

ABSTRAK

Aquilaria malaccensis is one of the plants that produce agarwood, a major export commodity that contributes to the country's foreign exchange earnings. In Indonesia, agarwood production continues to decline because it generally forms naturally in forests. One method for increasing agarwood production is to inoculate agarwood trees artificially. This study aims to examine the effect of the *Fusarium solani* microbial inoculant on agarwood heartwood formation. This study was conducted in Teupin Reusep Village, Sawang Subdistrict, from September 2025 to January 2026. The study used a non-factorial randomized block design (RBD) with 8 replicates. The treatment levels included F0 (control), F1 (*Fusarium solani* + cotton + cover), F2 (*Fusarium solani*), F3 (*Fusarium solani*, 1 application), and F4 (*Fusarium solani*, 2 applications). The results of the study showed that the application of *Fusarium solani* had no significant effect. The *Fusarium solani* inoculation treatment at the F3 level (1 application of *Fusarium solani* + cotton) showed the highest average values for color change (brown) and aroma intensity (strong).

Keywords: *Aquilaria malaccensis* Lamk., *Fusarium solani*, inoculation, agarwood.