ABSTRACT

The purpose of this research was to known the enhancement of to red pigment production by Monascus purpureus on cassava waste with different concentrations starter and long fermentation.

The reasearch methods consists of two phases : a preliminary study and main study. A preliminary study did the analysis of raw materials cassava waste, chossen the medium to use and counted total number of cell and made a growth chart microorganism of Monascus purpureus. The main study determined to knew the enhancement of red pigment production with different concentrations starter and long fermentation. The factors which are used a concentration of 11%, 12% and 13% with long fermentation 14 days. The response in the study include chemical response (moisture), Physical response (intensity of the red pigment, color intensity toward solubility in water and red pigment stability toward temperature).

The study results showed that the analysis of raw materials showed cassava wastes containing starch component of 33,065%, and HCN of 0,00%. The medium used solid medium with strater have periode 5 days with total number spores 1.89 x 107 spores / ml. The different of concentration Starter influence have a enchancement the intensity of the red pigment. But nothing happen toward mositure, color intensity toward solubility in water and red pigment stability toward temperature. Which products have the highest intensity of the red pigment is concentration of 13% is with long fermentation 13 days and have absorbance value 3,070.

Keywords : Cassava waste, Monacus purpureus, Concentration starters, Long fermentation, Angkak.