Abstract.*Features Considered in Article Analytical approaches for systematic recovery machines for disability lesotehnycheskyh works.*
Keywords: Restoration, disability, Lesnaya machine

Annotation.*In paper the considered features of analytical approaches to systemacity of restoration of working capacity of mashines for forestry works.*
Key words: restoration, working capacity, forest mashine

UDC 502: 504

WAYS negative effects of lubricants on the environment

MF Kalivoshko, Doctor of Agricultural Sciences

Abstract. *Developed and recommended technical solutions to prevent the flow of fuel and lubricants in the soil, groundwater and underground environment. Structurally antifiltration soil (clay) screens and screens using polyethylene films are placed on pre-prepared natural soil, reducing the hazard class oil for protection.*

Keywords: oil, soil (clay) screen, the screen of polyethylene film, fuel and lubricants, ecology, environment, risk

Formulation of the problem. With a large selection of all the dangers of oil, let those that directly affect the ecological situation in the case of getting them in agricultural soils. Petroleum products are among the most common substances that pollute the environment. In addition to carbohydrates they contain oxygen, sulfur and nitrogen-compound. pollution petroleum environment has long attracted the attention of scientists, hygienists [2, 6].

Analysis of recent research. Petroleum products were among the first third-party chemical ingredients which are permissible content in the aquatic environment was studied and regulated [1, 3, 4]. In the early twentieth century. under the direction of G. Khlopin in zv˙yazku the massive oil pollution Tami rivers, conducted the first experimental study to study their impact on organisms. A few days after falling oil in water and aqueous solutions of soil, as a result of chemical and biological decomposition, the formation of other soluble components due to oxidation of carbohydrates, which is significantly higher toxicity. Besides gaseous hydrocarbons entering the atmosphere, undergo a series of

chemical reactions that lead to the formation of unwanted products that cause photochemical smog [5]. Oil and products of their transformations in hit the ground, like toxins, negative effect on microorganisms, higher plants and microscopic soil animals.

The purpose of research. Based on the fact that all ob˙yekty agricultural production have stocks of fuel and lubricants, or certain places where they may hit oil, the threat of contamination of soil and groundwater fuels and lubricants is rather high. If oil gets into the groundwater, they can be transferred to large areas and distance, causing significant damage to the ecology of the environment. The aim of our research was the development of technical measures to protect land from falling into their oil.

Results. Technical solutions to reduce the negative impact of oil on the soil and groundwater should include: reducing the amount of oil that can get into the environment; arrangement of excavation geomembrane; land reclamation, exposed to pollution. Reducing the amount of oil that can get to the soil and the environment is achieved organizational measures, technical improvement of machines, their components and so on.

Do not allow oil pollution at their spills, soil, groundwater groundwater and the environment is largely possible arrangement earth geomembrane, which are quite effective.

To this end, we studied the efficiency of use, soil (clay) screens, Fig. 1; Display using polyethylene films, Fig. 2.

Efficiency screens of different thicknesses of clay and heavy clay soils on their effectiveness in the soil gets fuel and lubricants.

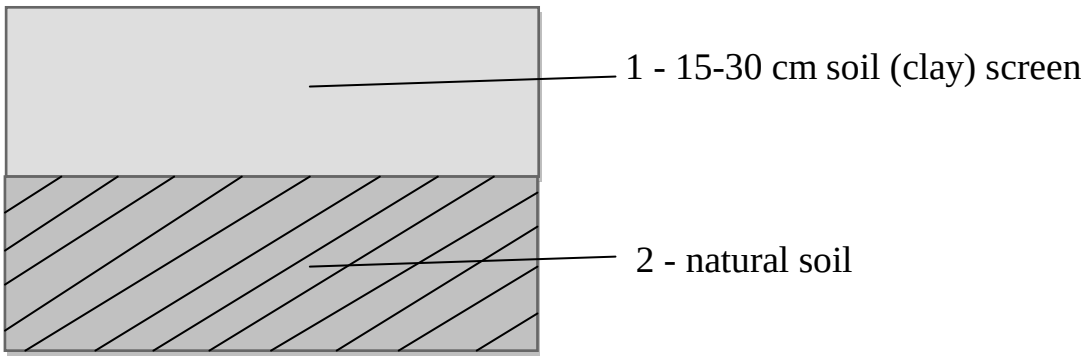

Fig. 1. Clay screen 1 - soil (clay) screen; 2 - natural soil.

Analysis of soil screens of different thickness shows that if the pre-prepared soil put a layer of clay or heavy clay soils (clay particles content of at least 30%) layer 15 - 30 cm processed sodium chloride and cam rollers, the soil filtration coefficient of less than 10 cm, which is almost impossible penetration of oil into the groundwater. Geomembrane of the following penetrating little

clay or clay soils should be used in this case as in the area of storage and use of petroleum products is clay soils, characterized by a large penetrating properties.

Geomembrane of polyethylene films should be used in the following cases: if a district of warehouses use of fuels and lubricants; no clay soils suitable for the installation of screens; with complication of laying clay soil in the screen due to climatic and production conditions; the regeneration depots of fuel and materials on light soils with high filtration.

To create a geomembrane recommended stabilized polyethylene film, which is characterized by the following properties: density - at least 0.92 g / cc; destructive tension in the stretch - 14 MPa; elongation at break - 350%; high frost - 60%.

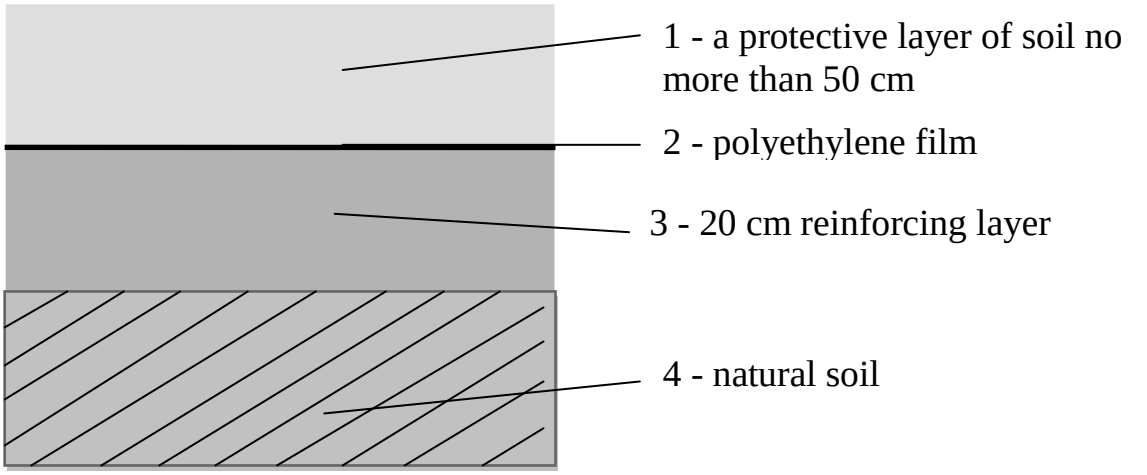

Fig. 2. Screen with plastic wrap: 1 - a protective layer of soil no more than 50 cm; 2 - polyethylene film; 3 - 20 cm reinforcing layer; 4 - natural soil.

Thus, construction land geomembrane allows to prevent the penetration of oil into the soil, groundwater and adversely affect the environment.

Conclusion. During the construction of warehouses fuels and lubricants and fuel depots operated on agricultural ob˙yektah should equip earthen geomembrane.

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Abstract.*Razrabotanы and rekomendovanы tehnycheskye solutions for nedopuschenyyu postuplenyya-flammable lubricants materials in the soil, water and podzemnыe hruntovыe okruzhayuschey environment. Structurally protyvofyltratsyonnыe hruntovыe (hlynystыe) эkranы and эkranы s Using polyethylene films zaklyuchayutsya on preliminary podhotovlennыy pryrodnыy soil snyzhaet class petroleum danger for pryrodnoy environment.*

Keywords:*Oil products, The soil (hlynystыy) screen, screen IZ polyэtylenovoy film, flammable materials, Lubricants, ecology, okruzhayuschaya Wednesday, Danger*

Annotation.*Developed and recommended technical solutions to prevent the flow of fuel and lubricants in the soil, groundwater groundwater and the environment. Structurally antifiltration soil (clay) screens and screens using polyethylene films are placed on pre-prepared natural soil, Reducing the hazard class petroleum products to the environment.*

Key words: *petroleum products, soil (clay) shield,shield of* polyethylene *film, fuel and lubricants, Ecology, environment, danger*

UDC 631.33

APPLICATION volume method for dispensing liquid mineral fertilizers

Kosovets Yu, a graduate student *

Abstract.*The analysis of the current state and trends of controls and maintain standards in mass flow sensor for liquid fertilizers.*

Keywords: liquid fertilizers, dosing, variable application rate

Formulation of the problem. Adding fertilizers in liquid form has certain economic and technological advantages Compared with granular and powder, so attention to liquid fertilizers is growing every year.