

FARM TYPE DATA ALLOCATION METHODOLOGY

Workbook Title: Huffman Census Trends from 1991-2011

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## **Introduction**

The workbook “Huffman Census Trends from 1991-2011” contains disaggregated data compiled from the last 5 Census of Agriculture periods: 1991, 1996, 2001, 2006, and 2011 with a focus on three Eastern Ontario regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality. This includes the demographics of the eastern Ontario Canadian dairy industry and field crop data. Each sheet in the workbook breaks down census data into a Farm Type, which is then used in the Eastern Ontario Envision model projections. A graphic of this breakdown can be seen in Figure 1.

## **Symbols in Workbook**

**X** - indicates suppression of data to meet confidentiality requirements of the *Statistics Canada Act*

**SD&G** – Stormont, Dundas & Glengarry United Counties

**OTT** – Ottawa Carleton Regional Municipality

**PR** – Prescott and Russell United Counties

**DO** – Dairy Only

**DH** – Dairy & Hay

**DFC** – Dairy & Field Crop

**FCG** – Field Crop Grain

**FCD** – Field Crop Dairy

**FCC** – Field Crop Cow Calf

**FCF** – Field Crop Feeder

**FCH** – Field Crop Hogs

**FCO** – Field Crop & Other livestock

**FldCrp** – Field Crop

## **Output**

The trends in these data are used in the Eastern Ontario Envision project to inform model projections and future trends in regards to the number of different farm

types, their average size, and their relationship with one another. In total, 2844 farms of 22 farm types were identified for the Eastern Ontario region, based on these data. Farm location in Envision is not representative of real locations of Eastern Ontario farms; rather are fictional farms identified based on census agriculture statistics, and are spatially distributed on the landscape. Data is used to develop the LULC\_B classification and Farm Type Attributes. This further informs scenario specifications on crop proportions, livestock production. Additionally, Integrated Decision Units (IDU) are assigned based on crop type.

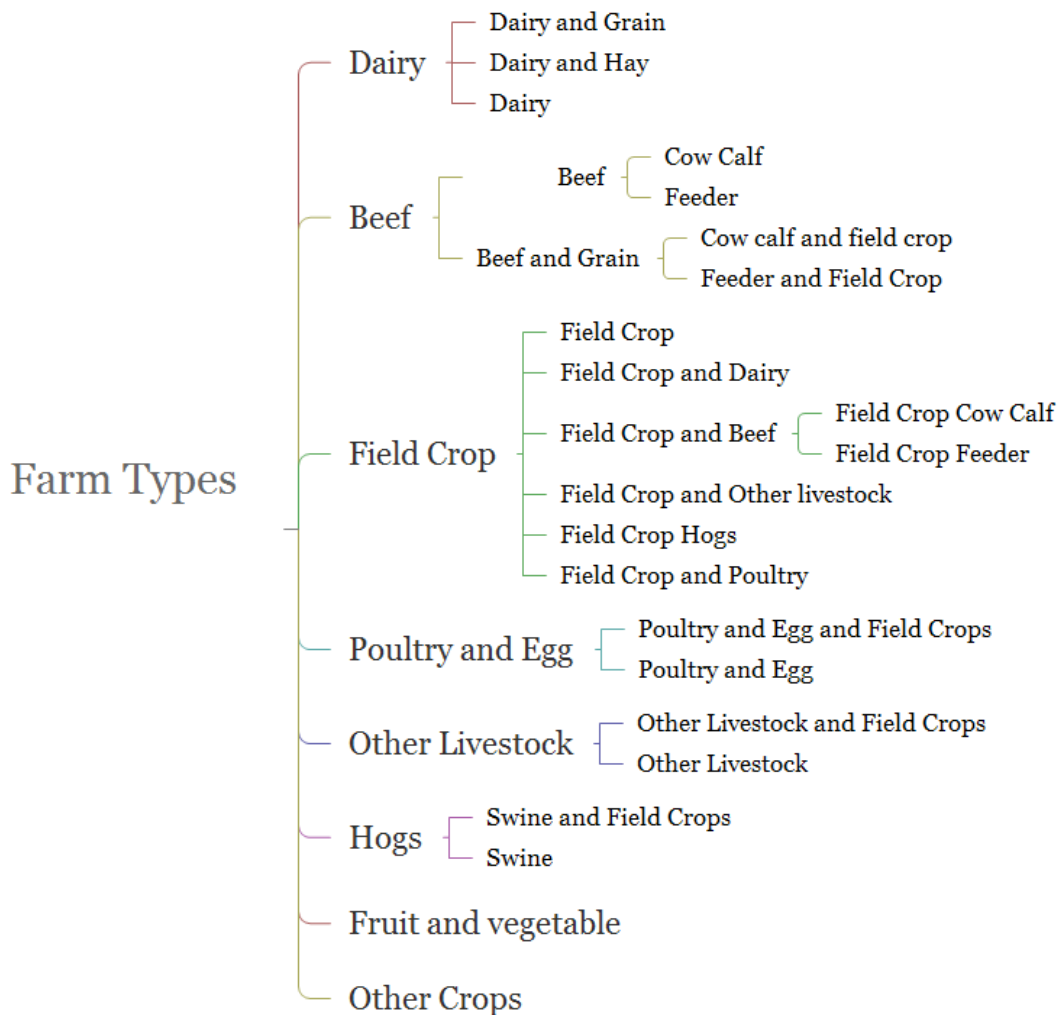


Figure 1. Breakdown of Farm Type data used in Eastern Ontario model. Taken from MacDonald et al. (2016)

## Inputs

The Census of Agriculture conducted by Statistics Canada every five years provides a comprehensive picture of agriculture activity in Canada. See the **Farm type Data 2011 v May 6 2015** spreadsheet for all raw data. Information compiled by the Census of Agriculture is released based on Statistics Canada's Standard Geographic Units, but the attribute or statistical tables related to these geographic features are titled the Interpolated Census of Agriculture (ICOA). The variables used in this study all have a Geocode dataset to which it refers to. The attribute name and its corresponding Geocode identifier are listed in Table 1. A full description of the Geocode data properties is available from AAFC (2013).

## How to Use This Document

This word document outlines the methodology used to calculate farm attributes of the 7 farm types outlined in within this workbook. The Methods & Assumptions section will describe key assumptions made in manipulating raw data, define uncertainties within the data and discuss the approach to dealing with suppressed data. **Bolded** words make reference to specific cells within a worksheet. The Output section describe how to view trends within the data.

**Sheet Name:** Dairy (1)

**Spreadsheet Owner:** Tonia Tanner

**Overview:** Describes Dairy farming data for the years 1991, 1996, 2001, 2006 and 2011 for three regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality.

**Methods & Assumptions:**

Dairy farms data are broken up into three sub categories: **Dairy only, Dairy and Hay** and **Dairy and Field Crop**.

**Dairy Only:** total number of farms was calculated as the difference between dairies that report field crops and total dairies.

**Dairy and hay:** total number of farms was determined as the difference between total dairies reporting and the largest number reporting of corn, soy and cereal crops. Farmers are not likely to have straight cereals. The average Ha per farm of Alfalfa + other tame hay was calculated using the amount of hay required per cow multiplied by the number of Dairy cows within this farm type.

**Dairy and Fld\_crp:** total number of farms is based on corn and soy numbers. Suppression of data prevented calculation of total farm area in this category, so this value calculated based on known values from the other farm types and also the total number of farms.

*Calculations*

See comments made on sheet for specific calculations. Cells with an “X” indicate suppression of the data that came from Stats Canada, and was unable to be resolved given what data was available.

*Output*

The trends in this data are used in Envision to inform future trends in regards to the number of different farm types, their average size, and their relationship with one another. Several informative graphs describe the trends of the data for the following variables: Total number of all dairy farm types, average farm size, number of farms reporting, total number of dairy and hay farms, total number of dairy and field crop farm type.

**Sheet Names:** Beef (2)

**Spreadsheet Owner:** Tonia Tanner

**Overview:** Reports Census Data for Beef livestock for the years 1991, 1996, 2001, 2006 and 2011 for three regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality.

**Methods and Assumptions:**

Beef farm data was broken up into the following categories: **Beef only, Beef and Grains, Cow calf only, Cow calf and field crop, Feeder all, Feeder only and feeder and field crop.** For the purpose of calculations within the Envision model only Cow Calf Only, Cow Calf and Field Crop, Feeder Only and Feeder and Field crop are used. Beef only, Beef and Grains, Cow calf all and Feeder all categories are used in calculating the 4 categories used in the model.

**Beef Only:** There was no grain and oilseed production for **Beef Only** farms, thus the total number of farms was calculated by including a proportion of pasture and other lands only. Total field crops (ha) only includes a proportion of haylands.

**Beef and Grains:** Total number of farms in the **Beef and Grains** category was reported as the number of beef producers reporting some type of grain along with a proportion of hayland. The maximum number was used. Total field crop area (ha) includes all grains and oilseeds acres and a proportion of haylands. Total area of Grains and oilseeds was suppressed for this category, so was calculated as the difference between hay and fodder total area and total field crops.

**Cow Calf all:** To determine **Cow Calf all** farm numbers, the number of beef producers reporting beef cows was used. Total field crop area (ha) includes hay and grains and oilseeds.

**Cow Calf only:** total farm number applied the ratio of **beef only** to total beef farms multiplied by all **Cow Calf all** farm numbers. Total field crop area (ha) includes a proportion of haylands attributed to **Beef Only** farms, but does not include any grains and oilseeds

**Cow calf and field crop:** applied the ratio of all total **Beef and Grain** producers to total number of farms multiplied by total number of **Cow Calf** producers. Total field crop area (Ha) includes a proportion of grains and oilseeds and a proportion of hay and fodder.

**Feeder all:** farm numbers include, cow calf producers who finish calves. Used the total number of farms reporting steers. It was not possible to calculate Total farm area (ha) for this category as it included cow calf and feeder numbers.

**Feeder and Field Crop:** The total number of farms in the **Feeder and Field Crop** category was determined as the difference between the total number of **Cow Calf and field crop** producers and beef producers that produce field crops (**Beef and Grains**). The logic is that cow calf producers will have hay crops which are considered field crops. Any left over numbers must therefore be feedlots with field crops, which could be hay or grains. However, there is no way of knowing from the data what these residual numbers are, thus a proportion of both is attributed to the cell. Total Farm Area (ha) in this category includes a proportion of haylands, grains and oilseeds and other lands, but no pasture. There is the possibility of backgrounding facilities, but it was not possible to determine pasture from the census. The total field crop area (ha) included a proportion of hay and fodder and a proportion of grain and oilseed land.

**Feeder Only:** total farm numbers for the **Feeder Only** category was determined by subtracting the number of farms that report beef cows and **Feeder and Field Crop farms** from the total number of beef producers. Total Farm Area (ha) in this category includes a proportion of the haylands and other lands, but no pasture. There is the possibility of backgrounding facilities, but it was not possible to determine pasture from the census. The total field crop area included a proportion of hay and fodder.

## **Calculations**

See Spreadsheet comments for calculation descriptions

## **Output**

Trends from these data are used to support the Envision Eastern Ontario model. Trends for Total number of farms, Average farm size and area can be viewed in this worksheet.



**Sheet Names:** Hog (3)

**Spreadsheet Owner:** Tonia Tanner

**Overview:** Reports Census Data for Hog livestock data for the years 1991, 1996, 2001, 2006 and 2011 for three regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality.

**Methods and Assumptions:**

Hog farm data was broken up into the following categories: **Hog only** and **Hog and Field Crop**

**Hog Only:** Total number of farms was calculated by subtracting the total number of farms reporting **Hog and Field Crop** from the total number of hog farms. There is no pasture or field crops associated with this farm type, so Farm Area (ha) was determined using only acreage attribute to “Other Land”..

**Hog and Field Crop:** Total farm number was reported as either the number of corn for grain, or number of farms reporting soybeans. Corn for grain numbers were reported if larger than number of farms reporting soybeans.

As for **Hog Only**, Farm Area (Ha) required estimation as there were farms that did not report field crop acreage, only acreage attributed to “Other Land”. Farm area was calculated by subtracting the total farm area of **Hog only** farm from the area of all farm types

**Calculations**

See comments made on worksheet for specific calculations.

**Output**

Trends from these data are used to support the Envision Eastern Ontario model. Trends for Total number of farms, Average farm size and area can be viewed in this worksheet.

## FARM TYPE – OTHER LIVESTOCK

**Sheet Names:** Other Livestock (4)

**Spreadsheet Owner:** Tonia Tanner

**Overview:** Reports Census Data for Other livestock data for the years 1991, 1996, 2001, 2006 and 2011 for three regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality.

**Methods & Assumptions:** **Other livestock** refers to Sheep and other large livestock not already reported. Within the **Other livestock** farm type, there are two categories including: **Other Livestock** and **Other Livestock and Field Crop**

**Other Livestock:** To determine total number of farms, subtract the number of farms reporting **Other Livestock and Field Crops** from the Total number of Other livestock farms. Total Farm Area (ha) includes Summerfallow land, pasture, field crop and acreage attributed to Otherland . Total field crop area (ha) includes only proportional amounts of haylands.

**Other Livestock and Field Crop:** For calculating total number of farms, if the total number of farms reporting corn is greater than those reporting soy then that is the number of **Other Livestock and Field Crop** reported. Due to suppression of some Farm Area values, total farm area was calculated using the total farm area of **Other Livestock**. Total field crop area includes all grain and oilseed acreage attributed to Other livestock and a proportional amount of haylands.

### Calculations

See comments made on sheet for specific calculations.

### Output

Trends from these data are used to support the Envision Eastern Ontario model. Trends for Total number of farms, Average farm size and area can be viewed in this worksheet.

## FARM TYPE – POULTRY & EGG

**Sheet Names:** Poultry & Egg (5)

**Spreadsheet Owner:** Tonia Tanner

**Overview:** Reports Census Data for Poultry livestock data for the years 1991, 1996, 2001, 2006 and 2011 for three regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality.

**Methods and Assumptions:** Poultry & Egg Farm data included the following categories : **Poultry & Egg only** and **Poultry & Egg & Field Crop**

**Poultry & Egg only:** Number of farms was determined as the difference between the total number of Poultry farm producers and the number that number that produced **Poultry & Egg & Field Crop**. Total farm area was calculated in a similar way as **Other livestock**.

**Poultry & Egg & Field Crop:** Number of farms was determined as the number of farms reporting corn for grain if that number is greater than the number of farms reporting soybeans. Total farm area required estimation due to suppression, and was calculated as the difference between the **Poultry & Egg only** farm area and Total farm area.

### Calculations

See comments made on sheet for specific calculations. Note that suppression in some values has prevented the calculation of this value using certain formulas, therefore we have calculated this value using the known values from the other farm types and the total farm area of all farms.

### Output

Trends from these data are used to support the Envision Eastern Ontario model. Trends for Total number of farms, Average farm size and area can be viewed in this worksheet.

## FARM TYPE – FIELD CROP

**Sheet Name:** Field Crop (6)

**Spreadsheet Owner:** Tonia Tanner

**Overview:** Reports Census Data for Field Crop farm type for the years 1991, 1996, 2001, 2006 and 2011 for three regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality.

**Methods and Assumptions:**

Field Crop farm data was split into the following categories: **Field Crop Only, Field Crop & Dairy, Field Crop & Cow Calf, Field Crop Feeder, Field Crop & Hogs, Field Crop & Other Livestock.**

**Field Crop All:** the total number of farms with hay includes **Field Crop & Dairy, Field crop & Cow calf, Field Crop & feeder and Field crop & Other livestock**

**Field Crop Only:** The total number of farms is calculated as the difference between all of the farms reporting field crops and the other field crop farm types. Total land in hay and fodder crops assumes that there are farmers growing hay as a cash crop. Total land in crops includes pasture grain and oilseeds and hay and fodder land.

**Field Crop & Dairy:** Total number of farms is calculated as the number of Field Crop Farms that report Dairy Cows. Total land in crops includes pasture, grain and oilseeds and hay and fodder land. To estimate total land in hay and fodder, used the average acreage of hay per grazing animal (i.e. Dairy cow number)

**Field Crop & Cow Calf:** Total number of farms is calculated as the number of farms reporting beef cows. Total land in crops includes pasture, grain and oilseeds and hay and fodder land. Total land in hay and fodder was estimated by applying the average acre of hay per animal for steers, heifers and beef cows in the Field Crop Farm type.

**Field Crop Feeder:** Total number of farms assumes the same ratio of feedlots to cow calf operations as in the beef farmers category. Apply a ratio of **Feeder Only** to **Cow Calf all** numbers from the Beef Farm type to the number of Field Crop farms reporting Beef Cows. Total land in crops includes grain and oilseeds and hay and fodder land, but no pasture

**Field Crop & Hogs:** Total number of farms reporting Cows and gilts for breeding, nursing and weaner pigs and grower and finishing pigs. Total land in crops includes grain and oilseeds, but no pasture and no hay.

**Field crop & Other livestock:** Total land in crops includes grain and oilseeds, pasture and haylands.

### **Calculations**

See comments made on sheet for specific calculations. Note that suppression in some values has prevented the calculation of this value using the above formula, therefore we have calculated this value using the known values from the other farm types and the total farm area of all farms.

### **Output**

Trends from these data are used to support the Envision Eastern Ontario model. Trends for Total number of farms, Average farm size and area can be viewed in this worksheet. Total farm area is calculated as the Sum of pasture, grains and oilseeds and hay acreages.

## FARM TYPE – FRUIT AND VEGETABLE

**Sheet Names:** Fruit and Vegetable (7)

**Spreadsheet Owner:** Tonia Tanner

**Overview:** Reports Census Data for Fruit and Vegetable farm type for the years 1991, 1996, 2001, 2006 and 2011 for three regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality.

**Methods and Assumptions:** Data such as number of steers 1 year and over and Beef Cow numbers required estimation, and were determined as the difference between total numbers and all give numbers for the other farm types

### **Calculations**

See comments made on sheet for specific calculations. Note that suppression in some values has prevented the calculation of this value using the above formula, therefore we have calculated this value using the known values from the other farm types and the total farm area of all farms.

### **Output**

Trends from these data are used to support the Envision Eastern Ontario model. Trends for Total number of farms, Average farm size and area can be viewed in this worksheet.

## FARM TYPE – OTHER CROP

**Sheet Names:** Other Crop (8)

**Spreadsheet Owner:** Tonia Tanner

**Overview:** Reports Census Data for Fruit and Vegetable farm type for the years 1991, 1996, 2001, 2006 and 2011 for three regions: Stormont, Dundas and Glengarry United Counties, Prescott and Russell United Counties, and Ottawa-Carleton Regional Municipality.

**Methods and Assumptions:** Follows assumptions outlined in previous methods.

### Calculations

See comments made on sheet for specific calculations. Note that suppression in some values has prevented the calculation of this value using the above formula, therefore we have calculated this value using the known values from the other farm types and the total farm area of all farms.

### Output

Trends from these data are used to support the Envision Eastern Ontario model. Trends for Total number of farms, Average farm size and area can be viewed in this worksheet.

## References

- AAFC, 2013, *ISO 19131 Interpolated Census of Agriculture by Soil Landscapes of Canada: Revision A*,  
[www.agr.gc.ca/atlas/supportdocument\\_documentdesupport/  
interpolatedCoA/en/ISO\\_19131\\_Interpolated\\_Census\\_of\\_Agriculture\\_Data\\_Product\\_Specification.pdf](http://www.agr.gc.ca/atlas/supportdocument_documentdesupport/interpolatedCoA/en/ISO_19131_Interpolated_Census_of_Agriculture_Data_Product_Specification.pdf)
- Dairy Farmers of Ontario. *Facts & Figures About Canadian Dairy Cows*. Retrieved on 15 June, 2017 from [www.milk.org](http://www.milk.org).
- MacDonald, D., Waldick, R. & Mitchell, S. *Extreme Weather Effects on Agriculture The effect of changing weather patterns on farming operations. [PowerPoint slides]*.
- OMAFRA, 2017. *2017 Field Crop Budgets: Publication 60*, Retrieved 15 June 2017 from [www.omafra.gov.on.ca/english/busdev/facts/pub60.pdf](http://www.omafra.gov.on.ca/english/busdev/facts/pub60.pdf)



## Appendix 1

Data from AAFC, 2013, *ISO 19131 Interpolated Census of Agriculture by Soil Landscapes of Canada: Revision A*,

[www.agr.gc.ca/atlas/supportdocument\\_documentdesupport/](http://www.agr.gc.ca/atlas/supportdocument_documentdesupport/)

[interpolatedCoA/en/ISO\\_19131\\_Interpolated\\_Census\\_of\\_Agriculture\\_Data\\_Product\\_Specification.pdf](#)

Attribute Name	GEOCODE
<b>Province</b>	GEO_PROV
<b>Census Division (CD)</b>	GEO_CD
<b>Geographic identification</b>	GEO_Names
<b>Custom farm Type</b>	CUST_FRMTYP
<b>Custom farm type - English label</b>	CUST_FRMTYP_EN
<b>Custom farm type - French label</b>	CUST_FRMTYP_FR
<b>Total number of farms</b>	TFAREA_N
<b>Total farm area - Hectares</b>	TFAREA_M
<b>Land in crops (excluding Christmas tree area) - Farms reporting</b>	CRPLND_N
<b>Land in crops (excluding Christmas tree area) - Hectares</b>	CRPLND_M

<b>Summerfallow land - Farms reporting</b>	SUMMRF_N
<b>Summerfallow land - Hectares</b>	SUMMRF_M
<b>Tame or seeded pasture - Farms reporting</b>	IMPAST_N
<b>Tame or seeded pasture - Hectares</b>	IMPAST_M
<b>Natural land for pasture - Farms reporting</b>	UNIMPAST_N
<b>Natural land for pasture - Hectares</b>	UNIMPAST_M
<b>Other Land - Farms reporting</b>	OTHERLND_N
<b>Other Land - Hectares</b>	OTHERLND_M
<b>Weed control on summerfallow land, chemical only - Farms reporting</b>	CHEMSF_N
<b>Weed control on summerfallow land, chemical only - Hectares</b>	CHEMSF_M
<b>Weed control on summerfallow land, tillage only - Farms reporting</b>	TILLSF_N
<b>Weed control on summerfallow land, tillage only - Hectares</b>	TILLSF_M
<b>Weed control on summerfallow land, tillage and chemical combination on the same land - Farms Reporting</b>	COMBSF_N
<b>Weed control on summerfallow land, tillage and chemical combination on the same land -</b>	COMBSF_M

## Hectares

<b>Total field crops - Farms reporting</b>	TOFDCP_N
<b>Total field crops - Hectares</b>	TOFDCP_M
<b>Spring wheat and durum wheat - Farms reporting</b>	WHTSPDR_N
<b>Spring wheat and durum wheat - Hectares</b>	WHTSPDR_M
<b>Winter wheat and fall rye - Farms reporting</b>	WHTRYE_N
<b>Winter wheat and fall rye - Hactares</b>	WHTRYE_M
<b>Cereal grains - Farms reporting</b>	GRNCRL_N
<b>Cereal grains - Hectares</b>	GRNCRL_M
<b>Corn for grain - Farms reporting</b>	CORNGR_N
<b>Corn for grain - Hectares</b>	CORNGR_M
<b>Corn for silage - Farms reporting</b>	CORNSI_N
<b>Corn for silage - Hectares</b>	CORNSI_M
<b>Canola and mustard seed - Farms reporting</b>	CANMUST_N
<b>Canola and mustard seed - Hectares</b>	CANMUST_M
<b>Soybeans - Farms reporting</b>	SOYBNS_N
<b>Soybeans - Hectares</b>	SOYBNS_M
<b>Flaxseed - Farms reporting</b>	FLAXSD_N

<b>Flaxseed - Hectares</b>	FLAXSD_M
<b>Pulse crops - Farms reporting</b>	PULSES_N
<b>Pulse crops - Hectares</b>	PULSES_M
<b>Alfalfa and alfalfa mixtures - Farms reporting</b>	ALFALFA_N
<b>Alfalfa and alfalfa mixtures - Hectares</b>	ALFALFA_M
<b>Other tame hay and fodder crops - Farms reporting</b>	TAMFOR_N
<b>Other tame hay and fodder crops - Hectares</b>	TAMFOR_M
<b>Potatoes - Farms reporting</b>	POTATS_N
<b>Potatoes - Hectares</b>	POTATS_M
<b>Sunflowers - Farms reporting</b>	SUNFLS_N
<b>Sunflowers - Hectares</b>	SUNFLS_M
<b>Sugar beets - Farms reporting</b>	SUGARB_N
<b>Sugar beets - Hectares</b>	SUGARB_M
<b>Other field crops - Farms reporting</b>	OTHERFLD_N
<b>Other field crops - Acres</b>	OTHERFLD_M
<b>Total vegetables - Farms reporting</b>	TOTVEG_N
<b>Total vegetables - Hectares</b>	TOTVEG_M
<b>Berries - Farms reporting</b>	FRTBRY_N
<b>Berries - Hectares</b>	FRTBRY_M
<b>Grapes total area - Farms</b>	GRAPETA_N

**reporting**

<b>Grapes total area - Hectares</b>	GRAPETA_M
<b>Tree fruits and nuts - Farms reporting</b>	FRTTREE_N
<b>Tree fruits and nuts - Hectares</b>	FRTTREE_M
<b>Sod and nursery products - Farms reporting</b>	SODNUR_N
<b>Sod and nursery products - Hectares</b>	SODNUR_M
<b>Total area of greenhouses in use - Farms reporting</b>	TOTGRN_N
<b>Total area of greenhouses in use - Square metres</b>	TOTGRN_M
<b>Crop rotation - Farms reporting</b>	CROPROT_N
<b>In-field winter grazing or feeding - Farms reporting</b>	INFGRAZ_N
<b>Rotational grazing - Farms reporting</b>	ROTGRAZ_N
<b>Plowing down green crops - Farms reporting</b>	GRNMAN_N
<b>Winter cover crops - Farms reporting</b>	COVCROP_N
<b>Nutrient management planning - Farms reporting</b>	NUTMGMT_N
<b>Windbreaks or shelterbelts (natural or planted) - Farms reporting</b>	WINDYES_N
<b>Buffer zones around water bodies - Farms reporting</b>	BUFFZON_N

<b>No-till seeding or zero-till seeding - Farms reporting</b>	TILLNO_N
<b>No-till seeding or zero-till seeding - Hectares</b>	TILLNO_M
<b>Tillage retaining most crop residue on the surface - Farms reporting</b>	TILCONS_N
<b>Tillage retaining most crop residue on the surface - Hectares</b>	TILCONS_M
<b>Tillage incorporating most crop residue into soil - Farms reporting</b>	TILCONV_N
<b>Tillage incorporating most crop residue into soil - Hectares</b>	TILCONV_M
<b>Baled crop residue - Farms reporting</b>	CROPRES_N
<b>Baled crop residue - Hectares</b>	CROPRES_M
<b>Use of herbicides - Farms reporting</b>	HERBCI_N
<b>Use of herbicides - Hectares</b>	HERBCI_M
<b>Insecticide and fungicide - Farms reporting</b>	INSFUNG_N
<b>Insecticide and fungicide - Hectares</b>	INSFUNG_M
<b>Use of commercial fertilizer - Farms reporting</b>	FERTIL_N
<b>Use of commercial fertilizer - Hectares</b>	FERTIL_M

<b>Use of lime - Farms reporting</b>	LIME_N
<b>Use of lime- Hectares</b>	LIME_M
<b>Total manure application - Farms reporting</b>	MANURE_N
<b>Total manure application - Hectares</b>	MANURE_M
<b>Manure spread naturally by grazing livestock - Farms reporting</b>	MSPRLIV_N
<b>Manure spread naturally by grazing livestock - Hectares</b>	MSPRLIV_M
<b>Solid or composted manure, incorporated into soil - Farms reporting</b>	MSCOMPIN_N
<b>Composted manure incorporated into soil - Hectares</b>	MSCOMPIN_M
<b>Solid or composted manure, not incorporated - Farms reporting</b>	MSCOMPNO_N
<b>Composted manure not incorporated into soil - Hectares</b>	MSCOMPNO_M
<b>Liquid manure injected or incorporated into soil - Farms reporting</b>	MLIQINJ_N
<b>Liquid manure injected or incorporated into soil - Hectares</b>	MLIQINJ_M
<b>Liquid manure not incorporated into soil - Farms reporting</b>	MLIQSUR_N
<b>Liquid manure not incorporated into soil - Hectares</b>	MLIQSUR_M

<b>Manure (kg/year)</b>	LVKGMAN
<b>Nitrogen (kg/year)</b>	LVKGNI
<b>Phosphorous (kg/year)</b>	LVKGP
<b>Potassium (kg/year)</b>	LVK GK
<b>Pullets under 19 weeks, intended for laying - Farms reporting</b>	PULETS_N
<b>Pullets under 19 weeks, intended for laying - Number of birds</b>	PULETS
<b>Laying hens, 19 weeks and over - Farms reporting</b>	LAYHEN_N
<b>Laying hens, 19 weeks and over - Number of birds</b>	LAYHEN
<b>Layer and broiler breeders (pullets and hens) - Farms reporting</b>	BREEDCHK_N
<b>Layer and broiler breeders (pullets and hens) - Number of birds</b>	BREEDCHK
<b>Broilers, roasters and Cornish - Farms reporting</b>	BROILER_N
<b>Broilers, roasters and Cornish - Number of birds</b>	BROILER
<b>Turkeys - Farms reporting</b>	TURKEY_N
<b>Turkeys - Number of birds</b>	TURKEY
<b>Other poultry - Farms reporting</b>	OTHPLT_N
<b>Other poultry - Number of birds</b>	OTHPLT



<b>Broilers, roasters and Cornish production - Farms reporting</b>	BROILPRD_N
<b>Broilers, roasters and Cornish production - Kilograms</b>	BROILPRD
<b>Turkey production - Farms reporting</b>	TURKPRD_N
<b>Turkey production - Kilograms</b>	TURKPRD
<b>Table eggs (dozens) - Farms reporting</b>	EGGTABL_N
<b>Table eggs (dozens)</b>	EGGTABL
<b>Hatching eggs (dozens) - Farms reporting</b>	EGGHATCH_N
<b>Hatching eggs (dozens)</b>	EGGHATCH
<b>Calves, under 1 year - Farms reporting</b>	CALFU1_N
<b>Calves, under 1 year - Number</b>	CALFU1
<b>Steers, 1 year and over - Farms reporting</b>	STEERS_N
<b>Steers, 1 year and over - Number</b>	STEERS
<b>Heifers for beef herd replacement or for slaughter or feeding - Farms reporting</b>	BEEFHF_N
<b>Heifers for beef herd replacement or for slaughter or feeding - Number</b>	BEEFHF
<b>Heifers for dairy herd replacement - Farms reporting</b>	MLKHEIF_N
<b>Heifers for dairy herd</b>	MLKHEIF

<b>replacement - Number</b>	
<b>Beef cows - Farms reporting</b>	BFCOWS_N
<b>Beef cows - Number</b>	BFCOWS
<b>Dairy cows - Farms reporting</b>	MLKCOW_N
<b>Dairy cows - Number</b>	MLKCOW
<b>Bulls, 1 year and over - Farms reporting</b>	BULLS_N
<b>Bulls, 1 year and over - Number</b>	BULLS
<b>Rams - Farms reporting</b>	RAMS_N
<b>Rams - Number</b>	RAMS
<b>Ewes - Farms reporting</b>	EWES_N
<b>Ewes - Number</b>	EWES
<b>Lambs - Farms reporting</b>	LAMBS_N
<b>Lambs - Number</b>	LAMBS
<b>Boars - Farms reporting</b>	BOARS_N
<b>Boars - Number</b>	BOARS
<b>Sows and gilts for breeding - Farms reporting</b>	SOWS_N
<b>Sows and gilts for breeding - Number</b>	SOWS
<b>Nursing and weaner pigs - Farms reporting</b>	NURPIG_N
<b>Nursing and weaner pigs - Number</b>	NURPIG
<b>Grower and finishing pigs - Farms reporting</b>	GRWPIG_N

<b>Grower and finishing pigs - Number</b>	GRWPIG
<b>Other large livestock - Farms reporting</b>	LVLRG_N
<b>Other large livestock - Number</b>	LVLRG
<b>Other small livestock - Farms reporting</b>	LVMRF_N
<b>Other small livestock - Number</b>	LVMRF
<b>Total gross farm receipts (excluding sales of forest products) - Farms reporting</b>	SALEMFP_N
<b>Total gross farm receipts (excluding sales of forest products) - Amount \$</b>	SALEMFP
<b>Total farm capital - Farms reporting</b>	TOTFCAP_N
<b>Total farm capital - Market value \$</b>	TOTFCAP
<b>Total farm business operating expenses - Farms reporting</b>	TOTEXP_N
<b>Total farm business operating expenses - Amount \$</b>	TOTEXP
<b>Fertilizer and lime purchases - Farms reporting</b>	FERTPD_N
<b>Fertilizer and lime purchases - Amount \$</b>	FERTPD
<b>Purchases of herbicides, insecticides, fungicides, etc. - Farms reporting</b>	CHEMPD_N

<b>Purchases of herbicides, insecticides, fungicides, etc. - Amount \$</b>	CHEMPD
<b>Seed and plant purchases (excluding materials purchased for resale) - Farms reporting</b>	SEEDPD_N
<b>Seed and plant purchases (excluding materials purchased for resale) - Amount \$</b>	SEEDPD
<b>Total feed, supplements and hay purchases - Farms reporting</b>	FEEDPD_N
<b>Total feed, supplements and hay purchases - Amount \$</b>	FEEDPD
<b>Livestock and poultry purchases - Farms reporting</b>	LVSTPD_N
<b>Livestock and poultry purchases - Amount \$</b>	LVSTPD
<b>All fuel expenses (diesel, gasoline, oil, wood, natural gas, propane, etc.) - Farms reporting</b>	FUEL_N
<b>All fuel expenses (diesel, gasoline, oil, wood, natural gas, propane, etc.) - Amount \$</b>	FUEL
<b>Electricity, telephone and all other telecommunication services - Farms reporting</b>	UTILEXP_N
<b>Electricity, telephone and all other telecommunication services - Amount \$</b>	UTILEXP
<b>Other operating expenses</b>	OTHEREXP_N

**Other operating expenses -** OTHEREXP  
**Amount \$**