

## Uji Pematahan Dormansi Benih Bidara (*Ziziphus mauritiana*)

Fikrina Teapon, Dibawa Bimbingan Sri Soenarsih DAS Dan Sugeng Haryanto  
Program Studi Agroteknologi  
Fakultas Pertanian Universitas Khairun Ternate

### ABSTRAK

Bidara (*Ziziphus mauritiana*) merupakan tanaman kaya nutrisi dan sumber obat yang tumbuh optimal di beberapa negara. Tanaman ini tumbuh baik di lingkungan panas dan kering. Pohon bidara bisa dibudidayakan dengan biji atau tunas akar. Benih bidara memiliki kulit benih yang bersifat keras, sehingga benih bidara susah untuk dapat berkecambah. Dormansi benih bidara dapat dipatahkan melalui perlakuan pematahan dormansi. Pematahan dormansi benih bidara yaitu dengan proses perendaman dengan air panas, air kelapa, H<sub>2</sub>SO<sub>4</sub>, KNO<sub>3</sub>, NaCl, dan skarifikasi, sehingga dapat mempercepat proses perkecambahan benih bidara. Tujuan penelitian mengetahui pengaruh beberapa perlakuan terhadap pematahan dormansi benih bidara. Penelitian ini dilakukan di Laboratorium Agroteknologi Fakultas Pertanian Universitas Khairun Ternate. Dengan menggunakan metode rancangan acak lengkap (RAL) yang terdiri atas 7 perlakuan dan diulangi sebanyak 4 kali, dimana: T<sub>0</sub>= Kontrol (tanpa perlakuan) T<sub>1</sub>=Benih direndam dengan air kelapa sebanyak 1 liter, (24 jam) T<sub>2</sub>= Benih direndam dengan air panas dengan suhu 70°C (24 jam) T<sub>3</sub>= Benih direndam dalam H<sub>2</sub>SO<sub>4</sub> 20% selama (24 jam) T<sub>4</sub>= Benih direndam dalam KNO<sub>3</sub> 20% selama (24 jam) T<sub>5</sub>= Benih direndam dalam NaCl 20% selama 24 jam T<sub>6</sub>=Benih di skarifikasi. Hasil analisis data parameter potensi tumbuh, KNO<sub>3</sub> memiliki persentase potensi tumbuh paling tinggi (60,5%), daya kecambah tumbuh maksimum pada perlakuan KNO<sub>3</sub> (29%), vigor kecambah pada perlakuan KNO<sub>3</sub> (48,5%), kecepatan tumbuh pada perlakuan skarifikasi (3,04%), kserempakan tumbuh pada perlakuan skarifikasi (23%) kecambah abnormal pada perlakuan skarifikasi (12%) dan benih mati (81%) terdapat pada non perlakuan.

**Kata kunci :** *Ziziphus mauritiana*, Dormansi Benih, Vigor, Viabilitas

## **Bidara (*Ziziphus mauritiana*) Seed Dormancy Breaking Test**

Fikrina Teapon, Under Guidance Sri Soenarsih DAS and Sugeng Haryanto  
Faculty of Agriculture, Khairun University, Ternate

### **ABSTRACT**

Bidara (*Ziziphus mauritiana*) is a plant rich in nutrients and a source of medicine that grows optimally in several countries. This plant grows well in hot and dry environments. The bidara tree can be cultivated with seeds or root shoots. Bidara seeds have a hard seed coat, so that bidara seeds are difficult to germinate. The dormancy of bidara seeds can be broken through dormancy breaking treatment. breaking the dormancy of bidara seeds by soaking them in hot water, coconut water, H<sub>2</sub>SO<sub>4</sub>, KNO<sub>3</sub>, NaCl, and scarification, so as to speed up the process of germination of bidara seeds. The purpose of this study was to determine the effect of several treatments on breaking the dormancy of bidara seeds. This research was conducted at the Laboratory of Agrotechnology, Faculty of Agriculture, Khairun University, Ternate Using a completely randomized design method (CRD) consisting of 7 treatments and repeated 4 times, where: TO = Control (without treatment) T1 = Seeds are soaked in 1 liter of coconut water, (24 hours) T2= Seeds are soaked in hot water with a temperature of 70°C (24 hours) T3= Seeds soaked in 20% H<sub>2</sub>SO<sub>4</sub> for 24 hours T4= Seeds soaked in 20% KNO<sub>3</sub> for 24 hours T5= Seeds soaked in 20% NaCl for 24 hours T6=Seeds were scarified. The results of the analysis of growth potential parameter data, KNO<sub>3</sub> had the highest percentage of growth potential (60.5%), maximum germination growth in KNO<sub>3</sub> treatment (29%), sprout vigor in KNO<sub>3</sub> treatment (48.5%), growth speed in scarification treatment (3.04%), grew simultaneously in the scarification treatment (23%) abnormal sprouts in the scarification treatment (12%) and dead seeds (81%) were found in the non-treatment.

**Keywords :** *Ziziphus mauritiana*, Seed Dormancy, Vigor, Viability.