

AGRICULTURAL LAND QUALITY IN ION NECULCE COMMUNE, IAȘI COUNTY

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Abstract

Fertility is the most important soil characteristic and is defined by all its physical, chemical and biological features, which provide the plants with the necessary amounts of nutrients during their vegetation. Land generally has a natural fertility formed during the soil genesis process and an artificial fertility which is the result of human intervention, in the natural soil evolution, by breeding improvement measures. Agricultural land quality is determined by land quality and productivity assessment, according to which agricultural land in Romania is classified in five quality categories. Land quality and productivity assessment is conducted on land areas as homogeneous as possible from the viewpoint of its environmental conditions and vegetation factors. In the Ion Neculce administrative-territorial unit, the 76 simple soil units and 14 complex soil units identified, belonging to the Protisoils, Chernisoils, Luvisols, Hydrisoils, Salsodisols and Antrisoils classes, were included, depending on their slope and exposure, in elementary land units, which resulted in 340 simple ecologically homogeneous territories and 91 complex ones. Relying on the land quality and productivity assessment grades calculated for the 431 ecologically homogeneous territories, we decided that the surveyed land belonged to the arable use category, i.e. to II, III, IV and V quality classes. 48% of the total mapped area of 6338 ha belongs to the lower quality classes, namely IV and V, 39% to the III quality class and only 13% to the higher II quality class.

Keywords: agricultural land quality assessment, ecologically homogeneous land, soil units
