

ORGANOMINERAL FERTILIZERS ON THE LIGNITE SUPPORT – ECOLOGICAL SOURCES OF BALANCED FERTILIZATION OF CROPS IN SUSTAINABLE AGRICULTURE

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Abstract. Obtain high yields on soils with low humus requires systematic fertilization with organic fertilizers to ensure restoration of the reserve of soil humus. Since organic fertilizers are insufficient, and the classical chemical production in time and chemical pollution of soil and groundwater in recent years has taken a large, particularly in countries with advanced agriculture, industrial production of humic fertilizers on lignite support, leonardit and peat. These inferior coal capacity caloric content but with little significant humic acids facilitates the production of fertilizer effects of fertilizers and higher costs relatively lower than those of classical chemical.

In Romania, based on a range of humic fertilizers on lignite support from research conducted by National Research - Development Institute for Soil Science, Agrochemistry and Environmental Protection, Bucharest, was made in a RELANSIN project, in collaboration with SNLO Tg. Jiu a production of these fertilizers with a capacity of over 7000 tonnes / year, which came into service in 2008. In the paper presented the characteristics of fertilizers, the economic efficiency and possibilities to increase crop production on soils with low humus content.

Key words: organomineral fertilizers, lignite, effectiveness

Introduction

Fertilizers produced by industrial-type processes are the most important technical means to influence for plant growth by applying them directly in soil or on plants.

The main category of fertilizers used in modern agriculture are chemicals that are over 90% of industrial production and are used to based fertilized on cultivated land. In this way, essential nutrients elements are introduced into the mass of the explored soil by roots plant to ensuring the growth to average increase yields by 2-3 times compared to that obtained in the unfertilized soils [2].

Following the effectiveness of chemical fertilizers the global production of their to recorded a substantial growth in recent years, from 32 million tonnes in 1961 to 170 million tonnes in 2010-2011 (L. Maine, 2010).

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