

ABSTRACT

Dewi, Ayu Kusuma. 2014. **The Influence of the Addition of A Natural Preservatives in the Manufacture of Edible Coating Based On Cassava Starch (*Manihot utilissima Pohl*) Against Quality of the After Harvest Red Chili (*Capsicum annum L.*)**. Thesis. Department of Biology, Faculty of Science and Technology University Islamic State of Maulana Malik Ibrahim Malang. Supervisor (I) Ir. Liliek Harianie AR, M.P. (II) Dr. H. Ahmad Barizi, M.A

Keywords: *Edible Coating*, Cassava Starch (*Manihot utilissima Pohl*), Natural Preservatives, Red Chili Pepper (*Capsicum annum L.*)

Edible coating is a thin layers to maintain the quality of horticultural product and harmless to be consumed by human. This study was combining the natural preservatives with a long dyeing in an *edible coating* of cassava starch (*Manihot utilissima Pohl*). This study aims to know the influence of natural preservatives, long dyeing, and interaction of the red chili quality (*Capsicum annum L.*). Parameters include: shrink weight, water level, texture, color, and vitamin C content.

Research done in February – March 2014 in Laboratory of Biology, Department of Biology, Faculty of Science and Technology University Islamic State of Maulana Malik Ibrahim Malang. Experimental study was using a random complete draft with 2 factor treatment and three times repetition. First factor is addition the natural preservatives, second factor is long dyeing consisting 60 seconds and 90 seconds of long dyeing. The study conducted interaction of natural preservatives with long dyeing. Data obtained would be analyzed by *Analysis of Variance (ANOVA) Two Way* with 5% confidence standard.

The results showed a white ginger did not differ markedly with turmeric on shrink weights, the value of L* white ginger is not different at real with galangal. Natural preservative treatment of galangal, turmeric, and white ginger contrast markedly with the controls on water level, texture, value of a*, b*, and vitamin C. Long dyeing 60 and 90 seconds did not differ markedly on shrink weights and values of L*, but differ markedly in water level, texture, value of a*, b*, and vitamin C. The influence of interaction on the white ginger with long dyeing 60 second and 90 second is not differ markedly toward shrink weight. while the interaction between natural preservatives turmeric, galangal and white ginger with long dyeing 60 and 90 second contrast markedly against water level, texture, L* value, a* value, and b* value. In vitamin C, there was not differ markedly on the 10th day of observation.