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be neglected the overall presence of mycotoxins in feed samples. The following attention and strategies should be directed to reduce the exposure of humans and animals to mycotoxins in the continuous food chain for providing food and feed safety.

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Determination of radioactivity exposure in terms of radium equivalent and radiation risk index in the surrounding of the city of Skopje

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Introduction: The naturally present radionuclides have biological, radiotoxic and radio-pathogenic effects on the human organism. For this reason it is necessary to determine the content of radionuclides in the environment, and furthermore to calculate the dose that humans receive. Even though the majority of the population is settled in the city of Skopje and its surrounding, so far such studies have not been conducted; therefore this type of investigation is of particular interest.

Material and methods: The objective of this study was to determine the exposure to radiation due to distribution of ^{226}Ra, ^{232}Th and ^{40}K in the soil in the surrounding of the city of Skopje. Data were used from already measured activity concentrations of ^{226}Ra, ^{232}Th and ^{40}K in 14 soil samples using HPGe gamma spectrometer and the technique for registration of the fission monitoring. The exposure to radiation was defined in terms of radium equivalent - Ra_{eq} (Bq/kg) and radiation risk index - H_{eks}, calculated for each sampling location with the formula proposed by Beretka et al. (equation 1 and 2):

$$Ra_{eq} (Bq/kg) = A_{Ra} + 1.43A_{Th} + 0.07A_k \quad (1)$$

$$H_{eks} = A_{Ra}/370 + A_{Th}/259 + A_k/4810 \quad (2)$$

Results: The data obtained show that the mean value of radium equivalent revealed in this research is 142.81 Bq/kg and is far below the value of 370 Bq/kg, which corresponds to a dose for the population of 1 mSv. However this value is somewhat higher than the world's average, being 129.7 Bq/kg. The mean value of the radiation risk index is 0.40, which shows that there is no high radiation risk for the population in the city of Skopje. By comparison of the results from this study and values measured in other countries, it was concluded that there is no significant difference in the radioactivity exposure in terms of Ra_{eq} and H_{eks}.

Conclusion: The knowledge for the concentration of natural radioactivity is essential for the assessment of the present and estimation of the future radioactive pollution in the environment. On the basis of data measured and calculated, one may conclude that there is no high radiation risk for the population in the city of Skopje. However, continuous and systematic examination is necessary in order to assess any changes in the level of natural and artificial radioactivity. The results obtained within this study are useful as basis for radiological mapping of the area studied, as well as for enrichment of the world's data bank.

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Overview over chemical composition of some selected feeds for sheep and lambs

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Introduction: The proper nutrition plays a major role in the overall productivity, health, and well-being of the sheep flock. The daily diet of the youth must be adapted to their need for development and the nutrient requirements of the sheep vary with differences in age, body weight, and stage of production. During the grazing season, sheep are able to meet their nutrient requirements from pasture and additional nutrient supplementation is required during the winter period. Poor nutrition can lead to reduced fertility, poor lamb survival, low growth rates and can contribute to ewe and lamb mortality.

Material and methods: As an object of analysis in this research are 20 randomly selected fodder mixtures from 8 different manufacturers in Republic of Macedonia in which are included 14 fodder mixtures for lambs and 6 fodder mixtures for sheep, by examining the most significant parameters in accordance with the Regulation for Quality of animal feed such as: protein concentration (ISO standard 5983-2:2005), moisture content (ISO standard 6496:1999), mineral matter (ISO standard 5984:2002), fiber content (ISO standard 6865:2000) and fat content (ISO standard 6492:1999).

Results: The results from this study show a clear picture about the quality of the animal feed which is used during different stages of ewe's production and lamb growth. After lambing, the energy and protein requirements of the ewe increase by 30 and 55 %, respectively. Reduced intake may results in excessive body weight loss, low milk production, mismothering, and poor lamb gains. In examined samples, total protein content is between 13.3-18.7% which is in accordance with the Regulation for Quality of animal feed. Fibers are an energy source that is important for the rumen function and it's concentration in the tested samples is between 4.9-12.2% depending