

ABSTRACT

The purpose of this study was to estimate the fried shallots storage shelf life based on the Arrhenius approach to find out the fried shallot shelf life at different storage temperatures and different packaging was based on the Arrhenius approach.

In this research conducted preliminary research and main research, in the preliminary research, the determination of selected fried shallots varieties consisting of Sumenep, Tuk-Tuk and Brebes varieties with acceptance test (organoleptic) and volatile reducing substance test, while in the main research, the estimated shelf life of selected fried shallots are packed aluminium foil and polypropylene with parameter testing include moisture content by thermogravimetry method, free fatty acid content by titration method and amount of microorganisms by total plate count method. The parameters analyzed starting early storage on day 0 and volatile reducing substance.

Fried shallot varieties Sumenep selected for main research with VRS content of 82,98 μ .eq/g. Based on the results of the calculation of the moisture content in the sample of fried shallot, the obtained result of products fried shallots are packed using aluminium foil at each temperature was 439 days at a temperature of 15°C , 368 days at a temperature of 30°C, and 302 days at a temperature of 45°C and the shelf life of products fried shallots are packed using polypropylene was 341 days at a temperature of 15°C, 285 days at a temperature of 30°C, and 244 days at a temperature of 45°C. Based on the results of the calculation of the free fatty acid levels in the sample of fried shallots, the obtained result of products fried shallot are packed using aluminium foil at each temperature was 127 days at a temperature of 15°C , 107 days at a temperature of 30°C, and 89 days at a temperature of 45°C and the shelf life of products fried shallots are packed using polypropylene was 105 days at a temperature of 15°C , 96 days at a temperature of 30°C, and 85 days at a temperature of 45°C. While based on the results amount of microorganisms in the sample of fried shallot, the obtained result of products fried shallots are packed using aluminium foil at each temperature was 269 days at a temperature of 15°C, 222 days at a temperature of 30°C, and 172 days at a temperature of 45°C and the shelf life of products fried shallots are packed using polypropylene was 223 days at a temperature of 15°C, 192 days at a temperature of 30°C, and 153 days at a temperature of 45°C and during storage there is a decrease in VRS content.

Keywords : shallot, fried shallots, shelf life, moisture content, free fatty acid content, amount of microorganisms, volatile reducing substance content.