

## ABSTRAK

### **IDENTIFIKASI SENYAWA ANTINUTRISI, AKTIVITAS ANTIOKSIDAN DAN ANTIBAKTERI DAUN KETELA RAMBAT, RUMPUT BAMBU, DAN SENGON ASAL BOJONEGORO, JAWA TIMUR**

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Daun ketela rambat, sengon, dan berbagai jenis rumput lapangan tergolong hijauan pakan ternak yang mudah didapat karena tumbuh di berbagai kondisi dan musim sehingga sering diberikan pada ternak. Daun rumput bambu sering ikut tersiangi peternak saat merumput sehingga kemudian dikonsumsi oleh ternak. Daun ketela rambat, sengon, dan rumput bambu mengandung antinutrisi yang sering mengakibatkan keracunan pada ternak, namun, daun-daun tersebut juga mengandung senyawa metabolit sekunder lain dengan potensi efek farmakologis.

Penelitian menggunakan daun ketela rambat, rumput bambu, dan sengon yang diekstrak secara maserasi dengan etanol 70%. Sampel lalu diuji secara kualitatif guna mengetahui keberadaan senyawa antinutrisi alkaloid, glikosida jantung, glikosida sianogenik, oksalat dan tannin. Aktivitas antioksidan diuji dengan metode DPPH IC50; sedangkan aktivitas antibakteri diuji dengan melarutkan sampel menjadi konsentrasi 125 mg/ml, 250 mg/ml, dan 500 mg/ml).

Ekstrak etanol daun ketela rambat memiliki senyawa antinutrisi alkaloid, glikosida jantung, dan tannin; Ekstrak etanol daun sengon mengandung tanin, alkaloid, glikosida jantung, dan glikosida sianogenik. Ekstrak etanol daun rumput bambu mengandung alkaloid dan glikosida jantung. Ekstrak etanol daun ketela rambat, sengon, dan rumput bambu memiliki aktivitas antioksidan dengan tingkat tinggi, sedang, hingga rendah. Ekstrak etanol daun sengon memiliki aktivitas antibakteri terkuat dibanding daun ketela rambat dan rumput bambu yang aktivitas antibakterinya cenderung lemah.

Kata kunci: daun ketela rambat, daun rumput bambu, daun sengon, antinutrisi, aktivitas antioksidan, aktivitas antibakteri.

## ABSTRACT

### **IDENTIFICATION OF ANTINUTRITIONAL COMPOUNDS, ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF SWEET POTATO LEAVES, GRASS BAMBOO LEAVES, AND CHINESE ALBIZIA LEAVES FROM BOJONEGORO, EAST JAVA**

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Sweet potato leaves, Chinese albizia leaves, and various field grass types are easy to obtain forage since they grow in various conditions and seasons, thus often given to livestock. Livestock often consumes accidentally weeded bamboo grass leaves. The leaves of sweet potato, Chinese albizia, and bamboo grass contain antinutrients that often cause livestock poisonings, however, they also contain other secondary metabolites with potential pharmacological effects.

This study used leaves of sweet potato, bamboo grass, and Chinese albizia which were macerated using 70% ethanol. Samples were tested to determine the presence of alkaloids, cardiac glycosides, cyanogenic glycosides, oxalates, and tannins. Antioxidant activity was tested by the DPPH IC<sub>50</sub> method, while antibacterial activity was tested by dissolving the samples into 125 mg/ml, 250 mg/ml, and 500 mg/ml.

Ethanol extract of sweet potato leaves contains alkaloids, cardiac glycosides, tannins. Ethanol extract of Chinese albizia leaves contains tannins, alkaloids, cardiac glycosides, cyanogenic glycosides. Ethanol extract of bamboo grass leaves contains alkaloids cardiac glycosides. Ethanol extract from sweet potato leaves, Chinese albizia leaves, bamboo grass leaves had high, medium, and low levels of antioxidant activity. Ethanol extract of Chinese albizia leaves has the strongest antibacterial activity compared to sweet potato leaves and bamboo grass leaves.

**Keywords:** sweet potato leaves, bamboo grass leaves, Chinese albizia leaves, antinutrients, antioxidant activity, antibacterial activity.