EFFECT OF PROCESSING TECHNIQUES (STEAMING, STEAM-DRYING AND FRYING) ON THE PROVITAMIN A CAROTENOIDS AND ASCORBIC ACID CONTENTS OF SQUASHES (*Cucurbita Sp*).

Demasse Mawamba Adélaïde¹, Gouado Inocent¹, Schweigert F J ², Tchouanguep Mbiapo Félicité³
¹Faculty of Science, Department of Biochemistry, University of Douala, Cameroon
²Institute of Nutritional Science, University of Potsdam, Potsdam, Germany
³Faculty of Science, Department of Biochemistry, University of Dschang, Cameroon

Vitamin A deficiency (VAD) still remains a nutritional concern in Cameroon. The flesh of squashes can be of great nutritional importance in the fight against VAD because they are rich in provitamin A carotenoids. Unfortunately in Cameroon, squashes are mostly cultivated for their seeds. This may be because the flesh is only eaten steamed. To promote the more frequent consumption of the flesh of squashes in Cameroon for contribute to better vitamin A integration in the diet, other forms of consumption (steam-dried and fried) than steamed were experienced and α-carotene, *all-trans*-β-carotene and ascorbic acid contents were determined respectively by HPLC and titration with 2,6diclorophenolindophenol. Steamed and raw forms were also analyzed. Steam-drying and frying leaded to water losses between 89 to 95%. As a consequence of this, the α-carotene, *all-trans*-β-carotene and ascorbic acid contents (in 100g serving) were significantly higher (P<0.05) in steam-dried and fried than in steamed and raw squashes. Although steaming did not lead to variation (P>0.05) of nutrients analyzed, carotenoids and ascorbic acid retention was more elevated in steamed than in steam-dried and fried squashes. Steam-dried and fried squashes would be effective to fight against VAD and some nutritional related problems of Cameroonians. These new forms of consumption didn’t only have a new palatability but also have slight water content and weigh which facilitate transportation and conservation. For that reason, they would have an increased shelf life in comparison with unprocessed squashes. Hence, they will increase availability of squashes at off seasons and contribute to reduce VAD.