THE EFFECTIVENESS OF FERTILIZERS ON NUTRIENT BALANCE IN TERMS OF SOIL DEGRADATION IN REPUBLIC OF MOLDOVA

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Abstract. *The paper presents the research results on the application of fertilizers in the agriculture of Moldova during 1961-2010. In the recent years the average doses of applied fertilizers were 25 kg/ha. About 90-95% of the total quantities constitute nitrogen fertilizers. The soil nutrients balance is negative, as a result yields are small and low quality. During the period of the 1991-2012 yrs the nutrients deficiency for each hectare was annually: 59 kg N, 14 kg P_2O_5 and 80 kg K_2O. The annual requirement of the total fertilizers for agriculture of Moldova currently consist 240 thousand tones in the active substance. During the last years, the state programs for the remediation of the chemical, physical and biological soil properties, cantering the soil and water protection by the nutrient pollution and substances of plant protection products have been developed that will conduct to remediation of this situation.*

Key words: agriculture, crop, fertilizer, harvest, nutrient balance

1.Introduction

According to the Statistical Yearbook of Moldova on January 1, 2013 the total area of lands was 3.3846 thousand ha, including the agricultural lands – 2.498 thousand ha (73.8%), forest lands – 464 thousand ha (13.7%). From the total area of agricultural lands (farmlands) of 2.498 thousand ha, the arable lands constitute 1.814 thousand ha (72.6%), orchards occupy 135 thousands ha (5.4%), vineyards – 142.6 thousands ha (5.7%) and pastures – 349 thousands ha (14.0%) [1].
The share of farmlands is inadmissible large (73.8%) and for forest is 5.4 times less than optimal ones. The unbalance between natural and anthropogenic ecosystems causes the amplification of the various forms of land degradation.

2.Materials and Methods

The paper is based on the data collected from various sources, mainly from literature in the field and statistical data base in order to characterize the fertilizers effect on nutrient balance in terms of soil degradation.
Analysis, synthesis, comparisons are among he main methods used in this study.

3.Results and Discussions

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