

## ABSTRACT

*One of the major micronutrient deficiencies in Indonesia is iodine deficiency disorders (IIDs) which can lead to poor health, beside IIDs, folic acid consumption is still quite low which can be fatal especially for pregnant women which can lead to fetal abnormalities. One of the efforts to tackle those problems is to do fortification by addition of iodine and folic acid into dry noodles which is substituted by breadfruit flour. The problem of this micronutrient addition is micronutrient decreasing during processing, especially steaming and drying process.*

*The purpose of this research is to know the extent to which the decrease in levels of iodine and folic acid on the process of processing the dried noodles, so it can be known to the levels of the substance fortification at the time of the initial time is added, and while drying.*

*The purpose of this research were to determine the of reduced levels of iodine and folic acid during steaming and drying process in dry noodles from breadfruit flour.*

*The research method were carried out of two stages, that were preliminary research and primary research. Preliminary research was done to get the best comparison between wheat flour and breadfruit flour, the comparisons used were 90:10, 80:20 and 70:30 as well to determine optimum drying temperature, the temperature used were 35°C, 40°C and 45°C. Primary research was done to determine decrease of iodine content by UV-spectrophotometer analysis and decrease of folic acid content by HPLC in steaming and drying process. The response of this research included chemical response, that were moisture content, fat content, protein content and carbohydrate content and sensory responses include color, flavour, and texture.*

*The result of this research were to obtain the best comparison between wheat flour and breadfruit flour which 80:20 with drying temperature at 35°C. In this research, 200 ppm of  $KIO_3$  and 2500 mcg/100g folic acid were added to dry noodles processing. During steaming process the content of  $KIO_3$  decreased to 191 ppm whereas folic acid decreased to 630,38 mcg/100g. During drying process the content of  $KIO_3$  decreased to 190 ppm and folic acid to 626,690 mcg/100g. Results showed that dry noodles had moisture content of 6.060%, protein content of 32.022%, fat content of 4% and carbohydrate content of 2.313%. Results of sensory test showed that dry noodles with breadfruit flour and dry noodles without breadfruit flour were not significantly different in terms of color, aroma and texture but had significant effect in terms of taste.*

*Keywords: folic acid, fortification, iodine, noodle.*