Black Potato (*Plectranthus rotundifolius*) acclimatization to Multiple Media Types and AB Mix Concentration Supervised by: Tirto Wahyu Widodo, SP. MP.

Indra Trismayanti Food Crops Production Technology Study Program Agricultural Production Department

ABSTRACT

Black potato is an alternative food source that has the potential to be developed. It has a high carbohydrate content of 18.92% per 100 grams. In addition, it can grows well in the lowlands. However, the availability high of quality potato seeds is still limited. Efforts to develop black potatoes are still being carried out, especially through tissue culture techniques. One of the most critical stages for the success of tissue culture is acclimatization. At this stage has to use the appropriate media and nutrients, so that plants can grow and adapt well. The experiment was conducted for 6 months in the greenhouse Tissue Culture, State Polytechnic of Jember with an altitude of 89 m above sea level. The experimental design was arranged in a completely randomized factorial design with three replications. The first factor was two types of planting media, namely cocopeat and husk ash. While the second factor was concentration of AB Mix, namely 7 ml.⁻¹, 11 ml.⁻¹, 15 m.⁻¹, and 19 ml.⁻¹. The results showed that the interaction of media and concentration of ab mix was significantly different on leaf area. The best interaction was obtained in the treatment of husk ash planting media + AB Mix 7 ml.⁻¹ with an average leaf area of 4.2 cm². This is presumably because the right media and concentration can support the growth of black potatoes. However, in other variables, the single factor treatment of the type of planting media and the concentration of ab mix did not give a significant effect, it is suspected that the planting material used was not good due to repeated subcultures. In addition, planting media with high humidity and less than optimal light resulted in stunted growth of black potatoes.

Keywords: acclimatization, black potatoes, cocopeat, husk ash