

ABSTRACT

Increase in bread consumption, health awareness and demand for nutritious foods has necessitated research on composite bread to meet these needs. Sorghum (*Sorghum bicolor* L.) is nutritious, this study used a new sorghum genotype EUS130 in development of sorghum composite bread in the proportions wheat: sorghum flour 100:0 (Control), 96:4, 92:8, 88: and 84:16. Baking was done using Straight dough method. Nutrient content, shelf life, physical properties: height (dough strength), length (dough resistance to extensibility) and W (deformation energy), and baking properties: specific loaf volume, P/L ratio, loaf weight were determined. Sensory acceptability was done using 50 semi-trained panellists. The study observed that protein content was highest in 8% but decreased \geq 12% sorghum, fat was higher in 8% sorghum bread compared to control. Dough height and P/L ratio were highest in 8% sorghum while length was highest in control. At 16% sorghum, loaf texture, crumb colour, mouth feel and general appearance decreased. Microbial count was highest in wheat bread while shelf life increased with increase in sorghum. In conclusion, 8% sorghum flour can be partially substituted with wheat flour to develop bread with improved nutritional and sensory quality.

Keywords: Physical properties, shelf life, composite bread, nutritional quality, sensory quality.