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BANANA AND PLANTAIN FRUIT AND FLOUR PHYSIOCHEMICAL AND FUNCTIONAL PROPERTIES AND THE POTENTIAL OF PRODUCE VALUE ADDED PRODUCT

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Banana and plantain (*Musa* spp.,) are one of the main food supplies all over the world. Fresh banana is highly perishable fruits about 30% of the banana production is lost after harvest. There is a need to search for alternate uses for banana fruit to help reduce the post-harvest losses as well as utilize it in food product development. Currently, banana, plantain fruits and flour are of interest due to their nutritional and antioxidant value. Despite of these promising results, the quality standards and functional properties to process this flour into value added products are still lacking. The objective of this study was to evaluate the qualities of banana and plantain fruit chips as well as assess some physical, chemical and functional properties of their flour. Unripe banana and plantain fruit were assist to determine their ripening stage then were sliced. Part of the slices was deep-fried to get chips. The other was dried then milled and sieved to obtain flour. The flour was assessed for physicochemical properties such as pH, total soluble solids, water holding capacity, color values, viscosity and fiber and minerals contents as well as pasting properties. The flour was then incorporated into other ingredients to make baked and fried chips. The results revealed that there are no significant differences between the flour physical and chemical properties from banana and plantain sources. The pasting properties of the flour were appropriate to be used in baked or fried products. The sensory properties such as color, aroma, texture and taste of the fried and baked chips were acceptable by all the panelists compared to the commercial potato chips. Hence, unripe banana, plantain fruits and flour can be utilized in food product development.

Biography

Zienab F R Ahmed completed her PhD in Horticulture "Fruit Physiology and Biochemistry" from University of Wisconsin-Madison, USA and Postdoctoral studies from South Valley University, Horticulture Department. She worked as an Assistant Professor of post-harvest fruit physiology. She published more than seven papers in reputed journals.

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