

ABSTRACT

THE EFFECT OF MAHOGANY SAWDUST (*Swietenia mahagoni*) PLANTING MEDIA ON THE GROWTH AND YIELD OF PAKCOY (*Brassica rapa subsp. chinensis*) IN HYDROPONIC SYSTEMS.

By:

**Haazimah Hurrulfikri Hubwatullah
195001112**

Supervisor:

**Budy Rahmat
Undang**

The use of mahogany sawdust waste (*Swietenia mahagoni*) as an alternative hydroponic planting medium is one solution to increase the added value of unused mahogany sawdust. Planting media is one of the important factors in the cultivation of hydroponic systems, mahogany sawdust waste can be used as planting media material. This study aims to determine the combination of planting media that has the best effect on the growth and yield of pakcoy plants (*Brassica rapa subsp. chinensis*). This research was conducted from November to December 2023 in Wanaraja district, Garut. The experiment was conducted using a Randomized Block Design consisting of 6 planting media treatments, namely rockwool (as a comparison treatment), mahogany sawdust, mahogany wood powder charcoal, a combination of mahogany powder and charcoal (1:1), a combination of mahogany charcoal and powder (2:1), a combination of mahogany charcoal and powder (1:2) and repeated 4 times. The research data were analyzed using variance analysis and continued with the Duncan's Multiple Range Test with a real level of 5%. The results of the research showed that the charcoal powder planting medium had the same effect as the rockwool medium on weight pakcoy plant. Charcoal powder can be used as an alternative planting medium to replace rockwool in hydroponic systems.

Keywords: Hydroponics, mahogany sawdust, planting media, pakcoy.