

# 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 for the last time 2014 by the Swedish Forest Agency.

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 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 left-hand columns of the tables.

From the year 2015 there is only a compilation of the tables in the different

chapters, except for two chapters. In chapter 9, Support, and chapter 18, Food safety, you can visualize both diagrams and text analysis. In most cases, the data published in the Compilation of Agricultural Statistics 2016 refers to the year of 2015. Estimates pertaining to the whole country are also frequently given for the three previous years and often for year 1990, 1995, 1999 or 2000, 2005 and 2010.

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 2013 there were 67 000 agricultural holdings with an average area of 39 hectares of arable land.

The table on the next page shows the number of holdings in different size classes.

**Agricultural holdings, by size**

	1990 <sup>1</sup>	1999 <sup>1</sup>	2013
All holdings	96 560	80 119	67 146
– 2,0 ha	..	..	3 935
2,1 – 5,0 ha	14 957	11 344	10 142
5,1 – 10,0 ha	19 020	15 229	13 857
10,1 – 20,0 ha	20 832	16 656	12 439
20,1 – 30,0 ha	12 177	9 295	6 022
30,1 – 50,0 ha	14 223	11 445	6 778
50,1 – 100,0 ha	11 348	10 969	7 368
100,1 – 200,0 ha	..	4 073	4 446
200,1 – 300,0 ha	..	708	1 234
300,1 – 400,0 ha	..	203	453
400,1 – 500,0 ha	..	83	218
500,1 – ha	..	114	254

1) For these years only holdings with more than 2.0 hectares arable land are included.

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. About 2 % of the economically active population is engaged in farming. The farmers' average age is high, 72 % are older than 50 years.

Many Swedish farms are very small if measured by labour requirements. The number of full time enterprises 2013 where more than 1 600 hours of labour are required is about 16 300. Around 60 % 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. About 60 % of the arable land is found on the fertile plains of southern 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 beet are grown mainly in the counties of Skåne, Halland, Blekinge and Kalmar.

In 2015, the arable land amounted to 2.6 million hectares. The arable land by crop is found in the table below.

**Arable land by crop, 1 000 hectares**

	1990	1999	2015
Total arable land	2 845	2 747	2 590
Wheat	350	275	460
Rye	73	25	24
Barley	..	482	327
Oats	388	306	168
Mixed grain	33 <sup>1</sup>	33	13
<i>Triticale</i>	..	33	42
Potatoes	36	33	23
Sugar beet	50	60	19
Leys, other fodder	918	1 006	1 138
Oilseed	..	110	102
Other crops	..	81	110
Fallow, untilled arable land	193	304	163

1) Incl. triticale.

The total crop production in 2015 is estimated to 6.2 million tonnes of cereals, 182 000 tonnes of peas and field beans, 359 000 tonnes of oilseed crops, 525 000 tonnes of table potatoes and 277 000 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 6 720 kg/ha and in Västernorrland, a county in the north part of Sweden, 2 510 kg/ha.

Total production and average yields are shown on the next page with a 14 % moisture content.

**Crop production 2015**

	Total production, 1 000 tons	Yield, kg/ha
Winter wheat	2 985	7 570
Spring wheat	316	5 000
Winter rye	149	6 340
Winter barley	96	6 180
Spring barley	1 576	5 200
Oats	745	4 610
Winter <i>triticale</i>	231	6 010
Spring <i>triticale</i>	12	3 640
Mixed grain	52	3 560
Grain maize	6	5 760
Peas	83	3 710
Field beans	99	3 960
Potatoes	802	34 730
Sugar beet	1 178	60 800
Rape and turnip rape	359	3 800

**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 2015, there were dairy cows in 4 200 farms. There is an average of 81 dairy cows/herd.

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

	1990	1999	2015
<i>Cattle</i>	1 718	1 713	1 476
Dairy cows	576	449	338
Suckler cows	75	165	184
Heifers, bulls, steers, calves	1 067	1 100	953
Sheep and lambs	405	437	595
Goats	..	..	..
<i>Pigs</i>	2 264	2 115	1 356
Boars, sows	230	224	142
Other pigs	2 034	1 891	1 214
Poultry of laying breed	8 568	7 850	9 413
Turkeys	..	..	..

In 2015 there are roughly 1 200 pig farms in Sweden. Around 92 % of the fattening pigs are found in herds with at least 500 animals (2013).

Egg production is dominated by few but large flocks. Over 97 % 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 found below.

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

	1990	1999	2015
<i>Cattle</i>	47 292	33 978	17 466
Dairy cows	25 921	13 963	4 161
Suckler cows	10 883	14 254	10 405
Sheep (lambs excl.)	9 688	8 209	9 074
Goats	..	..	..
Pigs	14 301	6 014	1 228
Horses	..	14 309	..
Fowls (chickens excl.)	12 900	6 441	2 927
Turkeys	..	..	..
With none of the above animals	36 695	36 800	38 646

**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 3.1–3.10 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, grain maize, peas, field beans, oilseed crops, temporary grasses and potatoes. The surveys cover a sample of holdings with more than 5 hectares of arable land. The statistics are presented in tables 4.1–4.6.

SCB makes annual estimates of the total production of cereals, peas, oilseed crops and potatoes on the basis of the crop yield surveys and crop areas from the Farm Register. 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 Nordic Sugar.

Content of starch and sugar in potatoes and sugar beet respectively are supplied by the Swedish Starch Producers and Nordic Sugar respectively (table 4.7).

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 5.1–5.4 and 5.6–5.7 are entirely based on the horticultural censuses. The data in table 5.5 are taken from the fruit tree survey.

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. Data on apple- and pear varieties are given in table 5.5 and data on cultivation in greenhouses and frames in tables 5.6–5.7.

**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), 6.2 and 6.19 (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 gainfully employed 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 persons permanently and temporarily employed in agriculture in 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 persons employed 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 Board of Agriculture provides data on the number of pretested buildings for livestock (table 8.3).

Under current regulations, seed for marketing is controlled by the Swedish Board of

Agriculture, 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 Chemicals Agency.

Information on the sales 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).

Area of drained and tile drained arable land is presented in a survey performed by the Swedish Board of Agriculture (table 8.9).

## **Chapter 9 Support**

Support relating to the Common Agricultural Policy (CAP) is reported by the Swedish Board of Agriculture. In tables 9.1–9.3, 9.5 and 9.8–9.10 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 2013 and 2014 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).

Statistics on prices of arable land and permanent grassland is compiled by the Swedish Board of Agriculture (table 10.11–10.12).

Statistics on the number of sold agricultural units are produced by SCB (table 10.13).

## **Chapter 11 Organic farming**

Statistics on fully converted organic area, area under conversion and total organic area are shown in tables 11.1–11.2. Numbers of different organic livestock categories are shown in table 11.3.

Areas, yield per hectare and production for areas with environmental subsidies for organic production are shown in tables 11.4–11.11.

Areas for organic cultivated horticultural products in greenhouses and other outdoor cultivations are shown in table 11.12.

## **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, the Environmental Objectives Portal, SMED (Swedish Environmental Emission Data) and the Swedish Chemicals 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.

Total agricultural area, forest area and total area (water incl.) are shown in table 13.2 and agricultural organic area in table 13.3. Utilized agricultural area and number of holdings are shown in tables 13.4–13.5.

Harvested area and production of some of the most important crops are shown in tables 13.6 and 13.8 and organic harvested area and production in tables 13.7 and 13.9.

Harvested production of selected fresh vegetables are shown in tables 13.10.

Data on livestock and organic livestock are shown in tables 13.11–13.14. The structure of dairy cow holdings are shown in tables 13.15–13.16.

Production of animal products and organic animal products are shown in table 13.17–13.18. Sales of veterinary antimicrobial agents for food-producing animals are presented in table 13.19.

## 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 on slaughtered animals and on production of eggs 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. and the production of milk products is found in the statistics on dairy operations published by Dairy Sweden (tables 15.7–15.9).

The statistics in tables 15.10–15.11 on establishments, employees etc. in foodstuffs and beverage manufacturing and on pro-

duction 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 foodstuffs

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 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.4. 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 foodstuffs

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 1990–2014.

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. VAT) of food and drinks for retail trade and retail sale of automotive fuel 2000–2014.

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 good animal and human health, a good environment and sustainable food production.

Table 18.1 shows results from the Swedish Monitoring of Pesticide Residues in Food.

In table 18.2 a summary of samples with residues of pesticides in food, taken by origin is shown.

Table 18.3 shows the results from sampling and analysis of *Campylobacter*.

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

## 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 1985–2015. 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

Table 20.1 shows to what extent the individual private consumption goes to food and table 20.2 shows the differences between countries concerning consumed volumes per head of different groups of foodstuff. Table 20.3 shows differences between countries in price levels for different foodstuffs and table 20.5 shows the price development. Table 20.4 shows the general development of prices in different countries.

In table 20.6 VAT 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.

During 1995–2009 the Farm Register included the following types of enterprises:

- a) enterprises with more than 2.0 hectares of arable land
- b) enterprises with less than 2.0 hectares of arable land but with large animal stocks.
- c) enterprises with horticultural production of a certain size.

In the year 2010 the lower cut-off limits were changes to accommodate new EU-regulation. Compared to the old definition the definition of 2010 added about 3 000 enterprises to the Farm register.

As from 2010 the Farm Register included the following types of enterprises:

- a) enterprises with more than 2.0 hectares of arable land and/or

- b) enterprises with at least 5.0 hectares of agricultural land and/or
- c) enterprises with large animal stocks and/or
- d) 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 organization of the agricultural statistics**

Most of the data presented for the agricultural sector in this compilation 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 Charlotta Olsson or Lea Wedén 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.

Swedish Standard Industrial Classification is based on EU:s recommended standard NACE Rev.2. It is primary an activity classification. Production units as companies and local units are classified after the activity which is carried out. One company or a local unit can have several activities (SNI-codes).

## **Appendix 5**

### **Classification on commodities according to SITC/CN**

In the statistics on different food and agricultural products, SITC and CN have 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 trade are based (chapter 15 and 16).