

Local Conditions and Conditions Ethishtirilgan Soy Urog'larining Mechanical Physicist Specializing in Research, Masses and Geometric Nodes of the Chimney Aspirin Samaring Technique of all Types of Separation of Smokemalaring Energy Tejamcorder Constructionining Ishlab

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Abstract: This article focused on preparing plant seeds for processing, improving existing devices that meet current demand, aspirating seeds by size and mass, and creating separating processes and devices, and creating devices that are less energy efficient.

Keywords: seed, raw materials, aspirating, separating, ressur economical, modernization, diversification, energy, soy, oil..

you can improve your skills and customer service skills, as well as how to improve your skills and customer service skills. Shunga Kyrgyzstan khamshelari, zhumladan soy turli khil aralashmazaladelan, separation of kharaen and kurilmalaring energy carriers and tessurs tejamkor yaratish techniques and technologies are important to the ego. In this article, we will tell you how you can improve your appearance, as well as how to improve the appearance of your home.

In recent years, in our republic, certain results have been achieved in the creation of high-energy-saving techniques and technologies for the processing, quality sorting and cleaning of local plant seeds grown in agriculture. important tasks for preparation" are defined. Based on these tasks, among other things, the research of physical and mechanical properties of soybean seeds grown in local conditions, the development of effective methods of aspiration system in terms of mass and geometric size, and the development of energy-saving constructions of separation devices are of significant scientific and practical importance.

When testing soybean varieties, its physico-chemical properties were studied, and the research results are presented in Table 1.

Table 1. Physico-chemical indicators of soybean local varieties

№	Seed (grain) quality indicators	Soy variety			
		Nena	Tomaris	Teacher	A blessing
1.	Seed sizes, mm:				
	- length	6,79±0,09	7,10±0,06	6,79±0,09	7,60±0,09
	- - width	4,83±0,05	5,91±0,05	4,83±0,05	6,36±0,07
	- - - thickness	4,56±0,09	4,77±0,06	4,22±0,09	4,85±0,06
2.	Humidity, %	8,0	9,2	9,6	9,6
3.	Pollution, %	5,3	3,2	7,3	4,2

4.	Mass percentage of fat, %	23,50	23,50	22.71	14.85
5.	Protein mass percentage, %	42,52	42,48	39,86	36,90

The hydrodynamics of soybean seed (grain) aspiration cleaning process was studied in the computer model of the article "Research of flow hydrodynamics in the process of soybean seed (grain) aspiration cleaning in a computer model". In the device, a computer model describing the laws of air flow and soybean seed movement has been developed. The method of calculating the concentration of dispersed particles in the air flow system of the aspiration system is presented.

Factors influencing the fractionation of soybean seeds and the seeds of various plants contained in them were determined by taking Y, Z as input parameters, and X, U as output parameters (Fig. 1).

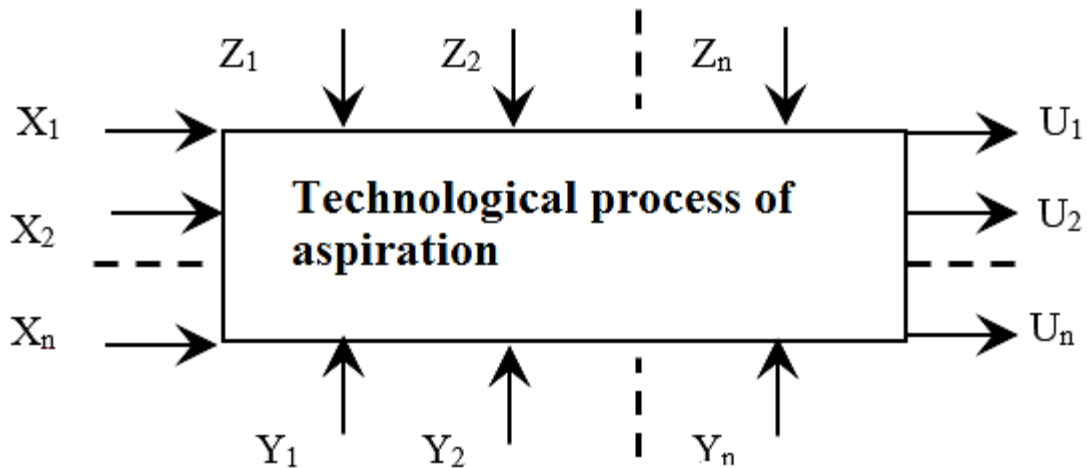


Figure 1. Block diagram of the technological process of aspiration

where Y_1 is the design parameter of the aspiration part of the separator, Z_1 represents the properties of the shadow mixture and transfer speed, X_1 , Y_1 represents the mass, pollution level, and the suction speed of the fan.

The task of the research is to determine the relationships between the input and output parameters of the object. Aerodynamic parameters of the radial fan: working wheel width $V=0.1\text{m}$; rotation frequency $n=1000\text{ rev/min}$; productivity $Q_v=0.3\text{ m}^3/\text{s}$

When calculating the fan model, taking into account the air consumption in the range $Q_v=0-0.3\text{ m}^3/\text{s}$ according to the seed density, the pressure change was determined as follows. (Figure 2).

$$\Delta P_{corrected} = \Delta P \frac{\rho}{\rho_{ref}} \quad (1)$$

where r is the actual density, kg/m^3 .

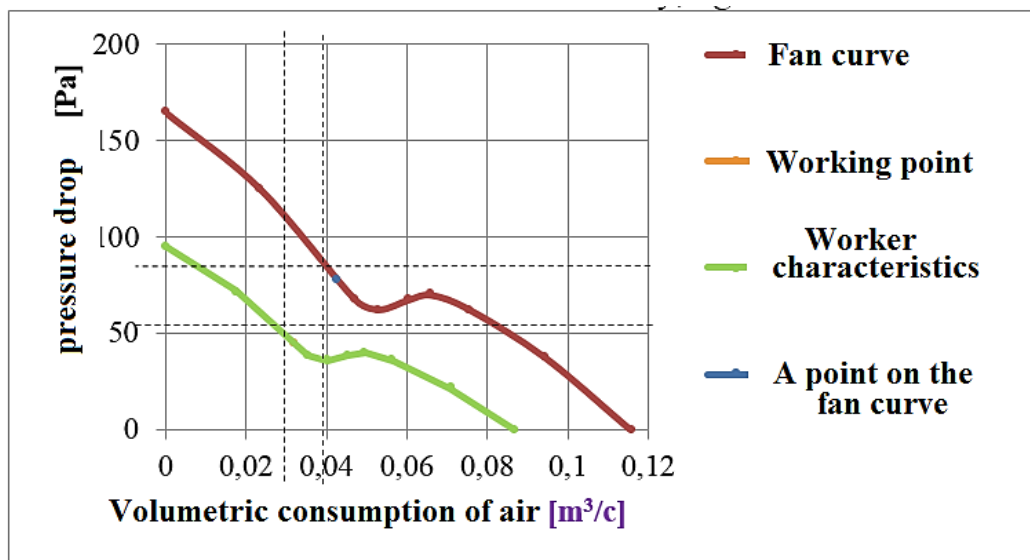


Figure 2. The effect of volume consumption of air on the pressure difference in the fan

Air mass consumption in the fan:

$$m_{corrected} = m \frac{\rho}{\rho_{ref}} \quad (2)$$

The resulting fan model allows to ensure a stable aerodynamic condition in the entire working range.

A number of research works have been carried out on improving the technology of primary processing of soybean seeds, cleaning and fractionating soybean seeds with high technological performance. However, the studies carried out have not fully investigated the aspiration system of plant seeds, including soybean seeds, in relation to their geometric size and mass.

The purpose of this article is to improve the device for aspiration cleaning and separation of soybean seeds based on the optimization of the technological process.

The tasks of scientific research are to study the physical and mechanical properties of seeds of local soybean varieties in a cross-section of regions; to determine the optimal regimes of factors affecting the cleaning of soybean seeds from additional impurities; to develop a method of calculating the trajectory of the air flow in the aspiration device during the cleaning and fractionation of soybean seeds; based on the SolidWorks system program, the computer of the aspiration device development of a model; improvement of a combined aspiration-separator device designed to separate soybean and other types of plant seeds into fractions.

The relevance of the research is based, the goals and tasks, objects and subject of the research, the compliance of the research with the priority directions of the development of science and technology of the republic are described, the scientific novelty and practical results of the research, the scientific and practical significance are stated, the information on this article is presented for the implementation of the research results in practice.

CONCLUSION

Physical and mechanical properties of local soybean varieties were studied throughout the territory of our republic. Constructive and technological modes of improved soybean seed (grain) aspiration and separation devices were determined; a computer model was developed based on the SolidWorks system program for researching the movement of air and dispersed systems in the aspiration device during the cleaning of soybean seeds (grain) and various impurities contained in it; computer modeling and according to the results of the analysis, optimal modes of separating soybean seeds (grain) into fractions in the combined separator device were determined: air suction speed 4.5 m/s, deviation angle of perforated shelves 140, volumetric

consumption 0.006 m³/s, rotation speed of the supply shaft 420 rev/min, it was determined that the angle of inclination of the guide line is $\alpha=450$;

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