



EFFECTS OF PUMPKIN (*CUCURBITA MOSCHAT*) / SOYBEAN (*GLYCINE MAX*) FLOUR BLENDS ON FUNCTIONAL, PHYSIC-CHEMICAL PROPERTIES AND SENSORY ATTRIBUTES OF BREADS PRODUCED FROM WHOLE WHEAT (*TRITICUM AESTIVUM L*)

Demelash Hailu Mitiku¹✉ and Tizazu Yirga Bereka¹

¹*Department of Postharvest Management, College of Agriculture and Veterinary Medicine, Jimma University, P.O. Box 307, Ethiopia*

✉ hailudeme@gmail.com

<https://doi.org/10.34302/crpjfst/2021.13.1.11>

Article history:

Received:

3 September 2020

Accepted:

5 February 2021

Keywords:

composite bread;

pumpkin;

soybean;

proximate composition and sensory evaluation.

ABSTRACT

Bread is an important staple food in many countries. Bread making is currently limited to wheat and a few other commonly used cereal seeds in many countries. This study was initiated with the objective of determining the effect of pumpkin/soybean flour blends on functional, physicochemical properties and sensory attributes of composite wheat, pumpkin and soy bread. The result indicated that the proximate compositions of breads produced with the different mix ratios of wheat, pumpkin and soybean flours were ranged from 11.07 to 13.19% for moisture, 1.15 to 2.15% for ash, 1.18 to 1.54% for fiber, 16.31 to 18.74% for fat, 14.22 to 17.33% for protein, 60.24 to 66.78% for carbohydrates and 470.79 to 478.95 kcal/100g for energy. The result showed that as the supplementation level of pumpkin and soybean flour increases, the ash, fiber, fat and protein of the composite bread produced were increased. However, the carbohydrate contents of the produced bread were decreased. The sensory evaluation of bread produced were in acceptable range even though, there were decreasing as the supplementation level of the pumpkin and soybean increased. These finding produced bread of acceptable nutritional, functional and sensory qualities from 3.5 to 10.5% of pumpkin and 1.5 to 4.5% of soybean flour with wheat, therefore, these research findings have shown new windows for further utilization of pumpkin and represents one way of cutting down on the large amounts of wheat importation for bread making and other wheat flour based products.
