

ABSTRACT

Modification Of Gluten-Free Sorghum Batter and Bread Using Maize, Potato, Cassava or Rice Starch

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Gluten-free sorghum bread was made from cassava, maize, potato or rice starch and sorghum in the ratios 10:90, 20:80, 30:70, 40:60 and 50:50. The other baking ingredients, on flour-weight-basis, were water (100%), sugar (6.7%), egg white powder (6%), fat (2%), salt (1.7%) and yeast (1.5%). Increasing starch content changed the batters' consistencies from soft doughs to thin pourable batters. Increasing starch content decreased crumb firmness and chewiness, and increased cohesiveness, springiness and resilience of all breads. Cassava-sorghum and rice-sorghum breads had better crumb properties than maize-sorghum or potato-sorghum breads. Although the crumb properties of all breads declined (i.e. firmness and chewiness increased; cohesiveness, resilience and springiness decreased) on storage, the formulation containing 50% cassava starch retained the best overall texture.

Key words: Gluten-free bread, Sorghum, Starch, Texture