

ABSTRACT

*This research was conducted in Panggoi Village, Muara Dua District, Lhokseumawe City, from January to March 2024 using a Completely Randomized Design (CRD) with two factors, 16 treatment combinations, and 3 replications. The first factor was mung bean boiled water (4 levels), and the second was rice-washing water (4 levels). Observed parameters included mycelium length, pinhead initiation time, fresh weight, diameter, and number of fruiting bodies of oyster mushrooms (*Pleurotus ostreatus*). The results showed that mung bean boiled water had a significant effect on fruit body diameter and number, while rice-washing water significantly affected almost all growth and production parameters. Their interaction showed a highly significant effect, particularly in the 4th week of mycelium growth and overall production parameters. The best combination was 40 ml mung bean boiled water with 40 ml rice-washing water for mycelium growth, and 60 ml mung bean boiled water with 20–40 ml rice-washing water for faster pinhead initiation. The highest fresh weight was obtained with 40 ml rice-washing water, the largest fruit body diameter with 60 ml rice-washing water, and the highest number of fruiting bodies with no mung bean boiled water and 60 ml rice-washing water. Overall, rice-washing water had a stronger influence compared to mung bean boiled water on the growth and production of oyster mushrooms.*

Keywords: *mung bean boiled water, rice washing water, white oyster mushroom*