Estimating the Shelf Life Of Mango Arum Manis Jelly Candy (MANGIFERA INDICA L) Using the Critical Water Content Method)

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ABSTRACT

Jelly candy is candy made form a mixture of fruit juice, gelling ingredients or flavoring additives, resulting in candy with a clear and transparent physical form in various flavors. The shelf life of jelly candy as a semi-wet food is 6-8 month in packing and one yearin unopened packaging. One method that can be used to estimate the self life of products such as mango jelly candy is the accelereated ASLT (Shelf Life Test) using a critical water content model, namely speeding up the reaction so that the product becomes damaged in a shorter time (Apriliyanti et al., 2020). This study aims to estimate the shelf life of mango jelly candy using the Accelerated Shelf Life Test (ASLT) calculation method wich models the critical water content to obtain a precise and accurate estimate of the shelf life to of food based on the actual shelf live of the food. This stufy used 1 factor with 3 concentrations F1 (200% mango, 5% seaweed, 15% xylose, 0,5% citric acid), F2 (200% mango, 5% seaweed, 15% xylose, 1% citric acid), F3 (200% mango, 5% seaweed, 15% xylose, 1,5% citric acid). The results of this research are mango jelly candy products with 0,03 mm PP plasctic packaging and stored at RH 78% and room temperature, namely 29°C, a concentration of 0,5% has a shel life of 693 days, a concentration of 1% has a shel life of 253 days, a concentration of 1,5% has a shel life of 24 days. From the self life result, it was found that the longset shelflife results were at a concentration of 0,5% which had a shel life of 693 days.

Keywords : Shelf Life, Sweet Arum Mango, Citric Acid, ASLT