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Efficient Technologies Preparation of Feed for Pigs Based on Root Turnip Varieties Kuuziku.

Andrey Vladimirovich Burmaga*, Sergey Mihajlovich Dotsenko, Lyudmila Gennadevna Krjuchkova, and Victor Vjacheslavovich Shishkin.

Far East State Agricultural University, Politechnical St. 86, Blagoveshchensk, 675005, Russia.

ABSTRACT

The article provides an effective technology preparation of feed the pigs on the basis of turnip varieties kuuziku. The block diagram of the process of preparation and distribution of feed. On the basis of the block diagram obtained effective structural and technological line for the preparation and distribution of feed mixtures for pigs. The implementation of the proposed technology will improve the efficiency of the preparation of feed mixtures for pigs through the use of diets turnip varieties kuuziku, applying the method of "dry" cleaning created by the cleaner-grinder, as well as the inclusion of the feed mixture defatted soy flour.

Keywords: kuuziku, technology, efficiency, dry clearing, a cleaner-grinder

Corresponding author

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INTRODUCTION

Science has established a practice confirmed that only with the full, balanced feeding livestock show their maximum genetic potential. [1]

To ensure such a feeding pig developed at least three types of feeding: the concentrate, the concentrate, the concentrate and potato-edible root [9].

Use of the concentrate-potato type of feeding is justified in certain climatic zones, the terms of which allow you to store and handle (washed) the potatoes at a relatively low cost of labor and resources [10, 11].

However, even with this technology, storage and processing of potatoes, requires warehouses and sewer systems and treatment plants.

In this context, particular attention should be paid concentrate-root diet feeding pigs, which uses a variety kuuziku fodder turnips (Figure 1).

Figure 1: Roots kuuziku

MATERIALS AND METHODS

This hybrid turnip with kale is far ahead in terms of yield potato and root crop gives 800-900 kg / ha and 200-300 kg / ha of green leaves. Kuuziku contains 9,9% solids, including 0,9% protein, 0,31% -fat, 1,85% - cellulose, 5,86% - NES and 0,98% ash.

Nutritional value 1 kg Kuuziku 0,11 kg feed units, contains 7 g of digested protein 0,71 g – 0,4 g of calcium - phosphorus.

Pigs fed Kuusiku chopped uncooked 5-6 kg per day per head. Thus, the tops are fed to animals in fresh or ensiled in admixture with other cultures.

Evaluate the effectiveness of the technology of feed preparation is possible by replacing the income from potatoes to feed turnips [2]:

$$E= (C_p - C_s) \times \cdot q \times N \times D, \quad (1)$$

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C_p - the cost of production of potatoes, RUB / kg; C_s - the production cost of forage turnip, RUB / kg; q-daily rations root crops, kg / day; N - is the number of pigs, the goal .; D - number of days feeding.

Attempts to use turnips for feeding animals throughout the winter in certain recipe quantities not ended in success, because special funds for the preparation of this type of root crops for feeding are not currently available commercially and are not produced.

RESULTS AND DISCUSSION

On the basis conducted researches [3-8] was developed structural diagram of the process of preparation and distribution of feed (Figure 2).

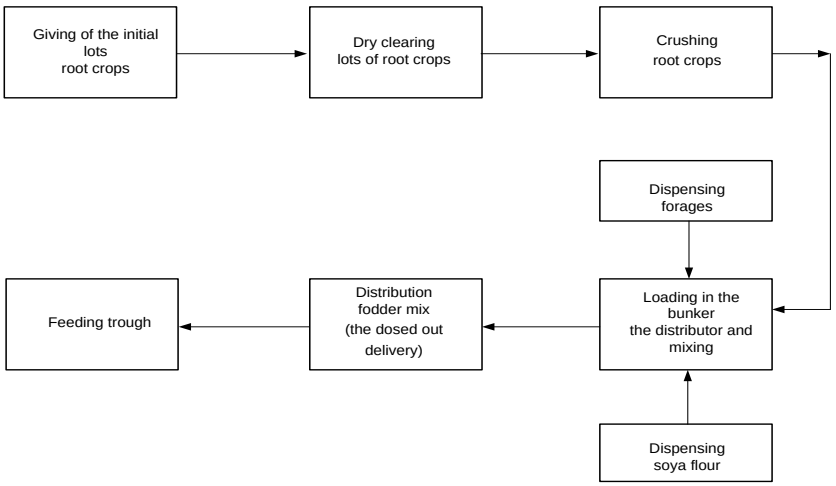

Figure 2: Block diagram of the process of preparation and distribution of feed mixtures for pigs

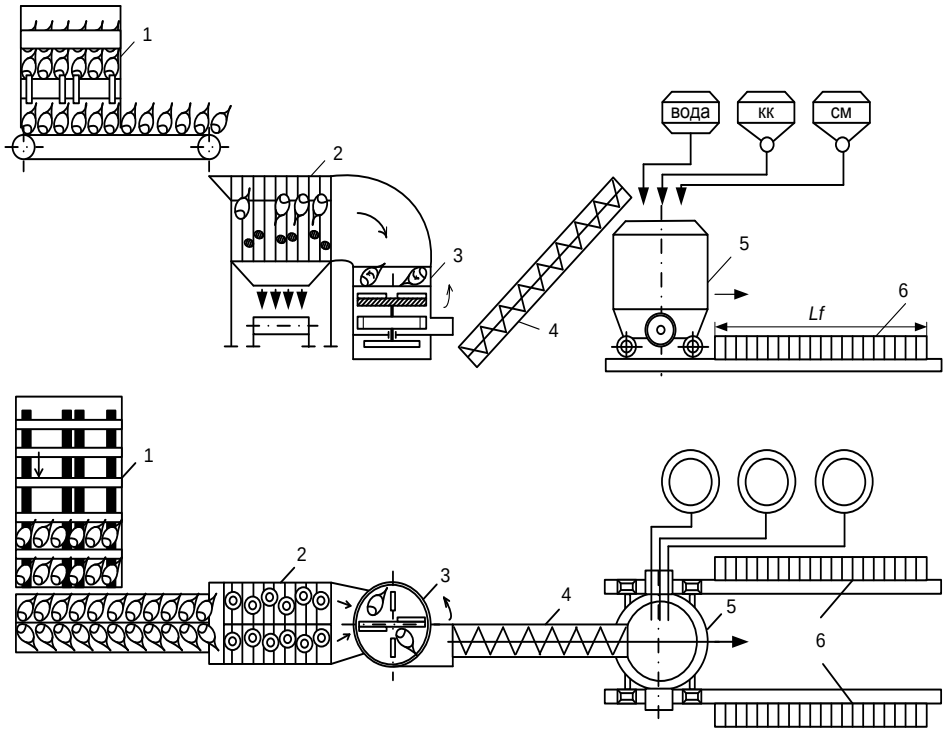

Figure 3: Structurally-technological scheme of line preparation and distribution of feed mixtures for pigs

The analysis of the scheme shows that the most time consuming and power-hungry processes in the preparation of root crops for feeding the animals are processes for their storage, washing or dry cleaning, as well as grinding [12, 13, 14].

One embodiment of the block diagram (Figure 2) is to develop an effective structural and technological line for the preparation and distribution of feed mixtures for pigs (Figure 3). This technology allows for the preparation of feed mixtures for pigs with low energy consumption, thereby reducing the cost of producing products.

According to the technology developed, the feedstock, in a fodder turnip "kuuziku" enter by feeding device - 1, and then subjected to a dry cleaner, for cleaning - 2. Further fruit crushed by a shredder - 3, to a particle size of 2-3 mm and a screw - 4 are charged into the hopper of the mixer-distributor - 5. Also at this stage add soy flour. To 8 parts crushed turnip (6 kg) mixed with 1 part soy flour (0,75 kg), receiving protein-carbohydrate composition. Then, into the hopper of the mixer, serves the feed in the amount of 2,2 kg/bird and grass meal and 0,2 kg/head.

CONCLUSION

Thus, the ratio of both components is 34: 11: 1. To this mixture is added to the composition of water in an amount which gives the solids content of the mixture was 30-40%.

The resulting food product issued in the trough - 6 animals along the length of the front feeding.

Implementation of the technology will improve the efficiency of the preparation of feed mixtures for pigs by the use of root vegetables in the diets of sort kuuziku, applying the method of "dry" cleaning, as well as the inclusion of the feed mixture defatted soy flour.

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