

Abstract

The work is part of an extensive study, conducted over two years, which followed the main monitoring mechanisms and relationships involved in the trophic chain soil-plant-animal in an determined area, and continuing with the determination of quality indices of agro-livestock production, as it is known that for agricultural products, food value and quality are assessed by the content of nutrients. Food security depends on the efforts of each partaker in the food chain, from farmer to consumer. The first step is the manufacturer's control, maintaining standard requiring specific methods and techniques with adequate supervision, which verifies food quality, provenience and processing technology used for obtaining it. This paper presents results of the cadmium content in agricultural soils from two locations neighboring Iasi, forage crops area belonging to the Research Station for Cattle Growth Dancu and SC "Daniela" SRL Răducăneni-Iasi. It is widely recognized accumulation of cadmium in the environment due to activities of non-ferrous metal industries and the burning of fossil fuels. Due to the high bioavailability of Cd to plants, plants absorb easily translocated metal in soils containing 2-15 ppm Cd. The present study focused on the determination of cadmium in the first level from the trophic chain - soil, Cd accumulation over limits has a harmful effect in animal nutrition. For both sites, cadmium concentration exceeded the maximum permissible ground level but not the alert value of 3.0 mg / kg-1. This is why the study undertaken, the research starts cadmium concentration in soil, taking into discussion two adjacent areas of Iasi, where are areas with a potential risk of exceeding the permissible limits, forage crops being influenced from industrial emissions.

Key words: cadmium, soil, forage