

ABSTRAK

PENGARUH KOMBINASI KONSENTRASI DAN LAMA PERENDAMAN ASAM SULFAT TERHADAP VIABILITAS BENIH DAN PERTUMBUHAN AWAL BIBIT SIRSAK (*Annona muricata* L.)

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Perbanyakan tanaman sirsak mengalami kendala salah satunya dalam pembibitan yaitu benih tidak segera berkecambah karena benih sirsak memiliki kulit yang tebal dan keras. Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi konsentrasi dan lama perendaman larutan H_2SO_4 terhadap viabilitas benih dan pertumbuhan awal bibit sirsak (*Annona muricata* L.). Penelitian dilaksanakan di *Screen House* Mugarsari, Fakultas Pertanian, Universitas Siliwangi pada bulan April 2022 sampai dengan Juli 2022. Menggunakan metode eksperimen dengan Rancangan Acak Kelompok dengan 12 perlakuan yaitu (Perendaman benih dalam *aquadest* selama 10, 20, dan 30 menit. Perendaman benih dalam H_2SO_4 10% selama 10, 20, dan 30 menit. Perendaman benih dalam H_2SO_4 15% selama 10, 20, dan 30 menit. Perendaman benih dalam H_2SO_4 20% selama 10, 20, dan 30 menit). Setiap perlakuan diulang sebanyak 3 kali, data pengamatan dianalisis menggunakan uji F dan jika terdapat pengaruh dilanjutkan dengan Uji Jarak Berganda Duncan pada taraf α 5%. Hasil penelitian menunjukkan bahwa kombinasi konsentrasi larutan H_2SO_4 10% dan lama perendaman selama 20 menit berpengaruh terhadap viabilitas tetapi tidak berpengaruh pada pertumbuhan awal bibit sirsak (*Annona muricata* L.).

Kata kunci : H_2SO_4 , perkecambahan, pembibitan, sirsak, viabilitas.

ABSTRACT

EFFECT OF COMBINATION OF CONCENTRATION AND SOAKING TIME OF SULFURIC ACID ON SEED VIABILITY AND EARLY GROWTH OF SOURSOP SEEDS (*Annona muricata* L.)

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The propagation of soursop plants has problems, one of which is in the nursery, namely the seeds do not germinate immediately because soursop seeds have thick and hard skin. This research aims to know the effect of the combination of concentration and duration of soaking in H₂SO₄ solution on seed viability and early growth of soursop seedlings (*Annona muricata* L.). The research was conducted at Screen House Mugarsari, Faculty of Agriculture, Siliwangi University from April 2022 to July 2022. Uses experimental methods of a randomized block design (RBD) with 12 treatments, namely (Soaking the seeds in distilled water for 10, 20, and 30 minutes. Soaking the seeds in 10% H₂SO₄ for 10, 20, and 30 minutes. Soaking the seeds in 15% H₂SO₄ for 10, 20, and 30 minutes. Soaking the seeds in 20% H₂SO₄ for 10, 20, and 30 minutes). Each treatment was repeated 3 times, the observational data were analyzed using the F test and if there is an effect, continued with Duncan's Multiple Distance Test with a level of α 5%. The research showed that the combination of 10% H₂SO₄ solution concentration and soaking time for 20 minutes had an effect on viability but had no effect on early growth of soursop seedlings (*Annona muricata* L.).

Keywords: H₂SO₄, germination, seedling, soursop, viability.