

Title Dry milling characteristics of microwave dried maize grains (*Zea mays* L.)
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Abstract

Studies were carried out on the dry milling characteristics of maize grains, which were dried previously from different IMC in a domestic microwave oven. The IMC ranged from 9.6% to 32.5% db. Drying was also carried out in a convective dryer at temperatures of 65–90 °C. The drying rate curve showed a typical case of moisture loss by diffusion from grains. The dried samples were ground in a hammer mill and the Bond's work index was calculated which was found to decrease with increase in duration of microwave drying. The proximate composition of the grains and the ground products showed that there was no change in protein and starch content. Viscosity measurements were made with 10% suspensions prepared out of the flour in water and heated to 80 and 90 °C and cooled. Viscosity was found to decrease with increase in microwave drying time of the grains. The colour analysis showed that flour of the microwave-dried samples was brighter than the control and convective dried samples.