

## Content of minerals and toxic trace elements in meat, fish bones and tissues of breded freshwater fish

Zawartość składników mineralnych i śladowych pierwiastków toksycznych w mięsie, ościach i tkankach ryb słodkowodnych pochodzących z hodowli

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The meat of freshwater fish is a good source of dietary protein. Compared to other animal products, fishes are also characterized by lower fat and cholesterol content. They are a good source of phosphorus, calcium, potassium, selenium, and vitamin B, contain no carbohydrates and naturally have a low sodium level. Moreover, due to the controlled conditions of feeding and inbreeding they are characterized by lower amount of toxic trace elements. The following five species of freshwater fish: pike (*Esox lucius*), carp (*Cyprinus carpio*), tench (*Tinca tinca*), catfish (*Silurus glanis*) and sturgeon (*Acipenser oxyrinchus*), caught in autumn (September) from the ponds of the Lower Silesia were analyzed. Muscles, fish bones, gills, liver, spleen and kidneys were cut out from the carcasses. Comparative analysis of the content of minerals and toxic trace elements in fishes' edible and non-consumption parts were conducted by atomic absorption spectrometry using a flame and graphite furnace (Varian AA240FS + GTA 120) after 'wet' mineralization (MARS 5).

The content of trace toxic elements – lead, cadmium and arsenic – was lower than permitted by legislation. The content of minerals – potassium, sodium, calcium, copper, magnesium, iron and zinc – was statistically significant depending on fish species and anatomical part.