## ABSTRAK

**PENGARUH KONSENTRASI EKSTRAK SEMBUNG RAMBAT (*Mikania micrantha*) TERHADAP PERTUMBUHAN BAYAM DURI (*Amaranthus spinosus)***

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Bayam duri (*Amaranthus spinosus*) merupakan gulma yang mengganggu serta kehadirannya menyebabkan kerugian bagi petani, maka dari itu perlu dikendalikan. Pengendalian gulma dapat dikendalikan dengan cara memanfaatkan alelopati yang terkandung dalam tumbuhan seperti sembung rambat. Sembung rambat (*Mikania micrantha*) memiliki kandungan senyawa alelopati berupa fenol, terpenoid dan flavonoid yang dapat menghambat pertumbuhan tumbuhan lain. Penelitian ini bertujuan untuk mendapatkan konsentrasi ekstrak sembung rambat yang efektif menghambat pertumbuhan gulma bayam duri. Penelitian dilaksanakan di kebun percobaan Fakultas Pertanian Universitas Siliwangi menggunakan metode rancangan acak kelompok (RAK) dengan ulangan sebanyak 5 kali. Perlakuan terdiri dari konsentrasi ekstrak sembung rambat 0%; 7,5%; 15%; 22,5% dan 30%. Data dianalisis menggunakan sidik ragam dan dilanjutkan dengan uji jarak berganda Duncan pada taraf 5%. Hasil penelitian menunjukkan bahwa ekstrak sembung rambat (*Mikania micrantha*) dapat menghambat tinggi, jumlah daun, luas daun, panjang akar, bobot basah dan bobot kering bayam duri (*Amaranthus spinosus*). Ekstrak sembung rambat konsentrasi 30% paling efektif menghambat pertumbuhan bayam duri (*A. spinosus*).



Kata kunci: bayam duri, pertumbuhan, sembung rambat.

## ABSTRACT

### THE EFFECT OF BITTER VINE (*Mikania micrantha)* EXTRACT CONCENTRATION ON THE GROWTH OF THORNY AMARANTHUS (*Amaranthus spinosus*)

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Thorny amaranthus (*Amaranthus spinosus*) is a weed that disturbs and its presence causes losses to farmers, so it needs to be controlled. Weed control can be controlled by utilizing allelopathy contained in plants such as bitter vine. Bitter vine (*Mikania micrantha*) contains allelopathic compounds in the form of phenols, terpenoids and flavonoids that can inhibit the growth of other plants. This study aims to obtain the concentration of bitter vine extract that effectively inhibits the growth of thorny amaranthus. The research was conducted in the experimental garden of the Faculty of Agriculture, Siliwangi University using the randomized group design method with 5 repeats. The treatments consisted of 0%; 7,5%; 15%; 22,5% and 30% concentrations of bitter vine extract. Data were analyzed using analysis of variance (ANOVA) and continued with Duncan's multiple range test at a level 5%. The results showed that the extract of bitter vine (*M. micrantha*) can inhibit the height, number of leaves, leaf area, root length, wet weight and dry weight of thorny amaranthus (*A. spinosus*). The 30% concentration of mace extract is most effective in inhibiting the growth of thorny amaranthus (*A. spinosus*).



Keywords: bitter vine extract, growth, thorny amaranthus.