

Sweet Potato Sensory Evaluation

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Methods

The sensory evaluation was carried out based on two methods of sample preparation for the Irish potato and the orange fleshed sweet potato. Roots were purchased from commercially local vendors/ food stores. Evaluations were completed on October 28 and 29, 2014 in the tasting room of the Food and Ag Product Center (FAPC) on the campus of Oklahoma State University in Stillwater, OK.

Recipe

Medium-sized roots or tubers of about 1-2 pound each were selected for use in the evaluations. Roots were washed and peeled then cut into approximately 1" x 1" cubes and then cooked by boiling for 20-30 minutes in a water and salt solution. The salt solution consisted of 2/3 tsp of salt per gallon of water which was used to boil the cut potatoes until they were tender.

Results

No significant differences were observed in the ratings for taste or appearance (Table 1) by the 104 respondents who came from different regions (continents) and had ages of 18 to over 35 yrs. Respondents went on to comment that the sweetpotato was a special crop that was served at thanksgiving and other events like Christmas, thus considered to be a special holiday food item and was not considered to be inferior to the Irish potato.

A few participants remarked that they did not mind the appearance and were more concerned with taste, although more respondents prefer the appearance of Irish potatoes.

Table 1. 2014 Potato Evaluations, taste testing and appearance of sweet potatoes and Irish potatoes.

Sample	Taste		Appearance	
	Mean	Significance	Mean	Significance
Mashed Sweet Potatoes	6.3	a ^z	7.5	a
Cubed Sweet Potatoes	6.0	a	6.0	a
Mashed Irish Potatoes	6.5	a	8.2	a
Cubed Irish Potatoes	6.1	a	6.5	a

^zNumbers in a column followed by the same letter exhibited no significant differences based on Duncan's Multiple Range Test where P=0.05.

Based upon the results the authors would conclude that that orange fleshed sweet potato can be promoted in developing countries in Sub-Saharan Africa (SSA) as a nutritious and not a poor man's crop as may have been perceived. Sweet potatoes can also be used to combat food insecurity in SSA as they are well adapted to warm tropical climates, more drought tolerant than Irish potato, and when cured properly they can be stored for extended periods of time.