

H7

DETERMINATION OF TOCOPHEROLS IN EDIBLE FLOWERS PROCESSED BY IONIZING RADIATION USING HPLC

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Edible flowers are used to add flavor, color, taste and visual appeal in gastronomic preparations such as sauces, salads, jelly, desserts and drinks. There are many edible flowers, rich in minerals, vitamins and other nutrients, which are very important for human nutrition. Ionizing radiation is applied for foods to improve their conservation quality, food safety, insect disinfestation and increase the shelf-life of food and is a method that can be used for the extension of shelf life of edible flowers. The purpose of this study was to evaluate the effects of ionizing radiation doses of control, 0.5, 0.8 and 1.0 kGy in edible flowers of spices *Tropaeolum majus*, *Rosa chinensis* and *Tagete patula*. High performance liquid chromatography (HPLC) was used for the determination of tocopherols (α -, β -, γ -, δ -tocopherol) with fluorescence detection (295 nm and 330 nm as preferred wavelengths) using Shim-pack NH₂ (25 mm x 4.6 mm, 5 μ m) column and hexane and isopropyl alcohol (99:1) as mobile phase. In the species of edible flowers analyzed it was found alpha, gamma, beta and delta tocopherol. However, alpha tocopherol form was predominant (8.29 to x 62.79 mg/100g) for all the edible flowers species. Moreover, flowers processed by radiation have not shown significantly difference when compared to the control sample.

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