

ABOUT SOLVING THE PROBLEM OF BIO-LAND FARMING AS THE BASIS FOR THE DEVELOPMENT OF THE COUNTRY'S AGRICULTURAL SECTOR AND TASKS OF ITS GEOINFORMATION SUPPORT

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The article is devoted to the problem of rational use of natural resources, primarily land resources, in particular soil fertility, thanks to which people exist on Earth. The law of soil fertility and the role of organic matter and carbon in its formation are briefly justified. The assessment of the state of the world's land resources is given, when millions of hectares of fertile soil annually go out of agricultural circulation because of soil degradation due to imperfect technologies of plant cultivation and other factors of anthropogenic impact. It is possible to stop this process, which has been going on for more than two thousand years, by knowing and observing the law of soil fertility and the principles of bio-land management. Bio-land management in modern conditions is becoming an innovative process for managing the cultivation of cultivated plants and increasing soil fertility in specific agro-ecological conditions. The process is based on regulating the complex interaction of the soil with various types of plants, animals and microorganisms that provide their protection from diseases, pests and weeds in a biological way. Among the main principles of bio-land management, we will highlight root rotation (alternation of plants with different types of root systems in depth and width of penetration into the soil), endaphic and epiphytic microbiological processes that are the basis for the existence of soil and its fertility on the planet and in agricultural production. In the result of a systematic generalization of the basic theoretical positions of organic farming, their practical confirmation of the law formulated by the fertility of the soil, defined as follows: soil fertility in the process of its formation and use in proportion to the balance of organic matter created through photosynthesis of plants involving carbon and other chemical elements in nutrient cycles (biosphere cycles, root turnover, endophytic and epiphytic processes), and electromagnetic systems of terrestrial and cosmic origin. In conclusion, the article formulated the main tasks and perspectives of geoinformation support of organic farming.

Key words: law of soil fertility, principles of bio-land management, carbon, organic matter, elements of mineral nutrition.

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