

State Statistics Service of Ukraine

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STANDARD REPORT ON QUALITY OF THE STATE STATISTICAL OBSERVATION "ANIMAL BREEDING STATUS" 1-2.03.07.06

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I. Introduction

The standard report on quality of the state statistical observation pertaining to animal breeding (hereinafter the report) was drawn up in order to inform users about the basic categories and indicators of quality of the state statistical observation's results regarding animal breeding. The report contains the general information which does not depend on the results of the state statistical observation regarding animal breeding for the specific period. It is based on the current methodology, procedures to process data, etc. The report has been prepared for the first time and is posted on the SSSU official web site (www.ukrstat.gov.ua/suya/st_zvit/st_zvit.htm).

The presented quality components such as adequacy, accuracy, timeliness and punctuality, availability and transparency, consistency and comparability meet the principles of statistical outputs production which are specified by section III of the Principles of the state statistics bodies' activity approved by SSSU decree 216 of June 14, 2010.

The basic principles of the state statistical observation's organization regarding animal breeding rest on the common methodological approaches that ensure comparable movements of indicators pertaining to the number of agricultural animals and output of animal produce for a significant period of time.

The purpose of conducting the state statistical observation regarding animal breeding is to obtain the good statistical information characterizing the number and productivity of the basic types of agricultural animals, output of basic types of animal produce, feed input for agricultural animal.

The statistical observation is designed to resolve the following tasks:

- impartial reflection of basic tendencies in animal breeding;
- ensure completeness, reliability and comprehensiveness of information about the number and productivity of agricultural animals, output of animal produce;
- implement the systematic approach to organization of statistical activities: from development of the methodology and statistical tools to ensuring the collection, processing, analysis and dissemination of data;
- ensure information needs while compiling index for output of animal produce and agricultural products at large, compilations of consumption funds of basic types of animal produce and their per capita consumption, filling-in the Register of Statistical Units and AGRO Register;
- ensure data comparability to make international comparisons;
- information support to the public authorities for decision-making about animal breeding development;
- supply users of statistical information with information materials;
- resolve other tasks specified by the national statistical legislation of Ukraine.

The state statistical observation pertaining to animal breeding according to the Guide of Statistics Sections refer to section 2.03 Economic Activity on the subject of statistical production 2.03.07 Agriculture, Forestry and Fishery.

The state statistical observation pertaining to animal breeding is undertaken by the state statistics bodies according to form 24 (annual) "Animal Breeding for 20.." and form 24-cr (monthly) "Animal Breeding as of ..." on the basis of the Instruction on how to fill in these forms approved by SSSU decree 296 of August 27, 2008 (registered at the Ministry of Justice on September 22, 2008 by N885/15576) with changes.

The normative and legal basis for the conduct of the state statistical observation over animal breeding is Ukraine's law on the state statistics, order 145-p of the Cabinet of Ministers of Ukraine of March 20, 2013 on approval of the Strategy to develop the state statistics till 2017, the annual plans for the state statistical observations, the joint decree 127/53/48 of the SSSU, the Ministry of Agro Policy and the State Committee on Land of April 26, 2000 on improvements to the system for statistical recording in agriculture of Ukraine.

The main sectoral publications that disseminate data from the state statistical observation over animal breeding are as follows:

- statistical abstract Ukraine's Animal Breeding;
- statistical bulletins Animal Breeding in Ukraine (preliminary data) and Animal Breeding in Ukraine (monthly information);
- press-releases Ukraine's Agriculture, Number of Livestock and Poultry as of January 1, 20...
- tables for the SSSU web site Number of Livestock and Poultry (monthly information), Output of Basic Animal Products (monthly information), Animal Breeding (1991-2014), Number of Livestock and Poultry by Region (monthly information), Output of Basic Types of Animal Products by Region (monthly information), on-line e-statistical maps about the number of agricultural animals and output of animal products.

Apart from the above-mentioned publications, the basic indicators of the state statistical observation over animal breeding (number and productivity of agricultural animals, output of basic types of animal products, availability and feed input for livestock) are given for dissemination in the monthly statistical bulletins Basic Macroeconomic Indicators of Ukraine's Social and Economic Development, Social and Economic Development of Ukraine, Statistical Bulletin 1; annual statistical abstracts Ukraine in Figures in 20..., Ukraine 20..., Regions of Ukraine, Statistical yearbook of Ukraine, Agriculture of Ukraine and Balance Sheets and Consumption of Basic Food Products by Ukraine's Population; press-releases Gross Agricultural Produce; reports Ukraine's Agriculture and On Social and Economic Status of Ukraine.

Within the framework of cooperation with international organizations, the indicators regarding the number of agricultural animals (by type) and output of basic types of animal products are continuously submitted to the Official Bureau of Statistics of the European Union (Eurostat), the UN Food and Agricultural Organization (FAO). Data are special requests are given to embassies, representative offices and missions of foreign countries to Ukraine, foreign establishments, organizations and other users.

2. Quality components of the state statistical observation

2.1. Adequacy

Adequacy is a degree to which the results of the state statistical observations meet the current and potential needs of users.

The main statistical indicators of the state statistical observation over animal breeding are indicators characterizing the output of basic types of animal products (meat, milk, eggs, wool); number of agricultural animals (cattle including caws, pigs, sheep and goats, poultry) and their productivity (average daily growth, average yield per caw, average egg yield per one laying hen); egg incubation; turnover of the number of agricultural animals; balance and availability of fodder by type; fur farming.

The indicators of the state statistical observation over animal breeding take into account the requirements to international standards, namely:

- Council Directives N94/432, 94/433 and 94/434 of May 30, 1994; N93/23, 93/24 and 93/25 of June 1, 1993; European Parliament and Council Regulation N1165/2008 of November 19, 2008 on statistics of the number of agricultural animals (by type) and meat output;
- Council Directives N96/16 of March 19, 1996 on statistics of milk and dairy products;
- Council Regulation N 2772/75 of October 29, 1975 and Council Regulation N 2782/75 of October 29, 1975 on output and sales of eggs for incubation;
- Council Directive N617/2008 of June 27, 2008 on statistics of egg output and poultry incubation.

The unit of the state statistical observation over animal breeding (statistical unit) is a local unit by type of economic activity.

Respondents (reporting (recording) unit) of this state statistical observation are legal persons, their separate units that keep agricultural animals, are involved into output of animal products and/or production of vegetable fodder.

When carrying out the state statistical observation over animal breeding, the following national classifiers are used, namely: the Classification of Organizational and Legal Forms of Business (COLFB) and the Classifier of Objects of Administrative and Territorial Division of Ukraine (COATDU). The COLFB is applied to produce groupings of agricultural enterprises by organizational and legal business (state-run enterprises, non-state-run enterprises, including farms). According to the COATDU, by geographical coverage, the observation is developed to cover districts, towns, regions (city of Kyiv and the Kyiv region).

The length of time series of the main statistical indicators from the state statistical observation over animal breeding is the longest is agricultural statistics. Across the country, the number of agricultural animals (by main types) is observed since 1915, output of basic types of animal produce since 1940; by region, the dynamics of the full list of indicators is available since 1990 (earlier, only by basic indicators).

The base period of the state statistical observation over animal breeding is a year which is previous to the reference one.

The degree of compliance with users' needs will be defined during the questionnaire survey planned for 2015.

2.2 Accuracy

Accuracy is a degree to which the compilations are brought closer to the real values.

The methodological aspects of the observation's conduct, the definition of agricultural enterprise which is involved into output of animal products, its size (large, medium, small), criteria and approaches to produce the population of units are reflected in the Methodological regulations on organization of the state statistical observation over animal breeding (http://www.ukrstat.gov.ua/method_polog/method_doc/2013/244/mp_st_tv.zip) approved by SSSU decree 75 of March 31, 2011 (with changes).

The definition of the main approaches, methods and sources of information used to make the compilations, procedure to compile the annual and current indicators of the state statistical observation over animal breeding are specified by the Technique to make the compilations of the main indicators of output of animal products in holdings of all types

(http://www.ukrstat.gov.ua/method_polog/method_doc/2013/245/met_ov_ptv.zip) approved by SSSU decree 270 of August 5, 2008 with changes).

The main concepts and procedure to compile indicators characterizing the fodder of agricultural animals are outlined in the Methodological recommendations about the compilations of expenditure for fodder of livestock and poultry in holdings of all types (http://www.ukrstat.gov.ua/method_polog/method_doc/2013/245/mr_vk_tvar.zip) approved by SSSU decree 18 of January 24, 2008 (with changes).

Statistical recording of animal breeding is made by location of agricultural resources (agricultural animals) not by place of registration of entity, i.e. if a legal person has the separate units in its structure which are located in different administrative and territorial units, then the separate units submit the reporting forms to the relevant state statistics bodies by place where the production activity is performed.

To carry out the state statistical observation over animal breeding, two main categories of agrarian commodity-producers and two sources of statistical information are specified: legal persons - agricultural enterprises (including farms) and natural persons - population holdings (households).

The size of enterprise which is engaged into output of animal products is a statistical criterion set on the basis of availability agricultural animals at enterprise at the beginning of the reference year (as of January 1).

All agricultural enterprises - legal persons regardless of their sizes, organizational and legal forms of business and subordination submit to the state statistics bodies the annual (complete) statistical observation over animal breeding by form 24 (annual) (6.6. thousand respondents). The monthly tracking of animal breeding by form 24-cr (non-complete) is made only at large and medium agricultural enterprises (almost 4.3 thousand respondents) that are engaged into output of animal products.

The monthly observations are characterized by narrow circle of issues being studied and tight deadlines for processing and releasing information. Some issues such as egg incubation, turnover of agricultural animals population are explored and disseminated once a quarter. The mentioned approach to agricultural enterprises gives the possibility to keep track of a majority of animal products output with decreasing the reporting burden per respondents with help of operative records.

Small agricultural enterprises that are engaged into output of animal products submit only form 24 (annual); during the year, the state statistics bodies make estimates for these enterprises on the basis of ratios of the number and productivity of agricultural animals, output of animal products which are made between small and large and medium agricultural enterprises for the previous years in accordance with the approaches defined by the Technique to calculate basic indicators of animal products output in holding of all types.

To make calculations for small agricultural enterprises during the year is a good idea since across Ukraine a share of small enterprises in the total number of enterprises submitting annual reporting is above 33% while their contribution into the general indicators of agrarian enterprises is insignificant. The characteristics of the share of small enterprises in the general indicators of agricultural enterprises are contained in information presented in tables 2.2.1 and 2.2.2 given below.

Table 2.2.1

Share of small enterprises in animal products output by agricultural enterprises in 2013

	Share of small enterprise, % of the total number of enterprises	Share of products output by small enterprises, % of the total output of agricultural enterprises			
		sales for livestock and poultry slaughtering	milk of all types	eggs from poultry of all types	wool of all types
Ukraine	33,2	0,3	0,6	0,4	2,0
Autonomous Republic of Crimea	55,9	1,0	2,7	0,0	2,1
Vinnytsya	24,9	0,0	0,2	0,0	0,0
Volyn	40,4	0,3	0,5	0,0	0,0
Dnipropetrovsk	40,2	0,2	0,7	0,0	0,0
Donetsk	42,0	0,2	0,4	0,0	0,0
Zhytomyr	41,5	3,5	1,4	0,0	0,0
Zakarpattya	69,3	15,2	16,7	16,7	14,7
Zaporizhzhya	40,1	0,0	0,7	0,0	0,0
Ivano-Frankivsk	71,0	0,3	2,9	0,0	0,0
Kyiv	26,8	0,1	0,1	1,5	–
Kirovohrad	26,0	0,0	0,3	0,0	0,0
Luhansk	28,6	0,8	0,7	1,3	0,0
Lviv	37,7	0,6	2,9	0,0	0,0
Mykolaiv	28,3	1,7	0,7	0,0	0,0
Odesa	26,0	1,1	1,0	1,1	0,0
Poltava	18,3	0,4	0,5	0,0	14,3
Rivne	23,7	0,6	0,2	0,0	0,0
Sumy	17,5	0,0	0,2	0,0	0,0
Ternopil	16,1	0,0	0,0	0,0	–
Kharkiv	24,7	0,8	0,2	0,0	0,0
Kherson	45,2	1,2	1,5	0,7	0,0
Khmelnyskiy	37,3	0,4	0,7	0,0	0,0
Cherkasy	15,3	0,0	0,0	0,0	0,0
Chernivtsi	41,7	2,0	2,3	0,0	5,6
Chernihiv	19,3	0,8	0,8	0,0	0,0

Table 2.2.2

Share of small agricultural enterprises in the number of agricultural animals as of January 1, 2014

	Share of the population at small enterprises, % of the total population at agricultural enterprises				
	cattle		pigs	sheep and goats	poultry of all types
	total	including caws			
Ukraine	0,7	0,7	0,8	3,6	0,2
Autonomous Republic of Crimea	1,3	1,8	2,0	2,3	0,0
Vinnytsya	0,4	0,3	0,8	0,0	0,0
Volyn	0,6	0,7	1,2	20,0	0,0
Dnipropetrovsk	1,3	1,3	0,3	1,9	0,0

Donetsk	0,5	0,4	0,3	1,0	0,0
Zhytomyr	1,5	2,1	2,2	5,5	0,2
Zakarpattya	17,6	18,2	6,9	20,5	1,3
Zaporizhzhya	0,4	1,1	0,0	0,0	0,0
Ivano-Frankivsk	2,7	5,4	0,2	36,8	0,0
Kyiv	0,3	0,3	0,1	7,3	0,9
Kirovohrad	0,3	0,0	0,2	0,0	0,0
Luhansk	1,0	0,7	2,1	2,9	0,0
Lviv	5,1	4,2	6,5	12,2	0,0
Mykolaiv	0,9	1,1	0,5	0,0	0,0
Odesa	0,9	0,8	1,1	0,9	1,3
Poltava	0,1	0,1	0,1	0,0	0,2
Rivne	1,0	1,3	0,9	0,0	0,0
Sumy	0,2	0,3	1,3	3,4	0,0
Ternopil	0,6	1,0	0,4	0,0	0,0
Kharkiv	0,3	0,3	0,6	4,3	0,0
Kherson	1,8	1,5	0,7	0,5	0,2
Khmelnyskiy	0,5	0,4	1,4	2,9	0,0
Cherkasy	0,0	0,0	0,1	0,0	0,0
Chernivtsi	1,6	0,0	0,3	6,3	0,0
Chernihiv	0,4	0,3	0,3	4,9	3,1

The building-up of the units' population of the state statistical observation over animal breeding is made by the state statistics bodies at the central level annually.

The procedure to carry out the work on building-up and updating the population is implemented according to Explanations 18.1-11/5 on how to conduct the work to build-up and update the units' population and lists of reporting (recording) units (respondents) of the state statistical observations dated on October 25, 2013.

When building-up the units' population by form 24 (annual) from AGRO register, those units are selected which regardless of subordination, organizational and legal forms of business have identification and classification attributes. mentioned in Table 2.2.3:

Table 2.2.3

Criteria to build-up units' population of the state statistical observation over animal breeding

	Criteria to build-up the total population	Classifications	Attributes of building-up criteria
1	Institutional sector of economy		S.11 "Non-financial corporations"
2	Type of statistical unit	Guide to types of statistical units	local unit by type of economic activity
3	Organizational and legal form of business	COLFB	regardless of organizational and legal form of business
4	Type of economic activity	CTEA	1) basic type of activity by the CTEA refers to codes 01.1-01.6 of section A including one of types of activity (basic or secondary) refers to codes 01.4 and 0.1.5 of this section regardless of the number of agricultural animals;

			2) basic type of activity by the CTEA does not refer to codes 01.1-01.6 of section A, but one of secondary types of activity refers to codes 01.4 and 01.5 of this section and keep up to 5 heads of cattle or pigs or sheep and goats or 3 heads of horses or 200 heads of poultry or 20 heads of rabbits or 20 heads of fur animals or 5 bee-families. If the number of agricultural animals is less then the one mentioned above, enterprise is not considered to be enterprise which is engaged into animal products output; 3) engaged into production of vegetal fodder
5	Territorial units	COATDU	in accordance with administrative and territorial division
6	Attribute of economic activity	x	active

The units' population by form 24-cr (monthly) is established on the basis of identified units' population for form 24 (annual) using specially specified criteria and thus, both units' populations have fully identic identification and classification attributes apart from the size of enterprise: form 24-cr (monthly) selects only large and medium enterprises engaged into animal products output, namely: enterprises that keep up to 30 heads of cattle and/or 30 heads of pigs and/or 30 heads of sheep and goats and/or 10 heads of horses and/or 2000 heads of poultry of all types (regardless of the basic or secondary type of activity)). The enterprises where the number of agricultural animals is less then mentioned above (regardless of the basic or secondary type of activity) are considered small enterprises being engaged into animal products output.

After the units' population by form 24-cr (monthly) was built-up for each region, an inspection is carried out as to coverage of annual output of basic types of animal products by the selected enterprises. If the units' population built-up by form 24-cr (monthly) does not ensure 80% of the annual output of basic types of animal products, then the selected small enterprises are included into it that are involved into animal product output with the numbers of heads of up to 20 heads of cattle and/or 20 heads of pigs and /or 500 heads of poultry. The selection of small enterprises is made after they have been prioritized by the number each livestock mentioned above.

Other specifics concerning the building-up of the units' population by form 24-cr (monthly) are specified by the above-mentioned methodological regulations on organization of the state statistical observation over animal breeding approved by SSSU decree 75 of March 31, 2011 (with changes).

During the year on the basis of information obtained from administrative sources or directly from enterprises about the changes in the numbers of agricultural animals and changes in enterprises' demography (start-up or stoppage of activity, creation of new enterprises on its basis, etc), the SSSU makes a decision about the necessity to make changes to the composition of the identified populations of units.

One of the main and complicated tasks of animal breeding statistics is the reflection of the number of agricultural animals and agricultural products output in population's holding which include households in rural areas, households in urban settlements as well as natural

persons -entities who carry out their activity in the area of agriculture without creating legal person.

Since 1996, quarterly from the first and since 1997 monthly the state statistics bodies make estimates of the number of agricultural animals and animal products output by population holdings and all categories of holdings (overall grouping which consists of indicators of all agricultural enterprises and population's holdings).

The main elements of statistical information base to make estimates by population holdings are thematic agricultural censuses, a local book which is a kind of local population register also with information on households with agriculture and sample surveys of agricultural activity of households in rural areas.

As for households located in urban settlements, the number of their agricultural animals is estimated on the basis of information from periodical (once every five years) censuses of livestock taking into account the dynamic and structural changes occurring in animal population in rural areas. The state statistics bodies took the complete enumeration of livestock as of January 1, 2006.

In rural areas, the recording of the number of agricultural animals as of January 1 is made by the state statistics bodies on the basis of complete enumeration annually launched by rural, village councils and city councils on whose territory the rural settlements are located.

Another source of information about this grouping is sample survey of agricultural activity of households in rural areas which is conducted continuously since September of 2000. The survey covers all 490 administrative rural areas of the country. The total population of this survey consists of households who possess or use land and whose location is registered on the territory of rural settlements (rural households), 5.0 million households taken as a whole.

The size of annual sample of households when surveying their agricultural activity in the action round of territorial sample from May of 2013 till April of 2018 is 29 154 units.

The sample surveys of agricultural activity of households in rural areas are conducted by the state statistics bodies using the questionnaires of the base (form 01-СГН) and monthly (form 02 - СГН) interviews. The base interview which is taken once a year characterizes the number of agricultural animals in households by types and age groups, i.e. it reflects available resources. The monthly interview contains information about the livestock turnover and average productivity of agricultural animals, feed inputs, products output.

The methodology behind the survey of agricultural activity of households in rural areas, the general scheme to build-up sample population of households, basic definitions and concepts, methods to obtain results which are applied for this survey meet at large the requirements and recommendations recognized in international statistical practice.

Generally, the characteristics of data reliability show that the obtained estimates of indicators are accurate for the level of Ukraine (the value of variation coefficient is less than 5%). For indicator Cows Population, the value of variation coefficient is identified at the level of 3%, for indicator Cattle Population it is 2.74%, for indicator Pigs Population it is 1.76%.

For regional level the accuracy of estimates is satisfactorily, and data from Table 2.2.4 given below show that and where for ease of use the estimates of indicators are split into five categories of reliability. If variation coefficient of sample estimates of indicator takes the value up to 5% inclusive, the indicator refers to group A, i.e. group of indicators with high level of reliability; 5.1-10.0% it refers to group B with sufficient level of reliability; 10.0-15.0% it refers to group B with satisfactorily level of reliability; 15.1-25.0% to group Г

with low level of reliability; more than 25.1% to group Д with unsatisfactorily level of reliability:

Table 2.2.4

Characteristics of quality estimates and reliability values of the number of agricultural animals in households for 2013

	Cattle				Pigs	
	total		including caws		relative standard sample error, %	reliability category
	relative standard sample error, %	reliability category	relative standard sample error, %	reliability category		
Ukraine	2,74	A	3,00	A	1,76	A
Autonomous Republic of Crimea	15,09	Г	12,15	В	43,37	Д
Vinnitsya	6,60	Б	6,18	Б	9,56	Б
Volyn	5,45	Б	7,39	Б	3,67	А
Dnipropetrovsk	6,73	Б	12,19	В	19,52	Г
Donetsk	14,95	В	12,85	В	17,79	Г
Zhytomyr	4,37	А	5,38	Б	7,69	Б
Zakarpattya	9,18	Б	7,05	Б	12,93	В
Zaporizhzhya	25,33	Д	34,17	Д	24,76	Г
Ivano-Frankivsk	9,85	Б	8,16	Б	11,90	В
Kyiv	13,01	В	13,43	В	6,55	Б
Kirovohrad	15,83	Г	13,03	В	13,17	В
Luhansk	13,99	В	12,44	В	13,65	В
Lviv	5,46	Б	4,85	А	7,78	Б
Mykolaiv	13,47	В	13,04	В	20,71	Г
Odesa	12,20	В	12,23	В	22,51	Г
Poltava	8,27	Б	8,82	Б	14,39	В
Rivne	12,56	В	11,63	В	7,84	Б
Sumy	9,19	Б	10,57	В	9,42	Б
Ternopil	6,46	Б	7,89	Б	9,32	Б
Kharkiv	19,35	Г	18,57	Г	9,20	Б
Kherson	9,26	Б	10,11	В	32,49	Д
Khmelnitskiy	6,94	Б	5,87	Б	5,78	Б
Cherkasy	9,40	Б	13,14	В	7,42	Б
Chernivtsi	13,47	В	11,91	В	9,27	Б
Chernihiv	7,49	Б	8,04	Б	4,97	А

Not-too-high accuracy of estimates of indicators on livestock population in selected regions is caused by the methodology to select households in order to undertake sample survey of agricultural activity of households in rural areas. The survey is based on area size of their land plots.

The detailed results of the characteristics of reliability estimates of indicators from sample survey of agricultural activity of households in rural areas are annually given in reports on quality of survey results for the reference year which are posted on the SSSU official web site (www.ukrstat.gov.ua).

The methods and main approaches applied by the state statistics bodies to make the current and annual estimates of the number of agricultural animals and animal products output, feed inputs in holdings of all categories are specified by the Technique to compile

basic indicators of animal product output in holdings of all categories and the Methodological recommendations to estimate feed inputs for livestock and poultry in holdings of all categories.

The following should be marked as the most important:

- 1) estimates are made by region (it is possible to make conventional distribution of indicator by district);
- 2) current compilations are made on discrete basis (for the reference month) while the sum of amounts of output for selected months makes up the output for the reference period;
- 3) aggregated data from sample survey of agricultural activity of households in rural areas are used to specify indicators of average production yield per one head of agricultural animals (by type) which was in households in rural areas at the beginning of reference month;
- 4) amounts of output of basic animal products in households' holdings are calculated as the product of indicators showing average production yield per one head of agricultural animals (by type) in rural area and the total number of the relevant types of agricultural animals in population's holdings (in rural areas and urban settlements);
- 5) through lack of or insufficient quantity of data by selected indicators (for example, by selected type of livestock) or territories (districts), according to the results from sample survey of agricultural activity of households in rural areas in order to adjust indicators to upgrade the reliability of estimates, the following is used as additional sources: aggregated information from sample survey grouped by natural and agricultural territory to which a district refer to or by region at large; information about average value of indicator in population's holdings for the previous 5 years; ratios of similar indicators in agricultural enterprises and population's holdings in dynamics; tendencies (rates of indicators changes) that are characteristics for agricultural enterprises and farms.

At all levels of processing after form 24 (annual) and form 24-cr (monthly) have been received broken down by respondents, the state statistics bodies make a primary analysis of data, their entry into complex for electronic processing of statistical information (CEPI), logic and arithmetic checks (of both input and output data sets), transfer of validated information to the higher level of production and formation of data archive.

At regional level, the state statistics bodies also compile the current indicators of animal breeding in small agricultural enterprises, current and annual indicators by population's holdings which are transferred to the national level through the CEPI alongside with information by the abovementioned forms.

The state statistics bodies compile indicators characterizing the output of basic types of animal products (sales of slaughtered agricultural animals (in live weight), milk, egg and wool output of all type) and the number of agricultural animals (by basic types). The state statistics bodies do not make estimates for all other indicators by holding of all categories. The characteristics of groupings break downs and publication of indicators, their periodicity under this observation are specified by the Technique to compile basic indicators on animal products output in holdings of all categories.

As a results of analysis of population of units of the state statistical observation over animal breeding, it was noted that some 2% of enterprises did not report in accordance with form 24 (annual) and 4% in line with form 24 -cr. A majority of enterprises did not report due to inadequacy to criteria of unit of statistical observation (i.e. enterprises did not carry out

animal activity for the reference date) and this has not significantly have impact upon accuracy of basic indicators of animal breeding statistics.

2.3. Timeliness and punctuality

Timeliness is the period of time between an event and phenomena that describe statistical data and publication of these statistical data.

Punctuality is the period of time between the actual date of data publication and the planned date which is specified in official calendar for publications.

The dates for data submission and publications based on the results of the development of the state statistical observation over animal breeding are set by the plans for the state statistical observations which are annually approved by the Cabinet of Ministers of Ukraine and presented on the SSSU official web site (www.ukrstat.gov.ua), the Catalogue of Statistical Publications and Plan-Schedule for Updating Materials for the SSSU Official Web Site.

According to the schedule for data dissemination, the official sectoral statistical publications are prepared and released at the following dates:

Type of publication and title	Time period between the period of the survey's end and date of publication	Dates of dissemination	
		according to plan	actual
Statistical bulletin Animal Breeding in Ukraine for January-___, 20__	monthly, on the 10th day after the reference period	14.01	14.01
		12.02	12.02
		13.03	13.03
		11.04	11.04
		15.05	15.05
		13.06	13.06
		11.07	11.07
		13.08	13.08
		11.09	11.09
		13.10	13.10
Press-release Agriculture	monthly, on the 15th day after the reference period	15.01	15.01
		14.02	14.02
		14.03	14.03
		15.04	15.04
		16.05	16.05
		16.06	16.06
		15.07	15.07
		15.08	15.08
		15.09	15.09
		15.10	15.10
Statistical bulletin Animal Breeding in Ukraine (preliminary data)	once a year, on the 56th day after the reference year	25.02	25.02
Press-release Population of Livestock and Poultry as of January 1, 20__	once a year, on the 80th day after the reference year	21.03	21.03
Statistical abstract Animal Breeding in Ukraine	once a year, on the 128th day after the reference year	08.05	08.05

The mentioned dates for dissemination of statistical information from the state statistical observation over animal breeding meet international standards and requirements. Particularly, as for monthly indicators of the population of agricultural animals (by type), Eurostat fixed the 75-105th day after the reference date, as for meat output, it set the 60th day after the reference month, as for milk output it fixed the 45th day after the reference month (for the annual amount, the 180th day after the reference year).

Dates for data collection and processing:

	Collection	Processing by regional statistics bodies	Processing by the Main Office for Regional Statistics	Analysis	Achievement of the results
form 24 (annual)	before the 20th of January	I ten day period of February	I ten day period of February	III ten day period of February	preliminary data: III ten day period of February; final data: I ten day period of May
form 24-cr (monthly)	before the 2nd day after the reference period	on the 6th day after the reference period	on the 6th day after the reference period	I ten day period after the reference period	I ten day period after the reference period

As far as non-standard requests are concerned, the time interval between the date when they have been received from users and the date when data were provided does not exceed 5 days in most cases in accordance with Ukraine's law on access to public information.

Taken into account the quality of information, its usefulness and being in demand by users, both preliminary and final data are compiled and disseminated about the number of agricultural animals (by type) and output of basic types of animal products.

The deviation between the preliminary and final data on agricultural enterprises, both by basic type of animal products and the number of agricultural animals, is 0.1% across Ukraine for milk and egg output, the number of cows and up to 0.4% for the number of sheep and goats, poultry of all types. This is explained by insignificant share of estimate in this grouping. For regional breakdowns, the deviations are somewhat more but do not exceed 5% and they are fixed mainly in the Zakarpattya, Ivano-Frankivst and Chernivtsi regions for which as data show in Table 2.2.1 a significant number of small enterprises is characteristic and thus, more estimates are needed as compared to other regions.

As for population's holdings, the deviation between the preliminary and final data characterizing output of basic animal products across Ukraine does not exceed 1.0% as a rule. The highest deviations of indicators of milk output are fixed in the Kherson (1.5%) and Kyiv (2.6%) regions; sales of livestock and poultry to be slaughtered in the Chernihiv (4.1%) and Donetsk (4.6%); egg output on the Zaporizhzhya (5.0%) region.

More significant by region are the deviations between the preliminary and final indicators that characterize the number of agricultural animals which are given in Table 2.3.1:

Table 2.3.1

Deviations between the number of agricultural animals in population's holdings by data on livestock recording (final data) and the relevant estimated (preliminary) data as of January 1, 2014

(percent)

	Cattle		Pigs	Sheep and goats	Poultry of all types
	total	including caws			
Ukraine	-4,9	-1,8	0,8	-5,1	0,1
Autonomous Republic of Crimea	-15,8	-6,0	-6,5	-17,7	0,0
Vinnysya	-9,0	-2,7	1,4	-15,9	0,0
Volyn	-2,6	-0,2	0,0	-0,6	0,0
Dnipropetrovsk	-2,9	-2,1	-1,3	-5,5	0,0
Donetsk	-0,6	-1,5	4,2	-5,2	0,0
Zhytomyr	-6,3	-3,4	-0,4	-3,1	0,0
Zakarpattya	-0,3	-0,6	1,7	0,5	0,0
Zaporizhzhya	-4,7	1,2	10,0	-8,0	2,8
Ivano-Frankivsk	-3,1	-2,4	1,1	-0,7	0,0
Kyiv	-16,7	-5,1	-6,7	-20,6	0,0
Kirovohrad	-8,9	-2,4	-3,8	-1,8	0,0
Luhansk	-5,0	-4,2	-8,0	-6,8	0,0
Lviv	-0,9	-0,4	1,2	0,7	1,6
Mykolaiv	-2,7	1,0	8,7	-5,4	0,0
Odesa	-0,6	1,3	2,3	1,9	2,9
Poltava	-11,1	-3,2	5,9	-8,1	-0,2
Rivne	-1,6	0,0	-1,0	-3,7	0,0
Sumy	-5,4	-1,9	4,6	-4,2	0,0
Ternopil	-6,4	-5,5	0,3	1,7	2,7
Kharkiv	-1,1	0,2	-1,7	0,6	-1,4
Kherson	2,5	-7,6	-14,7	-8,6	0,0
Khmelnitskiy	-10,2	-1,1	9,7	-3,3	-8,1
Cherkasy	5,1	2,4	1,0	1,5	-0,8
Chernivtsi	-6,5	-2,5	2,5	-1,3	0,0
Chernihiv	-5,9	-0,3	4,5	-5,3	1,8

Based on the results of annual data production, in case of significant deviations between the final and estimated data, according to the Technique to make estimates for basic indicators of output of animal products in holdings of all categories, the regional statistics bodies revise and update monthly information for the previous year (base). The re-calculations of base indicators by region are made only if the SSSU Department for Agriculture and Environment gives a permission and it is done one time for the whole year.

2.4. Availability and understability

Availability is a characteristic of simplicity and easiness with which user can obtain statistical data; it is defined by physical conditions upon which users can obtain access to statistical data.

Understability is a characteristic of simplicity and easiness for user to understand statistical data; it is measured through information environment where statistical data are presented and which are accompanied by relevant metadata.

The results of the state statistical observation over animal breeding in most cases in full are given to users on paper (publications, bulletins and abstracts) and in e-formats through different media (via the internet, by posting on the site, etc).

A full list of publications about animal breeding, short description of their contents are presented in the SSSU annual publication: Catalogue of Statistical Publications on the web site at http://www.ukrstat.gov.ua/druk/publicat/kat_u/2012/12_2012_u/cat_14.rar.

Abstract Animal Breeding in Ukraine can be ordered and purchased at the state enterprises Derzhanalitinform (address: room 413, 419, Esplanadna st., Kyiv -601, 01601; tel./fax 289 77 62, 287 03 79; e-mail: iaa@dstati.kiev.ua; web site: www.iaa.kiev.ua).

A limited number of publications are prepared on paper which are mailed according to a compulsory list of publications to be sent out to legislation and executive bodies, research and educational institutions and libraries; e-publications can be accessed freely by users via the internet, the publications are in user-friendly formats (Excel, pdf).

All publications as well as press-releases and statistical information on animal breeding are posted on the SSSU official web site (www.ukrstat.gov.ua) in sections:

- Statistical information/Agriculture;
- Social and Economic situation in regions of Ukraine/Agriculture (monthly information);
- Press-releases/Statistics of Agriculture and Fishery and Environment
- Publications/Statistics of Agriculture and Environment.

The methodological aspects to conduct the state statistical observation over animal breeding, basic definitions, contents of indicators, procedure for their compilation, algorithms to build-up a system for output indicators are reflected in the relevant methodological documents which are posted on the SSSU official web site (www.ukrstat.gov.ua) in sections Methodology and Classifications/Methodological Regulations on Statistics/Statistics of Agriculture and Environment and Metadescriptions of the State Statistical Observations/Statistics of Agriculture/Animal Breeding (0109006).

The contacts to obtain additional information about the results of the given observation, relevant methodological support as well as information about the conditions to disseminate its results:

address: 3, Shota Rustaveli st., city of Kyiv-601, 01601

tel.: (044) 287 50 44

e-mail: O.Malandiy@ukrstat.gov.ua

Contact information for information request: tel.: 287 06 72, fax: 235 37 39; e-mail: el.zapyt@ukrstat.gov.ua

2.5. Consistency and comparability

Consistency of two or more statistical data implies to what extend the state statistical observations where they have been produced made use of same metadata: classifications, definitions and population being studied as well as harmonized methods.

Comparability is an isolated example of consistency when statistical data refer to the same objects of data while the purpose of their unification is to make comparisons in time or by region or other spheres of activity.

Consistency and comparability of data from the state statistical observation over animal breeding are ensured by a common population of units (taking into account the criteria to produce the population of units by form 24-cr (monthly); Identical list of indicators, their

definitions and procedure to compile; while producing information, application of common classifications and unified statistical reference books, unified information base (aggregated data from sample survey of agricultural activity of households in rural areas (forms 01-СГР and 02-СГН), overall results of livestock recording (aggregated data from form 7)), harmonized methods and approaches to make current and annual calculations on the number of agricultural animals and output of animal products.

2.6. Estimate of users' needs and expectations

Statistical information based on the results of the state statistical observation over animal breeding is consumed by domestic and external users.

A list of domestic users is as follows:

User	Aims of usage
Structural unit in charge of issues pertaining to agriculture and environment	The observation data are input for compilation of monthly and annual amounts and index for animal products output and agricultural produce; compilations of consumption funds of basic types of animal products and rate of their consumption per one person; filling in Register AGRO with indicators.

A list of external users of the results from the state statistical observation over animal breeding is as follows:

Users' groups	Users
Central bodies of legislation and executive power	Administration of President of Ukraine, Ukraine's Parliament, Secretariat of Ukraine's Cabinet of Ministers, Ministry of Economic Development and Trade of Ukraine, Ministry of Finance of Ukraine, Ministry of Agrarian Policy and Food of Ukraine, Ministry of Ecology and Natural Resources of Ukraine, Council of National Security and Defense of Ukraine, AntiMonopoly Committee of Ukraine, Audit Chamber of Ukraine.
Other government organizations	National Bank of Ukraine, State Service of Ukraine on Security of Food Products and Protection of Consumers, National Association of Pedigree Work in animal Breeding, State Agency on Energy Effectiveness and Energy Saving of Ukraine
Local authorities and regional units of executive power bodies	Local authorities, local bodies and regional units, representative offices and branches of bodies of executive power of Ukraine
International organizations	Official Bureau of Statistics of the European Union (Eurostat), UN Food and Agricultural Organization (FAO), embassies, representative offices and missions of foreign countries to Ukraine, foreign institutions, organizations, etc
Research and educational institutions	National Institute of International Security Problems under Council of National Security and Defense of Ukraine, National Academy of Agrarian Sciences of Ukraine, National University of BioResources and Natural Resource Use of Ukraine, National Institute of Strategic Researches, National Research Center "Institute for Agrarian Economy", Institute of Economy and Forecasting under National Academy of Science of Ukraine, Council to Explore Productive Forces under National Academy of Science of Ukraine, Ukrainian National State Institute for Productivity of AgroIndustrial Complex, Institute for Food Resources of Ukraine and others
Libraries	Book Chamber, Central Research Agricultural Library, National Library of Ukraine named after V.I. Vernadsky, National Parliament Library of Ukraine, Lviv Research Library of Ukraine

	named after V.S. Stephanyk, Odesa Research Library named after M. Horky, Kharkiv State Research Library named after V.H. Korolenko and others
Other organizations and users	Association "Union of Poultry Breeders of Ukraine, Association of Milk Producers of Ukraine, enterprises, public organizations and unions, political parties, trade unions, mass media, citizens of Ukraine and others.

In 2013 under the first questionnaire survey of users about publications on issues pertaining to agriculture which are posted on the SSSU official web site in sections Publications and Press-releases, the compliance with the needs of users of information on animal breeding statistics was explored, particularly, information which is contained in annual statistical abstract Animal Breeding of Ukraine.

Based on the results of users' surveying, the abstract received the following assessments by categories given below:

- users are satisfied with methodological explanations fully in 74% and partially in 20% of responses;
- list of indicators contained in the abstract satisfies 87% of responses.

More full questionnaire survey of users of statistical information about the satisfaction of their needs in information and defining the assessment of quality of the mentioned statistical information is planned to be carried out in 2015 based on the results of the development of the state statistical observation.

2.7. Effectiveness, expenditure and burden per respondents

The SSSU makes the annual assessment of the reporting burden per respondents on the basis of the Technique to measure the reporting burden per respondents approved by SSSU decree 149 of May 14, 2013. Across Ukraine in 2014 the reporting burden per respondents as compared with 2013 fell by form 24 (annual) by 14.8% and form 24-cr (monthly) by 15.9% due to decrease in the number of respondents (by data from matrix of respondents' participation in the state statistical observations).

Based on the results of questionnaire survey, the average time expenditure for filling in form 24 (annual) is 7 hours and 15 minutes, for form 24-cr (monthly) 2 hours and 54 minutes. Regardless of significant time spent to fill in the forms, a majority of the surveyed respondents (71% by form 24 (annual) and 80% by form 24-cr (monthly)) did not faced much difficulties in understanding the instruction (explanations) and the contents of indicators, compiling information and filling in the form. Index for respondents' satisfaction by form 24 (annual) is 85% while by form 24-cr it is 90% (with average indicator of 87% for the state statistical observations).

To simplify the procedure to submit the forms of the state statistical observations by respondents, it is envisaged to present an e-report: form 24-cr (monthly) since 2010, form 24 (annual) since 2011. Percentage of the e-reporting by form 24 (annual) and form 24-cr (monthly) is almost 5%.

2.8. Confidentiality, transparency and protection

Depersonalization of data providers, confidentiality of information they submit and its usage only for statistical purposes should be guaranteed. The state statistics bodies have to impartially, professionally and transparently disseminate statistical data.

When releasing the results from the state statistical observation over animal breeding it is essential to observe the principle of confidentiality of statistical information which is defined by articles 21 and 22 of Ukraine's law on the state statistics.

To satisfy users' needs in observing the conditions set to protect confidentiality of data, alongside with the preparations of materials for publications, databases/files of microdata (depersonalized individual indicators broken down by agricultural enterprises) are established which are used mainly to supply information at non-standard requests. Alongside with files of microdata, the descriptions of their structure are given.

In some cases, to ensure confidentiality, information is presented as groupings by basic indicators which characterize animal breeding, particularly by the number and productivity of agricultural animals, output of basic types of animal products.

3. Concluding part

Taking into consideration the abovementioned, the state statistical observation on animal breeding statistics could be defined as accurate, understandable, consistent, comparable, timely and available by key directions.

All targeted users of the mentioned statistical information obtain it according to the fixed dates in electronic format and if agreed on paper.

The key indicators of quality of results of the state statistical observation over animal breeding such as compliance with users' needs and timeliness of the obtained information will be defined after the questionnaire survey of users have been conducted which is planned for 2015, after it the report will be complemented with by all criteria.

The SSSU official web site (www.ukrstat.gov.ua) contains almost all statistical information, dates of its release and methodological materials on animal breeding statistics. In view of the above, users have the possibility to independently make use of information needed by them.

At the same time, as a result of the report compilation, the tasks have been formulated which should be resolved in the near future: take into account the European methodology and standards which are associated with recording the population of pigs in live weight; carry out the full questionnaire survey of users of statistical information about satisfaction of their needs in information in 2015; take moves to improve cost-effectiveness and decrease in burden per respondents.

This report is a starting point to draw up more detailed standard reports on quality of this state statistical observation aimed at satisfying the needs of domestic and external users in wider and deeper information about the quality of data and processes.