahui pengaruh ekstrak daun cengkeh sebagai bioherbisida dalam mengendalikan gulma dengan menentukan konsentrasi terbaik serta pengaruhnya terhadap hasil terong ungu. Penelitian dilaksanakan di Kebun Percobaan Wedomartani, Sleman pada bulan Februari – Mei 2026. Rancangan yang digunakan dalam penelitian ini adalah Rancangan Acak Kelompok Lengkap (RAKL) yang terdiri dari 9 perlakuan dan 3 kali ulangan yaitu konsentrasi 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80% ekstrak daun cengkeh, serta kontrol (tanpa perlakuan). Data hasil pengamatan dianalisis menggunakan ANOVA jenjang 5% lalu diuji lanjut menggunakan uji Scott-knott 5%. Ekstrak daun cengkeh mampu mengendalikan gulma dan berpengaruh terhadap hasil terong ungu. Konsentrasi 40% sampai 80% ekstrak daun cengkeh dengan nilai efisiensi cukup efisien mampu mengendalikan gulma. Konsentrasi 50% dan 60% ekstrak daun cengkeh memberikan hasil per petak dan per hektar sama baiknya dibanding perlakuan lainnya.

Kata kunci : Bioherbisida, Daun Cengkeh, Terong Ungu

**APPLICATION OF CLOVE LEAF EXTRACT (*Syzygium aromaticum* L.)
FOR WEED CONTROL AND ITS EFFECTS ON THE GROWTH AND
YIELD OF PURPLE EGGPLANT (*Solanum melongena* L.)**

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ABSTRACT

Purple eggplant (*Solanum melongena* L.) is one of the food crops favored by the Indonesian people. There has been a decline in purple eggplant yields in several regions of Indonesia, with weeds being one of the main obstacles to efforts to increase crop yields. Continuous weed control using chemical herbicides causes environmental damage and leads to weed resistance. Bioherbicides can serve as an alternative for weed control due to their environmentally friendly nature, and they can support sustainable agricultural systems. This study aimed to determine the benefits of clove leaf extract as a bioherbicide in controlling weeds by identifying the optimal concentration and its effect on purple eggplant yield. The study was conducted at the Wedomartani Experimental Farm, Sleman, from February to May 2026. The experimental design used in this study was a Completely Randomized Block Design (CRBD) consisting of 9 treatments and 3 replications: clove leaf extract concentrations of 10%, 20%, 30%, 40%, 50%, 60%, 70%, and 80%, as well as a control (no treatment). The observation data were analyzed using a 5% significance level ANOVA and further tested using the 5% Scott-Knott test. Clove leaf extract is effective at controlling weeds and has a positive effect on purple eggplant yields. Concentrations of 40% to 80% clove leaf extract, with a moderate efficiency rating, are effective at controlling weeds. Concentrations of 50% and 60% clove leaf extract yielded results per plot and per hectare that were just as good as those of the other treatments.

Keywords : Bioherbicide, Clove Leaves, Purple Eggplant