

# 1 Summary

The objective of the Yearbook of Agricultural Statistics is to compile a manageable portion of the available statistics relating to agriculture and food.

The main part of the yearbook covers agriculture – though there are also sections on horticulture, reindeer keeping and fur farming and also statistics on food.

For detailed information on forestry related to agriculture, please consult the Statistical Yearbook of Forestry, issued by the National Board of Forestry.

Until year 1999, information on food stuffs, such as food manufacturing, trade and consumption, were presented in "När mat kommer på tal – en livsmedelsstatistisk översikt" issued by Statistics Sweden (SCB). From year 2001, the food statistics is included in the Yearbook of Agricultural Statistics.

In many tables, the results are presented by Swedish counties and by production areas (a map of these can be found in Appendix 2).

In the beginning of the book, there is a Table of Contents and a List of Tables and Diagrams with translations into English. The translations of subject headings are, however, somewhat shortened. Information regarding units, years etc. should be obvious by the headings in Swedish, i.e.

Kg = kilogram

Milj. kg = million kilograms

Kr = Swedish kronor, SEK

Mkr = million of Swedish kronor (SEK)

Hektar = hectares

Ton = metric tons

Procent = per cent, percentages

1 000-tal = thousands

At the end of the book there is a Swedish-English list of terms translating most words and expressions found in the headings and lefthand columns of the tables.

In most cases, the data published in the Yearbook of Agricultural Statistics 2007 refers

to the year of 2006. Estimates pertaining to the whole country are also frequently given for the three previous years and often for year 1990, 1995 and 2000.

In the following, you will find a summary of some scopes regarding Swedish agriculture and after that a brief description, chapter by chapter, of the different surveys and other statistical material utilized in the presentation.

## Scope

### Structure, labour etc.

Structural developments in agriculture over the last few decades have led to fewer but larger farms. A change in this pattern was seen 2005 caused by changed rules for the support system. More holdings applied for supports, often a lot of small-sized holdings. This led to an increase in the total number of agricultural holdings of arable land 2005. Year 2005 there were 76 000 agricultural holdings with an average area of 36 hectares of arable land.

The table below shows the number of holdings in different size classes.

### Agricultural holdings, by size

	1990 <sup>1</sup>	2000 <sup>1</sup>	2005
All holdings	96 560	76 798	75 808
– 2,0 ha	..	..	945
2,1– 5,0 ha	14 957	11 784	14 486
5,1– 10,0 ha	19 020	14 110	14 117
10,1– 20,0 ha	20 832	15 453	14 147
20,1– 30,0 ha	12 177	8 717	7 583
30,1– 50,0 ha	14 223	10 624	8 862
50,1–100,0 ha	11 348	10 652	9 569
100,1–200,0 ha	..	4 228	4 518
200,1–300,0 ha	..	797	969
300,1–400,0 ha	..	234	304
400,1–500,0 ha	..	75	140
500,1– ha	..	124	168

1) For these years no holdings are included with less than 2,01 hectares arable land or horticultural holdings without arable land.

In densely forested Sweden, farming and forestry often are combined. In the north of Sweden the farms mostly have small areas of arable land.

The number of people engaged in agriculture is steadily decreasing. Less than 2 % of the economically active population is engaged in farming. The farmers' average age is high, 63 % are older than 50 years.

Many Swedish farms are very small if measured by labour requirements. The number of full time enterprises 2005 where more than 1 600 hours of labour are required is about 20 000. Around 53 % of the holdings requires less than 800 hours of labour.

Animal husbandry is the dominant line of production. Only in the central part of Sweden and in the southern county the cropping farms dominates. In the north of Sweden there are mostly small farms.

### Crop production

The conditions for crop production display great differences between the north and south of Sweden. More than 60 % of the arable land is found on the fertile plains of southern and central Sweden.

The crop production is strongly dominated by cereals and by leys, the former mainly being wheat. The proportion of leys increases towards the north of Sweden and makes up most of the area of arable land in Norrland. Oil seed production is mainly located on the plains in Götaland and Svealand. Potatoes are grown throughout the entire country. Sugar beets are grown in the counties of Skåne, Gotland, Halland, Blekinge and Kalmar.

In 2006, the arable land amounted to 2,7 million hectares. The arable land by crop is found in the table to the upper right.

### Arable land by crop, 1 000 hectares

	1990	2000	2006
Total arable land	2 845	2 706	2 660
Wheat	350	402	361
Rye	73	35	23
Barley	..	411	315
Oats	388	296	206
Mixed grain	33 <sup>1</sup>	45	17
<i>Triticale</i>	..	41	55
Potatoes	36	33	28
Sugar beet	50	55	44
Leys,			
other fodder	918	921	1 098
Oilseed	..	59	99
Other crops	..	161	104
Fallow, untilled			
arable land	193	..	309

1) Incl. triticale.

The total crop production in 2006 is estimated to 4,1 million tonnes of cereals, 64 000 tons of peas and field beans, 232 000 tonnes of oilseed crops, 525 000 tonnes of table potatoes and 253 000 tonnes of potatoes for processing.

The average yield varies in different parts of Sweden. For example for spring barley the average yield in Skåne, the most southern county, is 4 240 kg/ha and in Västernorrland, a county in the north part of Sweden, 1 930 kg/ha.

Total production and average yields are shown below with a 14 % moisture content.

### Crop production 2006

	Total production, 1 000 tons	Yield, kg/ha
Winterwheat	1 795	5 660
Springwheat	172	4 030
Rye	115	4 990
Winterbarley	27	4 750
Springbarley	1 084	3 600
Oats	624	3 170
<i>Triticale</i>	256	4 670
Mixed grain	55	2 720
Peas	51	2 630
Potatoes	778	27 600
Sugar beet	2 189	49 600
Rape and		
Turnip rape	220	2 440

## Livestock

The dairy sector is playing a central role in Swedish agriculture. The number of dairy cows has, however, been decreasing over a long period of time. The number of livestock is shown in the table below.

The number of farms with livestock has decreased the last decades whereas those remaining have increased their number of animals.

In 2006, there were dairy cows in 8 000 farms. There is an average of 48 dairy cows/herd.

In 2006 there are roughly 2 400 pig farms in Sweden. Around 98 % of the fattening pigs are found in herds with at least 100 animals.

### Livestock, mid-year estimates, 1 000s

	1990	2000	2006
<i>Cattle</i>	1 718	1 684	1 590
Dairy cows	576	428	388
Suckler cows	75	167	178
Heifers, bulls, steers, calves	1 067	1 089	1 025
Sheep and lambs	405	432	505
Goats	..	..	..
<i>Pigs</i>	2 264	1 918	1 681
Boars, sows	230	206	187
Other pigs	2 034	1 712	1 494
<i>Poultry of</i>			
Laying breed	8 568	7 324	6 170
Turkeys	..	..	..

Egg production is dominated by few but large flocks. Over 90 % of the hens of laying breed are found in herds with at least 5 000 hens.

The number of agricultural holdings with different types of animals is shown below.

### Number of agricultural holdings with different types of animals

	1990	2000	2006
<i>Cattle</i>	47 292	32 063	25 054
Dairy cows	25 921	12 676	8 027
Suckler cows	10 883	13 861	12 447
<i>Sheep</i> (lambs excl.)	9 688	8 041	9 141
<i>Goats</i>	..	..	..
<i>Pigs</i>	14 301	4 809	2 414
<i>Horses</i>	..	..	..
<i>Fowls</i> (chickens excl.)	12 900	5 678	4 877
<i>Turkeys</i>	..	..	..
With none of the above animals	36 695	33 300	..

## Brief description by chapter

### Chapter 2 Holdings and holders

Since 1968 an annual registration of enterprises (holdings) in agriculture and forestry has been carried out. Data have been recorded in the Farm Register. Detailed information on the Farm Register is given in appendix 1.

Some data on the number of holdings with different kinds of crops are given in table 2.1

Some data on the number of holdings by size groups are given in table 2.2.

In table 2.3, number of holdings and area of arable land by type of holding are shown.

In table 2.4, number of holdings with different kinds of livestock are shown.

Number of holdings by type of farming and percentage of holdings by type of farming and county are shown in tables 2.5 and 2.6.

In table 2.7, information can be found on the number of holdings by type of farming and labour requirement in agriculture.

### Chapter 3 Utilization of arable land

In tables 3.1–3.8 information is given on the use of arable land and on the number of holdings with different crops.

### Chapter 4 Yields and crop production

The crop yield surveys comprise investigations of cereals, peas, oilseed crops, temporary

grasses and potatoes. The surveys cover a sample of holdings with more than 2 hectares of arable land. The statistics are presented in tables 4.1–4.6.

The statistics for cereals, peas and oilseed crops are from 2005 and potatoes from 2006, based on an internet survey. Some farmers did not answer this internet survey. Those farmers were interviewed by telephone. For sugar beet data have been delivered by Danisco Sugar Co.

SCB makes annual estimates of the total production of cereals, peas, oilseed crops and potatoes on the basis of the crop yield surveys. From 2002 SCB also makes estimations of the total production and yield for temporary grasses. Data on the total production of sugar beet are supplied by Danisco Sugar Co.

Content of starch and sugar in potatoes and sugar beet respectively are supplied by the Swedish Starch Producers and Danisco Sugar Co. respectively.

Standard yields are calculated every year for cereals, potatoes, oilseed crops and sugar beet. The standard yield is an estimate of the yield that can be expected if the weather and other conditions that influence the crops are normal (table 4.8).

## Chapter 5 Horticulture

All enterprises with horticultural production were until 1999 included in the Farm Register. The statistics in tables 5.1–5.6 are entirely based on the horticultural censuses.

Data on the main structure in the horticultural sector are given in tables 5.1–5.2. Data on outdoor cultivation of different plants are given in tables 5.3–5.4 and on cultivation in greenhouses and frames in tables 5.5–5.6.

## Chapter 6 Livestock

Data from the Farm Register on the number of domestic animals and data on the number of holdings with livestock are given in tables 6.1–6.7 (cattle), 6.1–6.3 and 6.8–6.10 (sheep), 6.1–6.2, 6.8 and 6.19 (goats and horses), 6.1–6.3 and 6.11–6.15 (pigs), 6.1–6.3 and 6.16–6.18 (fowls) and 6.1 and 6.16 (turkeys). Data on other

animals such as minks, foxes, bees and reindeers are presented in tables 6.20–6.22.

Statistics on ecological production and the number of organically bred animals, are presented in chapter 11.

## Chapter 7 Labour Force in agriculture

The general censuses of population and housing conducted by SCB include information about agriculture. They give statistics, for instance, on the distribution of the population in rural and urban areas.

Some data on the size of the economically active population in agriculture and related fields are given in table 7.1.

The Farm Register provides data on the age distribution of holders and the number of holders and employees in agriculture (table 7.2).

Data on the number of occupied persons in agriculture for different groups are given in tables 7.3–7.4. In these tables also data on employment in terms of AWU (Annual Work Unit) are given.

In table 7.5 the number of occupied persons are distributed by working hours in agriculture on the holding.

## Chapter 8 Production means in agriculture

The Swedish Board of Agriculture provides data on the number of tractors and machinery purchased by the agricultural sector. The statistics are shown in tables 8.1–8.2.

The Swedish Animal Welfare Agency provides data on the number of pre-tested buildings for livestock (table 8.3).

Under current regulations, seed for marketing is controlled by the Swedish State Seed Testing Institute, which annually reports statistics on state certified seed (table 8.4).

Figures of pesticides in agriculture and horticulture in table 8.5, is collected from the Swedish Chemical agency.

Information on the consumption of fertilizers in agriculture and horticulture, based on figures supplied by manufacturers and importers, is reported by the Swedish Board of Agriculture (table 8.6).

Information of the Feed materials in compound feeds for animals are annually compiled by the Swedish Board of Agriculture (tables 8.7–8.8).

### **Chapter 9 Support**

Support relating to the Common Agricultural Policy (CAP) is reported by the Swedish Board of Agriculture. In tables 9.1–9.5 and 9.8 the statistics refer to the years for which support have been disbursed and in tables 9.6–9.7 the years when support have been granted. Table 9.4 shows areas registered for environmental support.

### **Chapter 10 Economics**

SCB produces national accounts statistics. Some data regarding the agricultural sector and the gross domestic product are given in table 10.1.

The Economic Accounts for Agriculture (EAA) are shown in table 10.2.

In order to illustrate receipts, costs and profitability in Swedish agriculture, SCB performs an annual farm economics survey. The 2004 and 2005 studies are based on the accounts of approx. 1 000 farms. Results from those surveys are presented in table 10.3.

Some results from an investigation on farmers' assessed net receipts and income are presented in tables 10.4–10.5.

The development of prices and costs of agricultural products and requisites is reflected by the Swedish Board of Agriculture in the monthly calculations of different indices, i.a. Input and Output Price Indices and – for price regulated agriculture products – Price Index for the Food Industry and Consumer Price Index. (tables 10.6 and 10.8)

The Swedish Board of Agriculture compiles average prices of tractors, fuel, fertilizers and vegetable and animal products (table 10.7).

The Swedish Board of Agriculture compiles statistics on rent prices for agricultural and arable land and on the development of rent prices (tables 10.9–10.10).

The Swedish Board of Agriculture compiles statistics on prices of agricultural land (table

10.11).

Statistics on the number of sold agricultural units are produced by SCB (table 10.12).

### **Chapter 11 Organic farming**

Statistics on organic farming and horticulture and on the number of organically bred animals are obtained from KRAV in tables 11.1–11.6. KRAV is one of total two Swedish national control societies for organic farming. In table 11.3 data on the certified area and number of cultivators on KRAV certified holdings are given. The number of KRAV certified animals and animals qualifying for certification is shown in table 11.6.

Areas, yield per hectare and production for areas with environmental support for ecological production are shown in tables 11.7–11.13.

Areas for ecological cultivated horticultural products in greenhouses and other outdoor cultivations are shown in table 11.14.

### **Chapter 12 Impacts from agriculture on environment**

The basic data for the information given in this chapter have been collected by SCB, the Swedish Board of Agriculture, the Swedish Environmental Protection Agency, SMED and the Swedish Chemical agency.

### **Chapter 13 Agriculture in the European Union**

Information on the agricultural sector in the European Union is mostly obtained from Eurostat's database, theme "Agriculture and fisheries".

Civilian employment by sector of activity is shown in table 13.1–13.2.

Total agricultural area, forest area and total area (water incl.) are shown in table 13.3. Utilized agricultural area and number of holdings are shown in table 13.4–13.5.

Harvested area and production of some of the most important crops are shown in table 13.6–13.7.

Harvested production of selected fresh vegetables, berries and fruits are shown in tables 13.8.

Data on livestock, and the structure of dairy cow holdings are shown in tables 13.9–13.12.

Production of animal products is shown in table 13.13.

#### **Chapter 14 International data on agriculture**

Information on the agricultural sector in different countries is obtained from statistics published annually by the Food and Agriculture Organization of the United Nations (FAO) and the Organization for Economic Co-operation and Development (OECD). The statistics include information on utilized areas (table 14.1), harvested production of different crops (table 14.2), number of livestock (table 14.3), livestock production (table 14.4) and on active population in agriculture and subsidiary industries (table 14.5).

#### **Chapter 15 Manufacturing**

The statistics in the tables 15.1–15.6 and 15.9 on slaughtered animals and on production of eggs and milk products are based on data supplied by the Swedish Board of Agriculture. Information on the number of milk suppliers, the quantity of delivered milk, the uses of dairy milk etc. is found in the statistics on dairy operations published by the Swedish Dairies' Association (tables 15.7–15.8).

The statistics in tables 15.10–15.11 on establishments, employees etc. in foodstuffs and beverage manufacturing and on production of different agricultural products and foodstuffs are produced by SCB.

The statistics in table 15.12 on employment in different branches of the food sector are produced by SCB.

#### **Chapter 16 Imports and exports of agricultural products and food**

Statistics regarding foreign trade are produced by SCB. The system for collecting the basic data for the statistics was totally changed when Sweden entered EU in 1995. From 1995 data on internal EU trade are collected by inquires to importers and exporters (the Intrastat System), which means that the statistics

suffer from non response and errors caused by the the omission of "small" actors in the statistics.

The basis for identification of agricultural products and foodstuffs has been the codes 0, 11, 12, 22 and 4 according to SITC rev.3. Further specification on products within these major SITC groups follows CN (Combined Nomenclature). This system for divisions on items is also practiced by the Swedish Board of Agriculture in their presentation of statistics on foreign trade

In table 16.1 imports and exports are given on SITC groups. Compensation has been made for lack of information depending on mostly non response error in the data delivered to the Intrastat system. Tables 16.2–16.7 reflect collected data, which means that compensation for non response has not been made. Such compensation is only possible for data on at most SITC two-digit level. Compensation is further not possible for different countries.

Table 16.5 shows imports and exports of processed foodstuffs.

#### **Chapter 17 Consumption of food stuffs**

The Swedish Board of Agriculture has since the middle of the 1940:ies calculated the consumption of different foodstuffs and produced data both in values and quantities. In table 17.1 figures on consumption of food are presented for 1990–2005.

The Swedish Board of Agriculture has also made calculations on nutritive values in the intake of foodstuffs (table 17.2), mean supply per head and day of energy, protein, fat and carbohydrates (table 17.3) and of vitamins, iron, calcium and fibres (table 17.4). All these calculations are based on consumption calculations and on nutritive data from the National Food Administration in Sweden.

Table 17.5 shows the turnover (incl. V.A.T.) of food and drinks for retail trade and retail sale of automotive fuel 2000–2005.

In the Swedish National Accounts data are available on private final consumption expenditures by purpose. Statistics for different foodstuffs and beverages are presented in tables 17.6–17.7.

## Chapter 18 Food safety

In this chapter statistics on food safety are shown. Data is received from the National Food Administration (SLV) and the National Veterinary Institute (SVA). The National Food Administration is the central administrative authority for matters concerning food. It is also directly in charge of the food control at 600 food establishments. The National Veterinary Institute is a Swedish national authority that strives for a good animal and human health, a good environment and sustainable food production.

Table 18.1 shows the number of drinking-water structures with remarks distributed by type of remark.

Table 18.2 shows results from the Swedish Monitoring of Pesticide Residues in Food of Plant Origin.

Number of samples with or without residues of pesticides in fruits, vegetables, cereals and cereal products distributed by type of farming are presented in table 18.3.

Table 18.4 shows the results for *Salmonella* in the Swedish Reporting and Monitoring system in different parts of the foodstuff production.

Table 18.5 shows the results from sampling and analysis of *Campylobacter*.

## Chapter 19 Prices on food

SCB calculates every month Consumer Price Index for different foodstuffs according to COICOP. Yearly indices are shown in table 19.2 for the period 1985–2006. In table 19.1 average retail prices are listed for some common food products used as input in the calculation of Consumer Price Index.

In table 19.3 price index numbers in the food sector are shown. These indices are partly calculated by the Swedish Board of Agriculture.

## Chapter 20 International data on food

Human consumption and self sufficiency for certain food products are shown in table 20.1.

Table 20.2 shows to what extent the individual private consumption goes to food and table 20.3 shows the differences between

countries concerning consumed volumes per head of different foodstuffs. Table 20.4 shows differences between countries in price levels for different foodstuffs and table 20.6 shows the price development. Table 20.5 shows the general development of prices in different countries.

In table 20.7 V.A.T rates for food and beverages are shown for different EU countries.

## Appendix 1

### The Farm Register

The Swedish Farm Register (LBR) contains data on agricultural and forestry enterprises in Sweden and was set up in 1968. The original objectives of the LBR were to achieve a continuous recording of all holdings and their production resources and to provide a basis for statistics.

The Farm Register has included the following types of enterprises:

- enterprises with more than 2,0 hectares of arable land
- enterprises with less than 2,0 hectares of arable land but with large animal stocks.
- enterprises with horticultural production of a certain size.

During 1968–1995 there was an annual data collection for the farm register of items relating to name, address, telephone number, personal identification number of the holder, real estates included in the enterprise, areas of arable and forest land, owner of leased property, tenant of leased land, the acreages under various crops and the number of livestock of different species. A number of other data is collected at intervals. The 1999 data collection was performed similar to the 1968–1995 method, i.e. data were collected for all farms.

In 1996–1998, information on name, address, telephone number, the number of holders on the holding, real estates included in the holding and their area of arable and forest land respectively, was collected for all enterprises. Other data were collected in a sample survey.

From year 2000 the data collection is mainly

based on data from the Swedish administrative system for agricultural subsidies, containing data on farmers who have applied for such subsidies. The statistics are also based on information collected by a simplified mail inquiry to all farmers including those who have not applied for subsidies.

### **Appendix 2** **Regional break down of the agriculture statistics**

In the Swedish agricultural statistics, information is presented by administrative areas and by areas defined in accordance with natural farming conditions. For the current surveys, data usually are given for counties and larger areas, although, for some years the Farm Register provides information by individual parishes, municipalities, etc.

The majority of the counties has, on the basis of different climatic conditions, the quality of the soil etc. been divided into "natural farming areas". These areas can be combined into "production areas" and "major regions". See further Appendix 2 where a map of Sweden can be found.

For the crop yield surveys, the country is divided into 106 "yield survey districts", which have been made as homogeneous as possible with regard to annual yield outcome.

### **Appendix 3** **Quality and the organization of the agricultural statistics**

Most of the data presented for the agricultural sector in this yearbook are based on surveys carried out at regular intervals by various agencies, the most important ones being Swedish Board of Agriculture (SJV) and Statistics Sweden (SCB).

For further information, contact Daniel Persson or Charlotta Olsson at the Regions and Environment Department at Statistics Sweden. Telephone +4619176000, postal address: SCB, S-701 89 Örebro.

### **Appendix 4** **Definition of the food sector**

The food sector has no official definition in Swedish statistics. Appendix 4 informs on how the sector in terms of SNI has been delimited in the book.

### **Appendix 5** **Classification on commodities according to SITC/KN**

In the statistics on different food and agricultural products, SITC and KN has been used to identify different commodities. Appendix 5 informs on the codes in terms of these nomenclatures, on which the accounts on food manufacturing and foreign are based (chapter 15 and 16).