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CHANGES IN AGRICULTURE IN 1990-1995 IN THE REPUBLIC OF LITHUANIA

Document submitted by the Lithuanian Department of Statistics ¹

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**Changes in Agriculture in 1990-1995
in the Republic of Lithuania**

1. Agriculture is the third economic sector by size in the Lithuanian economy. Agriculture in 1995 accounted for 8.5 per cent of the gross domestic product. Approximately 23 per cent of employees worked in agriculture.

2. As a result of the reform in agriculture (the law on Farmer's farms), new economic structures and new types of farms were set up in Lithuania as from 1989. In accordance with the law, over five thousand persons received land tenure during two years. Later this land was privatised either by purchasing (if a farm was set up on somebody else's land) or by restituting the ownership (if a farm was established on the land belonging to a farmer). In autumn 1991 laws on the Land restoration reform came into force.

3. Current state of land ownership is as follows: 800 thousand hectares are owned by agricultural partnerships and enterprises; 820 thousand hectares are owned by private farms; and 1288 thousand hectares returned land (Table 1).

Table 1. Agricultural land in 1995 by user (in per cent)	
Obtained as a private ownership or permitted to set up a private farm	32.8
Household land	20.9
Land of horticulturist association ³³	0.6
Land of state farms	1.0
Land rented by agricultural enterprises	19.4
Land rented by other legal and natural persons	8.5
Not obtained as a private ownership	16.8

4. The total of 166 thousand persons regained their land. Average land area regained amounted to 7.8 hectares. With the market economy those farms are inevitably expected to get larger. Based on the provisions of the Land law a private farm is a farm with a minimum land tenure of 3 hectares. Regional municipalities have already registered 70.8 thousand of such farms.

5. A farm survey conducted in 1996 has shown that farming has been embarked on by middle-aged and elderly persons. A quarter of the farmers are under 40 years old and more than a half are between 41-60 years. Other

data show, that farmers have a rather low level of education. Approximately half of the farmers have not taken any courses in farming. However, in terms of general level of education they only lag marginally behind the Lithuanian average. Twenty five per cent of the farmers have attained primary education (mainly persons over 60), twenty four per cent have attained general secondary, thirty four per cent specialised secondary and seventeen per cent higher education.

6. Designing projects for the land use under the provisions of the reform, private and individual farms are formed as solid plots. Fields under land reclamation are privatised in such a way that enables land owners to cooperate among themselves or join other structures of the economy.

7. Privatisation of land and distribution of wealth accumulated in agriculture appears to be a complicated process. Farming under the transition period has become a more difficult activity. The price of power and fuel has risen. Machinery, equipment, fertilisers and other things of value, indispensable for agricultural activity also became more expensive. There were also difficulties in the sales of agricultural production.

8. A vast majority of farmers and heads of agricultural partnerships surveyed indicated the following reasons hindering the development of their farms: high prices for material resources (62 per cent of those surveyed), low purchasing prices (47 per cent), a shortage of capital (39 per cent), delays in settlements for the agricultural production sold (22 per cent). These reasons explain why agricultural output has considerably decreased.

9. Farmers returning back to land ownership in many cases need to build new dwellings and household buildings for farming purposes, as former buildings have been demolished, purchase of agricultural machinery and equipment, implements and livestock. All this requires funds which the farmers usually lack.

10. New problems related to the integration of Lithuanian agriculture into the Western market occur. The high costs of agricultural production and increasing wages for those engaged in agriculture need to be overcome. These problems are tackled in co-operation with other states, providing conditions for foreign capital inflows, investing it into the Lithuanian agriculture.

11. With the process of redistribution of land among land users the amount of agricultural output produced by farmers and individual farm

owners has been increasing. At the same time the share of products manufactured by agricultural partnerships and enterprises has been decreasing (Table 2).

Table 2. Changes in agricultural land area and agricultural production by land user (in per cent)				
	Agricultural land		Agricultural production	
	1990	1995	1990	1995
In agricultural partnerships and enterprises	90	24	67	27
In private farms and household farms	10	76	33	73

12. To have more precise estimates of trends in agriculture, it is necessary to calculate data on agricultural production output by all types of farms.

13. Agricultural partnerships and enterprises submit statistical reports. The periodicity of these reports varies: fixed time-table (3-4 times) reports on the development in the agricultural sector; quarterly reports on numbers of livestock, production and productivity; annual reports on final data on land and land use, crops by type, harvest and yield, number of livestock, output and productivity, quantity of machinery, labour resources, wages and salaries in that sector, income received by farms, expenditure and profitability. For private farms and individual holdings, of which there are more than 400,000, it is more difficult to obtain the information required.

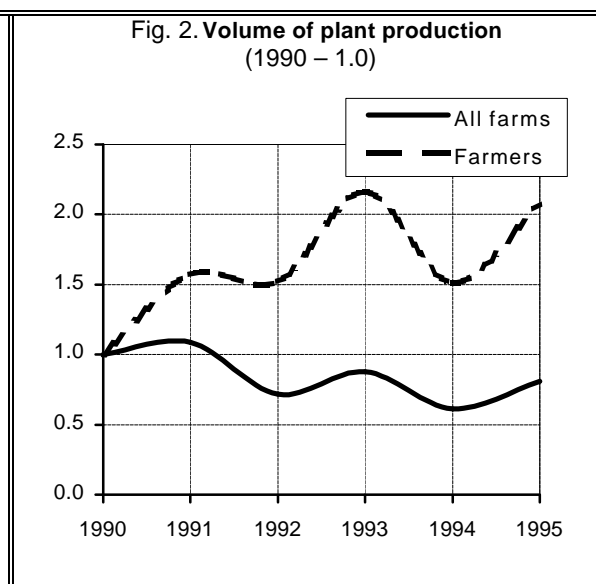
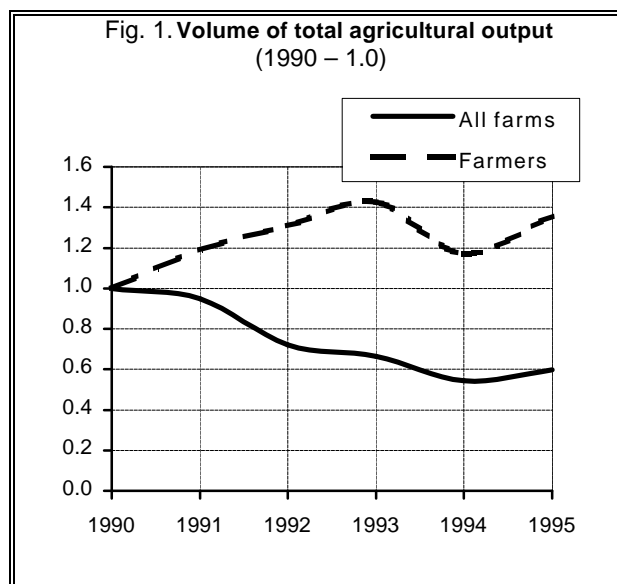
14. With the setting up of private farms, the Lithuanian Department of Statistics following the instructions of the Government of the Republic of Lithuania, the statistical reporting for farmers is regulated. In June (i.e. after the spring sowing period is completed) a report on crop area by type has to be submitted to the Department of Statistics. In November farmers are surveyed about yields of agricultural crops. These two sample surveys cover approximate by 5 per cent of farms. Based on the survey data and complete enumeration data provided by the Land Cadaster, total crop area, harvest and yields are calculated. Livestock censuses are conducted annually for all types of farms. Livestock output in private farms and individual holdings is estimated twice a year from the livestock sample survey (5% of private farms).

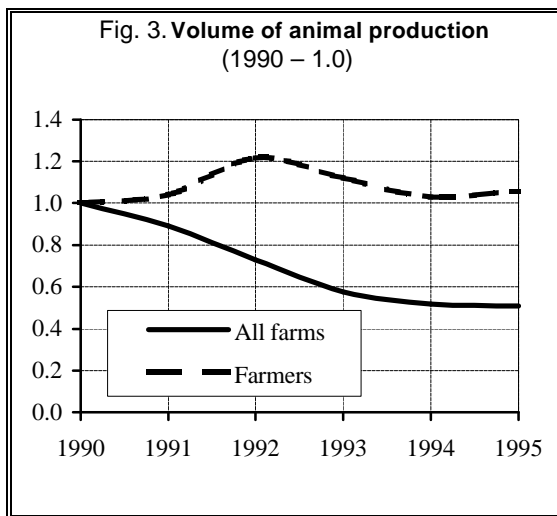
15. The share of private farms and individual holdings in cattle grew from 24 per cent in 1990 to 60 per cent in 1996. The share for pigs changed from 19 to 46 per cent. In order to receive more comprehensive data on agricultural production, sales to purchasing enterprises, markets and companies, and as well as data on income received and expenditure incurred, 5 per cent of farmers are surveyed.

16. Estimated data are revised taking into consideration data on sales of agricultural production and other sales.

17. One of the basic indicators, characterising the state of agricultural activity, is total agricultural production in terms of money. Table 3 and Fig. 1-3 illustrate data for 1990-1995. In the period 1990-1994, there was a decline in the volume of total agricultural production. This trend was reversed in 1995 when total production grew by 10% over the 1994 level.

Table 3. Changes in the total agricultural production (percentage change over the previous years)					
	1991	1992	1993	1994	1995
All farms					
Total production	-5	-24	-8	-18	10
plant production	9	-34	22	-30	32
animal production	-11	-18	-21	-10	-2
Agricultural partnerships and enterprises					
Total production	-16	-47	-31	-19	-3
plant production	-12	-58	-15	-29	16
animal production	-18	-41	-37	-14	-11
Household farms and private farms					
Total production	19	10	9	-18	16
plant production	57	-3	42	-30	37
animal production	4	17	-8	-8	3





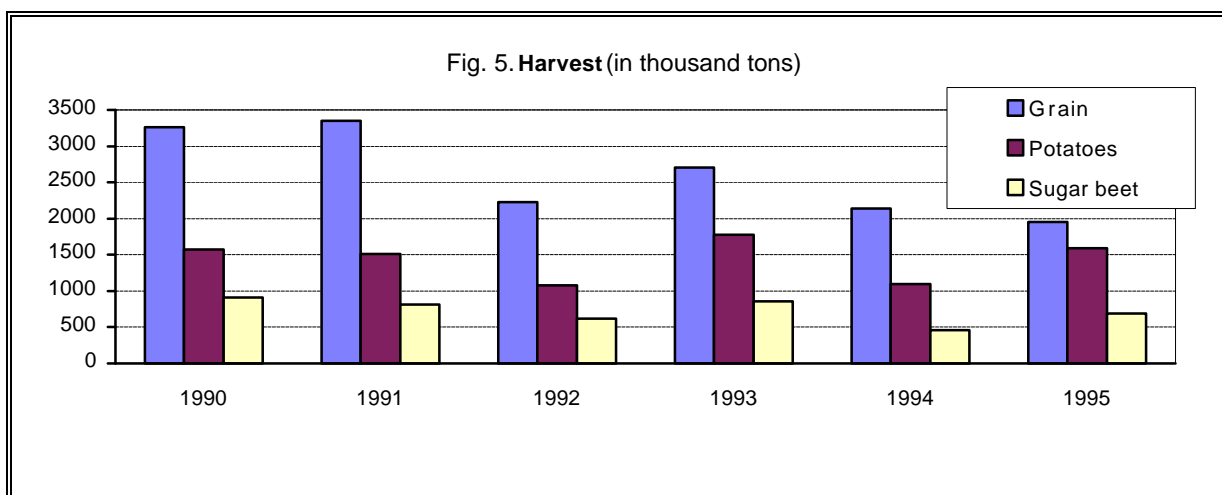
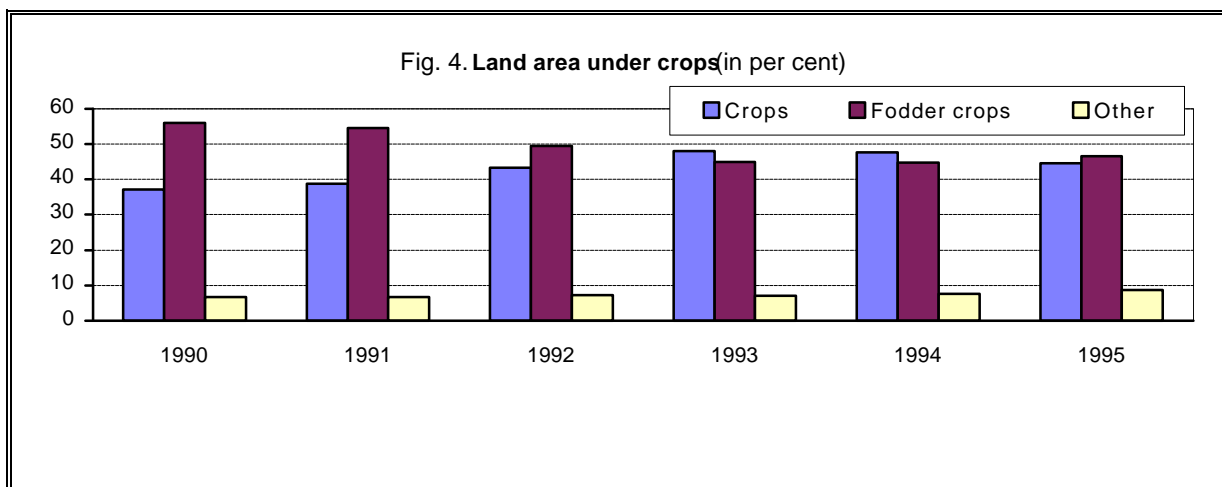
18. Data presented in table 4 show, that total land area under crops was contracting each year, whereas changes by type of crops sown indicated very uneven fluctuations. There were, however, significant differences between different types of crops. Comparing the 1995 level with that of 1990, the largest decline was recorded for fodder crops, flax and sugar beet. Winter and summer crops fell only marginally while potatoes and vegetables increased their land areas.

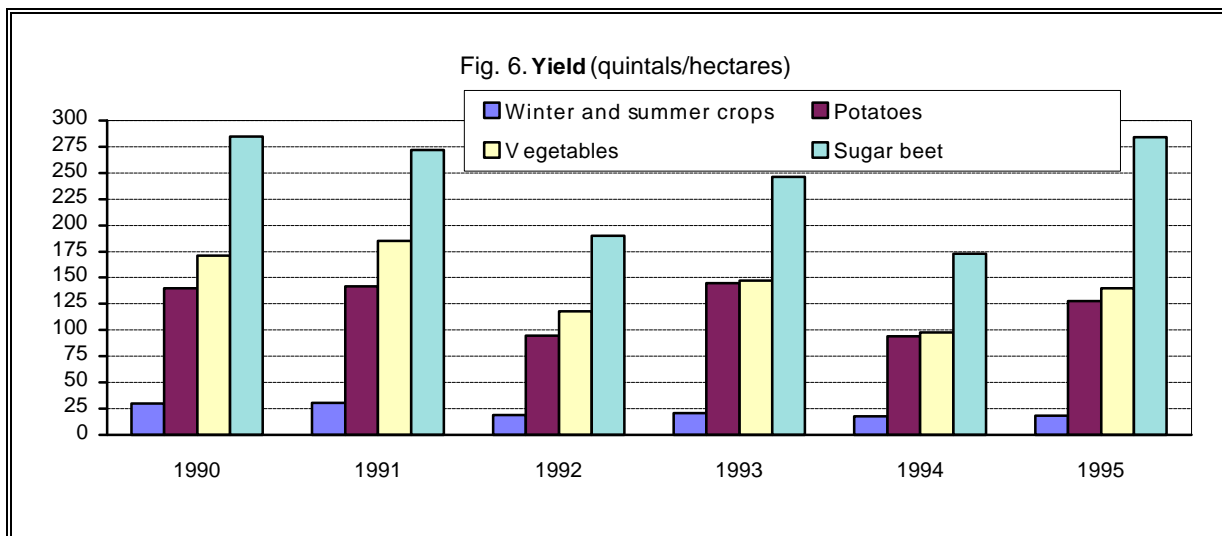
19. The share of private farms in crops sown has been growing, and it accounts for 71 per cent of the total land area under crops.

Table 4. Main indicators of agricultural production outputs in all farms						
	1990	1991	1992	1993	1994	1995
Crops, thousand hectares						
Total crops	2915.0	2799.9	2688.5	2681.9	2556.9	2359.2
Winter and summer crops	1084.1	1086.7	1164.6	1288.9	1217.9	1053.0
Potatoes	112.5	106.0	113.7	121.9	116.5	124.5
Vegetables	16.2	20.6	19.8	25.0	27.5	25.8
Flax	22.7	17.6	21.2	4.5	9.8	13.2
Sugar beet	32.1	29.9	32.6	34.7	26.6	24.3
Fodder crops	1633.8	1527.5	1329.1	1203.8	1145.0	1100.2
Harvest, thousand tons						
Grain	3265.1	3347.5	2225.1	2707.8	2137.8	1954.8
Potatoes	1573.1	1508.3	1079.2	1772.6	1096.4	1593.5
Vegetables	295.0	398.4	259.8	376.0	282.6	368.7
Fibre flax	10.0	13.1	3.9	1.7	4.4	9.4
Sugar beet	911.3	811.2	621.5	855.3	461.5	692.4
Number of poultry and livestock, thousand						
All cattle	2321.5	2196.6	1701.0	1384.3	1152.4	1065.1
Cows	842.0	831.9	737.8	678.1	614.9	586.0
Pigs	2435.9	2179.8	1359.8	1196.2	1259.8	1270.0
Sheep and goats	61.7	64.4	60.5	55.4	52.4	46.9
Horses	79.9	82.6	79.7	81.3	78.2	77.6
Poultry	16815.0	16994.0	8258.9	8728.2	8848.8	8444.2
Animal production, thousand tons						
Meat (live weight)	761.0	651.4	611.4	413.0	330.9	302.0
Milk	3157.0	2915.6	2420.6	2066.7	1896.4	1818.9
Eggs, mill.	1272.6	1234.7	880.4	610.2	714.0	793.1
Wool, t.	141.0	128.0	115.0	110.0	88.0	80.0
Yield, quintals/hectares						
Crops	30.1	30.8	19.1	21.0	17.6	18.5
Potatoes	140.0	142.0	95.0	145.0	94.0	128.0
Vegetables	171.0	185.0	118.0	147.0	98.0	140.0
Fibre flax	4.4	7.5	1.8	3.8	4.5	7.1
Sugar beet	285.0	272.0	190.0	246.0	173.0	284.0
Average annual milk yield per cow, kg	3714	3481	3080	2910	2925	3010

20. In 1990-1995, yields of agricultural crops, total harvest and the number of livestock and its productivity fell considerably due to a hasty agrarian reform (Fig. 5 and 6). In 1995, however, the yield improved significantly.

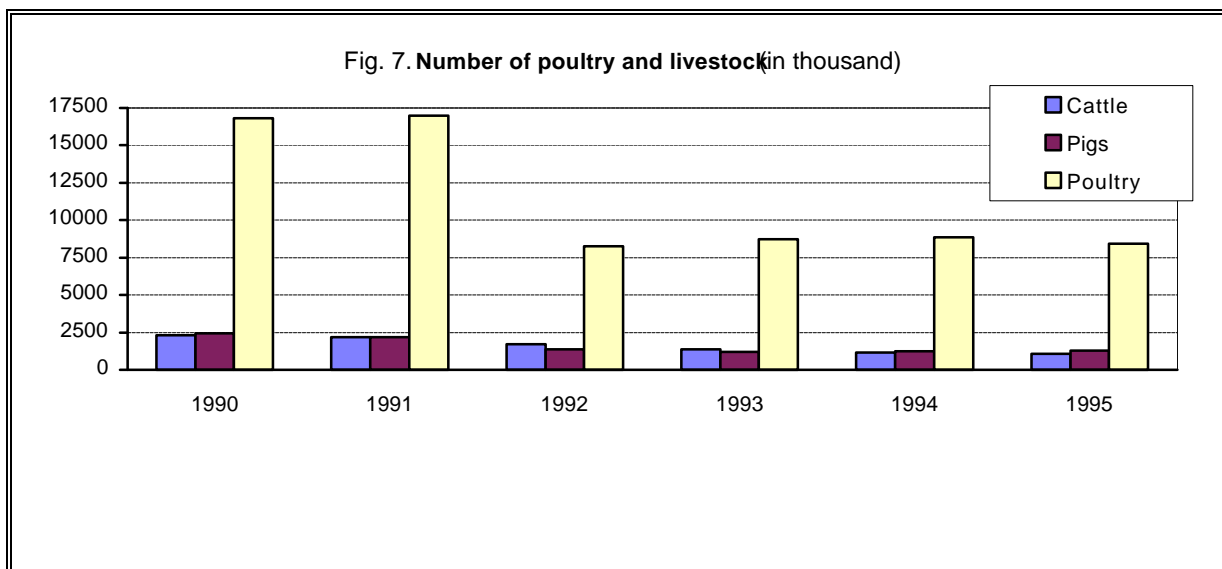
21. Production of livestock output has shrunk almost by a half owing to a reduction in the number of livestock and lower productivity. Output fell at a more considerable pace in agricultural partnerships and enterprises. Private farms have not been able to offset this decline so far (Fig. 7-9).





22. The biggest part of agricultural output is produced in private farms and household farms: grain - 65 per cent, technical crops - 49 per cent, potatoes - 99 per cent, vegetables - 86 per cent, poultry and livestock raised - 62 per cent, milk - 81 per cent.

23. With a rise in purchasing prices of agricultural production (in 1995 as compared to 1994 the index was 1.528), as well as production costs related to the material resources purchased and services provided (index 1.282), financial results of agricultural partnerships and enterprises have recorded higher profitability (Table 5).



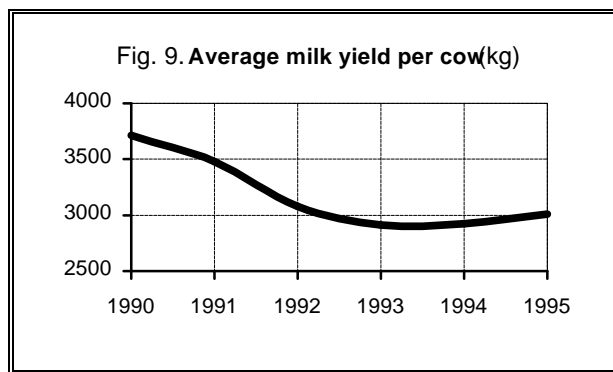
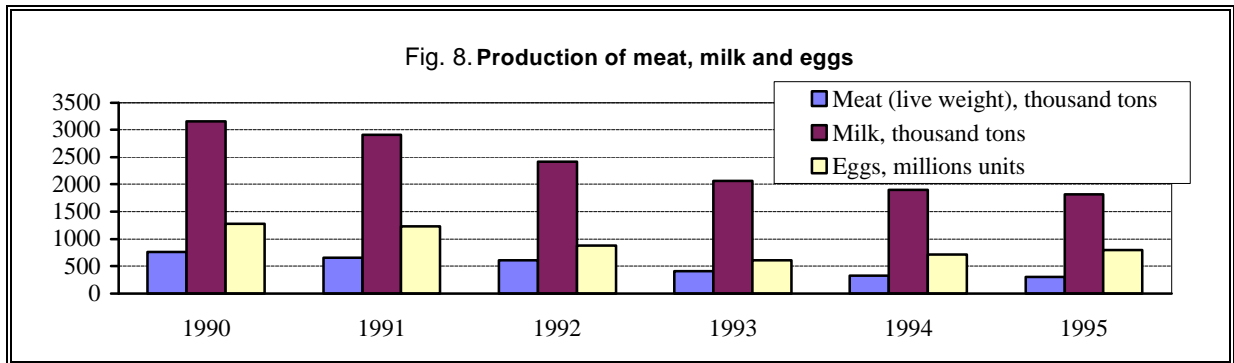


Table 5. Results of economic and financial activities in agricultural partnerships and enterprises			
	1994	1995	1995 compared to 1994
Income for the production sold, millions Litas	1042.6	1310.2	1.26
Profit received, millions Litas	19.1	65.8	3.45
Profitability of gross economic and financial activity, in per cent	1.9	5.3	—
Profitability of agricultural production sold, in per cent	1.4	8.7	—
plant production	18.0	36.3	—
animal production	-2.5	1.6	—

24. Quite a big amount of agricultural partnerships and enterprises - 1035, or 40 per cent of the total number - finished the year 1995 with losses.

Farm register

According to Resolution Nr701 adopted by the Government of the Republic of Lithuania on 8 August 1994, the register is administered by the Department of Statistics.

The farm register is a constituent part of the whole state information system. Large agricultural enterprises and private farmers are part of general business register.

The farm register includes and updates the following data on farm holdings:

- identification code of the holdings;
- registration date of the holding;
- the date when the data were updated;
- the date of liquidation of the holding;
- the first and the second name of the farmer;
- personal identification code;
- farmer's residence place (address, telephone);
- the date of the land acquisition for utilization purposes;
- the name of the institution that performed the judicial registration;
- the number in the register book;
- legal status of the land ownership (owner, leaseholder, landlord);
- the cadastre number of the land plot;
- the area of the land plot;

In the second phase, the following data on the activities of farm holdings are to be included:

- the land area according to the farming lands;
- area under crops by type of crops;
- the quantity of cattle and poultry according to their types and age groups;
- animals according to their types;
- bee-keeping;
- area of reservoirs for fish breeding;
- amount of agricultural equipment;
- buildings according to their purpose and the number of places for cattle therein.

The register data on farm holdings is supplied by the regional (counties) local authorities to the Department of Statistics. Data on activities of farm holdings originate from completed register forms.

The aim of the register is to collect and accumulate data on farm holdings in the Republic of Lithuania, their quantity, area of the land and the distribution of farming lands, the area under crops, number of cattle, buildings, facilities, and to update, and generalize the data as provided by the present regulations. The register is updated once a year.

The basic unit of the register is a holding (land user), which corresponds to the farm holding definition given in the Law on Land of the Republic of Lithuania.

On the basis of the register and methods for statistical surveys, farmers-respondents are sampled and asked to provide data on the production of agriculture. The Consultancy Service of Lithuania Agriculture together with the Farmers Association have created a network of farmers-respondents which are provided with information on financial results and accounting methods.

The method of proportional (quotitative) selection is mostly used in Lithuanian agricultural statistics. The basis for farm selection is farm size in hectares. This method is applied in selection of private farmers farms. The main grouping is:

0.3-10 ha
10.1-20
20.1-30
30.1-40
40.1 ha and over

The data for the sector of agricultural companies and enterprises are obtained from the regular national statistical reporting service. The coverage is 100 % and the Law of National Statistics is applied. In this sector there are no major problems and enterprises submit a large amount of data.

Frequency of surveys and their characteristics

Frequency	Surveys	Agricultural partnerships and enterprises	Private farms	
Yearly	Crop area (based on spring sowing data)	co	se	
	Crop area, harvest and average yields	co	se	
	Consumption of fertilizers	co	x	
	Laying in of fodder	co	x	
	Accounting of livestock and poultry	co	co	
	Production and productivity of livestock and poultry	co	se	
	Consumption of fodder	se	x	
	Purchases of livestock production			co
	Purchases of plant production	co	co	
	Tractors, agricultural machinery, buildings, energy capacity	co	se	
	Results of economical-financial activity in agricultural partnerships and enterprises	co	x	
	Every half year	Agricultural products sold in local market	co	x
		Number of employees and their earnings	se	x
Every quarter of year	Accounting of livestock and poultry	co	se	
	Production of livestock and poultry	co	se	
	Average purchase prices for agricultural production	co	co	
	Results of economic-financial activity in enterprises providing services	co	x	
Monthly	Purchases of livestock production (enterprises for purchasing and processing)			
	Purchases of plant production at the working period	co	co	
	Prices of acquired agricultural tangible assets	se	x	
	Number of employees and their earnings	se	x	

co=continuos-total
 se=selective

Agricultural censuses

Agricultural Census in Lithuania will probably be organised in the year 2000 or 2001. Discussions concerning the date and the scope were held with various institutions in Lithuania: Farmers Union, Ministry of agriculture and Forestry, Department of Statistics, Academy of Agricultural Sciences.