

Effect of Dehydration Methods of the Proximate Composition, Mineral Content and Functional Properties of Starch Flour Extracted from Maize

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Abstract : Effect of the dehydrated method on proximate, functional and mineral properties of corn starch was evaluated. The study was carried and to determine the proximate, functional and mineral properties of corn starch produced using three different drying methods namely (sun) (oven) and (cabinet) drying methods. The corn starch was obtained by cleaning, steeping, milling, sieving, dewatering and drying corn starch was evaluated for proximate composition, functional properties, and mineral properties to determine the nutritional properties, moisture, crude protein, crude fat, ash, and carbohydrate were in the range of 9.35 to 12.16, 6.5 to 10.78 1.08 to 2.5, 1.08 to 2.5, 4.0 to 5.2, 69.58 to 75.8% respectively. Bulk density range between 0.610g/dm³ to 0.718 g/dm³, water, and oil absorption capacities range between 116.5 to 117.25 and 113.8 to 117.25 ml/g respectively. Swelling powder had value varying from 1.401 to 1.544g/g respectively. The results indicate that the cabinet method had the best result item of the quality attribute.

Keywords : starch flour, maize, dehydration, cabinet dryer

Conference Title : ICFPST 2017 : International Conference on Food Processing Systems and Technology

Conference Location : Singapore, Singapore

Conference Dates : November 09-10, 2017