

CHARACTERIZATION OF TOMATO SAUCE ENRICHED WITH PURSLANE (*PORTULACA OLERACEA*) LEAVES

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Abstract

The recent investigations have shown that we assist at a distorted intake of polyunsaturated fatty acids. This problem is considered one of the harmful aspects of daily diet. In this context the development of functional food enriched with omega 3 compound must be considered. Purslane was considered a proper omega-3 fatty acids source because it leafy contains the highest polyunsaturated fatty acids amount than any other vegetable. In this study the effects of fresh purslane leaves on the physico-chemical characteristics of tomato sauce was investigated.

The tomato sauces enriched with different fresh purslane leaves concentrations (in the range 1 - 10%, w/w) were subjected to one month monitoring and the specific parameters were measured (apparent viscosity, color, moisture, pH, total acidity, total soluble solids, ascorbic acid, and a_w). For the analysis of followed parameters specific equipment was used: the ViscoMeter DV-I Prime, the colorimeter Chroma Meter CR-400, the moisture analyzer - WPS 110 S, the water activity meter - Aqualab Lite, the pH meter HQ11d and a refractometer N 20E. The ascorbic acid concentration was determinate using a High Performance Liquid Chromatography (HPLC) Shmadzu system coupled with Ultraviolet - visible (UV-Vis) detector.

The addition of purslane to tomato sauce did not affect qualitatively the rheological properties of the sauce while addition of the leaves showed significant qualitative and quantitative differences. Moisture, total soluble solids, pH and total acidity values increased with increasing leaves content.

These results indicate that the application of purslane leaves in tomato-based food products would be desirable and beneficial.

Key words: *Balancing the omega amount, Fresh weed leaves, Improving sauces.*