



Statistics of Food Grain Stocks in Ukraine

OLGA MARTYNIUK

***Senior Specialist of the Department on Agricultural
and Environmental Statistics***

Three data sources for food grain stocks

2 Statistical observations:

- ❖ form N 21-zag "Sales of agricultural products"
- ❖ form N 1-zerno "Delivery to and availability of grain and oilseed crops at storage and processing enterprises"

Sample survey on agricultural activity of rural households:
form № 02-СГН "Monthly questionnaire"

Statistical observations and sample survey have the same (monthly) frequency – it excludes double counting.

Department on Agricultural and Environmental Statistics of the SSCU along with the local statistics offices are responsible for the data collection on grain stocks.



Form № 21-zag “Sales of agricultural products” (yearly)

Respondents – legal entities engaged in agricultural activities (excluding small ones). Observations are submitted to the regional statistical offices. The number of respondents in 2015 was 8600.

Type of observation by degree of unit coverage - non-complete of basic set.

Objective - Obtain data on the volumes and value of agricultural products sold by respective enterprises in line with their activities and type of product

Basic statistical indicators

The volumes and value of agricultural products sold (including sales to processing enterprises, products obtained by workers as remuneration, products obtained by shareholders as rent for the land and property shares, products sold in the markets through own stores, others). The number, volume and value of sold breeding animals.

The volume of own-manufactured products related to processing the agricultural animals and poultry, crops (including cereals and legumes, grapes, fruits, vegetables, sunflower seeds).

The volume of cereals and legumes (including wheat, rye, barley, maize), sunflower seeds and sugar available directly on the farm at the end of reporting period. This refers to the own and accepted for storage products.



Form N 21-zag “Sales of agricultural products” (monthly)

Respondents – the same list as for form 21-zag (yearly)

Basic statistical indicators

The total volumes and value of agricultural products sold.

The volume of own-manufactured products related to processing the agricultural animals and poultry, crops (including cereals and legumes, grapes, fruits, vegetables, sunflower seeds).

The volume of cereals and legumes (including wheat, rye, barley and maize), seeds of oil-bearing crops (including soya beans, colza, sunflower) and sugar available directly on the farm at the end of reporting period. This refers to the own and accepted for storage products).



List of respondents for Form N 21-zag

The basis for the creating the list of respondents is information about active agricultural enterprises engaged in production of agricultural goods and services. Their size must be equal to or exceeds the thresholds at least one of the following criteria:

for private farms: agricultural land area - **1000 ha**,
number of employees in agriculture - **50 people**;

for other agricultural enterprises:

agricultural land area - **200 ha**,
number of cattle - **50 heads**,
pigs - **50 heads**,
sheep and goats - **50 heads**,
poultry - **500 heads**,
number of employees in agriculture - **20 people**,
income from sales of agricultural goods and services - **150 thsd.hrn.**
(about \$6000)

Form № 1-zerno “Delivery to and availability of grain and oilseed crops at storage and processing enterprises” (monthly)

Respondents - legal entities, separate divisions of the legal entities.

The number of respondents in 2015 was 1166.

Type of observation by degree of unit coverage - complete enumeration.

Objective - obtain data on the volumes of grain and oil-bearing crops delivered to processing enterprises, purchase prices, quality of raw materials and volumes of grain and oil-bearing crops' stock at the enterprises engaged in their storage and processing

Basic statistical indicators

Volumes of availability of grain and oilseed crops at the enterprises as of the first day of a month.

Volumes of supply and processing of grain and oilseed crops since the beginning of the year; processing on flour, groats, feed; average purchase price of grain and oilseed crops in the enterprises engaged in their storage and processing.



List of respondents for Form N 1-zerno

Respondents – legal entities, separate divisions of legal entities that have own processing facilities or rent them; buy, process agricultural products; have or rent facilities for grain and oilseed crops storage.

List of NACE codes

C10.4.1 - Manufacture of oils and fats

C10.6.1 - Manufacture of grain mill products

C10.9.1 - Manufacture of prepared feeds for farm animals

C11.0.1 - Distilling, rectifying and blending of spirits

C11.0.6 - Manufacture of malt

H52.1.0 - Warehousing and storage

Enterprises with the codes not listed above may be included in the list of respondents if they are engaged in the agricultural product processing.

Enterprises included in the list of respondents for form N 1-zerno are not included in the list for form N 21-zag



Register AGRO

“Register of statistical units in agriculture, hunting, forestry and fishery”

Creation and maintenance of accurate, relevant and qualitative list of entities engaged in economic activity in the sphere of agriculture, hunting, forestry and fishery first of all as the basis for organizing the state statistical observations in the relevant statistics spheres.

Integrated State Register of Enterprises and Organisations of Ukraine

An automated system of collection, accumulation and processing of data on all legal entities, separate units of legal entities located in Ukraine, separate units of legal entities located beyond Ukraine.

Ensures the integrated State recording and identification of all entities and serves as the basis for state statistical observations.

The establishment and maintenance of Register are ensured by state statistical bodies.

Data in the Register are regularly updated. For example there is a procedure for replacing the wrong type of economic activity obtained by enterprise upon registration on the right one using the results of state statistical observations. Type of economic activity is the main criteria for drawing up the lists of respondents.



Sample survey of agricultural activity of rural households

- Monthly periodicity. Method – in-person interview.
- Sample size is **28,2 thsd. households** (0,6% from 4,7 mln. rural households) in all districts of Ukraine
- Based on the natural and agricultural aspects of regions and size of households; data representativeness at regional level

The program of sample survey on the production of grain

Base interview (*once per year*)

Data on structure of household and resource indicators:

- *sown area (cereals by type)*
- *farm buildings and machinery*
- *the use of fertilizers*

Monthly interview

- *gross yield and harvested area of crops (cereals by type)*
- *sowing area of winter cereals and their death*
- *products sales (volume, prices and directions of grain sales)*
- ***availability of selected agricultural products in household***
(availability of grains including wheat; flour, groats)

Grain Supply and Demand Balance System

Information system “Calculation of grains balance forecast for Ukraine”

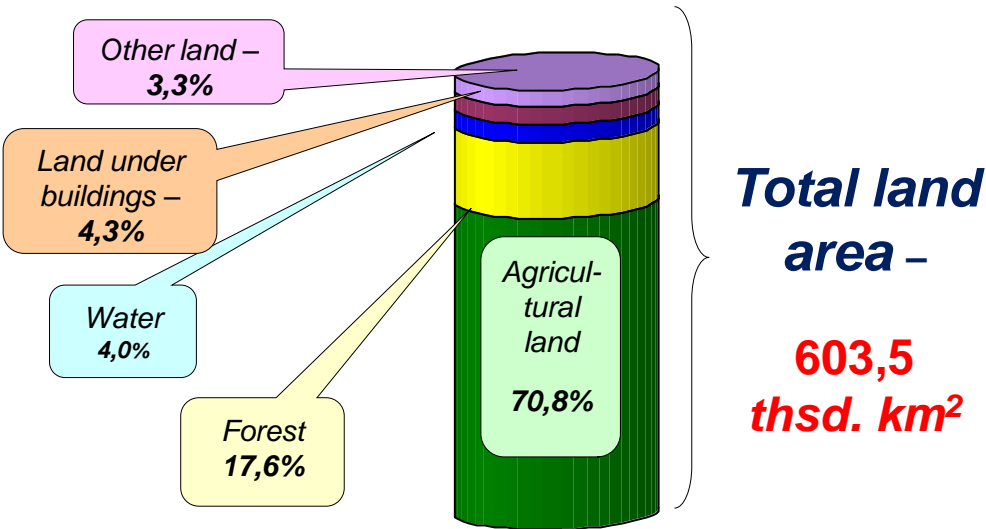
It was created in 2012 in the framework of the FAO/EBRD "Ukraine Grain Sector Review and Policy Options" project.

The system consists of **120 indicators** related to production, processing, consumption, trade and stocks that are coming from 13 different statistical forms and surveys.

Based on this information, the system generates **15 indicators** that form the balance for wheat, barley, corn, rye, and total grain.

Indicators are (mostly) updated on a monthly basis and can be compared to the corresponding estimates from the US Department of Agriculture (USDA) for Ukraine.

LAND AREA OF UKRAINE IN 2015



Agricultural land - 42,7 mln. ha

Including:

arable land - 32,5 mln. ha

hayfields - 2,4 mln. ha

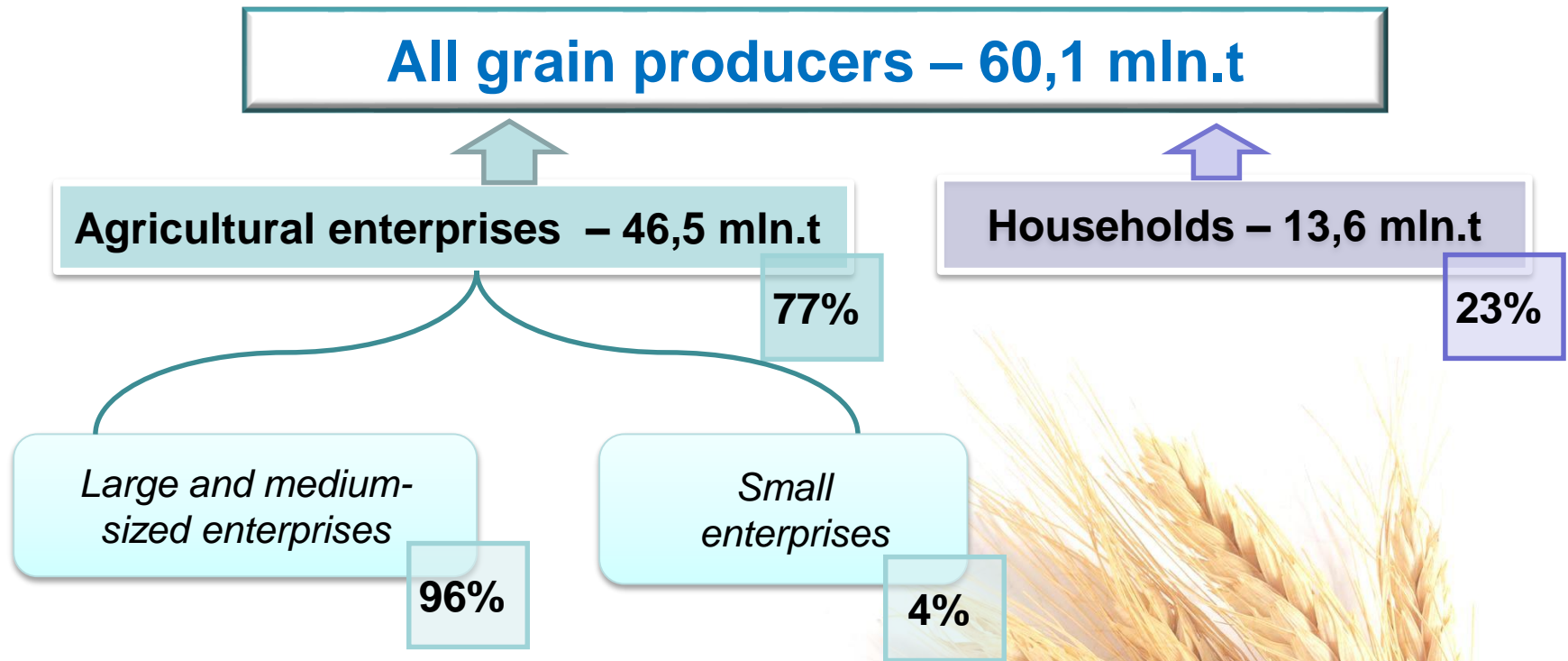
pastures - 5,4 mln. ha

other - 2,4 mln. ha

30% of the world's black soil is in Ukraine.

Black-colored soil or chernozem contains a very high percentage of humus (from 3% to 15%) along with phosphoric acids, phosphorus and ammonia.

Grain production in 2015



- Large and medium-sized enterprises – with an area of agricultural land **more than 100 ha**
- Small enterprises – with an area of agricultural land **less than 100 ha**



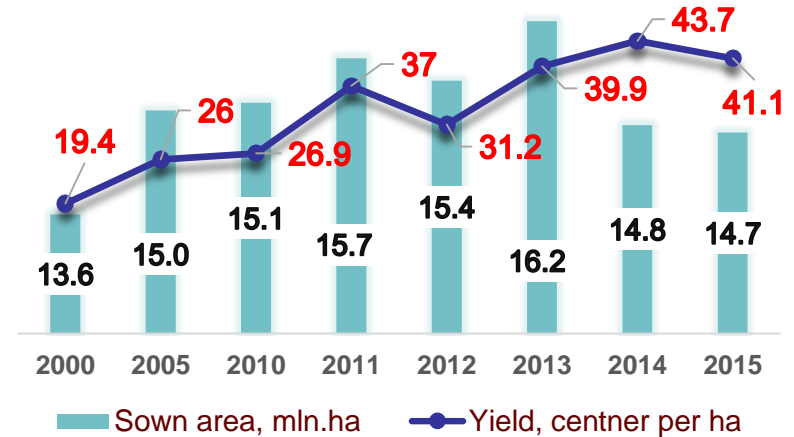
Grain and leguminous crops



Gross production of grain and leguminous crops, thsd.t

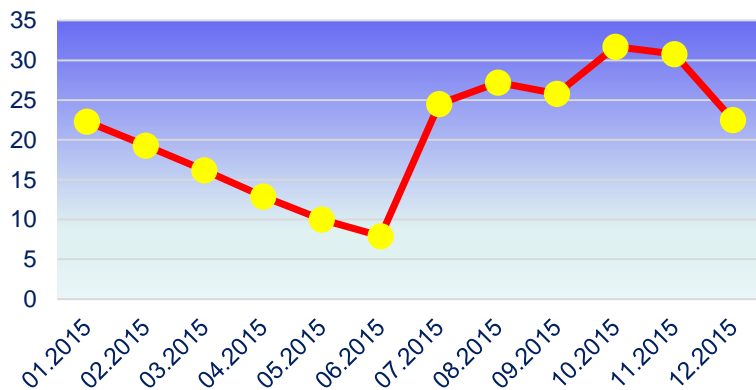


Sown area and yield of grain and leguminous crops



¹ Data for 2014, 2015 don't include the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone.

Stocks of agricultural producers and storage, processing enterprises in 2015, mln.t



Processing in 2015 on:

thsd.t

meal –
2098,8

groats –
186,5

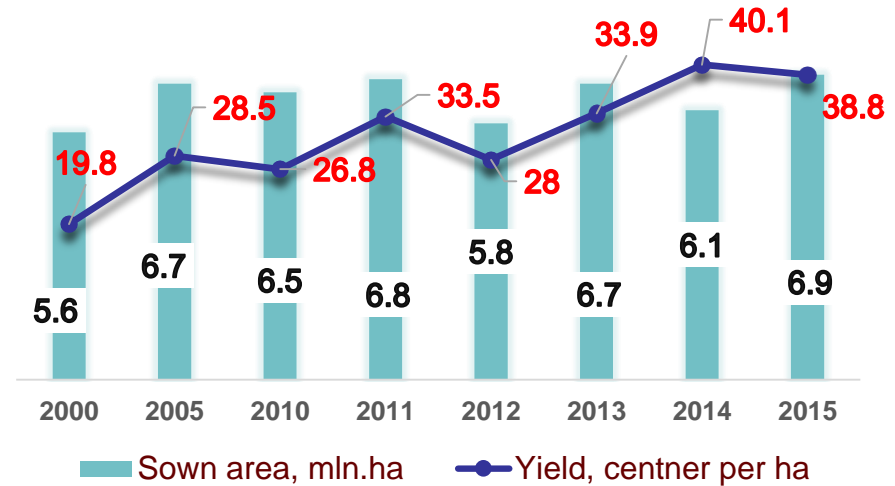
feed –
1865,6

Wheat

Gross production of wheat, thsd.t

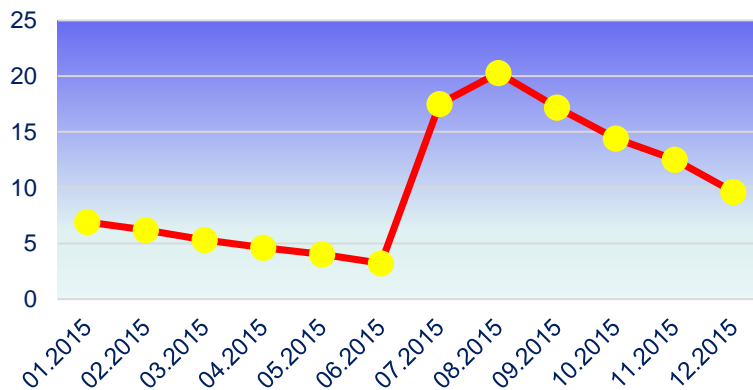


Sown area and yield of wheat



¹ Data for 2014, 2015 don't include the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone.

Stocks of agricultural producers and storage, processing enterprises in 2015, mln.t



Processing in 2015 on:
thsd.t

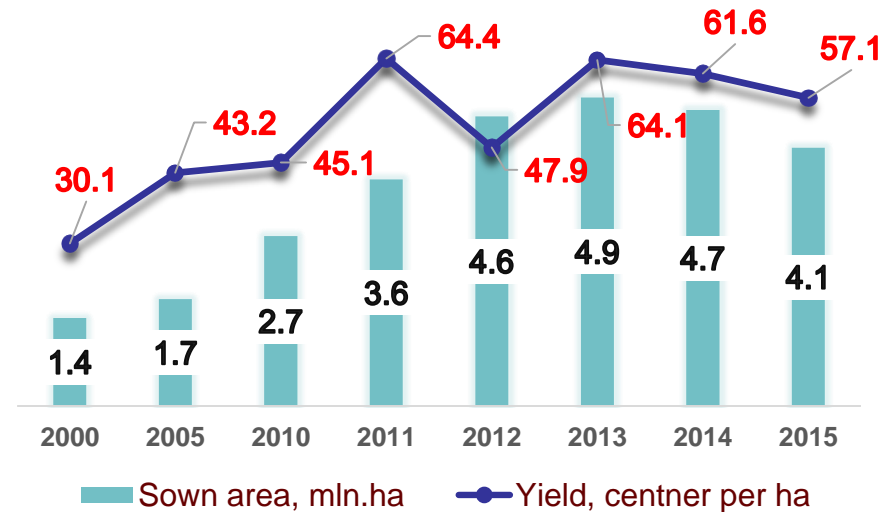
meal –	groats –	feed –
1957,9	32,2	371,1

Maize

Gross production of maize , thsd.t

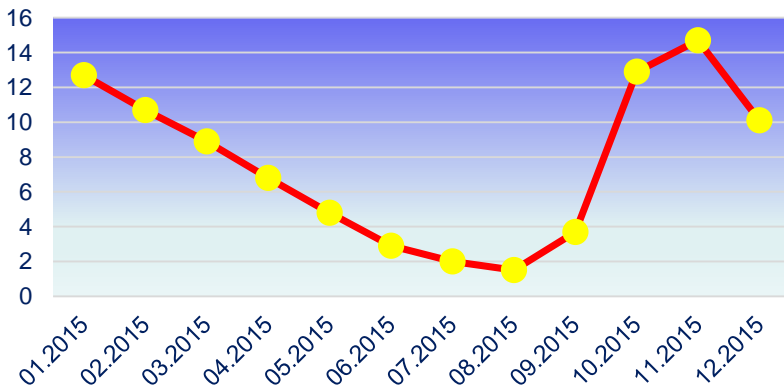


Sown area and yield of maize



¹ Data for 2014, 2015 don't include the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone.

Stocks of agricultural producers and storage, processing enterprises in 2015, mln.t



Processing in 2015 on:
thsd.t

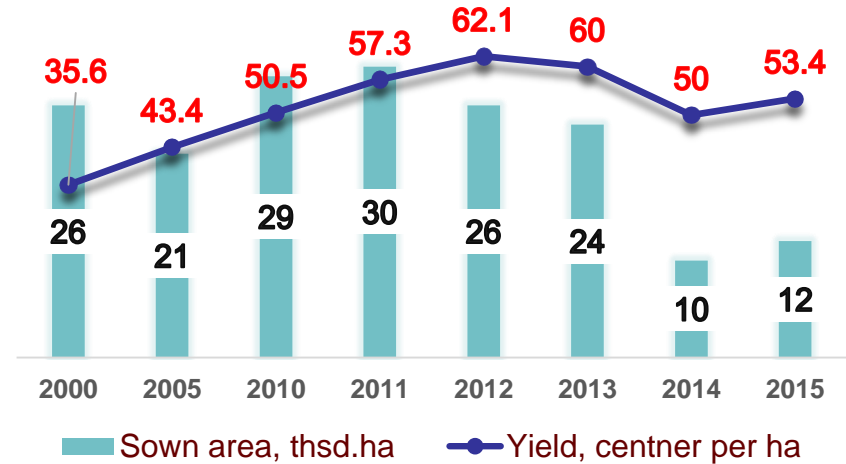
meal –	groats –	feed –
0,03	4,9	1410,5

Rice

Gross production of rice, thsd.t

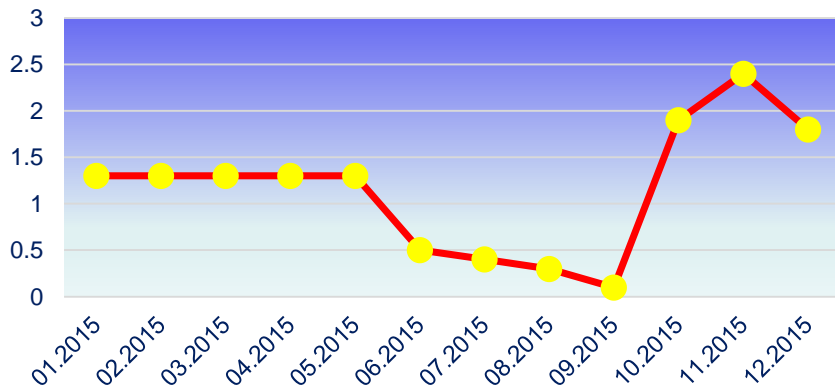


Sown area and yield of rice



¹ Data for 2014, 2015 don't include the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone.

Stocks of storage, processing enterprises in 2015, thsd.t



Processing in 2015 on:

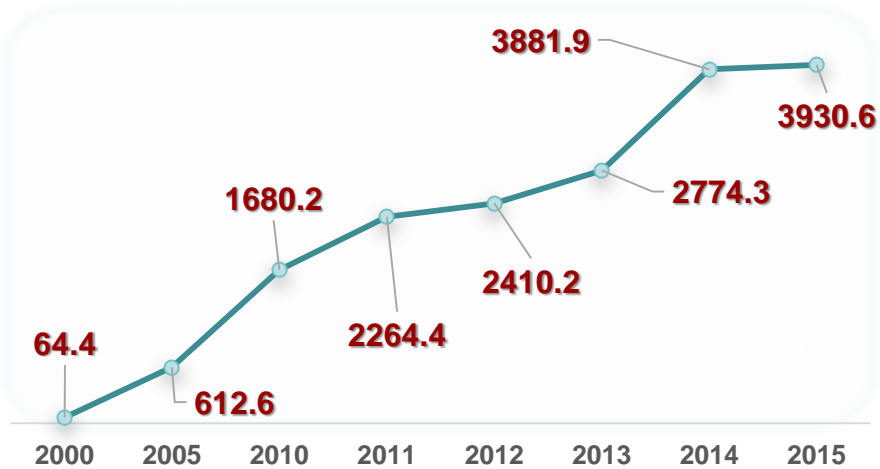
thsd.t

goats – 1,4

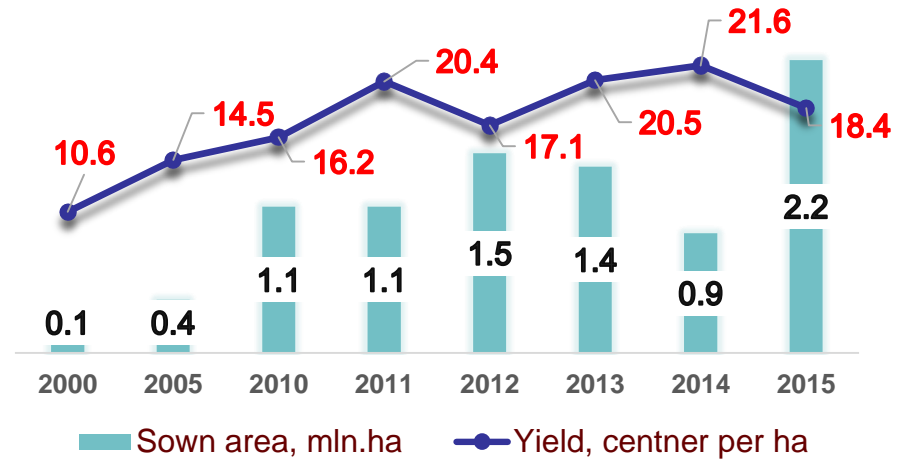


Soybeans

Gross production of soybeans, thsd.t

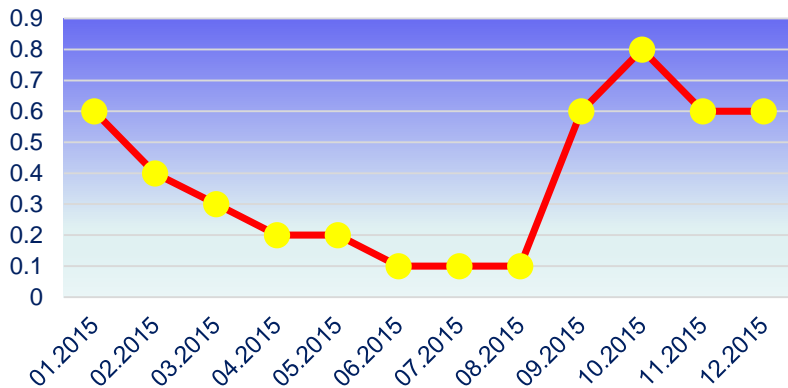


Sown area and yield of soybeans



¹ Data for 2014, 2015 don't include the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone.

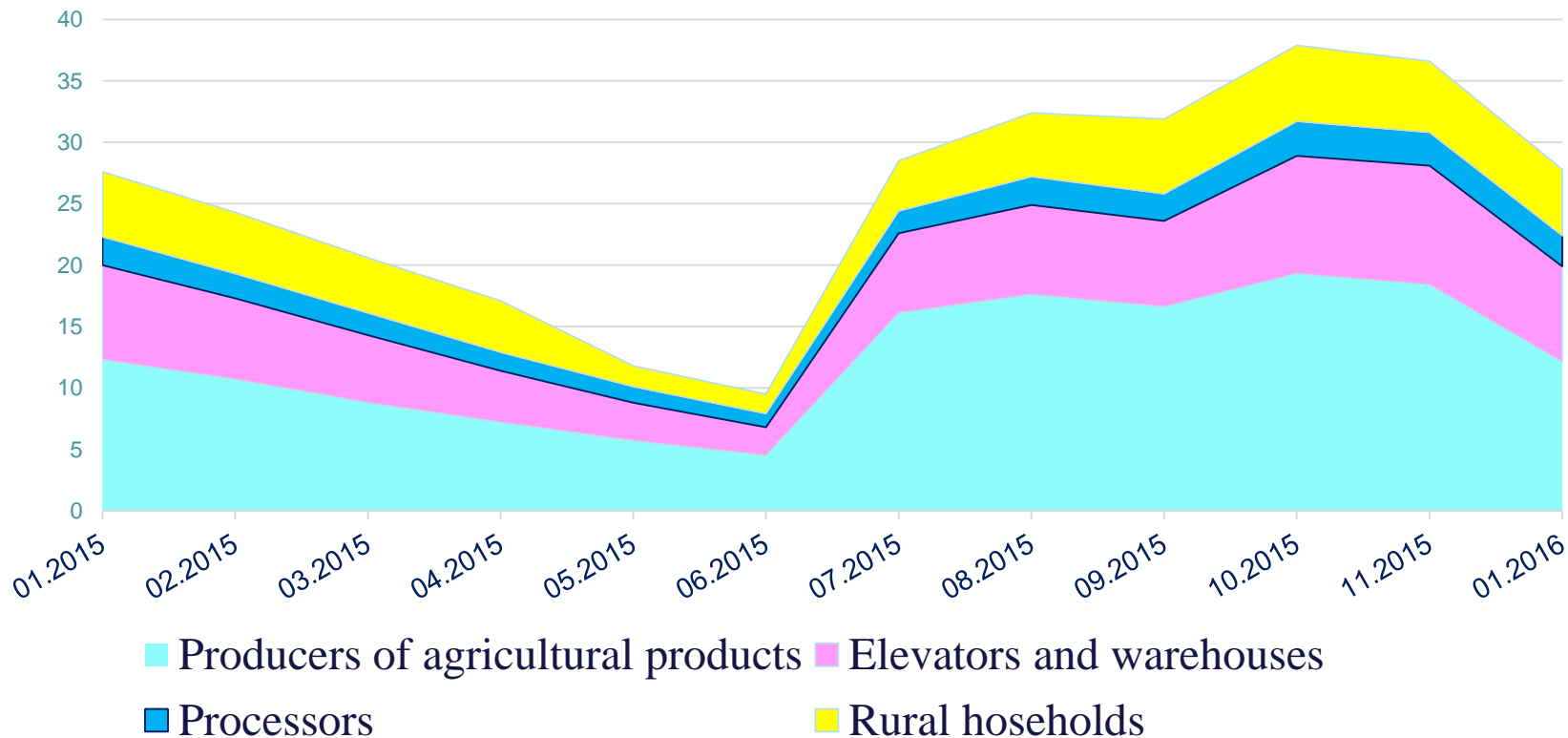
Stocks of storage, processing enterprises in 2015, mln.t



Processing in 2015: thsd.t

total – 588,9

Monthly grain stocks in 2015, mln.t



Grain stocks of rural households amount 19% of the total volume.

Feed consumption is the main source of grain utilization for rural households (more than 60% of the total grain production by households).



In 2015 Ukraine retained the following leading position worldwide as:

- ❖ **1st** exporter of sunflower oil (3,9 mln.t)
- ❖ **3rd** exporter of barley (4,6 mln.t)
- ❖ **4th** exporter of maize (19,0 mln.t)
- ❖ **6th** exporter of wheat (13,5 mln.t)
- ❖ **7th** exporter of soybean



Grain and leguminous crops balance (including products of grain processing counted as grain) for 2015

(thsd.t)

	Grain and leguminous crops - total	including		
		wheat	maize	rice
Production	60126	26532	23328	63
Changes in stocks at the end of the year	-3204	1367	-4199	0
Import	190	37	30	85
Total supply	63520	25202	27557	148
Export	38348	13993	19103	2
Feed consumption	14189	4174	6845	0
Seeds consumption	2597	1496	233	5
Losses	1400	451	774	1
Processed for non-food purposes	1089	197	476	0
Food consumption	5897	4891	126	140



Grain and leguminous crops stocks for 2015

(thsd.t)

	Grain and leguminous crops – total	including		
		wheat	maize	rice
Opening stocks	33025	10932	17463	5
of which:				
- in agrarian enterprises, grain processing and storage enterprises	25452	7772	14563	2
- in households	7573	3160	2900	3
Ending stocks	29821	12299	13064	5
of which:				
- in agrarian enterprises, grain processing and storage enterprises	22452	9575	10118	2
- in households	7369	2724	2946	3
Changes in stocks at the end of the year	-3204	1367	-4399	0
- in agrarian enterprises, grain processing and storage enterprises	-3000	1803	-4445	0
- in households	-204	-436	46	0



Dissemination of statistical data

<http://www.ukrstat.gov.ua>

Statistical publications and bulletins, analytical papers, press-releases, replies to requests, Plans with dates of tasks performance, methodology, enquiry forms of the state statistical observations and instructions on filling in them

- ✓ All basic statistical information and publications on agriculture uploaded on the website in the sections:

/ Statistical Information / Economic statistics/ Agriculture, forestry and fishery

/ Publications /Economic statistics/ Agriculture, forestry and fishing



*Thanks for your kind
attention!*