

Dough rheology, baking and sensory qualities of bread from blends of breadfruit and wheat flours

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Wheat flour was replaced with breadfruit flour (0 to 40%) to produce bread. Composition and pasting properties of the flours and their composite flour blends were determined. Baking and sensory qualities of the resulting bread samples were evaluated. Protein starch and fiber contents of the breadfruit and wheat flours were 2.6; 61.30; 7.79% and 10.9; 69.89; 2.81% respectively. These significantly influenced the rheological (pasting, farinograph and alveograph) and baking properties of the dough of the composite blends and the bread made from it. Peak, holding, breakdown and final viscosities of the blends ranges from 122.3 to 147; 85.4 to 98.6; 28.74 to 49.18 and 128.6 to 147.4 RVU respectively. Dough tolerance to mixing was significantly affected as dough stability, breakdown time and dough development time decreased from 9.30 to 0.77min., 10.8 to 2.50min. and 8.20 to 1.60min while water absorption increased from 58.63 to 65.96% respectively. Peak height of the alveograph increased from 90 to 226mm while length and max. inflation attained decreased from 80 to 26mm and 199 to 114. Specific volume and total quality score decreased from 3.00 to 1.32cm³/g and from 80 to 41.6% respectively. Bread from the blends was acceptable to customers within 10% substitution level.

Biography

Bakare H. Adegoke had his Ph.D in Food Processing and Preservation from University of Ibadan, Nigeria in 2008. He has worked with Lagos State College of Primary Education (Now Michael Otedola College of Primary Education) for more than fourteen years and has held various positions of academic and administrative responsibilities. He joined the services of Federal university of Agriculture, Abeokuta in 2010 and is a lecturer in the department of Foodservice and Tourism. He has published more than 20 papers in reputed journals and is serving as members of various academic committees.

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