International Invention of Scientific Journal
ISSN: 2457-0958

Available Online at http://iisj.in/index.php/iisj August, 2018|Volume 02|Issue 08|

On the availability of soil nutrients of the Azerbaijan part of the Lesser Caucasus

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Accepted 2018-06-28, Published 2018-08-01

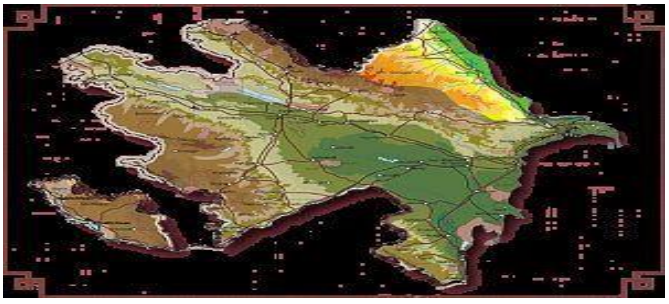
Abstract:

As a result of our study, it was determined the actual status of soils in South-Eastern part of the Lesser Caucasus Mountains, in one of the most ancient agricultural zones of the Republic, where it was studied the agroecological characteristics eroded soil here. Detected system correction coefficients for soil properties and their degree of erosion soil quality. the establishment was based on indicators of soil fertility and the climatic peculiarities of the region formed the cartogram gives quality. view of the extent of vertical zonality of soil productivity, which required the large-scale implementation in the industry. Taking into account the quality points are designed for and fully recommended scientifically based system of erosion control measures. Genetic and production evaluation of land located in the system of vertical zonality, different in their genetic properties and taxonomic affiliation and bonitirovochnaja grouping of eroded soils in conditions of Azerbaijan.

Key Words: Cartogram, scale, slope, soil erosion, glossary, mineral fertilizers, crop yields.

Introduction:

Rational use of the Land Fund is one of the main objectives of Socialist agriculture. Proper use of land contributes to the increase of agricultural production, lowers it costs. In the mountainous areas under the influence of erosion processes reduced soil fertility and productivity of land, resulting in diminishing productivity of summer and winter pastures, crops, worsening crop quality indicators. On eroded slopes due to deteriorating soil fertility, crop yields in en medio de la erosion soils falls in -2 times, and on fuerte eradication in 3-4 times in comparison with non-eroded. The complex of activities that ensure the improvement of soil fertility and getting them, high yields crops of great importance is the differential application of mineral fertilizers, which include phosphate and potash fertilizers.



The aim of the study was the following:

In order to apply rational doses of phosphate and potash fertilizers and crop fertility alignment, it is necessary to cartograms the content of digestible phosphorus in soils and potassium Exchange and grouped according to their level of soil Security.

Progress in the study and discussion of the results:

To this end was drafted cartogram availability of soil the South-Eastern part of the Lesser Caucasus asimilable phosphorus (p_2o_5) and Exchange potassium (k_2o_5). The main criteria for the development of bonitoes the scale formed genetic-productive features of soils, agro-ecological and biogeography factors of the region. As a result, soil as a reference for the mountain-meadow zone taken sin lavar mountain-meadow-steppe, mountain-forest-forest sin lavar Brown leached, farming-mining sin lavar Brown steppefied.

Ecology- bonitower grouping and cartogram soil quality can serve as a scientific basis for assessment of eroded soils of different fertility potential. Introduction of the developed conservation activities will contribute to the protection of land territory and improve the efficiency of agriculture. When planning to use lands under various crops should be

guided by the cartograms soil quality. Mineral fertilizers under the principal crops should be made on the basis of the cartograms nutrients using la protección del suelo machinery. It is established that the amount of phosphorus in soils, mainly depends on the geochemical characteristics of soil formation and the content of this element in the soil forming rocks. In this regard, the soil of the area provided asimilable phosphorus (p_2o_5) to varying degrees, the number of digestible phosphorus in 0-30 cm layer ranges from 15 to 45 mg/kg, which includes the amplitude of the graduation degree of soil from a very weak security to high. Based on universally accepted grading, soil area on content of digestible phosphorus (p_2o_5) combined into the following groups: very weak, -15-15-30, 30-45 and average increased more than 45 mg/kg.

1. Soils group this group provided asimilable phosphorus (p_2o_5) in a very weak degree. 0-30 cm layer of phosphorus content and exceeds 15 mg/kg the area occupied by the likes of soils is 23662.5 hectares or 33.48 percent of the total area of the district and is in need of an intensive introduction of phosphate fertilizers.
2. group. The soil of this group provided asimilable phosphorus in weak degree. In 0-30 cm layer contains 15-20 mg/kg of phosphorus. The soil of this group occupies 35367.0 hectares or 50.03% and need intensive introduction of phosphate fertilizers.
3. group. This group provided asimilable phosphorus in high degree. The content of the substance 0-30 cm layer ranges from 30 to 45 mg/kg. The soil of this group occupies 6900.0 hectares or 9.76% of the total area of the district and need differentiated making phosphate fertilizers.
4. soil band. Provided with phosphorus and high degree of assimilable. The content of the substance 0-30 cm soil layer is more than 45 mg/kg. Soil, members of this group occupy 2627.5 hectares or 3.72% of the total area of the district. When you use these soils under crops should reduce the dose applied phosphorus on 50%.

The soil of the area according to the degree of availability of Exchange potassium (k_2o_5) combined into the following groups: very weak-less than 300; 300-400; average weak-400-600 and increased-more than 600 mg/kg.

1. I group-soils of this group are provided with very low rates of potassium. In 0-20 cm layer of Exchange potassium content not exceeding 300 mg/kg. The total area of these soils is 42327.5 hectares or 59.88% of the total area of the district.
2. The soil 2-nd group of poorly secured Exchange potassium (K_2O_5). Exchange potassium Quantity ranges from 301.2 to 397.6 mg/kg Soil this group occupies 9222.0 ha, or 13.05% of the total area of the district.
3. Group 3-Soils of this group in moderately secured Exchange potassium (K_2O_5) the content of which is from 407.2 to 590.4 mg/kg Soil this group occupies 13495.0 ha or 19.09% of the total area.
4. 4-I group-this group provided Soil potassium in high degree. In 0-30 cm layer of potassium content exceeding 600 mg/kg.

They basically represented the mountain-meadow and gornolesnymi types, the total area of 3512.5 hectares or 4.97% of the total area of the district. Given that the main criteria for the application of potash fertilizers under crops is assimilated forms availability of soils of this element, when introducing potassium fertilizers, you must use cartogramss. Under crops and vineyards on the weak and average security soils to make the full rule of potassium on the background of nitrogen and phosphorus. To secured sites under a dose needed to make ½ but under cereal 1/3 from the full rules.

The conclusions of the:

Ecology- bonitower grouping and cartogram soil quality can serve as a scientific basis for assessment of eroded soils of different fertility potential. Introduction of the developed conservation activities will contribute to the protection of land territory and improve the efficiency of agriculture. On the gentle slopes of the need to conduct landing perennials, tillage implement across a slope; on silnosmytyh plots producing seeding of perennial grasses, as well as to establish shelterbelts forest plantings. When planning to use lands under various crops should be guided by the cartograms soil quality.

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