Official Statistics of Norway D 441

**Agriculture Statistics 2008** 

Official Statistics of Norway

This series consists mainly of primary statistics, statistics from statistical accounting systems and results of special censuses and surveys, for reference and documentation purposes. Presentation is basically in the form of tables, figures and necessary information about data, collection and processing methods, and concepts and definitions. In addition, a short overview of the main results is given. The series also includes Statistical Yearbook of Norway

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#### **Preface**

NOS Agricultural Statistics is issued annually and contains statistics on agricultural properties, agricultural area, livestock, yields, farmer's income and property and local administration of agricultural areas.

As from 2006, NOS Agricultural Statistics only contains statistics compiled by Statistics Norway. The purpose of the publication is twofold:

- to present some reference tables for each subject
- to provide information about data sources, concepts and processing methods

All the statistics are previously published in "Today's statistics" and are available on the Internet: <a href="http://www.ssb.no/english/subjects/10/04/">http://www.ssb.no/english/subjects/10/04/</a>.

In 2008, Statistics Norway published a new publication with the title "Landbruket i Norge 2007" in the series Statistical Analysis. This publication contains a survey on official agricultural statistics, collected by Statistics Norway as well as other institutions. The publication is published in Norwegian and is available on the Internet: http://www.ssb.no/emner/10/04/sa\_landbruk/.

Anne Ingun Løvberget has prepared this publication. Ole Osvald Moss, Head of Division for Primary Industry Statistics, is responsible for the publication.

Statistisk sentralbyrå Oslo/Kongsvinger, 18 December 2009

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#### 1. Introduction

This publication is intended to serve reference and documentation purposes for agricultural statistics compiled by Statistics Norway, comprising the following main subjects:

- Agricultural properties
- Structure of agriculture
- Agricultural area and livestock, as of 31 July
- Livestock husbandry, as of 1 January
- Farmers' income and property
- Grain and oil seeds, area and yields
- Production of potatoes and forage plants
- Horticultural production
- Approved carcasses
- Local administration of agricultural areas

The statistics for Farmer's income and property refer to the year 2007, all the other statistics refer to the year 2008.

# 2. Agricultural properties

#### 2.1. Main results, 2008

34 000 farms depopulated

In 2008, 22 per cent of the agricultural and forestry properties with dwelling were uninhabited. One in four of the uninhabited properties were situated in a municipality with less than 2 500 inhabitants.

A total of nearly 188 000 agricultural and forestry properties are now registered. Seventeen per cent of these properties are situated in a municipality with less than 2 500 inhabitants. Slightly more than 4 per cent of the Norwegian population lives in one of these municipalities, while the corresponding figure for those living on agricultural or forestry properties is 13 per cent. Most of the small municipalities are not centrally situated and therefore more vulnerable to depopulation. Nearly 23 per cent of the depopulated farms are situated in a municipality with less than 2 500 inhabitants.

More than half of the Norwegian population live in a municipality with more than 25 000 inhabitants. These municipalities comprise only 7 per cent of the uninhabited agricultural and forestry properties with dwelling.

On in four properties with agricultural holding

The number of properties and the total agricultural area have not changed very much over time. On the other hand, the number of agricultural properties with an agricultural holding has decreased considerably in recent decades. In 2008, one in four agricultural properties had an agricultural holding.

One in ten lived on an agricultural and forestry property

In 2008, 9 per cent of the inhabitants lived on an agricultural and forestry property. In municipalities with less than 2 500 inhabitants, more than 30 per cent of the inhabitants lived on an agricultural or forestry property. In municipalities with more than 25 000 inhabitants, only 2.4 per cent lived on an agricultural and forestry property.

In the county of Sogn og Fjordane in the western part of Norway, one in four lived on an agricultural and forestry property, while the corresponding figure for the more central counties of Oslo and Akershus was 2.3 per cent.

One in four agricultural and forestry properties with buildings has had building construction activity in the last ten years.

Number of municipalities, by number of inhabitants. 2008							
Number of inhabitants Number of municipalities							
Fewer than 2 500	129						
2 500 - 4 999	106						
5 000 - 9 999	91						
10 000 - 24 999	69						
25 000 and more	35						

#### 2.2. Background and purpose

Purpose and history

The statistics describe buildings, habitation and areas on agricultural properties. The statistics also give information about the owners of the properties and theirs business.

Users and applications

Users include the Norwegian Agricultural Economic Research Institute (NILF), Norwegian Institute for Land Inventory (NIJOS), public enterprises at the municipal and county level, the Ministry of Food and Agriculture, the Ministry of Environment, in research and by agricultural organizations.

#### 2.3. Statistics production

Population

The statistics comprise all properties in the Farm Register of the Norwegian Agricultural Authority with at least 5 decares owned agricultural area and/or at least 25 decares productive forest area.

Data sources

The Farm Register of the Norwegian Agricultural Authority serves as the backbone of the statistics. The information from the Farm Register is combined with information at property level from different other data sources:

- The Official Ground Property, Address and Building register (GAB)
- The Central Population register
- The Cultural Heritage Register (SEFRAK)
- SSB's population of agricultural holdings
- The Register on Personal Tax Returns
- The Register on Tax Assessment for Personal Taxpayers.

Collection of data

All data are collected from administrative registers.

Control and revision

Data are checked by various machine controls. Even though the registers have good quality, some errors could occur due to late or missing updating and classification errors. For instance, an agricultural property may contain a cadastral unit recently transferred to non-agricultural use. For instance, nursing homes and rental housing may be counted together with an agricultural property. In that cases the number of inhabited will be corrected on cadstral level.

Confidentiality

Figures are not presented if there is a risk of identifying any unit.

# 2.4. Concepts, variables and classifications

Definition of the main concepts and variables

Agricultural and forestry property:

Property used for or could be used for agriculture and/or forestry and with at least 5 decares owned agricultural area and/or at least 25 decares productive forest area. All agricultural/forestry area belonging to the same owner within a municipality is considered as one property, irrespective of the number of cadastral units.

*Type of building:* 

The standard classifies buildings according to the function of the building. Combined buildings, for instance combined dwelling and business buildings and storage and production buildings, are grouped by the function that occupies the main part of the utility floor space. In this statistics dwelling houses include

8

buildings with the following codes in GAB; 111 – 199, excluding code 161, 171, 172, 181, 182 and 183. Agricultural buildings include buildings with the following codes in GAB; 231 – 290 and mountain farm huts, cabins for forest workers, boathouses etc. with codes 171, 172 and 183. Other buildings include the remaining codes and buildings missing code.

Building activity last 10 years:

Information is collected from the GAB register. Building activity last 10 years refers to construction of new buildings or extension of existing buildings in the last ten period.

Inhabitation:

An agricultural property is inhabited when at least one person has the property as place of residence registered in the Central Population register.

## 2.5. Sources of error and uncertainty

Measurement and processing errors Non-response errors Errors may arise when data are entered into the various administrative registers.

A concern is the quality of the Farm Register. The productive forest area of the properties is sometimes missing or erroneous. We also believe that some small properties may lack in the register.

#### 2.6. Comparability and coherence

Corresponding statistic are worked out for 2000, 2006 and 2007, see: <a href="http://www.ssb.no/english/subjects/10/04/laeiby\_en/">http://www.ssb.no/english/subjects/10/04/laeiby\_en/</a>. When comparing data from 2000 with data from 2006 and later, improved quality of the registers and different demarcation of the population may influence the statistics at municipality level.

Introduction of property tax in some municipalities may cause changes in the classification of buildings by type of building. In special, holiday homes encoded as farmhose or detached house will influence on the share of properties with dwelling house.

At the moment a quality improvement of areas and units in the Farm Register is carried out at municipality level. This quality improvement will be finnished in 2010. For some municipalities this will result in considerable changes from one year to another.

As from 2007 information about registered owner of agricultural properties comes from Statistic Norways statistical copy of the Official Ground Property, Address and Building register (SSB-GAB). More than 30 000 agricultural properties have more than one owner. In those cases, the owner with the largest share is chosen. If the share is equal, the oldest owner is chosen.

Before 2007, information of owners comes from the Farm Register. In some cases a contact person or a management company are registered as the property owner in that register. It is not clear in what way the information about the owner are treated when only a part of the property is sold.

## 2.7. Availability

Publications and Internet address The statistics is published on the internet-site of Statistics Norway: Agricultural properties and buildings

Micro data Primary data is stored at Statistics Norway.

#### 2.1. Buildings on agricultural and forestry properties<sup>1</sup>. 2008

	and forestry properties	Percentage of agricultural and forestry properties with building construction activity last ten years	Buildings, total	Percentage of buildings I with protection status	Dwelling houses, total	Agricultural and forestry buildings	Mountain farm huts, cabins for forest workers, boat-houses etc.	Other buildings
		Per cent		Per cent				
The whole country	175 065	22.3	1 021 767	22.3	231 142	464 500	86 092	240 033
County								
Østfold	6 403	22.4	35 578	19.8	8 963	19 227	495	6 893
Akershus/Oslo	7 239	23.5	44 778	24.6	11 632	19 408	542	13 196
Hedmark	15 595	24.7	99 687	27.0	21 355	48 554	7 819	21 959
Oppland	14 365	23.8	100 765	24.1	20 456	53 979	8 456	17 874
Buskerud	9 261	25.7	73 096	28.8	13 155	36 649	4 686	18 606
Vestfold	4 466	25.2	24 277	23.5	5 865	11 251	428	6 733
Telemark	7 773	21.0	50 133	25.4	10 812	22 613	2 869	13 839
Aust-Agder	5 220 6 980	23.1	25 741 30 062	31.6 27.4	6 120 8 164	10 662 12 435	1 350 1 609	7 609 7 854
Vest-Agder	10 187	22.9 32.9	59 864	12.3	15 061	28 451	3 228	13 124
Rogaland Hordaland	13 010	23.3	79 307	24.7	16 506	34 573	11 618	16 610
Sogn og Fjordane	10 279	21.1	68 067	27.0	14 796	33 916	9 073	10 282
Møre og Romsdal	13 862	19.3	76 927	27.9	17 780	31 231	10 064	17 852
Sør-Trøndelag	10 763	25.3	67 336	18.8	14 517	32 698	5 611	14 510
Nord-Trøndelag	9 218	26.6	51 921	12.7	12 432	25 033	3 953	10 503
Nordland	16 634	14.2	74 761	11.8	18 740	23 456	7 944	24 621
Troms Romsa	10 422	14.5	45 329	15.8	11 073	15 949	5 646	12 661
Finnmark Finnmárku	3 388	13.9	14 138	8.6	3 715	4 415	701	5 307
Inhabitation Agricultural and forestry properties with dwelling house and inhabitation	123 613	26.4	803 948	21.8	191 682	379 674	60 458	172 134
Other properties	51 452	12.5	217 819	24.2	39 460	84 826	25 634	67 899

<sup>&</sup>lt;sup>1</sup> Including properties with at least 5 decares owned agricultural area and/or at least 25 decares productive forest area.

#### 2.2. Agricultural and forestry properties, buildings and inhabitation<sup>1</sup>. 2008

	•	Agricultural and forestry properties with buildings	of agricultural	with dwelling house	and forestry properties with dwelling house and	of agricultural and forestry properties with dwelling		Percentage of all recidents in the county inhabiting agricultural and forestry property
			Per cent			Per cent		Per cent
The whole country	187 768	175 065	93.2	158 003	123 613	21.8	435 988	9.2
County								
Østfold	7 026	6 403	91.1	5 959	5 153	13.5	18 853	7.1
Akershus and Oslo		7 239	89.5	6 692 14 151	5 971	10.8 19.7	24 413	2.3
Hedmark Oppland		15 595 14 365	92.5 94.1	13 078	11 360 10 974	19.7	37 334 39 008	19.7 21.2
Buskerud		9 261	92.6	8 272	7 007	15.3	25 598	10.2
Vestfold		4 466	92.4		3 809	8.5	14 146	6.2
Telemark		7 773	93.4	6 921	5 430	21.5	18 138	10.9
Aust-Agder	5 621	5 220	92.9	4 777	3 650	23.6	11 919	11.2
Vest-Agder		6 980	93.2		4 529	28.0	14 338	8.6
Rogaland		10 187	93.5		7 819	15.9	32 845	8.0
Hordaland		13 010 10 279	95.9 97.2	11 692 9 695	9 026 7 362	22.8 24.1	31 620 27 103	6.8 25.5
Sogn og Fjordane  Møre og Romsdal		13 862	97.2	12 628	10 000	24.1	35 115	14.2
Sør-Trøndelag		10 763	93.8	9 654	7 731	19.9	29 038	10.3
Nord-Trøndelag		9 218	92.1	8 457	7 106	16.0	27 843	21.4
Nordland		16 634	92.1	14 338	8 740	39.0	25 859	11.0
Troms Romsa		10 422	92.2	8 978	5 873	34.6	16 599	10.7
Finnmark Finnmárku	3 884	3 388	87.2	2 957	2 073	29.9	6 219	8.6
Owner								
Male	129 685	123 202	95.0		93 001	18.0	337 630	
Female  Properties of persons deceased/ legal	45 901	42 709	93.0	38 136	27 328	28.3	86 385	-
person/unknown	12 182	9 154	75.1	6 390	3 284	48.6	11 973	
Agricultural activity Property without agricultural								
area	13 313	8 723	65.5	4 411	2 635	40.3	7 711	ē
Property with own agricultural activity	46 887	46 689	99.6	45 968	43 794	4.7	194 084	
Property with agricultural area rented out or out of use	127 568	119 653	93.8	107 624	77 184	28.3	234 193	
rented out of out of use	127 500	110 000	30.0	107 024	77 104	20.0	204 100	•
Owned agricultural area								
0- 4 decares	13 328	8 738	65.6	4 419		40.2	7 737	-
5- 49 "	101 557	94 950	93.5	84 544	58 949	30.3	173 939	-
50- 99 "	35 176	34 210	97.3	32 751	27 886	14.9	100 547	-
100-199 "	25 280	24 878	98.4	24 271	22 590	6.9	95 763	
200-299 "	7 705	7 632	99.1	7 482	7 170	4.2	33 860	
300-499 "	3 740	3 688	98.6	3 606	3 485	3.4	18 542	-
500- "	982	969	98.7		892	4.1	5 600	
Due desettive femant anno								
Productive forest area  0- 24 decares	65 928	60 513	91.8	54 054	40 187	25.7	129 237	
								•
25- 99 "	38 552	35 445	91.9	31 776	24 434	23.1	81 512	•
100- 249 "	33 851	31 853	94.1	29 075	22 970	21.0	82 331	
250- 499 "	21 996	20 899	95.0	19 290	15 750	18.4	59 715	
500- 999 "	15 174	14 566	96.0	13 398	11 304	15.6	44 885	-
1 000- 1 999 "	7 669	7 369	96.1	6 715	5 775	14.0	23 580	-
2 000- 4 999 "	3 392	3 268	96.3	2 856	2 497	12.6	11 087	
5 000-19 999 "	971	926	95.4	695	597	14.1	2 928	-
20 000-	235	226	96.2	144	99	31.3	713	

<sup>&</sup>lt;sup>1</sup> Including properties with at least 5 decares owned agricultural area and/or at least 25 decares productive forest area.

# 2.3. Agricultural and forestry properties, by number of inhabitants in the municipalities and type of agricultural and forestry property. 2008

	Number of <sup>0</sup>	Of these living on		Agricultural and	forestry properties	
	inhabitants in Norway	agricultural and forestry properties <sup>1</sup>	Total	Inhabited with dwelling	Uninhabited with dwelling	Other properties
The whole country	4 737 171	435 988	187 768	123 613	34 390	29 765
The number of inhabitants in the municipalities <sup>1</sup>						
Fewer than 2 500	191 909	58 455	31 190	17 883	7 804	5 503
2 500 - 4 999	377 559	96 176	44 692	28 307	9 482	6 903
5 000 - 9 999	639 002	112 624	49 085	32 568	9 174	7 343
10 000 - 24 999	1 094 761	111 479	42 136	30 266	5 504	6 366
25 000 and more	2 433 940	57 254	20 665	14 589	2 426	3 650

<sup>&</sup>lt;sup>1</sup> Based on the number of inhabitants per 01.01.2008.

# 3. Structure of agriculture

Separate, complete agricultural censuses were held in 1907, 1918, 1929, 1939, 1949, 1959, 1969 and 1999. In 1979 and 1989 full censuses of agriculture and forestry were held. The results from the full censuses have been important because they provide important input to planning, clarification and decision-making by public authorities and agricultural administration at central and local level. As from 1999, Statistics Norway has established an integrated system for yearly updating the agricultural population of holdings and holders by matching several administrative and statistical registers.

## 3.1. Main results, 2008

Fewer farms

The number of holdings with agricultural activity fell by 1 100 from 2007 to 48 800 in 2008.

The total agricultural area in use was 10.24 million decares in 2008. The area of meadows for mowing and pastureland covered 6.6 million decares in 2008, and the total grain area amounted to 3.1 million decares. Barley comprised 41 per cent of the total grain area, while wheat and oats covered 30 and 25 per cent respectively.

In 2008, 45 700 holdings were operated by natural persons, while 3 100 were operated by various legal persons, e.g. joint operations, limited companies and institutions. Since 1999 the number of holdings being operated by a legal person raised from 1.1 per cent to 6.5 per cent of all holdings.

Fewer holdings with dairy cow

From 2007 to 2008, the number of holdings with dairy cow dropped by 8 per cent to 12 600. The number of dairy cows fell by 2 per cent to a total of 248 300. Since 1999, the number of dairy cows has been reduced by 20 per cent. In the same period, the number of beef cows has increased by 26 400 to 63 200, an increase of 72 per cent. The average herd has increased from 13.8 dairy cows and 6.7 beef cows in 1999 to 19.8 dairy cows and 12.0 beef cows in 2008.

The number of breeding pigs increased by 400 to 99 600 from 2007 to 2008. In the period 1999-2008, the number of breeding pigs has been about 100 000 each year, while the number of holdings with breeding pigs has dropped from 3 700 in 1999 to 1 600 in 2008. Average size of herds with pigs for breeding has increased from 27.2 to 60.6 in the same period.

## 3.2. Background and purpose

Purpose and history

The purpose is to obtain information about the resources and production, and provide data on operational and economical conditions within the agricultural industry.

Users and applications

The main users of the statistics are the Ministry of Agriculture and Food, the Norwegian Agricultural Economics Research Institute, the Agricultural Budget Commission, the Norwegian Farmers Union, the Norwegian Smallholders Union etc.

#### 3.3. Statistics production

Population

The statistics comprise all active farms with production for sale.

Data sources

As from 2000, the total population of holdings is established by use of the administrative Farm Register combined with various other administrative data sources and statistical registers:

- Applications for governmental grants
- Approved carcasses

- Deliveries of cereals
- Complete agricultural censuses
- Sample surveys of agriculture
- Business registers

Control and revision

The statistics are based on collocation of data files that have been separately edited when established

Confidentiality

Figures are not presented if there is a risk of identifying any unit.

## 3.4. Concepts, variables and classifications

Definitions of the main concepts and variables

Agricultural holding:

A single unit both technically and economically, which has single management and which produces agricultural products. The holding is independent of municipality boundaries. The agricultural holdings headquarter must be located on an agricultural property.

Agricultural area in use:

Agricultural land that is harvested at least once during a year, including planted areas of permanent crops, where no harvest has been produced so far. Includes also arable land included in the crop rotation system with no intention to produce a harvest during the year, but which will be harvested the next year.

Type of farming of an agricultural holding:

The type of farming of a holding is determined by the contribution ratio of the different crop and livestock enterprises to its total agricultural production. The standard gross margin is applied as the common measurement of the various enterprises (crop and livestock).

Standard gross margin of an agricultural holding:

The standard gross margin (SGM) is the balance between the standard value of output and the standard value of certain direct costs. SGMs are calculated at regional level per area unit (decare, square metre) and head of livestock for related crops and livestock categories. The SGM for an enterprise within the holding is the SGM per area unit/head of livestock multiplied by the total of the relevant crop/livestock category. The total SGM of the holding is the sum of all enterprises run by the holding.

Standard classifications

County where the holding is located, size of holding expressed in decares of utilized agricultural area and type of farming of the holding.

#### 3.5. Sources of error and uncertainty

Measurement and processing errors

The most important source of error is that the holders may fill in incorrect information when they apply for governmental grants. In most cases this will be discovered and corrected by the local agricultural authority. Nevertheless, occasional errors that do not influence on the holders grants can be ignored. Furthermore, errors may also originate during the scanning of the forms despite of the fact that controls are executed.

Non-response errors

About 4 per cent of the holders do not apply for governmental grants. Agricultural area in use and livestock of the corresponding holdings are derived from data on deliveries of cereals and oil seed and delivered animals to the slaughterhouses etc.

#### 3.6. Comparability and coherence

The statistics are essentially comparable with information from the previous complete censuses. Censuses up to 1979 included all cultivation of crops and all livestock, irrespective of holding size nonetheless. In previous census publications,

many tables were limited to comprise holdings operating at least 5 decares of agricultural land. Almost all the agricultural business took place at these holdings, whereas holdings operating less than 5 decares generally represented hobby-type production for own household consumption.

From 1989 to 1999 the number of joint operations with cow/goat milk production increased greatly. These holdings were registered without agricultural area in use. Instead, area used for the production of feed and pasturing was allocated to holdings of those involved in joint operations. If the 1999 Census had included only holdings operating at least 5 decares of agricultural area, a substantial part of cattle rearing would have been excluded as well as some quite substantial horticulture holdings. Most of the tables from the 1999 and later therefore include some holdings operating less than 5 decares of agricultural area. In censuses before 1999 the holdings were limited by municipal boundaries.

Agricultural area and crops

Two conditions refer to the definition of agricultural area:

As from the 1990's it was possible to receive subsidies for unfertilized fenced-in pasture, so-called infield pasturelands. Previously such areas had to be fertilized and were thus referred to as fertilized pasture. In previous censuses (primarily the 1989 Census), fertilized pasture was lumped together with natural meadows and surface-cultivated meadows. The introduction of infield pasturelands has led to the inclusion of some new areas as agricultural area. From 1989 to 1999 the area of surface-cultivated meadows and infield pasturelands increased with a total of 418 000 decares. One important reason for this relatively great increase is the fact that introduction of area-based subsidies made it more profitable for the farmers to include also marginal agricultural land in their applications.

In previous censuses, lawns and ornamental gardens were included in agricultural area. In the 1989 Agricultural Census, lawns and ornamental gardens constituted 46 000 decares. In the 1999 Agricultural Census and later, agricultural area does not include lawns and ornamental gardens at the holdings.

Furthermore, it should be noted that in 1999 and later, crop areas are given in decares without decimals. In previous censuses, all crop areas were given in decares with one decimal. Thus areas less than 1 decare is scarcely included in 1999. This is largely reflected in the figures for potatoes, field-grown vegetables, fruit and berries, and particularly for the number of holdings growing these crops.

Livestock

The livestock figures are as per 31 July, with the exception of sheep for which the census date was 1 June, or the day they were released for grazing. In previous censuses, the census day has been 20 June or 1 June. Postponing the date by 1-2 months hardly affects livestock figures. Adjusting the number of animals in relation to the registration date of application for subsidy is probably of more significance.

#### 3.7. Availability

Publications and Internet address

The statistics are released electronically via Today's Statistics on Statistics Norway's web site: <u>Structure of Agriculture</u>

Micro data

A data file with anonymous individual data is stored at Statistics Norway.

#### 3.1. Total number of holdings and holdings by type of holder

		By type of holder					
	_		Natural person			Legal person	
	Number of — holdings, total	Total	Male holders	Female holders	Total	General partnerships (joint operations)	Joint-stock company, institution etc.
1979	125 302	124 408	115 375	9 033	894		
1989	99 382	98 610	89 267	9 343	772		
1999	70 740	69 959	60 914	9 045	781	462	319
2000	68 539	67 645	58 439	9 205	894	578	316
2001	65 607	64 485	55 503	8 982	1 122	749	373
2002	61 890	60 044	52 182	7 862	1 846	1 398	448
2003	58 231	56 308	48 980	7 328	1 923	1 565	358
2004	55 507	53 376	46 337	7 039	2 131	1 813	318
2005	53 003	50 476	43 751	6 725	2 527	2 184	343
2006	51 218	48 417	41 857	6 560	2 801	2 429	372
2007		46 939	40 389	6 550	2 996	2 582	414
2008	48 825	45 679	39 204	6 475	3 146	2 689	457
2008							
County							
Østfold	2 602	2 503	2 179	324	99	77	22
Akershus og Oslo	2 523	2 429	2 108	321	94	52	42
Hedmark	3 973	3 792	3 274	518	181	148	33
Oppland	5 416	4 907	4 264	643	509	480	29
Buskerud	2 514	2 384	2 029	355	130	89	41
Vestfold	1 696	1 622	1 450	172	74	33	41
Telemark	1 635	1 577	1 338	239	58	37	21
Aust-Agder	716	678	582	96	38	23	15
Vest-Agder	1 203	1 130	961	169	73	60	13
Rogaland	4 950	4 526	3 882	644	424	374	50
Hordaland	3 489	3 293	2 794	499	196	162	34
Sogn og Fjordane	3 483	3 271	2 773	498	212	199	13
Møre og Romsdal	3 239	2 980	2 517	463	259	239	20
Sør-Trøndelag	3 374	3 145	2 764	381	229	204	25
Nord-Trøndelag	3 729	3 420	2 978	442	309	287	22
Nordland	2 670	2 484	2 081	403	186	164	22
Troms Romsa	1 224	1 178	950	228	46	37	9
Finnmark Finnmárku	389	360	280	80	29	24	5
Agricultural area in use							
0 decares	1 691	621	484	137	1 070	1 034	36
1- 4 " <sup>2</sup>	277	182	139	43	95	18	77
5- 49 "	4 245	4 083	3 314	769	162	53	109
50- 99 "	8 660	8 485	7 064	1 421	175	114	61
100-199 "	14 481	14 185	12 090	2 095	296	240	56
200-299 "	9 198	8 853	7 734	1 119	345	314	31
300-499 "	7 031	6 543	5 866	677	488	455	33
500- "	3 242	2 727	2 513	214	515	461	54

<sup>&</sup>lt;sup>1</sup>Comprise mainly joint operations with milk production. <sup>2</sup>Comprise mainly holdings in horticulture.

#### 3.2. Agricultural area, by use. 1959, 1969, 1979, 1989, 1999, 2006-2008. Decares

Crop	1959 <sup>1</sup>	1969 <sup>1</sup>	1979 <sup>1</sup>	1989 <sup>1</sup>	1999 <sup>2</sup>	2006 <sup>2</sup>	2007 <sup>2</sup>	2008 <sup>2</sup>
Agricultural area in use, total Of which	9 844 796	9 553 335	9 535 278	9 910 773	10 382 466	10 344 607	10 320 198	10 244 883
Fully cultivated land	8 095 171	7 967 909	8 303 575	8 817 538	8 871 235	8 627 623	8 574 377	8 493 506
Open fields and gardens	3 266 671	3 383 931	4 146 786	4 432 425	3 994 611	3 731 323	3 668 837	3 609 241
Grain and oil seeds	2 177 872	2 522 396	3 252 271	3 529 803	3 345 392	3 246 945	3 181 056	3 138 319
Wheat	92 435	38 274	170 021	382 484	515 798	857 477	912 150	931 697
Rye Triticale	10 825 -	13 385 -	16 855 -	4 245	14 557 <b>•</b> 12 334 ]		76 302	81 694
Barley	1 407 006	1 847 131	2 000 838	1 759 910	1 825 917	1 524 260	1 406 749	1 299 067
Oats	645 744	541 199	1 006 720	1 321 950	913 130	739 486	723 853	777 747
Mixed grain and dry peas	21 862	4 763	4 526	-	-	-	-	-
Oil seeds		77 645	53 311	61 215	63 656	65 139	62 002	48 114
Potato	525 595	326 437	214 013	188 910	148 522	140 460	144 658	143 212
Roots for feed	130 370	69 960	29 499	25 726	3 913	_		
Crops for green fodder and						<b>}</b> 149 117	137 325	130 566
silage	134 490	208 307	290 637	371 611	307 515 '	,		
Vegetables, field grown	49 229	51 924	55 218	57 030	60 187	69 774	76 839	76 288
Strawberries	6 926	12 440	16 439	14 241	16 787	17 894	16 904	15 233
Other crops <sup>3</sup>	152 636	115 879	182 262	156 089	91 891	97 343	103 470	96 243
Fallow land	89 553	76 587	106 447	89 015	20 400	9 790	8 585	9 380
Meadows for mowing and								
pastures <sup>4</sup>	6 578 125	6 169 405	5 388 492	5 478 349	6 387 855	6 613 284	6 651 361	6 635 638
Fully cultivated meadows <sup>4</sup>	4 828 500	4 583 978	4 156 789	4 385 114	4 876 624	4 896 300	4 905 540	4 884 265
Not fully cultivated meadows	1 749 625	1 585 427	1 231 703	1 093 235	1 511 231	1 716 984	1 745 821	1 751 373
Surface-cultivated meadows .					295 165	261 102	253 754	243 272
Infield pastures					1 216 066	1 455 882	1 492 067	1 508 101

<sup>&</sup>lt;sup>1</sup>Refers to holdings with at least 5 decares agricultural area in use. <sup>2</sup> Joint operations etc. with less than 5 decares agricultural area in use are included. <sup>3</sup> For 1959, 1969, 1979 and 1989 the areas used for lawns and ornamental gardens are included. As from 1979 the area used for harvesting of meadow seed is included. <sup>4</sup> For 1959 and 1969 the area used for harvesting of meadow seed is included.

#### 3.3. Agricultural area per holding, by county. 1979, 1989, 1999-2008. Decares

	1979 <sup>1</sup>	1989 <sup>1</sup>	1999 <sup>2</sup>	2000 <sup>2</sup>	2001 <sup>2</sup>	2002 <sup>2</sup>	2003 <sup>2</sup>	2004 <sup>2</sup>	2005 <sup>2</sup>	2006 <sup>2</sup>	2007 <sup>2</sup>	2008 <sup>2</sup>
The whole country	76.1	99.7	146.8	152.1	159.5	169.1	178.7	187.3	195.4	202.0	206.7	209.8
County												
Østfold	139.2	155.1	214.0	221.6	234.1	244.8	257.4	266.0	276.1	280.1	285.4	288.2
Akershus og Oslo	137.6	160.8	233.7	238.7	251.8	261.9	274.0	283.1	293.5	302.4	311.3	314.6
Hedmark	92.8	117.5	181.8	188.5	200.9	214.0	226.9	236.1	247.5	255.9	262.7	268.4
Oppland	81.1	103.0	145.7	150.2	156.4	164.6	171.5	178.6	185.4	188.6	192.7	194.2
Buskerud	74.4	89.6	136.7	142.4	151.0	158.9	169.0	179.3	188.0	196.7	204.2	210.1
Vestfold	107.9	123.0	176.9	181.8	190.5	199.6	212.2	219.8	225.0	232.8	240.6	245.0
Telemark	49.6	60.1	100.1	105.0	112.6	120.4	128.5	136.3	144.2	149.8	154.3	156.8
Aust-Agder	38.4	53.5	95.7	101.5	108.0	117.4	127.4	137.3	142.4	149.7	152.6	156.6
Vest-Agder	43.6	59.1	101.7	105.5	112.6	121.3	133.0	143.6	150.5	158.3	158.2	162.0
Rogaland	85.5	110.7	156.4	161.2	164.6	171.1	177.4	181.3	188.4	195.9	199.9	203.5
Hordaland	46.2	60.3	84.2	87.2	91.1	95.0	101.4	108.7	114.3	120.6	120.9	121.3
Sogn og Fjordane	50.5	64.2	90.0	93.7	97.9	103.5	109.9	115.8	120.9	124.7	129.3	132.7
Møre og Romsdal	56.6	80.0	122.7	127.6	133.4	144.3	151.7	159.4	166.6	171.9	177.4	181.0
Sør-Trøndelag	87.2	114.9	159.1	163.6	171.8	184.0	193.9	203.3	211.5	216.8	220.9	226.0
Nord-Trøndelag	107.3	135.7	176.1	181.8	187.7	198.0	208.1	217.1	224.5	231.1	233.8	237.6
Nordland	58.1	94.1	151.2	159.2	167.2	179.7	190.7	202.2	211.8	218.7	224.1	221.8
Troms Romsa	49.0	78.2	133.0	139.7	148.7	157.7	169.4	182.2	189.9	199.0	204.4	211.6
Finnmark Finnmárku	56.5	95.1	160.3	169.5	184.1	202.0	218.0	228.1	232.1	244.9	251.0	251.1

Refers to holdings with at least 5 decares agricultural area in use. <sup>2</sup> Joint operations etc. with less than 5 decares agricultural area in use are included.

#### Domestic animals. 1959, 1969, 1979, 1989, 1999, 2006-2008 3.4.

	1959 <sup>1</sup>	1969 <sup>1</sup>	1979 <sup>1</sup>	1989 <sup>1</sup>	1999 <sup>2</sup>	2006 <sup>2</sup>	2007 <sup>2</sup>	2008 <sup>2</sup>
Horse	115 798	40 635	20 704	17 417	26 959	31 154	32 946	34 387
Cattle	1 099 350	971 928	968 843	949 369	1 033 070	922 976	905 515	891 170
Cow	594 432	436 353	372 288	340 469	349 757	318 458	314 309	311 520
Dairy cow					312 948	259 084	253 364	248 283
Beef cow					36 809	59 374	60 945	63 237
Sheep	1 750 985	1 840 755	1 952 092	2 183 098	2 324 789	2 360 062	2 267 039	2 250 471
Under 1 year	916 515	1 002 896	1 089 588	1 284 018	1 369 422	1 431 576	1 372 651	1 352 587
1 year and over	834 470	837 859	862 504	899 080	955 367	928 486	894 388	897 884
Goat	99 163	91 160	80 652		78 590	72 207	71 987	69 467
Dairy goat	<sup>3</sup> 74 754	<sup>3</sup> 71 924	<sup>3</sup> 57 849	<sup>3</sup> 67 691	51 724	42 365	41 161	44 701
Pigs	435 245	621 317	672 754	656 695	738 372	836 426	837 892	828 243
Pig for breeding	61 787	78 163	86 340	84 233	100 408	102 483	99 216	99 618
Sow for breeding	59 172	74 438	81 951		97 495	99 744	97 218	96 892
Boar for breeding	2 615	3 725	4 389		2 913	2 739	1 998	2 726
Other pig	373 458	543 154	586 414	572 462	637 964	733 943	738 676	728 625
Hens	2 668 394	3 270 423	3 827 799	3 441 719	3 181 174	3 362 969	3 542 094	3 668 435
Chicks bred for laying hens					1 459 614	1 318 784	1 386 641	1 280 137
Chicks for slaughtering					4 833 875	10 840 718	12 606 075	13 099 623

<sup>&</sup>lt;sup>1</sup> Refers to holdings with at least 5 decares agricultural area in use. <sup>2</sup> Joint operations etc. with less than 5 decares agricultural area in use are included. <sup>3</sup> Including he-goats.

#### Number of animals per holding keeping various kinds of animal, by county and size of holding 3.5.

		Ca	ttle		Sheep	Dairy goat	Pi	g	Hens
	Total		Cow <sup>1</sup>		1 year and over		Pig for breeding	Pig for slaught-	
	_	Total	Dairy cow	Beef cow				ering	
1979 <sup>2</sup>	18.0	9.6			19.4	<sup>3</sup> 33.8	9.7		261
1989 <sup>2</sup>	25.3	11.7			31.1	<sup>3</sup> 45.9	16.1		580
1999	34.3	13.2	13.8	6.7	42.1	68.9	27.2	72.3	783
20004	34.6	13.5	14.4	7.3	43.4	71.5	30.6	92.2	851
2001 <sup>4</sup>	36.4	14.0	14.6	8.0	45.2	73.4	33.3	97.7	958
20024	37.9	14.5	15.2	8.3	46.9	74.7	36.0	107.4	984
2003 <sup>4</sup>	39.9	15.2	15.9	9.2	49.6	77.7	39.7	117.0	1 083
2004 <sup>4</sup>	41.1	15.6	16.3	9.8	51.9	78.8	43.2	126.9	1 275
2005 <sup>4</sup>	42.9	16.1	16.7	10.6	54.9	80.7	47.6	146.5	1 351
2006 <sup>4</sup>	44.5	16.8	17.6	10.9	55.8	82.5	53.5	158.2	1 584
2007 <sup>4</sup>	46.1	17.6	18.5	11.5	56.0	82.5	56.5	173.8	1 885
2008 <sup>4</sup>	48.4	18.6	19.8	12.0	57.7	86.1	60.6	182.9	1 983
2008 <sup>4</sup>									
County									
Østfold	59.2	22.9	27.1	14.5	26.8	_	61.1	218.1	3 438
Akershus og Oslo	61.1	22.8	26.2	15.5	36.8	55.0	53.3	230.3	2 675
Hedmark	56.0	21.2	20.7	18.1	63.0	53.2	74.0	218.5	2 880
Oppland	52.8	19.4	19.5	14.3	63.4	84.0	57.9	163.8	1 055
Buskerud	42.7	18.2	18.5	15.2	59.9	87.6	51.5	94.8	1 559
Vestfold	61.7	25.0	29.6	19.0	31.9	-	70.9	259.2	2 913
Telemark	34.3	14.3	16.1	11.9	55.2	67.0	78.9	122.4	1 302
Aust-Agder	38.1	14.8	17.2	9.7	48.8	_	27.0	144.4	1 677
Vest-Agder	40.1	15.3	16.5	10.5	41.3	_	49.1	115.0	1 088
Rogaland	59.3	21.5	23.8	9.9	65.8	79.8	74.8	194.9	3 351
Hordaland	28.8	12.8	15.1	6.8	44.6	86.9	34.8	90.6	931
Sogn og Fjordane	29.9	12.9	14.1	6.0	45.1	96.1	29.3	82.1	663
Møre og Romsdal	45.2	18.0	19.4	10.0	48.8	105.4	39.4	149.3	997
Sør-Trøndelag	50.6	19.1	20.1	10.6	73.2	50.0	35.3	131.2	1 818
Nord-Trøndelag	60.1	21.8	22.9	13.4	62.5	71.1	64.5	201.2	2 839
Nordland	49.8	17.8	18.5	11.6	76.6	96.6	51.2	160.9	457
Troms Romsa	40.1	16.1	17.1	10.3	77.7	83.4	36.8	130.8	620
Finnmark Finnmárku	45.9	19.2	20.4	6.2	70.2	-	24.7	58.4	890
Agricultural area in use									
- 49 decares	81.3	32.4	34.6	5.5	27.4	86.0	91.9	206.8	3 286
50- 99"	14.0	6.6	7.9	5.1	36.8	75.7	41.9	117.7	860
100-199"	27.5	11.4	12.5	8.2	57.9	82.5	43.7	139.6	1 277
200-499"	51.4	18.9	19.2	13.4	80.7	103.3	57.4	184.6	1 918
500- "	103.4	35.4	35.5	24.3	115.0	101.7	86.5	270.2	4 536

<sup>&</sup>lt;sup>1</sup> Some holdings have both dairy cow and beef cow. <sup>2</sup> Refers to holdings with at least 5 decares agricultural area in use. <sup>3</sup> Including he-goats. <sup>4</sup> Joint operations etc. with less than 5 decares agricultural area in use are included.

#### 3.6. Holdings by type of farming. 1999-2008

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Holdings, total	70 740	68 539	65 607	61 890	58 231	55 507	53 003	51 218	49 935	48 825
Type of farming										
Cereals and oil seeds	12 080	12 011	11 790	11 145	10 413	10 090	9 579	9 075	8 720	8 578
Other filed crops	4 974	6 232	5 784	4 889	5 241	4 996	5 040	5 419	5 817	6 193
Horticulture and permanent										
crops	2 439	2 323	2 176	2 212	1 864	1 712	1 693	1 599	1 760	1 705
Cattle - dairying	20 299	18 720	17 652	16 360	15 797	15 108	14 271	13 306	12 288	11 371
Cattle - rearing and fattening	4 025	4 512	4 106	4 059	3 836	3 700	3 678	3 919	3 869	3 835
Cattle - mixed	1 179	977	1 098	1 111	699	640	769	671	646	525
Sheep	12 710	12 456	12 491	11 923	11 862	10 699	9 695	9 249	8 812	8 665
Various grazing livestock	5 972	4 491	4 159	3 964	2 613	2 738	2 624	2 468	2 681	2 595
Granivores	1 820	1 740	1 588	1 686	1 420	1 530	1 657	1 653	1 687	1 663
Mixed cropping	938	870	831	786	766	724	642	587	534	505
Mixed livestock	1 582	1 429	1 308	1 255	1 046	964	962	886	816	739
Mixed crops - livestock	2 722	2 778	2 624	2 500	2 674	2 606	2 393	2 386	2 305	2 451

# 4. Agricultural area and livestock, as of 31 July

On basis of the administrative record of everyone who applies for governmental subsidies, Statistics Norway provides statistics on agricultural area and livestock per 31 July. Among several others registers, this register is also used when the total population of agricultural holdings is worked out each year. In 2008, the register covered 97 per cent of all holdings and 99 per cent of the total agricultural area in use.

	Figures from the total population of agricultural holdings	Figures from holders applying for governmental subsidies	Coverage, holders applying in per cent of the total population
Agricultural holdings	48 825	47 286	96.8
Agricultural area in use	10 244 883	10 169 645	99.3
Meadows and pasture land	6 635 638	6 590 850	99.3
Grain area	3 090 205	3 063 520	99.1
Cattle, total	891 170	889 998	99.9
Sheep, 1 year and over	897 884	892 701	99.4
Breeding pigs	99 618	98 902	99.3

#### 4.1. Main results, 2008

Increasing area of wheat growing

Figures from applications for governmental subsidies show that the area used for growing wheat increased by 23 000 decares from 2007 to a total of 931 000 decares in 2008. At the same time, the area of barley growing decreased by 106 000 decares to 1.28 million decares.

The total grain area for those who applied for agricultural production subsidies amounted to 3.06 million decares in 2008. Barley comprised 42 per cent of the total grain area, while wheat and oats covered 30 and 25 per cent respectively.

The total agricultural area was 10.2 million decares in 2008, of which 8.4 million decares were fully cultivated. The area of meadows for mowing and pastureland covered 6.6 million decares in 2008.

Increasing number of beef cows

The number of dairy cows fell by 5 100 to 248 000 in 2008. During the last ten years, the number of dairy cows has been reduced by 21 per cent. In the same period, the number of beef cows has increased by 26 000 to 63 000, an increase of 72 per cent.

The number of breeding pigs increased with 1 000 from 2007 to a total of 99 000 in 2008. The number of dairy goats has been reduced with 25 per cent to a total of 39 000 during the last ten years.

Organic farming

In 2008, the organic farmland covered 389 000 decares of agricultural area in use, or 3.8 per cent of the total area. 26 200 cattle were registered on holdings approved for organic farming in 2008. About 7 400 of these were dairy cows, and 3 500 beef cows.

#### 4.2. Background and purpose

Purpose and history

The purpose is to follow the extent of area use and livestock keeping at the municipal level. Information from administrative records has been used since 1984.

Users and applications

The statistics are used by the Norwegian Institute for Land Inventory (NIJOS), Norwegian Agricultural Economic Research Institute (NILF), public enterprises at the municipal and county level, the Ministry of Agriculture, Ministry of Environment, in research and by agricultural organizations.

## 4.3. Statistics production

Population

The population covers everyone who applies for agricultural production subsidies as of 31 July. Those who do not have the right to production subsidies or do not apply for other reasons are not covered by the statistics.

Data sources

The administrative record of everyone who applies for an agricultural production subsidy from the Norwegian Agricultural Authority is the compilation basis of the statistics. The register contains information on area use and the number of livestock on holdings.

Control and revision

The Agricultural Authority in the municipality shall ensure that the applications are in compliance with production subsidy regulations. Five per cent of the applications are also selected for special control. The control shall cover all reports submitted by the applicant on physical censuses of animals and measuring of areas. A number of machine controls are also carried out in the material. Statistics Norway also runs some machine controls upon receipt of the data material.

Confidentiality

Figures are not presented if there is a risk of identifying any unit.

#### 4.4. Concepts, variables and classifications

Only one production subsidy is given per holding. A holding is an agricultural enterprise including livestock keeping and horticulture. The holding includes everything operated as a unit, including rented agricultural area, regardless of municipal boundaries.

Beef cows are cattle that are only raised for meat production purposes and not for the production of milk for human consumption.

#### 4.5. Comparability and coherence

Since 1984 the statistics on area use and livestock keeping are based on applications for production subsidies.

#### 4.6. Availability

Publications and Internet address

The statistics is published on the internet-site of Statistics Norway: Agricultural area and livestock

Micro data

Primary data is stored at Statistics Norway.

#### 4.1. Agricultural area, by use. 1999-2008<sup>1</sup>

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Agricultural area in use,										
total	10 269 026	10 322 461	10 311 582	10 324 851	10 255 988	10 266 228	10 262 373	10 248 267	10 232 074	10 169 645
Of which										
cultivated land	8 773 172	8 754 743	8 724 834	8 706 170	8 638 443	8 628 846	8 589 745	8 544 114	8 502 872	8 433 069
ianu	0773 172	0 7 34 7 43	0 724 034	8 700 170	0 030 443	0 020 040	0 309 743	0 344 114	0 302 072	0 433 009
Open fields										
and gardens	3 941 979	3 938 064	3 918 292	3 845 897	3 812 234	3 794 377	3 758 464	3 689 303	3 632 824	3 578 791
Grain	3 236 765	3 267 502	3 210 830	3 210 467	3 230 502	3 238 704	3 213 083	3 147 244	3 090 910	3 063 520
Wheat	513 518	679 159	631 157	633 405	754 978	849 374	802 674	851 989	907 971	930 638
Rye and	00.504	00.005	00.000	00.004	44.405	70 570	00.040	00.444	70.000	04.004
triticale Barley	26 584 1 800 764	38 065 1 606 032	26 988 1 725 856	23 831 1 770 552	44 405 1 596 648	72 570 1 464 803	69 346 1 608 657	60 411 1 503 252	76 282 1 388 730	81 694 1 282 778
Oats	895 899	944 246	826 829	782 679	834 471	851 957	732 406	731 592	717 927	768 410
Oil seeds	63 501	57 122	108 600	109 608	75 022	68 602	66 909	65 109	61 976	48 114
Potato	147 618	150 180	151 268	151 178	144 985	140 931	136 713	139 056	143 761	142 956
Roots for										
feed, crops										
for green										
fodder and	244 424	004.074	200 744	205 027	405 404	475 447	454.000	447.000	100 510	420.004
silage Vegetables,	311 424	284 674	269 714	205 027	195 184	175 417	154 889	147 682	136 516	130 094
field grown	60 083	60 255	62 972	60 891	64 147	62 372	65 728	68 897	75 036	76 076
Other crops .	122 588	118 331	114 908	108 726	102 394	108 351	121 142	121 315	124 625	118 031
Meadows for										
mowing and						0 454 054				
pastures Cultivated	<b>6 327 047</b> 4 831 193	<b>6 384 397</b> 4 816 679	<b>6 393 290</b> 4 806 542	<b>6 478 954</b> 4 860 273	<b>6 443 754</b> 4 826 209	<b>6 471 851</b> 4 834 469	<b>6 503 909</b> 4 831 281	<b>6 558 964</b> 4 854 811	<b>6 599 250</b> 4 870 048	<b>6 590 850</b> 4 854 278
Permanent	4 631 193	4 6 10 6 7 9	4 600 542	4 000 273	4 626 209	4 634 469	4 03 1 20 1	4 004 011	4 670 046	4 004 270
grassland										
and surface										
cultivated										
land	1 495 854	1 567 718	1 586 748	1 618 681	1 617 545	1 637 382	1 672 628	1 704 153	1 729 202	1 736 572
Surface-										
cultivated	005.004	004.050	070 007	074 777	005.400	000 000	055 774	040.040	040.077	000 440
meadows . Other infield	285 934	281 659	276 397	274 777	265 196	260 638	255 771	248 646	240 877	229 413
pasture-										
land	1 209 920	1 286 059	1 310 351	1 343 904	1 352 349	1 376 744	1 416 857	1 455 507	1 488 325	1 507 159

<sup>&</sup>lt;sup>1</sup>Comprises those who applied for governmental production subsidies.

#### 4.2. Domestic animals. 1999-2008<sup>1</sup>

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Horses	25 716	27 314	28 399	29 089	28 051	28 678	29 329	30 662	32 790	34 298
Cattle	1 032 033	986 953	973 123	955 215	953 393	940 436	932 583	919 077	903 228	889 998
Cows	349 484	342 059	334 981	329 547	329 427	324 992	320 617	318 000	313 941	311 307
Dairy cows	312 824	297 679	289 155	281 502	278 137	272 005	265 201	259 084	253 364	248 283
Beef cows	36 660	44 380	45 826	48 045	51 290	52 987	55 416	58 916	60 577	63 024
Sheep 1 year and over	949 047	961 012	983 367	973 424	959 915	948 040	946 752	920 101	887 090	892 701
Dairy goats	51 744	50 297	47 784	46 420	45 333	44 757	44 409	42 365	41 011	38 853
Pigs for breeding	99 295	89 988	89 772	88 395	93 835	99 965	98 597	101 184	97 985	98 902
Laying hens	3 139 858	3 251 444	3 126 944	3 137 661	3 226 593	3 475 868	3 354 250	3 306 078	3 493 254	3 637 854

<sup>&</sup>lt;sup>1</sup>Comprises those who applied for governmental production subsidies.

#### 4.3. Agricultural area, by county and use<sup>1</sup>. 2008. Decares

	Agricultu	ral area	Open	fields and gard	lens	Meadows f	or mowing ar	nd pastures
	Total	Of which	Total	Of wh	ich	Total	Of v	vhich
		cultivated		Grain	Potato		Cultivated	Permanent grassland and surface cultivated land
2008	10 169 645	8 433 069	3 578 791	3 063 520	142 956	6 590 850	4 854 278	1 736 572
County								
Østfold	745 822	724 201	636 137	582 248	6 406	109 684	88 064	21 620
Akershus og Oslo	788 938	754 517	650 279	608 737	6 823	138 659	104 238	34 421
Hedmark	1 057 769	993 689	638 670	549 014	53 027	419 098	355 019	64 079
Oppland	1 048 149	867 538	268 602	210 332	13 456	779 549	598 936	180 613
Buskerud	523 115	452 513	262 989	224 737	4 034	260 127	189 524	70 603
Vestfold	411 168	402 098	335 588	268 214	16 968	75 579	66 510	9 069
Telemark	253 947	219 253	92 915	74 941	2 784	161 032	126 338	34 694
Aust-Agder	111 460	98 166	17 939	9 287	2 444	93 519	80 227	13 292
Vest-Agder	192 848	147 072	10 961	8 397	774	181 888	136 111	45 777
Rogaland	998 225	546 307	58 048	33 371	9 229	940 176	488 259	451 917
Hordaland	414 352	224 032	10 376	154	162	403 976	213 656	190 320
Sogn og Fjordane	457 686	291 114	9 656	454	1 255	448 029	281 458	166 571
Møre og Romsdal	582 550	476 380	24 673	17 492	1 940	557 878	451 707	106 171
Sør-Trøndelag	758 423	657 013	183 662	165 675	2 172	574 760	473 351	101 409
Nord-Trøndelag	880 561	806 968	351 931	307 226	14 436	528 633	455 037	73 596
Nordland	589 189	463 055	13 174	3 209	3 051	576 012	449 881	126 131
Troms Romsa	258 143	224 825	8 915	32	3 792	249 227	215 910	33 317
Finnmark Finnmárku	97 300	84 328	4 276	-	203	93 024	80 052	12 972

<sup>&</sup>lt;sup>1</sup> Comprises those who applied for governmental production subsidies.

#### 4.4. Holdings with organic farming and area approved as organically operated<sup>1</sup>. 2002-2008

•	•	• •	• • •				
	2002	2003	2004	2005	2006	2007	2008
Holdings, total	58 627	54 946	52 879	51 069	49 366	48 165	47 286
Holdings with organic farming	1 369	1 936	2 076	2 076	2 090	2 149	2 165
				— Decares ——			
Agricultural area in use Area approved as organically	10 324 851	10 255 988	10 266 228	10 262 373	10 248 267	10 232 074	10 169 645
operated, total	183 876	294 030	340 901	354 703	374 997	385 387	388 687
Grain Potatoes, vegetables, fruit and	22 785	42 076	58 460	64 387	66 047	64 510	67 141
berries	2 295	3 615	3 877	4 125	4 047	5 785	5 932
fertilized pastures	27 353	43 880	50 613	55 318	60 065	63 181	67 512
Area treated by green manure	3 134	5 697	5 288	6 792	8 336	7 508	5 855
Other crops	128 309	198 762	222 663	224 081	236 502	244 403	242 247

<sup>&</sup>lt;sup>1</sup>Comprises those who applied for governmental production subsidies.

#### 4.5. Domestic animals by holdings approved for organic farming<sup>1</sup>. 2002-2008

	2002	2003	2004	2005	2006	2007	2008
Cattle	10 673	21 158	22 433	21 768	22 698	23 678	26 212
Dairy cow	3 046	5 613	5 815	5 772	5 969	6 453	7 370
Beef cow	1 291	2 863	3 292	3 162	3 308	3 379	3 529
Other cattle	6 336	12 682	13 326	12 834	13 421	13 846	15 313
Dairy goat	753	1 338	1 316	831	881	736	390
Pigs for breeding			99	80	121	119	190

<sup>&</sup>lt;sup>1</sup>Comprises those who applied for governmental production subsidies.

# 5. Livestock husbandry, as of 1 January

On basis of the administrative record of everyone who applies for governmental subsidies, Statistics Norway provides statistics on livestock per 1 January.

#### 5.1. Main results, 2008

Decline in livestock keeping

33 600 livestock producers had applied for production subsidies per 1 January 2008, a decline of about 4 per cent compared with 2007.

The decline in the number of livestock farmers from 2007 to 2008 comprises farmers with all kinds of domestic animals except farmers with broilers. Holdings with pigs and holdings with beef cows were down by 8 per cent from the previous year. The number of holdings with dairy cows dropped 6 per cent, while the decline in the number of holdings with dairy goats and winter feed sheep was 5 and 2 per cent respectively. Holdings with broilers increased by 4 per cent from 2007 to 2008.

An increase in number of dairy cow

The number of dairy cows grew by 3 400 to 262 100 in 2008, while the number of beef cows decreased by 1 700 to 54 600 from 2007 to 2008.

Per 1 January 2008 there was registered 1.03 million winter feed sheep, about the same as the year before. From 2007 to 2008 the number of dairy goats was reduced by 5 per cent to 38 400. The number of breeding pigs fell by 800 to 97 300, while the number of pigs slaughtered decreased by 2 per cent to 1.44 million pigs in 2007.

Fifty-one million chickens were slaughtered in 2007, up by 4.2 million from the year before, and an increase of 27 million since 1997.

## 5.2. Background and purpose

Purpose and history

The purpose is to follow the extent of area use and livestock keeping at the municipal level. Information from administrative records has been used since 1984.

Users and applications

The statistics are used by the Norwegian Institute for Land Inventory (NIJOS), Norwegian Agricultural Economic Research Institute (NILF), public enterprises at the municipal and county level, the Ministry of Agriculture, Ministry of Environment, in research and by agricultural organizations.

#### 5.3. Statistics production

Population

The population covers everyone who applies for agricultural production subsidies as of 1 January. Those who do not have the right to production subsidies or do not apply for other reasons are not covered by the statistics.

Data sources

The administrative record of everyone who applies for an agricultural production subsidy from the Norwegian Agricultural Authority is the compilation basis of the statistics. The register contains information on number of livestock on holdings.

Control and revision

The Agricultural Authority in the municipality shall ensure that the applications are in compliance with production subsidy regulations. Five per cent of the applications are also selected for special control. The control shall cover all reports submitted by the applicant on physical censuses of animals. A number of machine controls of the material are also carried out. Statistics Norway also runs some machine controls upon receipt of the data material.

Confidentiality

Figures are not presented if there is a risk of identifying any unit.

# 5.4. Concepts, variables and classifications

Only one production subsidy is given per holding. A holding is an agricultural enterprise including livestock keeping. The holding includes everything operated as a unit.

Beef cows are cattle that are only raised for meat production purposes and not for the production of milk for human consumption.

## 5.5. Comparability and coherence

Since 1984 the statistics on area use and livestock keeping are based on applications for production subsidies.

## 5.6. Availability

Publications and Internet address

The statistics is published on the internet-site of Statistics Norway: Holdings keeping domestic animals

Micro data Primary data is stored at Statistics Norway.

5.1. Holdings keeping domestic animals of various kinds as per 1 January<sup>1</sup>. County

County	Holdings keeping domestic	Cattle, total	Dairy cows	Beef cows	Winter feed sheep	Dairy goat	Pigs	Laying hens	Broilers <sup>2</sup>
	animals				sileep				
1992 <sup>3</sup>	55 761	34 595	26 889	2 616	24 869	1 073	7 224	4 492	594
40003	54 965	33 941	26 431	2 982	24 609	1 073	6 959	4 523	623
1993°	54 428	33 283	25 784	3 632	24 723	912	6 710	4 414	589
1994 <sup>3</sup> 1995 <sup>3</sup>	53 714	33 263 32 577	25 764 25 410	3 941		912 899	6 462		509 597
3				3 94 i 4 197	24 596		6 376	4 303	
3	52 869	32 047 31 369	25 030	4 197	23 784	875		4 116	596
3	51 626		24 170		22 937 22 214	826 772	5 950	3 946	564 567
1998 <sup>3</sup>	50 351	30 626	23 433	4 837			5 816	3 825	
1999	49 038	29 399	22 400	5 116	21 817	727	5 795	3 769	484
2000 <sup>3</sup>	46 986	27 685	20 493	5 626	21 528	677	4 930	3 583	532
2002	44 167	25 637	18 775	5 790	20 875	619	4 650	3 133	519
2003	41 470	24 285	17 803	5 493	18 842	592	4 504	2 926	535
2004	39 661	23 101	16 900	5 325	17 897	571	4 304	2 740	511
2005	38 113	22 171	16 244	5 097	17 068	559	4 147	2 579	500
2006	36 440	21 062	15 070	5 340	16 255	525	3 757	2 294	506
2007	34 869	19 947	14 050	5 254	15 504	483	3 400	1 925	528
2008	33 559	18 787	13 251	4 858	15 132	457	3 126	1 888	551
2008									
County									
Østfold	890	354	207	156	138	-	205	118	86
Akershus og Oslo	806	352	184	171	217	:	151	92	15
Hedmark	2 186	1 104	731	387	748	27	299	157	121
Oppland	3 635	2 150	1 614	562	1 437	50	293	119	9
Buskerud	1 230	574	306	261	595	17	62	70	13
Vestfold	564	219	90	130	105	-	166	48	30
Telemark	875	356	162	173	413	22	68	70	4
Aust-Agder	514	241	128	93	242	-	27	38	:
Vest-Agder	972	562	359	183	469	-	37	56	6
Rogaland	4 520	2 638	1 987	554	2 688	12	798	338	93
Hordaland	2 874	1 385	837	367	2 006	36	129	125	14
Sogn og Fjordane	3 031	1 702	1 272	283	1 801	75	100	131	
Møre og Romsdal	2 732	1 827	1 306	324	1 110	48	95	130	6
Sør-Trøndelag	2 513	1 670	1 290	356	754	:	100	90	65
			1 304	421	541	9	421	103	85
	2 498	1 / 05							
Nord-Trøndelag	2 498 2 306	1 705 1 321							
	2 498 2 306 1 092	1 705 1 321 436	988 324	340 82	1 104 626	38 121	129 36	143 48	:

<sup>&</sup>lt;sup>1</sup> Comprises holdings whitch applied for governmental production subsidies. <sup>2</sup> Refers to broilers slaughtered during the year. As from 2002 the figures refers to broilers slaughtered the year before. <sup>3</sup> As per 31 December.

#### 5.2. Cattle and sheep. No of heads as per 1 January<sup>1</sup>. County

	Cattle, total	Cows, total	Dairy cows	Beef cows	Other cattle	Winter feed sheep
1992 <sup>2</sup>	1 007 539	347 573	335 996	11 577	659 966	1 095 676
1993 <sup>2</sup>	1 007 333	344 650	331 014	13 636	661 143	1 095 529
1994 <sup>2</sup>	1 000 632	341 597	324 701	16 896	659 035	1 119 997
100=2	1 012 849	344 122	324 417	19 705	668 727	1 140 519
	1 012 049	349 350	326 766	22 584	677 993	1 109 673
	1 027 343	348 838	322 349	26 489	686 900	1 078 574
1000	1 045 574	352 664	322 349 322 791	29 873	692 910	1 102 855
	1 043 374	351 752	318 047	33 705	666 978	1 102 833
1999 <sup>2</sup> 2000 <sup>2</sup>	979 274	338 876	298 709	33 705 40 167	640 398	1 131 734
		333 007	286 164		631 652	
	964 659			46 843		1 141 485
2003	952 442	330 172	282 829	47 343	622 270	1 109 696
2004	942 053	328 469	280 091	48 378	613 584	1 111 513
2005	936 003	322 442	272 301	50 141	613 561	1 091 785
2006	919 679	320 403	265 384	55 019	599 276	1 060 438
2007	903 280	315 080	258 719	56 361	588 200	1 023 818
2008	893 082	316 731	262 090	54 641	576 351	1 027 076
2008						
County						
•	00.000	7.454	5 00 <del>7</del>	0.054	40 555	4 7 40
Østfold	20 006	7 451	5 397	2 054	12 555	4 749
Akershus og Oslo	20 118	7 113	4 623	2 490	13 005	9 828
Hedmark	59 661	21 869	15 319	6 550	37 792	56 981
Oppland	112 802	38 822	31 650	7 172	73 980	107 619
Buskerud	23 161	9 158	5 558	3 600	14 003	44 232
Vestfold	12 741	4 936	2 551	2 385	7 805	4 135
Telemark	11 846	4 424	2 523	1 901	7 422	27 076
Aust-Agder	8 870	3 159	2 238	921	5 711	14 891
Vest-Agder	22 104	7 677	5 871	1 806	14 427	24 360
Rogaland	149 535	51 874	46 749	5 125	97 661	205 113
Hordaland	42 310	15 508	13 203	2 305	26 802	103 527
Sogn og Fjordane	55 923	20 697	19 051	1 646	35 226	96 598
Møre og Romsdal	81 407	28 269	25 194	3 075	53 138	63 962
Sør-Trøndelag	85 059	29 944	26 303	3 641	55 115	64 565
Nord-Trøndelag	98 512	34 431	29 143	5 288	64 081	39 938
Nordland	64 080	22 038	18 233	3 805	42 042	93 784
Troms Romsa	16 779	6 269	5 463	806	10 510	54 153
Finnmark Finnmárku	8 168	3 092	3 021	71	5 076	11 565

<sup>&</sup>lt;sup>1</sup>Comprises holdings which applied for governmental production subsidies. <sup>2</sup> As per 31 December.

#### 5.3. Various domestic animals. No of heads as per 1 January<sup>1</sup>. County

	Dairy goats	Pigs for breeding	Pigs for slaughtering <sup>2</sup>	Laying hens	Broilers <sup>3</sup>
19924	00.557	07.007		0.050.040	40.050.040
	62 557	87 837	1 214 701	3 653 248	16 850 642
19934	62 425	87 456	1 190 668	3 658 289	15 705 005
1994 <sup>4</sup>	59 693	87 134	1 189 066	3 619 810	17 976 664
1995 4	59 176	90 903	1 240 949	3 550 629	19 919 985
1996	58 775	91 130	1 328 566	3 378 176	23 264 300
19974	55 541	90 118	1 345 208	3 107 275	23 319 780
1998 <sup>4</sup>	53 477	89 444	1 378 443	3 113 209	23 355 574
1999 <sup>4</sup>	53 091	93 768	1 334 788	3 216 750	27 523 776
20004	50 859	89 961	1 296 693	3 206 179	33 167 031
2002	47 441	89 254	1 324 173	3 100 503	31 994 661
2003	47 114	92 058	1 360 867	3 262 382	35 595 400
2004	46 292	99 298	1 323 169	3 392 283	36 705 314
2005	46 125	99 065	1 427 464	3 493 440	39 759 182
2006	44 063	101 731	1 441 629	3 365 646	41 819 570
2007	40 493	98 060	1 466 149	3 350 753	46 452 282
2008	38 431	97 261	1 443 668	3 600 244	50 666 447
2008 County					
Østfold	-	7 153	124 799	400 072	8 895 770
Akershus og Oslo	:	4 638	73 962	208 771	1 713 975
Hedmark	1 488	11 733	177 638	457 687	10 574 444
Oppland	3 927	8 003	116 233	125 063	679 528
Buskerud	1 457	1 727	13 152	120 268	1 021 979
Vestfold	-	6 091	116 280	149 014	2 488 960
Telemark	1 411	2 042	25 227	94 692	78 463
Aust-Agder	_	428	8 197	66 502	:
Vest-Agder	-	1 139	6 808	67 698	182 719
Rogaland	951	25 467	386 228	1 083 308	9 826 437
Hordaland	2 954	1 684	23 733	94 944	782 822
Sogn og Fjordane	6 941	1 578	22 121	84 400	:
Møre og Romsdal	5 040	2 201	30 933	117 653	194 671
Sør-Trøndelag	:	2 394	29 352	145 549	5 796 096
Nord-Trøndelag	641	15 832	216 634	287 008	8 251 207
Nordland	3 240	3 971	59 691	58 659	:
Troms Romsa	10 251	919	10 679	27 386	-
Finnmark Finnmárku	-	261	2 001	11 570	-

<sup>&</sup>lt;sup>1</sup>Comprises holdings whitch applied for governmental production subsidies. <sup>2</sup>Refers to pigs slaughtered during the year. As from 2002 the figures refers to pigs sold to other herds or slaughtered year before. <sup>3</sup> Refers to broilers slaughtered during the year. As from 2002 the figures refers to broilers slaughtered the year before. <sup>4</sup>As per 31 December.

5.4. Holdings with various kinds of domestic animals, by size of herd. As per 1 January<sup>1</sup>

	Holdings					Number of heads				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Cows, total										
Total	21 101	20 289	19 317	18 312	17 231	328 469	322 442	320 403	315 080	316 731
1- 4	1 376	1 192	1 101	1 066	991	3 472	3 063	2 813	2 757	2 514
5- 9	3 670	3 476	3 199	2 820	2 489	26 851	25 377	23 247	20 453	18 060
10-14	5 713	5 371	4 761	4 371	3 707	69 132	65 077	57 410	52 801	44 878
15-19	5 261	5 167	4 885	4 480	4 015	88 181	86 493	81 968	75 328	67 648
20-29	3 766	3 700	3 754	3 788	3 928	87 728	86 237	88 039	88 592	92 472
30-	1 315	1 383	1 617	1 787	2 101	53 105	56 195	66 926	75 149	91 159
Dairy cows										
Total	16 900	16 244	15 070	14 050	13 251	280 091	272 301	265 384	258 719	262 090
1- 4	160	140	138	109	125	518	459	461	357	391
5- 9	2 382	2 278	1 914	1 604	1 364	17 968	17 168	14 418	12 012	10 274
10-14	5 082	4 732	4 081	3 625	3 034	61 728	57 547	49 502	43 975	36 943
15-19	4 934	4 799	4 444	4 039	3 619	82 748	80 336	74 574	67 925	61 082
20-29	3 349	3 288	3 292	3 295	3 429	77 625	76 268	76 866	76 834	80 478
30-	993	1 007	1 201	1 378	1 680	39 504	40 523	49 563	57 616	72 922
Beef cows										
Total	5 325	5 097	5 340	5 254	4 858	48 378	50 141	55 019	56 361	54 641
1- 4	1 891	1 641	1 588	1 522	1 364	4 335	3 811	3 590	3 524	3 130
5- 9	1 581	1 514	1 599	1 513	1 378	10 883	10 372	10 976	10 485	9 521
10-19	1 332	1 354	1 478	1 509	1 356	17 708	18 280	20 063	20 658	18 463
20-	521	588	675	710	760	15 452	17 678	20 390	21 694	23 527
Winter feed sheep										
Total	17 897	17 068	16 255	15 504	15 132	1 111 513	1 091 785	1 060 438	1 023 818	1 027 076
1- 9	1 088	1 058	957	925	882	5 908	5 828	5 219	5 188	4 996
10- 19	1 653	1 443	1 484	1 442	1 423	23 935	20 993	21 521	20 817	20 788
20- 49	6 262	5 718	5 244	5 002	4 772	212 115	194 320	178 764	169 593	160 656
50- 99	5 650	5 604	5 354	4 980	4 817	395 038	394 237	378 403	353 659	342 907
100-149	2 188	2 188	2 118	2 054	2 026	261 649	260 608	251 959	243 862	242 976
150	1 056	1 057	1 098	1 101	1 212	212 868	215 799	224 572	230 699	254 753
Sows for breeding										
Total	2 330	2 194	1 980	1 824	1 679	97 059	97 038	99 843	96 211	95 237
1-19	879	797	661	569	505	7 707	6 853	5 805	5 048	4 422
20-39	572	524	460	428	366	16 597	14 936	13 359	12 395	10 618
40-59	407	380	361	342	319	19 586	18 405	17 566	16 688	15 627
60-79	201	201	190	178	180	13 681	13 843	12 995	12 183	12 362
80-99	95	109	99	89	77	8 472	9 796	8 821	7 927	6 820
100	176	183	209	218	232	31 016	33 205	41 297	41 970	45 388
Laying hens										
Total	2 740	2 579	2 294	1 925			3 493 440			
1- 99	1 710	1 604	1 434	1 134	1 132	27 757	25 008	22 611	17 457	17 923
100- 499	94	87	77	73	56	21 686	19 953	16 057	15 953	11 784
500- 999	78	65	63	34	32	58 793	47 854	45 334	26 626	23 482
1000-1999	225	195	138	117	97	343 195	296 206	217 736	184 005	153 651
2000-4999	368	322	277	245		1 024 435	883 517	789 008	696 845	598 455
5000-	265	306	305	322	360	1 916 417	2 220 902	2 274 900	2 409 867 :	2 794 949

<sup>&</sup>lt;sup>1</sup>Comprises holdings which applied for governmental production subsidies.

# 6. Farmers' income and property

The statistics are based on information from tax returns and cover agricultural holdings operated by a natural person.

#### 6.1. Main results, 2007

Highest income from agriculture in Rogaland

Norwegian farmers' entrepreneurial income from agriculture amounted to NOK 136 000 on average in 2007. Distributed by county, farmers in Rogaland earned most from agriculture with NOK 188 000, followed by farmers in Nord-Trøndelag with NOK 180 000. Farmers in Telemark had the lowest agricultural income with an average of NOK 76 000.

The average entrepreneurial income from agriculture increased from NOK 117 000 in 2006 to NOK 136 000 in 2007. Distributed by county, the agricultural income varied from NOK 188 000 in Rogaland to NOK 76 000 in Telemark. The agricultural income depends on the type of farming and the size of the holding. Holdings requiring high levels of labour input during the whole year, e.g. cattle dairying and specialised pig/poultry production, have the highest agricultural income. Specialised cereals and oil-seed production and specialised sheep farming, which are frequently run in combination with other industry or work for a wage, have the lowest income from agriculture.

Highest agricultural income in specialised pig/poultry production In 2007, 46 per cent of the farmers in Rogaland ran specialised cattle dairying, cattle mixed, specialised pig/poultry or mixed livestock holdings. Within these types of farming the average entrepreneurial income from agriculture varied from NOK 253 000 in cattle dairying to NOK 342 000 in specialised pig/poultry production. In addition, Rogaland had a significant number of holdings with horticultural production that yielded a relatively high income. In Nord-Trøndelag, the aforementioned livestock farm types comprised 39 per cent of the total. Average agricultural income varied from NOK 254 000 in cattle dairying to NOK 325 000 in specialised pig/poultry production. In the country as a whole, the average agricultural income was NOK 226 000 in cattle dairying and NOK 320 000 in specialised pig/poultry production. Within cattle dairying, farmers in Finnmark had the highest agricultural income with NOK 293 000.

Cereals and sheep yielded low agricultural income

Farmers in Telemark had the lowest entrepreneurial income from agriculture with NOK 76 000, followed by Hordaland with NOK 85 000. In Telemark, 41 per cent of the farmers operated holdings with specialised cereals and oil-seed production or sheep production. Only 8 per cent ran cattle dairying. In Hordaland, 37 per cent of the farmers ran sheep farming in 2007, subsequently followed by cattle dairying with 21 per cent. The average agricultural income in the latter farm type was NOK 178 000 in 2007. The average herd size of dairy cows was 14 in Hordaland, compared with 22 in Rogaland.

At country level, 8 per cent of the farmers had at least NOK 400 000 in entrepreneurial income from agriculture in 2007. Among farmers with specialised pig/poultry production the corresponding percentage was 32, while 11 per cent of the farmers with cattle dairying had such a high agricultural income. Only 2 per cent of the specialised cereal farmers and 1 per cent of the specialised sheep farmers had at least NOK 400 000 in entrepreneurial income from agriculture.

The percentage of farmers without positive entrepreneurial income from agriculture has remained at about 25 per cent for several years. Two thirds of these farmers had negative entrepreneurial income from agriculture, while one third had no entrepreneurial income from agriculture. Negative entrepreneurial income may characterise farmers who have just started farming or are expanding. No agricultural income may characterise farmers running hobby-like agriculture or relate to agricultural income that has been assigned to the farmer's spouse.

23 per cent of the farmers had spouse/partner with agricultural income Married couples/registered partners who run agricultural production together can share the taxable entrepreneurial income. In 2007, 9 600 spouses/registered partners had positive entrepreneurial income from agriculture and the average amount was NOK 135 000. Distributed by all holdings, the average entrepreneurial income from agriculture for spouses/registered partners was NOK 28 000.

#### 6.2. Background and purpose

Purpose and history

The purpose is to present statistics on income, property, debt and taxes for persons who are operating agricultural holdings, independent of the holding as source of income. An essential feature of the Norwegian agriculture is that many persons that are running agricultural holdings work part-time in agriculture or the work is concentrated to the growing season. Many holders have wage/salary or entrepreneurial income from other industries as main source of income.

Statistics Norway has produced statistics on the farmers' income, property and taxes based on the tax assessment for personal taxpayers since 1968. More detailed tax return data have been presented as from 1999.

Users and applications

There is much focus on level, distribution and development of incomes of holders in agriculture. The main users of the statistics are the Ministry of Agriculture and Food, the Norwegian Agricultural Economics Research Institute, the Agricultural Budget Commission, the Norwegian Farmers Union, the Norwegian Smallholders Union etc.

#### 6.3. Statistics production

Population

Agricultural holdings are operated by to main types of holders: natural person and legal person. The total number of holdings has been decreasing over many years, while during the last years the number of holdings operated by a legal person has increased. The percentage of holdings operated by a legal person has increased from 1 per cent in 1999 to 6 per cent in 2007. The statistics on the farmers' income and property cover only agricultural holdings operated by a natural person.

The holdings vary much in size, from hobby-like production to holdings with a turnover of more than NOK 1 million. Some of the holdings have small-scale production under the threshold to be considered an industry by the tax authorities.

The individual person who is considered as responsible for operating the holding is referred to as *holder (farmer)*. Some holdings change holder during the year. Mainly, the holder being holder as per 31 July the year concerned is included. For the holders information has been obtained on any spouse, registered partner or cohabitant. Up to and including 2004, cohabitant included only he/she who had children in common with the holder. As from 2005, also cohabitants who lived together with the holder according to the Population and Housing Census 2001 and still has common address is included.

Married couples and registered partners who jointly operate a holding may share the taxable entrepreneurial income. Cohabitants who want to share the entrepreneurial income from a jointly operated holding have to organise the management as a legal entity other than sole proprietorship, or one of them has to be an employee.

The population of persons may differ from one table to another. Mainly, a table either comprises holders only or an aggregate of holders and spouses/registered partners/cohabitants.

Data sources

The statistics are based on the population of agricultural holdings operated by a natural person and tax return data.

Control and revision

The statistics are based on collocation of data files that have been separately edited when established.

Estimation

Average figures for a variable, e.g. wages and salaries for the holder, is estimated by summing up the value of the variable wages and salaries for all holders and divide the sum with the number of total holders. This means that holders without wages and salaries are included in the average figures.

Confidentiality

Figures are not presented if there is a risk of identifying any unit.

#### 6.4. Concepts, variables and classifications

Definitions of the main concepts and variables

Agricultural holding:

A single unit both technically and economically, which has single management and which produces agricultural products. The holding is independent of municipality boundaries. The agricultural holdings headquarter must be located on an agricultural property.

#### Farmer/Holder:

The person considered responsible for operating the holding.

#### Gross income:

Total wages and salaries, pensions, entrepreneurial income and property income.

#### Wages and salaries:

Comprise payments in cash and in kind, taxable sick pay and unemployment benefit.

#### Pensions:

Cover all benefit paid by social security and private pension and life insurance benefit.

#### Entrepreneurial income:

A result of the activities of a self-employed person, and is estimated from profit and loss account and balance sheet. The entrepreneurial income is transferred to the tax return and is included in the calculation of ordinary income.

#### Entrepreneurial income from agriculture:

This is positive entrepreneurial income from agriculture according to the tax return. In addition, entrepreneurial social security benefits in agriculture, forestry and fishery are included. Deductions such as membership payments to industry organisations, the year's entrepreneurial deficit, interest on debt and a separate agricultural deduction are not deducted. Income from any supplementary industry executed on the holding, e.g. forestry, are included in other entrepreneurial income if the industry concerned are considered as independent according to taxation.

#### Capital income:

Consist of interest income, dividends, realised capital gains, rent and other income from property.

#### Standard classifications

The following classifications are used in the tables: county where the holding is located, size of holding expressed in decares of utilized agricultural area, type of farming of the holding and sex of holder.

#### County

Oslo County is merged with Akershus County because of very few holdings in Oslo County.

Agricultural area in use

Agricultural land that is harvested at least once during a year, including planted areas of permanent crops, where no harvest has been produced so far. Includes also arable land included in the crop rotation system with no intention to produce a harvest during the year, but which will be harvested the next year.

Type of farming of an agricultural holding

The type of farming of a holding is determined by the contribution ratio of the different crop and livestock enterprises to its total agricultural production. The standard gross margin is applied as the common measurement of the various enterprises (crop and livestock).

Standard gross margin of an agricultural holding

The standard gross margin (SGM) is the balance between the standard value of output and the standard value of certain direct costs. SGMs are calculated at regional level per area unit (decare, square metre) and head of livestock for related crops and livestock categories. The SGM for an enterprise within the holding is the SGM per area unit/head of livestock multiplied by the total of the relevant crop/livestock category. The total SGM of the holding is the sum of all enterprises run by the holding.

## 6.5. Sources of error and uncertainty

Measurement and processing errors

The most important source of error is that taxpayers may fill in incorrect information on income, deductions, property or debt in the personal tax return or place amounts under wrong items. In most cases this will be detected and corrected by the local tax offices. Nevertheless, errors that do not influence the assessment of taxes may be ignored. Furthermore, errors may also originate during the scanning of the tax return forms, despite of the fact that controls are executed.

Non-response errors

A non-significant number of holdings are missing information on income etc. No information is imputed for these holdings.

Other sources of error

Statistics Norway receives data from the Directorate of Taxes before all complaints from taxpayers are finished.

#### 6.6. Comparability and coherence

Comparability over time and space

Changes in the tax regulations influence the data and consequently the statistics over time. The tax regulations were significantly changed as from 1992. The statistics are essentially comparable for the period 1992 - 2002. In 2003, the tax return forms filled in by self-employed persons were considerably changed. Particularly, a separate deduction in entrepreneurial income from agriculture was deducted before the entrepreneurial income was transferred to the tax return form. Due to this neither the entrepreneurial income nor the gross income are comparable with the other years. As from 2004, the agricultural deduction again is stated as a deduction on the tax return.

The tax regulations were insignificantly changed from 2004 to 2005, but considerably changed as from 1 January 2006. The new regulations increased the taxes for certain types of income, compared with the level in 2005. Due to this, taxpayers realised income in 2005 to avoid increased taxes in 2006 or later years.

Due to changes in the regulation concerning governmental production subsidies as per 31 July 2002, the number of holdings operated by other legal entities than sole proprietorship has increased significantly. This concerns particularly the legal entities general partnership and general partnership with shared liability. Furthermore, the change of the regulation has influenced the number of holders participating in joint operation (organised as general partnerships) and at the same time running their own enterprise (sole proprietorship). Before 2002, holders

participating in joint operation in milk production had to apply separate for government area production subsidies. Now, the participants may choose whether they will cultivate fodder in own separate enterprise or operate the area jointly.

A revised calculation of type of farming of the holdings was implemented in the Farmers' Income and Property 2007. The revision has caused a fall in the farm types "Various grazing livestock" and "Mixed crops - livestock", while the fram type "Other field crops" has increased. Other farm types are hardly affected.

Coherence with other statistics

Yearly, Statistics Norway also presents income statistics for all self-employed persons. At first level the self-employed persons are classified into two groups: self-employed with main income from industry and self-employed with main income from wages/salaries and pensions. Furthermore, those with main income from industry are classified into: primary industry and other industries. Primary industry consists of agriculture, forestry and fishery. More information on: <a href="http://www.ssb.no/english/subjects/05/01/ifpn\_en/">http://www.ssb.no/english/subjects/05/01/ifpn\_en/</a>.

The Norwegian Agricultural Economics Research Institute yearly presents Account Results in Agriculture and Forestry. This survey shows results for holdings where most of the family's total income are derived from the holding. More information: <a href="http://www.nilf.no/">http://www.nilf.no/</a>.

## 6.7. Availability

Publications and Internet address

The statistics are released electronically via Today's Statistics on Statistics Norway's web site:

The farmers' income and property

Micro data

A data file with anonymous individual data is stored at Statistics Norway.

## 6.1. Entrepreneurial income from agriculture for holders, by county, agricultural area in use and sex of holder

	Entrepreneurial income from agriculture		Holders by entrepreneurial income from agriculture							
_	Total	Per holder	Holders, total	Without positive income	NOK 1-49 999	NOK 50 000- 99 999	NOK 100 000- 249 999	NOK 250 000- 399 999	NOK 400 000-	
	NOK million	NOK	-			Per o	cent —			
1999	6 530	93 400	69 910	26	25	13	27	8	2	
2000	6 833	101 000	67 625	24	25 25	13	27	10	2	
2001	6 596	102 500	64 352	25	25	13	25	10	3	
2002	6 887	114 800	60 010	24	24	12	24	12	4	
2003 <sup>1</sup>	0 001	114 000	56 234	<u></u>	24		27	12		
2004	5 975	112 200	53 257	25	24	13	25	11	4	
2005	7 399	147 000	50 336	25	22	12	25	11	6	
2006	5 652	117 200	48 243	25	23	12	24	11	5	
2007	6 362	136 300	46 672	25	21	12	22	13	8	
2007	0 002	100 000	10 012	20				10	· ·	
County										
Østfold	333	130 200	2 558	27	25	14	16	9	9	
Akershus og Oslo	292	118 900	2 458	28	26	12	19	9	7	
Hedmark	557	144 900	3 846	25	21	11	21	12	9	
Oppland	654	132 200	4 945	24	19	12	25	14	6	
Buskerud	264	108 000	2 448	32	23	13	18	9	5	
Vestfold	213	128 600	1 659	29	25	12	16	9	9	
Telemark	122	76 400	1 602	41	25	11	14	6	3	
Aust-Agder	69	98 900	699	34	22	13	20	7	5	
Vest-Agder	112	97 500	1 152	31	25	11	19	10	4	
Rogaland	872	188 000	4 641	19	18	11	21	16	14	
Hordaland	281	84 900	3 303	33	25	13	19	8	2	
Sogn og Fjordane	355	104 900	3 385	24	23	15	26	11	2	
Møre og Romsdal	441	143 200	3 078	23	18	11	23	17	7	
Sør-Trøndelag	483	148 800	3 243	22	17	12	25	17	7	
Nord-Trøndelag	632	180 400	3 505	18	17	10	24	20	11	
Nordland	435	170 800	2 547	18	15	12	25	20	10	
Troms Romsa	185	149 900	1 232	19	18	13	26	17	7	
Finnmark Finnmárku	61	164 500	371	21	18	10	23	15	13	
Agricultural area in use										
0- 4 decares	170	229 300	743	22	13	8	21	16	21	
5- 49 "	200	48 500	4 117	51	29	8	8	3	2	
50- 99 "	425	48 900	8 680	42	33	11	10	3	1	
100-199 "	1 539	103 900	14 812	25	24	15	24	10	3	
200-299 "	1 637	179 100	9 136	14	14	13	30	21	9	
300-499 "	1 536	234 200	6 560	10	9	9	28	26	17	
500- "	855	325 800	2 624	8	5	7	22	27	31	
Holders by sex										
Males	5 813	144 400	40 245	24	20	12	22	14	8	
Females	549	85 400	6 427	34	24	13	20	7	3	

<sup>&</sup>lt;sup>1</sup> Entrepreneurial income from agriculture for 2003 is not comparable with the other years.

#### 6.2. Entrepreneurial income from agriculture for holders, by type of farming. 2007

	Entrepreneurial income from agriculture		Holders by entrepreneurial income from agriculture						
	Total	Per holder	Holders, total	Without positive income	NOK 1-49 999	NOK 50 000- 99 999	NOK 100 000- 249 999	NOK 250 000- 399 999	NOK 400 000-
	NOK million	NOK		Per cent					
Total	6 362	136 300	46 672	25	21	12	22	13	8
Type of farming Cereals and oil seeds Other field crops Horticulture and permanent	584 664	68 400 117 700	8 526 5 644	34 35	32 21	14 10	13 17	4 11	2 7
crops	275	187 400	1 465	26	17	12	20	12	14
Cattle - dairying	2 340	225 800	10 363	6	6	9	38	30	11
Cattle - rearing and fattening	330	87 500	3 768	31	25	16	19	7	3
Cattle - mixed	149	257 900	578	6	6	9	28	32	19
Sheep	551	64 000	8 615	31	32	17	16	4	1
Various grazing livestock	255	99 200	2 569	36	20	10	20	11	4
Granivores	516	319 600	1 615	12	9	7	21	19	32
Mixed cropping	106	205 900	516	22	17	10	21	13	18
Mixed livestock	220	283 100	778	14	8	7	20	22	28
Mixed crops - livestock	372	166 400	2 235	28	17	10	19	13	13

#### 6.3. Average gross income for holders, by county, agricultural area in use and sex of holder. NOK

	Gross income	Wages and	Entrepreneurial	Other	Pensions	Capital
		salaries	income from agriculture	entrepreneurial income		income etc.
1999	285 100	109 900	93 400	31 800	16 900	33 100
2000	307 500	117 200	101 000	34 300	17 500	37 600
2001	311 500	124 000	102 500	36 400	18 400	30 100
2002	353 200	133 600	114 800	39 100	17 800	47 900
2003 <sup>1</sup>		138 100		40 300	18 100	47 300
2004	372 400	142 500	112 200	47 000	18 500	52 400
2005	465 200	148 900	147 000	62 200	18 700	88 300
2006	376 500	159 700	117 200	49 700	19 300	30 700
2007	439 700	175 200	136 300	54 600	21 200	52 300
2007						
County			400.000		24.000	100.000
Østfold	614 300	209 900	130 200	90 200	21 800	162 200
Akershus og Oslo	561 900	234 400	118 900	102 800	24 500	81 300
Hedmark	439 600	170 100	144 900	61 500	23 000	40 100
Oppland	399 600	162 300	132 200	54 200	16 800	34 200
Buskerud	507 200	200 300	108 000	91 800	21 700	85 400
Vestfold	539 100	218 600	128 600	85 600	23 900	82 400
Telemark	424 700	220 100	76 400	65 900	26 800	35 500
Aust-Agder	429 700	169 800	98 900	75 800	26 900	58 400
Vest-Agder	423 600	190 100	97 500	61 100	29 500	45 400
Rogaland	491 900	164 700	188 000	51 500	19 100	68 600
Hordaland	394 700	207 200	84 900	38 300	26 500	37 800
Sogn og Fjordane	359 300	168 400	104 900	29 400	24 400	32 200
Møre og Romsdal	407 300	160 900	143 200	38 300	20 600	44 300
Sør-Trøndelag	402 200	156 900	148 800	38 900	18 000	39 600
Nord-Trøndelag	422 100	153 100	180 400	42 100	13 000	33 500
Nordland	350 400	117 400	170 800	25 200	22 200	15 000
Troms Romsa	351 400	128 300	149 900	29 500	20 200	23 600
Finnmark Finnmárku	350 400	121 200	164 500	25 400	21 600	17 700
Agricultural area in use	540,000	440.000	000 000	F0 000	40.500	00.000
0- 4 decares	512 000	143 300	229 300	50 200	19 500	69 600
5- 49 "	398 800	222 500	48 500	47 200	40 500	40 100
50- 99 "	404 600	232 500	48 900	47 900	33 100	42 200
100-199	427 400	188 900	103 900	52 000	21 100	61 400
200-299 "	427 800	142 600	179 100	55 000	12 500	38 700
300-499 "	473 100	117 600	234 200	59 400	10 800	51 100
500- "	626 500	100 400	325 800	91 300	9 700	99 300
Holders by sex	458 200	177 200	144 400	59 300	21 300	55 900
Males						
Females	323 800	162 200	85 400	25 400	21 100	29 800

<sup>&</sup>lt;sup>1</sup> Gross income and entrepreneurial income from agriculture for 2003 are not comparable with the other years.

#### 6.4. Average gross income for holders, by type of farming. 2007. NOK

	Gross income	Wages and salaries	Entrepreneurial income from agriculture	Other entrepreneurial income	Pensions	Capital income etc.
Total	439 700	175 200	136 300	54 600	21 200	52 300
Type of farming						
Cereals and oil seeds	519 600	270 700	68 400	85 000	28 100	67 500
Other field crops	470 600	205 100	117 700	73 200	20 800	53 900
Horticulture and permanent						
crops	500 800	155 500	187 400	49 300	25 800	82 900
Cattle - dairying	375 200	73 300	225 800	31 200	10 000	34 800
Cattle - rearing and fattening	405 700	198 400	87 500	60 500	23 400	36 000
Cattle - mixed	409 700	67 500	257 900	51 400	7 300	25 600
Sheep	378 300	207 100	64 000	40 700	28 700	37 800
Various grazing livestock	383 200	164 700	99 200	46 800	28 300	44 100
Granivores	557 800	120 600	319 600	47 500	11 100	59 100
Mixed cropping	505 400	158 900	205 900	63 500	22 600	54 600
Mixed livestock	798 500	105 500	283 100	45 900	14 000	350 000
Mixed crops - livestock	456 400	165 500	166 400	63 600	18 000	42 800

# 6.5. Holders by entrepreneurial income from agriculture as per cent of gross income, by county, agricultural area in use and sex of holder

	Holders, total —	Entrepre	neurial income fr	om agriculture as	per cent of gross in	come
	Holders, total —	0 per cent	1-9 per cent	10-49 per cent	50-89 per cent	90- per cent
	_			Per cent —		
1999	69 910	26	14	24	20	16
2000	67 625	24	15	25	20	15
2001	64 352	25	14	26	20	15
2002	60 010	24	15	26	20	15
2003 <sup>1</sup>	56 234					
	53 257	 25	 15	 26	 18	 17
2005	50 336	24	14	26	18	18
2006	48 243	25	15	26	18	16
2007	46 672	25	15	27	19	15
2007						
County						
Østfold	2 558	27	19	31	15	9
Akershus og Oslo	2 458	28	22	32	14	5
Hedmark	3 846	25	14	28	20	12
Oppland	4 945	24	12	27	23	14
Buskerud	2 448	32	18	30	15	6
Vestfold	1 659	29	21	28	14	8
	1 602	41	18	22	11	7
Telemark						
Aust-Agder	699	34	17	25	17	8
Vest-Agder	1 152	31	19	27	14	10
Rogaland	4 641	19	14	27	20	21
Hordaland	3 303	33	18	26	13	10
Sogn og Fjordane	3 385	24	14	32	19	12
Møre og Romsdal	3 078	23	13	25	19	19
Sør-Trøndelag	3 243	22	12	25	24	18
Nord-Trøndelag	3 505	18	12	25	24	21
Nordland	2 547	18	9	24	21	28
Troms Romsa	1 232	19	11	27	17	27
Finnmark Finnmárku	371	21	8	23	22	26
Agricultural area in use						
0- 4 decares	743	22	9	27	20	21
5- 49 "	4 117	51	21	18	6	4
50- 99 "	8 680	42	24	23	7	4
	14 812	25	17	31	16	12
200-299 "	9 136	14	9	30	25	22
300-499 "	6 560	10	7	27	30	27
500- "	2 624	8	5	26	36	25
Holders by sex		_		_		
Males	40 245	24	15	27	19	15
Females	6 427	33	13	29	15	10

<sup>&</sup>lt;sup>1</sup> Gross income and entrepreneurial income from agriculture for 2003 are not comparable with the other years.

#### 6.6. Holders by entrepreneurial income from agriculture as per cent of gross income, by type of farming. 2007

	Holdoro total	Entrepre	neurial income fr	om agriculture as	per cent of gross in	come			
	Holders, total —	0 per cent	1-9 per cent	10-49 per cent	50-89 per cent	90- per cent			
	_	Per cent -							
Total	46 672	25	15	27	19	15			
Type of farming									
Cereals and oil seeds	8 526	34	26	30	7	3			
Other field crops	5 644	35	17	24	16	10			
Horticulture and permanent									
crops	1 465	26	13	24	21	17			
Cattle - dairying	10 363	6	3	22	35	33			
Cattle - rearing and fattening	3 768	31	16	33	14	7			
Cattle - mixed	578	6	4	21	34	35			
Sheep	8 615	31	20	32	11	6			
Various grazing livestock	2 569	36	13	23	15	13			
Granivores	1 615	12	6	25	26	30			
Mixed cropping	516	22	10	31	22	16			
Mixed livestock	778	14	6	19	33	28			
Mixed crops - livestock	2 235	28	12	26	21	14			

#### 6.7. Average entrepreneurial income from agriculture for holders, by type of farming and county. 2007. NOK

	Entre-				By type of	farming			
	preneurial income from agriculture per holder	and oil	lorticulture and permanent crops	Cattle - dairying r	Cattle - earing and fattening	Cattle - mixed	Sheep (	Granivores	Other type of farming
The whole country	136 300	68 400	187 400	225 800	87 500	257 900	64 000	319 600	137 800
County									
Østfold	130 200	81 600	288 700	248 000	91 100	260 900	31 100	320 100	176 400
Akershus og Oslo	118 900	88 700	309 100	248 100	100 300	235 100	34 100	350 700	155 000
Hedmark		63 300	271 200	216 800	107 200	245 600	71 700	365 000	186 600
Oppland	132 200	63 200	299 100	204 000	93 500	232 100	71 400	317 900	129 600
Buskerud		57 000	290 000	203 900	94 700	284 200	84 500	219 300	112 900
Vestfold	128 600	57 800	221 800	265 100	124 000	254 900	27 600	334 800	167 000
Telemark		31 800	113 300	166 200	64 700	187 400	74 700	260 800	67 400
Aust-Agder	98 900	57 500	287 500	182 200	71 400	271 800	62 600	111 100	69 500
Vest-Agder		28 300	112 400	185 700	57 500	278 200	45 200	222 200	71 300
Rogaland		55 600	270 600	252 700	90 000	287 400	71 800	341 700	196 900
Hordaland		-	106 900	177 700	53 100	205 200	34 300	282 400	73 300
Sogn og Fjordane	104 900	-	70 600	173 600	52 400	147 000	47 400	188 500	105 300
Møre og Romsdal	143 200	62 700	148 900	233 100	81 900	272 100	47 400	329 100	123 100
Sør-Trøndelag	148 800	61 000	192 700	238 000	99 600	287 100	89 300	258 700	117 000
Nord-Trøndelag	180 400	62 000	262 500	253 600	124 300	298 300	93 200	324 500	179 600
Nordland		3 900	90 100	269 200	112 900	256 500	82 400	370 200	154 100
Troms Romsa	149 900	-	203 400	262 500	115 000	131 200	83 700	234 800	141 100
Finnmark Finnmárku	164 500	:	121 800	293 500	89 000	267 400	65 300	174 700	87 000

# 7. Grain and oil seeds, area and yields

# 7.1. Main results, 2008

Good grain yields in 2008

The total grain yield in 2008 was 1.39 million tonnes; an increase of 15 per cent from the year before. Oats and rye yields were particularly good.

In 2008, the total grain harvest consisted of 558 000 tonnes of barley, 453 000 tonnes of wheat, 328 000 tonnes of oats and 48 000 tonnes of rye. Including all grain crops, average grain yield per decare was 449 kg. Most grain is grown in the counties of Østfold, Akershus and Hedmark, accounting for 57 per cent of the total grain area and 59 per cent of the total grain harvest.

The average decare yield of barley for the entire country was 583 kg, which is 238 kg more than the year before. The barley area was reduced by 8 per cent to 1.30 million decares in 2008.

Increasing wheat area

The area of wheat increased by two per cent to 932 000 decares in 2008. The average decare yield of wheat for the country as a whole was calculated to be 487 kg in 2008. The largest yield per decare was achieved in the county of Akershus, with 524 kg.

The area of oats sown increased by 7 per cent to 777 700 decares in 2008. The decare yield of 430 kg is about 50 kg more than in 2007.

A total of 14 550 holdings grew grain in 2008. The average grain area per holding has increased from 142 to 212 decares over the past ten years. There are becoming less and less small grain farms, while the number of holdings with at least 400 decares of grain area is increasing.

## 7.2. Background and purpose

Purpose and history

The purpose is to present statistics on production of grain and oil seeds in Norway.

Users and applications

The main users of the statistics are the Ministry of Agriculture and Food, the Norwegian Agricultural Economics Research Institute, the Agricultural Budget Commission, the Norwegian Farmers Union, the Norwegian Smallholders Union etc.

## 7.3. Statistics production

Population

All deliveries of grain and oil seed for sale are registered when received at the corn mill. Information about delivered quantity and quality of the corn on each holding is extracted from this register. In combination with this information, information about area of the different crops is based on the yearly population of agricultural holdings described in chapter 3.

Data sources

Preliminary figures: Total yield based on forecasts from The Norwegian Agricultural Purchasing and Market Co-operation. Area of grain and oil seeds is taken from the administrative records of everyone who applies for an agricultural production subsidy in Norway.

Final figures: Yields of grain and oil seeds based on the administrative records of the Norwegian Agricultural Authority on all deliveries for sale. Area of grain and oil seeds is taken from the yearly updated population of agricultural holdings established in Statistics Norway.

Control and revision

Data are checked with the previous submitted reports by various machine controls.

## 7.4. Sources of error and uncertainty

Although the registers involved are of fairly high quality, some coverage errors could occurs due to late updating and classification errors. The difference between preliminary figures and final figures are marginal on country level.

## 7.5. Comparability and coherence

All active holders in agriculture are included in the statistics based on the total population of agricultural businesses. The main source for this statistics is the register based on the holders applying for governmental production subsidies. For those who do not apply for governmental subsidies, information about use of area and domestic animals are picked up from various other administrative registers and surveys conducted by Statistics Norway. Information about agricultural area for the last year is based on the register for governmental subsidies only, and total yield is based on preliminary figures from The Norwegian Agricultural Purchasing and Market co-operation.

## 7.6. Availability

Publications and Internet address

The statistics is published on the internet-site of Statistics Norway: <a href="http://www.ssb.no/10/04/10/korn">http://www.ssb.no/10/04/10/korn</a> en/

Micro data

Primary data is saved in files in the systems of the ordinary storing of data in Statistics Norway.

#### 7.1. Holdings with area of grain and oil seeds. Area used for grain and oil seeds. 1989, 1999-2008

	Holdings								Oil seeds
	with grain	Area of		Wheat		Rye and	Barley	Oats	
	and oil seeds	grain, total	Total	Spring wheat	Winter wheat	triticale			
					Deca	ires —			
1989 1999 2000 2001 2002 2003 2004	33 103 21 908 21 379 20 599 19 509 18 277 17 652	3 468 588 3 281 736 3 306 000 3 281 100 3 268 200 3 266 800 3 282 700	382 484 515 798 680 900 636 000 638 000 757 600 853 400	418 671 405 200 515 700 493 300 439 300 519 800	97 127 275 700 120 300 144 600 318 300 333 600	4 245 26 891 38 300 27 600 24 100 44 600 72 400	1 759 910 1 825 917 1 627 400 1 768 500 1 806 000 1 616 200 1 490 200	1 321 950 913 130 959 300 849 100 800 200 848 500 866 600	61 215 63 656 57 200 108 800 109 900 75 400 68 500
2005	16 770 15 828 15 083 14 550	3 252 100 3 181 800 3 119 100 3 090 200	808 200 857 500 912 200 931 700	536 700 561 700 530 300 564 600	271 400 295 800 381 900 367 100	69 400 60 600 76 300 81 700	1 633 000 1 524 300 1 406 700 1 299 100	741 600 739 500 723 900 777 700	66 900 65 100 62 000 48 100
County Østfold Akershus og Oslo Hedmark Oppland Buskerud Vestfold Telemark Aust-Agder Vest-Agder Rogaland Hordaland Sogn og Fjordane Møre og Romsdal Sør-Trøndelag Nord-Trøndelag Nordland Troms Romsa	2 266 2 102 2 154 1 341 1 234 1 362 588 99 94 363 4 11 154 1 050 1 680 44 4	585 400 612 500 555 000 211 700 228 200 271 500 76 100 9 300 8 500 34 300 200 500 17 600 166 700 309 600 3 300 0	321 200 191 200 110 300 36 500 84 200 155 000 23 200 600 100 200 	152 400 88 500 99 300 32 100 57 800 111 100 18 400 500 100 0 200 1 300 2 800	168 800 102 700 11 100 4 400 26 400 43 900 4 700 100 0 100 - 0 600 4 100	21 800 14 300 11 000 1 900 6 900 24 100 1 200 0 0 - - 300 200	91 000 164 700 268 700 151 500 67 000 44 200 20 700 4 000 3 800 32 500 200 300 16 000 145 000 286 300 3 100	151 400 242 300 165 000 21 900 70 100 48 200 31 000 4 600 1 600 0 0 1 300 19 400 16 100 300	16 700 12 200 2 100 2 100 4 800 8 300 1 500 100 - 0 0 200 0
Finnmark Finnmárku	-	-	-	-	-	-	-	-	-

#### 7.2. Total production and yield of grain. 1989, 1999-2008

		Total prod	uction, 1000	tonnes			Yield per ded	care. Kg	
	Grain, total	Wheat	Barley	Oats	Rye and triticale	Wheat	Barley	Oats	Rye and triticale
1989	1 179.6	139.6	613.8	423.4		374	351	317	
1999	1 228.5	229.7	623.6	355.5	9.4	445	342	389	350
2000	1 309.0	313.4	573.5	396.9	16.1	460	352	414	421
2001	1 219.1	259.1	623.7	330.4	5.9	407	353	389	215
2002	1 142.1	261.5	592.9	278.7	9.0	410	328	348	376
2003		349.5	584.8	333.6	19.4	461	362	393	436
2004	1 444.6	406.8	630.5	366.7	40.6	444	423	423	477
2005	1 298.4	395.4	589.3	279.0	34.8	489	361	376	502
2006		357.0	537.6	248.4	26.2	416	353	336	431
2007		401.1	485.3	276.0	40.0	440	345	381	524
2008		453.3	558.2	327.8	47.6	487	583	430	421
County									
Østfold	282.9	164.9	38.9	67.5	11.7	513	536	428	445
Akershus og Oslo	273.9	93.5	68.8	103.7	8.0	489	558	418	428
Hedmark	260.4	57.8	125.9	69.8	6.9	524	627	468	423
Oppland	88.1	16.3	62.4	8.7	0.7	446	374	412	398
Buskerud	87.6	34.0	23.8	26.4	3.3	404	475	356	377
Vestfold	128.3	73.4	17.5	21.1	16.3	473	678	396	438
Telemark	29.2	9.3	7.3	11.9	0.7	402	550	351	384
Aust-Agder	2.8	:	1.1	1.5	:	:	:	260	337
Vest-Agder		:	:	1.5	:	:	:	291	333
Rogaland		0.1	13.7	0.5	-	:	-	421	328
Hordaland		-	:	-	-	-	-	:	-
Sogn og Fjordane	:	:	:	:	-	:	-	:	:
Møre og Romsdal	5.1	:	4.9	:	-	:	-	303	210
Sør-Trøndelag	73.5	8.0	63.6	9.0	0.1	423	:	439	461
Nord-Trøndelag	137.0	2.9	128.3	5.9	-	412	:	448	365
Nordland		-	:	:	-	-	-	:	:
Troms Romsa		-	-	-	-	-	-	-	-
Finnmark Finnmárku	-	-	-	-	-	-	-	-	-

# Production of potatoes and forage plants

# 8.1. Main results, 2008

A good harvest in 2008

The yield of all meadows for mowing increased by 100 700 tonnes to a total of 2.72 million tonnes from 2007 to 2008. The yield of potatoes was also higher in 2008.

The total yield of meadows for mowing converted by dry matter into hay, correspond to a yield of 531 kilos of hay per decare. The total yield of meadows for mowing was about 4 per cent higher in 2008 than in 2007.

At the first cut in 2008, yield from 30 per cent of the harvested area of meadows for mowing was stored into silos as silage, whereas yield from 62 per cent was harvested as round bales. Corresponding figures for the later cut were 30 and 67 per cent respectively. The grass from 7 per cent of the first cut was dried as hay, while 1 per cent was harvested as hay at later cut.

Crops of green fodder and silage

The total yield of other crops for green fodder and silage showed a further decline in 2008. Rye grass covered 47 per cent of the total area of other fodder crops of 131 000 decares, and green forage mixtures and grain for green fodder and silage covered 49 per cent. The average decare yield of rye grass was 2 137 kilos, and for green forage mixtures and grain for green fodder 1 427 kilos.

The yield of potatoes was 398 000 tonnes, corresponding to a per decare yield of 2 782 kilos. The yield of potatoes was about 69 000 tonnes higher in 2008 than in 2007.

# 8.2. Background and purpose

Purpose and history

The purpose of the statistics is to estimate the yield of potatoes, meadows for mowing and coarse fodder in Norway. Since 1990, statistics on grain production have been provided by data from administrative sources (see chapter 7).

Users and applications

The main users of the statistics are the Ministry of Agriculture and Food, the Norwegian Agricultural Economics Research Institute, the Agricultural Budget Commission, the Norwegian Farmers Union, the Norwegian Smallholders Union etc.

## 8.3. Statistics production

Population

Statistics on yield of potatoes and forage plants are based on a yearly sample survey. The target population of this survey is holdings referring to these crops when applying for governmental grants.

In a wider context official statistics on agricultural yields cover grain, potatoes and forage plants. Statistics on grain production are described in chapter 7.

Data sources

The register of holders applying for governmental grants provides information on persons associated with the holding and the size of areas used for potatoes, coarse fodder and meadows for mowing. Data on area harvested, and total yield of each crop are provided by holders who fill in the forms of the annual survey.

Sampling

Each year a sample is drawn from the register of holders applying for governmental grants. The size of the sample is about 3 100 holders.

All types of holdings with combinations of areas of potatoes, coarse fodder and meadows for mowing are included in the sample survey of agricultural yields. To provide a better representation in certain counties with few holdings a higher percentage of holdings are selected in these areas.

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Collection of data

In November each year, forms are sent to the holdings drawn for inclusion in the survey. As from 2004, the farmers also may report via Internet.

Control and revision

A number of controls and corrections are done to ensure consistency both within a single form and between forms and available register information.

Estimation

Data on area harvested and total yield of the different crops, are provided by the holders. Average yield is calculated regarded to this information. Total yield for the entire county is calculated by use of average yield from the sample survey, and area of the different crops in each county based on information from the total population of agricultural holdings.

Confidentiality

Figures based on few units (holdings) are not published if this causes risk for identifying any of the units concerned, or the results are considered to be all too uncertain for giving estimates.

## 8.4. Concepts, variables and classifications

Agricultural holding:

A single unit, both technically and economically, which has single management and which produces agricultural products. The holding is independent of municipality boundaries. The agricultural holdings headquarter must be located in an agricultural property.

#### Holder:

The person considered as responsible for operating the holding, usually the person applying for governmental production subsidies.

#### Agricultural area in use:

Agricultural land that is harvested at least once during a year, including planted areas of permanent crops, where no harvest has been produced so far. Includes also arable land included in the crop rotation system with no intention to produce a harvest during the year, but which will be harvested the next year.

#### *Meadows for mowing:*

Include cultivated meadow and surface-cultivated meadow.

#### Coarse fodder crops:

Include area of rye-grass, grain for silage, fodder rape, fodder cale and fodder roots.

#### Fodder roots

Include area of swedes and turnips for feed and fodder beets.

#### 8.5. Sources of error and uncertainty

Measurement and processing errors

Primary data are obtained from the forms filled in by the respondents. They may contain errors made by the individual respondents when filling in the form. A number of errors are discovered and corrected during the revision process at Statistics Norway.

A number of errors during the collection and processing of the data are unavoidable and include errors that occur during revision, data processing errors etc. Extensive work has been carried out to reduce these errors as much as possible.

#### Non-response errors

Non-response in the survey is due to the failure of individual respondents to deliver questionnaires or that a property has been sold or is no longer farmed as an independent unit.

Sampling errors

All sample surveys will be encumbered by a certain amount of uncertainty. Generally, the fewer the observations are, the more uncertain the results. Groups based on few observations will be particularly sensitive to extreme values, i.e. values that deviate considerably from the average. Such extreme values are consequently assigned a weight equal to 1, so that they only represent themselves in the material.

All types of holdings with various combinations of area of potatoes, coarse fodder and meadows for mowing are included in the sample survey. To provide a better representation in certain counties with few holdings a higher percentage of holdings are selected.

Other sources of error

The quality of the register basis from which the sample is selected also has an impact on the quality of the final result.

## 8.6. Comparability and coherence

The statistics are basically comparable back to 1970.

## 8.7. Availability

Publications and Internet address

The statistics are published electronically via Today's Statistics on Statistics Norway's website:

http://www.ssb.no/english/subjects/10/04/10/jordbruksavling en/

Micro data

A data file with anonymous individual data is stored at Statistics Norway.

#### 8.1. Yield of potatoes and forage plants. 2005-2008

Crop	Yield in tons				Kilos per decare			
	2005	2006	2007	2008	2005	2006	2007	2008
Potato	316 600	378 300	329 800	398 400	2 305	2 693	2 280	2 782
Crops for green fodder and								
silage	280 900	255 000	246 100	221 900	1 808	1 710	1 792	1 699
Annual rye-grass Green forage mixtures/grain	181 400	158 000	143 900	131 300	2 476	2 285	2 215	2 137
cropsForage rape, marrow-stem	84 900	85 600	94 600	85 000	1 288	1 296	1 540	1 427
kale etc.	6 800	5 400	4 300	3 000	1 488	1 256	1 634	1 203
Hay <sup>1</sup>	2 653 600	2 599 800	2 617 600	2 718 300	607	593	589	531

<sup>&</sup>lt;sup>1</sup>Comprise total yield from meadows for mowing converted through dry matter into hay.

#### 8.2. Yield of potatoes and forage plants, by county. 1 000 tons

	Potato	Green fodder and silage	Hay <sup>1</sup>
2000	368.0	737.3	2 870.6
2001	400.6	648.1	2 930.9
2002	392.7	436.6	2 848.0
2003	366.8	366.9	2 684.1
2004	396.4	364.2	2 788.0
2005	316.6	280.9	2 653.6
2006	378.3	255.0	2 599.8
2007	329.8	246.1	2 617.6
2008	398.4	221.9	2 718.3
2008			
County			
Østfold	18.3	6.2	57.4
Akershus og Oslo	15.9	7.7	58.2
Hedmark	160.2	30.3	200.1
Oppland	36.3	59.6	375.4
Buskerud	14.2	8.2	95.4
Vestfold	49.7	5.4	38.1
Telemark	6.9	5.1	55.4
Aust-Agder	3.9	1.4	31.1
Vest-Agder	1.9	0.5	67.7
Rogaland	27.8	12.6	309.5
Hordaland	0.3	1.0	128.4
Sogn og Fjordane	3.0	3.0	182.0
Møre og Romsdal	4.5	2.3	260.1
Sør-Trøndelag	6.3	26.0	286.8
Nord-Trøndelag	40.8	38.9	265.6
Nordland	4.2	6.0	219.0
Troms Romsa	4.1	4.3	62.9
Finnmark Finnmárku	0.2	3.3	25.3

<sup>&</sup>lt;sup>1</sup> Comprise total yield from meadows for mowing. The yield is converted through dry matter into hay.

# 9. Horticultural production

# 9.1. Main results, 2008

Good harvest of fruit in 2008

The total production of fruit in Norway is estimated to 20 300 tonnes in 2008, an increase of 6 800 tonnes from the year before.

The total production of vegetables is estimated to 176 500 tonnes, which is three per cent more than the year before. Total production of garden berries is estimated to about 13 800 tonnes, an increase of 1 400 tonnes from 2007.

# 9.2. Background and purpose

Purpose and history

The purpose of the statistics is to present annual statistics covering total area, production yields per area unit and total production for important horticultural crops.

Up to 1995 Statistics Norway worked out area and production statistics for horticultural crops. From 1996 to 2004 the Norwegian Agricultural Authority had the responsibility. From 2005 the statistics are again being worked out by Statistics Norway. Methods and procedures were changed when the Norwegian Agricultural Authority was in charge of the statistics. For 2005 Statistics Norway has kept the same methodology as developed and used by the Norwegian Agricultural Authority.

Users and applications

The statistics are used by professional organizations, the Budget Committee for Agriculture, the Ministry of Agriculture and Food and various research institutions such as the Norwegian Agricultural Economics Research Institute.

## 9.3. Statistics production

Population

Horticultural production comprises statistics on garden berries, fruits, field grown vegetables and vegetables grown in greenhouses. The statistics are based on information about area and production collected by questionnaire in a sample survey. Active agricultural holdings meeting minimum one of the following requirements are included in the statistics:

- Cultivating minimum 300 m<sup>2</sup> of vegetables grown in greenhouses, including herbs
- Cultivating minimum 1.0 decare of field-grown vegetables, including herbs
- Cultivating minimum 1.0 decare of fruit
- Cultivating minimum 1.0 decare of garden berries

Data sources

The Register of Applications for Agricultural Production Subsidies provides information about the holding, such as name and address of the holder and size of area of the various crop categories. Detailed information about cultivated area and production of garden berries, fruits, field-grown vegetables and vegetables in greenhouses are compiled from the questionnaire. Data on area and production of processing peas and beans are collected from the processing industry.

Sampling

The sample is based on the list of agricultural holdings used by the Norwegian Agricultural Authority when working out the statistics in the period 1996-2004. As a compensation for agricultural holdings terminating horticultural production, new holdings to the sample are being added. These new holdings are mainly drawn from Applications for Agricultural Production Subsidies.

Since 2005, a total of approximately 3 000 agricultural holdings is included in the survey.

Collection of data

In November questionnaires are sent to the agricultural holdings in the survey. The respondents may also answer the questionnaire via Internet.

#### Control and revision

A number of controls and corrections are done to ensure consistency both on a single questionnaire and between questionnaires and available register information.

Production reported in other measuring units than specified on the questionnaire, are recalculated by using predetermined factors.

#### Estimation

The data compiled are used to calculate total area, yield per unit of area and total production per crop and county for year of survey.

- 1. Area: A factor is calculated by dividing area of year of survey by area of the preceding year. The area for both years is reported in the questionnaire. The total area in year of survey is then calculated by multiplying the factor with the total area from the preceding year.
- 2. Production per area unit: Production per area unit is calculated by dividing total production with cultivated area for holdings where both area and production information is reported on the questionnaire.
- 3. Total production: Calculated total area (article 1) is multiplied by calculated production per area unit (article 2).

## 9.4. Concept, variables and classifications

Agricultural holding:

A single unit both technically and economically, which has single management and which produces agricultural products. The holding is independent of municipality boundaries. The agricultural holdings headquarter must be located in an agricultural property.

#### Area of vegetables:

If a specific crop is harvested more than once on the same area during the same growth season, the area is counted only once. If the same area is used for various succeeding crops, the area will be counted for each crop. Consequently, the total area will be greater than the basic area used for production of vegetables, e.g. the area recorded in Applications for Agricultural Production Subsidies.

#### Production:

Defined as production that can be utilized for sale and home consumption.

## 9.5. Sources of error and uncertainty

# Measurement and processing errors

Primary data obtained from questionnaires may contain errors. For instance it can be difficult for the holder to give precise figures for crops that can be sold in bunch or pieces, like radishes. A number of errors are discovered and corrected during the data revision at Statistics Norway. However some measurements and processing errors are unavoidable. Extensive work has been carried out to reduce these errors as much as possible.

#### Non-response errors

Some of the crops are produced by a limited number of holdings. Non-response of holdings with great area will have significant impact on the estimated figures.

#### Sampling errors

All sample surveys will be encumbered by uncertainty. Generally, the fewer the observations are, the more uncertain the results. Crops based on few observations will be particularly sensitive to extreme values, i.e. values that deviate considerably from the average.

#### Other sources of error

The quality of the register basis from which the sample is selected also has an impact on the quality of the final result.

The survey model is based on yearly successive computations. Preceding years estimated areas for the various crops are multiplied by a factor (see Estimation in article 9.3). The basis area of the various crops is cultivated area registered in the Census of Agriculture 1999. Because of yearly successive calculations (on cultivated area), possible errors can be magnified. Errors in the area calculations will also have impact on the calculations of production. The errors are however, considered not to have too great impact and the model is considered to still obtain reliable estimates for both areas and production.

## 9.6. Comparability and coherence

The statistics are basically comparable back to 1996.

## 9.7. Availability

Publications and Internet address

The statistics are published electronically via Today's Statistics on Statistics Norway's website: <a href="http://www.ssb.no/hagebruk">http://www.ssb.no/hagebruk</a> en/.

Micro data A data file with anonymous individual data is stored at Statistics Norway.

#### 9.1. Yield of various horticultural crops<sup>1</sup>. 2008

Crop	Area in decares	Yield in kg per decare	Yield in tonnes
Fruit			
Apple	17 180	992	17 035
Pear	1 277	586	749
Plum	4 319	366	1 582
Sweet cherries	2 484	288	715
Cherrries	395	527	208
Berries			
Black currant	2 826	279	788
Strawberry	15 987	640	10 226
Raspberry	4 117	641	2 638
Blueberry	293	91	27
Other berries	598	205	123
Vegetables, field grown, total			
Cabbage	22 092		37 287
Cauliflower	6 493	1 529	993
Early cabbage	1 505	2 626	3 952
Winter cabbage	3 751	4 558	17 097
Brussels sprouts	2 463	945	2 391
Red cabbage	368	4 301	2 329
Chinese cabbage	3 025	2 190	6 624
Broccoli	4 487	870	3 901
Table swedes	5 312	3 032	16 107
Carrot	14 005	3 153	44 161
Leek	1 532	1 842	2 821
Beetroots	660	1 546	1 021
Onion	8 120	2 744	22 280
Root celery	1 344	1 423	1 912
Celery	514	2 427	1 248
Turnip-rooted parsley	315	591	186
Curled parsley	233	1 453	338
Ridge cucumber	742	2 304	1 710
Iceberg lettuce	6 471	1 782	11 531
Other lettuces	3 007	1 590	4 781
Sweet corn	974	646	630
Radishes	668	417	279
Turnips	513	677	347
Other field grown vegetables,			
including herbs	5 243		5 268
Vegetables under	2	2	
glass/plastics	m²	Yield in kg per m <sup>2</sup>	
Cucumber	296 752	52	15 301
Tomato	309 145	39	12 017
Curled parsley	3 964	19	:
Rapid lettuce	20 010	13	851
Head/root lettuce	5 715	39	73
Other lettuce	42 713	43	1 140

<sup>&</sup>lt;sup>1</sup>Refers to holdings which fulfil one or more of these conditions: Minimum 1 decare of fruit trees, 1 decare of berries (field-grown), 1 decare of vegetables including herbs (field-grown) or 300 m<sup>2</sup> of vegetables including herbs grown in greenhouses.

## 9.2. Yield of fruit, garden berries and vegetables<sup>1</sup>. 1996-2008. Tonnes

Year	Fruits	Berries	Vegetables <sup>1</sup>
1996 <sup>2</sup>	18 169	13 113	161 335
1997 <sup>2</sup>	16 069	9 757	156 946
1998 <sup>2</sup>	17 284	9 752	151 546
1999 <sup>2</sup>	12 431	11 544	162 405
2000 <sup>2</sup>	19 427	11 312	166 868
2001 <sup>2</sup>	13 726	11 471	167 433
2002 <sup>2</sup>	20 774	11 937	167 042
2003 <sup>2</sup>	14 974	11 982	168 723
2004 <sup>2</sup>	19 930	13 962	174 131
2005 <sup>2</sup>	13 517	12 726	176 106
2006 <sup>2</sup>	18 629	14 339	166 695
2007 <sup>2</sup>	13 475	12 374	172 001
2008 <sup>2</sup>	20 289	13 802	176 508

<sup>&</sup>lt;sup>1</sup> Main crops, both field grown crops and crops under glass/plastics. Beans and processing peas are not included. <sup>2</sup> Refers to holdings which fullfil one or more of these conditions: Minimum 1 decare of fruit trees, 1 decare of berries (field-grown), 1 decare of vegetables including herbs (field-grown) or 300 m<sup>2</sup>of vegetables including herbs grown in greenhouses.

# 10. Approved carcasses

#### 10.1. Main results 2008

Increase in meat production

A total of 318 000 tonnes of meat from domestic animal production were approved for the market in 2008; an increase of 21 000 tonnes from 2007.

Pork accounted for 39 per cent of the total meat production in 2008, while beef and poultry accounted for 29 and 27 per cent respectively.

From 2007 to 2008, the production of meat from poultry increased by 20 per cent. Since 2003, the production has increased by more than 70 per cent, from 49 000 tonnes in 2003 to 84 000 tonnes in 2008.

## 10.2. Background and purpose

Purpose and history

The purpose for the statistics is to obtain information about production of meat in Norway.

Users and applications

The main users of the statistics are the Ministry of Agriculture and Food, the Norwegian Agricultural Economics Research Institute, the Agricultural Budget Commission, the Norwegian Farmers Union, the Norwegian Smallholders Union etc.

## 10.3. Statistics production

Population

The statistics is based on information from the Register for deliveries of carcasses. All deliveries of carcasses to slaughterhouses during the year are supposed to be included in the register.

Data sources

The register for deliveries of carcasses to Norwegian slaughterhouses.

Control and revision

The statistics is checked up at aggregated level (country and county figures) by comparing with previous years registrations.

Estimation

The Register for deliveries of carcasses obtains information about all delivered carcasses during the time period. Statistics Norway gets aggregated data files, where the information about deliveries of different kinds of livestock from each single holder during a month is collected in one record.

Confidentiality

Figures are not presented if there is a risk of identifying any unit.

# 10.4. Concepts, variables and classifications

Definitions of the main concepts and variables

The statistics give an overview over number and weight of carcasses from the different livestock. The livestock is separated into horse, cow, ox, heifer, calf, sheep, pig, goat, hen, chicken, turkey and other poultry.

In the statistics, the term poultry is often used. Poultry includes hens, cocks, chickens, turkeys and other poultry.

Standard classifications

Oslo County is merged with Akershus County because of very few holdings in Oslo County.

# 10.5. Sources of error and uncertainty

The information given through the registration is considered to be of reasonably good quality. The most important source of error is that the slaughterhouse may fill in incorrect information during the registration.

# 10.6. Comparability and coherence

The statistics are basically comparable back to 1952.

## 10.7. Availability

Publications and Internet address

The statistics are published electronically via Today's Statistics on Statistics Norway's website:

Approved carcasses

Micro data

A data file with anonymous individual data is stored at Statistics Norway.

10.1. Public meat inspection. Carcasses approved for human consumption. Tonnes

	Total	Horse	Cow	Heifer/ox	Calf	Sheep	Pig	Poultry	Other meat <sup>1</sup>
2002	261 441	637	31 385	51 855	2 397	24 971	103 998	45 882	318
	265 630	569	30 530	52 610	2 174	24 37 1	106 007	49 043	312
0001	281 270	534	31 925	52 545	2 174	26 133	113 487	54 236	308
	283 388	467	31 390	53 936	2 067	25 954	112 793	56 472	309
0000	292 405	407 425	32 320	53 208	2 116	25 954	116 345	62 518	321
2007	296 566	384	30 305	52 281	2 092	23 426	117 735	70 036	307
2008	317 975	362	33 545	50 938	1 963	24 115	122 692	84 025	334
2008									
~	28 805	26	755	924	55	99	10 387	16 560	4
		26 39		1 207	17			2 561	3
Akershus og Oslo	10 956		700			207	6 221		
Hedmark	38 368	27	2 181	3 545	97	1 335	14 784	16 373	26
Oppland	24 802	48	3 786	7 151	116	2 783	9 772	1 113	32
Buskerud	5 721	15	839	1 003	229	1 209	1 139	1 275	13
Vestfold	15 819	12	451	656	38	79	9 775	4 807	1
Telemark	4 027	11	433	767	60	630	1 885	223	19
Aust-Agder	2 291	12	312	534	59	326	737	308	3
Vest-Agder	3 478	8	745	1 325	57	547	682	112	1
Rogaland	67 541	52	5 950	8 163	445	4 970	33 730	14 219	11
Hordaland	9 126	21	1 511	2 177	175	2 228	1 997	995	23
Sogn og Fjordane	9 330	12	2 077	2 857	282	2 161	1 888	-	53
Møre og Romsdal	11 751	7	3 125	4 516	75	1 251	2 406	331	39
Sør-Trøndelag	23 762	45	3 348	4 949	94	1 518	2 561	11 241	6
Nord-Trøndelag	43 008	13	3 889	5 720	122	867	18 484	13 907	6
Nordland	14 116	10	2 478	4 165	17	2 252	5 165	-	28
Troms	3 938	5	661	891	14	1 387	912	-	69
Finnmark Finnmárku	1 136	-	303	390	11	266	166	-	0

<sup>&</sup>lt;sup>1</sup>Comprise goat og vension.

#### 10.2. Public meat inspection. Carcasses approved for human consumption. Number of carcasses

<u> </u>	<u> </u>	•		•				
	Horse	Cow	Heifer/ox	Calf	Sheep	Goat	Pig	Poultry
2002	2 410	130 423	192 441	23 279	1 236 620	21 120	1 328 230	40 932 389
2003	2 148	124 893	190 436	20 731	1 235 941	20 918	1 336 294	42 777 265
2004	1 996	128 983	187 964	19 403	1 292 047	20 376	1 465 439	45 671 085
2005	1 734	124 574	189 809	18 613	1 274 985	21 824	1 469 430	46 729 637
2006	1 578	127 349	187 518	19 025	1 237 281	23 244	1 520 824	51 029 472
2007	1 406	117 172	185 065	18 648	1 164 083	22 180	1 463 943	55 499 318
2008	1 331	128 262	179 072	17 651	1 164 049	24 385	1 496 218	63 332 157
2008								
Østfold	93	2 744	3 051	450	4 932	40	126 007	10 923 434
Akershus og Oslo	142	2 567	4 020	170	10 423	232	75 970	1 821 516
Hedmark	95	8 069	12 677	953	65 824	968	181 534	12 625 517
Oppland	170	14 530	24 830	1 101	136 017	2 405	117 815	756 253
Buskerud	53	3 064	3 529	1 810	56 915	1 164	12 622	937 557
Vestfold	42	1 623	2 107	318	3 867	58	118 767	3 257 784
Telemark	39	1 607	2 692	502	31 507	1 739	22 574	156 557
Aust-Agder	46	1 189	1 850	468	16 499	35	9 096	258 498
Vest-Agder	31	2 905	4 640	484	27 112	113	8 174	102 131
Rogaland	199	23 056	28 256	3 945	239 908	1 272	404 888	11 691 228
Hordaland	83	6 011	8 163	1 538	109 496	1 693	24 640	837 008
Sogn og Fjordane	43	8 225	10 715	2 377	100 593	4 508	23 555	-
Møre og Romsdal	30	12 038	16 116	875	62 365	3 898	30 207	308 545
Sør-Trøndelag	159	12 773	17 654	1 022	73 041	102	31 717	7 937 083
Nord-Trøndelag	48	14 973	19 927	1 093	41 668	322	230 308	11 719 046
Nordland	39	9 275	13 997	176	106 121	1 746	65 064	-
Troms Romsa	19	2 449	3 298	175	65 151	4 089	11 191	-
Finnmark Finnmárku	-	1 164	1 550	194	12 611	1	2 089	-

# 11. Local administration of agricultural areas

# 11.1.Main results, 2008

Decreased transferring of cultivated land

Norwegian municipalities allowed to transfer 8 600 decares of cultivated land to non-agricultural use in 2008. This is about 200 decares less than the year before, and one of the lowest registered areas of arable land transferred since 1980.

Increased transferring of cultivable land

In 2008, 7 800 decares of cultivable land was transferred, an increase of 1 200 decares from 2007.

In 2004, the national government set as its goal to reduce the transferring of agricultural land to non-agricultural use by 50 percent within 2010. In the period 1994-2003, there was a yearly transferring of cultivated land to non-agricultural use of 13 360 decares.

The municipalities permitted land reclamation of 14 200 decares in 2008, an increase of 1 000 decares from the year before.

# 11.2. Background and purpose

Purpose and history

KOSTRA is a national information system that provides information on municipal and county municipal activities. The data collection includes most of the municipal and county municipal activities, including economy, schools, health, culture, the environment, conversion of agricultural land, social services, public housing, technical services and transport and communication. As from 2005, the reporting system also includes agricultural topics.

The figures focus on the priorities, the productivity and the coverage of needs, using a vast number of key indicators.

KOSTRA is supposed to give better information about the municipalities, both for the central and for the local governments. This includes a more coherent data collection, which makes it possible to combine data from many sources, for example combination of data on accounts and data on services and personnel. The focus has also been on comparability between municipalities, to make benchmarking possible as a part of the management process. And timeliness is vital. Information is collected in February and the first figures are published in March. In this publishing only electronic tests check the reliability of data. Revised figures are published in June.

Users and applications

The main users of the statistics are the central and local governments, such as the Ministry of Agriculture and Food, the Norwegian Agricultural Economics Research Institute, the Agricultural Budget Commission, the Norwegian Farmers Union, the Norwegian Smallholders Union etc.

#### 11.3. Statistics production

Data sources

As from 2005, the reporting system on conversion of agricultural land was simplified, as a detailed governmental administrative data system named AJOUR was replaced by a questionnaire through the municipality state reporting system KOSTRA. In addition to report land area transferred to various types of non-agricultural use, the questionnaire also considers decisions taken about land reclamation, splitting of agricultural property and applications for concession to buy a farm.

Information about agricultural area is extracted from official agricultural statistics, <u>Structure of agriculture.</u>

Control and revision

The municipalities reports electronically to Statistics Norway. The time limit for the municipalities reporting is set to February 15.

The reported data have gone through several controls, both locally and in Statistics Norway. Preliminary figures are presented 15th of March. This data material will be updated with corrections and forms received in the period March - May, and revised figures are made public June 15th each year.

## 11.4. Concepts, variables and classifications

The municipalities report land transferred to various types of non-agricultural use, decisions taken about land reclamation, splitting of agricultural property and application for concession to buy a farm.

*Arable land:* Comprise fully cultivated land, surface-cultivated land and infield pastureland.

Fully cultivated land: Agricultural area that has been ploughed and can still be ploughed further. The area can be used for cultivating field crops or meadow and pasture renewed by ploughing.

*Surface-cultivated land:* Agricultural area that is mostly cleared and levelled in such a way that it can be mechanically harvested.

*Infield pasture:* Pastureland that cannot be mechanically harvested. At least 50 % of the area must be covered by grass species. The area must be fenced in unless it has natural boundaries such as rivers, lakes, sea, mountains etc. Areas of woodland, bogs, lakes and rocks each exceeding 1.0 decares are deducted.

*Cultivable land:* Area that after land cultivation fulfils the standard of easy or less easy arable land, and which fulfils climate and soil conditions for growing crops.

Conversions of cultivated and cultivable land are distributed on different aims according to the Planning and building Act:

- 1. Building areas: Including areas for dwellings with associated facilities, shops, offices, industry, buildings for leisure purposes (leisure cabins with connected outhouses), as well as sites for public (state, county and municipal) buildings with a specified purpose, other buildings of specifically defined use to the general public, hostels and catering establishments and garages and petrol stations.
- 2. Agricultural areas: Including areas for farming and forestry, reindeer farming and market gardening.
- 3. Public traffic areas: Roads- for the purpose of this Act this also includes streets with pavements, footpaths, cycle paths, courtyards and squares bridges, canals, railways, tramways, bus stations, parking areas, harbours, airports and other traffic facilities and the necessary land for installations and means of making the traffic areas safe etc.
- 4. Public outdoor recreation areas: Parks, hiking trails, camping sites, areas used for play and sport, and sea areas used for such activities.
- 5. Danger areas: Areas for high voltage installations, shooting ranges, stores of flammable goods and other installations which may represent a hazard to the public, and areas where, due to risk of landslide, flood or other special hazard, building is not permitted or shall be permitted only on special conditions out of consideration for safety.
- 6. Special areas: Including areas for private roads, camping, areas for installations in the ground and in watercourses or for marine installations, areas with buildings and installations which should be preserved on account of their historical, antiquarian or other cultural value, fishing settlements, reindeer farming areas, areas for open-air recreation that are not included under item 4,

green belts in industrial areas, nature conservation areas, climate conservation zones, sources of water supply with catchment area, areas with unobstructed visibility close to roads, areas where building is restricted around airports, and areas and installations for operation of radio navigation aids outside airports, areas for installation and operation of municipal technical facilities, graveyards and cemeteries, water and sewerage installations, areas for construction and operation of plants for energy production or district heating, cableways, amusement parks, golf courses, stone quarries and soil extraction sites and other areas entailing significant encroachment on terrain, installations for the Telecommunications Administration and exercise areas with appurtenant installations for the Defence Forces and the Civil Defence.

- 7. *Common areas*: Common exit roads and common parking areas, common playgrounds for children, courtyards and other areas common to several properties.
- 8. Areas for renewal: Densely built areas, which are to be totally renewed or improved.

Several land use categories may be established within the same area or in the same building. However, the land use categories open air recreation area and nature conservation area may not be combined with the category agricultural area. It may also be stipulated that an area or building, after a specifically defined period of time or when other specific conditions have been fulfilled, shall be transferred from one land use category to another.

# 11.5. Sources of error and uncertainty

Measurement and processing errors

Information is collected in February and the first figures are published in March. In this publishing only electronic tests check the reliability of data. Revised figures are given in the middle of June.

Non-response errors

Approximately 95 per cent of the municipalities report, and the figures are based on reporting municipalities.

#### 11.6. Comparability and coherence

As from 2005, local administration of agricultural areas is reported through the municipality state reporting system KOSTRA.

Until 2004, information about conversion of agricultural land, was reported through a detailed governmental administrative data system. As from 2005, this registration is replaced by a questionnaire through KOSTRA. Changes in the routines for reporting have led to a fall in the figures reported, and as from 2005 the figures are considered as fairly uncertain.

#### 11.7. Availability

Publications and Internet address

The statistics are released electronically via Today's Statistics on Statistics Norway's web site:

Local administration of agricultural areas

Micro data A data file is stored at Statistics Norway.

11.1. Agricultural area transferred to non-agricultural uses under the provision of the Land Act and The Planning and Building Act by county

	Agricultural area transferred		Transferred under provision of the Land Act		Transferred under provision of the Planning and Building Act		
<del>-</del>	Total	Cultivated area	Cultivable area	Cultivated area	Cultivable	Cultivated	Cultivable area
1993	40 574						
	16 571 17 678	11 430 12 423	5 141 5 255	9 495 7 765	2 678 3 383	1 935 4 658	2 463 1 872
1994 1995	21 233	13 167	8 066	8 230	4 887	4 937	3 179
	21 664	11 641	10 023	5 860	1 645	5 781	8 378
1996 1997	21 159	12 093	9 066	6 110	4 025	5 983	5 041
	18 192	12 439	5 753	7 008	2 712	5 431	3 041
1998 1999	18 544	14 743	3 801	7 006 7 342	2 080	7 401	3 04 1 1 721
2000	14 993	14 743 12 346	2 647	7 542 7 587	2 437	4 759	210
2001	14 993 19 710	14 974	4 736	8 543	2 437 2 619	4 759 6 431	2 117
	24 839	15 818	9 021	7 491	1 776	8 327	7 245
2002	24 639	13 993	6 769	4 747	2 426	9 246	4 343
	21 819	11 653	10 166	4 747	1 704	9 246 7 349	4 343 8 462
1	17 948		10 100	2 965		7 349 4 749	8 761
2		7 714			1 473		
	14 137	8 024	6 113	2 988	1 797	5 036 5 048	4 316
1	15 442	8 809	6 633	2 891	1 565	5 918	5 068
2008*	16 442	8 594	7 848	2 471	1 569	6 123	6 279
2008							
County							
Østfold	1 481	1 214	267	60	24	1 154	243
Akershus/Oslo	780	490	290	176	54	314	236
Hedmark	1 583	753	830	156	394	597	436
Oppland	1 268	391	877	74	170	317	707
Buskerud	301	108	193	63	28	45	165
Vestfold	502	359	143	59	3	300	140
Telemark	170	50	120	29	28	21	92
Aust-Agder	216	124	92	58	16	66	76
Vest-Agder	399	390	9	171	6	219	3
Rogaland	1 522	943	579	134	23	809	556
Hordaland	647	292	355	148	77	144	278
Sogn og Fjordane	534	363	171	89	19	274	152
Møre og Romsdal	1 730	612	1 118	150	46	462	1 072
Sør-Trøndelag	1 641	1 152	489	159	97	993	392
Nord-Trøndelag	639	422	217	174	30	248	187
Nordland	904	351	553	245	103	106	450
Troms Romsa	797	327	470	301	292	26	178
Finnmark Finnmárku	1 328	253	1 075	225	159	28	916

As from 2005, the reporting system is simplified, and the detailed governmental administrative data system is replaced by a questionnaire through the municipality state reporting system named KOSTRA. Excluding information from the municipalities Bokn in Rogaland, Radøy, Austrheim, Fedje and Masfjorden in Hordaland, Vågsøy in Sogn og Fjordane, Giske, Midsund and Tustna in Møre og Romsdal, Grong in Nord-Trøndelag, Hamarøy, Tysfjord, Røst and Moskenes in Nordland, Torsken in Troms and Hammerfest and Kvalsund in Finnmark. Excluding information from the municipalities Austrheim in Hordaland, Frøya in Sør-Trøndelag and Rødøy in Nordland. Excluding information from the municipalities Kvam in Hordaland, Bremanger og Vågsøy in Sogn og Fjordane, Haram in Møre og Romsdal, Herøy, Lurøy and Flakstad in Nordland and Torsken in Troms. Excluding information from the municipalities Grimstad in Aust-Agder, Balestrand, Gaular og Bremanger in Sogn og Fjordane and Ballangen in Nordland.

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#### 11.2. Land reclamation. County

	Applications for land reclamation	Area applied for land reclamation	Approved area for land reclamation	
	Decares			
2005	462	11 407	10 693	
2006 <sup>2</sup>	485	12 626	11 606	
2007 <sup>3</sup>	547	13 649	13 119	
2008 <sup>4</sup>	603	15 180	14 157	
2008				
County				
Østfold	18	374	360	
Akershus/Oslo	14	155	155	
Hedmark	103	2 737	2 705	
Oppland	72	1 331	1 295	
Buskerud	14	195	149	
Vestfold	11	119	114	
Telemark	7	119	119	
Aust-Agder	8	556	460	
Vest-Agder	22	263	263	
Rogaland	120	2 185	1 809	
Hordaland	8	51	51	
Sogn og Fjordane	13	255	251	
Møre og Romsdal	33	1 011	1 009	
Sør-Trøndelag	34	664	658	
Nord-Trøndelag	63	2 597	2 238	
Nordland	37	1 118	1 074	
Troms Romsa	16	1 031	1 031	
Finnmark Finnmárku	10	419	416	

<sup>&</sup>lt;sup>1</sup> Excluding information from the municipalities Bokn in Rogaland, Radøy, Austrheim, Fedje and Masfjorden in Hordaland, Vågsøy in Sogn og Fjordane, Giske, Midsund and Tustna in Møre og Romsdal, Grong in Nord-Trøndelag, Hamarøy, Tysfjord, Røst and Moskenes in Nordland, Torsken in Troms and Hammerfest and Kvalsund in Finnmark. <sup>2</sup> Excluding information from the municipalities Austrheim in Hordaland, Frøya in Sør-Trøndelag and Rødøy in Nordland. <sup>3</sup> Excluding information from the municipalities Kvam in Hordaland, Bremanger og Vågsøy in Sogn og Fjordane, Haram in Møre og Romsdal, Herøy, Lurøy and Flakstad in Nordland and Torsken in Troms. <sup>4</sup> Excluding information from the municipalities Grimstad in Aust-Agder, Balestrand, Gaular og Bremanger in Sogn og Fjordane and Ballangen in Nordland.

#### 11.3. Applications for exemption from the obligation in the Concession Act and the Allodial Act. County

	Applications treated by the Concession Act and the Allodial Act	Applications approved with limited expemption from the obligation	Applications approved with permanent expemption from the obligation	Refused applications
2005	. 1 172	657	424	91
2006 <sup>2</sup>	. 1 048	554	400	94
2007 <sup>3</sup>	. 911	520	299	92
2008 <sup>4</sup>	. 932	561	306	65
2008				
County				
Østfold	. 26	17	4	5
Akershus/Oslo	. 27	22	5	0
Hedmark		72	14	4
Oppland	. 98	70	24	4
Buskerud	. 55	32	21	2
Vestfold	. 17	10	7	0
Telemark	. 71	34	29	8
Aust-Agder	. 42	18	15	9
Vest-Agder	. 45	22	21	2
Rogaland	. 65	46	10	9
Hordaland	. 53	25	25	3
Sogn og Fjordane		31	4	1
Møre og Romsdal		36	11	4
Sør-Trøndelag		36	12	7
Nord-Trøndelag	. 52	29	23	0
Nordland	. 84	26	58	0
Troms Romsa		33	23	7
Finnmark Finnmárku		2	0	0

<sup>&</sup>lt;sup>1</sup>Excluding information from the municipalities Bokn in Rogaland, Radøy, Austrheim, Fedje and Masfjorden in Hordaland, Vågsøy in Sogn og Fjordane, Giske, Midsund and Tustna in Møre og Romsdal, Grong in Nord-Trøndelag, Hamarøy, Tysfjord, Røst and Moskenes in Nordland, Torsken in Troms and Hammerfest and Kvalsund in Finnmark. <sup>2</sup>Excluding information from the municipalities Austrheim in Hordaland, Frøya in Sør-Trøndelag and Rødøy in Nordland. <sup>3</sup>Excluding information from the municipalities Kvam in Hordaland, Bremanger og Vågsøy in Sogn og Fjordane, Haram in Møre og Romsdal, Herøy, Lurøy and Flakstad in Nordland and Torsken in Troms. <sup>4</sup>Excluding information from the municipalities Grimstad in Aust-Agder, Balestrand, Gaular og Bremanger in Sogn og Fjordane and Ballangen in Nordland.

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