DETERMINATION OF SELENIUM IN PLANTS-INDICATORS AND FORAGES BY ATOMIC ABSORPTION SPECTROPHOTOMETRY WITH ELECTRO-THERMAL ATOMIZATION

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The study of levels of natural receipt of selenium in the organism of animals is important, first of all, for the optimal providing of ruminant animals this element in a pascual period. A low level of selenium is in soils in combination with their high acidity, at predominance on the pastures of cereal herbares, can cause the signs of deficit of selenium in ruminant animals. In default of correction of ration, on maintenance this element, can result in the decline of the productivity of animals and metabolic disturbance. With the aim of prevention of deficit of selenium for agricultural animals, it is necessary to conduct research of his content in soils of pastures also migration to the microelements in plants that make basis of ration of ruminant animals.

In article are present date about content of selenium in soil, forage and indicators-plants that are considered of selenium content in the soils.

Data have been obtained in the process development of methods for determining the content of selenium in feed using the method of atomic-absorption spectrophotometry (AAS) with electro-thermal atomization (EA). Digestion of samples of hay, straw, silage, soil and plants was carried out with a mixture of acids in the closed system of autoclaves using microwave mineralization method (MM).

The effectiveness of the developed method for the criterion of added-received, verified addition to samples known content of analyte.

The lower threshold determination methodology allows determine selenium in feed different origins at 2 μg / kg. The data suggest the possibility of using methods not only for feed analysis, artificially enriched with selenium, by adding its compounds in the composition of feed additives and premixes, and for the analysis of roughage, characterized by low natural content of the element in them.

**Keywords:** SELENIUM, FORAGE, SOIL, ATOMIC ABSORPTION SPECTROPHOTOMETRY, ELECTRO-THERMAL ATOMIZATION, MICROWAVE MINERALIZATION.