ABSTRACT

DEBBY ENDAYANI SAFITRI. Anthocyanin Stability and Antioxidant Activity in Java Plum (Syzygium Cumini) Drink. Supervised By AHMAD SULAEMAN.

Java plum is an anthocyanin rich fruit which has antioxidant benefits. But, its taste is less preferred and thus require further processing. The objective of this study was to develop java plum drink, evaluate anthocyanin stability, and antioxidant activity in java plum drink during storage. Formula of this beverage was determined based on refining and additional sugar of 5%, 10%, and 15%. The best product was chosen by organoleptic test. The chosen one was refining beverage with 15% of sugar added. Java plum drink was kept storage in refrigerator and room temperature to be compared its anthocyanin stability. Antioxidant activity was also measured in both storage temperatures. Anthocyanin was measured by pH different method while antioxidant activity was measured by DPPH method using ascorbate as standard. Fresh Java plum drink has 2.4 mg anthocyanin per 100 ml. In 8 weeks, a significant difference (p<0.05) was obtained as a result of both refrigerator and room temperature storage. Antioxidant capacity of java plum drink is 74 mg ascorbate equivalent (AE) per 100 g and there was no significant change (p>0.05) due to refrigerator and room temperature storage. It showed that anthocyanin in java plum drink was less stable. But, low anthocyanin stability wasn’t followed by decrement of antioxidant activity.

Keywords: Java plum, Anthocyanin, Antioxidant activity