

RESEARCH ON THE AGROCHEMICAL POTENTIAL OF LAND WITHIN THE EZARENI FARM, IASI COUNTY

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Abstract

Soil fertility represents the ability to provide plants throughout the vegetation period, permanently and simultaneously with nutrients and water, in quantities satisfactory to their needs. The assessment of the nitrogen supply status of plants is influenced by the organic matter content in the soil that stores more than 80% of the total nitrogen reserve in the analyzed layer. Under the action of microorganisms in the soil, the mineralization of organic matter takes place, with the release in the form of ammonia (the ammonia process) then it is oxidized and converted into nitrates (the nitrification process) both forms accessible to plants, easily leaching also, especially the second form that is not fixed in any mineral or organic compounds in the soil. The topographic plot *127a* analyzed in the study belongs to Research Station of Ezareni, part of the Iasi University of Life Sciences, occupying an area of 12,90 ha, in which the sunflower crop was sown. Two agrochemical samples were taken after the sunflower crop was harvested. The land is located on the southern part of the farm, on a plateau with an overall slope of less than 5 % and oscillates in the eastern part between 5-7 %, with a minimum altitude of 92 m in the eastern part, and in the western part the maximum of 122 m, with an eastern exposure. After sampling of agrochemical samples, the removal of plant residues and their grinding followed, and subsequently introduced into the analytical flow of the chemistry laboratory where the following determinations were carried out: pH, humus content, nitrogen index, P-ppm, K-ppm, Fe-ppm, Mn-ppm, Cu-ppm.

Key words: fertility, humus, pH