

SUMMARY

The determination of the physical characteristics and the chemical composition of the camote, *Ipomea batata*, was done by taking random samples of the different harvesting areas of the Tumbatú section of the Bolivar canton, in the province of Carchi, while a previous treatment was done, such as washing, reselecting and preparing of the sample, an analysis was done in the University Tecnica del Norte, and in the Escuela Superior Politecnica del Chimborazo, in order to determine both the chemical and physical characteristics.

For the physical characteristic 30 samples were used with 3 repetitions each to determine the chemical composition, 3 samples with 3 repetitions were used.

The results that were obtained were processed and organized in the following order in a table of results, designed by the INEN, determining the percentage, standard deviation

The limitation of range and reliability; in three repetitions..

Nine physical tests were done: longitude, diameter, weight, the peel average, the pulp average, volume, penetration resistance, density, refraction index, the most relevant being the longitude of : 14,345 cm; and a average weight of 376,62

In the 18 tests done the quematical composition such as ph, humidity, acidity, soluble solidity, total solidity, reduction of sugar, total sugar, fiber, ethereal extract, proteins ashes, vitamins and minerals; the most important are: total sugar 14,193 %, Vitamin C 19,04 mg; Vitamin A 19,17 mg; Calcium 68,00 mg / 100g, Potassium 187,00 mg / 100g, Phosphorous 227,855 mg / 100 g, Iron 0,708 mg / 100 g, Sodium 172,22 mg / 100g.

The different values obtained were grouped in a general numerical table where all the laboratory work is summarized and we can visualize the synthesis of the physical characteristics and the chemical composition of the purple pulp camote, *Ipomea batata*,