Nutritional evaluation of whole root and tuber crops as livestock feed

Bukola Babatunde
Fiji National University, Fiji

The aim of the study is to investigate nutritional value of root and tuber crops as livestock feed resources. Fresh unpeeled Irish potatoes (P), sweet potatoes (SP), cassava (CA), yam (YA) and dalo (DL) purchased from the market were washed and cut into smaller pieces. The cut pieces were sub-divided into three equal parts. One part was analyzed as fresh samples, while remaining parts was sundried (SU) and oven dried. The oven dried and sundried samples were milled into meal using an electric grinder. Fresh, oven dried and sundried samples were analyzed for moisture, ash, crude protein, fat, crude fibre and soluble carbohydrate fractions. The experiment was designed as 5×3 factorial experiment and data expressed on as fed basis. Fresh root and tuber crops has comparative low DM contents (DL>YM>CS>SP>P) compared to those processed by sun drying and oven drying. Generally, the results showed that the two processing methods enhance (P<0.05) nutritive value of root and tuber crops compared to fresh samples. Sun drying is more effective (P<0.05) in raising NFE contents of root and tuber crops than oven drying. There were significant differences (P>0.05) in DM between different root and tuber crops processed by two methods, although both processing methods have no effect on potato DM content. However, oven drying improved (P<0.05) DM of SP, YM and DL, while sun drying improved (P<0.05) DM content of cassava only. The protein contents of root and tuber crops were enhanced (P<0.05) when processed but there were no significantly differences (P>0.05) between protein contents of sundried and oven dried root and tuber crops. Sun drying improves (P<0.05) crude fibre of root and tuber crop samples than oven drying.

Biography

Bukola Babatunde has completed her PhD degree in Poultry Nutrition in 1999 from University of Ibadan, Nigeria and another PhD in Animal Nutrition and Immunity in 2009 from La Trobe University, Australia. She has worked at Institute of Agricultural Research & Training, Obafemi Awolowo University, Moor Plantation as Research Fellow in pig improvement programs and as Senior Lecturer in Animal Science at Federal College of Animal Health and Production Technology, Institute of Agricultural Research & Training. She is currently an Associate Professor and Head of Department of Animal Husbandry at Fiji National University. She has published more than 40 papers in reputed journals and is a Member of Editorial Board and Review Board of reputable international journal.

bukola9465@hotmail.com