The effect of thermal treatment on chemical and nutritional factor of pulps and pumpkin flour (Cucurbita spp.) produced in the state of Pará.


The pumpkin belongs to the plant family Curcubitaceae and is known for its high nutritional value. It contains in its composition high contents of vitamin A, proteins, lipids, fibers and mineral. The preparation of flour from this raw material can provide an increase in its commercial life and diversify its use. However, during the process of dehydration, physical and chemical, modification can occur, it being dependent of the intensity of the heat applied, causing loss in its nutritional value. The goal of this study was to elaborate and evaluate the effect of thermal treatment on pulp and pumpkin flour’s chemical and physical composition. The fruits were sanitized, washed, peeled and then subdued to drying in a fixed temperature of 60° and two variable temperatures 60-70 and 70-80°C. Statistic differences were shown between the thermal treatments used and an increase of the availability the mineral being more efficient in the flour dehydrated in the temperature of 60°C because it obtained a bigger concentration of minerals, amides and fibers, respectively (5,89%, 83,75%, 5,40%), with a low caloric value 332,68 kcal/100g and carbohydrates 77.73%. The humidity of the flours stayed below 14% a value acceptable for the conservation of foods. The qualification of carotenoids in all the flours obtained satisfactory results, with emphasis to the dehydrated one at 60°C, which showed a value of 380.91mg/g. Based on the results, the nutritional potential of pumpkin flour turning it into an alternative for the use of other products such as bread making.