

**AGRONOMIC ASSESSMENT OF THE SUITABILITY
OF BOTTOM SEDIMENTS OF PONDS
FOR INCREASING SOIL FERTILITY**

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Abstract

At the international level one of the main problems are the increase the area of degraded lands and the decrease of soil quality. The development of measures to protect and increase soil fertility, rational management of soil resources is central to achieving the Sustainable Development goals and a zero level of land degradation. One of the possible directions is the use of local raw materials, in particular bottom sediments of fishing ponds. On the example of pilot objectives in the Kharkiv region a study was conducted and the chemical composition of bottom sediments of fishing ponds was analyzed. The assessment of their agronomic value, taking into account the content of organic matter, total carbon, the content of mobile compounds of nitrogen, phosphorus, potassium was performed. It was determined that 90-235 kg of organic matter, 18-48 kg of carbon, 1-7 kg of NPK, 32-63 kg of Ca are introduced into the soil by 1 ton of sediments. Fertilizing efficiency and predicted impact of bottom sediments on soil fertility indicators and crop productivity were evaluated.

Key words: agronomic value, bottom sediments, nutrients, organic matter, soil fertility.