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ADVANTAGE OF IMPROVED WORKING EQUIPMENT IN FLOOR HARVESTING

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Abstract: The article focuses on the importance of the machine and the floor in the fields of grain crops. In order to prevent this, an improved floor forming device is offered. Thus, to irrigate grain fields, laying of floors is done, divided into sections, and replanting is done from the sides of the floors.

Key words: floor, hopper, crop, ground, frame, plow, guide, hopper, seed drive, working columns softening the floor, seeder packing grain on the ground, conveyor delivering grain to the planter, molasses compacting around the floors, grain fields.

The development of agriculture is inextricably linked with the development of science and technology. In the agriculture of our republic, in addition to cotton, grain, vegetable, and horticultural products are grown. To provide the population and industry of the republic with abundant, cheap and high-quality agricultural products, the introduction of advanced technologies in production, it is required to carry out the works related to crop care in a short agrotechnical period and to make effective use of modern agricultural techniques created on the basis of the latest achievements of science and technology. The President of our Republic expressed the importance of modernization of agriculture as follows: "We have learned to understand the modernization of industrial sectors when we say modernization. However, along with industry, there is a great need to modernize the leading sector of our economy, such as agriculture, and carry out technical and technological renewal works in the entire complex of almost all industries and production sectors that are part of it. At the core of these thoughts, important tasks such as modernization of the agricultural network based not only on the techniques and technologies brought from abroad, but also the development of existing techniques in our Republic and the introduction of new ones were expressed. [1,2]

At present, obtaining a high yield from agricultural crops is the most urgent topic.

The harvest obtained in agriculture is grown due to the assimilation and absorption of various substances contained in the soil by the crop.

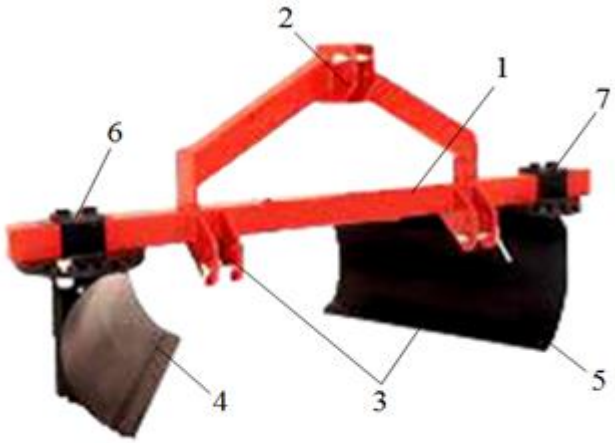
Among the grain rows, the following differences are observed in the fields where the floor is not formed compared to the fields where the floor is formed:

1. Productivity is 15-30% lower depending on the relief and flatness of the field.
2. Water consumption should be 20-30% higher.
3. Formation of salt fragments in field irregularities.
4. Difficulty controlling the direction of water in the field.
5. The duration of watering is increased by 1.5-2 days.

There are several advantages to irrigating grain with floors:

1. The field is fully and uniformly irrigated.
2. Water wastage is reduced.
3. Convenience is created to control water in the field.
4. Continuous watering of cuttings ensures fast and high-quality execution of the technological process.
5. Salt particles are not formed.

The improved grain harvester unit is dedicated to agricultural production, that is, to efficient harvesting of land. That is, after planting the crop in the cultivated fields, it is divided into parts for irrigation. When the soil is removed with a plow, an empty area is formed on two sides of the cultivated fields, and the cultivated fields are not fully used. General view of the device used to create a floor in wheat fields.[3,4]

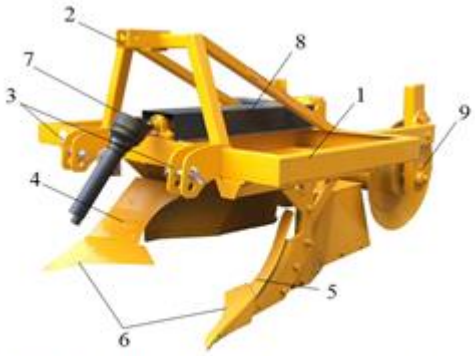


1 - picture. View of the floor forming device

1- frame; 2, 3 - suspension device; 4, 5 - working bodies with right and left curved surfaces; 6, 7 - mechanism for changing the coverage width

A floor-forming device with a working body with a curved surface is distinguished by the possibility of changing the coverage width. With this floor-forming device, it is possible to create floors with a base width of 1 meter and a height of up to 0.5 meters, mainly before planting crops or in areas free from crops. The device is mounted on tractors with a power of 50 hp. On the frame of the device, two right and left working

bodies with curved surfaces, which are opposite to each other, create a floor by accumulating the soil in the center.

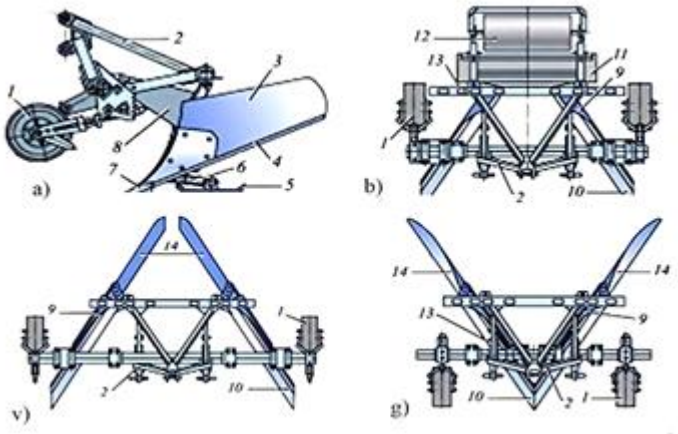


2 - picture. View of the floor forming device

1- frame; 2, 3 - suspension device; 4, 5 - the work bodies that collect the soil in the center; 6 - ploughshare; 7 - shaft; 8 - reducer; 9 - condensing coil.

The PR-0.5 floor forming device is designed to create 50 cm wide floors to prepare the field for irrigation at the same time as the current leveling process in empty fields. In addition, the device is widely used for leveling floors. This device is mainly aggregated with 4-5 class tractors.

KZU is a 0.3 D universal device, which is used for digging and burying temporary irrigation ditches, creating floors in plowed fields and leveling them. Flooring works using the KZU-0.3D device are widely used, especially in the regions of the third region, when preparing the land for autumn salt washing. This device is mainly used in fallow and fall plowed fields. The quality of the floor produced by the device is very high, and it can withstand the irrigation of large quantities of water (land washing with salt) when waterers distribute water over the floor in small contours.



3 - picture. KZU-0.3D universal device

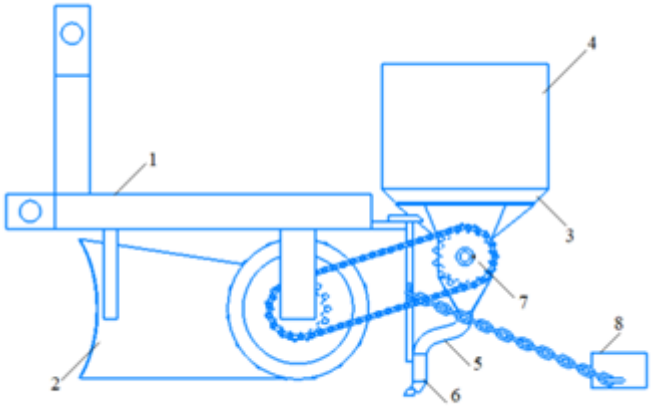
a-ditch digger; b-ditch drain; v-floor generator; g-floor leveler;

1-base wheels; 2nd main frame; 3, 9 - curved surfaces; 4, 10-blades; 5 - skis; 6 - handle; 7 - ploughshare; 8 - support; 11 - leveling board; 12 - coil; 13 - transverse column;

14 - curved surface extender.

Transverse and longitudinal floors are built using these devices. With this in mind, we offer an improved floor-laying unit in these grain fields to increase productivity. The advanced leveling device for grain planting fields consists of the main frame (1), opposing carts and blades (2), as well as additional planting equipment - grain collector (3), hopper (4), quantifier (5), column tines for loosening the soil (6), a seeder (soshnik) for sowing grain on the ground (7), a seed conveyor for delivering grain to the seeder (8) and a roller for compacting the soil around the planted crop (9) . A tractor with a power of 100-140 hp is selected when solving the problem set in the proposed useful model. The chassis (2) mounted on the frame (1) of the device is 90 cm in front and 30 cm in back. The grain in the bunker is collected in the seed collector and distributed there. Hopper capacity (4) reaches 250 kg.

The drive is provided by a power shaft located on the side of the seed metering tractor, and the seeds are constantly mixed. The column teeth (6) for loosening the soil serve as a support for the planting process around the soil piles and move the soil by 5 cm. To place the seeds on the ground, the seeds are welded to the working piles (7), which are mixed with the seeds through the spreaders.



4 - picture. Constructive scheme of the device

1- frame, 2- horse, 3- guide, 4- hopper, 5- conveyor, 6- planter that packs grain into the ground, 7- seed drive, 8- trowel that compacts around floors.

Delivery of planted seeds is provided by the seed conveyor (5). After the floor laying and planting processes are completed, the process of soil compaction is carried out with the help of rollers (8). Thus, in the open areas, for irrigation of grain fields, laying of floors is done, divided into sections, and replanting is done from the sides of the floors.

In agriculture, the area of application of the device is to maintain good melioration condition of fertile lands, to strictly follow irrigation rules, to increase efficiency by re-planting cereal crops in the area that has been opened under the plow. As a result of using the device, it is possible to increase the productivity of grain crops by 5-6%.

The reliability of the device, its productivity, the increase in work quality and efficiency, the reduction of energy consumption and the improvement of land

productivity. The device is made up of working bodies, a plow setter and a grain hopper, a softener, a leveling trowel. he measures the grain and carries out quality planting with the help of a softener and trowel. If 50 kg to 100 kg of grain are placed in the bunkers, it is possible to plant 10 ha of grain crops. It will be a great help to our farmers to get a pala and plant grain crops under the pala in one pass.

SUMMARY

In grain fields, in general, before irrigation, transverse longitudinal floors are placed in the cultivated fields, because the irrigation is divided into fields, the water consumption increases. the two sides of this floor will remain empty, the device we offer creates a floor and plants crops on both sides of the floor, as a result, the coefficient of use of cultivated areas increases, and work efficiency and productivity increase.

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