

The Utilization of Local Food Ingredients as a Semi-synthetic Medium for the Growth of White Oyster Mushrooms (*Pleurotus ostreatus*)

¹,Jeanice Arianna Szito, ²,Christine Angelina Kharisma, ³,Felicia Annabelle Soekwenata, ⁴,Jennifer Wynne Lim, ⁵,Kylie Alexa Soewono

1. Jeanice Arianna Szito, Xin Zhong School, Surabaya, Indonesia (314241238@xinzhong.sch.id)
2. Christine Angelina K, Xin Zhong School, Surabaya, Indonesia (314241202@xinzhong.sch.id)
3. Felicia Annabelle S, Xin Zhong School, Surabaya, Indonesia (314241225@xinzhong.sch.id)
4. Jennifer Wynne Lim, Xin Zhong School, Surabaya, Indonesia (314241241@xinzhong.sch.id)
5. Kylie Alexa Soewono, Xin Zhong School, Surabaya, Indonesia (314241265@xinzhong.sch.id)

Abstract

White oyster mushrooms are widely consumed and becoming popular in Indonesian cuisine. Indonesians prefer it to be part of their meals due to its high nutrient content and delicious taste. The demand for the white oyster mushrooms is gradually increasing and farming of it is becoming known. Due to that, the making of the synthetic media for the growth of white oyster mushrooms is significant for the continuation of the production. The benefits of using local food material such as cassava and sweet potatoes as an alternative of potatoes in the semi-synthetic media really helps the farmers in reducing production prices. This research is experimental in nature using *Completely Randomized Design* (CRD) that consists of 3 treatments and 9 repetitions with a total of 27 samples. Data was analyzed statistically using One Way Anova and continued with the LSD test. The results showed no significant difference in the growth of the white oyster mushrooms on CDA media with an average diameter of 5.28 cm, SPDA of 3.47 cm, and PDA media of approximately 4.12 cm. So, cassava and sweet potatoes may be used as a semi-synthetic alternative in growing white oyster mushrooms. Moreover, cassava and sweet potatoes are easily found in Indonesia's agricultural farms.

Keywords: *white oyster mushroom, cassava, sweet potato, potato, growth*