

Mineral content of cheeses, produced from the milk of prolific-dairy Kołuda sheep

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The aim of the study was to determine the macro- and microelement content of sheep milk and sheep milk cheeses and to test them for the presence of heavy metals and arsenic. The study was carried out in two successive years based on the milk obtained from the prolific-dairy Kołuda sheep during May - September. The milk was processed into 5 types of cheese: rennet curd rennet cheese of „bundz" type (Tw), soft white cheese - „Bryndza owcza" (Pom), brine cheese feta-like - „Oveta Kołudzka (Ov), scalded-smoked cheese - „Kołudzki Wędzonek" (Wk), and semi-hard maturing cheese - „Ser Kołudzki" (Dj). The element content was determined using atomic spectrometry. The cheeses obtained differed in the content of solids, protein, fat, ash and solids not-fat. Scalded-smoked cheese (Wk) had the highest content of Ca (11.1 g/kg), Mg (0.6 g/kg), P (7.4 g/kg), Cr (0.10 mg/kg), Fe (4.04 mg/kg) and Zn (27.78 mg/kg) and the lowest content of K (0.80 g/kg). Brine cheese (Ov) was the lowest in Ca (4.93 g/kg), Mg (0.30 g/kg), P (3.90 g/kg), Fe (1.42 mg/kg) and Zn (12.78 mg/kg) and the highest in Na (17.83 g/kg) with a lower Ca : P ratio. Semi-hard maturing cheese (Dj) was characterized by a higher content of the analysed elements compared to Tw and Pom cheeses. Any presence of Cd, Hg, Pb and As in the milk or cheeses was not found.