ABSTRACT

One cause nutritional problems in Indonesia are hidden hunger or starvation hidden because micronutrient deficiencies of vitamin A and zinc (Zn). Pumpkin which is the local food rich in beta-carotene and potentially used as snacks (donut) which can contribute to the needs of vitamin A. The addition of zinc to increase micronutrients. This study aimed to determine the effect of zinc-enriched pumpkin on levels of beta-carotene and zinc on a donut.

This research is a quasi experimental research with a completely randomized design (CRD) with 2 factors, namely the addition of pumpkin and zinc powder at a donut. There are four treatment groups: 1 standard formula and 3 treatment formula (pumpkin and mixed with zinc powder to the dough donut) with six times the replication preliminary study conducted to determine the best formula 3 of 4 formula. Then conducted further tests with untrained panelists to determine the acceptability organoleptic, nutritional value and food cost. Levels of beta-carotene and zinc on the donuts were measured by spectrophotometric method.

The result of this study is no effect of beta-carotene and zinc levels in the donut that has been modified with pumpkin and zinc powder. Organoleptic donuts with modifications pumpkin substitution of 40% zinc and 750 mg (F3) was most preferred by the panelists with an average score of 2.28. There was the effect of adding texture to the F3. Based on laboratory results donuts F3 contain beta-carotene nutritional value (0.139 ppm) and zinc (2.87 ppm). Donut F3 has the lowest food cost (Rp 728.00 / serving).

Donut F3 with 40% substitution pumpkin and 750 mg of zinc was the best formula that potentially as a healthy snack alternative school children. In order to obtain a donut with a softer texture, it need to added of pumpkin and yeast concentration.

Keyword : beta-caroten, pumpkin, donut