ABSTRACT

EVA FITRINA PURWAWINANGSIH. In Vitro Bioavailability of Calcium in Crackers with African Catfish’s (Clarias gariepinus) Head Flour. Under direction of EVY DAMAYANTHI.

Crackers with African catfish’s head flour (ACHF) as many as 12.5 g contains high calcium which contributes 24% to Indonesian’s RDA for adolescents. Investigation of in vitro bioavailability for ACHF-cracker’s calcium was the major target of this study because the high calcium content in food does not describe whether the absorbed calcium was also high. Types of crackers did not significantly affect the water content (p>0.05), but it significantly affected the protein content, phosphorus content, calcium total, calcium bioavailability, and available calcium total (p<0.05). ACHF-crackers contain protein 11.41% (dry basic), which is higher than other crackers. While in dry basic ACHF-crackers contain phosphorus (107.13 mg 100 g⁻¹), calcium total, (568.29 mg 100 g⁻¹) and available calcium total (80.31 mg 100 g⁻¹), which are lower than commercial crackers but higher than control crackers. In contrast, calcium bioavailability from ACHF-crackers (14.53%) is lower than control crackers but higher than commercial crackers.

Keyword : calcium bioavailability, in vitro, crackers, African catfish’s head flour