ABSTRACT

Mawaddah Nurul. 2014. **The Effect of Inoculums Type and Fermentation Period toward Content of Rough Fiber and Rough Protein of Onggok as Food of Poultry Husbandry.** Thesis. Biology Department, Faculty of Science and Technology, State Islamic University of Maulana Malik Ibrahim Malang. Advisors (I): Dr. Hj. UlfahUtami, M.Si, Advisor (II): Dr. H. Ahmad Barizi, MA.

Key words: Inoculums type, Fermentation Period, Rough Fiber, Rough Protein, Onggok, Food**,** Poultry husbandry

Onggok is a solid waste of cassava manufacturing which is processed to be tapioca. Onggok has very high substance of essence, thus, it is potentially to be admixture of poultry husbandry food. However, it is constrained by its high rough fiber and its low rough protein. Poultry is a kind of monogastric animal that cannot expel enzyme cellulose, therefore, poultry needs of rough fiber is really low, it is about 2-5%, as well as its high needs of rough protein which is used for its growth. *Bacillus mycoides* has been known that it is able to produce enzyme cellulose, as well as *Trichoderma sp* which is previously has been known able to produce enzyme cellulose with index activity 3,38 cm. Fermentation is done to decrease content of rough fiber and increase rough protein.The purpose of this research is to know the best interaction between inoculums type and fermentation period in decreasing rough fiber and increasing rough protein, thus, it can increase quality of nutrition in onggok as ration of poultry husbandry.

The research design uses Complete Random Design with two factor ways and three repetitions. The first factor is the type of inoculums which consists of three variations, those are *Bacillus mycoides, Trichoderma sp.,* and admixture between *Bacillus mycoides* and *Trichoderma sp.* The second factor is fermentation period which consist of three standards of treatment, those are, three days, six days, and nine days. Technique of data analysis uses *Anova Two Way* (ANOVA) and detailed experiment *Duncan's Multiple Range Test* (DMRT) 5%.

Based on examination kind analysis, data shows that there is a significant differentiation ($P<0,05$) on variation treatment of inoculums type, period of fermentation, and interaction of both. Detailed experiment DMRT shows that the best interaction is variation of inoculums type with the admixture *Bacillus mycoides* and *Trichoderma sp* by the period of fermentation for nine days which is able to decrease the content of rough fiber from rough fiber content 13, 43% becomes 5,6% and increase rough protein content from 1,01% becomes 5,49%.