

Copper – an important trace element for animals

Summary

Copper is an essential trace element which determines the normal functioning of animal organisms. Copper plays a role in cellular metabolism, e.g. as an activator of numerous enzymes, hormones and vitamins. It is essential for the growth and development process in animals. An appropriate level of copper in the animal diet is important, as both deficiencies and excess levels of copper lead to undesirable effects. The mean copper concentration in the liver of ruminants from the Mazovia region was found to be 20.02 mg·kg⁻¹ wet weight in the liver and 3.97 in the kidney, while in carnivores it was 20.91 mg·kg⁻¹ wet weight in the liver and 2.76 mg·kg⁻¹ wet weight in the kidney. The lowest mean concentration of copper was noted in the muscles, with values of 1.43 and 0.84 mg·kg⁻¹ wet weight for ruminants and carnivores, respectively.

KEY WORDS: animals, copper deficiency, copper excess, copper metabolism, essential trace element