Standard documentation
Meta information
(Definitions, explanations, methods, quality)
on the
Cattle Survey
(full survey)

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Executive Summary
Establishing the size of the cattle population on certain key dates is an important source of statistical information about the agricultural sector. The aim is to obtain up to date, realistic results concerning the structural conditions of agriculture in Austria that can be compared with the results of other EU member states. This information is required in order to investigate the causes and background of structural change in this area of the economy and subsequently to be able to draw specific conclusions for the future from these results. This data forms an essential basis for making appropriate agricultural policy decisions at national and international level.

The results (modelled administrative data, which is already in aggregated form when it is received by Statistics Austria (STAT)) are incorporated inter alia into statistics on milk production and use, and subsequently provide the underlying data for supply balance sheets and the Economic Accounts for Agriculture. Furthermore, the results of the cattle census provide a basis for making cattle production forecasts.

Commission Decision 2004/412/EC authorised Austria to establish the size of the cattle population using administrative data alone (AMA cattle database) as of 2004 (register evaluation).

The cattle database maintained by Agrarmarkt Austria (AMA) was put into operation on 1 January 1998 in accordance with Council Regulation (EC) No. 820/97 (subsequently Regulation (EC) No. 1760/2000 of the European Parliament and of the Council). Every single bovine animal is registered in the cattle database from birth until death. With the exception of transporters, every livestock keeper is subject to full reporting obligations for each individual bovine animal.

All cattle and cattle holdings are registered in the cattle database. The holding numbers, or numbers of the Information System for Agricultural and Forestry Holdings (LFBIS numbers), are assigned centrally via the Agriculture and Forestry Register (LFR) kept by Statistics Austria. The master data is regularly reconciled between STAT and AMA.

With the exception of transport, all movements of cattle must be reported. A dual reporting system is used, i.e. sending and receiving livestock keepers make their reports independently.

Reports from the individual livestock keepers are regularly checked for plausibility by AMA. Demands for outstanding reports and corrections are handled by an automated reminder system. In addition, at least 5% of all cattle holdings are checked annually in on-site inspections.

Commission Decision No. 1999/571/EC recognised the fully operational character of the data source, the AMA cattle database.

AMA is certified to ISO standards 9001:2000 and ISO 27001:2005. The cattle database is maintained according to regulated procedures in compliance with the standards specified above. It has been inspected several times by the EU and various national control bodies.
Figure 1: Entities subject to reporting obligations, reporting channels for the AMA cattle database and evaluation process

Legend: Klienten (Schlachthöfe, Rinderhändler): Clients (abattoirs, cattle traders); AMA-Registrierung (OCR): AMA registration (OCR); Veterinäre/-innen: Veterinaries; AMA Datenbank: AMA Database; Landwirtschaftliche Betriebe: Agricultural holdings; BBK-Registrierung: BBK registration; Datenreplikation: Data replication; Auswertung: Evaluation; STAT (Publikation): STAT (publication); Ergebnisse: Results; AWI (Modellierung): AWI (modelling);
<table>
<thead>
<tr>
<th><strong>Cattle Survey (full survey) - Important elements</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main purpose of the statistics</strong></td>
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<tr>
<td><strong>Observed unit / reporting unit / presentation unit</strong></td>
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<td><strong>Type of statistics</strong></td>
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<td><strong>Data sources/Survey techniques</strong></td>
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<td><strong>Reference period or due day</strong></td>
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<td><strong>Periodicity</strong></td>
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<td><strong>Survey participation</strong></td>
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</tbody>
</table>
| **Legal basis** | National: Federal Law Gazette (BGBI.) II No. 147/2009 Ordinance issued by the Federal Minister of Agriculture, Forestry, Environment and Water Management relating to statistics on the livestock population  
| **Regional breakdown** | Statistics Austria publication: Laender (federal provinces) |
| **Availability of the results** | Final data: t+105 (June survey); t+75 (December survey) |
| **Other** | The definition of holding in the cattle census extends beyond that in ÖNACE Section A. All agricultural holdings that fulfil the above criteria must be surveyed, irrespective of whether agriculture is practised as a main or secondary activity. |
1. General information

1.1 Objective and purpose, history

The cattle census is an important source of statistical information about the agricultural sector. The aim is to obtain up to date, realistic results concerning the structural conditions of agriculture and forestry in Austria that can be compared with the results of other EU member states. This information is required in order to investigate the causes and background of structural change in this important area of the economy and subsequently to be able to draw specific conclusions for the future from these results. This data forms an essential basis for making appropriate agricultural policy decisions at national and international level.

The results are incorporated inter alia into statistics on milk production and use, and subsequently provide the underlying data for supply balance sheets and the Economic Accounts for Agriculture. Furthermore, the results of the cattle census provide a basis for the biannual preparation of cattle production forecasts (AWI).

From the middle of the last century until the year 2000, the cattle population was continuously surveyed twice a year: in the form of samples (either alone or as part of the Cattle and Pig Censuses) in early June of each year and either as a full survey or as a sample (as part of the General Livestock Censuses) in early December.

In 1999 Austria applied to the European Commission for permission to use data from the cattle database instead of the cattle censuses. This request was granted, albeit with the proviso that "very small cattle population samples" should continue to be surveyed for 2001 to 2003 and that a "normal" survey, i.e. corresponding to the previously usual extent, should be conducted in December 2003.

In terms of scope, they affected around a quarter of the respondents previously used for such surveys (some 1,000 holdings were selected and questioned). At the same time, the size of the cattle population was established on the basis of administrative data (AMA cattle database, IACS) that was subsequently collated and further calculated/modelled. The Federal Institute of Agricultural Economics was responsible for the latter. The very small sample survey of the cattle population in accordance with Article 2 of Decision No. 2000/554/EC was used to record the use categories (slaughter and breeding/productive categories for male and female calves) that were not covered by evaluation of the cattle database. In concrete terms, the sample survey showed the relative sizes of the respective use categories.

In December 2003 a "conventional cattle census" (i.e. of the same scope as the censuses prior to 2001) was then carried out and, in parallel, the size of the cattle population was established (see previous paragraph). Commission Decision No. 2000/554/EC of 6 September 2000 formed the basis for this approach.

Commission Decision No. 2004/412/EC of 28 April 2004 authorised Austria to make exclusive use of administrative data to determine the cattle population, starting with the 2004 reporting year. Independent "censuses" or "surveys" thus ceased completely from 2004 onwards.

Since then, the cattle population has been determined for the due days of 1 June and 1 December from the AMA cattle database alone. The slaughter and breeding/productive categories for male calves, female calves aged from one to less than two years and female calves over two years are determined using the factor method approved by the Commission (see Point 4). This step and the subsequent finalisation of the survey results are the responsibility of the Federal Institute of Agricultural Economics.
Schematic overview of the sequence of full and sample surveys of the cattle population from 1946

<table>
<thead>
<tr>
<th>Survey years</th>
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*Independent sample*

*Additional very small sample*

*Full survey*

Figure 2: Full and sample surveys of the cattle population since 1946

1.2 Contracting entity

Statutory in accordance with § 4 (1) of the Federal Statistics Act (BStatG) (see Legal basis below).

Responsible federal ministry: Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW)

1.3 Main users

- EU (Eurostat, DG Agri, DG Environment)
- Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW, also known as the Ministry of Life)
- Federal Ministry of Health (BMG)
- Austrian Chamber of Agriculture (LKO)
- Provincial chambers of agriculture
- Provincial government departments
- Austrian Institute of Economic Research (WIFO)
- Federal Institute of Agricultural Economics (AWI)
• Agency for Health and Food Safety (AGES)
• Agricultural colleges
• Universities
• Municipalities
• Media
• Individual users (farmers, enterprises, etc.)
• Internal users at Statistics Austria
  o Milk production and use
  o Supply balance sheets
  o Economic Accounts for Agriculture (EAA) and subsequently National Accounts (NA)
  o Environment and energy statistics

1.4 Legal basis

**National legal basis:**
Ordinance issued by the Federal Minister for Agriculture, Forestry, Environment and Water Management relating to statistics on the livestock population

**Up to 2008:**
• Federal Law Gazette (BGBl.) II No. 391/2008
• Federal Law Gazette (BGBl.) II No. 310/2007
• Federal Law Gazette (BGBl.) II No. 411/2006
• Federal Law Gazette (BGBl.) II No. 358/2005
• Federal Law Gazette (BGBl.) II No. 441/2004

**From 2009:**
• Federal Law Gazette (BGBl.) II No. 147/2009

**EU legal basis:**

**Up to 2008:**
• Council Directive 93/24/EEC of 1 June 1993 on the statistical surveys to be carried out on bovine animal production

**From 2009:**
• Regulation (EC) No. 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and
2. Concepts and processing

2.1 Statistical concepts and methodology

2.1.1 Statistical purpose
Biannual determination of the cattle population, broken down by age, use and gender categories (cf. 2.1.10).
The due date for the surveys is 1 June and 1 December of the respective year.

2.1.2 Observed unit / reporting unit / presentation unit
All keepers of cattle (with the exception of transporters) are obliged to report to the AMA cattle database. A cattle keeper is any natural or legal person who is responsible for cattle at this time, whether temporarily or permanently. Each increase or decrease in the population is subject to the reporting obligation.
The definition of holding in the cattle census extends beyond that in ÖNACE Sections A and B. All agricultural holdings that fulfil the above criterion must be surveyed in the cattle census, irrespective of whether agriculture is practised as a main or secondary activity.

2.1.3 Data sources, coverage
The data source is the cattle database (CDB) of Agrarmarkt Austria (AMA). Coverage is 100% (source: AMA).

2.1.4 Reporting unit and respondents
Agricultural holding or livestock keepers with at least one bovine animal.

2.1.5 Survey format
Full survey

2.1.6 Sample characteristics
Not applicable since there is no sample

2.1.7 Survey techniques / data transmission
AWI receives the data from the cattle database in tabular form.

2.1.8 Survey questionnaire (including explanatory notes)
Not relevant, since these are secondary statistics including model calculations

2.1.9 Survey participation
Not a statistical survey in the conventional sense
Compulsory transmission of the cattle population/movement reports to the cattle database

2.1.10 Variables surveyed and derived, indicators (including definitions)

The set of questions is defined by the European Commission and focuses on the requirements of European agricultural policy. To this end, working group meetings (representatives of Eurostat, DG Agri and the member states) take place at EU level at which the list of characteristics is discussed. After the predefined stages of the procedure (Standing Committee for Agricultural Statistics, European Council and Parliament) have been completed, the framework programme is laid down in a regulation using the list of characteristics. If necessary, for example in order to adapt to the requirements of agricultural policy, follow-up regulations are adopted.

Current evaluation characteristics:

- Young livestock under one year old
  - Calves and young cattle for slaughter
  - Other calves and young cattle, male
  - Other calves and young cattle, female

- Young livestock aged from one to less than two years
  - Bulls and bullocks
  - Female calves for slaughter
  - Productive female calves and female calves for breeding

- Cattle aged two years and older
  - Bulls and bullocks
  - Female calves for slaughter
  - Productive female calves and female calves for breeding
  - Dairy cows
  - Other cows

- Total cattle

2.1.11 Classifications used

NUTS: regional depiction

ÖNACE classification: The definition of holding in the cattle census extends beyond that in ÖNACE Section A. All agricultural holdings that fulfil the above criteria must be surveyed, irrespective of whether agriculture is practised as a main or secondary activity.

2.1.12 Regional breakdown of the results

NUTS 2 (federal provinces); continuous in accordance with international obligations. More in-depth evaluations or evaluations with a more detailed structure are carried out by the owner of the database (BMLFUW) as required; this is not related to the cattle census.

2.2 Production of statistics, processing, quality assurance measures

2.2.1 Data capture

Data is not captured in the conventional sense since administrative data is evaluated.
2.2.2 Coding

Every birth, purchase, sale, slaughter or natural death of an animal must be reported to the AMA cattle database within seven days. Reports can be made via the Internet (eAMA Internet platform). Furthermore, farmers have the option of making reports by phone, fax or post to the competent District Farmers’ Chamber (BKK), which in turn enters the reports in the AMA cattle database. Traders and abattoirs have the alternative of reporting to the AMA cattle database by post using standardised report forms.

2.2.3 Editing and verification of data sources used

The reports made by individual livestock keepers are regularly checked for plausibility, with checks being made that the individual report is complete and that the individual report and "curriculum vitae" of the animals are correct. The holding number (according to the LFR) and individual ear tag numbers are inspected for the relevant check digit.

2.2.4 Imputation (where responses are missing or data incomplete)

Not applicable

2.2.5 Grossing up procedures (weighting)

Not applicable

2.2.6 Compilation of the final data set, (other) models and statistical estimation techniques used

Data from the cattle database was first used in 2000. From 2000 to 2003, an evaluation procedure was used to record the cattle population from the AMA cattle database for the current due date of the survey. To establish the slaughter and breeding/productive categories in male and female calves, female calves from one to less than two years and female calves aged two and older, Statistics Austria conducted a very small sample survey of the cattle population.

As of 2004, Commission Decision No. 2004/412/EC of 28 April 2004 authorised Austria to make exclusive use of administrative data to record the cattle population. All surveys in a statistical sense thus ceased completely. Since then, the cattle population has been determined from the AMA cattle database using an evaluation procedure. The distinction made between dairy cows and suckler cows (other cows according to the cattle census) takes into consideration the accounting results of the suckler cow premium and suckler cow quota management according to the IACS. The factor method is used to determine the slaughter and breeding/productive categories in male and female calves. This step, and the subsequent finalisation of the survey results and the cattle population, are the responsibility of the Federal Institute of Agricultural Economics.

Short description of the factor method:

From 2004, the factor method replaced the very small sample survey of the cattle population conducted by STAT. The factor method is used to determine the following use categories of the cattle population, as recorded in the cattle database:

- Out of the number of cattle aged up to one year:
  - Calves for slaughter under one year
  - Other male cattle under one year
  - Other female cattle under one year
- Out of the number of female calves aged from one year to less than two years:
  - Female calves for slaughter aged from one year to less than two years
Breeding/productive female calves aged from one year to less than two years

- Out of the number of female calves aged two and over:
  - Female calves for slaughter aged two and over
  - Breeding/productive female calves aged two and over

The factors with which these use categories are determined were initially determined by averaging the proportions of these use categories in the cattle population from June 2000 to June 2003.

In accordance with European Commission guidelines, the factors for establishing slaughter and breeding/productive categories in male and female calves have been and are regularly adjusted. To this end a separate evaluation procedure was developed for the AMA cattle database, which can be used to determine the cattle population at a time t minus two years and which also establishes the slaughter and breeding/productive categories for the historical cattle population. This process ensures that the updating of calculation factors is adapted to slaughter and breeding/productive categories in male and female calves.

**Conceptual description of the cattle database evaluation (recording of the historical cattle population from the AMA cattle database):**

For each cattle survey due date (1 June and 1 December every year), the actual population on the previous due date t-2 years, including slaughter and breeding/productive categories, is determined (cf. Figure 2).

**Calves:**

Based on the calf population in the cattle database on, for example, 1 June 2003 (time t-2 years in Figure 2), an evaluation is made on 1 June 2005 as to which of the calves of 1 June 2003 were slaughtered within a period of one year or by 1 June 2004 and which were not. The result is the actual number of slaughtered calves and the breeding/productive male and female calves on the (due) date of 1 June 2003.

**Note:**

Due to the longer time span needed to establish the number of female calves for slaughter and breeding/productive female calves aged from one to less than two, a due date two years previously must be selected when determining the population of individual calf categories.

**Female calves aged from one to less than two years:**

With regard to female calves aged from one to less than two years, the same applies in principle as to male calves, the difference being that an observation period of one year is too short. This is because it is not always clear within this time period which female calves were actually calves for slaughter and which were breeding/productive calves.

**Example:**

Based on the population of female calves aged from one to less than two years on the due date of 1 June 2003, it is determined on 1 June 2005 which of these calves were slaughtered within this time period and which were not. The result is the number of slaughtered female calves and breeding/productive female calves on the due date of 1 June 2003.

**Note:**

A female calf in the category of one to less than two years is at least 12 months old on the due date of 1 June 2003. This calf may already have been slaughtered by 1 June 2004 (in this case, she can be shown as a calf for slaughter) or intended to be a breeding/productive calf and is bred at around this time. If the calf conceives and does not miscarry, she will have calved by 1 June 2005 or will be pregnant or heavily pregnant, and can be shown as a breeding/productive calf. If the calf does not conceive or miscarry, however, she will have been slaughtered by 1 June 2005 and can thus be included in the category of slaughtered calves.
Female calves over two years:

As with male calves, the number of slaughtered and breeding/productive female calves over two years can be established with an observation period of one year. This means that, similarly to the previous examples described, based on the population of female calves on 1 June 2003, for example, it can be determined on 1 June 2005 which of these female calves were slaughtered by 1 June 2004 and which were not. The result is the number of slaughtered female calves and breeding/productive female calves on the due date of 1 June 2003.

In addition, the export of live cattle must also be recorded. This means that, as with the examples cited, it must be established which cattle that appeared in the cattle database on the due date of 1 June 2003 were exported live (recorded by age and gender).

Results:

The results of the cattle database evaluation are as follows, enabling the following table to be compiled:

Table 1: Results of the cattle database evaluation (by modelling; by way of example)

<table>
<thead>
<tr>
<th>Age groups and gender</th>
<th>Burgenland</th>
<th>Carinthia</th>
<th>LA</th>
<th>UA</th>
<th>Sbg</th>
<th>Styria</th>
<th>Tyrol</th>
<th>Vbg</th>
<th>Vie</th>
<th>Austria</th>
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<tbody>
<tr>
<td>Young cattle less than 1 year:</td>
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<td>Slaughtered calves</td>
<td>7 613</td>
<td>59 143</td>
<td>161 944</td>
<td>199 220</td>
<td>42 958</td>
<td>105 780</td>
<td>52 057</td>
<td>18 216</td>
<td>15</td>
<td>646 946</td>
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<tr>
<td>Male</td>
<td>740</td>
<td>5 744</td>
<td>15 729</td>
<td>19 350</td>
<td>4 173</td>
<td>10 274</td>
<td>5 056</td>
<td>176 9</td>
<td>1</td>
<td>62 836</td>
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<tr>
<td>Female</td>
<td>3 518</td>
<td>27 332</td>
<td>74 839</td>
<td>92 065</td>
<td>19 852</td>
<td>48 884</td>
<td>24 057</td>
<td>8 418</td>
<td>7</td>
<td>298 972</td>
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<td>Young cattle 1 year to &lt; 2 years (incl. cattle without master data):</td>
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<td>34 797</td>
<td>115 412</td>
<td>140 428</td>
<td>29 221</td>
<td>69 904</td>
<td>34 803</td>
<td>11 031</td>
<td>18</td>
<td>441 397</td>
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<td>Male</td>
<td>3 107</td>
<td>12 295</td>
<td>59 626</td>
<td>61 370</td>
<td>6 077</td>
<td>28 504</td>
<td>4 941</td>
<td>2 082</td>
<td>8</td>
<td>178 010</td>
</tr>
<tr>
<td>Slaughtered calves f.</td>
<td>330</td>
<td>2 772</td>
<td>6 872</td>
<td>9 738</td>
<td>2 851</td>
<td>5 100</td>
<td>3 678</td>
<td>1 102</td>
<td>1</td>
<td>32 444</td>
</tr>
<tr>
<td>Breeding/productive calves f.</td>
<td>2 446</td>
<td>19 730</td>
<td>48 914</td>
<td>69 320</td>
<td>20 293</td>
<td>36 300</td>
<td>26 184</td>
<td>7 847</td>
<td>9</td>
<td>230 943</td>
</tr>
<tr>
<td>Cattle 2 years and older:</td>
<td>9 126</td>
<td>102 219</td>
<td>182 216</td>
<td>267 718</td>
<td>100 215</td>
<td>164 276</td>
<td>102 230</td>
<td>34 623</td>
<td>25</td>
<td>962 648</td>
</tr>
<tr>
<td>Male</td>
<td>312</td>
<td>3 687</td>
<td>4 454</td>
<td>6 117</td>
<td>3 853</td>
<td>6 002</td>
<td>3 135</td>
<td>745</td>
<td>2</td>
<td>28 397</td>
</tr>
<tr>
<td>Slaughtered calves f.</td>
<td>56</td>
<td>873</td>
<td>1 397</td>
<td>1 796</td>
<td>1 025</td>
<td>1 405</td>
<td>1 137</td>
<td>340</td>
<td>0</td>
<td>8 029</td>
</tr>
<tr>
<td>Breeding/productive calves f.</td>
<td>886</td>
<td>13 781</td>
<td>22 046</td>
<td>28 346</td>
<td>16 178</td>
<td>22 183</td>
<td>17 942</td>
<td>5 374</td>
<td>5</td>
<td>126 741</td>
</tr>
<tr>
<td>Dairy cows</td>
<td>5 466</td>
<td>33 735</td>
<td>108 146</td>
<td>172 876</td>
<td>58 043</td>
<td>81 257</td>
<td>55 732</td>
<td>22 690</td>
<td>8</td>
<td>537 953</td>
</tr>
<tr>
<td>Suckler/nurse cows</td>
<td>2 406</td>
<td>50 143</td>
<td>46 083</td>
<td>58 583</td>
<td>21 116</td>
<td>53 429</td>
<td>24 284</td>
<td>5 474</td>
<td>10</td>
<td>261 528</td>
</tr>
<tr>
<td>Total cows</td>
<td>7 872</td>
<td>83 878</td>
<td>154 229</td>
<td>231 459</td>
<td>79 159</td>
<td>134 686</td>
<td>80 016</td>
<td>28 164</td>
<td>18</td>
<td>799 481</td>
</tr>
<tr>
<td>Total cattle</td>
<td>22 522</td>
<td>196 159</td>
<td>459 572</td>
<td>607 366</td>
<td>172 394</td>
<td>339 960</td>
<td>189 090</td>
<td>63 870</td>
<td>58</td>
<td>2 050 991</td>
</tr>
</tbody>
</table>
Note: Based in each case on the population on the due date t-2 years, the exports of live cattle are recorded by age and gender, EU or third country export.

**Treatment of cattle exports when evaluating the historical cattle population:**

Exported male and female calves also need to be included in the evaluation of the historical cattle population, i.e. the historical calf population.

Facts affecting the export of cattle:

- The majority of bovine animals exported are breeding/productive cattle. (In 2003, for instance, slaughter premium applications were made for only around 3 500 of the approx. 112 000 bovine animals exported.)
- Cattle exported for slaughter can be identified via the slaughter premium applications (until 2009; this measure was decoupled as from 2010).
- Female cattle are mainly exported as breeding/productive cattle.
- Calves (cattle of up to one year) account for the majority of exported cattle, with most of these being breeding/productive calves.
- Cattle exported to third countries are, with the exception of a small and insignificant number, breeding/productive animals.

Accordingly, the following procedure was selected:
Based on a due date for the population (1 June/1 December) and with the calves broken down by age and gender and by whether they are exported within the EU or to third countries, it can be established which male and female calves in this population were exported within a period of up to two years after the due date (period similar to the historical cattle population evaluation from the cattle database).

Male and female calves exported to third countries are breeding/productive cattle.

Of the male and female calves exported to EU countries, slaughter premium applications are used to identify the cattle for slaughter. The remaining male and female calves exported to the EU are breeding/productive cattle (cf. Figure 3).

The discontinuation of slaughter premiums on 1 January 2010 (which have been decoupled and included in the holding premium) means that it is no longer possible to identify exported cattle as cattle for slaughter. Appropriate account will be taken of this change in future historical cattle population evaluations.

**Figure 4:** Diagram on the treatment of male and female calf exports in the evaluation of the historical cattle population

Legend: t - 2 Jahre (Stichtag Rinderbestand): t - 2 years (cattle population due date); t - 1 Jahr: t - 1 year; t (Zeitpunkt histor. RDB-Auswertung): t (time of historical CDB evaluation); Rinder unter 1 Jahr (=Kälber): Cattle under 1 year (calves); Export in Drittstaaten: Export to third countries; Zucht-/Nutzkälber m/w: Breeding/productive calves m./f.; Schlachtprämienantrag: Slaughter premium application; Schlachtkälber: Slaughtered calves; Export in EU: Exported to EU; kein Schlachtprämienantrag: No slaughter premium application; Kalbinnen 1 bis unter 2 Jahre: Female calves from 1 to less than 2 years; Kalbinnen über 2 Jahre: Female calves over 2 years

Figure 4 shows a diagram of the process by which administrative data is transferred and processed:

Around six weeks after the survey due date (1 June, 1 December), the AMA runs the procedures for evaluating the current cattle population and for evaluating the historical cattle population for the time t-2 years. AMA transmits the evaluation results (cattle population for the current due date and historical cattle population for the time of current due date minus two
years) to the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW). The BMLFUW in turn passes the two sets of evaluation results on to the Federal Institute of Agricultural Economics (AWI). The AWI uses the evaluation results to adjust the coefficients in the factor method. The evaluation results give the current cattle population, with the factor method being used to establish the slaughter and breeding/productive categories for male and female calves. The Federal Institute of Agricultural Economics transmits the data compiled on the cattle population, broken down by the required population and geographical categories (Austria as a whole and the federal provinces), to Statistics Austria, which subsequently publishes this data (see Section 2.3).

2.2.7 Other quality assurance measures

AMA is certified to the standards ISO 9001:2000 and ISO 27001:2005. All processes in the AMA cattle database are subject to these standards, thus ensuring high quality in terms of both the completeness and reliability of the basic population and in terms of the evaluations based on the basic population. Furthermore, its fully operational character has been accepted and recognised by the European Commission.

2.3 Publication (accessibility)

2.3.1 Preliminary results

Not applicable
2.3.2 Final results

2.3.3 Revisions
Revisions are made as required (if, for example, an error is discovered in the calculation procedure or when data is transferred).

2.3.4 Publication media
National publication of the results
The results of the cattle census are published in the following Statistics Austria media:
- **Summary report**
  Summary reports containing the results (text and tables) have been published.
  The summary report is available free of charge on the Internet as a PDF file.
- **Statistische Nachrichten [Statistical news]**
  Key information about the cattle census has been published in the monthly issues of the Statistische Nachrichten.
- **Statistik der Landwirtschaft [Agricultural statistics] (standard publication on agricultural statistics)**
- **Statistical Yearbook of Austria**
  These publications, which include a CD-ROM, can be obtained for a small fee to cover costs. The data is available to download free of charge on the Internet as a PDF file.
- **Internet**
  - On the Statistics Austria website
  - ISIS database
  - Österreichischer Zahlenspiegel [Austrian Facts and Figures]

Results are also published in the following national media:
- In the Green Report published (in German only) by the Federal Ministry of Agriculture, Forestry, Environment and Water Management
- Federal Institute of Agricultural Economics website
- As part of the cattle forecasts made by the Federal Institute of Agricultural Economics

At EU level, results are published in the following media:
- In the "Statistics in focus" booklets
- Pocketbook: Agriculture – Main statistics
- EUROSTAT – NewCronos database
2.3.5 Treatment of confidential data
Not relevant – the results of the cattle survey are anonymised by the high level of aggregation (individual data is not transmitted in the processes described above).

3. Quality

3.1 Relevance

The cattle census must be carried out in accordance with EU legislation. The list of characteristics is defined in Eurostat working group meetings attended by the Directorate-General for Agriculture and Rural Development (DG Agri) and is tailored to current requirements (Common Agricultural Policy – CAP). It is adapted to national requirements at national level in the relevant working groups of the advisory committee.

The cattle census completely covers EU requirements. Any evaluation requests or interests exceeding these requirements are in principle referred to the Federal Institute of Agricultural Economics and the BMLFUW.

3.2 Accuracy

3.2.1 Sampling effects
Not applicable since there is no sample survey

3.2.2 Non-sampling effects

3.2.2.1 Quality of data sources used
Commission Decision No. 1999/571/EC, which was preceded by an inspection of the AMA cattle database by the European Commission's Directorate-General for Health and Consumer Policy (DG SANCO), recognised the fully operational character of the data source, the AMA cattle database.

Reports from the individual livestock keepers are checked regularly. Demands for outstanding reports and corrections are handled by an automated reminder system. In addition, at least 5% of all cattle holdings are checked annually in on-site inspections.

AMA is certified to the standards ISO 9001:2000 and ISO 27001:2005. The cattle database is maintained according to regulated procedures in compliance with the standards specified above.

The cattle database has been inspected several times by EU and national control bodies.

3.2.2.2 Coverage (misclassifications, undercoverage / overcoverage)
Not relevant since the cattle database constitutes a full survey

3.2.2.3 Missing responses (unit non-response, item non-response)
Not applicable. Outstanding reports and corrections are handled by AMA using an automated reminder system and if necessary by on-the-spot checks.

3.2.2.4 Measurement errors (entry errors)
Plausibility is checked automatically when reports are filed electronically. Other incomplete reports are corrected when they are entered after contact with the respondent.
3.2.2.5 Processing errors
Not applicable

3.2.2.6 Model assumption effects
Not applicable

3.3 Timeliness and punctuality
The due date of the survey is 1 June and 1 December. To date, the data has been transmitted to Eurostat on the dates specified (June survey: 15 September/15 October; December survey: 15 February/15 May).

3.4 Comparability

3.4.1 Comparability over time
With respect to comparability over time, it should be noted that long-term comparisons of individual categories are not always possible due to constant minor changes in the list of characteristics (this affects the years up to and including 1994).

Major changes were recorded in the list of characteristics when Austria joined the EU, largely preventing any detailed comparisons (of censuses up to 1994 with all subsequent surveys).

3.4.2 Comparability over region
National and regional comparability is consistently possible at Lander (federal province) level. International comparability is currently consistently possible.

In the case of long-term time series comparisons of national and EU results, however, it should be noted that survey criteria differed in the past.

3.4.3 Comparability over other domains
None

3.5 Coherence
Not directly relevant due to use of the cattle database.

However, it must be pointed out that these statistics relate to a due date, i.e. evaluations from the cattle database on other due dates would of course produce different cattle population data.
Likewise, using different survey or evaluation criteria in surveys or evaluations on the same due date would lead to different results.

4. Outlook

- Production-related aspects: The effects of the 2013 CAP reform cannot currently be foreseen, but may affect all member states. The same applies to future changes in veterinary legislation.
- Content-related aspects: none
- Publication-related aspects: none
## Glossary

### List of abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMA</td>
<td>Agrarmarkt Austria</td>
</tr>
<tr>
<td>AS</td>
<td>Farm Structure Survey</td>
</tr>
<tr>
<td>AWI</td>
<td>Federal Institute of Agricultural Economics</td>
</tr>
<tr>
<td>BMLFUW</td>
<td>Federal Ministry of Agriculture, Forestry, Environment and Water Management (also known as Ministry of Life)</td>
</tr>
<tr>
<td>CAP</td>
<td>Common Agricultural Policy</td>
</tr>
<tr>
<td>CDB</td>
<td>Cattle database</td>
</tr>
<tr>
<td>DG Agri</td>
<td>The European Commission's Directorate-General for Agriculture and Rural Development is responsible for agricultural policy and policy for developing rural areas. It deals with all aspects of the Common Agricultural Policy (CAP), including market measures, rural development policy, financial matters and international relations relating to agriculture.</td>
</tr>
<tr>
<td>DG Environment</td>
<td>The Directorate-General for the Environment aims to accord high priority to environmental protection in order to guarantee quality of life for the current generation and future generations of EU citizens.</td>
</tr>
<tr>
<td>EAA</td>
<td>Economic Accounts for Agriculture</td>
</tr>
<tr>
<td>EUROFARM</td>
<td>Database created at the Statistical Office of the European Communities</td>
</tr>
<tr>
<td>Eurostat</td>
<td>Statistical Office of the European Communities</td>
</tr>
<tr>
<td>IACS</td>
<td>The Integrated Administration and Control System forms the legal basis in the EU for administering the processing of funding. All area and livestock aid schemes are integrated in this system. In addition to provisions for the filing of applications and amendment options, it also contains the procedures for automatic computer checks, on-the-spot inspections and sanctions.</td>
</tr>
<tr>
<td>LFBIS</td>
<td>The Information System for Agricultural and Forestry Holdings (LFBIS) enables the Federal Government to consolidate data on individual holdings (data from holdings statistics and agricultural funding). The LFBIS master file is maintained by Statistics Austria, while the Computing and Technology Centre for Agriculture, Forestry and Water Management (LFRZ) is responsible for technical support.</td>
</tr>
<tr>
<td>LFR</td>
<td>Agriculture and Forestry Register</td>
</tr>
<tr>
<td>LK Österreich</td>
<td>Austrian Chamber of Agriculture</td>
</tr>
<tr>
<td>NA</td>
<td>National Accounts</td>
</tr>
<tr>
<td>STAT</td>
<td>Statistics Austria</td>
</tr>
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</table>
Reference to supplementary documentation/publications

EUROSTAT – Doc. ASA/TE/F/508 "Bericht Österreichs über die Nutzung der Rinderdatenbank" [Austrian report on the use of the cattle database] from the working group meeting on 19/20 March 2003 in Luxembourg (in German)

EUROSTAT – Doc. ASA/TE/F/528 "Antrag Österreichs, die Erhebungen über den Rinderbestand durch die Nutzung der Rinderdatenbank zu ersetzen" [Austrian application to replace surveys of the cattle population with the use of the cattle database] from the working group meeting on 20/21 October 2003 in Luxembourg (in German)

EUROSTAT – Doc. ASA/TE/F/541 Part 1 "Endgültiger Bericht Österreichs gemäß der Entscheidung 2000/554/EG" [Austria’s final report pursuant to Decision 2000/554/EC] from the working group meeting on 15/16 March 2004 in Luxembourg (in German)

EUROSTAT – Doc. ASA/TE/F/541 Part 2 "Antrag Österreichs, die Erhebungen über den Rinderbestand durch die Nutzung der Rinderdatenbank zu ersetzen" [Austrian application to replace surveys on the cattle population with the use of the cattle database] from the working group meeting on 15/16 March 2004 in Luxembourg (in German)

EUROSTAT – Doc. ASA/TE/F/541 Part 2 Annex 2 "Anfrage Österreichs zur Nutzung der Rinderdatenbank als Ersatz der statistischen Rindererhebungen – Prüfung der Anfrage Österreichs" [Austrian request to use the cattle database as a replacement for statistical cattle surveys – examination of the request] from the working group meeting on 15/16 March 2004 in Luxembourg (in German)

Annex

None