

**PEMATAHAN DORMANSI BENIH DENGAN PERLAKUAN  
SKARIFIKASI MEKANIS DAN PERENDAMAN ASAM SULFAT  
TERHADAP PERKECAMBAHAN DAN PERTUMBUHAN BIBIT SIRSAK  
(*Annona muricata* L)**

Oleh : Melani Sari

Dibimbing oleh: Endah Wahyurini dan Alif Waluyo

**ABSTRAK**

Benih sirsak (*Annona muricata* L.) memiliki masa dormansi sehingga menghambat perkecambahan. Penelitian ini bertujuan untuk mengetahui pengaruh perlakuan skarifikasi mekanis dan perendaman asam sulfat terhadap pertumbuhan bibit sirsak. Penelitian dilakukan pada bulan April-Mei 2022 bertempat di Balai Pengelolaan Daerah Aliran Sungai Hutan Lindung (BPDASHL) Serayu Opak Progo, Gunung Kidul. Metode penelitian ini menggunakan Rancangan Acak Lengkap (RAL) satu faktor, dengan rincian sebagai berikut, S1 kontrol; S2 skarifikasi pengamplasan satu sisi benih; S3 skarifikasi pengamplasan dua sisi benih; S4 perendaman H<sub>2</sub>SO<sub>4</sub> 65% 3 menit; S5 perendaman H<sub>2</sub>SO<sub>4</sub> 75% 3 menit; S6 skarifikasi pengamplasan satu sisi benih + perendaman H<sub>2</sub>SO<sub>4</sub> 65% 3 menit; S7 skarifikasi pengamplasan satu sisi benih + perendaman H<sub>2</sub>SO<sub>4</sub> 75% 3 menit; S8 skarifikasi pengamplasan dua sisi benih + perendaman H<sub>2</sub>SO<sub>4</sub> 65% 3 menit dan S9 skarifikasi pengamplasan dua sisi benih + perendaman H<sub>2</sub>SO<sub>4</sub> 75% 3 menit. Penelitian memiliki 9 perlakuan, setiap perlakuan diulang 3 kali sehingga terdapat 27 perlakuan. Data dianalisis dengan *Analysis of Variance (ANOVA)* taraf 5% apabila terdapat beda nyata dan dilanjutkan dengan Uji Jarak Berganda *Duncan* (UJBD) taraf 5% untuk mengetahui perbedaan antar perlakuan. Hasil pengamatan menunjukkan bahwa skarifikasi, perendaman asam sulfat dan kombinasi keduanya lebih baik daripada kontrol dalam mematahkan dormansi benih terhadap perkecambahan dan pertumbuhan bibit sirsak.

**Kata Kunci** : Benih Sirsak, Dormansi, Skarifikasi, Asam Sulfat.

**SEED DORMANCY RESISTANCE BY MECHANICAL SCARIFICATION  
TREATMENT AND SULFURIC ACID SOAKING AGAINST  
GERMINATION AND GROWTH OF SOURSOP SEEDLINGS**

*(Annona muricata L)*

By : Melani Sari

Supervised by: Endah Wahyurini and Alif Waluyo

**ABSTRACT**

Soursop seeds (*Annona muricata L.*) have a dormancy period so that they inhibit germination. This study aims to determine the effect of mechanical scarification treatment and sulfuric acid soaking on the growth of soursop seedlings. The research was conducted in April-May 2022 at the Serayu Opak Progo Protected Forest Watershed Management Center (BPDASHL), Gunung Kidul. This research method uses a one-factor Complete Randomized Design (RAL), with the following details, S1 control; S2 scarification of single-sided sanding of seeds; S3 scarification of double-sided sanding of seeds; S4 soaking H<sub>2</sub>SO<sub>4</sub> 65% 3 minutes; S5 soaking H<sub>2</sub>SO<sub>4</sub> 75% 3 minutes; S6 s6 single-sided sanding scapification of single-sided sanding of seeds; S3 scarification of double-sided sanding of seeds; S4 soaking H<sub>2</sub>SO<sub>4</sub> 65% 3 minutes; S5 soaking H<sub>2</sub>SO<sub>4</sub> 75% 3 minutes; S6 s6 single-sided sanding scapification of seeds + soaking H<sub>2</sub>SO<sub>4</sub> 65% 3 minutes; S7 s7 single-sided sanding scapification of seeds + soaking H<sub>2</sub>SO<sub>4</sub> 75% 3 minutes; S8 seed double-sided sanding scarification + H<sub>2</sub>SO<sub>4</sub> soaking 65% 3 min and S9 seed double-sided sanding scarification + H<sub>2</sub>SO<sub>4</sub> soaking 75% 3 minutes. The study had 9 treatments, each treatment was repeated 3 times so that there were 27 treatments. The data were analyzed with a 5% level analysis of variance (ANOVA) if there was a real difference and continued with a 5% level kontras orthogonal to determine the differences between treatments. The observations showed that scarification, soaking of sulfuric acid and a combination of the two were better than controls in breaking seed dormancy against the germination and growth of soursop seedlings.

**Keywords:** Soursop Seed, Dormancy, Scarification, Sulfuric Acid.