

Farm Structure Survey 2007
National Methodological Reports (NMR)

State: Norway

FARM STRUCTURE SURVEY 2007

NATIONAL METHODOLOGICAL REPORT

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SUMMARY

The Farm Structure Survey (FSS) 2007 is based on two main sources:

- The population of agricultural holdings
- The Sample Survey of Agriculture.

Statistics Norway annually creates a population of holdings based on the Government Production Subsidy System and some other administrative registers. The information provided for each individual holding includes agricultural area by crop, number of different livestock categories and organic farming. The total number of holdings in 2007 was 49 935, of which 48 138 were applying for subsidies. The holdings applying for subsidies cultivated 99.2 % of the utilised agricultural area. The registration date in the subsidy system was 31 July 2007.

Statistics Norway also carries out the annual Sample Survey of Agriculture. The sample survey is used to provide information that is not available from administrative sources, e.g. FSS relevant information like labour input, rural development and irrigation. The survey date was 1 June 2007. Labour input information referred to the 12 months period prior to 1 June.

The sample used in the 2007 survey was based on the samples used in the 2003 and 2005 surveys, with updating. Questionnaire was mailed to a total of 12 737 holdings. Later, 593 of these holdings were considered not to be in the target population. By various reasons 1 217 of the remaining active holdings did not respond. Finally, there were 10 927 holdings in the sample. The number amounts to 21.9 % of the population. The sample was stratified by location (18 counties), utilised agricultural area (6 classes) and type of farming (8 types).

The respondents had the option to respond via electronic questionnaire on Internet and 27.5 % of the holders did so. In Statistics Norway, paper questionnaires were read optically and checked by means of computerized controls.

The first preliminary results from the Government Production Subsidy System were presented in November 2007, while preliminary results from the Sample Survey of Agriculture were firstly presented in March 2008.

Final results, both for the population of holdings and the sample survey, were completed in December 2008. The relative long time lag between preliminary and final results is mainly due to late final versions of the administrative data sources.

1. INTRODUCTION

1.1 History, scope

Statistics Norway has carried out complete censuses in agriculture with intervals of about 10 years since 1907, the last one in 1999. Annual surveys in agriculture based on *random samples* started after Second World War.

Before 1984 the main goal of the annual *Sample Survey of Agriculture* was to provide core data for structure statistics, e.g. agricultural area by crop and number of different livestock categories. In addition, the survey also covered subjects varying from one year to another, e.g. labour input. Since 1984, information on agricultural area and livestock has been replaced by the corresponding data from an administrative data source: *the System of Application for Government Production Subsidies*. This was according to Statistics Norway's strategy of replacing information from own data collection with administrative data in order to reduce the respondent burden and to save resources. Nevertheless, the questionnaire of the agricultural census in 1989 included an almost complete list of crops and livestock categories.

The government production subsidy system does not include the whole population of agricultural holdings. Before 2000, the annual sample survey was basis for estimating the total number of

holdings, except in the years with census (1989 and 1999). After 1983, the sample survey most years also included some core characteristics regarding agricultural area and livestock. This information together with information from the last census was basis for estimating agricultural area by crop and different livestock categories for holdings not applying subsidies. The proportion of holdings not applying subsidies was decreasing during the 1990-ties due to increased subsidies per hectare of utilised agricultural area and per head of livestock. Accordingly, the share of agricultural area operated by these holdings fell from about 6 % towards 1 %. The proportion of livestock kept by the holdings is even smaller.

Annually since 2000, Statistics Norway has created a *population of agricultural holdings*. The core of this population is the holdings applying government production subsidies as of 31 July. Combining information from several other administrative registers identifies the additional holdings.

Nowadays, the yearly sample survey's main goal is to provide information that cannot be provided from administrative sources. In 2000, 2004 and 2008 the main subject was forestry and the basic population was forestry properties, so actually these three surveys were *surveys of forestry* and not of agriculture. In 2001, 2002, 2003, 2005, 2006 and 2007 the sample survey has covered agriculture.

1.2 National legislation

There is no separate legislation concerning the annual sample survey. Information is collected according to the Statistics Act of 16 June 1989 No. 54. § 2-2 refers to the obligation for any person to provide the information necessary for the production of official statistics.

The Statistics Act § 3-2 states that Statistics Norway has the right to use administrative data-processing systems in the state administration and in nationwide municipal organisations as basis for official statistics.

2. CONTENT

There are some deviations in the Norwegian FSS compared with the approved list of characteristics (Commission Regulation (EC) No 204/2006) and the definitions (Commission Decision 2000/115/EC).

2.1 Characteristics and reference period

Characteristics surveyed only for national purposes

- Manure: Frequency of manure added water before spreading
- Gross income from various supplementary industries in 2006
- Man-hours in forestry on the holding and in other supplementary industry on the holding for all categories of labour force
- Man-hours off the holding for each of the categories holder, spouse/cohabitant and manager
- Occasional help by gender

Deviation from the EU list of characteristics and definitions

- D14(b) Fresh vegetables, melons, strawberries: A non-significant area of herbs (D34 Aromatic plants, medicinal and culinary plants) is included
- D18(b) Forage plants, other green fodder: Non-significant areas of fodder roots and brassicas (D12) are included
- D19 Arable land seeds and seedlings: Includes areas of other "seeds", e.g. non-significant areas of linseed and flax and dry peas (D09(e)). Area of the latter crop is increasing
- F02 Rough grazing: Covers *fenced in* pastureland that is mostly fertilised but sometimes unfertilised.
- G05 Nurseries: A non-significant area of flowers and ornamental plants, outdoor (D16) is included. Area of forest-tree nursery is excluded

- H02 Wooded area: Only productive forest area is included. *Footnote is recommended*
- H03 Other land: Wooded area not assessed as productive forest area is included. *Footnote is recommended*
- J15 Laying hens: Breeding cocks are not included

Characteristics not collected

Characteristics pre-defined as not existing, non-significant or not relevant in Norway are listed in annex 1.

Characteristics not collected for other reasons:

- L09 Other gainful activity of family members of the sole holder's family:

This characteristic was surveyed in 2003 but the information provided was of poor quality. Furthermore, Statistics Norway questions the right of asking the respondent (usually the holder) about any other person's activity off the holding.

Reference date/period

- Holdings, utilised agricultural area by crop, number of different livestock categories, except sheep, and organic farming: 31 July 2007
- The number of sheep: 1 June 2007 or at start of the grazing season
- Other land, irrigation and rural development: 1 June 2007
- Labour input: the 12 months period prior to 1 June 2007

Changes of definitions, reference time etc. affecting the comparability with previous surveys

No significant changes have taken place since 1999.

2.2 Questionnaire

The Sample Survey of Agriculture 2007 comprised one questionnaire, see annex 2. Main sections were:

- Areas included in the holding
- Irrigation system
- Manure
- Rural development
- Labour input

The respondents had to complete the questionnaire on their own. The questionnaire was available both as paper questionnaire and as electronic questionnaire via Internet.

3. SURVEY METHODOLOGY

The FSS 2007 for Norway is based on two pillars:

- The *population of agricultural holdings*; the population is based mainly on data from administrative sources.
- The *Sample Survey of Agriculture*; the survey is used to collect data that is not available from administrative sources.

The most important administrative data sources for creating the population of agricultural holdings is run by the Norwegian Agricultural Authority. The methodologies applied by the Norwegian Agricultural Authority are not described in this document.

3.1 Survey organisation

The Sample Survey of Agriculture is carried out by Statistics Norway, Division for Primary Industry Statistics. Within the division, the 2007 sample survey was organised as a project in "the agricultural

group". A project leader had the daily responsibility. Staff working in the project varied during the year, at most 5 persons were involved.

In different stages of the survey, the project co-operates closely with other divisions within Statistics Norway:

- Division for Statistical Methods and Standards: sample design, estimation
- Division for Data Collection Methods: layout of questionnaire
- Division for IT Services: electronic questionnaire
- Division for Data Processing: pre-printing of questionnaires, data entry from paper questionnaires
- Office of IT: electronic editing routines, establishment of a data base

3.2 Calendar (overview of work progress)

Activity	Start	Finish
Initial planning	Oct 06	Dec 06
Creating questionnaire, sample survey	Oct 06	Mar 07
• Questionnaire approved	Dec 06	Dec 06
Establishing the sample	Jan 07	Apr 07
• Creating a sample design	Jan 07	Jan 07
• Creating the population register	Feb 07	Mar 07
• Drawing the sample	Apr 07	Apr 07
Data collection, sample survey	May 07	Nov 07
• Mailing questionnaire to the respondents	20 May 07	30 May 07
• Scanning of questionnaires	Jun 07	Oct 07
• Reminder to missing respondents	Aug 07	Nov 07
Data editing, sample survey	Jun 07	Sep 08
Estimating preliminary figures, sample survey	Feb 08	Mar 08
Data collection, Government Production Subsidy System		
• Receiving preliminary data	Nov 07	Nov 07
• Receiving final data	Apr 08	Apr 08
Dissemination, preliminary figures (press release)		
• Agricultural area and livestock as of 31 July 2007		26 Nov 07
• Structure of agriculture 2007		29 Jan 08
• Labour input		12 Mar 08
• Supplementary industry in agriculture		01 Oct 08
Final editing and collocation, all characteristics	Oct 08	Dec 08
Dissemination, final figures	Dec 08	Jan 09
Sending file with individual data and documentation to Eurostat	Dec 08	Jan 09

3.3 Preparing the survey operations

3.3.1 Population and frame

Population

The general definition of a holding stated in Commission Decision 2000/115/EC is the base for the Norwegian structure statistics.

The target population of the FSS 2007 was the same as for the census in 1999 and the sample surveys in 2001, 2002, 2003, 2005 and 2006: An active farm (holding) that has at least 0.5 ha of utilised agricultural area (UAA). Furthermore, the population also includes holdings with less than 0.5 ha of UAA if they keep livestock and/or cultivate horticultural crops exceeding certain thresholds.

Number of holdings and utilised agricultural area. 2007

	Holdings		UAA, ha	
		Per cent		Per cent
Total	49 935	100,0	1 032 020	100,0
Of which:				
- holdings applying for subsidies	48 138	96,4	1 023 274	99,2
- "additional" holdings	1 797	3,6	8 745	0,8

The general definition of the holding has not changed since the census in 1999. The thresholds for receiving subsidies have changed in a way that some small holdings have been excluded. Probably, these small holdings, if they still are active, now are among the "additional" holdings. The thresholds for being an "additional" holding have been slightly adjusted since 1999.

The Sample survey of Agriculture 2007 comprised holdings, which fulfilled one or more of the following conditions:

Areas	Livestock
Operated at least 0.5 hectare of agricultural area	Kept at least 10 bovine animals included calves
Operated at least 300 m ² of greenhouse area	Kept at least 25 sheep over 1 year
Operated at least 0.2 hectare of field-grown vegetables	Kept at least 10 goats over 1 year
Operated at least 0.1 hectare of fruit trees	Kept at least 5 pigs for breeding and/or 200 other pigs
Operated at least 0.1 hectare of berries	Kept at least 1 000 laying hens and/or pullets
Operated at least 0.1 hectare of nurseries	Kept at least 5 000 broilers

As a conclusion, the structure statistics of 2007 is considered to be fully comparable with statistics for previous years back to the census in 1999 and also principally with statistics for the years before 1999.

Frame

Usually, the preliminary population of agricultural holdings for the previous year constitutes the frame for the next sample survey of agriculture. In order to provide the best comparable statistics, particularly for labour input, the same samples as in the sample surveys of agriculture 2003 and 2005 were used, after removing ceased holdings and adding some new holdings.

After 1999 the yearly net decrease in number of holdings has varied between 1 800 and 3 700. Thus the 2007 frame included a number of ceased holdings. On the other hand new established holdings in 2007 were not included. Usually, the yearly establishment of new holdings is rather low. However, at

present there is an ongoing trend towards more group holdings, particularly within milk production. These holdings are organised in two different ways regarding coarse fodder production:

- Coarse fodder production is operated by the group holding itself
- Coarse fodder production is operated by each one of the participants in independent enterprises. These enterprises are selling fodder to the group holding

In the surveys in 2003 and 2005 another possible frame error has been the coverage of holdings with solely flower and ornamental plant production in greenhouse. In 2007 Statistics Norway carried out a separate census of holdings with plant production in greenhouse and nursery production. The main objectives of the census were to improve the population frame of agricultural holdings and also to provide statistics to the Norwegian Agricultural Budget Commission. The minimum thresholds for holdings being included in the census were:

1. Operated at least 300 m² of greenhouse area
2. Operated at least 0.1 hectare of nurseries

3.3.2 Survey design

The sample from the Sample Survey of Agriculture 2005, after removing ceased holdings and adding some new holdings, was the basis for the Sample Survey of Agriculture 2007. The sample design was based on three principles:

1. Location; 18 counties
2. Utilised agricultural area: 6 classes
3. Farm type: 8 types

This gave $18 \times 6 \times 8 = 864$ strata, of which 97 in real were empty.

After the general stratification the result was assessed and some supplementary drawing was carried out.

The sample frame was updated and post-stratified with data from the final 2007 population before estimation of final figures.

Number of holdings in the population and in the sample, by type of farming. 2007. Final data

Farm type	Holdings, total	Holdings in the sample	Per cent holdings in the sample
Total	49 935	10 927	21.9
Cattle dairying, except group holdings	11 729	2 586	22.0
Cattle fattening etc.	4 351	840	19.3
Sheep	11 394	1 564	13.7
Cereals and oil-seeds	9 633	1 889	19.6
Cattle dairying, group holdings	1 724	1 169	67.8
Specialist pigs and/or poultry production	1 664	653	39.2
Specialist crop production in greenhouse	605	261	43.1
Other	8 835	1 965	22.2

Number of holdings in the population and in the sample, by county. 2007. Final data

County	Holdings, total	Holdings in the sample	Per cent holdings In the sample
Total	49 935	10 927	21.9
01 Østfold	2 677	662	24.7
02 Akershus and 03 Oslo	2 558	753	29.4
04 Hedmark	4 059	896	22.1
05 Oppland	5 477	1 038	19.0
06 Buskerud	2 593	522	20.1
07 Vestfold	1 743	462	26.5
08 Telemark	1 663	312	18.8
09 Aust-Agder	742	222	29.9
10 Vest-Agder	1 228	303	24.7
11 Rogaland	5 075	1 218	24.0
12 Hordaland	3 503	603	17.2
14 Sogn og Fjordane	3 584	627	17.5
15 Møre og Romsdal	3 342	714	21.4
16 Sør-Trøndelag	3 469	750	21.6
17 Nord-Trøndelag	3 819	907	23.8
18 Nordland	2 720	526	19.3
19 Troms	1 285	287	22.3
20 Finnmark	398	125	31.4

Number of holdings in the population and in the sample, by size of utilised agricultural area. 2007. Final data

Size of UAA	Holdings, Total	Holdings in the sample	Per cent holdings in the sample
Total	49 935	10 927	21.9
- 0.4 hectare	1 851	1 063	57.4
0.5 - 4.9 hectares	4 320	760	17.6
5.0 - 9.9 hectares	8 875	1 260	14.2
10.0 - 19.9 hectares	15 195	2 410	15.9
20.0 - 49.9 hectares	16 598	3 945	23.8
50.0 - hectares	3 096	1 489	48.1

3.3.3 Pilot Survey

No pilot survey was carried out for the Sample Survey of Agriculture 2007. Most of the characteristics/questions and routines have been included in earlier surveys/censuses and thus a pilot survey was not considered necessary.

However, in 2007 the questions regarding rural development were expanded with information on gross income from each of the relevant industries. When editing the collected questionnaires a significant

fall in the frequency of supplementary industries on the holdings was detected. This led to a further examination and also some corrections by means of tax return data available in Statistics Norway. We have concluded that the change of the questionnaire probably has influenced the answers.

3.3.4 Informing and training the staff and respondents

The staff at Statistics Norway involved in the Sample Survey of Agriculture 2007 was experienced in carrying out agricultural surveys and thus no separate training was needed.

The respondents had to complete the questionnaire without assistance from an enumerator. Holders who were in the sample of the 2005 survey were at that time informed that they probably would be included in the 2007 sample survey too. Else, no specific efforts were carried out in advance to prepare the respondents. Respondents who needed help could call relevant staff at Statistics Norway or contact the local agricultural administration.

3.4 Sampling, data collection and data entry

3.4.1 Drawing the sample

See chapter 3.3.2 Survey design.

3.4.2 Data collection and entry

The questionnaires were mailed from Statistics Norway to the respondents in the period 20 - 30 May and survey date was 1 June. (Sending out the questionnaires was a bit behind schedule.) The respondents had to complete the questionnaires on their own, but might contact the local agricultural administration or Statistics Norway for support. The deadline was 11 June.

The response burden has neither been measured nor questioned on the questionnaire. Statistics Norway has roughly estimated the average completion time to 30 minutes.

Paper questionnaire

Up to and including the Sample Survey of Agriculture 2005 the respondents must as a main rule return the completed questionnaires to the local agricultural administration. As from 2006 the questionnaires have to be sent directly to Statistics Norway.

The questionnaires were pre-printed with a bar code that identified the holding. In order to rapidly identify missing respondents, key identification information was recorded soon after the questionnaires were received at Statistics Norway. This routine was done by means of Oracle and Forms software.

Later, the Division for Data Processing did the further entry of data by means of optical character reading (OCR). Software applied was Eyes and Hands. After entry, data were loaded in an Oracle database.

Electronic questionnaire

An electronic version of the questionnaire for the Sample Survey of Agriculture was for the first time available in 2005. 21.6 % of the respondents chose this alternative in 2005, while the percentage was 27.5 in 2007. The application used was created at Statistics Norway.

3.4.3 Utilisation of administrative data sources

The Norwegian Agricultural Authority, which is a body under the Ministry of Agriculture and Food, is responsible for several administrative registers that make basis for agricultural statistics carried out by Statistics Norway. All registers applied are linked to the Farm Register via common identification numbers:

- For holders/enterprises: the holders identity number and/or organisation number
- For holdings: municipality number, land number, title number, lease number and serial number

The two most important administrative registers are described in the following:

The Farm Register

The Farm Register is the basis register for agricultural and forestry statistics in Norway. The register intends to cover all agricultural and forestry properties, all holdings in agriculture and persons connected to the properties and holdings as owners and/or holders. The Farm Register is a common register for the public agricultural administration both at central, county and municipal level and for agricultural statistics in Statistics Norway. Furthermore, the register is also connected to membership and customer registers in sales co-operatives in the agricultural sector. In principle, the Farm Register is a continuously updated register. However, the bulk of the updating is connected to the two rounds per year of application for government production subsidies. The register contains four main area categories:

- For the properties: owned agricultural area, productive forest area and other land area
- For the holdings: utilised agricultural area

For holdings applying government production subsidies the utilised agricultural area is of good quality. The same applies to owned agricultural area for properties included in an applying holding. The quality of the other area information is varying and particularly other land area is missing for many properties.

The System of Application for Government Production Subsidies (PRO)

The PRO has played an important role in Norwegian agricultural statistics since 1984. At first, it was a source for information about agricultural area by crop and number of different livestock categories. As from 2000 it is also the core when Statistics Norway annually creates the population of agricultural holdings.

Originally, two main conditions had to be fulfilled for receiving subsidies:

1. The holding had to operate at least 1.0 ha of agricultural area
2. The holding had to have agricultural production corresponding to at least 0.1 standard man-year

Later, the condition related to standard labour input was replaced by a standard deduction in the calculated subsidy amount.

As from 2002, a new government regulation came into force. In addition to produce agricultural products, a holding applying for subsidies has to fulfil the following main conditions:

1. The holding has to be registered in the Central Coordinating Register of Legal Entities
2. The holding has to be registered in the Value Added Tax Registration List or has an overall turnover, included withdrawal of commodities, corresponding to at least NOK 20 000¹ (\approx 2 500 Euro) in the last 12 months

There are two application rounds per year:

Registration date 1 January

The following relevant information is recorded:

- Number of certain categories of slaughtered animals and animals sold live during the previous calendar year
- Number of animals by category as of 1 January
- Organic farming: Number of animals by category (rough classification)
- Production of fruit, berries and vegetables in greenhouse (for regional and quality support scheme)

Registration date 31 July

The following relevant information is recorded:

- Agricultural area by crop as of 31 July
- Number of animals by category as of 31 July

¹ Refer to amount in 2007.

- Organic farming:
 - o Area under conversion
 - o Area under organic farming distributed by crop (rough classification)
 - o Number of animals by category (rough classification)

According to the regulation of the PRO, all utilised agricultural area and livestock operated by one holder (enterprise) must be recorded in the same application form, irrespective of the number of independent holdings in operation. Actually, this definition causes no problem. The number of holders that operate more than one holding is close to zero. Moreover, there is an exception in the regulation for public bodies that operate more than one holding. This relates to e.g. research institutions and county councils.

The organisation number identifies the applicant (holder/enterprise). Municipality number, land number, title number, lease number and serial number identify the holding. This is the same identification variable as in the Farm Register and in the Sample Survey of Agriculture. An applying unit must be included in the Farm Register.

For the FSS, the application round as of 31 July is the most important. Variables taken from this data source are listed in annex 4. Differences in variables and definitions between FSS and PRO are listed in chapter 2.1.

The PRO data are basis for payment of subsidies to holders and due to this they are thoroughly checked by the Norwegian Agricultural Authority, assisted by the local agricultural administration. In Statistics Norway, the PRO data are checked for duplicating units and variables are tested for maximum values.

The population of agricultural holdings

Annually since 2000, Statistics Norway has created a population of agricultural holdings. The core of this population is the holdings applying for government production subsidies as of 31 July. In addition to these holdings, Statistics Norway identifies a number of "additional" holdings by combining various registers. These registers are:

- The Norwegian Farm Register
- The Sample Survey of Agriculture
- The Business Register in Statistics Norway
- The register on deliveries of grains and oil-seeds
- The register on slaughtered animals
- Application for government production subsidies as of 1 January
- Supplementary forms to tax returns

3.4.4 Control of the data

After entry, the sample survey data were subject to comprehensive computerized controls consisting of completeness checks, valid value checks (included minimum and maximum values), range checks, relational checks and arithmetic checks. Software applied was Oracle.

During the editing process the local agricultural administration assisted in collecting additional information from the holdings. Furthermore, the staff at Statistics Norway had access to the Sample Survey of Agriculture 2005, the Business Register at Statistics Norway, the latest version at Statistics Norway of the applications for government production subsidies and the latest version at Statistics Norway of tax return data.

Conformity checks at holding level between the sample survey and the applications for governmental production subsidies were important. Items in focus were type of holder (natural person - group holding - legal person) and size of utilised agricultural area.

At last checks were done on aggregated results. Aggregates of various characteristics were compared with results from previous surveys.

3.4.5 Non-response

Questionnaires were sent to a total of 12 737 holdings, of which 593 later were considered not to be in the target population according to the conditions listed in chapter 3.3.1.

1 217 holders who assumed to operate an active farm did not respond at all or their response were of too poor quality. This amounts to 10.0 % of the active holdings in the sample. Respondents who did not respond could be fined, which applied to 133 respondents. Fine was omitted for missing respondents because of serious illness, accident, old age or similar.

3.5 Data processing, analysis and estimation

3.5.1 Methods for handling missing or incorrect data items

Control of data is described in chapter 3.4.4. If item non-response could not be completed by collection of additional information, a value was manually imputed based on other sources. Additional information for unit non-response was not collected. Unit non-response caused re-weighting of the remaining holdings in the stratum concerned.

3.5.2 Estimation and sampling errors

The Estimation of the figures is based upon a stratified regression model; see Särndal, Swensson and Wretman.

$$(3.5.2.1) \quad Y_{i,h} = \alpha_h + \beta_h x_{i,h} + \varepsilon_{i,h}$$

where

- h - A stratum, characterised by location, utilised agricultural area and farm type
- $Y_{i,h}$ - A characteristic in the survey
- $x_{i,h}$ - Utilised agricultural area
- $\varepsilon_{i,h}$ - Error term

The model defined above correspond to the weights

$$(3.5.2.2) \quad w_{i,h} = \frac{N_h}{n_h} \left[1 - \frac{(x_{i,h} - \bar{x}_{s_h})(\bar{x}_{s_h} - \bar{X}_h)}{v_{s_h}^2} \right]$$

where

- s_h - Sample of holdings in stratum h
- n_h - Number of holdings in the sample for stratum h
- N_h - Number of holdings in the population for stratum h
- \bar{x}_{s_h} - Sample mean of utilised agricultural area for stratum h
- \bar{X}_h - Population mean of utilised agricultural area for stratum h
- $v_{s_h}^2 = \frac{1}{n_h} \sum_{i \in s_h} (x_{i,h} - \bar{x}_{s_h})^2$ - Sample variance of utilised agricultural area for stratum h

The weights defined by formula (3.5.2.2) can be interpreted as a calibration of the expansion weights

$$(3.5.2.3) \quad w_{i,h}^{\text{exp}} = \frac{N_h}{n_h}$$

in a stratified simple random design, which corresponds to the survey design described above, see 3.3.2.

The effect of these calibrated weights is that the estimated figures are consistent with both the number of holdings and the total utilised agricultural area in each stratum of the population. Although estimates calculated with the expansion weights in (3.5.2.3) will differ from the published figures by the weights in (3.5.2.2) variances are less disturbed using expansion weights instead of true calibration weights.

Statistics Norway calculates the relative standard deviation by means of a standard program developed in SAS, based on the formula (3.5.2.3). The next table shows results at country level for some characteristics in the sample survey:

Estimated value and standard deviation for some characteristics at country level

<i>Characteristic</i>	<i>Estimated value</i>	<i>Standard deviation, %</i>
Irrigable area, hectares	114 855	2.2
Number of holdings with rural development	20 088	1.2
Holder's labour input in agriculture, 1 000 man-hours ¹	60 709	0.9
Spouse/cohabitant's labour input in agriculture, 1 000 man-hours ¹	16 623	1.5
Manager's labour input in agriculture, 1 000 man-hours ^{1,2}	4 827	1.6
Family member's labour input in agriculture, 1 000 man-hours ^{1,3}	10 423	1.8
Regular help's labour input in agriculture, 1 000 man-hours ^{1,3}	10 998	1.7
Occasional help's labour input in agriculture, 1 000 man-hours	5 765	5.9
Self-employed persons/firms' labour input in agriculture, 1 000 man-hours	2 303	3.5
Holder's labour input off the holding, 1 000 man-hours	34 964	1.5
Spouse/cohabitant's labour input off the holding, 1 000 man-hours	34 170	1.3

¹ Working time over 100 per cent of a standard man-year is included.

² Comprise manager on group holdings, manager on legal units and manager other than holder or spouse of holder on individual holdings.

³ Excluded managers.

3.5.3 Non sampling errors

Neither the total population nor the sample survey seems to have significant under-coverage or over-coverage errors. The bulk of the holdings in both systems is applying for government production subsidies and hence subject to thorough checks organised by the Norwegian Agricultural Authority. The status of the "additional" holdings is more uncertain. This sub-population is based on data from different registers. It is rather easy to find out that some activity has taken place during the calendar year 2007, while it is rather difficult to decide whether the holding was active at the survey date (31 July), had stopped farming before that date or had started farming later. Furthermore, for some of these holdings it is difficult to estimate an accurate agricultural area by crop and the number of different livestock categories.

Due to rapid structural changes, the possibility of including a holding in the sub-population of "additional" holdings that is already unified with another holding applying for government subsidies can not be fully ignored, even if various checks have been done to avoid such an error.

Serious systematic measurement errors are neither discovered in the questionnaires nor in the editing process or optical reading. Nevertheless, some characteristics are difficult to answer accurately for the respondents. This concerns particularly:

- Other land: Respondents with areas of widely scattered woodland and mountain area often do not know the accurate area size and thus refuse to report. Another problem is that respondents consider areas of roads, farmyard, ornamental garden etc. as non-relevant.

- Accurate amount of work carried out particularly by holder, spouse and other family members in the last 12 months is difficult to recall for the respondent.

As mentioned in chapter 3.3.3 an additional question regarding gross income from supplementary industries on the holdings probably caused a fall in the frequency of supplementary industries. Information from other sources was provided to improve the quality and results were released.

In the governmental subsidy form, the distribution of bovine animals has been simplified as from 2002. The distribution in 2002 and later has been:

- Dairy cows
- Other cows
- Other bovine animals

Initially, Statistics Norway planned to use the Norwegian register of bovine animals as source for distribution of other bovine animals by age and sex. The Norwegian Food Safety Authority is responsible for this register. Unfortunately, so far the register is considered to be too poor as data source. Instead, the distribution from the 2001 subsidy forms is still the newest data source and is used as basis at individual holding level. A small number of holdings with bovine animals in 2007 had no bovine animals in 2001. For these holdings a random distribution has been done.

During the last 2-3 years the area of peas for the production of grain (D09(e)) has risen from a level close to zero. This area has influenced the characteristics D19 Seeds and seedlings and probably also the characteristic D14(a) Fresh vegetables, open field.

3.5.4 Evaluation of results

Aggregate results of the population of holdings in 2007 have been compared with results from previous years back to the census in 1999.

Results at macro level for labour input from the 2007 sample survey have been compared with results from the sample surveys in 2001, 2003 and 2005. When distributing the labour force by working time in per cent of a full-time worker, 1 845 man-hours per man-year has been used as base for 2003, 2005 and 2007. The corresponding number of man-hours per man-year was 1 875 in 1999 and 1 860 in 2001 respectively. In FSS, an individual person cannot work more than 100 % of a man-year. Consequently, man-hours above 1 845 are not counted. This concerns a significant number of holders and also a non-significant number of other labour force categories. In the national agricultural statistics, man-hours above the standard full-time man-year are not deleted.

Also statistics on irrigation and rural development has been compared with previous surveys/censuses.

4. PUBLICATION AND DISSEMINATION

Internet is the main dissemination medium of statistics produced by Statistics Norway. An overview of agricultural statistics is presented on the sites:

- "Focus on Farming" www.ssb.no/english/subjects/10/04/10/jordbruk_en/
- www.ssb.no/english/subjects/10/04/10/

Preliminary results of the farm structure statistics 2007 have been presented in four press releases:

- 26 November 2007: Agricultural area and livestock as of 31.07.2007 – preliminary figures: *Increasing wheat area*
- 29 January 2008: Structure of Agriculture 2007 – preliminary figures: *Fewer than 50 000 farms*
- 12 March 2008: Sample Survey of Agriculture 2007 – preliminary figures: *Decline in labour input in agriculture*
- 01 October 2008: Sample Survey of Agriculture 2007 – preliminary figures: *40 per cent had additional income*

Work on the final population of holdings lasted till December 2008. The relative long time lag between preliminary and final figures is mainly due to late final versions of administrative data sources. The final weighting of the Sample Survey of Agriculture depends on the final population of holdings and thus final results from the Sample Survey of Agriculture are also available quite late after the reference date or period.

The 2007 final results will be released in week 3, January 2009. The final results will also be available in the publication *Agricultural Statistics 2007*, in the series: Official Statistics of Norway.

The Sample Survey of Agriculture 2007 will be described in the series "Notater", which is only in Norwegian language. In this booklet focus is on methodological, technical and quality aspects.

Access to individual data is possible for planning or research purposes. Any person who are permitted access have to comply with confidentiality rules.

ANNEXES

Annex 1. Characteristics considered to be not existing, non-significant or not relevant

The following characteristics were pre-defined as not existing (NE), non-significant (NS) or not relevant (NR) in Norway:

Code	Characteristic	
A02	Less-favoured area	NR
A02(a)	Mountain area	NR
A03	Agricultural areas with environmental restrictions	NR
C03	For share farming or other modes	NE
C06(a)	Does the household of the holder consume more than 50 % of the final production (in value terms) of the holding?	NS
C06(b)	Do the direct sales to consumers account for more than 50 % of the total sales?	NS
D02	Durum wheat	NE
D06	Grain maize	NE
D07	Rice	NE
D08	Other cereals	NS
D09	Protein crops for the production of grain	NS
D09(e)	Peas, field beans and sweet lupines	NS
D09(f)	Lentils, chick peas and vetches	NE
D09(g)	Other protein crops harvested dry	NE
D11	Sugar beet	NE
D12	Fodder roots and brassicas	NS
D23	Tobacco	NE
D24	Hops	NE
D25	Cotton	NE
D27	Sunflower	NE
D28	Soya	NE
D29	Linseed	NE
D30	Other oil seed crops	NE
D31	Flax	NE
D32	Hemp	NE
D33	Other textile crops	NE
D34	Aromatic plants, medicinal and culinary plants	NS
D35	Industrial plants not mentioned elsewhere	NE
D16	Flowers and ornamental plants - outdoor	NS

D18(b)(i)	Green maize	NS
D22	Fallow land subject to set-aside incentive schemes with no economic use	NR
E	Kitchen gardens	NS
F03	Permanent grassland and meadows no longer used for production purposes and eligible for the payment of subsidies	NR
G01(b)	Fruit and berry species of subtropical climate zones	NE
G01(c)	Nuts	NE
G02	Citrus plantations	NE
G03	Olive plantations (included all sub-characteristics)	NE
G04	Vineyards (included all sub-characteristics)	NE
G05	Nurseries	NS
G06	Other permanent crops	NE
G07	Permanent crops under glass	NE
I02	Mushrooms	NE
I03(b)	Cultivated area irrigated	NS
I08	Area no longer used for production purposes, subject to the payment of subsidies, and area subject to set-aside incentive schemes (included all sub-characteristics)	NR
J16	Other poultry	NS
J16(a)	Turkeys	NS
J16(b)	Ducks	NS
J16(c)	Geese	NS
J16(d)	Other poultry, not mentioned elsewhere	NE
J17	Rabbits, breeding females	NS
J18	Bees	NS
J19	Livestock not mentioned elsewhere	NS
M01(b)	Other gainful activity; handy craft	NS
M01(c)	Other gainful activity; processing of farm products	NS
M01(e)	Other gainful activity; aquaculture	NS
M01(f)	Other gainful activity; renewable energy production	NS

Annex 2. Sample Survey of Agriculture 2007 - questionnaire

The original questionnaire is not available in English. This version does not show the original layout.

1 decares = 0.1 hectare.

Statistics Norway

2225 Kongsvinger

Obligation to provide
information

Subject to obligation of secrecy

Survey of Agriculture 2007

Pin code

Name of holding

Municipality number

Name of holder

Holders identity number

Land number

Organisation number

Title number

Lease number

Serial number

You may respond via Internet: <https://idun.ssb.no>

User name:

Password:

If you need assistance on filling in this questionnaire, please call tel. **62 88 50 00** or send an e-mail to landbruks@ssb.no.

Animal husbandry, agriculture or horticulture as of 1 June 2007

1. Are the holding ... Tick one alternative:

| | in operation

→ Go to 2

dd mm yy

**Finish with signature
on page 4**

| | ceased →

From which date?

|_| |_| |_| →

dd mm yy

**Fill in information
about the new holder:**

| | sold/turned over→

From which date?

|_| |_| |_| →

Organisation number

Name

--	--

Areas included in the holding

2. List the areas owned or rented by the holder(s): The holder(s) is the person(s) that is legally and economically responsible for the holding.

Owned agricultural area

decares

→ Of

Unutilised

decares

which:

Rented out

decares

Rented agricultural area

decares

→ Of

which:

Unutilised

decares

Owned productive forest area

decares

Owned other land area: bogs,
infertile land, rocks, lawn,
farmyard etc.

decares

Agricultural area: Comprises fully cultivated land, surface-cultivated land and infield pastureland, which is cultivated or could be brought back into cultivation without extensive work.

Unutilised: Agricultural land that is no longer farmed. Fallow land is not included.

3. Does the holding operate fully cultivated area of grass for mowing or pasture in 2007? Includes rented area. Surface-cultivated area is not included.

- | | Yes → **How many decares?** decares → **Distribute this area by age. When was the area sowed/renewed last time?**
- | | No
- 0 - 4 years ago decares
- More than 4 years ago decares

Irrigation system

4. Does the holding have access to an irrigation system? Systems in greenhouses are excluded.

- | | Yes → **How many decares of the holding's agricultural area could be irrigated by the system?** decares
- | | No → **Go to 6**
- 5. How many decares were irrigated at least once in 2006?** decares

Manure

6. Was manure spread on meadows for mowing, meadows for pasture or infield pastureland during 2006?

Comprises manure spread on own or rented agricultural area.

- | | Yes → **Go to 7**
- | | No → **Go to 8**

7. Was the manure mixed with water before spreading? Tick the alternative that applies to the major part of the manure.

- | | Yes → **How much water was added?** Less than 1 portion of water to 1 portion of manure | |
- 1 portion of water or more to 1 portion of manure | |
- | | No

Rural development

8. Does the holder(s) operate any supplementary industry that are based on the holding's areas, buildings and/or machinery?

- | | Yes → **Go to 9**
- | | No → **Go to 10**

9. Tick the type of supplementary industry and state the gross income in 2006 in NOK excluded VAT. The gross income is the sum of all incomes excluded value added tax, and not deducted any costs. You may tick more than one alternative.

	Gross income
Contractual work with the holding's machines for other agricultural holdings. Exclude pooling or exchange of machinery without payment	<input type="text"/> NOK excl. VAT
Contractual work with the holding's machines outside agriculture	<input type="text"/> NOK excl. VAT
Camping site, hiring out cabins, other accommodation or farm tourism	<input type="text"/> NOK excl. VAT
"On the farm"; e.g. training programs, work of caring nature	<input type="text"/> NOK excl. VAT
Processing of agricultural products	<input type="text"/> NOK excl. VAT
Processing of own timber for sale (sawn timber, firewood)	<input type="text"/> NOK excl. VAT
Production and sale of Christmas trees or decorative greenery	<input type="text"/> NOK excl. VAT
Arts and crafts or light industry	<input type="text"/> NOK excl. VAT

	Fur farming		NOK excl. VAT
	Leasing out sites		NOK excl. VAT
	Renting out farmhouses or farm buildings		NOK excl. VAT
	Renting out agricultural area		NOK excl. VAT
	Renting out hunting or fishing rights, also via land owner association		NOK excl. VAT
	Other, specify:		NOK excl. VAT

Labour input

10. The holding is operated by:

- Natural person (sole proprietorship or other natural person) | | → **Go to 11**
- General partnership or general partnership with shared liability | | → **Go to 13**
- Limited company, foundation, state, county council etc. | | → **Go to 13**

11. List the holder's and the spouse/cohabitant's labour input in man-hours during the last 12 months:

Give the answer according to best judgement. If no labour input is carried out, write 0. In manufacturing and service industries a man-year amounts to about 1 750 man-hours. Mutual work carried out on other holdings is considered to be on own holding, while received work is excluded. School attendance, military service, leave for taking care of children etc. are not included. Even if the spouse/cohabitant is not involved in work on the holding, any work off the holding must be reported.

	<u>Man-hours on the holding</u>			<u>Man-hours off the holding</u>	
	Animal husbandry, agriculture and horticulture	Forestry	Supplementary industries	Partner in another agricultural holding	Employee or self-employed in other industry
Holder					
Spouse/cohabitant					

12. Is another person than holder or holder's spouse/cohabitant being manager of the holding? The manager is the person responsible for the normal daily financial and production routines of running the holding.

- | | Yes → **Is the manager a relative of the holder?** | | Yes → **Go to 13**
- | | No → **Go to 15** | | No → **Go to 13**

13. List the manager's labour input in man-hours during the last 12 months: General partnerships, limited companies etc. must have a manager. Is it difficult to pick out who is the manager, the choice could be based on the amount of labour input. Labour input carried out by other participants in a general partnership is listed under the category regular help in question 16. Give the answer according to best judgement. In manufacturing and service industries a man-year amounts to about 1 750 man-hours. Mutual work carried out on other holdings is considered to be on own holding, while received work is excluded.

	<u>Man-hours on the holding</u>			<u>Man-hours off the holding</u>	
	Animal husbandry, agriculture and horticulture	Forestry	Supplementary industries	On another agricultural holding	Employee or self-employed in another industry
Manager					

14. Give the following information about the manager:

- | | Man Age as of
- | | Woman 1 June 2007

15. Have other than the holder, the holder's spouse/cohabitant or the manager worked on the holding during the last 12 months? Comprise persons at least 16 years old, irrespective if they have received wage or not. You may tick more than one alternative.

- | | Yes, family members → **Go to 16**
- | | Yes, other regular or occasional help → **Go to 16**
- | | Yes, self-employed persons/firms. Comprise only work in agriculture → **Go to 17**
- | | No → **Finish with signature on bottom of the page**

Family members: Relatives in direct ascending or descending lineage and brothers and sisters of holder and spouse/cohabitant.

Regular help: Persons who are not family members and have worked on the holding every week for all or part of the year. Include relief milker.

Occasional help: Persons who are not family members and have performed short-term work, e.g. rock-picking, harvesting. Include holder's substitute.

Self-employed: Other farmer, crafts-man or firm not employed directly by the holding.

16. List family members, regular help and occasional help who have worked on the holding during the last 12 months: Every individual family member and regular help are to be listed. Are there more than 6 people of these categories, merge those with least work together with the occasional help. The number of persons worked as occasional help and the related man-hours are aggregated by sex.

	Family member	Regular help	Man	Woman	<u>Man-hours on the holding</u>		
					Animal husbandry, agriculture and horticulture	Forestry	Supplementary industries
1							
2							
3							
4							
5							
6							

		Number			
Occasional help:	Men				
	Women				

17. How many man-hours were carried out by hired self-employed persons/firms during the last 12 months? Work in forestry and supplementary industries are not included. Give the answer according to best judgement.

	Man-hours
Ongoing operation/production, e.g. machinery with operator	
Maintenance of farm buildings (excluded farmhouse)	
Construction of new farm buildings	
Ditching and land reclamation	

Date:	Signature:
-------	------------

Annex 3. Information to the respondents

To the respondent

Kongsvinger, May 2007

Executive officer: Reidar Steffenstorpet

Division for Primary Industry Statistics

Survey of Agriculture 2007

Most years Statistics Norway collects information from a sample of agricultural holdings. This year, your holding is being one of the holdings in the sample. The main subject of the Survey of Agriculture 2007 is labour input, and several holdings being in the sample of the Survey of Agriculture 2001, 2003 and 2005 are also in the sample this year.

This data collection is a basis for preparing official statistics used by public administration, in public planning and in research together with extension services. The farmer's unions are also users of the statistics, inter alia in negotiations with the government. Results from previous surveys of agriculture are available at Internet: www.ssb.no/lu

Deadline for returning the questionnaire

Completed questionnaire must be returned to Statistics Norway

by 11 June 2007

Please return the questionnaire in the enclosed pre-paid envelope showing the Statistics Norway address.

Electronic questionnaire

You may respond via Internet. Log on via <https://idun.ssb.no/>. Take note that www is not included in the Internet address. You will find your user name and password at the top of the enclosed questionnaire. When you have transmitted the questionnaire, you will get a message on the screen that can be printed out as a receipt. We encourage all with Internet access to respond via Internet.

Obligation to provide information

Complete and accurate information from the individual respondent is a precondition for statistics of good quality. It is important that all respondents participate in the survey and answer all relevant questions. The data are collected by Statistics Norway pursuant to the Statistics Act, § 2-2 (law of 16 June 1989 No. 54). If you assume you are not obliged or not have legal authority to provide information, you can appeal the order within 3 weeks. The right of appeal does not apply to the issue of whether the obligation to provide information is reasonable or necessary. The information collected is subjected to the duty of confidentiality according to the Statistics Act, § 2-4.

Everyone in the survey who meets one or more of the following conditions are obliged to provide information: Operate at least 5 decares of agricultural area, 300 m² of greenhouse area, 2.0 decares of field-grown vegetables, 1.0 decare of fruit trees, 1.0 decare of berries, 1.0 decare of nurseries or keep at least 10 bovine animals included calves, 25 sheep over 1 year, 10 goats over 1 year, 5 pigs for breeding, 200 other pigs, 1 000 laying hens and/or pullets or 5 000 broilers.

Questions about filling in the questionnaire

If you need assistance in completing the questionnaire, you are welcome to contact Statistics Norway.

Persons to contact at Statistics Norway:

Reidar Steffenstorpet	tel. 62 88 54 73	e-post: landbruk@ssb.no
Irene Bagaas	tel. 62 88 52 28	e-post: landbruk@ssb.no
Marit Rismoen	tel. 62 88 51 64	e-post: landbruk@ssb.no
Mona Paulsrud	tel. 62 88 52 73	e-post: landbruk@ssb.no

Our fax number is 62 88 50 61

Thank you in advance!

Yours sincerely,

Ole O Moss
Head of Division

Reidar Steffenstorpet
Adviser

Annexes:

- Questionnaire
- Pre-paid return envelope

Annex 4. Application form for government production subsidies

Only the parts relevant as data source for FSS 2007 are included:

Number of livestock species

List all animals kept by the holder (included those in organic production)

Horses per 31 July 2007

Code	Description	No of animals	Code	For the municipality
115	Horses under 3 years old		115	
116	Horses 3 years old and over		116	

Cattle per 31 July 2007

Code	Description	No of animals	Code	For the municipality
120	Dairy cows: Cows producing milk within the existing schemes for regulation of the milk production		120	
121	Beef cows: Cows that are not dairy cows		121	
119	Other cattle		119	

Sheep

Per 1 June 2007 or at start of the grazing season. Ewes are either entered into code 134, code 133 or code 139.

Code	Description	No of animals	Code	For the municipality
134	Ewes, 1 year old and over		134	
135	Rams, 1 year old and over		135	
136	Lambs, under 1 year old		136	
133	Sheep grazing the whole year, without being boarded		133	
139	Ewes, 1 year old and over, producing milk for local processing		139	

Goats per 31 July 2007

Code	Description	No of animals	Code	For the municipality
140	Dairy goats: Goats producing milk within the existing schemes for regulation of the milk production		140	
142	Other goats that have kidded		142	
144	Male goats and young goats, include kids		144	

Pigs per 31 July 2007

Code	Description	No of animals	Code	For the municipality
155	Breeding sows having farrowed		155	
156	Breeding boars		156	
158	Female pigs intended for breeding, live weight at least 50 kg/older than 15 weeks		158	
159	Male pigs intended for breeding, live weight at least 50 kg/older than 15 weeks		159	
154	Piglets, live weight under 20 kg/under 9 weeks old		154	
157	Fattening pigs, live weight at least 20 kg, breeding pigs, live weight 20 - 50 kg		157	

Poultry per 31 July 2007

Code	Description	No of animals	Code	For the municipality
160	Laying hens, 20 weeks and older		160	
168	Ducks, turkeys and geese, breeding animals		168	
175	Pullets intended for laying hens		175	
176	Broilers		176	
174	Fattening ducks, turkeys and geese		174	

Other livestock per 31 July 2007

Code	Description	No of animals	Code	For the municipality
180	Rabbits, females having littered		180	
181	Deer		181	
183	Ostriches		183	
182	Llamas, alpacas and donkeys. Horses being boarded in the grazing season		182	

Organic farming**Areas 2007**

Code	Description	Area, decares	Code	For the municipality
850	Area under conversion to organic farming, 1st year, excluded infield pastureland		850	
851	Area under conversion to organic farming, 2nd and 3rd year, excluded infield pastureland		851	
855	Organic farming; cereals for the production of grain		855	
860	Organic farming; potatoes, vegetables, fruit and berry plantations		860	
870	Organic farming; other area		870	
871	Organic farming; infield pastureland		871	
875	Organic farming; green manure		875	

Attachment to the application: Map showing the area under conversion to organic farming. Distribution of plots must be the same as reported to Debio.

Cattle per 31 July 2007

Code	Description	No of animals	Code	For the municipality
801	Dairy cows		801	
802	Beef cows		802	
803	Other cattle		803	

Pigs per 31 July 2007

Code	Description	No of animals	Code	For the municipality
830	Pigs for breeding		830	

Goats per 31 July 2007

Code	Description	No of animals	Code	For the municipality
810	Dairy goats		810	

Agricultural area by crop

All agricultural area being at disposal for the enterprise must be reported, included area under conversion to organic farming and area on which organic farming methods are used.

Areas of the various crops are to be distributed by zone. Areas in two different zones are entered into columns one and two respectively. Enter zone number in the box above the column.

Fill in zone number in the boxes below. See list of municipalities by zone in the instruction.

Code	Description	Decares	Decares	Code	For the municipality	For the municipality
------	-------------	---------	---------	------	----------------------	----------------------

Coarse fodder

210	Fully cultivated grassland for mowing or pasture			210		
211	Surface-cultivated grassland for mowing or pasture			211		
212	Infield pastureland			212		
213	Other green fodder crops			213		

Cereals for the production of grain and other production of seeds

240	Spring wheat			240		
247	Winter wheat			247		
238	Rye and triticale			238		
242	Barley			242		
243	Oats			243		
237	Oil-seeds			237		
245	Green peas and beans for vegetables			245		
246	Ley seed and other seeds, dried peas and dried field beans			246		
239	Grain for silage			239		

Fruit and berry plantations, nurseries and flowers - outdoor

272	Apples			272		
273	Pears			273		
274	Plums			274		
271	Cherries			271		
280	Strawberries			280		
281	Other berries			281		
285	Nurseries and field grown flowers			285		

Field-grown vegetables and potatoes

264	Field-grown vegetables, included swedes for food and herbs			264		
230	Potatoes			230		

Other utilised agricultural area

223	Green manure			223		
290	Fallow land			290		
294	Other area, not elsewhere specified			294		

Unutilised agricultural land

Code	Description	Decares	Code	For the municipality
292	Fully cultivated land, surface-cultivated grassland and permanent crops		292	
293	Infield pastureland		293	

Greenhouses and hotbeds Give the area in m²

Code	Description	m ²	Code	For the municipality
251	Greenhouses and hotbeds, heated per 1 March 2007		251	
250	Other greenhouses and hotbeds per 31 July 2007		250	

Grazing**Domestic animals grazing at least 12 or 16 weeks during 2007**

List the number of various animals grazing at least 12 weeks (zone 5-7) or 16 weeks (zone 1-4). Comprise grazing on outlying fields and grazing on agricultural areas (fully cultivated grassland, surface-cultivated grassland and infield pastureland).

Code	Description	Number of animals	Code	For the municipality
411	Dairy cows and beef cows		411	
422	Other cattle		422	
487	Sheep, 1 year old and over		487	
488	Sheep, under 1 year old (lambs)		488	
445	Goats, adults and kids		445	
455	Horses		455	
486	Deer		486	

Domestic animals grazing at least 8 weeks on outlying fields during 2007

List the number of various animals grazing at least 8 weeks

Code	Description	Number of animals on outlying fields	Code	For the municipality
410	Dairy cows and beef cows		410	
420	Other cattle		420	
431	Sheep, 1 year old and over		431	
432	Sheep, under 1 year old (lambs)		432	
440	Goats, adults and kids		440	
450	Horses		450	