#### **CANADA 2001**

#### METHODOLOGICAL ASPECTS

### Appendix A – definitions

#### General

**Agricultural operation**: a farm, ranch or other agricultural operation producing agricultural products for sale. Other agricultural operations include, for example: feedlots, greenhouses, mushroom houses, nurseries, Christmas tree farms, fur farms, hobby farms, game farms, beekeeping, sod, fruit and berry, maple syrup and poultry hatchery operations. Sales in the past 12 months are not necessary but there **must** be the intent of sales.

For the Yukon and Northwest Territories only, the definition also includes operations involved in the following:

- o herding wild animals (such as caribou, muskox, and so on)
- breeding sled dogs
- horse outfitting and rigging
- o harvesting indigenous plants and berries.

#### Agricultural products include any of the following:

Crops	Livestock	Poultry	Animal products	Other agricultural products
<ul> <li>hay</li> <li>field crops</li> <li>tree fruits or nuts</li> <li>berries or grapes</li> <li>vegetables</li> <li>seed</li> </ul>	<ul> <li>cattle</li> <li>pigs</li> <li>sheep</li> <li>horses</li> <li>game animals</li> <li>other livestock</li> </ul>	<ul> <li>hens</li> <li>chickens</li> <li>turkeys</li> <li>chicks</li> <li>game birds</li> <li>other poultry</li> </ul>	<ul> <li>milk or cream</li> <li>eggs</li> <li>wool</li> <li>furs</li> <li>meat</li> </ul>	<ul> <li>greenhouse or nursery products</li> <li>Christmas trees</li> <li>mushrooms</li> <li>sod</li> <li>honey</li> <li>maple syrup products</li> </ul>

Backyard gardens: questionnaire completed only if agricultural products are intended for sale.

**Boarding and riding stables**: operations involved in boarding horses, riding stables and stables for housing and/or training horses must complete a questionnaire even if no agricultural products are sold.

**Alternative livestock**: bison, deer, elk, llamas, alpacas, wild boars, etc. are becoming more commonplace. These are considered agricultural products and therefore questionnaires must be completed for these operations.

#### Step 2 — Operator information

**Agricultural operators**: those persons responsible for the day-to-day management and/or financial decisions made in the operation of a farm or an agricultural operation. Operators can be owners, tenants or hired managers of the agricultural operation. This could include those **responsible for management decisions** pertinent to particular aspects of the farm — planting and harvesting; raising animals; capital purchases; marketing and sales, and other financial decisions.

An agricultural operation may have more than one operator — husband and wife; two brothers; father and son; father, son and wife; father, daughter and husband, two neighbours, etc.

The definition of operator is not intended to include children or other individuals responsible for particular chores or work on the agricultural operation. Only those persons **responsible for day-to-day management decisions** should be listed as farm operators.

**Injuries**: any wounds, fractures or other physical damage requiring medical attention that the agricultural operator suffered as a result of an accident related to work on the farm.

#### Step 3 — Operating arrangements

**Family corporation**: an agricultural corporation in which an individual or family owns the majority of the corporation shares.

**Non-family corporation:** an agricultural corporation in which a group of unrelated individuals owns the majority of the corporation shares.

**Partnership with or without a written agreement:** an agricultural operation where the business is owned and operated jointly by two or more persons with or without a written agreement and where risks and profits are shared. The partners may or may not own the land, buildings, machinery, etc.

**Sole proprietorship operation**: an agricultural operation where one person owns the non-incorporated business. The person who owns the business may or may not own the land, buildings, machinery, etc. There may be multiple operators (persons responsible for the day-to-day management decisions) such as husband and wife, father and son, etc.

#### Step 6 — Location and area of land

#### Farm headquarters of an agricultural operation:

- the operator's residence if he/she lives on land that is part of the agricultural operation
- the location of the main building or main gate of the agricultural operation
- if many parcels of land without buildings are in separate locations, the parcel with the largest land area or share of gross agricultural receipts is considered the farm headquarters.

#### Step 12 — Use of the land

**Summerfallow land**: a term used to describe land on which no crop will be grown in order to conserve moisture but which will be sprayed or cultivated for weed control.

**Tame or seeded pasture**: grazeable land that has been improved from its natural state by seeding, draining, irrigating, fertilizing or weed control.

Natural land for pasture: grazeable land that has not been recently improved.

#### Step 16 — Land management practices

**Tillage**: the practice of working the soil for the purpose of bringing about the more favourable conditions for plant growth. Clean-till (conventional tillage) incorporates most of the crop residue into the soil while minimum-till (conservation tillage) retains most of the crop residue on the surface. No-till includes direct seeding into stubble or sod.

**Crop rotation**: a practice where crops are alternated each year, or in a multi-year cycle, for soil conservation or disease control purposes.

**Permanent grass cover**: a practice where a field or land is kept in grass cover indefinitely to keep the soil from being eroded away.

**Winter cover crops**: crops such as oats or fall rye seeded in the fall to protect the soil from water and wind erosion during the winter and from heavy rains and run-off in the spring.

**Green manure crops for plough down:** the practice of incorporating young green plants into the soil for fertility purposes. These plants are usually grown with the single purpose of being used as a soil improver. Common examples are buckwheat and red clover.

**Contour cultivation**: the practice of cultivating the field across the slope to reduce soil erosion from rapid water run-off.

**Grassed waterways**: either natural or constructed to control soil erosion. The waterway is permanently grassed and consists of a shallow channel, which is designed to slow down run-off water. The grass stabilizes the soil and prevents it from being washed away. They are usually shaped to allow easy crossings by farm machinery.

**Strip-cropping**: (or strip farming, field strip-cropping or wind strip-cropping) a method of controlling soil erosion by dividing the farm into narrow fields having different crops, with or without fallow. For example, the narrow fields may be alternately cropped—uncropped (e.g., wheat–fallow—wheat–fallow) or they may be strips of different crops (cereals, corn, soybeans). The widths of the cropped strips are usually multiples of a tillage implement or spray boom, etc.

**Windbreaks or shelterbelts**: trees, either planted or naturally present. This practice is used more predominantly in western Canada where farmland is more susceptible to wind action and where trapping snow for moisture is important.

**Mechanical or hand weeding of crops:** extracting weeds mechanically or by hand.

#### Step 22 — Market value of land and buildings

**Present market value**: the amount a farm operator could expect to receive if he/she sold his/her land and buildings in today's market.

#### Step 23 — Farm machinery and equipment

Present market value: the amount a machine or piece of equipment would bring if it were sold in today's market.

#### Step 26 — Paid agriculture labour

Paid on a year-round basis: an employee who is employed either part time or full time12 months of the year.

Paid on a seasonal or temporary basis: an employee who works part time or full time for only part of the vear.

#### Step 27 — Certified organic products

Certified organic products: Certified organic products come from farms that are operated according to a set of principles requiring the avoidance of manufactured chemicals and whose adherence to these principles is verified by a third party authorized to certify the operation. The questionnaire asked those operations producing certified organic products what four main categories of products they produced: fruits, vegetables or greenhouse products; field crops; animals or animal products (meat, milk, eggs, etc.) and other (maple syrup, herbs, etc.).

**Organic certifying agency**: A certification agency is an accreditation body that can be a co-operative association or an incorporated entity. It is responsible for establishing a standard and then verifying that those seeking its accreditation meet that standard. Organic certification is based on the Organic Agriculture Standard put out by the Canadian General Standards Board and differs slightly from province to province.

#### **Data dissemination**

Electronic formats (Internet/CD-ROM) replace paper as the primary dissemination media for 2001 Census of Agriculture data products. A full edition of *The Daily* featuring analytical text and charts is available on Statistics Canada's Web site.

#### **New topics**

#### Computer use for farm management

As it has since 1986, the 2001 Census of Agriculture has data on the number of farmers using a computer to manage their farm. In 2001 however, data is also available for the first time on whether they are using it for accounting, inventory control, word processing, Internet, e-mail or some other application.

#### Leased machinery

In 2001, the Census of Agriculture asked respondents to distinguish between "owned" and "leased" for each type of farm machinery and equipment. Past censuses have not made this distinction.

#### Certified organic products

The 2001 data also include information on how many farmers are producing certified organic commodities and categorizes them by type (fruit, vegetables, greenhouse products, field crops, animals or animal products, or "other").

#### New definition of the family

For the 1996 Census, the definition of census family referred to a now-married couple (with or without never-married sons and/or daughters of either or both spouses), a couple living common-law (with or without never-married sons and/or daughters of either or both partners) or a lone-parent of any marital status, with at least one never-married son or daughter living in the same dwelling.

This concept of the family had not changed since 1976. However, during the planning for the 2001 Census of population, it was decided that some changes were required because changes to federal and provincial legislation put same-sex couples on an equal footing with opposite-sex common-law couples; because the United Nations recommended the change to help standardized concepts with censuses of member countries; and also because a significant number of persons less than 15 years of age classified as "non-family persons" in previous censuses.

As a result, the census family concept for the 2001 Census reflects the following changes:

- Two persons living in a same-sex common-law relationship, along with any of their children residing in the household, are considered a census family.
- Children in a census family can have been previously married (as long as they are not currently living with a spouse or common-law partner). Previously, they had to be "never-married".
- A grandchild living in a three-generation household where the parent (middle generation) is nevermarried is, contrary to previous censuses, now considered as a child in the census family of his or her parent, provided the grandchild is not living with his or her own spouse, common-law partner, or child. Traditionally, the census family usually consisted of the two older generations.
- A grandchild of another household member, where a middle-generation parent is not present, is now
  considered as a child in the census family of his or her grandparent, provided the grandchild is not
  living with his or her own spouse, common-law partner, or child. Traditionally, such a grandchild
  would not be considered as a member of a census family.

For additional information, please refer to the 2001 Census Dictionary, catalogue numbers  $\underline{92-378-XIE}$  or  $\underline{92-378-XPE}$ .

#### How the Census of Agriculture began

The British North America (BNA) Act of 1867 determined that a census would be taken every 10 years starting in 1871. However, rapid expansion in western Canada at the turn of the last century made a more frequent census necessary. Starting in 1896, a separate Census of Agriculture was taken every five years in Manitoba, and in Alberta and Saskatchewan beginning in 1906.

#### **Expansion of the Census of Agriculture**

By 1956, rapid economic growth and development created the need for both national demographic and agricultural information at more frequent intervals. In 1956, the five-year Census of Agriculture was extended to the entire country, and the Census of Population became a regular enumeration every five years. That year the two started a long tradition of being conducted concurrently.

#### Relationship between the Census of Agriculture and the Census of Population

Although the Census of Agriculture and the Census of Population are conducted at the same time, they do have separate questionnaires. Most of the development, testing, processing, data validation and preparation for disseminating data for the Census of Agriculture and the Census of Population is handled by different groups within Statistics Canada. However, collecting the data and sharing communications activities for both censuses streamlines procedures and reduces costs considerably. Another important benefit of conducting the two together is that information from the two questionnaires can be linked to create the Census of Agriculture—Population Linkage database. This unique database, started in 1971, provides users with a wealth of information pertaining to the social and economic characteristics of the farm population.

### Who's minding Canada's farms?

#### 1.1 How does the Census of Agriculture define a farm operator?

Agricultural operators are those persons responsible for the day-to-day management and/or financial decisions made in the operation of a farm or an agricultural operation. Operators can be owners, tenants or hired managers of the agricultural operation. This can include those responsible for management decisions pertinent to particular aspects of the farm - planting and harvesting; raising animals; capital purchases; marketing and sales, and other financial decisions.

An agricultural operation may have more than one operator - husband and wife; two brothers; father and son; father, son and wife; father, daughter and husband, two neighbours, etc.

The definition of operator is not intended to include children or other individuals responsible for particular chores or work on the agricultural operation. Only those persons responsible for day-to-day management decisions should be listed as farm operators.

#### 1.2 Why are there more farm operators than farms?

The Census of Agriculture collects information about farm operations and farm operators. Since 1991, the census form has enabled farmers to report up to three operators for each farm, which is why there are more operators than farms. Many farms have more than one person managing the farm.

#### 1.3 Does any pattern emerge for farm operators based on age?

In 2001, young farmers (those 15 to 34) made up 11.5% of all operators, the middle-aged group (35 to 54) comprised 53.6% and those over 55 made up 34.9%.

Young farmers showed the sharpest decline from 1991 to 2001, down 48.8% from 77,905 to 39,920. In contrast, the proportion of operators in the 35-to-54 and 55-and-over categories grew from 80.1% in 1991 to 88.5% in 2001.

## 1.4 But the whole population is aging. Are farm operators as a group greying faster than the general population, or than other workers in the labour force?

Yes. Among self-employed workers, the group most directly comparable to farmers, 21% were 55 or older in 2001; 35% of farmers were 55 or older. Nearly 20% of self-employed workers were under 35, but just 11.5% of farmers.

Comparing the median ages of these groups only reinforces this impression. In 2001, the median age of self-employed workers was 44, of farmers, 49, and of the whole labour force, 38.

Of all the farm operators counted on May 15, 2001, 15% were 65 or over. Another 68,000 (or 20%) will celebrate their 65th birthday by 2011. By contrast, 9% of the entire labour force will turn 65 by the 2011 Census.

#### 1.5 Why are there fewer young people now in agriculture?

The 2001 Census data shows a 10.7% decline in farm numbers for almost all provinces and a 11.1% increase in the average acre of farms since 1996. These factors provide part of the picture of why there are fewer younger farmers. However, the data does not explain why many young people are turning away from agriculture. The Census of Agriculture does not survey those who have left the industry.

This generation of young farmers is better educated than were previous generations. Between 1991 and 2001, the proportion of young farmers with postsecondary education rose from 37% to 49% up 12%. This trend may in part also explain the pull young farmers feel to seek a career off the farm.

#### 1.6 How many women are farm operators?

Women have always played a major role in farm life, but the Census of Agriculture has only recently begun to capture this; only since 1991 has there been space on the census form for farmers to report more than one operator. However, in the three censuses since that change was made, the proportion of all farm operators who are women has changed little. Over this time the ratio of male to female operators remains approximately 3:1. In total numbers female operators have dropped from 100,320 in 1991, 97,345 in 1996 and 91,180 in 2001, a 9.1% drop since 1991.

### What's available to date, and what's to come?

#### 2.1 What 2001 Census of Agriculture data have been released to date?

The first major Census of Agriculture release on May 15, 2002 provides comprehensive information about agricultural operations across Canada. The data contains information at four geographic levels: Canada, provincial/territorial, census agricultural region and census division levels. Variables about the farm include:

- number and type of farms
- crop and land use areas
- land management practices
- numbers of livestock and poultry
- farm machinery and equipment
- · farm capital
- farm operating expenses and receipts.

The second release on November 20 offers information about the people who are managing farms, whereas the first release dealt with the farm operations themselves. Information about farm operators includes age and sex, farm and non-farm work and farm injuries.

The third and final release on Dec 2, 2003 on the Agriculture-Population linkage database matches farm operators (as reported on the Census of Agriculture) with the information they provided on the Census of Population long-form questionnaire. Variables such as marital status, level of schooling, occupation, total household income, unpaid work, country of birth, and religion can be analysed for the farm population and compared to the general population.

For a complete list of all Census of Agriculture 2001 products see: <a href="http://www.statcan.gc.ca/ca-ra2001/schedule-annexe-eng.htm">http://www.statcan.gc.ca/ca-ra2001/schedule-annexe-eng.htm</a>

#### 2.2 What other releases are planned?

Although the release of new 2001 Census of Agriculture data has come to an end, the much anticipated book *Canadian Agriculture at a Glance* will be available in the spring of 2004. This book weaves together over 40 analytical and topical subjects about Canada's agri-food industry, highlight data collected by previous censuses and contrast them with new findings of the 2001 Census of Agriculture. Attractive photographs, maps, tables and charts accompany the articles.

Look for some of the articles featured in the book online before the book is published!

Price details of Census of Agriculture products can be accessed by clicking on "Our products and services" in the blue menu bar on the main Statistics Canada's home page, or on <a href="People">People</a>, products and services.

<a href="Agriculture Division">Agriculture Division</a>

#### 2.3 Where can the information be found and in what format?

All the results are accessible from the Statistics Canada's "Daily" link in the blue bar. More free data are available in for Canada and the provinces at the "Canadian Statistics" link in the blue bar.

All products are electronic in 2001, except for the analytical publication *Canadian Agriculture at a Glance*, which will be available in print format in the spring of 2004.

For more information in Canada and the United States contact the Statistics Canada Regional Office nearest you at: **1 800 263-1136** (national toll-free enquiries line) or contact Census of Agriculture User Services at **1 800 465-1991**.

#### 2.4 Does Statistics Canada charge for Census of Agriculture information?

All farm data and operator data from the 2001 Census of Agriculture down to the provincial and sub-provincial levels are available free to the public. Sub-provincial levels include census agricultural regions, such as Eastern Ontario or the Annapolis Valley, and census divisions, which are equivalent to counties in most provinces.

The census consolidated subdivision, which corresponds to towns, villages or other similar rural areas, is the smallest level of geography available from the Census of Agriculture and is available for a cost. Special custom data tabulations will also cost the user a fee.

Price details of Census of Agriculture products can be accessed by clicking on "Our products and services" in the blue menu bar on the main Statistics Canada's home page, or on <a href="People">People</a>, products and services.

Agriculture Division

### **General questions**

#### 3.1 Why does Statistics Canada conduct the Census of Agriculture?

Statistics Canada conducts the Census of Agriculture to produce detailed, accurate and timely data of the agriculture industry in Canada. Canadian agriculture is constantly changing and the census informs us of these changes.

Statistics Canada uses these data to benchmark estimates of crop area, livestock and financial numbers for the years between censuses. The census also provides a unique source of data for small geographic areas.

# 3.2 Why don't Census of Agriculture data come out at the same time as that of the Census of Population?

The Agriculture Division of Statistics Canada processes Census of Agriculture questionnaires. Information down to the lowest level of geography was released on June 12, 2002.

Census of Population questionnaires are always processed separately from Census of Agriculture. Data for two variables, population and dwellings, were released on March 12, 2002 and other major releases will be staggered throughout the coming year. The Census of Agriculture releases all its farm variable data (more than 300 variables) on May 15, 2002, a year from Census Day.

With over 247,000 farms reporting across Canada and 16 pages per questionnaire, a significant amount of processing must be completed within a year from Census Day. The Census of Agriculture processing schedule has many Step s to ensure data quality, including follow-up calls to farmers to verify information and find farms that may have been missed during enumeration.

# 3.3 What is the legal authority for the Census of Agriculture, and is completing the questionnaire obligatory?

The *Statistics Act* requires that the Census of Agriculture be conducted every five years in the years ending in 1 and 6; for example, 1996 and 2001. This Act, like all Canadian laws, applies to everyone who resides in Canada. Agricultural operators are, therefore, required to complete the census questionnaire.

#### 3.4 Can anyone be publicly identified by the information he/she provides?

No. All published data are subject to confidentiality restrictions; data are grouped to ensure information concerning any particular individual or agricultural operation is not disclosed.

No individual, government department or financial institution has access to the information provided on an individual census form. Not even the Supreme Court of Canada or Revenue Canada can obtain personal information given to Statistics Canada on census questionnaires.

#### 3.5 Will the information about my farm operation be sold?

The *Statistics Act* guarantees that no individual records can ever be identified. Any information Statistics Canada does sell is grouped so that no individual records are revealed.

#### 3.6 Why are local census representatives used to collect detailed financial information?

Local enumerators are used to distribute and collect census forms because of their local geographic knowledge, which ensures more complete coverage. All census representatives are sworn to secrecy and may be prosecuted under the *Statistics Act* should they ever reveal personal respondent information.

In 2006, farm operators will return their questionnaires by mail directly to a central location. No local person will be looking at questionnaires.

#### 3.7 Can a Statistics Canada employee disclose personal information?

Every Statistics Canada employee takes an oath of secrecy under the *Statistics Act* and would face a fine, imprisonment or both for disclosing confidential information.

#### 3.8 Has anyone been prosecuted for not answering Census of Agriculture forms?

Yes. Statistics Canada refers refusal cases to the Department of Justice but only after many repeated efforts to obtain co-operation have failed. Statistics Canada is reviewing the refusals from the 2001 Census and no numbers are available yet on how many agriculture files will be sent to the Department of Justice. After the 1996 Census, summonses were sent to 12 agricultural operators who had refused to complete a Census of Agriculture form. We have always had a very high degree of co-operation and an excellent relationship with respondents.

# 3.9 What fines could be imposed as a result of prosecutions of those refusing to complete their Census of Agriculture questionnaire?

Completion of the questionnaire is mandatory under the *Statistics Act*. A person may be liable to a fine of \$500 or imprisonment for three months, or both, for refusing to answer the census questions.

#### 3.10 What other countries take a Census of Agriculture?

Most of the world's industrialized countries take a Census of Agriculture. The United Kingdom takes a census every year.

The United States takes a Census of Agriculture every five years, in years ending in a 2 or 7. Results for the 2002 U.S Census of Agriculture will be available in 2004. The U.S Census of Agriculture questionnaires will be mailed to all farms in mid-December 2002 for return by Feb. 2, 2003.

Like Canada, Australia also conducts a Census of Agriculture every five years in years ending in 1 or 6.

#### 3.11 Why do we conduct a Census of Agriculture when we don't do one for other industrial sectors?

Agricultural censuses are conducted in most of the world's industrialized countries. Since Confederation, Canada has developed a tradition of conducting a Census of Agriculture combined with surveys to regularly estimate key variables such as crop areas and livestock inventories. The Census of Agriculture is the backbone of the Canadian agriculture statistics system. Other statistical systems exist for other economic sectors and, in some cases, are still developing.

#### 3.12 How are Census of Agriculture data used?

Census of Agriculture data are used by:

- governments to make policy decisions concerning agricultural credit, crop insurance, transportation, market services and international trade
- Statistics Canada to produce annual estimates between censuses for the agriculture sector
- businesses to market products and services and to assist in making production and investment decisions
- agricultural producer groups to inform their members about industry trends and developments, put operators' viewpoint before legislators and the Canadian public, and defend their interests in international trade negotiations
- academics to conduct research on the agriculture sector.

#### 3.13 How does the Census of Agriculture benefit the farmer?

Agricultural operators benefit in a number of ways:

They benefit when companies supplying agricultural products and services use the data to determine where to locate their service centres. They also keep abreast of trends in Canadian agriculture through the analysis of Census of Agriculture data published by the agriculture media.

Producer groups and marketing agencies use the data to assess the need for policies and programs, to represent their members' views to the government and public, and to defend their interests in international trade negotiations.

As well, government policy advisors use the data to help develop programs related to safety nets and human resources for the agriculture sector.

The Census of Agriculture also provides useful small area data for evaluating how seriously adverse weather conditions affect farm operations across the country. In 2001 a severe drought in much of Alberta, Saskatchewan, Ontario, New Brunswick, Nova Scotia and Prince Edward Island had serious implications for farm operators. The 2001 Census of Agriculture provides a snapshot of these provinces' agriculture prior to the drought and will provide key information on the number and type of farms and livestock affected.

#### 3.14 How can Census of Agriculture data help the environment?

The Census of Agriculture identifies and measures farming practices and their relationship to changing environmental concerns. Moreover, all levels of government use Census of Agriculture data for decision- and policy-making. Census of Agriculture data are used to assess the effects or potential impact of droughts, flooding, insect infestations and erosion. They can also track patterns of herbicide, insecticide and fertilizer use, and adoption of land management practices such as conservation tillage, strip-cropping, etc.

# 3.15 Is information from the Census of Agriculture and the Census of Population combined in any way?

Yes. A special Agriculture—Population database has been created to provide a unique socio-economic profile of people involved in agriculture that is not available in other surveys or for any other industry. Information such as the age and education levels of dairy farmers or principal occupations and incomes of beef farmers is available. Confidentiality provisions ensure that individuals' identity is protected and that they cannot be identified by the information they provide.

### Questions related to questionnaire content

#### 4.1 What's new in 2001?

The 2001 Census of Agriculture questionnaire contains many of the questions asked in 1996, as well as some new ones. Some questions remain unchanged to maintain consistency and comparability of data over time. Other questions were added or deleted to reflect changes in the agriculture industry. For example:

- o the section on computer use has been expanded to ask how computers are used
- o two new questions have been added on certified organic farming.

#### 4.2 How is the content of the Census of Agriculture determined?

Census of Agriculture staff consulted with data users at a series of workshops held across Canada in 1998. Agricultural producer groups, Agriculture and Agri-Food Canada analysts, other public and private sector analysts and academics were all consulted on the nature and extent of data they required. New or modified questions were then developed and tested with farm operators to ensure that they were able and willing to provide responses. The test results were used to finalize the content and design of the 2001 questionnaire for approval by Cabinet.

# 4.3 What were the specific changes to the published data in the 2001 Census of Agriculture compared to 1996?

Some of the changes to the questionnaire are conceptual while others are wording changes. All these changes were based on extensive user consultation, respondent testing and results from the previous census. The following are the changes Step by Step in the order they appeared on the questionnaire. Steps unchanged from the 1996 Census are identified as such.

#### Step 1. Operator identification (name, address, phone number) for up to three operators per farm

No changes

#### Step 2. Operator information

- Questions on custom work and type of other business operated were dropped in 2001
- Question on the operation of another business was merged with the question on wages or salary received from other employment.

#### **Step 3. Operating arrangements**

 The 1996 questions on year of incorporation for corporate farms and on other types of operations were omitted from the 2001 Census questionnaire.

#### Step 4. Use of computer

o Indicate the type of computer application used was added as a new question.

#### Step 5. Identification of the units of measure used to report land areas

o No changes

#### Step 6. Location and area of land

- The 1996 question on Area sharecropped, rented or leased from others 1996 was split into two separate categories:
  - Area rented or leased from others
  - Area crop shared from others.

#### Step 7. Hay and field crops

- o Chick peas, Ginseng and Caraway seed are new variables in 2001.
- o Fababeans, Triticale and Safflower were removed and are reported under Other field crops.
- o All other tame hay cut for hay or silage and Other fodder crops categories used in 1996 were combined into one category: All other tame hay and fodder crops cut for hay or silage.

#### Step 8. Vegetables

No changes

#### Step 9. Area of nursery products and sod

No changes

#### Step 10. Fruits, berries and nuts

- The Producing area column was added for all fruit trees and nuts, and the Number of bearing and non-bearing categories was dropped
- o Saskatoons were added as a separate category.

#### Step . 11. Christmas trees

 The question on *number of Christmas trees harvested* in 1996 was not on the 2001 questionnaire.

#### Step 12. Area for the various uses of land on the operation

No changes

#### Step 13. Area of greenhouses

No changes

#### Step 14. Area of mushroom houses

No changes

#### Step 15. Maple taps

o No changes

#### Step 16. Land management practices

o Green manure crops for plough-down and Mechanical or hand weeding of crops were added to question 108.

#### Step 17. Number of colonies of bees

No changes

#### Step s 18 to 20. Poultry

No changes

#### Step 21. Livestock

#### **Cattle or Calves**

The Heifers, 1 year and over category used in 1996 was split into three separate sub-categories:

- o for beef herd replacement
- o for dairy herd replacement
- o for slaughter or feeding.

#### **Sheep or Lambs**

No changes

#### **Pigs**

The categories All other pigs—under 45 lbs. and All other pigs—45 lbs. and over used in 1996 was replaced with:

- o Nursing and weaner pigs
- o Grower and finishing pigs.

#### **Other Livestock**

- Wild boars and Elk were added as separate categories and the Rabbits category was dropped, although rabbits were still reported under Other livestock.
- Alpacas are now listed with llamas.

#### Step 22. Market value of land and buildings

No changes

#### Step 23. Farm machinery and equipment

- Number of items column used in 1996 was split into two categories:
  - Number owned
  - Number leased
- Irrigation equipment was added as a separate category
- Separate categories on Two-wheel drive and Four-wheel drive tractors were dropped from the 2001 questionnaire
- Tractors under 20 hp., Tractors 20-39 hp., and Tractors 40-99 hp. used in 1996 were combined into one category: Tractors under 100 hp
- Self-propelled grain combines and Pull-type grain combines used in 1996 were combined into one category: Combines

- Swathers and Mower conditioners used in 1996 were combined into one category: Swathers and mower-conditioners
- o Balers making bales less than 200 lbs. and Balers making bales 200 lbs. or more used in 1996 were combined into one category: Balers.

#### Step 24. Operating expenses

- Custom work, contract work and machinery rental expenses used in 1996 was split into two separate categories:
  - Custom work and contract work
  - Rental and leasing of farm machinery, equipment and vehicles.
- Diesel fuel, gasoline, oil and lubricants for farm machinery and Fuel expenses for heating and crop drying used in 1996 were combined into one category: All fuel (diesel, gasoline, oil, wood, natural gas, etc.).
- Rent and leasing of land and buildings on a cash basis and Rent and leasing of land and buildings on a share crop basis used in 1996 was combined into one category: Rental and leasing of land and buildings.
- Electricity and Telephone and all other telecommunication services used in 1996 were combined into one category: Electricity, telephone and all other telecommunication services.
- o The *Packaging material expenses* and *Insurance premiums* categories no longer existed separately, but were included in *All other farm business operating expenses.*
- Question on percentage of seed, plants, cuttings and bulbs purchased commercially was dropped.

#### Step 25. Total gross farm receipts and sales of forest products

No changes

#### Step 26. Paid work

No changes

#### **Step 27. Certified organic production (New topic)**

This was a new topic and consisted of two questions:

- Does this operation produce any certified organic products for sale?
- What certified organic products are being produced in 2001?
  - Fruits, vegetables or greenhouse products
  - Field crops (grains, oilseeds, etc.)
  - Animals or animal products (meat, milk, eggs, etc.)
  - Other (maple syrup, herbs, etc.)

#### **Deleted topic: Capital purchases**

The entire topic was excluded since more complete information is available through the Farm Financial Survey, which is conducted every two years.

#### 4.4 Why aren't there different questionnaires for different types of agricultural operations?

It would be too costly, time consuming and inefficient to provide separate questionnaires for different kinds of farms. The Census of Agriculture piggybacks its collection with the Census of Population thereby eliminating duplication of costs and work involved in the national collection. A standard questionnaire simplifies collection and respondent burden when enumerating all the different types of farms in Canada.

The Census of Agriculture provides a national picture of agriculture across Canada, by asking the same questions in every corner of the country. The census, because it involves all farms in Canada, picks up new crops and livestock in areas where they may not have been grown or raised before. The questionnaire has been designed so that operators only respond to those questions that apply to them.

#### 4.5 Why do you need names, addresses and telephone numbers on the questionnaire?

We need names and addresses to make sure that no farms are missed in the census and that none are counted twice. Telephone numbers are needed to contact operators quickly and easily if we find questions that were overlooked on the questionnaire.

#### 4.6 Why doesn't the Census of Agriculture use sampling?

Because of the wide variety of farming operations in Canada and the dynamic nature of the industry, sampling only a portion of operations would not provide the national picture only the census can provide. Since the Census of Agriculture is the primary source for small-area data and for survey sampling, it is important that each agricultural operation complete a Census of Agriculture questionnaire, regardless of size or geographic location. Samples are used for making agriculture estimates between census years.

#### 4.7 How do you evaluate the quality of the data provided?

The 2001 Census of Agriculture results published have been rigorously analysed by subject-matter specialists to identify and correct errors. Errors can occur at reporting time, during data capture and processing, or as a result of farm operations being missed or double counted. The data were also compared with annual published estimates, specialized surveys, administrative data and previous census results to identify and minimize undercoverage. Where necessary, respondents were also contacted to verify responses. Farms missed during initial collection were added to the census database.

#### 4.8 How do you evaluate undercoverage?

The 2001 Census of Agriculture incorporated a new survey to measure undercoverage. The estimated undercoverage rate for the 2001 Census of Agriculture was 5.6%. Undercoverage estimates do not include the Yukon Territory, the Northwest Territories or Nunavut. The last undercoverage survey was done in 1981. The results of the 2001 coverage evaluation survey remain virtually unchanged from 1981.

#### • Table 1. Farm undercoverage: breakdown by province

Province	Enumerated	Non-enumerated farms (estimated)	Undercoverage	Standard error
Province	farms	iaims (estimated)	Ondercoverage	Standard error
Newfoundland	643	40	5.9%	1.9%
Prince Edward Island	1,845	26	1.4%	0.4%
Nova Scotia	3,923	313	7.4%	1.0%
New Brunswick	3,034	260	7.9%	1.8%
Quebec	32,139	1,728	5.1%	0.4%
Ontario	59,728	3,746	5.9%	0.4%
Manitoba	21,071	765	3.5%	0.4%
Saskatchewan	50,598	1,674	3.2%	0.3%
Alberta	53,652	3,776	6.6%	0.3%
British Columbia	20,290	2,299	10.2%	0.6%
		'	'	
Canada	246,923	14,627	5.6%	0.2%

### • Table 2. Farm undercoverage: breakdown by total gross farm receipts

Total gross farm receipts	Enumerated	Non-enumerated farms (estimated)	Undercoverage	Standard error
	farms			

0 – \$10,000	80,256	8,162	9.2%	0.3%
\$10,001 – \$30,000	50,589	3,260	6.1%	0.4%
\$30,001 – \$50,000	35,444	1,109	3.0%	0.3%
\$50,001 - \$100,000	25,242	970	3.7%	0.4%
Greater than \$100,000	55,392	1,126	2.0%	0.2%

#### 4.9 Are hobby farms included in the Census of Agriculture?

Yes. Farms of all economic sizes are included as long as the operation has agricultural products intended for sale.

#### 4.10 Why do you ask the questions on land management?

Data users use this information to identify usage patterns of inputs such as herbicides, insecticides and fertilizers (including manure) and irrigation. The data also make it possible to track changes in land management practices, such as crop rotation, strip-cropping, and tillage practices.

#### 4.11 Why doesn't the Census of Agriculture collect statistics on aquaculture?

Although aquaculture is considered part of the agriculture industry, it was not included in the 2001 Census of Agriculture. Most fish farming takes place on operations unrelated to traditional farming. The industry is defined as those establishments primarily engaged in raising finfish, shellfish, or any other kind of aquatic animal on farms. Collecting aquaculture data on the Census of Agriculture would provide very incomplete information.

A Statistics Canada survey of the aquaculture industry that began in 1997 provides data mostly on revenues and expenses on a calendar-year basis.

More information about aquaculture statistics can be found on the main Statistics Canada Web site.

You can also access free tables about aquaculture by clicking on the blue Canadian Statistics button on the Statistics Canada Web site and searching under "Primary industries\ Fishing and trapping".

#### 4.12 Why are the injury data from 1996 and 2001 not directly comparable?

The data are not directly comparable because the injury question was worded differently on the 2001 questionnaire. The question now asks about farm-related injuries that required medical attention or resulted in lost work time. Previously, farm operators were not asked specifically about injuries that resulted in lost work time.

#### Questions related to collection

#### 5.1 How are agricultural operators identified?

When questionnaires for the Census of Population are distributed to households across Canada, the census representative (or CR) asks whether anyone in the household is a farm operator. If so, the CR leaves a Census of Agriculture form for completion. If no contact is made but the CR sees evidence of agricultural activity, a Census of Agriculture form will also be left.

In addition, the Census of Population questionnaire has a separate question asking if anyone is a farm operator. If someone answers "yes" to the question, the CR confirms that a Census of Agriculture questionnaire has been delivered to the household. If not, the CR will make arrangements to deliver a questionnaire.

#### 5.2 How do you ensure that all operations are included?

Census representatives cover all households and agricultural operations in their enumeration area, dropping off Census of Population questionnaires and, where required, Census of Agriculture questionnaires. During drop-off, census representatives ask whether anyone in the household is a farm operator.

Asking this question helps to identify who should complete a Census of Agriculture questionnaire, especially in cases where an agricultural operator lives in town or away from the operation. This same question, listed on the Census of Population questionnaire, identifies other operators who may not have been contacted in person at the time of drop-off or at mail-out.

Finally, during processing, missing farms can be identified and followed up to ensure they are included.

#### 5.3 Why was the Census of Agriculture taken on May 15, such a busy time for farmers?

Statistics Canada recognizes that this is a very busy time for farmers; however, to save millions of dollars, the Census of Agriculture is conducted at the same time as the Census of Population.

Census day is the second Tuesday in May, so the drop-off and mail-back of census forms could take place during the same month with less likelihood of census forms being misplaced during month-end moves. This time of year is also preferable for hiring the large workforce needed to carry out a census as well as having safer and more favourable weather conditions to carry out the work. This translates into reduced costs for the collection of census data.

#### 5.4 What is the date for the 2006 Census of Agriculture?

The 2006 Census of Agriculture will be held on Tuesday, May 16, 2006.

### 5.5 What is the Progress of Seeding Follow-up Survey? How does it affect comparability with previous censuses?

Statistics Canada developed the Progress of Seeding (POS) follow-up to respond to the change to a mid-May Census Day when farmers have not finished seeding.

Questionnaires from larger field crop farms reporting less than 90% of crops seeded were selected and followed up by telephone. A short telephone call verified the crops and areas actually seeded. In 2001, over 40,000 farmers were contacted across the country in this follow-up. The POS data replaced the figures reported on the Census of Agriculture questionnaire.

#### 5.6 Is the Census of Agriculture questionnaire available in languages other than English or French?

The Census of Agriculture questionnaire is available in either English or French. Unlike the Census of Population, which makes its questionnaire available in 42 different languages, the Census of Agriculture does not have such an ethnically diverse respondent group. Translating the questionnaire into more than the two official languages would be costly with little benefit. However, if a person requires assistance in a language other than English or French, instruction can be provided by calling the census help line at 1-888-594-2006.

## 5.7 Why did each respondent get two questionnaires, one in French and one in English? Isn't this a waste of taxpayers' money?

Under Canadian law, every person has the right to be served by federal departments and agencies in the official language of their choice. Wherever contact was made with a respondent one questionnaire was left. Statistics Canada does have a legal obligation to provide questionnaires in both of Canada's official languages if the language preference is unknown.

#### 5.8 Where were Census of Agriculture data processed?

Census of Agriculture questionnaires were forwarded to Ottawa for processing.

#### 5.9 Why does it take a year to release results from the Census of Agriculture?

The Census of Agriculture is a national activity, which involves collecting information from every agricultural operation in Canada. The collection, follow-up, quality checks, processing, tabulation and publication of data from such an extensive exercise take about one year.

All of these Steps must be made to assure that data are accurate, even at very low levels of geography. This is critical since census data are used to benchmark estimates and draw survey samples between censuses.

### Questions related to geography

#### 6.1 For what geographic areas are Census of Agriculture data available?

Census of Agriculture data are available for Canada, the provinces and territories, as well as for areas corresponding to counties, crop districts and rural municipalities/townships. Statistics Canada has a standard method of defining geographic areas. Three main levels of geography are available:

#### Census agricultural region (CAR)

A census agricultural region is a sub-provincial geographic area used by the Census of Agriculture for disseminating agricultural statistics. In most provinces, census agricultural regions are composed of groups of adjacent census divisions. In Saskatchewan, census agricultural regions are made up of groups of adjacent census consolidated subdivisions, but these groups do not necessarily respect census division boundaries. In Prince Edward Island, each of the three existing census divisions (counties) is treated as a census agricultural region for the purpose of disseminating statistical data. Census agricultural regions are not defined in Yukon Territory, the Northwest Territories or Nunavut. In the Prairie provinces, census agricultural regions are commonly referred to as crop districts.

#### Census division (CD)

Census division is the general term for provincially legislated areas (such as county, regional municipality and regional district) or their equivalents. Census divisions are intermediate geographic areas between the province level and the municipality (census subdivision). Census divisions have been established in provincial law to facilitate regional planning, as well as the provision of services that can be more effectively delivered on a scale larger than a municipality. In Newfoundland and Labrador, Manitoba, Saskatchewan, Alberta, Yukon Territory, the Northwest Territories and Nunavut, provincial/territorial law does not provide for these administrative geographic areas. Therefore, Statistics Canada, in co-operation with these provinces and territories, has created equivalent areas called census divisions for disseminating statistical data.

#### Census consolidated subdivision (CCS)

A census consolidated subdivision is a grouping of adjacent census subdivisions. Generally, the smaller, more urban census subdivisions (e.g., towns, villages) are combined with the surrounding, larger, more rural census subdivision to create a geographic level between the census subdivision and the census division. A census subdivision with a land area greater than 25 square kilometres can form a census consolidated subdivision of its own. Also, a census subdivision with a population greater than 100,000 (according to the last census) usually forms a census consolidated subdivision of its own. The name of the census consolidated subdivision usually coincides with its largest census subdivision component in terms of land area.

For more information about census geography, go to the 2001 Census dictionary

#### 6.2 What geographic levels are available to the public?

Information about at the census agricultural region (CAR) and census division (CD) levels are available for free.

Lower level geography (census consolidated subdivision) (CCS) are available for a cost.

In addition, custom requests can be run according to user-defined areas. All tabulated data are subjected to confidentiality restrictions; data are grouped to ensure no information concerning any particular individual or agricultural operation is disclosed.

# What is the Agriculture-population linkage database, and why is it important?

#### 7.1 What is the Agriculture-Population linkage and why is it important?

The Agriculture—Population linkage database matches farm operators (as reported on the Census of Agriculture) with the information they provided on the Census of Population long-form questionnaire. The data from this source provide a wealth of information about farmers, their families and their households that we would not have from just the Census of Agriculture questionnaire. Variables such as marital status, level of schooling, occupation, total household income, unpaid work, country of birth, and religion can be analysed for the farm population. It also allows certain characteristics of the farm population to be compared with the general population.

#### 7.2 Why are Agriculture-Population data not available below the provincial level?

The figures for Agriculture—Population data are derived from a 20% sample from the Census of Population, adjusted to represent the entire population. We use a 20% sample because the Census of Population only asks 1 in every 5 households to fill out the long questionnaire form, the source of all the socio-economic data. Because the farm population can be very small below the provincial level, and taking into consideration the 20% sample size, the numbers are often too small to be reliably accurate.

# 7.3 What is the definition of farm household, farm census family and farm economic family as used in the Agriculture–Population linkage?

A household refers to a person or group of persons who occupy the same dwelling. A farm household must have at least one farm operator, that is, a person responsible for making management decisions in operating a farm or agricultural operation.

The farm family is divided into two general categories: farm census families and farm economic families. In order to be a farm family, at least one household member must be a farm operator.

The census family concept requires that family members be a male or female spouse, a male or female common-law partner, a male or female lone parent, or a child with a parent present. By contrast, an economic family requires only that family members be related to each other by blood, marriage, common law or adoption. The concept of economic family may, therefore, refer to a larger group of persons than a census family.

For example, a widowed mother living with her married son and daughter-in-law would be treated as a non-family person under the definition of a census family. She would, however, be counted as a member of an economic family along with her son and daughter-in-law.

Click on <a href="http://www.statcan.gc.ca/english/census2001/dict/famint.htm">http://www.statcan.gc.ca/english/census2001/dict/famint.htm</a> for more detailed information on the components of economic and census family.

#### 7.4 What does "total income" include?

Total income refers to the total income from all sources, including employment income, income from government programs, pension income, investment income and any other money income. Total income is broken into three categories: net farm income, other employment income, other sources of income.

#### Net farm income includes:

• gross receipts from farm sales minus depreciation and cost of operation. Gross receipts include cash advances received in 2000, dividends from co-operatives, rebates and farm-support payments to farmers from federal, provincial and regional agricultural programs (e.g., milk subsidies and

marketing board payments) and gross insurance proceeds such as payments from the Net Income Stabilization Account (NISA). The value of income "in kind," such as agricultural products produced and consumed on the farm, is excluded.

#### Other employment income includes:

non-farm self-employment income, wages and salaries.

#### Other sources of income includes:

government transfer payments, investment income and all other income. Incorporated farm
operations are likely to report wages and salaries or dividend earnings from the farm corporation as
"other employment income" or "other sources of income."

Some data tables from the Agriculture—Population release include the major source of household income, which refers to the component that constitutes the largest proportion of household income.

Click on <a href="http://www.statcan.gc.ca/english/census2001/dict/pop028.htm">http://www.statcan.gc.ca/english/census2001/dict/pop028.htm</a> for more detailed information about the components of income.

#### 7.5 Why is net farm income not reported by some incorporated farm operations?

The tables that provide data about net farm income are accompanied with a footnote to users to be aware that individuals on incorporated farms may not report net farm income on their Census of Population form. They are more likely to report wages and salaries or dividend earnings from the farm corporation as "other employment income" or "other sources of income."

#### 7.6 What tables were incorporated farms excluded from?

Incorporated farms are excluded from the data tables that deal with families because they are legal entities and are not counted as families.

They are excluded in the following tables:

#### Table 9

Census families and economic families on unincorporated farms by size if family, 2001

#### Table 10

Census families (on unincorporated farms) total income by selected income variables, 2001

#### Table 11

Economic families' (on unincorporated farms) total income by selected income variables, 2001.

#### 7.7 What is an incorporated farm operation?

An incorporated farm operation exists as a legal entity separate from the farm operator. Only the corporation itself is liable in the case of a lawsuit. Succession of the farm operation can also be easier for incorporated farms, because it is owned by shareholders.

#### 7.8 How do you define "immigrant"?

Landed immigrants are people who have been permitted by immigration authorities to live in Canada permanently; some will have lived in Canada for a number of years, while others have arrived recently. Immigrant farm operators may have arrived in Canada at any time, but were operating a farm in 2001.

#### 7.9 How do you define rural and urban populations?

The urban population refers to everyone in an area with a population of at least 1,000 and no fewer than 400 persons per square kilometre. The rural population includes everyone living outside centres with a population of 1,000 or more. The building blocks for classifying geographic space as "rural" include all those people living in the rural fringes of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as people living in rural areas outside CMAs and CAs. See definitions in Census Dictionary: <a href="http://www.statcan.gc.ca/english/census2001/dict/index.htm">http://www.statcan.gc.ca/english/census2001/dict/index.htm</a>

#### 7.10 How do you define farm and non-farm populations?

Farm population includes all members of a farm operator's household, living on a farm in a rural or urban area. Non-farm population refers to everyone outside the farm population.

## 7.11 What kinds of programs are included under the level-of-schooling category "Postsecondary, non-university"?

The "Postsecondary, non-university" includes completed postsecondary education resulting in a trade certificate or diploma, or a college certificate or diploma.

#### 7.12 What happens when a person is involved in more than one unpaid activity at the same time?

The person should report the time spent on each activity in the appropriate question. For example, someone who spent one hour preparing a meal while looking after his or her children should report one hour of housework and one hour of child care. It does not matter that these activities took place at the same time.

#### 7.13 What is included in "agricultural occupations"?

Agricultural occupations are based on the 2001 National Occupation Classifications. Primary agricultural occupation includes farmer, farm manager, greenhouse operator, maple syrup producer, farm worker etc. Primary non-agricultural occupation is everything else, such as teacher, truck driver, firefighter, auto mechanic, etc.

For more information on the NOC-S-2001, see the National Occupational Classification for Statistics, 2001, Statistics Canada Catalogue no. <u>12-583-XPE</u>.