Recultivation of oil-contaminated lands by example of leached black humus earth of Tatarstan

Shaidullina I., Yapparov A., Degtjarova I., Latypova V., Gadieva E. Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Field and laboratory research has been carried out to compare effectiveness and ecological safety of novel biotechnologies based on indigenous decomposing microorganisms combined with nanosorbent, as well as humic compounds, and conventional approach providing for agrotechnical operations and land treatment with manure, for recultivation of oil-contaminated lands by example of Tatarstan's leached black humus earth. It has been found out that in case of high levels of contamination, the novel technologies are more effectivecompared to conventional techniquesin that they enable to meet the standard for allowable residual oil content in soilsin a shorter period of time, and restore land fertility.

Keywords

Allowable residual oil content, Humic compounds, Indigenous decomposing microorganisms, Recultivation of oil-contaminated lands