

Livestock Sector Statistics (animal population and production)

Metadata

National Bureau of Statistics of the Republic of Moldova (NBS)

1. Contact Information

1.1. Responsible subdivision within NBS

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2. Metadata Update

2.1. Last certification of metadata

28.02.2024

2.2. Last update of metadata

28.02.2024

3. Statistical Presentation

3.1. General description

Livestock is an important branch of agriculture, which is focused on breeding, reproduction, improvement of breeds and exploitation of agricultural animals. Growing and improvement of animal breeds is necessary to ensure the population with animal products, of the food industry and light industry – with raw material, of the agriculture – with organic fertilizers and traction force. The livestock patrimony has the following main branches: breeding cattle, pigs, sheep and goats, poultry, horses, and cuniculi culture.

The livestock statistics cover the statistical data on:

1) population of animals and poultry, including:

- livestock of animals by breeds;
- live born;
- animal mortality;

2) animal production, including:

- animal productivity;
- production (sale) of animals;
- production (breeding) of animals;
- production of milk of all types;
- production of eggs of all types;

- production of eggs for incubation
- production of wool

The statistical surveys in this area cover the agricultural holdings which have at least one animal and produce animal agricultural production:

- agricultural enterprises and organizations producing agricultural products, regardless of the organizational-legal and ownership forms (including farms, which own agricultural animals on balance), as well as enterprises with the main type of activity "Aquaculture";
- individual auxiliary households (or population households).

The information source for obtaining data on animal livestock and animal production is:

- statistical surveys regarding the animal livestock and production in agricultural holdings with the status of legal entity or natural persons, which have animals and/or poultry on their balance sheet;
- data regarding the animal productivity in households obtained based on sample statistical surveys of small agricultural producers;
- as well as administrative data regarding the population of animals and poultry within individual households, supplied by the mayoralities of the villages (communes), towns and municipalities.

3.2. Concepts and definitions

3.2.1. Definitions

Regarding statistical survey organization standpoint, the following major categories of holdings (units or households) in the agricultural activity are:

- Agricultural holdings (units or households) with status of legal entity or natural person, which have animals and/or poultry on their balance sheet, which, at their turn, include:
 - enterprises producing agricultural production or agricultural enterprises,
 - farms,
 - enterprises with the main type of activity "Aquaculture".
- Individual households

Details on agricultural holdings are presented in point 3.2.1. of the metadata on plant production and agricultural land statistics.

Cattle livestock – population of cattle and poultry in all the holdings which carry out agricultural activity, regardless of the fact if it is for market sale purpose or for internal consumption of the household (nutrition, etc.).

The main breeds of agricultural animals are the following:

- cattle,
- pigs,
- sheep and goats,
- horses,
- poultry,
- rabbits.

Cattle – all the animals from cattle species, regardless of the sex, age or economic destination.

Males - males of the bovine species.

Females - females of the bovine species.

Cows - females that have calved at least once.

Dairy cows - cows used for milk production, which have already calved.

Other cows – cows used for meat production, culled cows (milk cows that are no longer considered

profitable, have reproductive problems, are sick, injured or no longer give enough milk to maximize profit) and cows that are not milking (their milk is used only for direct feeding of calves).

Pigs – all the animals from pigs' species, regardless of the sex, age, and economic destination.

Sows – females that have farrowed once or several times.

Boars – males with a live weight of over 50 kg used for reproduction.

Sheep – all the animals from the sheep species, regardless of the sex, age, and economic destination.

Goat – total number of goats (adults and youth), as well as he-goats.

Horses – total number of horses, regardless of the sex, age, and economic destination.

Poultry – total number of poultry, regardless of the age and sex.

Rabbits – total number of rabbits for meat, skin, and angora hair.

Bee families – total number of bee families.

Animals' livestock is established according to the record keeping of animals' number as of January 1

Live born – refers to calves, piglets, lambs, foals and chickens obtained in the farm, including chickens that were subsequently sold, slaughtered or perished (even if the death occurred on the day of birth). This indicator does not include stillborn animal.

Mortality of animals of all ages – the number of dead and perished animals during the year, including perished animals purchased from other producers.

Productivity:

- **animal daily increase in weight** – weight increase per day for cattle, pigs', and other animals' growing and fattening;

- **milk average production per cow** – milk volume per cow, obtained during the reported period;

- **eggs average production per layer** – number of eggs collected per average number of layers during the reported period.

- **average wool production per sheep** – quantity of sheep wool per sheep population at the beginning of year.

Total production (increase) in live weight - the weight of products obtained alive, plus the increase in mass obtained during the growth and fattening of animals minus the weight of perished animals. The volume of production in growth of animals is calculated by basic species of productive animals.

Slaughtered animals solded (carcasses) - the post-slaughter weight is established as carcass (the weight of the animal obtained at slaughter after removing the skin, head, legs, organs and blood) taking into account the food sub-products (heart, liver, tongue, kidneys).

Milk production – quantity of cow, sheep, goat milk regardless of the fact if it was sold or part of it was used in the households for lactation of calves and piglets. The milk sucked by the calves is not included in the production and is not calculated when determining the average quantity of milk stropped from a cow.

Production of eggs – the total number of eggs obtained from all poultry species (hens, ducks, geese, turkeys, quails, etc.).

Eggs production - all the eggs collected in one year from all types of poultry.

Production of eggs for incubation - all the eggs that were used for incubation.

Production of wool - includes the entire amount of wool obtained from sheep shearing, regardless of whether it was sold or used in the own household. Wool production is expressed in physical weight as it results from shearing (unwashed, with impurities, moisture, etc.).

3.2.2. Unit of measure

Data expressed in absolute values:

- production (breeding and sale) of animals in live mass, production of milk, wool – in thousand tonnes and quintals;

- production of eggs – in million pieces;

- daily increase in cattle weight – in grams, average production of milk per cow – in kilograms;

- average production of eggs per layer – in pieces;

- average production of wool per sheep –in kilograms;
- livestock of animals and poultry, number of born alive – in thousand heads;
- animal mortality – in heads;
- number of bee families – in units.

3.2.3. Computation formula

Average production of milk per cow	<p>In agricultural enterprises:</p> $P_v = \frac{V}{X_m} * 100, \quad \text{where } X_m = \frac{Z_f}{Z_c}$ <p>In individual households:</p> $P_v = \frac{V}{X_m} * 100 \quad \text{where } X_m = \frac{X_1 + 2X_2 + \dots + 2X_{n-1} + X_n}{2(n-1)}$ <p>V – volume of milk production (q); X_m – average number of cows (goals); Z_f – fed days-heads; Z_c – calendar days during the reported period, X₁, X₂, ..., X_n - number of cows at the beginning of the period (as a rule – quarter) (goals); n - number of periods taken into calculation</p>
Daily increase in cattle weight	$S_z = \frac{S_v * 100000}{Z_f}, \quad \text{where:}$ <p>S_v – cattle increase in weight (q); Z_f – fed days-heads</p>
Average production of eggs per layer	$P_g = \frac{V_o}{X_g} * 1000, \quad \text{where:}$ <p>V_o – volume of eggs' production (thousands of pieces); X_g – average number of layers (goals)</p>
Average production of wool per sheep	$P_o = \frac{V_l}{X_o} * 100, \quad \text{where:}$ <p>V_l – volume of obtained sheep wool (q); X_o – the heads of sheep of all ages that have been sheared</p>

3.3. Used classifications

Classifier of Activities in Moldova Economy (CAEM - *Clasificatorul Activităților Economice a Moldovei in Romanian*), harmonized with NACE ver.2, approved by NBS decision nr. 20 from December 12, 2009;

Classifier of Ownership Forms in the Republic of Moldova (CFP - *Clasificatorul formelor de proprietate din Republica Moldova, in Romanian*): approved via the Decision of the Standards, Metrology, and Technical Supervision Department No. 276-st dated 04.02.1997;

Classifier of Organizational-Legal Forms (CFOJ – *Clasificatorul formelor organizatorico-juridice din Republica Moldova in Romanian*), approved via the Moldova-Standard Decision No. 1607-ST dated 09.11.2004, in force since 01.01.2005

Classifier of Administrative-Territorial Units of the Republic of Moldova (CUATM - *Clasificatorul unităților administrativ-teritoriale al Republicii Moldova in Romanian*), approved via the Moldova-Standard Decision No. 1398-ST dated 03.09.2003; in force since 03.09.2003.

3.4. Scope
3.4.1. Sector coverage
All the holdings that have livestock at their balance and sell animal agricultural production.
3.4.2. Statistical population
The scope of the statistical survey includes: - agricultural holdings with legal entity status which have on their balance livestock (agricultural enterprises and farms); - individual households which have livestock.
3.4.3. Geographical coverage
Information is developed and disseminated without the data of the enterprises and organizations from the left part of the River Nistru and Bender municipality.
3.4.4. Time coverage
Time series are available starting with 1993.
3.5. Disaggregation level
Statistical data on livestock sector are developed and presented by: <ul style="list-style-type: none"> - total for the country; - ownership forms; - development regions (Chisinau mun., North, Center, South, ATU Gagauzia); - rayons. Data on population of animals are broken down by the main age groups and sex: <i>Population of cattle</i> Cattle - total of which: cows <i>Population of pigs</i> Pigs - total <i>Population of sheep and goat</i> Sheep and goats - total of which: sheep goats <i>Population of horses</i> Horses - total <i>Population of rabbits</i> Rabbits - total <i>Bee families</i> Bee families - total <i>Population of poultry</i> Poultry - total
3.6. Dissemination frequency
Quarterly Annually
3.7. Timeliness
Quarterly on the 30 th day of the reported period; Annually – April 3.
3.8. Revision
Disseminated data are preliminary for the reported period (n) and final for the basic period (respective period of the previous year (n-1)).

3.9. Period of reference

The period of reference for the data on:

- animal production is the cumulative period from the beginning of the year,
- population of livestock – on the date of the beginning of the period (of the quarter/year under analysis) or in average for the reported period (only for agricultural enterprises).

4. Data Collection and Processing

4.1. Data source

4.1.1. Statistical surveys

Statistical survey "Livestock sector state" form no.24-agr;

Statistical survey "Livestock in households" – statistical form no. 6;

Sample statistical survey "Livestock and poultry population, livestock production obtained and sold" - questionnaire 2-SAPS.

4.1.2. Administrative sources

Administrative data regarding the population of livestock and poultry in individual households – supplied by the mayoralities of villages (communes), towns, and municipalities on quarterly basis.

4.1.3. Estimations

Are applied for:

- elaboration by NBS of the preliminary quarterly data regarding the animal production in households,
- submitting data regarding the livestock households, supplied by local public authorities.

4.2. Characteristics of the statistical survey

4.2.1. Objective and background

Conducting of the statistical surveys is necessary for estimating the evolution trends of agricultural activity.

Statistical survey " Livestock sector state" (form. no.24-agr)

The objective: to determine the main indicators regarding: production (breeding, sale) of animals in live weight; production of milk, eggs and wool; balance of livestock, livestock of the main species of animals.

Periodicity of survey: 1st quarter, 1st semester, 9 months, annually.

Changes in the statistical report " Livestock sector state" (no. 24-agr) are adjusted according to Regulation (EC) No 1165/2008 of the European Parliament and of the Council of 19 November 2008 concerning livestock and meat statistics.

Statistical survey "Livestock in households" (form. No. 6)

The objective: to obtain statistical data on the number of animals growing and maintained in households.

Periodicity of research: - quarterly (March 15, June 15, September 15), annually.

Sample statistical survey "The effective number of animals and poultry, animal production obtained and sold" (quest. 2-SAPS)

https://statistica.gov.md/files/files/Metadate/Mici_Producatori_Agricoli.pdf .

Practical organization and implementation of the statistical surveys is carried out by the National Bureau of Statistics through Agriculture and Environment Statistics Division.

4.2.2. Statistical unit

Agricultural holdings with legal entity or natural person status, which have in the balance sheet livestock and/or poultry (agricultural enterprises and farms);

Individual households.

4.2.3. Circle of units covered in the survey
<p>The general collectivity of units which are part of the survey aim is exhaustively surveyed units.</p> <p>In 2023, the annual survey on livestock and livestock production within agricultural enterprises covered - 472 units; the quarterly survey – 429 units.</p> <p>The number of mayoralties included in the survey – 902 units.</p>
4.2.4. Survey frequency
Quarterly, annually.
4.2.5. Data collection
<p>Data collection is carried out by completing and presenting statistical reports by:</p> <ul style="list-style-type: none"> - the economic agents included in the survey on the state of the livestock sector (no. 24-agr); - city/village/community mayoralties regarding livestock in households (no. 6). <p>to the territorial bodies for statistics or by online reporting through the portal https://raportare.gov.md/.</p>
4.3. Processing and compilation of data
4.3.1. Data validation
Data are verified and analyzed from their quality point of view, especially in relation to their internal coherence, temporal coherence, as well as coherence with other data.
4.3.2. Compilation/extrapolation of data
Data are compiled based on the centralization of information obtained within the statistical surveys.
4.3.3. Adjustments
Adjustments are made to the population of livestock in individual households.
4.3.4. Quality assurance
<p>The quality of statistical data is assured by observing the Fundamental Principles of Official Statistics adopted by the UN General Assembly on 29 January 2014, as well as those set forth in the national Law on Official Statistics no. 93 of 26 May 2017.</p> <p>In its activity of producing statistical information, NBS pays huge importance to ensuring high quality of data. In this respect, a number of measures for quality assurance are carried out at every stage of the statistical process: organization of statistical surveys, collection, processing, and development of statistical information.</p> <p>Important efforts are undertaken to ensure the plenitude and quality of data presentation by the respondents included in the statistical surveys.</p> <p>Errors, inconsistencies, and suspicious data are brought to light so as to be verified and corrected.</p> <p>The primary data are verified and analyzed from internal coherence point of view (within the questionnaire), temporal coherence (with data from previous periods), with data of other similar units, as well as with data available from other statistical surveys and administrative data sources. The missing or inconsistent data are imputed, if needed.</p> <p>To ensure the quality of the primary data, meetings (seminars) are organized with respondents for explaining the definitions, the correct way to fill in the questionnaires, especially when they are modified or implemented.</p>
4.4. Data accuracy
4.4.1. Non-response rate
SAPS
4.4.2. Sampling errors
The statistical surveys “Livestock Sector Status” (no. 24-agr), “Livestock in households” (no. 6) are exhaustive and does not apply sampling errors.

5. Comparability and Coherence

5.1. International comparability

The statistical survey on animal production is constantly harmonized with international standards.

5.2. Comparability over the time

The indicators on increase/decrease rhythm of animal production volume during the current period as against the respective period of the previous year are comparable with the data series from the previous years.

5.3. Coherence with other statistics

The data of the statistical survey “Livestock Sector Status”, “Livestock in households” are not correlated with other statistics.

6. Institutional Mandate (normative-legal basis)

The NBS activity is based on respecting the Republic of Moldova Constitution, the Law on Official Statistics No. 93 dated 26.05.2017, other legislative and normative acts, NBS management decisions and orders.

The Law on Official Statistics regulates the organization and operation of the unique system of official statistics, establishing the general principles for collecting, processing, centralizing, diminishing, and stocking statistical information (art.1).

Art. 5 of the Law provides that the production of statistical information is based on respecting the following principles: impartiality, objectiveness, relevance, transparency, confidentiality, cost-efficiency etc.

Being the central statistical body, the National Bureau of Statistics is an administrative authority created under the Government for leading and coordinating the activity in the statistics area.

In accordance with Government Decision 935 of 24.09.2018 on the organization and operation of the NBS, the Bureau exercises the following tasks:

- 1) Coordinates the national statistical system on the development and production of official statistics;
- 2) Elaborates and implements strategies for the development of the national statistical system, annual and multiannual statistical programs;
- 3) Elaborates the normative and institutional framework necessary for the achievement of the strategic objectives in its field of activity, as well as the mechanisms for their implementation in practice;
- 4) Performs the management and control of the achievement in quality conditions of the programs and statistical plans adopted at central and regional level;
- 5) Harmonizes and aligns national statistical indicators, methodologies, methods and techniques with international regulations and standards;
- 6) Promotes the statistical culture in the society.

The legislative and normative acts ruling the activity of the NBS are available on its official page www.statistica.gov.md, under About NBS (<http://www.statistica.gov.md/pageview.php?l=en&idc=323&>)

7. Confidentiality

7.1. Principles

According to art. 19 of the Law on Official Statistics No. 93 dated 26.05.2017, producers of official statistics shall take all regulatory, administrative, technical and organizational measures to protect confidential data and prevent their disclosure.

Chapter VII of the above-mentioned law stipulates that the data collected, processed and stored for the production of statistical information are confidential if they allow the direct or indirect identification of the respondents). The following shall not be considered confidential:

- a) data that can be obtained from publicly accessible sources according to the legislation;
- b) individual data on address, telephone, name, type of activity, number of employees of legal entities and individual entrepreneurs;
- c) data referring to public enterprises, institutions and organizations funded from the budget, submitted at the request of the public administration authorities.

According to the Law on Official Statistics, art. 20, access to confidential information is granted to the persons who, according to their official functions, participate in the production of statistical information shall have access to individual data in so far as individual data are necessary for producing this information.

The same article stipulates that the access to individual data, which do not allow the direct identification of respondents, may be given for scientific survey projects, whose expected results do not refer to identifiable individual units, under the regulation approved by the central statistical authority.

Art. 23 (5) of the Law stipulates that the the statistical information cannot be disseminated to users if it refers to 1-3 statistical units.

7.2. Practical assurance of the confidentiality rules

To ensure the protection of confidential statistical data in compliance with the Law on Official Statistics No. 93 dated 26.05.2017, the National Bureau of Statistics undertakes all the regulatory, administrative, technical, and organizational measures to protect the confidential statistical information and prevent its disclosure.

In compliance with the above-mentioned law, the employees of producers of official statistics, including temporary employees who, according to their official functions, have direct access to individual data shall be obliged to observe the confidentiality of these data during and after termination of employment.

Before being disseminated, the statistical data are verified if they meet the protection requirements set for confidential data. If the statistical data contain confidential information (see p. 7.1), they are not disseminated, but aggregated at the minimum available level which ensures the protection of data confidentiality.

8. Access to Information and Dissemination Format

8.1. Access to information

8.1.1. Calendar of statistical publications

Annually the Advance release calendar is developed by NBS.

8.1.2. Access to the calendar of statistical publications

The press release calendar is posted on the NBS official page www.statistica.gov.md.

8.1.3. Access to statistical data

According to the Law on Official Statistics No. 93 dated 26.05.2017, art. 23:

- a) Producers of official statistics shall be obliged to disseminate the statistical information within the deadlines specified in the programme of statistical works and in the press-release calendar.
- b) The dissemination of statistical information laid down in the programme of statistical works to all categories of users shall be made free of charge and under equal access conditions in terms of volume, quality and time of dissemination

The program of statistical work may be accessed on the web page www.statistica.gov.md, under About NBS / legislative and normative acts (<http://www.statistica.gov.md/pageview.php?l=en&idc=323&>)

The NBS web page www.statistica.gov.md represents the most important information source for ensuring users' access to different statistical information and transparency about the NBS activity.

All the operative information, informative notes, time series, as well as the statistical publications developed by NBS are placed on its official web page.

8.2. Dissemination format

8.2.1. Operative information / Analytical notes

The operative information and analytical notes are published on the official page of NBS: <http://www.statistica.gov.md> under Press Releases, according to the Press Release Calendar.

8.2.2. Publications

Statistical publications: Statistical Yearbook, Territorial statistics, Statistical pocket-book etc.

Access to publications:

- in electronic format, on NBS official page www.statistica.gov.md, under Products and services / Publications <http://www.statistica.gov.md/pageview.php?l=en&idc=350&nod=1&>

<ul style="list-style-type: none"> - in hardcopy format – in NBS library (more details at the address http://www.statistica.gov.md/libview.php?l=en&idc=340&id=2400 or may be procured at the NBS office (more details at the address www.statistica.gov.md, under Publications http://www.statistica.gov.md/pageview.php?l=en&idc=350&id=2219
8.2.3. Databases/time series
<ul style="list-style-type: none"> - Statistical databank http://statbank.statistica.md, under Economic statistics / Agriculture / Animal husbandry - NBS official page: http://www.statistica.gov.md under: <ul style="list-style-type: none"> • <i>Press Releases</i> • <i>Statistics by themes / Economic statistics / Agriculture / Animal husbandry</i> • <i>Products and Services / Publications / Economy.</i>
8.2.4. Questionnaires/data sent upon request from international organizations
Table No. 6.2 “Population of livestock and poultry” and No. 6.3 “Animal production” - CIS (quarterly) as well as FAO international questionnaires, Eurostat.
8.2.5. Requests for additional data
NBS makes available for users additional statistical information beyond the data presented in the statistical publications, informative notes, operative information, as well as the data placed on the official web page in the limits of available information, in line with the Law on Official Statistics. Request can be sent personally, by post, by e-mail moldstat@statistica.gov.md or via online web form – www.statistica.gov.md heading Products and services / Statistical data request

9. Useful References (links)	
9.1. Accessibility of documentation on methodology	
The methodology is available on the official page www.statistica.gov.md , under Metadata (http://www.statistica.gov.md/pageview.php?l=en&idc=351&nod=1&).	
9.2. Accessibility of documentation on Evaluation Reports	
The NBS assessment reports are available on the official page www.statistica.gov.md , under About NBS / Assessments and Opinions on NBS / Assessment Reports (http://www.statistica.gov.md/pageview.php?l=en&idc=399&id=2739).	
9.3. Accessibility of information on user surveys	
User surveys are available on the official page www.statistica.gov.md , under About NBS / Assessments and Opinions on NBS / User Surveys (http://www.statistica.gov.md/pageview.php?l=en&idc=399&id=2740).	
9.4. Other useful references	
EUROSTAT database	http://ec.europa.eu/eurostat/data/database
UNData database	http://data.un.org/Browse.aspx
UN Economic Commission for Europe database	http://w3.unece.org/pxweb/Dialog/
FAO STAT database	http://faostat.org/
CIS STAT database	http://www.cisstat.org/eng/index.htm