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CURRENT STATE OF CULTIVATION OF FORAGE CROPS SEEDS

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Abstract. The article provides information on the state of cultivation of seeds of forage crops and outlines the current problems of successful development of animal husbandry and the creation of a solid feed base for intensively developing livestock.

Keywords: Seed production, forage crops, cultivation, harvesting technology, drying, drying plants, seed pile, perennial herb crops, drying and processing.

Introduction. The basis for the successful development of animal husbandry is the creation of a solid feed base for intensively developing animal husbandry. In the general set of measures to solve the problem of creating a solid feed base for intensively developing animal husbandry, as indicated in the decrees of the President and the Government of the Republic of Uzbekistan, is the expansion of crops and a significant increase in the production of feed from crops with a high protein content. In the Republic, among the set of measures aimed at implementing the task, one of the central places is occupied by the increasingly widespread use of perennial legumes, primarily alfalfa, as a source of high-protein feed. In the Republic, perennial grass sowing for seeds does not fully satisfy the needs of farms for forage crop seeds. For example, most varieties of cereals, legumes, oilseeds and forage crops are still imported from foreign countries. The national seed production system is not well organized, and seed production is mainly under the centralized leadership of the government and is carried out with the direct participation of agricultural research institutes and farms. The role of the private sector is limited and farmers have difficulty in obtaining quality seeds. Seed multiplication, pricing and distribution are still controlled centrally through annual Cabinet resolutions and are poorly developed due to a lack of technical information and experience in the creation and implementation of a comprehensive seed programme..

Materials and methods. The main seed enterprises produce only cotton and wheat seeds. The government plans to modernize the seed sector and privatize it. It also plans to increase crop productivity through the introduction of modern agricultural techniques, including the provision of high-yielding varieties and inputs and familiarization with effective agricultural practices. State farms are gradually being transferred to private ownership.

In the regions, more and more land is gradually being privatized. Moreover, commercial banks in rural areas offer state loans to local agricultural enterprises. This can help farmers to establish family or cooperative seed enterprises. The Government of the Republic of Uzbekistan has requested FAO support under the Technical Assistance Programme to establish effective breeding and seed production programmes. To ensure linkages between the various components of the seed programme and ongoing projects, and to provide farmers with quality seeds on a regular basis.

Seed production is a critical factor in agricultural development. The production of high-yielding varieties of seeds is very important for obtaining a high yield and improving the quality of

agricultural products. The period of harvesting grass for seeds, as a rule, coincides with bad weather conditions. It is possible to get rid of the dependence of unfavorable weather conditions by introducing the technology of harvesting forage crops for seeds by stripping the heads and leafy parts on the root. The resulting heap should be available, if necessary, at special drying and processing points.

A significant advantage of this technology over the well-known one used in the area of the Baltic republics and the Republic of Belarus and based on mowing with crushing the entire plant mass with its subsequent drying is that this harvesting technology produces a heap with a more concentrated seed content. At the same time, transportation costs, energy and fuel costs for drying and processing the heap are reduced by 40 ... 50% [3, 5, 8, 12, 13]. The heap of seeds is dried at special drying points.

Results and discussions. The analysis of drying installations and units allowed to establish the prospects of using low-temperature conveyor-type dryers at such points. They are characterized by low fuel consumption per unit of output, high productivity (up to 2 tons/hour per product), the possibility of complete mechanization and automation of the loading and unloading process of the heap, as well as the versatility of use for drying various agricultural materials. In addition, the thermal mode of such installations corresponds to the agrobiological characteristics of the seed heap of forage crops. During final drying, the germination of the material (seeds) should not decrease. Drying and processing of the heap is one of the most labor-intensive processes, requiring 12 ... 20% of all labor costs and harvesting [6, 7, 9]. The high labor intensity of operations when drying a heap of grasses is due to the significant amount of manual work in loading and unloading operations. Five to eight people must be busy drying the heap all day during the most intense period of agricultural work [3, 2, 7].

The most important condition for the successful use of drying units is to ensure high-quality alignment of the material layer on the dryer conveyor. In this regard, studies were conducted to study the working process of loading the seed heap of agricultural forage crops onto conveyor-type dryers. It was found that the existing design of the working element for such a loader does not meet the requirements of versatility for various types of processed material. A drum with teeth is quite effective in processing flax heap, but when leveling a layer of seed heap of alfalfa and clover grasses, the quality of its leveling is low [6,8,10,].

Conclusion. The conducted studies made it possible to establish that the most effective is a finger working element of a separating type. It has the lowest energy intensity of penetration into the material, since the cross-sectional area of the layer is smaller, and, consequently, the resistance force to penetration is less. They are reliable in operation, less energy-intensive and distribute the material of the required layer thickness evenly over the area. However, in order to widely implement the proposed working element in production, special studies are required, since there are no recommendations for their calculation and design in literary sources. Based on the above, the purpose of this work was a theoretical and experimental study of the process of loading a heap of grass after stripping seed crops onto a dryer conveyor and justification of the loader parameters.

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