



LIVESTOCK STATISTICS INDICATOR SYSTEM SPECIFIC ASPECTS OF CONSTRUCTION

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ABSTRACT

The article analyzes the basic requirements for the statistical system of animal husbandry and proposes a system of indicators consisting of eight blocks. And also the technique of constructing some indicators of these blocks is given.

Keywords: *livestock statistics, system of indicators, livestock products, animal productivity, livestock efficiency, herd structure, cattle, poultry, beekeeping, factors of production.*

INTRODUCTION

It is known that the statistical indicators of the assessment of the livestock sector reflect the status, development and sustainability of the consumption of livestock products at different levels of time and space. They allow to obtain a description of individual events and processes, their group states, and a description of individual units in a general complex.

Therefore, in compiling a system of statistical indicators of livestock, clearly defining the boundaries of economic and statistical approaches to economic requirements such as compliance with economic laws, adequate coverage of economic policy at the current stage of socio-economic development, taking into account the specifics of the studied phenomenon; strict adherence is required.

The statistical requirements for the establishment of a system of statistical indicators should include compliance of the system of indicators with the goals and objectives of economic and statistical research, comparability of system indicators, the existence of a single methodology for their calculation, logical interdependence of system indicators, complexity and completeness of research.

In addition, the most optimal level of analysis, the availability of a reliable database based on the existing system of statistical information, the possibility of economic interpretation of the results, the integrity, consistency and uniformity of the system are also required. As the country's economy changes, so must the system of statistical indicators.

Thus, based on the requirements listed above, the system of livestock statistics should provide the following:

- reliable and comprehensive coverage of the state of the network at each stage; disclosure of the laws of its development and the most important interdependencies;
- evaluation of the effectiveness of measures for the implementation and regulation of production;
- identify existing imbalances and identify possible ways to address them, as well as the use of available resources.

Another requirement for the system of indicators of livestock statistics stems from some specific features of the industry, as statistics in animal husbandry are associated with two types of statistical commonalities:

- agricultural enterprises (commercial organizations), dehqan farms, private plots and other farms of the population with signs of self-monitoring and a set of animals in them;
- a set of animals with individual characteristics, such as species, sex, age, weight, productivity, state of health, characteristics of use, etc.

As a result, the structured system of indicators should comprehensively reflect both commonalities under consideration.

Obtaining and analyzing livestock statistics is carried out at the regional, regional and sectoral levels. The completeness and level of coverage of an objectively existing system of indicators depends on the level of management of the material and other capabilities of its study, the need for information and analytical tasks.

In the existing literature on livestock statistics, different authors propose different systems of statistical indicators, many of which do not have a fundamental difference, the only difference being in the completeness of the calculated indicators.

ANALYSIS OF THE RELEVANT LITERATURE

H. Khojakulov suggests that the system of indicators be more generalized [1]. The system includes two generalizing blocks of indicators:

- indicators of the number and composition of livestock and poultry;
- Indicators of livestock products: animal and poultry products, milk production, wool production, egg production, honey production.

AA Zinchenko proposed a more detailed system of indicators, which includes the following four blocks of indicators [2]:

- indicators of the number of farm animals;
- indicators of gross livestock production;
- indicators animal productivity;
- indicators characterizing the material conditions and nature of production.

The system of indicators of livestock products, presented in the scientific approaches of A. Gozulov, also includes four blocks of indicators, but in terms of quality their difference is not so great. While the first three blocks are fully compatible with each other, the fourth block contains the feed (fodder) base indicators [3].

The textbook, edited by N. Koborov, considers a system of 5 block indicators [4]. It should be noted that the content is more complete because this textbook is similar to the work discussed above and is supplemented by indicators of production organization. This system of indicators is as follows: on the number and composition of agricultural goods; on indicators of agricultural processing; on indicators of livestock products; on indicators of the organization of production in animal husbandry; on the indicators of the feed (fodder) base.

B. Bashkatov's textbook contains a system of indicators covering 7 blocks [5]:

- indicators of quantity and composition of the number of agricultural goods by type and breed;
- indicators of reproduction of the number of goods;
- indicators of the status of the fodder base, feed consumption and the level of grazing;
- indicators of zootechnical measures;
- indicators of the volume of production of certain types of livestock products;

- quality indicators of livestock products;
- livestock mortality rates.

RESEARCH METHODOLOGY

The system of livestock statistics discussed above can be improved and supplemented by a number of indicators related to livestock statistics at the current stage. These additions to the system of indicators are required due to the changes in the economy of the country, which are associated with the development of market relations. This article proposes an eight-block indicator system (Figure 1):

- indicators of the number and composition of agricultural goods;
- indicators of livestock reproduction (breeding);
- indicators of livestock products;
- indicators of agricultural productivity;
- statistical indicators of zootechnical measures;
- production indicators per 100 hectares of land;
- indicators of factors of production;
- livestock efficiency indicators.

ANALYSIS AND RESULTS

Indicators that allow a quantitative assessment of the number and composition of farm animals, an assessment of the development and specialization of a particular branch of animal husbandry, as well as a comparison in time and space are presented in the first block. The main group in this block consists of indicators characterizing the number and composition of pedigree animals.

The division of these indicators into separate groups is primarily explained by the fact that the qualitative characterization of farm animals is determined primarily by its pedigree composition. The productivity of animals depends on both their feeding and care, as well as the genetic traits that are unique to some of their breeds. A pedigree animal has a higher productivity quality than a non-pedigree animal in the same labor and means. It should be noted that this group is very important in analyzing the level of development of the industry and assessing the prospects for its development, because pedigree cattle have the greatest efficiency.

Herd structure indicators allow the assessment of the ratio of the sex and age group of animals in a herd to a specific date. This ratio shows how many opportunities there are to raise a herd. However, two groups of livestock are crucial: female cattle and young cattle raised for calving. Increasing the weight of female cattle creates more favorable conditions for increasing the number of cattle. The increase in the weight of cows in the total number of cattle shows that more favorable conditions have been created for its processing (breeding) and increasing milk and meat production.

In analyzing the structure of each type of herd, it is necessary to take into account the direction of livestock production. The structure of each type of herd of cattle varies considerably depending on the direction of production. For example, the structure of a large horned cattle herd in the dairy direction is characterized by a high percentage of cows, and the structure of a herd in the meat or meat-milk direction - by a high percentage of young cattle.

Indicators of the dynamics of livestock numbers are available for development allows you to assess the trend. Herd turnover allows you to estimate the write-off of goods. These include the rate of poor quality of cattle for slaughter, which characterizes the share of cattle used for meat, and the rate of plague on agricultural cattle, which characterizes the loss of livestock, and calculates the number of dead cattle as a ratio of herd turnover or average annual number. Assessing the specificity and structural proportions of herd reproduction (production), determining the number of animals and the cause of changes in their composition are given in the second block of the system of indicators, which is the logical completion of the first block. Processing of agricultural goods is carried out at the expense of calving and replenishment of the main herd, as well as replenishment of young cattle for calving to compensate for the loss.

The main indicators of the reproduction of the number of agricultural cattle are: indicators of insemination of female cattle, fertility of females and indicators of feeding calves born. On the basis of calving rates, infertility rates of females are determined, which is a reflection of the fertility rate. Barrenness is a negative condition in animal husbandry. This situation means that female cattle are misused in herd reproduction and lead to a reduction in crop volume. Livestock calf care indicators are evaluators to describe the level of utilization of key females and are used in in-depth analysis of the use of whole females.

It is given in the third block of the system of indicators, which allows to estimate the production volume of each type of product, expressed in natural and value form. Several types of products are obtained in the livestock sector. For example, in the production of cattle, dairy products and by-products are highlighted. In sheep breeding, there are dairy products, wool, milk and by-products (leather and astrakhan). The products grown are a very specific type of animal husbandry, consisting of fattening and fattening cattle on pastures. By simplifying this product, the goods can be measured in head numbers. In this case, the product is equal to the number of children received and raised. But the natural rate of live weight cattle breeding is insufficient, especially in the calculation of pedigree as well as working cattle. Livestock statistics determine the ratio of the products obtained from rearing for this purpose to the production herd and sent for slaughter.

In order to determine the efficiency of agricultural production, the indicators of the fourth block are calculated. In general, these indicators are the amount of certain types of products obtained from a unit of agricultural goods. For example, the average amount of milk produced per cow, the average number of hens per hen that lays a lot of eggs, the average amount of sheared wool per sheep. In this block it is accepted to distinguish indicators of milk yield of cows, wool and meat productivity of sheep, productivity of poultry and productivity of beekeeping. Milk productivity indicators include the average amount of milk produced from a single vaccinated or milked cow, the indicators of productive use of a herd of cows, the indicator of milk quality.

Meat productivity indicators include average live and slaughtered weight of one animal, fatness of cattle, growth of young livestock, increased weight of fattened and fattened adult cattle, the ratio of livestock production per female. Poultry productivity is characterized by the average weight of one slaughtered bird, average fertility, poultry production and fattening of young birds, as well as the average amount of feathers and feathers from one slaughtered head of poultry. Beekeeping productivity is characterized by indicators of the amount of honey and beeswax corresponding to a single bee family, the amount of hives obtained. The value of these indicators depends on the breed and composition of livestock, the level of grazing, care conditions and other factors. Productivity indicators allow to determine the qualitative level of development of livestock as an agricultural sector.

The fifth block indicators are calculated to analyze the fodder base of the industry, the effective conduct of breeding work, as well as the conditions of care of agricultural livestock.

All the groups of indicators listed above are zootechnical indicators of the network. To assess the fodder base, indicators of fodder consumption, expressed in natural form or in feed units, are used to feed fodder per head of agricultural livestock. In the analysis of the fodder base, special attention is paid to the quality of the feed used.

In order to assess the effectiveness of livestock as a sector, the indicators of the sixth block are calculated. These include output per 100 hectares of land. This group of indicators is called "Livestock Density Indicators" and is used to describe the level of land use for livestock development in a particular enterprise, district, region. These figures are calculated by dividing the number of cattle by the area of agricultural land and multiplying the number produced by 100.

The evaluation of production factors can be done using the indicators of the seventh block of the system. They can be used to analyze the production and economic activities of both the agricultural producer and the industry as a whole, as well as to assess ways to increase production due to various factors. One of the most important indicators is the indicator of production intensification, which can include an indicator of costs per conditional head, the value of livestock production funds per conditional head, or an indicator of animal density. Also, the level of specialization and concentration of the industry and the financing of labor are among the most important factors of production.

CONCLUSIONS AND SUGGESTIONS

The most general indicators that allow to evaluate the efficiency of cultivation of certain types of products and the activities of agricultural producers are shown in the last eighth block of the system. We will consider in more detail the methodology for constructing some indicators of blocks and here we recommend the use of the index method (Table 1).

Table 1
Methodology for developing key indicators of livestock statistics

Indicator name	Contents	Calculation method
A	1	2
Indication of poor quality for herd slaughter	Indicates the specific weight of the herd used for slaughter in the total turnover of the herd	Percentage of herd head slaughtered in the number of herds in circulation
Plague rate on agricultural livestock	Indicates the relative weight of cattle lost in the total turnover of the herd	Percentage of the number of cattle lost in the head count of the herd in circulation
Indication of breeding females	The specific gravity of the offspring that gave birth to the total number of females capable of hatching	The ratio of the number of female females to the number of females capable of reproduction
Fertility index of females	Infertile females out of the total number of able-bodied females show relative weight	The ratio of the number of unfertilized females to the number of females capable of reproduction

Birth care index	Indicates how many live offspring there are for each (hundred) female intended for reproduction	The ratio of the number of live offspring obtained to the number of females intended for breeding
The herd is provided with calving heifers (young cattle)	Indicates how many calving heifers per head of cattle	The ratio of the number of calving heifers to the number of hooves of cattle bred in the respective cattle group
The average milk yield of cows	The average amount of milk produced from one dairy cow	The ratio of gross milk yield to the number of cows milked
Density index of cattle	One unit represents the number of cattle per agricultural area	The ratio of the number of head of cattle of the corresponding type to the area of agricultural land
Specialization level indicator	The share of the main industry in the structure of branded products	The ratio of the volume of production of the largest share industry to the total volume of branded products
Level of mechanization	The share of mechanized work (specific weight) in the total volume of work performed	The ratio of the volume of work performed using the mechanisms to the total volume of work performed

Thus, the system of indicators of livestock statistics provides a comprehensive assessment of the status and development of livestock as a branch of agriculture.

LIST OF USED LITERATURE

1. Khodjakulov X.D. and others. Agricultural statistics. Tashkent, 2015.- 342 p.
2. Zinchenko A.R. Agricultural statistics with the basics of socio-economic statistics. - M.: ed. Moscow Agricultural Academy, 1998.-345 p.
3. Gozulov A.I., Grankov V.P., Merzhanov G.S. Agricultural statistics - M.: Statistics, 1967.-267 p.
4. Agricultural statistics / Ed. N.K. Koborova. - M.: Finance and statistics, 1989.-387 p.
5. Bashkatov B.I. Agricultural statistics with the basics of general theory of statistics: A course of lectures. - M.: Tandem: Ekmos, 2001.-352 p.
6. Irgashevich, D. A. (2019). Development of national network and corporate networks (in the case of Tas-IX network). International Journal of Human Computing Studies, 1(1), 1-5.
7. Dadamuhamedov, A. (2019). The role of information and communications technologies in pilgrimage tourism in Uzbekistan. The Light of Islam, 2019(1), 17.
8. Дадамухамедов, А. И. (2017). РАЗВИТИЕ НАЦИОНАЛЬНОЙ СЕТИ И КОРПОРАТИВНОЙ СЕТИ (НА ПРИМЕРЕ СЕТИ IX). Актуальные научные исследования в современном мире, (3-2), 133-137.
9. Irgashevich, D. A. (2020). Development of national network (tas-ix). ACADEMICIA: An International Multidisciplinary Research Journal, 10(5), 144-151.

10. Irgashevich, D. A. (2019, February). THE ROLE OF INNOVATIVE, INFORMATION AND COMMUNICATIONS TECHNOLOGIES IN PILGRIMAGE TOURISM IN UZBEKISTAN. In International Scientific and Practical Conference" Innovative ideas of modern youth in science and education" (pp. 262-

