

In paper agency of legal regulating of methods of monitoring of agricultural machinery and efficacy of the innovative policy of agrarian industrial complex of Ukraine is observed.

Monitoring, method, machinery.

UDC 631,363

ADVANCED TRAINING FEED technology solutions for feeding cattle

VS Hmelovskyy, Ph.D.

The article analyzes the current state of production and preparation of feed ingredients suggested possible directions of further development towards obtaining domestic livestock producers of high quality that meet international standards.

Forage, fodder, animal performance, the degree of grinding, energy- and resource-saving technologies.

© VS Hmelovskyy, 2013

Problem. High level of development achieved by livestock conditions of realization of rational principles, as the entire production cycle and its individual components, in particular, on the availability of quality feed.

Analysis of recent research. The feasibility of using mobile technology combined freight units (MTTKA) for the preparation and distribution of feed for cattle farms, with a developed dairy and meat direction, proven international experience management. By means of mechanization involved in the process of feeding, put forward the basic requirements that are associated with the preparation of balanced, with a high degree of full uniformity and decrease the mixed resursozatr (energy, labor, material) [1, 4].

Further development of livestock needs improvement technologies and facilities directly for harvesting and preparation of feed components for feeding [1, 2].

Preparation of feed components to take place in the short term and provide agronomic value of shares under zootechnical requirements, including roughage should be crushed within 40-70 mm, because it affects the quality of the preparation of feed mixtures [3, 6].

The purpose of research - Justify the promising areas of harvesting and feeding aimed at maximizing production results to the specific raw materials and ages of animals in each sector.

Results. The main objective is to develop forage production of scientific bases of energy saving technologies harvesting and preparation for feeding forages that increase animal productivity, reduce production costs and reduce livestock acreage involved in forage crops. In the Due to the marked, it is necessary to substantiate such structural design decisions parking units of energy that would be most helped to maintain and increase the efficiency of the nutritional value of feed. Such conditions are more fully performed when used in the process of harvesting forage balers, shredders, and to prepare the feed mixture - Wood-mixer-distributor with a minimal amount of cutting elements. These solutions reduce the storage space for feed, minimize support operations, reduce costs and loss of feed energy for digestion of animal feedstuffs, lower power consumption and metal processes kormopryhotuvannya.

Implementation of these rational principles - a prerequisite to achieve maximum output and reduce the cost of animal products produced in the available supply of food resources.

It is known [5] that feeding forages, nutritionally balanced and energy, enhances the productivity of animals by 10 ... 20%.

The analysis showed [6] that the decrease in the coefficient of variation of the fractional composition during the grinding of feed for every 10% equivalent to the technological efficiency savings or additional 1-3% forage production.

Modern kormozahotivelni- and pryhotuvalni machines - are complex technologically and technically objects that combine several operations related to the technological process [1, 2, 4].

Recently abroad increasingly engaged in crushing roughage (hay) to bookmark, namely when pressing. This is used for harvesting forage in the form of rolls and packs equipment of Fig. 1 Krone, Claas, (Germany), Kuhn (France), New-Holland (USA). In this regard, the need to develop appropriate domestic equipment that could perform operations: selection, grinding, pressing roughage.

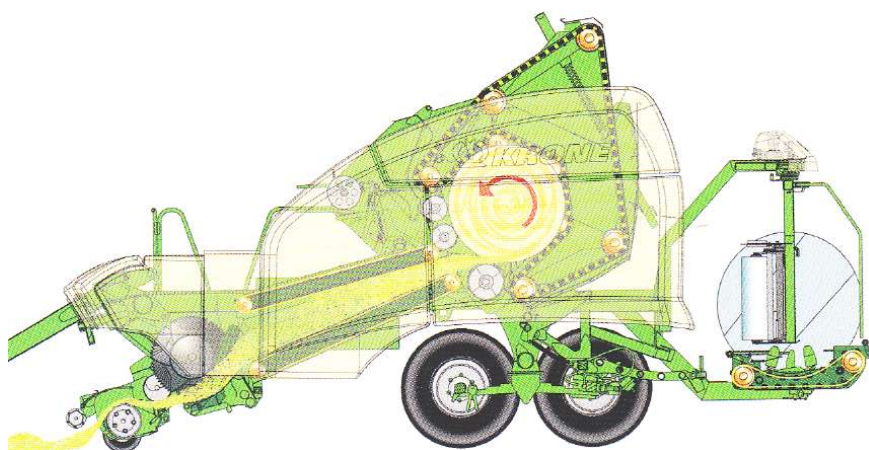


Fig. 1. Functional diagram Press Cutter-up.

Through comparison balers that perform operations picking and pressing feed components with the same, but beefed up shredding devices concluded that depending on the performance and additional options the machine, power consumption is increased by 3 to 15 percent [2].

To ensure the preparation of the mixed fodder for cattle farms are stationary and mobile mechanization. Calculations show [3] that the farms to 400 - 500 cows (depending on the loop) should be used portable tools, and livestock at more than 500 cows - stationary. Today in Ukraine using mostly imported Feeder Mixer Fig. 2 companies De Laval (Sweden), Seko (Italy), Mayer (Siloking), BvL (Germany), Kuhn (France), "Belmyks" (Belarus). It should be noted that the high cost of these machines makes farmers use mobile Feeder (such KTU- 10 different versions) that can not effectively mix feed ingredients together. At the same time in Ukraine, also developed fermiski harvesters company JSC "Bratslav" and OJSC "Umanfermmash" and to meet the needs of livestock farms need to increase domestic production of equipment that would be most consistent zootechnical requirements and was not expensive.

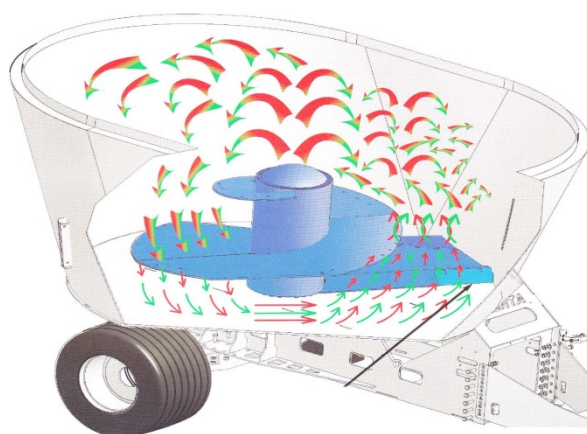


Fig. 2. Vertical mixing.

Through comparison preparation technology feedstuffs using balers, shredders, where the rolls were chopped roughage to the average size of 60 mm and a length of 350 mm feed was found reducing the time making one portion for 12-22 min., And quality for terms of reduction in processing time feed reached 92 percent uniformity of mixing. Also use rolls containing ground roughage enable them to more accurately dosed.

Thus, the existing technology of harvesting and feeding need substantial modernization. A promising direction of development of mechanization kormopryhotuvannya is to create a combined technological schemes using mobile mixer-distributor of feed, energy and resource procurement processes and process components of the diet.

Conclusion. The use of energy-saving technologies in the procurement of feed components will help reduce costs in the preparation of the feed mixture and will improve the quality and reduce the cost per unit of livestock.

References

1. VV Shatsky The quality of mixing of the components of the diet - the basis of improving animal productivity / VV Shatsky, Milko, DA, Boltyanskyy BV, Kolomiec SM, Sementsov VI // Scientific Bulletin Tavricheskiy State Agrotechnology University. - 2013. - Vol. 1, Vol. 3. - P. 43-50.
2. Program 12/13 Krone. <http://www.krone.de>.
3. SM Kolomiec Areas of forage production Ukraine / SM Kolomiec, VV Krylov // Proceedings of the Tauride Agrotechnological State University. - 2012 - Vol. 9. - T. 1. - P. 103-108.
4. REVENKO II Ways to improve units for the preparation and distribution of feed cattle / II Revenko, VS Hmelovskyy, D. Belik // Journal of Kharkov National Technical University villages. households Island University. P.Vasylenka // Modern problems of improving the technical systems and technologies in livestock. - 2010 - Vol. 95. - P. 250-258.
5. Yuhina AD Best types of feeding cows on complex / AD Yuhina // Animal Ukraine. - 1988. - №1. - P. 26-27.
6. Machinery and equipment for livestock / II Revenko, NV Brahynets, VI Child. - K .: Condor, 2009. - 730 p.

In Article proanalyzovano Modern STATUS production and pryhotovlenyya kormovykh components, predlozheny vozmozhnye direction posleduyuscheho s development path to obtain otechestvennyy producer of products zhyvotnovodcheskoy HIGH QUALITY, kotoraja by otvechala myrovym standards.

Preparation Stern, kormoproizvodstvo, proizvoditelnost animals, the degree yzmelchenyya, power- and resursoberehayuschie technology.

The modern state of production and preparation of forage components is analysed in paper, possible directions are offered them subsequent development on the way of receipt of stock-raising products of high quality, which would answer world standards, domestic producers.

Preparation of forages, forage production, productivity of animals, crushing degree, power- and resourcesaving technologies.