The purpose of this study was to determine the shelf life of arrowroot starch-based cookies with the addition of torbangun and to analyze the products’ safety during storage. Estimation cookies’s shelf life was calculated using the Accelerated Shelf Life Testing method with the approach of critical water. This method then followed by storage the cookies for 12 weeks with polypropylene and metalized plastic packaging. The cookies were analyzed every four weeks. The analysis consisted of organoleptic test, and product damage parameters such as pH, total acid titration, thiobarbituric acid, peroxide levels and total microbes. The results showed that cookies have a shelf life as long as 22 months with metalized plastic packaging and five months with polypropylene plastic packaging at 75% Relative Humidity (RH) storage. During the 12 weeks of storage, the organoleptic value was still acceptable. The storage duration and also the type of packaging used were not significant different (p> 0.05) against all damage parameters of the product.

Key words: shelf life, storage, parameters, cookies