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Chemical properties and nutritional factors of 5 different pressed-cakes

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The obtained pressed-cake still contains some valuable bioactive compounds thus these can be used in food products. The objective of this study was to determine the chemical composition and nutritional quality of 5 pressed-cakes.

The pumpkin seed has the highest protein content and a favorable amount of essential amino acid profile. We can eliminate the limiting amino acids (lysine, isoleucine) by mixing the raw materials differently.

The pumpkin- and sunflower seeds were the ones that approximated the value of most of the essential amino acids (EAA), in order to adequately meet the protein needs.

The PDCAAS values of sunflower seed (0.25) and flaxseed (0.23) were the highest, although these can also be considered lower digestibility, but this can be improved with additional processing steps during use in food production.

The DRV% results showed that the sunflower seed do not have the highest amino acid composition and DRV value.

Sunflower and hazelnut fat content had the highest (54%) and linseed has the lowest (20%). The saturated fatty acid (SFA) content of the examined samples is negligible in addition to the amount of monounsaturated and polyunsaturated (PUFA, MUFA), which is an important aspect for health preservation and promotion.

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Comparative analysis of Bologna sausages made from turkey meat raw material

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The aim of our research was to compare the characteristics of turkey fillet-, MDM- and MSM-based Bologna sausage. In addition, we also used water, pork fat, sodium nitrite salt mixture, and Soluprat for the production. 1 mix was 280 g. The products were heat treated in a can (75 °C, 55 min).

Summarizing our results, in most cases, MSM-based meat products differed from the other samples. The pH value and water activity of the MSM product didn't differ significantly from fillet and MDM product. During chemical composition tests, it was established that the fat content of the MSM-based product was significantly reduced in comparison to the pastes, thus MSM-based product had a higher protein content. It was observed that the MSM-based sample is darker, redder and similarly yellowish. The rheological properties of the MSM-based paste were worse compared to the other raw materials.

From the results of our research, the quality of MSM is inferior compared to the other, i.e. comparing a meat paste with the same chemical composition and the product, we produced a lower quality product. In order to be able to produce a same quality product, we may need to use more additives (e.g. stabilizers, emulsifiers).

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