IMPROVED UNDER-FILM IRRIGATION PIPE HEATING DEVICE

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Annotation. *The article talks about the process of drip irrigation under the film during cotton planting under the film and the shortcomings observed in it, as well as about improving the efficiency of the drip irrigation device under the film.*

Key words: *film, tillage, irrigation, machine, soil, reclamation, improved, irrigation.*

In accordance with the decision of the head of our state dated December 27, 2018 on the creation of favorable conditions for the widespread use of drip irrigation technologies in the cultivation of cotton raw materials, cotton raw materials will be produced at the expense of the state budget of the Republic of Uzbekistan. 8 million soums per hectare of arable land will be provided as a subsidy to producers to introduce drip irrigation technologies.

Interest costs on loans allocated to producers of cotton raw materials for the construction, reconstruction and purchase of components of drip irrigation systems at the expense of the state fund for the support of the development of entrepreneurship under the Cabinet of Ministers are determined by commercial banks. 10 percent of the part of the interest rate not exceeding 20 million soums per hectare is reimbursed.

According to experts, when using drip irrigation technology, 40-50% of water, 60% of fuel, and 40% of seeds are saved on 1 hectare of land. The effectiveness of mineral fertilizers increases by 30%, the biological ripening period of cotton is accelerated by 12-15 days, and the yield increases to 5-10 centners. Based on the tasks defined in the decision, 207 farms and 7 cluster organizations in the republic signed contracts with manufacturing and construction contracting organizations for the introduction of drip irrigation technology on an area of 11,573 hectares.

The Peng Sheng Uzbek-Chinese joint venture is engaged in the production of agricultural products based on modern technologies in Sirdarya district.

Figure 1.1. The process of planting seeds by laying irrigation pipes under the film

Peng Sheng Uzbek-Chinese joint venture was used to demonstrate the planting of seeds by laying irrigation pipes under the pile with the help of modern innovative technology and mechanisms of the People's Republic of China.

Figure 1.2. "Sfoggia Plastic Layer" Machine for laying irrigation pipes under the film

A general assessment of the level of water use in the irrigation process is called the useful performance coefficient (FIK) of the irrigation technique. The elements of irrigation techniques recommended for irrigation of agricultural crops are presented in Table 1.

As a result of the application of promising water-saving methods in irrigation, the following were achieved in practice, including:

• Irrigation from under the film (the amount of watering to the field is reduced to 20-25 percent, it is not taken);

• Irrigation from the ground (the amount of water supplied to the field is reduced to 25-30 percent, it is not taken);

• Drip irrigation (the amount of watering to the field is reduced to 35-65 percent of the usual amount, it is not taken);

Drip irrigation system is a pressurized irrigation network designed to deliver the amount of water equal to the plant's water needs to its root layer in the required period.

Today, many agricultural machinery manufacturing enterprises in our Republic and abroad are introducing technologies for laying drip irrigation pipes from the roof of a series of films. As an example, we can see a number of techniques of the agricultural supply organization "AGROKOMPLEKT" of the Russian Federation.

UPT-1 Under-the-film drip irrigation technology film and tunnel layer are designed for mulching the soil with a film or covering material, as well as laying a drip irrigation tape. Wheels can be installed to make holes in the film for planting seedlings and fertilizer planting machines. In addition, the film layer can be equipped with a bed form by laying the film later.

Figure 1.3. "UPT-1" Machine for laying irrigation pipes under the film

Field of application - the Republic of Belarus and the CIS countries have similar soil and climatic conditions. The relief of the field should be flat with a slope of no more than 8º.

STP film layers can be used both in open areas and in greenhouses and tunnels. The ability to adjust the height and width allows film layers to work smoothly on any surface, including flat surfaces, ridges and ridges. Required tractor power from 20 hp.

Figure 1.4. "UPT-1" Machine for laying irrigation pipes under the film

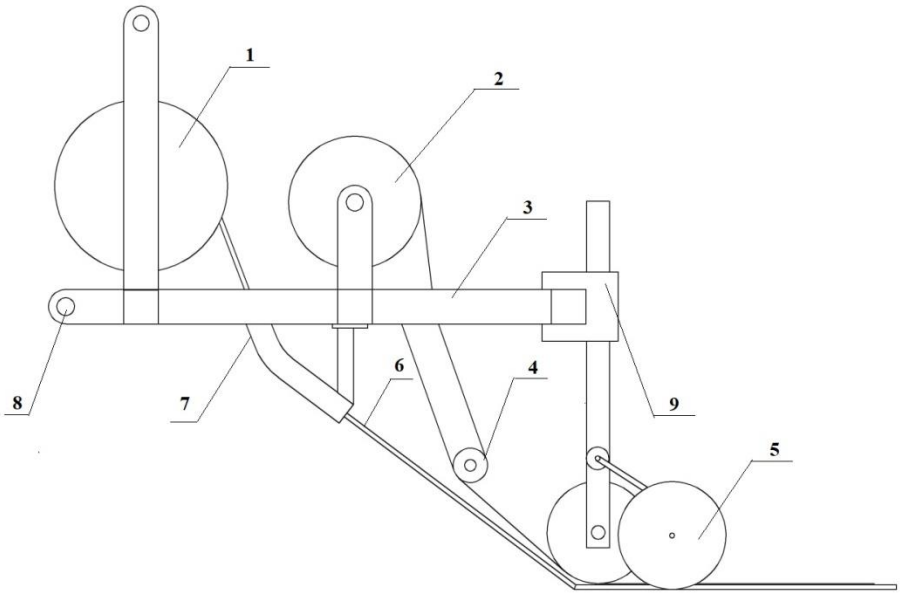
The film spreaders are mounted directly on the RLL of the tractor, but can also be used in conjunction with Cosmeco bed formers. At the same time, the time and costs

required for the complete preparation of the bed for planting (shaping, covering with a film, watering) are significantly reduced.

The frame of the film layer carries the film reel, which gradually descends due to the fall of the wheels and is laid on the pre-treated soil in an elongated manner, after which it wraps around the edges of two discs installed on both sides. fix the film with loose soil and fasten it to the surface.

Device for laying irrigation pipes under the film.

One of the problems with the use of drip irrigation system is that the water droplets evaporate under the sunlight during the hot season and weeds grow around the crops. In order to eliminate these problems, a device for laying irrigation pipes under the film is proposed (Fig. 1.5).



1.5 - picture. Device for laying irrigation pipes under the film.

1 - reel with flexible irrigation pipes, 2 - black film wrapped reel, 3 - base frame, 4 - black film guide, 5 - spherical discs, 6 - flexible pipe, 7 - connector, 8 - connector for guiding flexible pipes, locks holding details .

The main purpose of applying drip irrigation technology under the film is to sharply reduce the waste of water used for evaporation, to meet the water demand of agricultural crops in time, and to grow ecologically clean and stable, high-quality products from them.

The main task of the proposed technical solution is to apply the technology of drip irrigation under a resource-saving film, simultaneously laying irrigation pipes and a film over irrigation pipes. The main purpose of applying drip irrigation technology under the film is to sharply reduce the waste of water used for evaporation, to meet the water demand of agricultural crops in time, and to grow ecologically clean and stable, high-quality products from them.

Offered under film drip irrigation pipe laying equipment flexible irrigation pipe reel, black film wrapped reel, base frame, black film guide, spherical discs, flexible pipe, flexible pipe guide , connector, consisting of locks that hold the details. The construction of this device drastically reduces the wastage of water in irrigation and meets the water needs of agricultural crops in time and achieves a high and stable crop yield.

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