

**Pengaruh Bioherbisida Ekstrak Gulma Babadotan (*Ageratum conyzoides* L.)
terhadap Pengendalian Gulma, Pertumbuhan dan Hasil Terong Ungu
(*Solanum melongena* L.)**

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ABSTRAK

Gulma adalah tanaman liar yang dapat menghambat dan mengganggu pertumbuhan tanaman budidaya. Gulma pada lahan pertanian dapat memberikan kerugian yang sangat besar bagi petani karena memperebutkan unsur hara, cahaya, air, dan ruang tumbuh. Herbisida alami merupakan salah satu alternatif untuk pengendalian gulma. Penelitian bertujuan untuk mengetahui pengaruh ekstrak gulma babadotan (*Ageratum conyzoides* L.) untuk mengendalikan gulma pada tanaman terong ungu, dan menentukan konsentrasi terbaik untuk mengendalikan gulma dan pengaruhnya terhadap pertumbuhan dan hasil terong ungu. Penelitian dilaksanakan pada bulan Januari – Maret 2025 di lahan sawah Desa Trangsang, Gatak, Sukoharjo. Penelitian menggunakan Rancangan Acak Kelompok Lengkap (RAKL) yang terdiri dari 7 perlakuan dan 3 ulangan, yaitu kontrol tanpa perlakuan, herbisida gramoxone 276 SL dosis 2l/ha, konsentrasi ekstrak babadotan 15%, ekstrak babadotan 30%, ekstrak babadotan 45%, ekstrak babadotan 60%, dan ekstrak babadotan 75%. Data hasil pengamatan diolah dengan *Analysis of Variance* (ANOVA) jenjang 5%, lalu diuji lanjut menggunakan uji BNT taraf 5% dan antara perlakuan dengan kontrol diuji dengan uji kontras ortogonal. Hasil penelitian menunjukkan bahwa konsentrasi ekstrak babadotan 60% dapat menekan pertumbuhan gulma di pertanaman terong ungu dengan nilai efisiensi pengendalian gulma 3 MST sebesar 35,32% dan 5 MST sebesar 39,85%. Pengendalian gulma menggunakan ekstrak babadotan meningkatkan pertumbuhan dan hasil terong ungu.

Kata kunci: gulma, ekstrak, babadotan

The Effect of Bioherbicide Extract of Billy Goat Weed (*Ageratum conyzoides* L.) on Weed Control, Growth and Yield of Purple Eggplant (*Solanum melongena* L.)

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ABSTRACT

Weeds are wild plants that can inhibit and interfere with the growth of cultivated crops. Weeds in agricultural land can cause significant losses to farmers because they compete for nutrients, light, water, and growing space. Natural herbicides are one alternative for weed control. This study aimed to examine the effect of billy goat weed extract (*Ageratum conyzoides* L.) in controlling weeds in eggplant cultivation, and to determine the most effective concentration for weed control as well as its impact on the growth and yield of eggplant. The research was conducted from January to March 2025 in rice fields located in Trangsang Village, Gatak, Sukoharjo. The study used a Completely Randomized Block Design (CRBD) consisting of 7 treatments and 3 replications: untreated control, gramoxone 276 SL herbicide dose 2 l/ha, 15% billy goat extract, 30% billy goat extract, 45% billy goat extract, 60% billy goat extract, and 75% billy goat extract. The observational data were analyzed using Analysis of Variance (ANOVA) at a 5% significance level, followed by a Least Significant Difference (LSD) test at 5%, and treatment comparisons with the control were tested using orthogonal contrast. The results showed that a 60% concentration of billy goat extract effectively suppressed weed growth in eggplant cultivation, with weed control efficiency values of 35.32% at 3 weeks after treatment (WAT) and 39.85% at 5 WAT. Weed control using billy goat extract also enhanced the growth and yield of eggplant.

Key words: weeds, extract, billy goat