

PREPARATION MACHINE FOR GREENHOUSES

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ANNOTATION

The article discusses the problems of developing machines with high productivity and quality, energy-saving. Based on the results of the research, a technical development was given.

Keywords: Energy-saving, processing, planting, frame, hanging device, softeners, leveler, wing forming wing.

INTRODUCTION

The world is a leader in the development and application of high-yield, energy-efficient machines that work the land before planting. At a time when food shortages are being felt around the world, the demand for it is growing. Today, the world spends \$ 1.8 billion annually to plant the seeds of agricultural crops. Given the fact that more than a hectare of land is cultivated, the machines used in pre-sowing tillage must first be energy-efficient, high-quality and productive. In this regard, it is important to improve the technical means used in pre-sowing tillage on a scientific basis.

Targeted research is being carried out around the world to create new models of resource-saving technologies and equipment for preparing fields for sowing before sowing seeds, to develop scientific and technical bases for improving existing ones, to ensure resource efficiency in the work process.

Reduction of labor and energy consumption in agricultural production of the Republic, resource saving, agriculture Special attention is paid to the cultivation of crops on the basis of advanced technologies and the development of high-efficiency agricultural machinery.

The Action Strategy for the further development of the Republic of Uzbekistan for 2017-2021 includes, among other things, “modernization and accelerated development of agriculture, further improvement of irrigated lands, development of reclamation and irrigation networks, intensive approaches to agricultural production, primarily water and introduction of modern resource-saving agro-technologies, wide use of high-yielding agricultural machinery”. In fulfilling these tasks, it is important to reduce the material and energy consumption of existing chisel cultivators, to ensure resource savings through their technical and technological modernization, to improve the quality and productivity of work.

J.Balaton, Spoor Gordon (Germany), R.Blackstein, J.V. Stafford, A.Geiki (England), K.Araya, K.Kawanishi, R.Soucek, S.Anisch, S.Woif (USA), I.M.Panov, N.M.Orlov, G.V.Plyushchev, and others engaged.

In this direction in our republic M.Murodov, R.I.Boymetov, F.M.Mamatov, A.Tukhtakuziev, I.T.Ergashev, V.R.Sergienko, M.Mirahmatov, O.R.Kenjaev, N.S.Bibutov , A.K.Igamberdiev, H.R.Gafforov, A.A.Nasriddinov, H.Turgunov, R.A.Abdurahmonov and others.

The machines and devices created on the basis of the results of these researches are being used in agricultural production with certain positive results. However, in the above-mentioned works, the issues of substantiation of the work process and parameters of the machines used in the preparation of the combined lands, which fully process them in one pass from the field in preparation for sowing, have not been sufficiently studied.

For example, in order to grow high yields in the conditions of the Republic, the main areas, ie saline washed and moist drainage lands, need to be cultivated at a depth of 14-18 cm before planting (in Bukhara region with very saline soils at a depth of 22-24 cm). Combined machines manufactured abroad are mainly capable of processing at a depth of 8-12 cm. It should also be noted that the cost of machines produced abroad leads to a decrease in the efficiency of agricultural production.

Based on the above, members of the Department of "Vehicle Engineering" of the Bukhara Institute of Engineering and Technology presented "Energy-saving technology and mechanical problems in the substantiation of tillage machines."

In the field of science in the conditions of the republic developed a combined machine, which is used in the preparation of vegetables for planting in greenhouses.

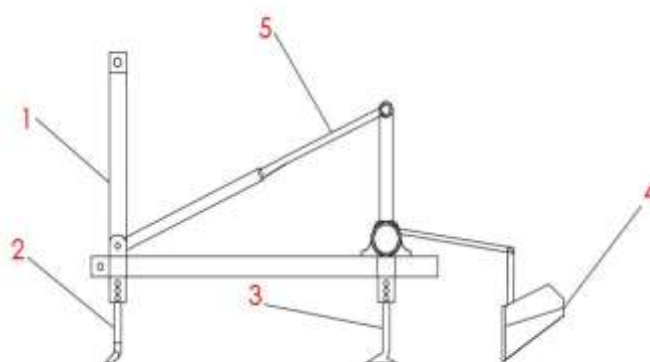


Figure 1

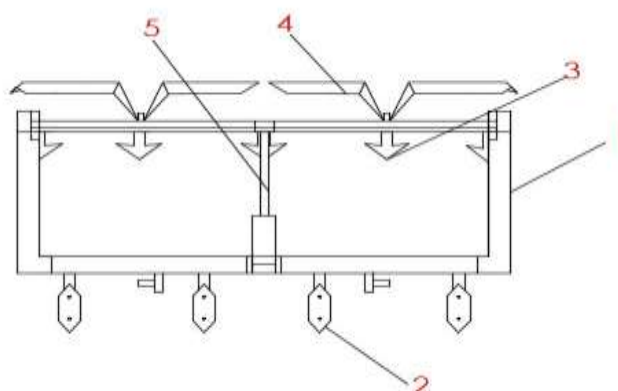


Figure 2

It consists of a frame, a hanging device mounted on it, as well as working bodies, which, depending on the process performed, consist of a series of softeners, levelers and a generator formed in the frame. During the work, the softeners soften the soil to a depth of 14-24 cm, the wings mounted on the cultivator form a pile for planting vegetables, compact and form a soft layer of soil that ensures moisture retention, ie the soil is ready for planting in one pass. This significantly reduces the consumption of labor, energy and fuel and lubricants, and ensures that the soil is not over-compacted.

This research is a priority of the development of science and technology in the "Energy, energy and resource conservation" and the "Program for the study of scientific solutions to global, regional and territorial problems for 2022-2026" approved by the Cabinet of Ministers on April 24, 2021. compatible.

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ELECTRONIC SITES

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