ABSTRACT

EFFECTIVENESS OF YOUNG COCONAT WASTE LIQUID SMOKE FOR *Colletotrichum gloeosporioides* (Penz.) Sacc. PATHOGEN OF CALINA PAPAYA FRUIT (*Carica papaya* L.) IN STORAGE

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Anthracnose (*Colletotrichum gloeosporioides*) is a postharvest disease and is the main cause of yield damage in Calina variety papaya. Liquid smoke can be an alternative to disease control because it contains active compounds that act as antifungals. This study aimed to determine the effectiveness of young coconut waste liquid smoke and injury to the development of the pathogen *Colletotrichum gloeosporioides* which causes anthracnose disease in stored papaya fruit. This research was conducted from June to November 2022 at the Protection Laboratory and Microbiology Laboratory, Faculty of Agriculture, Siliwangi University. The experiment was carried out using a completely randomized design which was arranged in a factorial manner, with two treatment factors: the first factor was the concentration of liquid smoke with six levels (0, 15, 30, 45, 60, and 75%), and the second factor was the injury treatment with two levels (injured and not injured). The research data were analyzed using variance and continued with Duncan's multiple range test with a level of 5%. The results showed that liquid smoke from young coconut waste effectively inhibited the development of the pathogen *C. gloeosporioides.* The most effective concentration of liquid smoke in inhibiting anthracnose disease infection in Calina papaya fruit is at a concentration of 75%. Treatment of the concentration of liquid smoke of young coconut waste with the wound treatment did not show any interaction with the parameters tasted.

Keywords: anthracnose, antifungal, *Colletotrichum gloeosporioides*, liquid smoke, papaya