

Abstract

Effect of Roasting and Marjoram on Selected Quality Parameters of Pumpkin Seeds and Oil [†]

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Abstract: In many countries, pumpkin seeds are popular snacks eaten raw or roasted. Roasting reduces the moisture content of the seeds and they gain a more fragile and delicate texture as well as a characteristic taste and smell. Pumpkin seeds are used to enrich bread, breakfast cereals and cakes. They are a valuable source of nutrients such as fat, proteins, dietary fiber as well as vitamins and minerals. Pumpkin seeds are used to obtain oil, which, apart from its nutritional and pharmacological properties, is characterised by specific sensory qualities such as colour and taste. The aim of this study was to investigate the effect of marjoram (*Origanum majorana* L.) during the roasting of pumpkin seeds on selected properties of both the seeds and the oil obtained. The material for the study consisted of pumpkin seeds which were roasted at 110 °C and 160 °C for 10 and 30 minutes without and with dry marjoram in the weight ratio of 10:1 (w/w). After roasting, the water activity and colour of the seeds were determined. In turn, the obtained oil was analysed with regard to the fatty acid composition, peroxide value (PV) and ability to scavenging DPPH radicals. The study showed that both moisture content and water activity of pumpkin seeds decreased after roasting compared to unroasted seeds, with the values obtained being slightly higher when roasting took place in the presence of marjoram. The presence of marjoram during roasting also caused a decrease in PV values of the oil extracted from pumpkin seeds. Oil samples obtained from pumpkin seeds roasted with marjoram showed a slightly higher ability to scavenging of DPPH radicals compared to oils roasted without the addition of this spice. However, the fatty acid composition did not change significantly. On the other hand, the values of parameter L* were higher for oil samples obtained without the addition of marjoram.

Keywords: pumpkin seed oil; fatty acid; roasting; antioxidant activity

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