

**AGRICULTURAL CENSUS 2010
AND
SURVEY ON AGRICULTURAL PRODUCTION METHODS**

NATIONAL METHODOLOGICAL REPORT

According to Article 12 of Regulation (EC) No 1166/2008 of the European Parliament and of the Council of 19 November 2008 published in the Official Journal of the European Union L 321, p.14 of 1 December 2008

Member State: **LATVIA**

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SUMMARY

In 2010 Central Statistical Bureau of Latvia (CSB) carried out a Farm Structure Survey (FSS) and Survey on Agricultural Production Methods (SAPM). In compliance with the European Parliament and Council Regulation No 1166/2008 the FSS in Latvia was conducted in a form of a Census. The Agricultural Census (AC) is an event of a national scale, allowing acquiring wide range of information essential for the analysis of agricultural sector processes and building future development projects. Agricultural Census is carried out once in ten years, and the previous Census in Latvia took place in 2001.

Historical background

In Latvia information on agricultural activities was collected already starting from 20-ties of the 20th century, when the first Population and Agricultural Census was conducted (1920). Afterwards agricultural censuses were carried out every 3 - 5 years (in 1923, 1929, 1935, and 1937). The widest Agricultural Census was organised in 1939, but its data were not compiled in full due to the war. During the post-war years, when Latvia already was a part of the Soviet Union, separate censuses on sown area of agricultural crops, cropland, livestock and fruit gardens were organised.

The first Agricultural Census of Latvia, organised in compliance with the requirements of the European Union legislation, took place in 2001, followed by the Farm Structure Surveys in 2003, 2005 and 2007.

Survey period

The collection of information for the AC 2010 and SAPM was organised during the time period from 16 April till 30 October 2010 in several stages. In the same time mathematical and logical control and analysis of the data were carried out.

Coverage

The survey unit of the Agricultural Census was agricultural holding – technically and economically independent unit having common management producing agricultural products or preserving good agricultural and environmental conditions in the soil. Holding may produce also non-agricultural products and provide non-agricultural services.

Holdings for the Agricultural Census 2010 were selected basing on their economic size and type of farming. Due to the limited funding it was decided that Agricultural Census 2010 will include only agricultural holdings meeting the minimum requirements of the European Parliament and Council Regulation (EC) No 1166/2008 - the smallest agricultural holdings which together contribute 2% or less to the total utilised agricultural area and 2% or less to the total number of livestock units were excluded.

As a result all economically active agricultural holdings agricultural area in which exceeded 1 ha or Standard Output (SO) of which exceeded EUR 70 regardless the area were included in the Census. SO threshold was used also when selecting holdings which did not have agricultural area but which were breeding livestock.

Survey organization

The CSB of Latvia was the main institution responsible for the organisation of the AC 2010 and SAPM.

The Order of the Cabinet of Ministers No 843 of 11 December 2009 determines that CSB has to ensure the organisation of the Agricultural Census of Latvia 2010. This Order establishes the re-allocation of the State funding from the Ministry of Economics to the Ministry of Agriculture (MA), setting the participation of the MA in the acquisition of the AC 2010 information. Basing on

this Order an inter-institutional agreement on conducting and technical provisions of the AC 2010 was concluded.

On behalf of the Ministry of Agriculture also the Latvian Rural Advisory and Training Centre (LRATC) took part in the Agricultural Census. The data collection engaged 228 interviewers, activities of which were supervised by 26 managers at regional level.

Preparatory work

The first works related to the development of the Agricultural Census 2010 started in December 2007. Due to the insufficient funding the planned Pilot Agricultural Census in Latvia was not organised.

In compliance with the requirements of the European Parliament and Council Regulation (EC) No 1166/2008 the Agricultural Census programme and questionnaire under the supervision of the CSB were developed by the *ad hoc* group formed by the specialists from the Ministry of Agriculture, Ministry of Economics, Rural Support Service (RSS), State Plant Protection Service (SPPS), Agricultural Data Centre (ADC) and Latvian State Institute of Agrarian Economics (LSIAE).

To obtain the data within the framework of the Agricultural Census a questionnaire (LS-2010) as well as annex "Survey on agricultural production methods" filled in only by the agricultural holdings included in the sample were developed and approved by the Cabinet of Ministers.

Definitions and explanations of the variables included in the AC 2010 and SAPM were developed in compliance with the Handbook on implementing the FSS and SAPM definitions used for the organisation of FSS and SAPM 2010 vers.7 (CPSA/SB/652 rev.7, Luxembourg, 19 January 2010). All indicators are compatible with the surveys conducted prior.

In compliance with the Article 4 of the European Parliament and Council Regulation No 1166/2008 in the FSS 2010 it is allowed to use the state register information as a source of the statistical data. Within the framework of the FSS 2010 two state registers were used: ADC Animal Register and RSS Integrated Administration and Control System (IACS) data bases.

Data collection and data entry

In the AC 2010 four data collection methods were used – face-to-face interviews (CAPI - *Computer Assisted Personal Interviewing*), telephone interviews (CATI - *Computer Assisted Telephone Interviewing*), postal survey and web survey (CAWI - *Computer Assisted Web Interviewing*). The Web survey in Latvia was conducted for the first time.

In the AC 2010 new data collecting system *CASIS* (Computer Assisted Statistical Information System) was used. CAPI and CATI interviews were software developed by Informatics department of CSB of Latvia and data are stored in Microsoft (MS) SQL database. For the web questionnaires the CSB common system CASIS CAWI version was used. This system was designed to harmonise data collection, processing and storage in the CSB.

Data processing, estimation and analysis

As interviewers were using laptop computers, the AC 2010 and SAPM data input was made during the interview. The task of the interviewer was to acquire information from the respondent as well as to carry out the first data analysis and quality control. 280 controls were incorporated in the CAPI data input application, in CATI – approximately 230 controls, and that ensured not only mathematical and logical control, but also technically correct data input. The CAWI application included only the most significant mathematical and logical validations facilitating the information provision for the respondents.

When data were sent to the CSB server, the mathematical and logical control at holding level was carried out. If necessary, the information was specified by contacting the interviewer or holding owner.

The results of the AC 2010 at holding and national level were compared with the administrative data sources as well as with the annual surveys conducted by the CSB – crop production survey 2010 and animal survey 2010.

Survey of agricultural production methods

SAPM was carried out together with AC 2010 in Latvia.

SAPM target population are all economically active agricultural holdings, selected from the AC 2010 holding list in compliance with the thresholds and precision requirements set under the European Parliament and Council Regulation No 1166/2008 Annex II.

The SAPM in Latvia was made as sample survey. Total sample size was 20005 agricultural holdings

Procedure for sample selection is self-made using *SPSS®*. Sampling design was made as fully probabilistic sampling. The sample of SAPM was made as stratified simple random sample.

1. CONTACTS

Responsible entity	Central Statistical Bureau of Latvia
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2. METHODOLOGY

2.1 NATIONAL LEGISLATION

Agricultural Census 2010 (AC 2010) and Survey on Agricultural Production Methods (SAPM) in Latvia was organised in compliance with the legislative acts of the European Union (EU) and the Republic of Latvia (LR).

Reference time and methodology of the AC 2010 and SAPM are set by the EU regulations:

- European Parliament and Council Regulation No 1166/2008 (19 November 2008) on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) No 571/88;
- Commission Regulation (EC) No 1200/2009 (30 November 2009) implementing European Parliament and Council Regulation (EC) No 1166/2008 on farm structure surveys and the survey on agricultural production methods, as regards livestock unit coefficients and definitions of the characteristics;
- Handbook on implementing the FSS and SAPM definitions, revision 7 (CPSA/SB/652 rev.7, Luxembourg, 19 January 2010)

Legislative acts of the LR determine the conduction of the AC 2010 and SAPM and data protection in Latvia:

- Official Statistics Law approved in Saeima on 6 November 1997 and 28 January 1999, 18 March and 7 October 2004, 16 March 2006, 15 November 2007 and 29 January 2009;
- Regulation of the Cabinet of Ministers of 6 November 2006 No 922 “Regulations on approval of state statistical reports and questionnaires” with amendments of 13 February 2010, Annex 180 and 181;
- Order of the Cabinet of Ministers of 11 November 2009 No 843 “On agricultural Census 2010”;

- Regulations on State statistical information programme for 2010, approved by the Cabinet of Ministers on 15 December 2009;
- Regulations on State statistical information programme for 2011, approved by the Cabinet of Ministers on 14 December 2010;
- Inter-institutional agreement concluded in March 2010 among CSB, Latvian Rural Advisory and Training Centre and Rural Support Service on Agricultural Census 2010 and SAPM and the technical provisions thereof.

The work of the CSB is regulated by the Official Statistics Law that determines the procedure under which the state statistical information, incl. AC 2010 and SAPM, is submitted, rights and obligations of the respondents, as well as statistical information confidentiality requirements. Section 18 of the Official Statistics Law sets the statistical confidentiality requirements and is binding to everybody engaged in the acquisition and processing of the AC 2010 and SAPM information. The Official Statistics Law regulates also the use of the administrative registers in the acquisition of statistical information.

The Order of the Cabinet of Ministers No 843 of 11 December 2009 determines that CSB has to ensure the organisation of the Agricultural Census of Latvia 2010. This Order establishes the re-allocation of the State funding from the Ministry of Economics to the Ministry of Agriculture (MA), setting the participation of the MA in the acquisition of the AC 2010 information. Basing on this Order an inter-institutional agreement on conduct and technical provisions of the AC 2010 was concluded.

In compliance with the Point 4 Section 18 of the Official Statistics Law it is prohibited for the individuals of the Central Statistical Bureau and of other State authorities producing official statistics to reveal any information regarding respondents, which they have become aware of while performing official or work duties, thus all individual data on individual or agricultural holding are confidential. Each interviewer signs an information non-disclosure agreement.

2.2 CHARACTERISTICS AND REFERENCE PERIOD

The indicators included in the Agricultural Census 2010 and Survey on Agricultural Production Methods complies with the European Parliament and Council Regulation No 1166/2008.

The AC 2010 questionnaire (LS-2010) and SAPM questionnaire (Annex LS-2010) were approved by the Regulations of the Cabinet of Ministers No 922, Annex 180 and 181.

The AC 2010 questionnaire included also indicators necessary for the statistical information users in Latvia and CSB needs.

List of characteristics collected solely for national purposes:

For the identification of respondents and update of the CSB Statistical Farm Register information:

- registration number of holding in Statistical farm register;
- personal ID code of holder;
- registration number of Enterprises;
- registration code of tax-payer;
- IACS client number;
- name and address of holding;
- mailing address;

- e-mail address and telephone numbers.

Indicators necessary for the Ministry of Agriculture:

- unutilised agricultural area;
- area of producing orchards;
- areas of heated and unheated greenhouses;
- clover in pure sowing and mix in perennial grasssown during previous years;
- used agricultural machinery and their age groups (25 indicators);
- heat pumps used for energy production from renewable energy resources;
- agricultural buildings and structures, breakdown by type, year of erection and area – animal housing facilities, grain-dryers, agricultural hangars and leans-to, other buildings.

The list of indicators defined in the European Parliament and Council Regulation included variables not economically significant for Latvia (NS) or not existing at all (NE). The NE indicators were not included in the AC 2010 and SAPM questionnaire, but NS indicators were included in the survey form.

List of non-existing (NE) characteristics in AC 2010:

- for share farming or other modes;
- sugar beet (excluding seed) – organic farming;
- citrus plantations – organic farming;
- olives plantations – organic farming;
- vineyards – organic farming;
- durum wheat;
- grain maize;
- rice;
- sugar beet (excluding seed);
- tobacco;
- cotton;
- sunflower;
- soy;
- other oil seed crops;
- other fibre crops;
- fruit of subtropical climate zones;
- nuts;
- citrus plantations;
- olive plantations – table olives, olives for oil production;
- vineyards – for quality wine and other wine, table grapes and raisin;
- energy crops on set-aside area;

- genetically modified crops;
- livestock not mentioned elsewhere;
- support for rural development - meeting standards based on Community legislation, participation of farmers in food quality schemes, animal welfare payments.

List of non-existing (NE) characteristics in SAPM:

- stonewalls – maintained or established during the last 3 years;
- total number of animals grazing on common land;
- amount of time for which animals are grazing on common land;
- other type of animal housing for cattle, pigs and laying hens;
- battery cage with stilt house;
- irrigated area - maize (grain and green), rice, sugar beet (excluding seed), rape and turnip rape, sunflower, fibre crops (flax, hemp, other fibre crops), citrus plantations, olive plantations, vineyards;
- irrigation methods - surface irrigation (flooding, furrows).

In compliance with the Eurostat recommendations, the value of the NE indicators in the data file comprises “0”. The indicator “Support for rural development – Use of advisory services” was not selected as non-existing indicator, but IACS data base included none agricultural holding registered with the characteristics during the set time period, therefore the value of this indicator is “0”.

List of non-significant (NS) characteristics in AC 2010:

- hops;
- hemp;
- aromatic plants, medicinal and culinary plants;
- other industrial crops not mentioned elsewhere;
- other permanent crops;
- of which Christmas trees;
- permanent crops under glass;
- mushrooms;
- total irrigable area;
- total cultivated area irrigated at least once during the previous 12 months;
- ostriches;
- other poultry, not mentioned elsewhere’

List of non-significant (NS) characteristics in SAPM:

- hedges – maintained or established during the last 3 years;
- tree lines - maintained or established during the last 3 years;
- manure application - with immediate incorporation – solid/ farmyard manure;
- manure application - with immediate incorporation or injection - slurry;

- average irrigated area the last 3 years;
- total cultivated area irrigated at least once during the previous 12 months;
- irrigated – cereals, dried pulses and protein crops for the production of grain, potatoes (including early potatoes and seed potatoes), fresh vegetables, melons and strawberries - open field, temporary grass and permanent grassland, other crops on arable land, fruit and berry plantations;
- source of irrigation water - other sources.

See the list non-existing (NE) and economically non-significant (NS) indicators and substantiation for their selection in Annex 1.

The reference period of the Agricultural Census 2010 was 1 July 2010, but, depending on the information to be obtained (indicators), it may vary (see Table 1).

Table 1

Reference period

Characteristics	Reference data/ period
AC 2010	
Use of utilised agricultural area	Crop year 2010
Number of livestock Buildings and agricultural machinery	July 1 2010
Support for rural development	Last 3 years – 2008, 2009, 2010
Labour force	From July 1, 2009 till June 30, 2010
SAPM	
Tillage of utilised agricultural and soil conservation	Crop year 2010
Livestock pasturage period	From July 1, 2009 till June 30, 2010
Animal housing facilities	
Manure storage facilities	
Average irrigated area	Last 3 years – 2008, 2009, 2010

Definitions and explanations of the variables included in the AC 2010 and SAPM were developed in compliance with the Handbook on implementing the FSS and SAPM definitions used for the organisation of FSS and SAPM 2010 vers.7 (CPSA/SB/652 rev. 7, Luxembourg, 19 January 2010). All indicators are compatible with the surveys conducted prior.

To obtain the data within the framework of the Agricultural Census a questionnaire LS-2010 as well as annex “Survey on agricultural production methods” filled in only by the agricultural holdings included in the sample were developed and approved by the Cabinet of Ministers.

An English version of the Agricultural Census 2010 questionnaire is attached in Annex 2, whereas the English version of the Survey of Agricultural Production Methods questionnaire is attached in the Annex 3.

2.3 SURVEY ORGANISATION

Preparation for the AC 2010 and SAPM was started in December 2007. The Central Statistical Bureau of Latvia is the main institution responsible for the organization of the Agricultural Census in Latvia.

Due to the insufficient funding the planned Pilot Agricultural Census in Latvia was not organised.

The main method used to obtain the data in the Agricultural Census 2010 was interviews, nevertheless also new data collection methods were used (see Table 2).

Table 2

Data collection methods

	Number of holdings	% of total
Total number of surveyed holdings	92696	100.0
Face-to-face interviews	83791	90.4
Telephone interviews	6099	6.6
Mail	2190	2.4
Internet	616	0.7

In compliance with the Order No 843 of the Cabinet of Ministers "On Agricultural Census of 2010" of 11 December 2009 the Latvian Rural Advisory and Training Centre on behalf of the Ministry of Agriculture had to collect the information from 50.0 thousand agricultural holdings.

Responsibilities of the CSB

Agricultural Statistics Section:

- development of the survey methodology and questionnaires in compliance with the Regulation (EC) No 1166/2008 of the European Parliament and of the Council and needs of national users;
- management of the data collection process;
- development of data input programme methodology and logical controls, programme testing;
- interviewer training;
- collection of information during the first stage of the Agricultural Census 2010;
- development of table layouts, preparation and publishing of press releases and obtained statistical information.

Mathematical Support Division:

- design of the SAPM sample;
- determination of extrapolation factors and estimation of sampling errors.

Informatics Department:

- development of data input application for the face-to-face interviews (CAPI - *Computer Assisted Personal Interviewing*);
- development of data input application for the telephone interviews (CATI - *Computer Assisted Telephone Interviewing*) and Internet application (CAWI - *Computer Assisted Web Interviewing*);
- development of data control application;
- arrangement of summary tables;
- determining geographical coordinates of the agricultural holding location.

CSB Telephone Interviews Centre:

- organisation and conduction of telephone interviews.

Information, Publishing and printing Department:

- responsible for printing and dissemination of informative and methodological materials and bulletin containing final data of Agricultural census.

Technical Maintenance and Procurement Division:

- technical provisions of the workplaces, communications;
- supply of the methodological and advertising materials to the regional offices.

Survey staff of CSB:

- Agricultural statistics section: 10 regular employees for data analysis, processing and publishing;
- Mathematical Support Division – 1 person;
- Informatics Department – 2 person;
- CSB CATI Centre – 8 regular employees;
- 53 temporary employees - interviewers for data collection (April – June).

Survey staff of LRATC(responsible institution for obtaining census data from 50 thsd agricultural holdings):

- 1 manager and coordinator;
- Agricultural Census managers at regional level responsible for the organisation of the interviews and quality control in counties – 26 persons;
- interviewers – 175 persons.

2.4 OVERVIEW OF WORK PROGRESS

The first works related to the development of the Agricultural Census 2010 started in December 2007. In compliance with the requirements of the European Parliament and Council Regulation (EC) No 1166/2008 the Agricultural Census programme and questionnaire under the supervision of the CSB were developed by the *ad hoc* group formed by the specialists from the Ministry of Agriculture, Ministry of Economics, Rural Support Service (RSS), State Plant Protection Service (SPPS), Agricultural Data Centre (ADC) and Latvian State Institute of Agrarian Economics (LSIAE). In the Agricultural Census 2010 a new data collecting system *CASIS* (Computer Assisted Statistical Information System) was used. This system contains three applications: CAPI – data collection system using face-to-face interviews with portable computer, CATI - data collection – telephone interviews and CAWI - data collection via internet. Therefore, careful planning and preparation was necessary.

Table 3

Timetable

Activity	Started	Finished
Updating of the Farm Register	01.10.2007	30.06.2012
Formation of inter-institutional workgroup for AC organisation	14.12.2007	30.06.2012
Development and approval of AC documentation and methodology	14.12.2007	04.04.2010
Development of CAPI data input programme	01.03.2009	28.02.2010
Development of CAWI (ISDAVS-CASIS) data input programme	03.11.2009	01.07.2010

continued

Activity	Started	Finished
Selection of agricultural holdings for AC 2010	04.01.2010	11.01.2010
Definition and development of SAPM sample	04.01.2010	15.02.2010
Development of advertisement drafts	10.01.2010	12.02.2010
Printing of AC methodological materials and advertising materials	15.02.2010	20.02.2010
Press release "On progress of Agricultural Census 2010"		24.03.2010
Supply of the advertising materials to counties	21.02.2010	01.04.2010
Training of LRATC interviewers, 1 st stage	02.03.2010	25.03.2010
Training of CSB interviewers	22.03.2010	26.03.2010
Data collection, 1 st stage	16.04.2010	14.06.2010
Development of CATI data input programme	01.03.2010	22.06.2010
Press release "On progress of Agricultural Census 2010"		01.07.2010
Training of LRATC interviewers, 2 nd stage	01.07.2010	07.07.2010
Field work, 2 nd stage	01.07.2010	30.09.2010
Training of telephone interviewers		01.07.2010
Telephone interviews	01.07.2010	30.10.2010
Web data collection CAWI (ISDAVS-CASIS)	20.07.2010	30.09.2010
Postal survey	01.10.2010	20.10.2010
Compilation, control, processing and analysis of data	01.10.2010	31.12.2010
Press release "On provisional results of Agricultural Census 2010"		07.12.2010
Data control and processing, comparison with administrative data sources	01.01.2011	31.12.2011
Adding information from administrative data sources to data file	30.06.2010	10.10.2010
Press release "On provisional results of Agricultural Census 2010"		17.05.2011
Press release "On results of Agricultural Census 2010"		07.12.2011
Development of summary tables and publication in data base	01.12.2011	31.12.2011
Development of publication "Agricultural Census of Latvia in 2010"	01.12.2011	31.03.2012
Development of Eurofarm data file, data transmission to Eurostat	01.01.2012	30.06.2012

2.5 POPULATION AND FRAME

The survey unit of the Agricultural Census was agricultural holding – technically and economically independent unit having common management producing agricultural products or preserving good agricultural and environmental conditions in the soil. Holding may produce also non-agricultural products and provide non-agricultural services.

The definition of the agricultural holdings complies with the definition set by the EU and is compatible with the one in FSS 2003, FSS 2005 and FSS 2007.

The list of holdings included the Census was arranged on the base of the Statistical Farm Register (SFR) information. The SFR was developed in the CSB in 1999 and is updated on regular basis. To update the SFR various data sources are used – information from regular statistical surveys and censuses, Statistical Business Register, State Land Cadastre, Population Register, Agricultural Data Centre Animal Register, and Rural Support Service IACS data base.

Before the AC 2010 the Statistical Farm Register was updated using information from the annual Crop and Animal Survey, Land Cadastre Register, IACS database and Statistical Business Register. Such updating ensured possibility to find new holdings and add them to the SFR.

Holdings for the Agricultural Census 2010 and SAPM were selected basing on their economic size and type of farming. Due to the limited funding it was decided that Agricultural Census 2010 will include only agricultural holdings meeting the minimum requirements of the European Parliament and Council Regulation (EC) No 1166/2008 - the smallest agricultural holdings which together contribute 2% or less to the total utilised agricultural area and 2% or less to the total number of livestock units (LSU) were excluded. As a result all economically active agricultural holdings agricultural area in which exceeded 1 ha or Standard Output (SO) of which exceeded EUR 70 regardless the area were included in the Census. SO threshold was used also when selecting holdings which did not have agricultural area but which were breeding livestock.

At the end of 2009 the SO calculations for the holdings in the SFR were made on the base of information obtained from various statistical and administrative data sources: ADC Animal Register, RSS IACS information and also data on sown areas from last the Crop Survey. Out of 108.4 thousand active agricultural holdings registered with the Statistical Farm Register at the end of 2009 90 thousand holdings, survey of which ensured that the requirement of the European Parliament and Council Regulation (EC) No 1166/2008 are fulfilled, were included in the AC 2010 (see Table 4).

Table 4

Frame of AC 2010

	SFR data for all economically active holdings	Of which for holdings included in FSS 2010	%
Number of holdings	108410	90003	83.0
Agricultural area, thsdha	1937.2	1910.2	98.6
Utilised agricultural area, thsdha	1820.4	1809.8	99.4
Number of livestock, thsd LSU	540.3	529.8	98.1

SAPM target population were all economically active agricultural holdings, selected from the AC 2010 holding list in compliance with the thresholds and precision requirements set under the European Parliament and Council Regulation No 1166/2008 Annex II. To ensure the coverage set by the regulation – 98% of the total utilised agricultural area and 98% of the total livestock number - holding meeting at least one of the mentioned physical or economic thresholds were selected:

1. physical threshold:
 - utilised agricultural area - 5 ha,
 - permanent crops - 1 ha,
 - cattle - 10 heads,
 - pigs - 50 heads,
 - sheep - 20 heads,
 - goats - 20 heads,
 - poultry - 1000 heads;
2. economic thresholds:
 - SO > EUR 4000, but none of the physical thresholds is met,
 - SO = EUR 0, but at least one of the physical thresholds is met.

2.6 SURVEY DESIGN

The AC 2010 of Latvia was conducted in a form of census, and it included all active agricultural holdings (90003 holdings) utilised agricultural area in which exceeded 1 ha or SO of which exceeded EUR 70 regardless the area.

SAPM in Latvia was carried out as a sample survey. Total sample size was 20005 agricultural holdings.

2.7 SAMPLING, DATA COLLECTION AND DATA ENTRY

2.7.1 Drawing the sample for SAPM

Procedure for sample selection is self-made using *SPSS*®. Sampling design was made as fully probabilistic sampling. The sample of SAPM was made as stratified simple random sample.

The holdings were stratified by region, type of farming, economical size classes (standard output, EUR).

The agricultural holdings were grouped by region into 5 region groups (NUTS 3 level):

- Pierīga;
- Vidzeme;
- Kurzeme;
- Zemgale;
- Latgale.

The agricultural holdings were divided into 3 different types of farming groups:

- crop;
- livestock;
- mixed cropping and livestock.

The size class of agricultural holding was defined according to characteristics of holdings. Economical size (standard output, EUR) for the holdings in the SFR was calculated basing on the information obtained from various statistical and administrative data sources: ADC Animal Register, RSS IACS information and also data on sown areas from last the Crop Survey. Economical size (standard output, EUR) of agricultural holding was used as stratification variable for active agricultural holdings. Agricultural holdings were grouped by economical size (standard output, EUR) into 13 groups:

- 0-70
- 70-2000
- 2000-4000
- 4000-8000
- 8000-15000
- 15000-25000
- 25000-50000
- 50000-100000

- 100000-250000
- 250000-500000
- 500000-750000
- 750000-1000000
- 1000000 or higher.

The sampling ratio is 100% in strata:

- all strata with population size was 1;
- all strata where adjusted Neyman sample size was equal to the population size of strata;
- standard output for the agricultural holdings were larger than 15000 EUR.

Neyman Allocation was used to calculate the optimal sample size for each stratum, based on the economical size of holding for active holding and the agricultural land area of holding for non-active and new holdings. This method optimally allocates the sample between strata where the total sample size is fixed, by minimizing the variance within strata.

The formula for Neyman Allocation is following:

$$n_h = n \cdot \frac{N_h S_h}{\sum_{h=1}^H N_h S_h}, \quad S_h = \sqrt{\frac{1}{N_h - 1} \sum_{i=1}^{N_h} (y_i - \bar{y}_i)^2},$$

where:

- n_h – sample size in stratum h ;
- n – total sample size;
- N_h – population size in stratum h ;
- y_i – variable of interest in stratum h .

The resulting Neyman sample allocation was adjusted using following conditions:

- stratum sample size was set equal to 1 if the population size of stratum is 1;
- stratum sample size was set equal to stratum population size if round Neyman sample size was greater than stratum population size;
- stratum sample size was set equal to 2, if round Neyman sample size was lower than 2;
- stratum sample size was set to round Neyman sample size in all other cases.

The main goal to assign sampling ratio equal to 100% in those strata is to get lower sampling errors for estimates.

For each Farm Structure Survey a separate sample from the Statistical Farm Register was developed. Large holdings are included in all FSS.

In order to reduce respondent burden and avoid duplication of the questions in statistical surveys the SAPM was conducted simultaneously with the AC 2010. When developing the Crop Survey 2010 the results of the AC 2010 and SAPM were taken into account, moreover the Crop Survey 2010 questionnaire was prepared in a way that respondent did not have to provide the same information repeatedly.

Elements related to the precision requirements in NUTS 2 region with more than 10000 holdings, stipulated in Annex IV “Precision Requirements” of the Regulation 1166/2008 see in Table 5 and 6.

Table 5

Crop characteristics

Precision requirements	Field codes	NUTS2 region: Latvia
Number of holdings in the NUTS2 region		83386
UAA, ha of the NUTS2 region	A_3_1	1796313
Area of cereals in ha in the NUTS2 region	B_1_1	513665
% Cereals in the UAA of the NUTS2 region		28.6
Area of potatoes and sugar beet in ha in the NUTS2 region	B_1_3+B_1_4	26036
% potatoes and sugar beet in the UAA of the NUTS2 region		1.4
Area of oilseed crops in ha in the NUTS2 region	B_1_6_4+B_1_6_5+ +B_1_6_6+B_1_6_7+ +B_1_6_8	104720
% oilseed crops in the UAA of the NUTS2 region		5.8
Area of permanent outdoor crops in ha in the NUTS2 region	B_4-B_4_7	9955
% permanent outdoor crops in the UAA of the NUTS2 region		0.6
Area of fresh vegetables, melons, strawberries, flowers in ha in the NUTS2 region	B_1_7+B_1_8	5357
% fresh vegetables, melons, strawberries, flowers in the UAA of the NUTS2 region		0.3
Area of temporary grass and permanent grassland in ha in the NUTS2 region	B_1_9_1+B_3	1022390
% temporary grass and permanent grassland in the UAA of the NUTS2 region		56.9

Table 6

Livestock characteristics

Precision requirements	Field codes	NUTS2 region: Latvia
LSU in the NUTS2 region		488845
Bovine animals (all ages)	C_2_1*0.4+C_2_2*0.7+ C_2_3*0.7+C_2_4+ +C_2_5*0.8+C_2_6+ +C_2_99*0.8	297811
% of the LSU in the NUTS2 region		60.9

continued

Precision requirements		Field codes	NUTS2 region: Latvia
Sheep and goats (all ages)	Number of sheep and goats in the NUTS2 region, in LSU	$C_{3_1} \cdot 0.1 + C_{3_2} \cdot 0.1$	10301
	% of the LSU in the NUTS2 region		2.1
Pigs	Number of pigs in the NUTS2 region, in LSU	$C_{4_1} \cdot 0.027 + C_{4_2} \cdot 0.5 + C_{4_99} \cdot 0.3$	96816
	% of the LSU in the NUTS2 region		19.8
Poultry	Number of poultry in the NUTS2 region, in LSU	$C_{5_1} \cdot 0.007 + C_{5_2} \cdot 0.014 + C_{5_3} \cdot 0.030$	74650
	% of the LSU in the NUTS2 region		15.3

2.7.2 Data collection and data entry

In the AC 2010 new data collecting system CASIS was used. CAPI and CATI interviews were software developed by Informatics department of CSB of Latvia and data are stored in Microsoft (MS) SQL database. There were 3 different types of application:

- application for CAPI interviewers that was set up on laptops and MS SQL Express database, which is free of charge, was used;
- application for CATI interviews, which was slightly modified interviewers application, so that it could be easier used for telephone interviewers;
- application at CSB, which is the same interviewer's application with additional functionality and is using MS SQL server 2005, and has access to all data received from interviewers.

For the web questionnaires the CSB common system CASIS CAWI version was used. This system was designed to harmonise data collection, processing and storage in the CSB.

Data control was made in all data collection applications employed. Mathematical and logical controls were developed in compliance with the requirements of the "Data Supplier Manual", as well as, in order to obtain more precise information and facilitate further data processing, they were supplemented with other necessary controls.

CAPI interviews

In order to save financial resources the CSB at the beginning of 2010 concluded an agreement with the RSS on opportunity for the CSB interviewers to survey the EU area payment applicants in the RSS regional offices and sectors, where the area payment applications are submitted. Thus 53 CSB interviewers surveyed representatives from the holdings in regions during the time period from 16 April 2010 till 10 June 2010. Interviewers had laptop computers rented from the LRATC as well as methodological instructions developed by the CSB.

Posters and brochures advertising the conduction of the Agricultural Census were placed in the RSS regional offices and sectors, thus facilitating the work of the interviewers; moreover each area payment applicant together with the application forms received also a letter from the CSB with a request to give information for the needs of the Agricultural Census.

From July 1 till the end of September the interviews were conducted by the LRATC interviewers on agricultural holdings. The LRATC interviewers were using their laptop computers and data input

programme developed by the CSB. During the time period from April 16 till the end of September 83.8 thousand agricultural holdings were surveyed.

The duration of the AC 2010 interview comprised approximately 60 minutes, but in cases when holding had to submit also information for the SAPM the interview lasted for up to 90 minutes.

When imputing the data interviewers carried out also first logical and arithmetical control. Approximately 200 logical and arithmetical controls have been incorporated in the data input programme.

Training of all interviewers was provided by the CSB personnel. Training consisted of 2 parts: methodological part (explanation of the indicator definitions) and work with the data input programme (practical work).

CATI interviews

Telephone interviews were conducted along with the CAPI interviews in the time period between 1 July 2010 and 31 October 2010. They took place in the CSB CATI Centre in Preiļi, where 8 interviewers were working. With the help of the telephone interviews information was obtained on 6099 agricultural holdings. This surveying form ensured interviewing of smaller and inactive agricultural holdings, telephone numbers of which were known. Holdings which had to provide information on agricultural production methods were not surveyed with telephone interviews.

CAWI questionnaire

It was possible to fill in the AC 2010 and SAPM questionnaires on the Internet during the time period from 20 July till 30 September 2010. The CAWI form of the FSS was used for the first time. Holdings, e-mail addresses of which were known and which in 2010 used RSS electronic area payment application system, had opportunity to fill in the AC 2010 and SAPM questionnaires on the Internet. Totally web questionnaires were filled in by 616 respondents or 0.7% of the total respondent number.

Information on opportunity to participate in Agricultural Census by filling in the questionnaire on the Internet was sent to e-mail addresses of the CAWI respondents:

- 18.07.2010 – invitation and information about user name and password;
- 18.08.2010 – first reminder;
- 01.09.2010 – second reminder.

Postal survey

4012 respondents, which were not met until 20 September 2010, received the AC 2010 questionnaires by mail. Afterwards information was received from 2190 respondents.

In order to be able to process all results acquired with the help of various methods the interviewer data input application with additional functions was used. The extra functions included additional logical and mathematical controls, opportunity to identify duplicates and missing data, possibility to correct data and compare them at holding level, to carry out massive data corrections, if necessary, option to export the data to Access data bases, to filter holdings by various characteristics and develop reports.

Within the framework of the FSS 2010 information was acquired on 90507 agricultural holdings, 83386 of which were economically active. No information was received from 2189 holdings or 2.4% (respondent was not met or respondent refused to answer).

For the needs of Eurofarm a data base on 83386 holdings was developed and sent to the Eurostat in a form of anonymous individual data. Data were prepared in compliance with the *Manual for data suppliers of the survey 2010 Rev. 7*.

2.7.3 Use of administrative data sources

The Official Statistics Law of the Republic of Latvia sets that in order to implement the state statistical programme the CSB has right to receive the necessary information from the state registers or data bases free of charge, including individual data on natural persons.

Use of administrative data sources for producing statistics

In compliance with the Article 4 of the European Parliament and Council Regulation No 1166/2008 in FSS surveys Member States shall use information from the Integrated Administration and Control System provided for in Regulation (EC) No 1782/2003 and the System for the Identification and Registration of Bovine Animals provided for in Regulation (EC) No 1760/2000. Within the framework of the AC 2010 two state registers were used: ADC Animal Register and RSS IACS data bases.

Animal Register (AR) by Agricultural Data Centre

In order to reduce respondent burden when acquiring the livestock statistics data for the FSS 2010 (except number of pigs and poultry) the ADC Animal Register information was used, and mentioned indicators were not included in the questionnaire. In compliance with the inter-institutional agreement No 2/131-2006 concluded between the CSB and State Agency Agricultural Data Centre on May 11 2006 the CSB regularly twice a year receives individual data from the Animal Register at herd level. To provide the information on number of livestock for the needs of the Agricultural Census the CSB on 1 July 2010 used the Animal Register information.

The holder of the Animal Register is the ADC, the largest and most important institution under supervision of the Ministry of Agriculture. Legal basis and activities of the ADC:

- Regulation No 712 of the Cabinet of Ministers (Procedure of registration of animals, herds and cattle-sheds and animal labelling);
- Supervision programs in Latvia;
- Breeding Law. Breeding programs in Latvia;
- Mandatory regulations, directives of the European Union, their explanations - Directive of European Union 92/101/EEC on "Identification and registration of cattle"; Regulation of the European Union 820/97 EC "On identification and registration of cattle"; Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products.

Work on the compatibility of the Animal Register data with the Statistical Farm Register information, comparison of the data with information from statistical surveys and quality check was started already in 2001, after the Agricultural Census. At that time the quality of the Animal Register was unsatisfactory. In 2002 the CSB carried out a quality check survey in three districts. This survey showed that in many cases data in the Animal Register did not exclude slaughtered animals, and very often small herds were not registered with the Animal Register at all.

The information from both data sources was compared until 2009, and then CSB finally found the quality of the Animal Register to be adequate for the production of statistical information on number of livestock (cattle, sheep, goats and horses).

The basic unit of the register is animal, which is identified basing on following characteristics:

- identification number of the herd, containing not more than 12 digits, and the country code;
- herd name and the address;
- animal's identification number, containing not more than 12 digits, and the country code;
- date of birth;
- gender;
- breed and colour;
- identification number of the mother;
- identification number of the herd in which the animal was born;
- identification number of the herd in which the animal is kept and each change in herds;
- date of slaughtering or death.

For the needs of the AC 2010 the CSB received individual data from the Animal Register as well as information on the herd owner: name, identity code, and address of residence, address of animal stall, telephone number etc. To combine the data the identity code for physical persons or registration number for legal holdings served as a common identifier.

Information on following characteristics was integrated in the AC 2010 database directly from the Animal Register (see Table 7).

Table 7

Information from Animal Register

Code	Characteristic	Unit
3.	Livestock	
3.01	Equidae	Head
3.02	Bovine animals:	
3.02.01	Bovine animals, under one year old, male and female	Head
3.02.02	Bovine animals, one but less than two years old, male	Head
3.02.03	Bovine animals, one but less than two years old, female	Head
3.02.04	Male bovine animals, two years old and over	Head
3.02.05	Heifers, two years old and over	Head
3.02.06	Dairy cows	Head
3.02.09	Other cows	Head
3.03	Sheep and goats	Head
3.03.01	Sheep (all ages)	Head
3.03.01.01	Breeding females	Head
3.03.00.99	Other sheep	Head
3.03.02.	Goats (all ages)	Head
3.03.02.01	Breeding females	Head
3.03.02.99	Other goats	Head
3.06	Rabbits, breeding females	Head
3.07	Bees	Hives

ADC Animal Register contains information on livestock by species and categories. Breakdown of the cattle into categories meets the FSS definitions.

In compliance with the Regulation of the Cabinet of Ministers No 712 (16 December 2003) “Order of animal, herd and animal housing registration and identification of animals” livestock breeders, incl. rabbit and bee keepers, have to report to the Agricultural Data Centre twice a year. As in Latvia Agricultural Census was not carried out in full and small holdings were not surveyed, the Census does not include agricultural holdings keeping only bees or rabbits solely for own consumption.

Integrated Administration and Control System by Rural Support Service

In compliance with the EC Regulations No 3508/1992 and No 2419/2001 each European Union Member State after the EU accession shall introduce IACS. The aim of the system is to form common EU support payment and control system that in compliance with the regulations has to be updated and improved. IACS in Latvia was established in 2004. Land Parcel Register is one of the IACS elements.

The Land Parcel Register has been created as Geographical Information System (GIS) storing information on agricultural area in a form of land parcels. The GIS of the Land Parcel Register contains land parcel data base with mutually related spatial cartographical data and subordinated attribute information: geo-reference, identification number, area etc.

The system is based on common Oracle database ensuring administration and maintenance of a centralised system, better system safety, availability and data integrity.

The unit registered in the IACS database is client – natural or legal person eligible to apply for the support within the framework of the activities organised by the RSS. Each client gets a unique RSS client registration number.

With an aim to reduce respondent burden it was decided to exclude questions on support for the rural development received during the last 3 years from the AC 2010 questionnaire, but individual information from the RSS IACS data bases on each agricultural holding was used instead and integrated in the AC 2010 data file.

The RSS IACS data base served as a source of information on support payments received within the framework of the RSS administrated field support activities. The information received by the CSB included identity code, address of residence, address of agricultural holding, telephone number etc. For combining data personal code for physical persons or registration number for legal holdings was used as a common identifier.

The following information from the IACS data base was directly integrated into the AC 2010 database (see Table 8).

Table 8

Information from IACS data base

Code	Characteristic	Unit
7	Support for rural development	
7.01	Holding benefited from one of the following rural development measures during the last three years (2008, 2009 and 2010)	
7.01.01	Use of advisory services	Yes/ No
7.01.02	Modernisation of agricultural holdings	Yes/ No
7.01.03	Adding value to agricultural and forestry products	Yes/ No

continued

Code	Characteristic	Unit
7.01.06	<i>Natura 2000</i> payments for agricultural area	Yes/ No
7.01.07	Payments linked to the Water framework Directive	Yes/ No
7.01.08	Agri-environment payments	Yes/ No
7.01.08.01	Of which in the framework of organic farming	Yes/ No
7.01.10	Diversification into non-agricultural activities	Yes/ No
7.01.11	Encouragement of tourism activities	Yes/ No

Use of administrative data sources for quality control

Organic Farming Register by Agricultural Data Centre

Data of AC 2010 on organic farming were compared with the Organic Farming Register information received from the Ministry of Agriculture, Agricultural Data Centre. This information was used for the quality control, and data comparisons at holding level were made between the certified activities and areas with transition period certification. In case of significant discrepancies information was revised by calling the respondent.

Integrated Administration and Control System by Rural Support Service

In compliance with the inter-institutional agreement No 0103-2/08/132 between the CSB and RSS of 1 April 2008 on information exchange the CSB every year receives data from the IACS EU area payment data base at client level. In Agricultural Census this information was used for the quality control, as well as for the data imputation at holding level in case of non-response. For combining the data the identity code for physical persons or registration number for legal holdings was used as a common identifier.

AC 2010 data on sown area at holding level were compared with the IACS information. In case of significant discrepancies the information was revised by calling the respondent.

At holding level the information in administrative registers often differed from the data acquired in the AC 2010. Administrative sources often contain incorrect and out-of-date information. The inaccuracies may be caused by the fact that application forms in the IACS data base are filled in from April till June – time when the sowing period in Latvia has not ended – thus only the planned sown areas, not always reflecting the reality, are reported.

2.8 SPECIFIC TOPICS

2.8.1 Common Land

Common land in Latvia existed in 90-ties (common land of local municipalities), but since 2000 all such land is leased out to several agricultural holdings, and in our surveys it is regarded as land used by holding. Thus in the FSS it is included as distributed to the user holdings and is defined as “agricultural area utilised for farming by tenant”.

2.8.2 Geographical reference of the holding

Until now the location of the agricultural holding in the CSB surveys was characterised by its address and CATTU code, geographical coordinates of the main production site were not determined.

To determine the main production site of the agricultural holding, not always corresponding the address, the cadastre number of the most significant land parcel had to be indicated in the questionnaire, because geographical coordinates of these parcels are known.

To determine the geographical coordinates of the holding main production site a software *GeoMedia Professional 6.1* (see Annex 4) was used.

Geographical information:

- geometrical data of the cadastre – cadastre maps from the State Land Service (SLS) in Microstation DGN format containing 2 levels:
 - network of lines forming the cadastre boundaries,
 - cadastre number texts;
- map coordinate system: *LSK-92 one meter*;
- layer of Latvia counties - map coordinate system *LSK-92 one meter*; *Geomedia* format.

Each land plot centre coordinates were found out. Afterwards these coordinates were used to create polygons (a 5' grid), and agricultural holdings, cadastre centre coordinates of which fell within the polygon, were added to the polygon centres, considering the boundaries of NUTS3 regions and Latvia territory. If the polygon centre was located outside the territory of Latvia, holdings were linked with the nearest polygon centre located in the territory of Latvia. (see Annex 4)

Coordinates were determined for each holding in LKS-92 one meter geographical coordinate system. This system meets the ETRS89 parameters, thus it was not necessary to convert the acquired coordinates.

To ensure individual data protection, the geographical coordinates of the agricultural holding main location were rounded to 5 minutes (5'), by using the 5' grid.

With an aim to ensure precision of the holding's main production site rounded-up coordinates nearby NUTS 3 regions and state boundaries, in the future farm surveys one grid will include 2 centres and holdings will be added to the nearest centre, thus ensuring that precision equals 5'. But in this case the grid will be unequal.

2.8.3 Volume of water used for irrigation

In Latvia irrigated areas in open field are rather small (904 ha or 0.05% of utilised agricultural area (UAA) and irrigation is irregular.

Variable 8.04 – “Volume of water used for irrigation per year” includes the volume of water used for irrigation of open field crops and crops under glass (greenhouses). The volume of water used for irrigation of the kitchen gardens is not included.

To find out the volume of water used for irrigation, in cooperation with the Latvia University of Agriculture Agency “Research Institute of Water and Land Management” within a project “*Pilotstudies on estimating the volume of water used for irrigation*” (Grant Agreement No 40701.2008.001-2008.132) a methodology was worked out. Project was started on 1 August 2008, and the duration of the project comprised 17 months.

Within a framework of the project a survey was carried out. The survey resulted in obtaining information on irrigation equipment used, crops grown and their areas, irrigation frequency during the vegetation period. This information was necessary to calculate the volume of water used for irrigation and set the average irrigation norm for agricultural crops or crop groups in algorithmic regions. When determining the irrigation norms for crops the mean long-term climate indicators

were considered. If necessary the calculated norm has to be revised in compliance with the climate conditions of the specific vegetation period.

During the active vegetation period of 2010 (May – August) the mean precipitation exceeded long-term norm (148% of the normal). Still the distribution of the precipitation volume in Latvia was uneven, and additional irrigation of the crops in open field was necessary.

Scientists of the Latvia University of Agriculture Agency “Research Institute of Water and Land Management” revised irrigation norms developed under the framework of the mentioned grant project in compliance with the climate conditions of 2010 – average air temperature and average rainfall during the active vegetation period¹.

See the revised norms and calculations of the open field crop irrigation in Annex 5.

Project “Pilot studies on estimating the volume of water used for irrigation” did not include the determination of the irrigation norms of covered areas and kitchen gardens. The inaccurate explanations of the indicator 8.04 – “Volume of water used for irrigation per year” in the Regulation of the European Commission No 1200/2009 and *Handbook on implementing the FSS and SAPM definitions, rev. 7* allowed to consider that the volume of water used for irrigation should cover only the irrigation of open field crops.

Basing on long-term studies the scientists of the Latvia University of Agriculture Agency “Research Institute of Water and Land Management” determined the average irrigation norm in covered areas.

Under the climate conditions of Latvia crops in heated greenhouses on average are grown for 7 months, in unheated greenhouses – on average for 5 months. The average irrigation norm per months comprises 0.2 m³ water per 1 m².

Under the climate conditions of Latvia not all area of the kitchen garden is irrigated, therefore it is not possible to determine the volume of water used for irrigation. The AC 2010 questionnaire did not include questions on crops grown and crop areas in kitchen gardens, as well as on irrigated areas.

2.9 RESPONSE-BURDEN POLICY

With an aim to inform respondents and increase response rate in the AC 2010 and SAPM, the Agricultural Census was launched with the publication of informative articles and notifications in republic and county press and in county web pages on the Internet. Respondents, which applied for the EU direct payments, together with the application forms received also a letter signed by the President of the CSB containing a request to give information for the Agricultural Census.

Interviewers had pre-developed methodological instructions that included indicator definitions and information on aim and legal base of the Agricultural Census. In case of the respondent refusal the task of the interviewer was to offer other opportunity to fill in the questionnaire – to send the filled in form by mail, to fill in the survey on the Internet or to give the information by telephone.

Respondents having opportunity to fill in the questionnaire on the Internet received an informative letter and two more notifications, if necessary.

With an aim to specify the information, during the verification of the data file respondents received a phone call:

- if questionnaire was filled in only partly;

¹Физиология и биохимия сельскохозяйственных растений/ под ред. Н.Н. Третьякова и др. – Москва: КолосС, 2005 – с. 271. – 273

- if given data were inaccurate or significantly differed from the information available in other administrative sources

3. ACCURACY AND RELIABILITY OF THE DATA COLLECTED

3.1 DATA PROCESSING, ANALYSIS AND ESTIMATION

3.1.1 Estimation and sampling errors for SAPM

Main sources of error are under-coverage, over-coverage and non-response.

Assessment of the potential for bias- not estimated.

Methods for deriving the extrapolation factor

Basic weight:

The GREG estimator is used for estimation of totals and ratios.

The design weights (basic weights) are calculated according to the sample design. The design weights are calculated as ratio of the number of farms in the population to the number of holdings in the sample within each stratum.

Unit design weights are calculated according to the sampling design and inclusion probabilities of units in the sample – $w_d = \frac{N_h}{n_h}$, where N_h is population size of stratum h and n_h is the sample size in stratum h .

Calibration:

Set of respondents is assumed to be a sample, and the one from the AC 2010 - new frame.

Sample was calibrated on the new frame. The number of respondents, number of pigs, number of cattle in combination with the total sown area and mixed cereals in each region and irrigation equipment in holding has been used as auxiliary variables.

Package “sampling” of software *Ris* used for the calibration, and g-weights are calculated with the help of a function “calib” from this package. Whereas calibration is based on the truncated method in the function “calib”. Lower bound for this method is 0.9, and upper – 1.91.

Please observe, that using GREG (Generalized Regression) estimator (calibration) for SAMP, the weights are not equivalent in one stratum within. The GREG estimator is used for estimation of totals. More about GREG estimator can be found in the literature²³⁴.

Coefficients of variation (see table 9):

Variance estimation is made according to the sampling design (stratified simple random sampling). Set of respondents is assumed as sample. Direct estimator of variance for totals is used. Formulas for computing sampling errors are described in annex 6. Software *SPSS* and *Ris* used for variance estimation.

²“Estimation in Surveys with Nonresponse Carl-Erik Särndal / SixtenLundström, Wiley”.

³“Estimation in the presence of nonresponse and frame imperfections SixtenLundström/ Carl-Erik Särndal, StatisticsSweden”

⁴ http://www.scb.se/Pages/PublishingCalendarViewInfo_259923.aspx?PublObjId=2050

Table 9

Coefficients of variation

RSE, %	Field codes	NUTS2 region: Latvia
Crop characteristics:		
UAA, ha of the NUTS2 region	A_3_1	0.0
Area of cereals in ha in the NUTS2 region	B_1_1	0.8
Area of potatoes and sugar beet in ha in the NUTS2 region	B_1_3+B_1_4	1.1
Area of oilseed crops in ha in the NUTS2 region	B_1_6_4+B_1_6_5+ +B_1_6_6+B_1_6_7+ +B_1_6_8	1.2
Area of permanent outdoor crops in ha in the NUTS2 region	B_4-B_4_7	4.3
Area of fresh vegetables, melons, strawberries, flowers in ha in the NUTS2 region	B_1_7+B_1_8	3.1
Area of temporary grass and permanent grassland in ha in the NUTS2 region	B_1_9_1+B_3	0.7
Livestock characteristics:		
Number of bovine animals in the NUTS2 region, in LSU	C_2_1*0.4+C_2_2*0.7+ C_2_3*0.7+C_2_4+ +C_2_5*0.8+C_2_6+ +C_2_99*0.8	0.8
Number of sheep and goats in the NUTS2 region, in LSU	C_3_1*0.1+C_3_2*0.1	2.2
Number of pigs in the NUTS2 region, in LSU	C_4_1*0.027+C_4_2*0.5+ +C_4_99*0.3	0.2
Number of poultry in the NUTS2 region, in LSU	C_5_1*0.007+C_5_2*0.014+C_5_3*0.030	0.4

3.1.2 Non sampling errors

AC 2010:

- under-coverage – 3.3%;
- over-coverage – 8.2 %;
- non-response - 2189 cases of unit non-response were detected. Total response rate is 97.0 %. The response rate is calculated as the ratio of number of eligible responding holdings, divided by the number of eligible holdings in the frame. Eligible holdings are resolved holdings belonging to the target population.

SAPM:

- under-coverage – 29.8%

The under-coverage is calculated as the ratio of number of holdings, which failure to include in the frame belongings to the target population, divided by the number of eligible holdings in the frame and holdings, which failure to include in the frame belongings to the target population. Eligible holdings are resolved holdings belonging to the target population.

In compliance with the results of the AC 2010 and SAPM, large part of the holdings included in the survey have stopped their agricultural activities or have merged, renting or selling agricultural area utilised prior and selling or liquidating livestock herds, moreover this fact is testified by the relatively high under-coverage coefficient calculated. Thus number of active holdings has diminished, while changes in total UAA and livestock number are insignificant.

- over-coverage – 7.1%

The over-coverage is calculated as the ratio of number of holdings, which are included in the frame do not belong to the target population, divided by the number of eligible holdings in the frame and holdings, which are included in the frame do not belong to the target population. Eligible holdings are resolved holdings belonging to the target population.

- non-response - 279 cases of unit non-response were detected. Total response rate is 98 %. The response rate is calculated as the ratio of number of eligible responding holdings, divided by the number of eligible holdings in the frame. Eligible holdings are resolved holdings belonging to the target population.

In order to reduce AC 2010 and SAPM under-coverage the information is specified by telephone. Mainly respondents not met during data collection were contacted. Information obtained by telephone was entered into the database. With this method information was acquired on 1021 agricultural holdings or on 1.2% of the holdings included in the AC 2010.

In the result of the AC 2010 1546 or 1.9% partly filled in questionnaires were received from the interviewers. To obtain missing information the data from the Statistical Farm Register, Population Register RSS IACS databases, and ADC Animal Register were used as well as respondents were repeatedly contacted to specify the information.

3.1.3 Methods for handling missing or incorrect data items

Interviewers every day sent the obtained information to the CSB central server. The CSB staff verified the received questionnaires, and the incorrect forms were sent back. In such situations interviewer specified the information with the respondent one more time.

At the end of the field work the data at holding level were controlled and revised in the CSB. Data comparison was based on the administrative data sources – RSS IACS database on sown areas and also SFR. The primary source used to specify the information was the respondent – CSB employees called the respondent and asked to give the precise incorrect or missing information.

The missing information about AC 2010 characteristics on 2012 agricultural holdings was imputed from the mentioned administrative data sources.

Most common inaccuracies:

- age of the holder and manager age were not specified;
- spouse of the holder was not indicated;
- sown areas of agricultural crops by groups;
- it was not indicated that fallow land is subsidised;
- meadows and pastures were indicated as grassland sown on arable land and vice versa.

3.1.4 Control of the data

As interviewers were using laptop computers, the data input of the AC 2010 and SAPM was carried out during the interview. The task of the interviewers was to obtain information from the respondent as well as to carry out the first data analysis and quality control. The CAPI data input application included approximately 280 controls, CATI – about 230 controls, and that ensured mathematical and logical controls as well as technically correct data input. In order to enhance information provision for the respondent, the CAWI application included only most important mathematical and logical validations (see Annex 7).

In respect to the validations failing during the data input process an error notification appeared that indicated the place of the error and correct value (if possible).

When data were sent to the CSB server in Riga the engaged personnel carried out deeper mathematical and logical controls at holding level. If necessary, the information was revised by contacting interviewer or holder of agricultural holding.

3.2 EVALUATION OF RESULTS

The AC 2010 results were compared with the administrative data sources as well as with the annual surveys carried out by the CSB – crop production survey 2010 and animal survey 2010, at both holding level and country level.

Significant changes at holding level were revised by calling the respondents.

See comparison between crop survey 2010 and AC 2010 in Table 10, and comparison between animal survey 2010 and AC 2010 - in Table 11.

Comparison of the crop survey 2010 and AC 2010 results show significant changes in areas of potatoes, vegetables and forage crops - plants harvested green. The differences between vegetable areas and potato plantations may be explained with the fact that in AC 2010 potatoes and vegetables for own consumption are indicated together with the data on kitchen gardens, not coded in breakdown by each crop.

The difference in forage crop - plants harvested green areas may be explained with the fact that AC 2010 included indicator “Meadows and pastures no longer used for production, where good agricultural and environment conditions are maintained, eligible for the payment of subsidies”, and holdings not having livestock herds partly included perennial grass areas in this indicator.

Table 10

Sown area of agricultural crops

(thsd ha)

Crop	Crop production statistics 2010	AC 2010	Difference AC 2010/crop2010, %
Total sown area	1102.7	1045.0	-5.5
Cereals	541.5	548.6	1.3
Pulses	2.7	2.8	3.6
Fodder roots and cabbage	0.9	1.0	10.0
Potatoes	30.1	24.6	-22.4
Vegetables	8.1	4.3	-88.4
Industrial crops	114.4	116.8	2.1
Forage crops	400.7	342.4	-17.0
Green manure crops	1.7	1.7	0.0
Nectar crops	2.6	2.7	3.7

Regarding number of livestock the changes are insignificant due to different reference time (see Table 11).

Table 11

Number of livestock

(thsd)

	Animal survey, at the end of 2009	AC 2010, 01.07.2010	Animal survey, at the end of 2010
Cattle	378.2	394.3	379.5
Pigs	376.5	383.3	389.7
Sheep	70.7	84.3	76.8
Goats	13.2	12.5	13.5
Horses	12.6	10.3	12.0
Poultry	4828.9	5160.7	4948.7
Rabbits	43.9	28.8	33.5

Table 12

Non-response

	FSS	SAPM
Initial list of units	90003	90003
Initial sample	NA	20005
Number of holdings with completed questionnaires (incl. Eventual imputed questionnaires)	83386	18799
Number of units under the threshold applied ⁵	2009	1107
Holdings with ceased activities:		
- (If information is available) of which definitely ceased, i.e. the land is abandoned	7121	984
- (If information is available) of which holdings with change of the manager	NA	NA
Unit Non-response:		
- Refusal – not corrected	3173	386
- Refusal – corrected (imputed)	2189	279
Number of records transferred to Eurostat ⁶	83386	18799
Common land units (A_2_1)	NA	NA

⁵Units that do not meet national threshold criteria (in some countries there could be completed questionnaires for them, in others – not). In case it's impossible to provide, a short explanation about the reasons to be provided.

⁶The number of holdings with completed questionnaires for FSS2010 may be different from the number of records transferred to Eurostat in case that very low national threshold is applied.

Comments on major trends from FSS 2007 to AC 2010

Table 13

Comparison FSS 2007 and AC 2010

Characteristics	FSS 2007	AC 2010	Difference 2010/2007, %
Number of holdings	107750	83386	-22.6
UAA, ha	1773842	1796286	1.3
Arable land, ha	1110530	1119960	0.8
Permanent grassland, ha	639520	651050	1.8
Permanent crops, ha	17661	8515	-51.8
Wooded area, ha	708419	714161	0.8
Unutilised agricultural area, ha	145099	137520	-5.2
Fallow land, ha	62427	74453	19.3
Number of livestock in LSU	487874	474627	-2.7
Cattle, head	397859	394344	-0.9
Family Labour force - in persons	196348	163924	-16.5
Family Labour force - in AWU	88544	71354	-19.4
Non family labour force - in persons	21261	17439	-18.0
Non family labour force - in AWU	15346	13285	-13.4

Among the indicators the emphasis is put on those the differences of which with FSS 2007 exceeds 10%: number of holdings (-22.6%), permanent crops (-51.8%), family labour force - in persons (-16.5%), family labour force - in AWU (-19.4%), non-family labour force - in persons (-18.0%), non-family labour force - in AWU (-13.4%) and fallow land (19.3%).

Due to the insufficient funding the Agricultural Census 2010 included only holdings meeting the minimum requirements set under the European Parliament and Council Regulation (EC) No 1166/2008 Article 3 Section 2. As a result the AC 2010 included all active agricultural holdings agricultural area in which exceeded 1 ha or standard output of which exceeded EUR 70 regardless the area.

The AC 2010 included 90003 agricultural holdings or 83.0% of all active holdings registered in the SFR. The AC 2010 excluded small holdings, and as AC 2010 was organised in a form of census above certain threshold the holdings were not extrapolated. This is one of the reasons causing the reduction in the AC 2010 numbers. Data of the Agricultural Census clearly demonstrate also the key trends in Latvia – concentration of the agricultural production in largest holdings (only 1.4% of the holdings are managing 36% of agricultural area), and decrease in the number of agricultural holdings and employment rates. Within the framework of the Census 83.4 thousand active holdings were surveyed, and it is 30 thousand or 26.5% less than in 2007 and 57 thousand or 41% less than in previous Census of 2001 – thus during the 9 years the number of holdings has reduced almost twice! Similar situation can be observed in respect to the labour force in AWU – the number during this time period has diminished by 40% (from 141.2 thousand to 85.9 thousand). Such situation requires appropriate political actions to eliminate or at least reduce the resulting socio-economic consequences – drop in the population number in rural areas, emigration of the residents from rural areas and from Latvia as a whole.

The areas of permanent crops, in compliance with the definition, include only new and producing commercial orchards. As within the framework of the AC 2010 all small holdings were not

surveyed and obtained results were not extrapolated, the areas of permanent crops differ from the sample survey FSS 2007 significantly. Areas of fruit trees and berry bushes for own consumption are included in the kitchen garden areas.

Areas of fallow land in 2010 have increased by 19.3%, if compared to 2007. To ensure correct crop rotation in specialised crop holdings the fallow land is included in crop rotation schemes, thus gradually increasing the fallow land areas. Moreover holdings are eligible to receive the common area payments for the fallow land.

3.3 DATA REVISION POLICY

Unplanned revision of the AC 2010 and SAPM data may be carried out. It may be necessary to carry out the unplanned revision if some mistake in data sources or calculations is found, or due to the unexpected changes in methodology or data sources.

4. ACCESSIBILITY AND PUNCTUALITY

4.1 PUBLICATIONS

The information on progress, as well as on provisional and final results of the Agricultural Census 2010 is published on the CSB Web Page in several press releases:

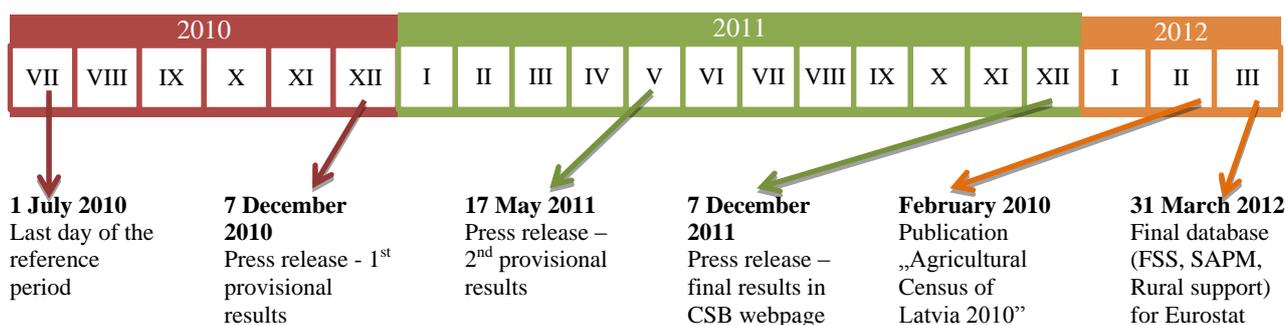
- 1st provisional results (general information) in a press release of December 2010
<http://www.csb.gov.lv/en/notikumi/provisional-results-agricultural-census-2010-27452.html>
- 2nd provisional results in a press release of May 2011
<http://www.csb.gov.lv/en/notikumi/provisional-results-agricultural-census-2010-31977.html>
- final results in a press release of December 2011
[http://www.csb.gov.gov.lv/en/notikumi/final-results-agricultural-census-2010-32185.html](http://www.csb.gov.lv/en/notikumi/final-results-agricultural-census-2010-32185.html)
- and results in a CSB Web Page data base at the end of December 2011
http://data.csb.gov.lv/DATABASEEN/laukskait_10/databasetree.asp

The data file of the Agricultural Census 2010 has been sent to the Eurostat in March 2012.

The collection of statistical data "Agricultural Census of Latvia 2010" was published in the 1st quarter of 2012.

4.2 TIMELINESS AND PUNCTUALITY

Dissemination of the AC 2010 results:



Time lag - 1st provisional results: after 5 month. Release of the information on progress of the AC 2010 and number of agricultural holdings surveyed.

Time lag - 2nd provisional results: after 9.5 month. Release of the information on number of agricultural holdings, utilised agricultural area, and number of livestock in agricultural holdings of various economic sizes. These provisional results were also sent to the Eurostat.

Time lag - final results: after 18 month. Final results are published on the CSB webpage. In February 2012 a publication “Agricultural Census of Latvia 2010” has been released.

5. CONFIDENTIALITY AND SECURITY

The confidentiality of the information provided by the respondents is protected by the Section 18 of the Official Statistics Law, determining rights and obligations of the CSB and other state authorities producing official statistics.

Statistical data shall be considered confidential if they directly or indirectly allow for identification of the private individuals or State authorities regarding which personal statistical data have been provided. The confidential data collected for statistical purposes only, may only be used for making of summaries and grouping of data, analysis of economic and social phenomena and processes. The Central Statistical Bureau and other State authorities producing official statistics shall take the necessary administrative, technical and organizational measures to ensure the confidentiality of individual statistical data, to prevent unauthorized access to information, distortion or dissemination thereof, unintentional or unauthorized destruction. It is prohibited for the individuals of the Central Statistical Bureau and of other State authorities producing official statistics to reveal any information regarding respondents, which they have become aware of while performing official or work duties. This rule shall also apply to the persons who are temporarily involved in the collection and compilation of official statistical information.

During the collection, processing and dissemination of the AC 2010 data, the data confidentiality and security were guaranteed to every respondent in compliance with the Official Statistics Law. The staff engaged in the Census had to sign legal confidentiality commitments.

During the data collection the data safety was ensured also by using safe public data transfer network. After sending the data to the CSB the interviewers were not able to access the respondent information. At the end of the AC 2010 field works the employees of the CSB IT Department deleted data input programme from the interviewer laptop computers.

The AC 2010 information will be published at country, statistical region and partly county level. Information of the AC 2010 is not published at rural municipality (*pagasts*) level, because it does not meet the confidentiality requirements. If the aggregated data contained some kind of confidential information, the exact values were substituted with a special symbol.

Confidential statistical data may be used for scientific purposes, if the scientific institution guarantees the protection of the data, ensuring that respondents may not be identified directly.

ANNEXES

1. Non-significant and non-existing characteristics.
2. Questionnaire form for AC 2010.
3. Questionnaire form for SAPM.
4. Description of methodology used for adding coordinates to the agricultural holding.

5. Estimating of water volume used for irrigation.
6. Formulas applied for estimating variance of estimates of totals.
7. Agricultural Census 2010 and Survey on Agricultural Production Methods data input programme error message.

Non-significant (NS) and non-existing (NE) characteristics

Characteristic	Code	NS/NE	Justification
For share farming or other modes	1.03.01.03	NE	Common or public land (utilised agricultural area) is rented to the user holdings with written tenancy agreement. So that land is allocated to farm like area for tenant farming. Share-farmed agricultural area existed till 1940 in Latvia. Nowadays all utilised agricultural area is used for owner farming or for tenant farming with written or oral tenancy agreement. The output (either economic or physical) of the cropped area isn't shared between the two parties on an agreed basis.
Sugar beet (excluding seed)	1.03.02.03.04	NE	Within the framework of sugar market united organisation reform of 2006 in 2007 in Latvia sugar industry was reorganised and other types of sugar beet industrial processing are not taking place in Latvia.
Citrus plantations	1.03.02.03.09	NE	Unsuitable climatic conditions
Olives plantations	1.03.02.03.10	NE	Unsuitable climatic conditions
Vineyards	1.03.02.03.11	NE	Unsuitable climatic conditions
Durum wheat	2.01.01.02	NE	In Latvia this kind of crop is not grown.
Grain maize	2.01.01.06	NE	Unsuitable climatic conditions
Rice	2.01.01.07	NE	Unsuitable climatic conditions
Sugar beet (excluding seed)	2.01.04	NE	Within the framework of sugar market united organization reform of 2006 in 2007 in Latvia sugar industry was reorganized and other types of sugar beet industrial processing are not taking place in Latvia.
Tobacco	2.01.06.01	NE	Unsuitable climatic conditions
Hops	2.01.06.02	NS	0.3 ha or 0.00002% from utilised agricultural area (UAA) (FSS 2007).
Cotton	2.01.06.03	NE	Unsuitable climatic conditions
Sunflower	2.01.06.05	NE	Unsuitable climatic conditions
Soya	2.01.06.06	NE	Unsuitable climatic conditions
Other oil seed crops	2.01.06.08	NE	0 ha (FSS 2007)
Hemp	2.01.06.10	NS	177.0 ha or 0.01 % from UAA (FSS 2007)
Other fibre crops	2.01.06.11	NE	All crops grown in Latvia are included in the list.
Aromatic plants, medicinal and culinary plants	2.01.06.12	NS	396.8 ha or 0.02 % from UAA (FSS 2007)
Other industrial crops not mentioned elsewhere	2.01.06.99	NS	331.8 ha or 0.02 % from UAA (FSS 2007)
Fruit of subtropical climate zones	2.04.01.01.02	NE	Unsuitable climatic conditions
Nuts	2.04.01.03	NE	Unsuitable climatic conditions
Citrus plantations	2.04.02	NE	Unsuitable climatic conditions
Olive plantations	2.04.03	NE	Unsuitable climatic conditions

Characteristic	Code	NS/NE	Justification
Normally producing table olives	2.04.03.01	NE	Unsuitable climatic conditions
Normally producing olives for oil production	2.04.03.02	NE	Unsuitable climatic conditions
Vineyards, of which normally producing:	2.04.04	NE	According to the FADN 2007 results, vineyards make up only 0.0013 % from UAA or 0.6 ha in Latvia.
Quality wine	2.04.04.01	NE	According to the FADN 2007 results, vineyards make up only 0.0013 % from UAA or 0.6 ha in Latvia.
Other wines	2.04.04.02	NE	According to the FADN 2007 results, vineyards make up only 0.0013 % from UAA or 0.6 ha in Latvia.
Table grapes	2.04.04.03	NE	According to the FADN 2007 results, vineyards make up only 0.0013 % from UAA or 0.6 ha in Latvia.
Raisins	2.04.04.04	NE	According to the FADN 2007 results, vineyards make up only 0.0013 % from UAA or 0.6 ha in Latvia.
Other permanent crops	2.04.06	NS	According to the FSS 2007 results, Christmas trees make up 10.0 ha or 0.0006 % from UAA
of which Christmas trees[3]	2.04.06.01	NS	According to the FSS 2007 results, Christmas trees make up 10.0 ha or 0.0006 % from UAA
Permanent crops under glass	2.04.07	NS	0.1 ha or 0.000006 % from UAA (FSS 2007)
Mushrooms	2.06.01	NS	311 m2 (FSS 2007)
Total irrigable area	2.06.02.01	NS	According to the FSS 2007 results, total irrigable areas are 828.6 ha or 0.05 % from UAA. Irrigated areas - 621.0 ha or 0.04 % from UAA
Total cultivated area irrigated at least once during the previous 12 months	2.06.02.02	NS	According to the FSS 2007 results, total irrigable areas are 828.6 ha or 0.05 % from UAA. Irrigated areas - 621.0 ha or 0.04 % from UAA
of which on set-aside area	2.06.03.01	NE	In Latvia there is no support for set-aside area
Genetically modified crops	2.06.04	NE	
Ostriches ¹	3.05.03.04	NS	609 animals or 213.1 livestock units (0.04 %) (FSS 2007)
Other poultry, not mentioned elsewhere ¹	3.05.03.99	NS	7392 animals or 221.8 livestock units (0.05 %) (FSS 2007)
Livestock not mentioned elsewhere	3.99	NE	All animals bred in Latvia are included in the list.
Meeting standards based on Community legislation	7.01.04	NE	Not included in the Rural Development Programme 2007 – 2013 in Latvia

Characteristic	Code	NS/NE	Justification
Participation of farmers in food quality schemes	7.01.05	NE	Not included in the Rural Development Programme 2007 – 2013 in Latvia
Animal welfare payments	7.01.09	NE	Not included in the Rural Development Programme 2007 – 2013 in Latvia
Hedges	3.01.a	NS	After consultations with local experts from the Ministry of Agriculture, Latvian Rural Advisory and Training centre and other related institutions, it was found out that hedges and tree lines are not significant, but stonewalls do not exist in Latvia
Tree lines	3.01.b	NS	After consultations with local experts from the Ministry of Agriculture, Latvian Rural Advisory and Training centre and other related institutions, it was found out that hedges and tree lines are not significant, but stonewalls do not exist in Latvia
Stonewalls	3.01.c	NE	After consultations with local experts from the Ministry of Agriculture, Latvian Rural Advisory and Training centre and other related institutions, it was found out that hedges and tree lines are not significant, but stonewalls do not exist in Latvia
Hedges	3.02.a	NS	After consultations with local experts from the Ministry of Agriculture, Latvian Rural Advisory and Training centre and other related institutions, it was found out that hedges and tree lines are not significant, but stonewalls do not exist in Latvia
Tree lines	3.02.b	NS	After consultations with local experts from the Ministry of Agriculture, Latvian Rural Advisory and Training centre and other related institutions, it was found out that hedges and tree lines are not significant, but stonewalls do not exist in Latvia
Stonewalls	3.02.c	NE	After consultations with local experts from the Ministry of Agriculture, Latvian Rural Advisory and Training centre and other related institutions, it was found out that hedges and tree lines are not significant, but stonewalls do not exist in Latvia
Total number of animals grazing on common land	4.02.01	NE	Common or public land (utilised agricultural area) is rented to the user holdings with written tenancy agreement. So that land is allocated to farm like area for tenant farming.
Amount of time for which animals are grazing on common land	4.02.02	NE	Common or public land (utilised agricultural area) is rented to the user holdings with written tenancy agreement. So that land is allocated to farm like area for tenant farming.

Characteristic	Code	NS/NE	Justification
Other	5.01.99	NE	All housing methods for cattle are included in the list
Other	5.02.99	NE	All housing methods for pigs are included in the list
Battery cage with stilt house	5.03.02.03	NE	After consultations with local experts from the Ministry of Agriculture, Latvian Rural advisory and training centre and biggest poultry breeders, it was found out that housing of laying hens in battery cages with stilt house does not exist in Latvia.
Other	5.03.99	NE	All housing methods for laying hens are included in the list
With immediate incorporation	6.01.02	NS	
With immediate incorporation or injection	6.02.02	NS	
Average irrigated area the last three years	8.01.01	NS	According to the FSS 2007 results total irrigated area in Latvia is 828.6 ha or 0.05 % from utilised agricultural area. The pilot studies on the estimation of the volume of water used for irrigation have been carried out in Latvia. During these studies was found out that only 28 farms (out of 113382 farms) have irrigated area. Most regions have optimal soil humidity in Latvia and irrigation is not vitally important for holdings. Anyway the questions on irrigation are included in survey 2010.
Total cultivated area irrigated at least once during the previous 12 months	8.01.02	NS	See justification for 8.01.01
Cereals for the production of grain (including seed) (excluding maize and rice)	8.01.02.01	NS	See justification for 8.01.01
Maize (grain and green)	8.01.02.02	NE	See justification for 8.01.01
Rice	8.01.02.03	NE	See justification for 8.01.01
Dried pulses and protein crops for the production of grain (including seed and mixtures of cereals and pulses)	8.01.02.04	NS	See justification for 8.01.01
Potatoes (including early potatoes and seed potatoes)	8.01.02.05	NS	See justification for 8.01.01

Characteristic	Code	NS/NE	Justification
Sugar beet (excluding seed)	8.01.02.06	NE	See justification for 8.01.01
Rape and turnip rape	8.01.02.07	NE	See justification for 8.01.01
Sunflower	8.01.02.08	NE	See justification for 8.01.01
Fibre crops (flax, hemp, other fibre crops)	8.01.02.09	NE	See justification for 8.01.01
Fresh vegetables, melons and strawberries - open field	8.01.02.10	NS	See justification for 8.01.01
Temporary grass and permanent grassland	8.01.02.11	NS	See justification for 8.01.01
Other crops on arable land	8.01.02.12	NS	See justification for 8.01.01
Fruit and berry plantations	8.01.02.13	NS	See justification for 8.01.01
Citrus plantations	8.01.02.14	NE	See justification for 8.01.01
Olive plantations	8.01.02.15	NE	See justification for 8.01.01
Vineyards	8.01.02.16	NE	See justification for 8.01.01
Surface irrigation (flooding, furrows)	8.02.01	NE	See justification for 8.01.01
Other sources	8.03.99	NS	See justification for 8.01.01



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AGRICULTURAL CENSUS 2010

LS - 2010

Annex No. 180 of Regulation of the Cabinet of Ministers No 922 of 06.11.2006

VSPARK 10117020

Central Statistical Bureau in accordance with Law on State Statistics guarantees the confidentiality of the information

<u>Respondent</u>	
Farm number	Client number
Household number	
Personal ID code of holder	
Registration number in Register of Enterprises	
CATTU of farm location	
Name of farm	
Address of farm:	
county, rural municipality, village	.....
name of street	.....
name of house	.....
house number	.....
block	.....
flat	.....
Mailing address:	
postcode/postal code	LV -
county	.....
city/town	.....
rural municipality	.....
name of street	.....
name of house	.....
house number	.....
block	.....
flat	.....
Main production place of the farm:	
cadastre number	.....
or name of land	.....
rural municipality	.....
E-mail address of the holder (user)	
Telephone number of the holder (user)	

General characteristics of the farm

10	Who is the holder (user) of the farm?	
11	Natural person as the sole holder (user) of the farm	
12	Several natural persons as co-owners (co-partner) in a common farm	
13	Legal person	
20	Who is the manager of the farm?	
21	Holder (user) him/herself	
22	Spouse of the holder (user)	
23	Other family member of the holder (user)	
24	Other person	
30	What is the agricultural education of manager of the farm?	
31	Only practical experience in agriculture	
32	Basic education in agriculture	
33	Vocational education or professional secondary education in agriculture	
34	Higher education in agriculture	
40	Has manager of the farm undertaken any vocational training during the last 12 months?	yes no
50	How many per cent of agricultural goods produced in the farm are sold?	

1. Land use

		ha
10000	Total land area (11000 + 12000 + 13000 + 14000)	
10001	of which ameliorated	
11000	Utilised agricultural area (11001 + 11002 + 11003) un (11100 + 11200 + 11300 + 11400 + 11500)	
11001	of which: owned	
11002	allotted for use	
11003	rented	
12000	Unutilised agricultural land	
13000	Wooded area (13100 + 13200)	
13100	of which: forests and woodland	
13200	short rotation coppices (energy osiers, energy poplars for production of paper wood, growing-stock objectives)	
14000	Other land	
	From row 11000:	
11100	Arable land (11110 + 2100000 + 221 + 222 + 223 + 224 + 225 + 226 + ((2100010 + 2100020 + 230_1 + 230_2) : 10000))	
11110	of which fallows	
11111	of which subsidised fallows	
11200	Permanent crops (11210 + 11220)	
	of which:	
11210	area of orchards	
11211	of which producing	
11220	area of berry fields	
11300	Kitchen garden	
11400	Utilised meadows and pastures	
11410	of which cultivated	
11500	Meadows and pastures no longer used for production, where good agricultural and environment conditions are maintained, eligible for the payment of subsidies	

2. Utilisation of arable land
2.1. Open field areas

		ha
2100000	Total sown area (2101000 + 2102000 + 2103000 + 2104000 + 2105000 + 2106000 + 2107000 + 2108000 + 2109000 + 2110000 + 2111000)	
2101000	Cereals (2101010 + 2101020 + 2101030 + 2101040 + 2101050 + 2101060 + 2101070 + 2101080 + 2101090 + 2101100)	
2101001	Of total cereal area for the acquisition of renewable energy	
2101010	Rye	
2101020	Winter wheat	
2101030	Winter barley	
2101040	Triticale	
2101050	Spring wheat	
2101060	Spring barley	
2101070	Oats	
2101080	Buckwheat	
2101090	Mixed cereals	
2101100	Mixed cereals and pulses	
2102000	Pulses (2102010 + 2102020 + 2102030 + 2102040 + 2102050)	
2102010	Peas	
2102020	Beans	
2102030	Field beans	
2102040	Vetches	
2102050	Fodder lupine	
2103000	Potatoes	
2104000	Fodder roots (including sugar beet for fodder)	
2105000	Fodder brassicas	
2106000	Industrial crops (2106010 + 2106020 + 2106030 + 2106040 + 2106050 + 2106060 + 2106070 + 2106080 + 2106090 + 2106100 + 2106110)	
2106001	Of total industrial crop area for the acquisition of renewable energy	
2106010	Fibre flax	
2106020	Oil flax	
2106030	Winter rape	
2106040	Spring rape	
2106050	Turnip rape	
2106060	Caraway	
2106070	Hemp	
2106080	Hops	
2106090	Medicinal plants	
2106100	Culinary plants	
2106110	Other industrial plants	
2107000	Open field vegetables	
2107001	Of which areas with vegetables for sale	
2108000	Vegetables for seed extraction	
2109000	Fodder crops (2109010 + 2109020 + 2109030 + 2109040)	
2109010	Perennial grass sown in current year without nurse crops	
2109020	Perennial grass sown before current year	
2109021	of which clover in pure stand and mixtures	
2109022	from lines 2109020 for seed extraction	
2109030	Cereals and pulses for green feed and silage	
2109040	Maize for green feed and silage	
2110000	Crops for fertilising the soil	
2111000	Nectar crops	
2100010	Strawberries, m²	
2100011	Of which areas with strawberries for sale	

2100020	Flowers and ornamental plants in open areas, m²	
---------	---	--

2.2. Nurseries in open areas

		ha
221	Growing of fruit tree plants	
222	Nurseries of berry bushes	
223	Nurseries of ornamental plants	
224	Nurseries of flowers	
225	Nurseries of forest plants	
226	Christmas tree nurseries	

2.3. Greenhouses, m²

	Used during last 12 months	Heated (231_1+232_1+233_1+234_1+ + 235_1)	Not heated (231_2+232_2+233_2+234_2 + + 235_2)
A	B	1	2
230	Total		
231	For growing of vegetables		
232	For growing of strawberries		
233	For growing of flowers		
234	For growing of ornamental crops		
235	For growing of seedling		

240	Nurseries of mushrooms, m ²	
-----	--	--

3. Number of livestock and poultry

		Number
3100	Total number of pigs (3110 + 3120 + 3130 + 3140)	
3110	Piglets up to 20 kg - up to 2 months	
3120	Piglets from 20 to 50 kg – from 2 till 4 months	
3130	Fattening pigs	
3140	Breeding pigs over 50 kg - 4 months and older	
3141	of which breeding boars	
3200	Total number of poultry (3210 + 3220 + 3230 + 3240 + 3250 + 3260 + 3270)	
3210	Hens and cocks	
3211	of which laying hens	
3220	Broilers	
3230	Ducks	
3240	Geese	
3250	Turkeys	
3260	Ostriches	
3270	Other poultry (quails, pheasants etc.)	

4. Organic farming

4.1. Crop production

A	B	Area (ha) on which:	
		organic farming production methods are applied	under conversion to organic farming production methods
		1	2
4100	Total (4101+4102+4103+ 4104+ 4105+ 4106+4107+4108+(4109:10000)+4110<=11000)		
4101	Cereals		
4102	Pulses		
4103	Potatoes		
4104	Oil seed crops (rape, turnip rape, oil flax, etc.)		
4105	Vegetables		
4106	Perennial grass sown in arable land		
4107	Pasture and meadow, excluding rough grazing		
4108	Fruit and berry plantations		
4109	Strawberries, m ²		
4110	Other crops		

4.2. Livestock production

		Number
421	Bovine animals	
422	Pigs	
423	Sheep	
424	Goats	
425	Poultry	

5. Structures, machinery and equipment

5.1. Machinery

A	B	Total number	Newer than 1 year	1 - 5 years	Older than 10 years
		1	2	3	4
51010	Lorries				
51020	Wheeled tractors				
51030	Track-laying tractors				
51040	Motoblocks				
51050	Tractor trailers				
51060	Tractor-drawn ploughs				
51070	Cultivators				
51080	Self-propelled loaders				
51090	Sowing machines				
51100	Potato planting machines				
51110	Mowing machines				
51120	Rakes – windrowers				
51130	Presses				
51131	of which hay-rollers				
51140	Grain harvesters				
51150	Potato diggers				
51160	Potato digging combines				
51170	Round timber sawing equipment				

		Total number	Newer than 1 year	1 - 5 years	Older than 10 years
A	B	1	2	3	4
51181	Milk coolers: number				
51182	capacity, 100 kg				
51191	Closed milking systems: number				
51192	number of places				
51200	Sprayers				
51210	Pre-cleaners				
51220	Grain winnowing and sorting machines				

5.2. Equipment used for energy production from renewable energy resources by type of energy source

5210	Wind power station	yes	no
5220	Equipment for processing of biomass (firewood, straw, manure, agricultural crops, cereals for biting), including for production of thermal energy and electric energy	yes	no
5221	of which: bio-methane	yes	no
5222	production of biofuel	yes	no
5223	production of thermal energy	yes	no
5230	Solar	yes	no
5240	Hydro-energy	yes	no
5250	Other equipment	yes	no
5251	of which feat pump	yes	no

5.3. Irrigation equipment in farm

5301	Does your farm use irrigation equipment?	yes	no
5302	Areas actually irrigated over last 12 month, ha		

5.4. Utilised buildings and structures

		Number	Building year	Year of last reconstruction	Space, m ²	
					total	used in survey year
A	B	1	2	3	4	5
54100	Livestock farming					
54111	of which: closed					
54112						
54113						
54121	open					
54122						
54123						
54210	Grain-dryer					
54220						
54230						
54310	Agricultural hangar and lean-to (barn, garage, repair shop)					
54320						
54330						
54410	Other building					
54420						
54430						

6. Labour force of the farm employed permanently and temporary (number within previous 12 months)

6.1. The sole holder (user) and his farm manager

A	B	Sex		Age (full years)	Total number of hours worked during last 12 months	Salaried worker	Other profitable work			
		male	female				as from a main job		as from a second job	
							work directly related to the holding	other work	work directly related to the holding	other work
		1	2	3	4	5	6	7	8	9
611	Holder									
612	Manager									
613	Spouse of holder									

6.2. Sole holder's (user's) family members employed in agriculture

A	Sex		Total number of hours worked during last 12 months	Salaried worker	Other profitable work			
	male	female			as from a main job		as from a second job	
					work directly related to the holding	other work	work directly related to the holding	other work
	1	2	3	4	5	6	7	8
6201								
6202								
6203								
6204								
6205								
6206								
6207								
6208								
6209								
6210								

6.3. Holders of common ownership farms and farms owned by legal entities

A	B	Sex		Age (full years)	Total number of hours worked during last 12 months	Other profitable work			
		male	female			as from a main job		as from a second job	
						work directly related to the holding	other work	work directly related to the holding	other work
		1	2	3	4	5	6	7	8
631	Holder of common ownership farm								
632	Manager								

6.4. Other permanently employed, including other owners of common ownership farms and their family members

		Total number	Total number of hours worked during last 12 months					Employed having other profitable work	
			≤ 459	460-919	920-1379	1380-1839	≥ 1840	as from a main job	as from a second job
A	B	1	2	3	4	5	6	7	8
641	Male								
642	Female								

6.5. Temporarily employed in agriculture and agricultural service providers during previous 12 months

		Total number		Total number of full worked days	
		temporarily employed	of which agricultural service providers	temporarily employed	of which agricultural service providers
A	B	1	2	3	4
651	Male				
652	Female				

7. Other gainful activities

7010	Rural tourism	
7020	Handicraft	
7030	Processing of farm products	
7040	Wood processing, including manufacturing of furniture	
7050	Fishery	
7060	Aquaculture	
7071	Contractual works using the farms: Related to agriculture	
7072	Not related to agriculture	
7080	Production of renewable	
7090	Retail sale	
7100	Forestry	
7110	Other activity	

(indicate)

7200	Share of non-agricultural activities, %	
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Farm representative Phone No.
name, surname

Interviewer Phone No.
name, surname



CENTRAL STATISTICAL BUREAU OF LATVIA
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SURVEY ON AGRICULTURAL PRODUCTION METHODS 2010
Annex LS - 2010

Annex No 181 of the Regulations of Cabinet of Ministers No 922 of 06.11.2006

VSPARK 10117021

Central Statistical Bureau in accordance with Law on State Statistics guarantees the confidentiality of the information

Respondent
Farm number

Client number

Name of farm

1. Tillage methods

		ha
A	B	1
	Tillage methods are uses in the farm:	
101	conventional tillage (mould-board plough or disc plough)	
102	conservation tillage (low tillage)	
103	zero tillage (direct seeding)	

2. Activities of fertility preservation

		ha
A	B	1
	Soil cover in winter:	
2011	winter crop	
2012	cover crop or intermediate crop	
2013	plant residues	
2014	bare soil	
2020	Arable land not included in crop rotation	
2030	Area on which bedding manure and side products is applied	
2031	of which worked into the ground immediately	
2040	Area on which slurry is applied	
2041	of which worked into the ground immediately	
2050	Volume of manure and slurry exported from the holding, per cent of the total volume produced	

3. Landscape elements

		Landscape elements, which user/holder	
		established during the last 3 years	maintained during the last 3 years
A	B	1	2
31	Hedges	yes on	yes on
32	Tree lines	yes on	yes on

4. Pastures

		Pastures in holding
41	Waiting period, months during a year	
42	Area of pastures during the last 12, ha (42 <= 11400 + 2109010 + 2109020 - 2109022)	

5. Irrigation

		ha
A	B	1
510	Average area irrigated during the last 3 years	
520	Total cultivated area irrigated at least once during the previous 12 months (521+ 522 + (523:10000) + 524 + 525 + 526)	
	of which:	
521	potatoes	
522	vegetables-open field	

523	strawberries-open field, m ²	
524	grassland and permanent pastures	
525	other crops on arable land	
526	fruit and berry plantations	
	Irrigation methods used:	
531	sprinkler irrigation	yes on
532	drop irrigation	yes on
	Source of irrigation water used on the holding:	
541	on-farm ground water	yes on
542	on-farm surface water (ponds or dams)	yes on
543	off-farm surface water from lakes, rivers or watercourses	yes on
544	off-farm water from common water supply networks	yes on
545	other sources	yes on

6. Animal housing

A	B	Number of places
		1
	Cattle housing:	
6110	stanchion-tied stable	
6111	with bedding manure and liquid manure	
6112	with slurry	
6120	loose housing system	
6121	with bedding manure and liquid manure	
6122	with slurry	
6130	other	
	Piggery:	
6210	on partially slatted floors	
6220	on completely slatted floors	
6230	on straw-beds (deep litter-loose housing)	
6240	other	
	Laying hens:	
6310	deep litter-loose housing	
6320	multi-cage system	
6321	multi-cage system with manure belt	
6322	multi-cage system with deep pit	
6330	other	

7. Manure storage facilities

A	B	Covered 1	Uncovered 2
710	Bedding manure storage facilities:	yes on	yes on
711	of which with deep litter	yes on	
720	Slurry collectors	yes on	yes on
	Liquid manure storage facilities:		
731	tank	yes on	yes on
732	lagoon	yes on	yes on

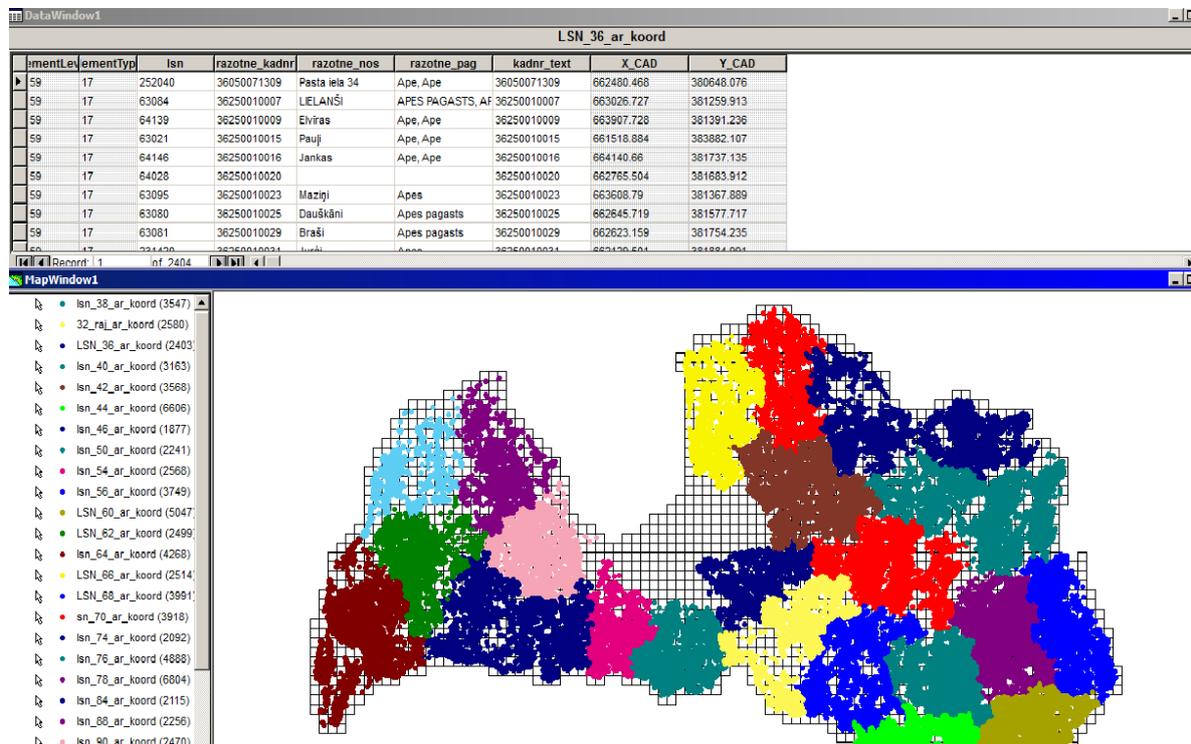
Farm representative Phone No.
name, surname

Interviewer Phone No.
name, surname

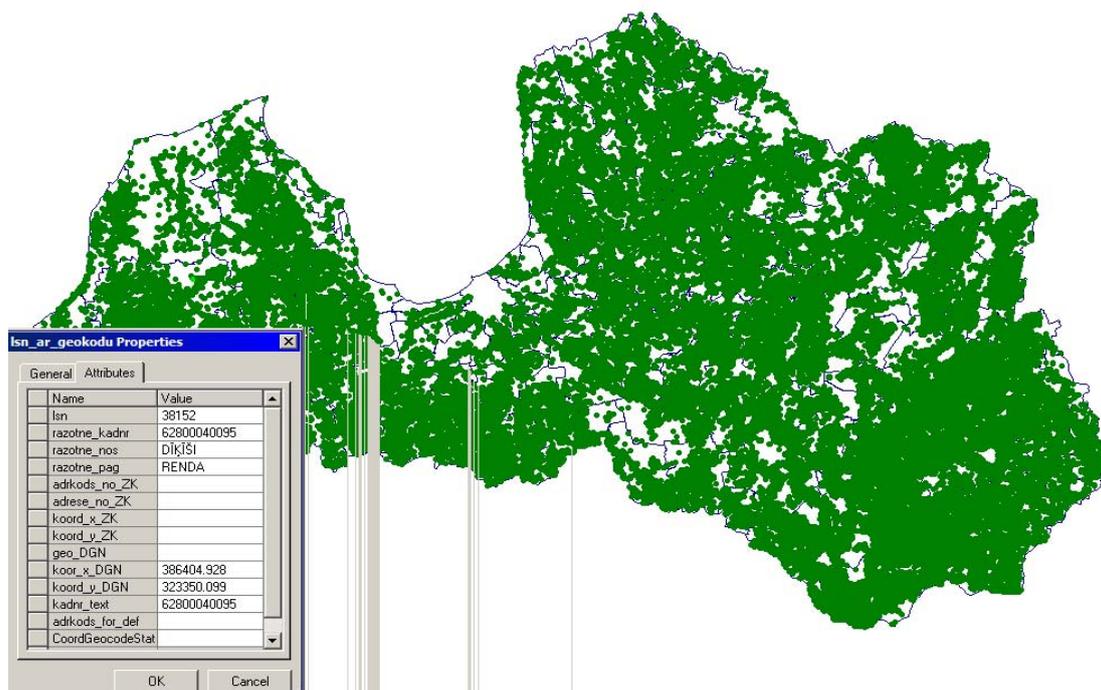
Description of methodology used for adding coordinates to the agricultural holding

1. Coordinates of the agricultural holding by location of the main production site.

State Land Service maps in .dgn format are used. Parcel centre coordinates X/Y are added to each agricultural holding.

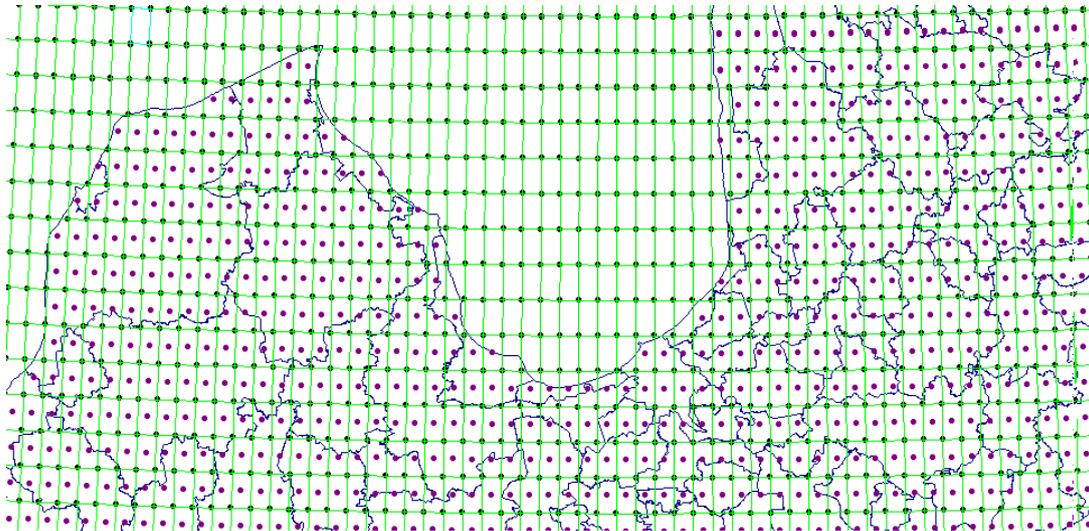


2. Each agricultural holding gets geo-code basing on the x,y coordinates, and afterwards all coordinates within the territory of Latvia are verified – county boundaries are indicated with blue.

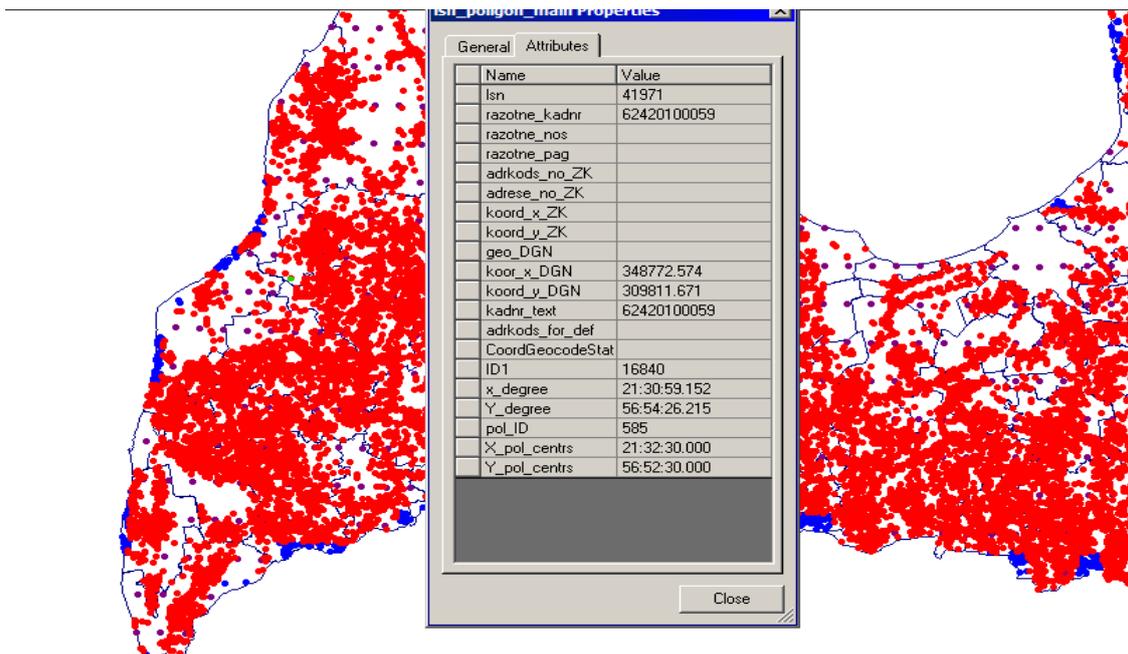


3. The table with x1,y1; x2,y2 ; x3,y3; x4,y4 coordinates and 5 minute difference is developed with an aim to form the polygons. Afterwards polygons are formed.

4. x;y centre coordinates and polygon area are added to the polygon.
5. Polygons with centre located within the territory of Latvia are selected (violet dots – polygon centres)



6. Each holding gets the polygon ID, in which the holding is located, if the polygon centre is located within the territory of Latvia.



7. The layer with polygons must be exported with Output to features class tools to the running coordinate system.
8. The distance to the nearest polygon centres is calculated with the function DISTANCE (Input.Centr_polygon; Input.CoordGeocodePoint; ProjectedMeas; Meter; FALSE()) and the minimum value is searched.

9. Process is followed by the verification if all polygon centres have more than 1 holding attracted.

The deficit is formed and added to the nearest polygon.

Total numbers:

- Number of agricultural holdings: 83386
- Number of polygons: 1353
- Area of single polygon (without merging)

Area	
Min (sq. metres)	Max(sq. metres)
45683809.7263794	48602893.3647995

10. The coordinates are converted to decimal degrees:

Algorithm: <http://mathforum.org/~sarah/hamilton/ham.degrees.html>

ESTIMATING OF WATER VOLUME USED FOR IRRIGATION

Table 1

Average volume of water used for irrigation estimated within the framework of the project “Pilot studies on estimating the volume of water used for irrigation”

Agro-climatic region		Volume of water, m ³ /ha					
		potatoes	root-crops	strawberries	other field crops in arable land	fruit trees and berry bushes	cultivated grassland
Ia	Baltic sea coast	280	250	190	200	150	250
Ib	Riga bay coast	280	270	240	240	150	190
II	Kurzemes height and moraine plain	200	260	220	230	120	200
III	Zemgales plain	250	275	240	250	180	250
IV	Vidzemes height	200	250	150	160	160	150
V	North-Latvia plain	270	260	200	220	160	220
VI	Middle-Latvia moraine plain	270	260	240	240	180	220
VII	East-Latvia height	180	250	210	210	320	190

Estimating of water volume used for irrigation

Calculation of correction coefficient:

$$K_{vkr} = \frac{(P_C - P_A) + V_{vid}}{100},$$

where:

- K_{vkr} - correction coefficient;
- P_C - long-term average rainfall norm, mm;
- P_A - average rainfall in survey year, mm;
- V_{vid} - average annual crop irrigation norm, mm.

The water volume necessary for each crop/ crop group is corrected:

$$V_{krkor} = 0.39 * V_{kr}$$

where:

- V_{krkor} - water volume necessary for irrigation – corrected norm, m³/ha;
- K_{vkr} - correction coefficient = 0.39;
- V_{kr} - water volume necessary for irrigation, m³/ha, from Table 1

Calculation:

Correction coefficient:

$$K_{vkr} = \frac{(66,8 - 99) + 71,2}{100} = 0.39$$

Example: Corrected norm for potatoes in Ia agro-climatic region is 109 m³/ha

$$V_{krkor} = 0.39 * 280 = 109$$

Table 2

Average water volume necessary for irrigation corrected according to climate conditions of 2010

Agro-climatic region		Volume of water, m ³ /ha					
		potatoes	root-crops	strawberries	other field crops in arable land	fruit trees and berry bushes	cultivated grassland
Ia	Baltic sea coast	109	98	74	78	59	98
Ib	Riga bay coast	109	105	94	94	59	74
II	Kurzemes height and moraine plain	78	101	86	90	47	78
III	Zemgales plain	98	107	94	98	70	98
IV	Vidzemes height	78	98	59	62	62	59
V	North-Latvia plain	105	101	78	86	62	86
VI	Middle-Latvia moraine plain	105	101	94	94	70	86
VII	East-Latvia height	70	98	74	82	125	74

Average volume of water used for irrigation for each agricultural crop in certain agro-climatic region is calculated according to following formula:

$$V_X = S_{KR} \times V_{KR}$$

where:

V_X - volume of water used for irrigation of one agricultural crop, m³;

S_{KR} - area of agricultural crops, ha;

V_{KR} - average volume of water used for irrigation of agricultural crop, m³/ha from table 2.

Total volume of water used for irrigation on farm is calculated by summing water used for irrigation of all agricultural crops:

$$V = \sum V_X$$

where:

V - volume of water used for irrigation in farm, m³;

V_X - volume of water used for irrigation of one agricultural crop, m³.

FORMULAS APPLIED FOR ESTIMATING VARIANCE OF ESTIMATES OF TOTALS

$$\hat{Y} = \sum_{i=1}^{n^R} x_i w_i g_i$$

$$\hat{e} = y - X_s \cdot \left((X_s \cdot w)^T \cdot X_s \right)^{-1} (X_s \cdot w)^T \cdot y$$

$$\hat{D}(\hat{X}) = \sum_{h=1}^H \left(1 - \frac{n_h^R}{N_h} \right) \frac{n_h^R}{n_h^R - 1} \sum_{i=1}^{n_h^R} \left(w_i g_i e_i - \frac{1}{n_h^R} \sum_{i=1}^{n_h^R} w_i g_i e_i \right)^2$$

$\hat{D}(\hat{X})$ – variance estimate of \hat{X} ;

N_h – population size in stratum h ;

n_h^R – number of respondents in stratum h ;

n^R – number of respondents in sample;

H – number of strata in sampling frame;

y_i – value of study variable of unit i ; $y = (y_1, K, y_n)$

w_i – final weight of unit i . $w = (w_1, K, w_n)$

g_i – g-weight of unit i . $g = (g_1, K, g_n)$

X_s – matrix with calibration variables

e – estimated residuals of regression of y on X_s $e = (e_1, K, e_n)$

AGRICULTURAL CENSUS 2010 DATA INPUT PROGRAMME ERROR MESSAGE

kods	Paziņojums
V-0001	Ievadītais lielums nav vesels skaitlis!
V-0002	Ievadītais lielums nav skaitlis!
V-0011	Ievadītajam skaitlim drīkst būt tikai 1 cipars aiz komata!
V-0012	Ievadītajam skaitlim drīkst būt tikai 2 cipari aiz komata!
I-0001	Nav atbildēts uz jautājumu!
I-0002	Norādītais datums mazāks par šodienas datumu!
I-0003	Nav norādīta tikšanās vieta!
I-0004	Nav norādīts intervijas pārtraukšanas iemesls (laukā "Piezīmes")!
R-0001	Pasta indeksam jābūt četru ciparu skaitlim!
R-0002	Tālrūņa numuram jābūt 8 ciparu skaitlim!
R-0003	Nav aizpildīts vārds, uzvārds!
R-0004	Personas kodam jābūt 11 vai arī 6 ciparu skaitlim!
R-0005	Reģistrācijas numuram jābūt 9 vai 11 ciparu skaitlim!
R-0006	Lauku saimniecības adresē jāaizpilda vismaz viens no laukiem: ciems, ielas nosaukums, mājas nosaukums!
R-0007	Nav norādīts saimniecības nosaukums!
R-0008	Saimniecības adresē nav norādīts ciems!
R-0009	Saimniecības adresē nav norādīts ielas vai mājas nosaukums!
R-0010	(A) Nav norādīts korespondences nosūtīšanas adreses pasta indekss!
R-0011	Novads nav izvēlēts no saraksta!
R-0012	Pilsēta nav izvēlēta no saraksta!
R-0013	Pagasts nav izvēlēts no saraksta!
R-0014	Korespondences adresē nav norādīts ciems!
R-0015	Korespondences adresē nav norādīts ielas vai mājas nosaukums!
S-0001	Procentu datiem jābūt veselam skaitlim un robežās no 0 līdz 100!
S-0002	Kadastra numuram jābūt 11 ciparu skaitlim!
S-0003	Nav norādīts saimniecības īpašnieks!
S-0004	Nav norādīts saimniecības vadītājs!
S-0005	Nav norādīta saimniecības vadītāja izglītība!
S-0006	Nav norādīta informācija par kursu apmeklēšanu!
S-0007	Ja atzīmēta 1. jaut. 2. atbilde, tad jābūt atzīmētai 2. jaut. 1. vai 4. atbildei!
S-0008	Ja atzīmēta 1. jaut. 3. atbilde, tad jābūt atzīmētai 2. jaut. 4. atbildei!
S-0009	Ir jānorāda kadastra numurs vai arī zemes nosaukums un pagasts vai pilsēta, vai novads !
S-0010	Ja netiek norādīts kadastra numurs, tad jānorāda zemes nosaukums un pagasts vai pilsēta, vai novads!
S-0011	Ja netiek norādīts kadastra numurs, tad jānorāda gan zemes nosaukums, gan pagasts vai pilsēta, vai novads!
S-0012	Ja tiek norādīts pagasts vai pilsēta, vai novads, tad jānorāda arī zemes nosaukums!
S-0013	Ja tiek norādīts zemes nosaukums, tad jānorāda arī pagasts vai pilsēta, vai novads!
S-0014	Nav ievadīta informācija par pārdoto produkciju!

continued

kods	Paziņojums
S-0015	Pārdotā produkcija nevar būt 0%, jo ir norādīta platība, kurā tiek audzēti dārzeņi (2107001r) un/vai zemes (2100011r) pārdošanai!
E-1101	Neizpildās nosacījums: $10000r = 11000r + 12000r + 13000r + 14000r$!
E-1102	(A: 10000r) Zemes kopplatība (10000r) nesakrīt ar reģistra informāciju!
E-1103	Neizpildās nosacījums: $10001r \leq 10000r$!
E-1104	Neizpildās nosacījums: $11000r = 11001r + 11002r + 11003r$!
E-1105	Neizpildās nosacījums: $11000r = 11100r + 11200r + 11300r + 11400r + 11500r$!
E-1106	(A: 11000r) Izmantotās lauksaimniecībā izmantojamās zemes platība (11000r) nesakrīt ar reģistra informāciju!
E-1107	(A: 11000r) Neizmantotās lauksaimniecībā izmantojamās zemes platība (11000r) nesakrīt ar reģistra informāciju!
E-1108	Neizpildās nosacījums: $13000r = 13100r + 13200r$!
E-1201	Neizpildās nosacījums: $11100r = 11110r + 2100000r + (221r + 222r + 223r + 224r + 225r + 226r) + (2100010r + 2100020r + 230r)/10000$!
E-1202	Neizpildās nosacījums: $11110r \leq 11100r$!
E-1203	Neizpildās nosacījums: $11111r \leq 11110r$!
E-1204	Neizpildās nosacījums: $11200r = 11210r + 11220r$!
E-1205	Neizpildās nosacījums: $11211r \leq 11210r$!
E-1206	(A: 11300r) Neizpildās nosacījums: $11300r < 1.0$ ha !
E-1207	Neizpildās nosacījums: $11410r \leq 11400r$!
E-2001	LAD numuram jā sastāv tikai no cipariem!
E-2002	LAD numuram jābūt 8 ciparu skaitlim!
E-2101	Neizpildās nosacījums: $2100000r = 2101000r + 2102000r + \dots + 2110000r + 2111000r$!
E-2102	Neizpildās nosacījums: $2101000r = 2101010r + 2101020r + \dots + 2101090r + 2101100r$!
E-2103	Neizpildās nosacījums: $2101001r \leq 2101000r$!
E-2104	Neizpildās nosacījums: $2102000r = 2102010r + 2102020r + \dots + 2102050r$!
E-2105	Neizpildās nosacījums: $2106000r = 2106010r + 2106020r + \dots + 2106100r + 2106110r$!
E-2106	Neizpildās nosacījums: $2107001r \leq 2107000r$!
E-2107	(A: 2107001r) Ja $2107000r \geq 0.5$ ha, tad $2107001r > 0$!
E-2108	Neizpildās nosacījums: $2109000r = 2109010r + 2109020r + 2109030r + 2109040r$!
E-2109	Neizpildās nosacījums: $2109021r \leq 2109020r$!
E-2110	Neizpildās nosacījums: $2109022r \leq 2109020r$!
E-2111	Neizpildās nosacījums: $2100011r \leq 2100010r$!
E-2112	(A: 2100011r) Ja $2100010r \geq 5000m^2$, tad $2100011r > 0$!
E-2113	Neizpildās nosacījums: $2106001r \leq 2106000r$!
E-2114	Pārdotā produkcija (Saimn. visp. raksturojumā) nevar būt 0%, jo ir norādīta platība, kurā tiek audzēti dārzeņi (2107001r) un/vai zemes (2100011r) pārdošanai!
E-2200	Nav izvēlēta atbilde!
E-2201	Nav aizpildīts neviens lauciņš!
E-2300	Nav izvēlēta atbilde!
E-2301	Neizpildās nosacījums: $230r$ 1.k. = $231r$ 1.k. + ... $235r$ 1.k. !
E-2302	Neizpildās nosacījums: $230r$ 2.k. = $231r$ 2.k. + ... $235r$ 2.k. !

continued

kods	Paziņojums
E-2303	Nav aizpildīta informācija par siltumnīcām!
E-3000	Nav izvēlēta atbilde!
E-3001	Neizpildās nosacījums: $3100r = 3110r + \dots + 3140r$!
E-3002	Neizpildās nosacījums: $3141r \leq 3140r$!
E-3003	Neizpildās nosacījums: $3200r = 3210r + \dots + 3270r$!
E-3004	Neizpildās nosacījums: $3211r \leq 3210r$!
E-3005	Nav aizpildīta informācija par lauksaimniecības dzīvnieku skaitu!
E-4101	Neizpildās nosacījums: $4100r \text{ 1.k.} = 4101r \text{ 1.k.} + \dots + 4110r \text{ 1.k.}$!
E-4102	Neizpildās nosacījums: $4100r \text{ 2.k.} = 4101r \text{ 2.k.} + \dots + 4110r \text{ 2.k.}$!
E-4103	Neizpildās nosacījums: $4100r \text{ 1.k.} + 2.k. \leq 1.\text{sad.}11000r - 11300r - (11400r - 11410r) - 11500r$!
E-4104	Neizpildās nosacījums: $4101r \text{ 1.k.} + 2.k. \leq 2.1.\text{sad.} 2101000r$!
E-4105	Neizpildās nosacījums: $4102r \text{ 1.k.} + 2.k. \leq 2.1.\text{sad.} 2102000r$!
E-4106	Neizpildās nosacījums: $4103r \text{ 1.k.} + 2.k. \leq 2.1.\text{sad.} 2103000r$!
E-4107	Neizpildās nosacījums: $4104r \text{ 1.k.} + 2.k. \leq 2.1.\text{sad.} 2106000r$!
E-4108	Neizpildās nosacījums: $4105r \text{ 1.k.} + 2.k. \leq 2.1.\text{sad.}2107000r + 2.3.\text{sad.}231r/10000$!
E-4109	Neizpildās nosacījums: $4106r \text{ 1.k.} + 2.k. \leq 2.1.\text{sad.} 2109010r + 2109020r - 2109022r$!
E-4110	Neizpildās nosacījums: $4107r \text{ 1.k.} + 2.k. \leq 1.\text{sad.} 11410r$!
E-4111	Neizpildās nosacījums: $4108r \text{ 1.k.} + 2.k. \leq 1.\text{sad.} 11200r$!
E-4112	Neizpildās nosacījums: $4109r \text{ 1.k.} + 2.k. \leq 2.1.\text{sad.} 2100010r + 2.3.\text{sad.} 232r$!
E-4113	Pārējo kultūru platība nevar būt lielāka par ...
E-4114	Nav aizpildīta informācija par augkopības platībām!
E-4201	Neizpildās nosacījums: $422r \leq 3.\text{sad.} 3100r$!
E-4202	Neizpildās nosacījums: $425r \leq 3.\text{sad.} 3200r$!
E-4203	Nav atbildēts uz 1. jautājumu!
E-4204	Nav atbildēts uz 2. jautājumu!
E-4205	Nav atbildēts uz 3. jautājumu!
E-4206	Nav norādīta informācija par mājlopu skaitu!
E-5100	Nav atbildēts uz jautājumu!
E-5101	Neizpildās nosacījums: $1.k \geq (2.k.+3.k.+4.k.)$!
E-5102	Neizpildās nosacījums: $51131r \leq 51130r$!
E-5103	Ja $51181r \text{ 1k} > 0$, tad arī $51182r \text{ 1k} > 0$!
E-5104	Ja $51181r \text{ 2k} > 0$, tad arī $51182r \text{ 2k} > 0$!
E-5105	Ja $51181r \text{ 3k} > 0$, tad arī $51182r \text{ 3k} > 0$!
E-5106	Ja $51181r \text{ 4k} > 0$, tad arī $51182r \text{ 4k} > 0$!
E-5107	Ja $51191r \text{ 1k} > 0$, tad arī $51192r \text{ 1k} > 0$!
E-5108	Ja $51191r \text{ 2k} > 0$, tad arī $51192r \text{ 2k} > 0$!
E-5109	Ja $51191r \text{ 3k} > 0$, tad arī $51192r \text{ 3k} > 0$!
E-5110	Ja $51191r \text{ 4k} > 0$, tad arī $51192r \text{ 4k} > 0$!
E-5111	Nav norādīta informācija par saimniecības tehnikas skaitu!
E-5112	Ja $51182r \text{ 1k} > 0$, tad arī $51181r \text{ 1k} > 0$!
E-5113	Ja $51182r \text{ 2k} > 0$, tad arī $51181r \text{ 2k} > 0$!
E-5114	Ja $51182r \text{ 3k} > 0$, tad arī $51181r \text{ 3k} > 0$!

continued

kods	Paziņojums
E-5115	Ja 51182r 4k > 0, tad arī 51181r 4k > 0 !
E-5116	Ja 51192r 1k > 0, tad arī 51191r 1k > 0 !
E-5117	Ja 51192r 2k > 0, tad arī 51191r 2k > 0 !
E-5118	Ja 51192r 3k > 0, tad arī 51191r 3k > 0 !
E-5119	Ja 51192r 4k > 0, tad arī 51191r 4k > 0 !
E-5201	Nav atbildēts uz 1. jautājumu!
E-5202	Nav atbildēts uz 2. jautājumu!
E-5203	Ja ir atzīmēta 5221, 5222 vai 5223 atbilde, tad jābūt atzīmētai arī 5220 atbildei!
E-5204	Ja ir atzīmēta 5251 atbilde, tad jābūt atzīmētai arī 5250 atbildei!
E-5205	Ja ir atzīmēta 5220 atbilde, tad jābūt atzīmētai vismaz vienai no 5221, 5222, 5223 atbildēm!
E-5206	Nav norādīta informācija par iekārtām, ko izmanto enerģijas ražošanai!
E-5300	Nav atbildēts uz jautājumu!
E-5301	Neizpildās nosacījums: 5302 <= 11000r - 11300r - 11500r - 11110r - 230r/10000!
E-5302	Neizpildās nosacījums: 5303r >= 5302r !
E-5303	Neizpildās nosacījums: 5303r <= 11000r !
E-5304	Ja ir norādīts, ka saimniecībā ir laistīšanas iekārtas, tad 5303r > 0 !
E-5400	Nav atbildēts uz jautājumu!
E-5401	Ir norādīts ēku skaits, bet nav aizpildīti pārējie nepieciešamie lauki (uzcelšanas gads un/vai kopējā platība un/vai izmantotā platība)
E-5402	Neizpildās nosacījums: 4.k. >= 5.k.
E-5403	Nav norādīts ēku skaits
E-5404	Neizpildās nosacījums: 54100r 1k = visu slēgto un atklāto novietņu skaita kopsumma !
E-5405	Neizpildās nosacījums: 54100r 4k = visu slēgto un atklāto novietņu kopējās platības kopsumma !
E-5406	Neizpildās nosacījums: 54100r 5k = visu slēgto un atklāto novietņu izmantotās platības kopsumma !
E-5407	Ēkas uzcelšanas gadam jābūt robežās 1800 - 2010
E-5408	Ēkas rekonstrukcijas gadam jābūt robežās 1800 - 2010
E-5409	Nav norādīta informācija par izmantotajām saimniecības ēkām un būvēm!
E-5410	Ēkas rekonstrukcijas gads nevar būt mazāks vai vienāds ar ēkas uzcelšanas gadu
E-5411	Visu slēgto lauks. dzīvnieku novietņu kopskaits nevar būt mazāks par uzskaitīto ēku kopskaitu!
E-5412	Visu slēgto lauks. dzīvnieku novietņu kopējā platība nevar būt mazāka par uzskaitīto ēku kopplatību!
E-5413	Visu slēgto lauks. dzīvnieku novietņu kopējā izmantotā platība nevar būt mazāka par uzskaitīto ēku izmantoto kopplatību!
E-5414	Visu atklāto lauks. dzīvnieku novietņu kopskaits nevar būt mazāks par uzskaitīto ēku kopskaitu!
E-5415	Visu atklāto lauks. dzīvnieku novietņu kopējā platība nevar būt mazāka par uzskaitīto ēku kopplatību!
E-5416	Visu atklāto lauks. dzīvnieku novietņu kopējā izmantotā platība nevar būt mazāka par uzskaitīto ēku izmantoto kopplatību!
E-5417	Visu graudu kalšu kopskaits nevar būt mazāks par uzskaitīto ēku kopskaitu!

continued

kods	Paziņojums
E-5418	Visu graudu kalšu kopējā platība nevar būt mazāka par uzskaitīto ēku kopplatību!
E-5419	Visu graudu kalšu kopējā izmantotā platība nevar būt mazāka par uzskaitīto ēku izmantoto kopplatību!
E-5420	Visu lauks. angāru un nojumju kopskaits nevar būt mazāks par uzskaitīto ēku kopskaitu!
E-5421	Visu lauks. angāru un nojumju kopējā platība nevar būt mazāka par uzskaitīto ēku kopplatību!
E-5422	Visu lauks. angāru un nojumju kopējā izmantotā platība nevar būt mazāka par uzskaitīto ēku izmantoto kopplatību!
E-5423	Visu citu būvju kopskaits nevar būt mazāks par uzskaitīto ēku kopskaitu!
E-5424	Visu citu būvju kopējā platība nevar būt mazāka par uzskaitīto ēku kopplatību!
E-5425	Visu citu būvju kopējā izmantotā platība nevar būt mazāka par uzskaitīto ēku izmantoto kopplatību!
E-5426	Būvju kopējā izmantotā platība nedrīkst būt lielāka par kopējo platību!
E-5427	Visu būvju KOPĒJAI platībai jābūt VIENĀDAI ar uzskaitīto būvju kopplatību
E-5428	Visu būvju KOPĒJAI platībai jābūt LIELĀKAI par uzskaitīto būvju kopplatību
E-5429	Visu būvju KOPĒJAI IZMANTOTAJAI platībai jābūt VIENĀDAI ar uzskaitīto būvju izmantoto kopplatību
E-5430	Visu būvju KOPĒJAI IZMANTOTAJAI platībai jābūt LIELĀKAI par uzskaitīto būvju izmantoto kopplatību
E-5431	Nav norādīti visi nepieciešamie lauciņi (skaits, kopējā platība, izmantotā platība)
E-5432	Ja ir norādīti dati būvju kopsummas ailē, tad jābūt norādītiem datiem arī kādā no uzskaitījuma ailēm
E-5433	Ir atstātas neuzskaitītas būves, jo ir tukšas uzskaites ailes, bet visu būvju skaits ir lielāks par uzskaitīto būvju skaitu
E-6101	Nav izvēlēts īpašnieka dzimums!
E-6102	(A) Īpašnieka vecumam jābūt robežās 18-99!
E-6103	(A) Īpašnieka nostrādāto stundu sk. jābūt robežās 1-1840!
E-6104	Īpašniekam un viņa laulātajam nevar būt vienāds dzimums!
E-6105	Vadītāja dati nav jāaizpilda!
E-6106	Nav izvēlēts vadītāja dzimums!
E-6107	Īpašniekam un vadītājam nevar būt vienāds dzimums, jo vadītājs ir īpašnieka laulātais!
E-6108	(A) Vadītāja vecumam jābūt robežās 18-99!
E-6109	(A) Vadītāja nostrādāto stundu sk. jābūt robežās 1-1840!
E-6110	Laulātā dati nav jāaizpilda!
E-6111	Ja īpašniekam ir laulātais, tad obligāti jānorāda dzimums un vecums!
E-6112	Algotam darbiniekam obligāti jānorāda nostrādāto stundu skaits!
E-6113	Nav norādīts īpašnieka vecums!
E-6114	Nav norādīts īpašnieka nostrādāto stundu skaits!
E-6115	Ja īpašnieka laulātais ir atzīmēts kā algots darbinieks, tad viņam obligāti jānorāda nostrādāto stundu skaits!

continued

kods	Paziņojums
E-6116	Īpašnieka laulātā nostrādāto stundu skaits nevar būt vienāds ar 0!
E-6117	(A) Īpašnieka laulātā nostrādāto stundu skaitam jābūt robežās no 1 līdz 1840!
E-6118	Nav norādīts vadītāja vecums!
E-6119	Nav norādīts vadītāja nostrādāto stundu skaits!
E-6120	Ja īpašnieks ir atzīmēts kā algots darbinieks, tad viņa nostrādāto stundu skaitam jābūt lielākam par 0!
E-6121	Īpašnieka laulātā vecumam jābūt robežās no 16 līdz 99 gadiem!
E-6201	(A) Nostrādāto stundu skaitam jābūt mazākam vai vienādam ar 1840!
E-6202	Nav norādīts nostrādāto stundu skaits!
E-6203	Par nodarbināto 6201 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6204	Par nodarbināto 6202 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6205	Par nodarbināto 6203 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6206	Par nodarbināto 6204 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6207	Par nodarbināto 6205 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6208	Par nodarbināto 6206 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6209	Par nodarbināto 6207 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6210	Par nodarbināto 6208 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6211	Par nodarbināto 6209 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6212	Par nodarbināto 6210 obligāti jānorāda dzimums un nostrādāto stundu skaits!
E-6213	Ja nodarbinātais ir atzīmēts kā algots darbinieks, tad obligāti jānorāda nostrādāto stundu skaits!
E-6301	Nav izvēlēts īpašnieka dzimums!
E-6302	(A) Īpašnieka vecumam jābūt robežās 18 - 99!
E-6303	(A) Īpašnieka nostrādāto stundu skaitam jābūt robežās 1 - 1840!
E-6304	Nav izvēlēts vadītāja dzimums!
E-6305	(A) Vadītāja vecumam jābūt robežās 18 - 99!
E-6306	(A) Vadītāja nostrādāto stundu skaitam jābūt robežās 1 - 1840!
E-6307	Juridiskām personām jāaizpilda tikai informācija par vadītāju (632r)!
E-6308	Nav norādīts īpašnieka vecums!
E-6309	Nav norādīts īpašnieka nostrādāto stundu skaits!
E-6310	Nav norādīts vadītāja vecums!
E-6311	Nav norādīts vadītāja nostrādāto stundu skaits!
E-6312	Ja kopīpašuma saimniecībā vadītājs ir pats īpašnieks, tad vadītājs nav jāpilda!
E-6401	1r pēdējo divu lauciņu summa nevar būt lielāka par 1.lauciņa vērtību!
E-6402	2r pēdējo divu lauciņu summa nevar būt lielāka par 1.lauciņa vērtību!
E-6403	Nodarbināto vīriešu kopskaits nesakrīt ar 2-6 kolonnu summu!
E-6404	Nodarbināto sievietes kopskaits nesakrīt ar 2-6 kolonnu summu!
E-6500	Nav izvēlēta atbilde uz jautājumu!
E-6501	(A: Vīrieši) Neizpildās nosacījums: 1.kol. * 60 >= 3.kol. !
E-6502	Ja 1.kol. > 0 ,tad arī 3.kol. > 0 !
E-6503	Ja 3.kol. > 0 ,tad arī 1.kol. > 0 !
E-6504	Ja 2.kol. > 0 ,tad arī 4.kol. > 0 !
E-6505	Ja 4.kol. > 0 ,tad arī 2.kol. > 0 !

continued

kods	Paziņojums
E-6506	Neizpildās nosacījums: 2.kol. \leq 1.kol. !
E-6507	Neizpildās nosacījums: 4.kol. \leq 3.kol. !
E-6508	(A :Sievietes) Neizpildās nosacījums: 1.kol. * 60 \geq 3.kol.!
E-6509	Nav norādīta informācija par uz laiku nodarbinātajiem un pakalpojumu sniedzējiem!
E-7000	Nav izvēlēta atbilde uz jautājumu!
E-7001	Procentu laukā ievadītais lielums nav vesels skaitlis!
E-7002	(A) Procentu datiem jābūt veselam skaitlim un robežās no 1 līdz 70!
E-7003	Nav norādīta informācija par citām ienākumus nesošajām aktivitātēm!
E-7004	Procenti nevar būt lielāki par 100!
E-7005	Nelauksaimnieciskās saimniecības īpatsvars nevar būt vienāds ar 0, ja saimniecībā ir citas ienākumus nesošas aktivitātes!

"ANNEX AC-2010" DATA INPUT PROGRAMME ERROR MESSAGE

kods	Paziņojums
P-1001	(A) Ja 1.sad. 11100r - 2.1.sad. 2109020r - 2.3.sad. 230r/10000 $>$ 0, tad 101r $>$ 0 un/vai 102r $>$ 0 un/vai 103r $>$ 0 !
P-1002	Neizpildās nosacījums: 1.sad. 11100r - 2.1.sad. 2109020r - 2.3.sad. 230r/10000 \geq \geq 101r + 102r + 103r!
P-1003	Nekorekti ievaddati 1.sad. 11100r (nav iespējams pārbaudīt 101., 102., 103r)!
P-2001	(A) Ja 1.sad. 11100r - 2.1.sad. 2109020r - 2.3.sad. 230r/10000 $>$ 0, tad 2011r $>$ 0 un/vai 2012r $>$ 0 un/vai 2013r $>$ 0 un/vai 2014r $>$ 0 !
P-2002	Nekorekti ievaddati 1.sad. 11100r (nav iespējams pārbaudīt 2011., 2012., 2013., 2014r)!
P-2003	Neizpildās nosacījums: 11100r - 2.1.sad. 2109020r - 2.3.sad. 230r/10000 \geq \geq 2011r + 2012r + 2013r + 2014r !
P-2004	(A: 2020r) Ja 1.sad. 11100r $>$ 0, tad 2020 $>$ 0 !
P-2005	Neizpildās nosacījums: 2031r \leq 2030r !
P-2006	Neizpildās nosacījums: 2041r \leq 2040r !
P-2007	Procentu datiem jābūt veselam skaitlim un robežās no 0 līdz 100!
P-2008	Neizpildās nosacījums: 2020r \leq 1.sad. 11100r!
P-2009	Neizpildās nosacījums: 2030 \leq 11000r!
P-2010	Neizpildās nosacījums: 2040 \leq 11000r !
P-3000	Nav atbildēts uz jautājumu!
P-3001	Nav norādīta informācija par ainavu elementiem saimniecībā!
P-4000	Nav atbildēts uz jautājumu!
P-4001	Ganīšanas periodam jābūt lielākam vai vienādam ar 1 mēnesi un mazākam par 12 mēnešiem gadā!
P-4002	Neizpildās nosacījums: 42r \leq 1.sad. 11400r + 2.1.sad. 2109010r + 2109020r - 2109022r !
P-4003	Nav norādītas ganību platības!
P-4004	Ievadītais lielums 1.sad. 11400r nav skaitlis (nav iespējams pārbaudīt 42r)!
P-4005	Ievadītais lielums 2.1.sad. 2109010r nav skaitlis (nav iespējams pārbaudīt 42r)!
P-4006	Ievadītais lielums 2.1.sad. 2109020r nav skaitlis (nav iespējams pārbaudīt 42r)!

continued

kods	Paziņojums
P-4007	Ievadītais lielums 2.1.sad. 2109022r nav skaitlis (nav iespējams pārbaudīt 42r)!
P-4008	(A) Ganīšanas periodam jābūt robežās no 1 līdz 8 mēnešiem gadā!
P-5000	Nav atbildēts uz jautājumu!
P-5001	(A) Neizpildās nosacījums: 510r <= 1.sad. 11000r !
P-5002	Neizpildās nosacījums: 520 <= 1.sad. 11000r - 11300r - 11500r - 11110r - -2.sad. 230r/10000!
P-5003	Neizpildās nosacījums: 520r = 521r + 522r + 523r/10000 + 524r + 525r + 526r!
P-5004	Neizpildās nosacījums: 520r = 5.3.sad. 5302r !
P-5005	Neizpildās nosacījums: 521r <= 2.1.sad. 2103000r !
P-5006	Neizpildās nosacījums: 522r <= 2.1.sad. 2107000r !
P-5007	Neizpildās nosacījums: 523r <= 2.1.sad. 2100010r !
P-5008	Neizpildās nosacījums: 524r <= 1.sad. 11400r + 2.1.sad. 2109010r + 2109020r - 2109022r !
P-5009	Citu laukaugu platība (525r) nevar būt lielāka par ...
P-5010	Neizpildās nosacījums: 526r <= 1.1.sad. 11200r !
P-5011	Ja saimniecībā ir platība, kas tikusi laistīta (520r), tad jānorāda izmantotā laistīšanas metode!
P-5012	Ja saimniecībā ir platība, kas tikusi laistīta (520r), tad jānorāda izmantotā ūdens avots!
P-5013	Nav norādīta informācija par pēdējos 3 gados laistītajām platībām!
P-6000	Nav atbildēts uz jautājumu!
P-6001	Neizpildās nosacījumam: 6210r + 6220r + 6230r + 6240r >= 3.sad. 3100r !
P-6002	Neizpildās nosacījumam: 6310r + 6320r + 6330r >= 3.sad. 3210r !
P-6003	Neizpildās nosacījums: 6320r = 6321r + 6322r !
P-6004	Nav norādīta informācija par lauksaimniecības dzīvnieku novietnēm!
P-6005	(A) Ja 3.sad. 3100r = 0, tad 6210r + 6220r + 6230r + 6240r = 0 !
P-6006	(A) Ja 3.sad. 3210r = 0, tad 6310r + 6320r + 6330r = 0 !
P-6007	(A) Neizpildās nosacījumam: 6111r + 6112r + 6121r + 6122r + 6130 >= 4.sad. 421r !
P-7000	Nav atbildēts uz jautājumu!
P-7001	Nav norādīta informācija par kūtsmēslu krātuvēm!
P-7002	Ja norādīts, ka saimniecībā ir dziļās kūtis (711r), tad jānorāda, ka saimniecībā ir pārsegtas pakaišu kūtsmēslu krātuves (710r)!