

2014 CENSUS OF AGRICULTURE - MAIN RESULTS

1. Introduction

This issue of the Economic and Social Indicators (ESI) presents the preliminary main results of the 2014 Census of Agriculture (CA2014) carried out from July to December 2014 in the Republic of Mauritius.

The CA2014 was conducted in three phases - Phase I covering a complete census of some 200 agricultural businesses (i.e. those operating in the non-household sector, namely corporations, NGOs, Government institutions etc), Phase II covering a sample 10,339 household farms and Phase III covering a sample of 9,000 private households. Data collection for Phase I was carried out from July to December 2014, Phase II from July to September 2014 and Phase III from October to November 2014.

The concepts and definitions used in this publication are given at Annex I, and the methodology including the scope, coverage and the sampling design at Annex II.

Further to the publication of this ESI, Statistics Mauritius will next undertake a more detailed analysis and evaluation of the census data including estimates of sectors not covered by CA2014 (sugarcane and tea) and the results will be published, through a consolidated report, in December 2015. Moreover, three national consultants, recruited by Food and Agricultural Organisation of the United Nations (FAO), are undertaking thematic analysis of the census data on gender, land and livestock. Their findings will be presented at a dissemination seminar in November 2015 and their reports will be published in December.

Note to users

The data published in this ESI:

- (i) are provisional and may be subject to revisions in subsequent publications of CA2014 after further analysis and evaluation with other data sources;
- (ii) may differ from agricultural data published in other publications of SM due to difference in methodology used for data collection.

2. Historical background

The first Census of Agriculture was carried out in 1930 and this was followed by a similar exercise in 1940. Since then, there has not been any complete census, although data on agricultural statistics are collected on a regular basis by several organisations including Statistics Mauritius through surveys and also through established administrative reporting systems. The current Census of Agriculture was carried out in 2014 after more than 70 years.

3. Objectives

The main objectives of the 2014 Census of Agriculture were:

- (a) To provide important information on the organisational structure of farms at geographic level for better and informed decision making (e.g farm size, land use, land tenure, crop area harvested, presence of irrigation, livestock numbers, farm labour as well as the number of holdings with each crop and livestock type);
- (b) To improve estimates on the contribution of agriculture for the economy;
- (c) To provide information on the household sector including subsistence farming which is important for food security; and
- (d) To improve the completeness of existing sampling frame that will be used as the base for sample selection for future agricultural surveys.

4. Main findings

4.1 Agricultural Holdings

4.1.1 Area

Based on information collected at CA2014, the total number of agricultural holdings (excluding sugarcane and tea only) was estimated at 23,456 (Island of Mauritius: 18,350 and Island of Rodrigues 5,106) and were predominantly (99%) in the household sector.

In the Island of Mauritius out of a total area of 64,683 hectares occupied by the holdings, 83% were used by businesses/institutions from the non-household sector while the remaining 17%, by household farms. This allocation was quite different in Rodrigues with more than 99% of the holdings' area occupied by household farms.

The average area per holding in the household sector on the Island of Mauritius worked out to 0.6 hectare compared to as high as 594 hectares per holding in the non-household sector. On the other hand, in the Island of Rodrigues, the average size of holdings was estimated at 0.3 and 0.5 hectare in the household and non-household sectors respectively. (Table 1)

Table 1: Number and area of holdings by sector, July 2013 - June 2014, Islands of Mauritius and Rodrigues

Sector	Island of Mauritius					Island of Rodrigues				
	Number of holding	%	Area of holding (hectares)	%	Average area per holding (hectares)	Number of holding	%	Area of holding (hectares)	%	Average area per holding (hectares)
Total	18,350	100.0	64,683	100.0	3.5	5,106	100.0	1,767	100.0	0.3
Household	18,260	99.5	11,254	17.4	0.6	5,083	99.5	1,755	99.3	0.3
Non-Household	90	0.5	53,429	82.6	593.7	23	0.5	12	0.7	0.5

The distribution of the size of holdings in the Island of Mauritius, as shown in Table 2, indicated that almost half (48%) of the holdings in the household sector had an area of less than 100 perches (around 0.4 hectare) of which 76% had an area of less than 50 perches (around 0.2 hectare). In the non-household sector, only 18% of the holdings had an area of less than 100 perches, while as high as 59% had a size of at least 500 perches (around 2.1 hectares).

The distribution of the size of household farms in the Island of Rodrigues showed that 40% had an area of less than 100 perches, of which 66% had a size of less than 50 perches. In the non-household sector, 52% of the holdings had an area of less than 100 perches, while only 4% had a size of at least 500 perches.

Table 2: Percentage distribution of holdings by size and sector, July 2013 - June 2014, Islands of Mauritius and Rodrigues

Size of Total Area of Holding (perches)	Island of Mauritius				Island of Rodrigues			
	Household sector		Non-Household sector		Household sector		Non-Household sector	
	Number	%	Number	%	Number	%	Number	%
All sizes	18,260	100.0	90	100.0	5,083	100.0	23	100.0
Under 5	2,624	14.4	-	-	110	2.2	1	4.3
5 and less than 50	4,000	21.9	9	10.0	1,224	24.1	4	17.4
50 and less than 100	2,079	11.4	7	7.8	697	13.7	7	30.5
100 and less than 500	6,203	33.9	21	23.3	2,416	47.5	10	43.5
500 and over	3,354	18.4	53	58.9	636	12.5	1	4.3

4.1.2 Activity

Table 3 shows that in the Island of Mauritius, the majority (55%) of the holdings in the household sector were growing crops, while those in the non-household were predominantly (44%) doing mixed farming.

As regards the Island of Rodrigues, most (78%) of the holdings in the household sector were growing crops while the majority (43%) of those in the non-household sector were engaged in mixed farming.

Table 3: Percentage distribution of holdings by Activity and Sector, July 2013 - June 2014, Islands of Mauritius and Rodrigues

Holding's Activity	Island of Mauritius				Island of Rodrigues			
	Household sector		Non-Household sector		Household sector		Non-Household sector	
	Number	%	Number	%	Number	%	Number	%
All activities	18,260	100.0	90	100.0	5,083	100.0	23	100.0
Growing of crops	10,014	54.8	27	30.0	547	10.8	10	43.5
Raising of livestock & poultry	5,313	29.1	23	25.6	595	11.7	6	26.1
Growing of crops and raising of livestock & poultry (Mixed farming)	2,933	16.1	40	44.4	3,941	77.5	7	30.4

4.1.3 Land Use

Out of the total area of holdings covered by the non-household sector in the Island of Mauritius, 69% were under permanent crops while 5% were under temporary crops. On the other hand, in the household sector 35% of the areas were under permanent crops, while 51% were used for growing temporary crops.

As regards the Island of Rodrigues, most of the areas in both the non-household and household sectors were under temporary crops (57% and 66% respectively). (**Table 4**)

Table 4: Percentage distribution of area of holding by land use and sector, July 2013 – June 2014, Islands of Mauritius and Rodrigues

Item	Island of Mauritius		Island of Rodrigues	
	Household sector	Non-Household sector	Household sector	Non-Household sector
Land use	100.0	100.0	100.0	100.0
<i>Land used:</i>	95.0	88.5	95.1	88.2
Under temporary crops	51.3	5.1	66.1	56.7
Under temporary meadows and pastures	0.8	1.2	2.2	-
Fallow	1.5	0.6	6.9	9.4
Under permanent crops	35.2	69.0	8.8	1.6
Under permanent meadows and pastures	4.7	3.3	10.3	19.7
Forest or wooded land	1.5	9.3	0.8	0.8
<i>Land not used:</i>	5.0	11.5	4.9	11.8
Suitable for agriculture	1.8	6.5	3.9	-
Built up areas	0.3	2.8	0.3	8.7
Other land (e.g wasteland, land under water,etc)	2.9	2.2	0.7	3.1

4.1.4 Land Tenure

Table 5 shows the distribution of the total area of holdings by different tenure forms.

In the Island of Mauritius, most (95%) of the area in the non-household sector was owned by the farmers. In the household sector, nearly half (47%) of the area was owned by the farmers, while most of the remaining area was either rented from other owners or leased from Government.

For the Island of Rodrigues, most of the areas in both the non-household and household sectors were leased from Government.

Table 5: Percentage distribution of area of holding by land tenure and sector, July 2013 – June 2014, Islands of Mauritius and Rodrigues

Tenure Form	Island of Mauritius		Island of Rodrigues	
	Household sector	Non-Household sector	Household sector	Non-Household sector
All tenure forms	100.0	100.0	100.0	100.0
Land owned	46.5	95.1	6.1	23.1
Land leased from Government	10.1	4.1	46.3	76.9
Land rented/ leased from others	40.7	0.8	1.6	-
Other types of land tenure	2.7	-	46.0	-

4.1.5 Land parcel

The number of land parcels operated by the household farms was estimated at around 31,600 and 7,500 on the Islands of Mauritius and Rodrigues respectively.

4.2 Farmers in the Household Sector

4.2.1 Gender

Figure 1 shows that 77% of household farmers were males in the island of Mauritius compared to 57% in the Island of Rodrigues.

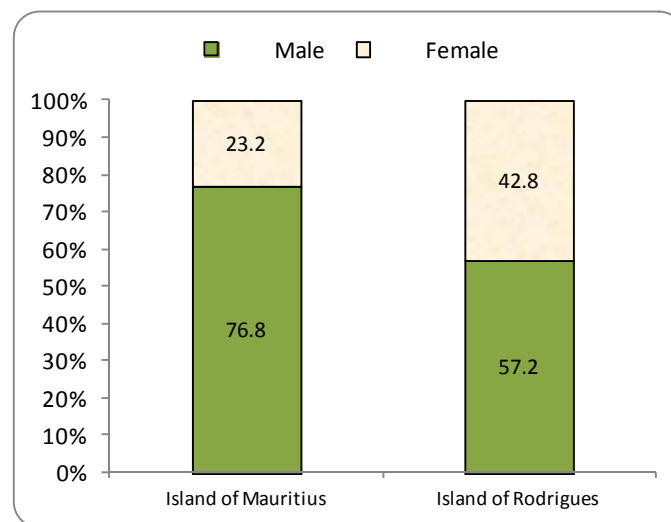


Figure 1: Percentage distribution of household farmers by sex, July 2013 - June 2014, Islands of Mauritius and Rodrigues

4.2.2 Age structure

Figure 2 depicts the age structure of farmers. It is observed that in both Islands of Mauritius and Rodrigues the majority of them fell in the age group of 40 years and over (86 % and 77% respectively).

The mean age of farmers worked out to 53.3 years (males = 52.8 years and females = 55.2 years) in the Island of Mauritius. The higher mean age for female farmers is explained by a high proportion of them falling in the age bracket of 50 to 69 years compared to male farmers. In the Island of Rodrigues the mean age of farmers worked out to 50.5 years (males = 50.4 years and females = 50.7 years).

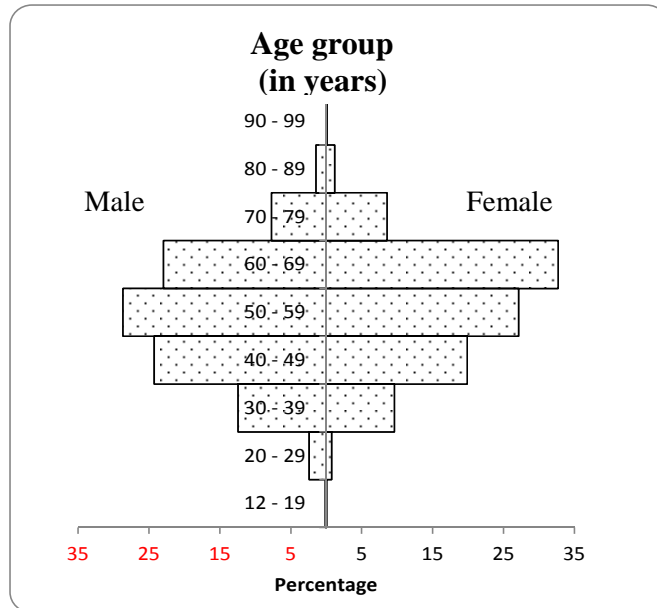


Figure 2a: Percentage distribution of farmers (household sector) by age group and sex, Island of Mauritius

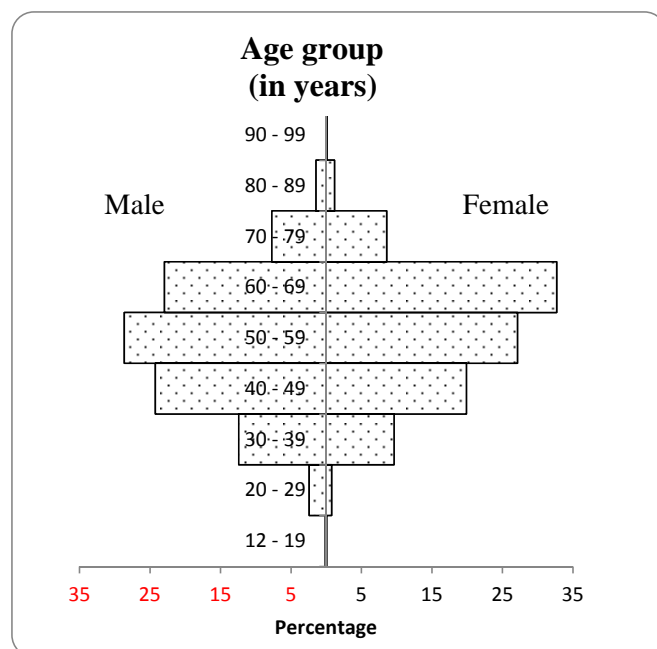


Figure 2b: Percentage distribution of farmers (household sector) by age group and sex, Island of Rodrigues

4.2.3 Activity of household members

Farmer's household members in the Island of Mauritius numbered 69,865 (52% were males and 48% were females) and those in the Island of Rodrigues were estimated at 18,727 (50% for both males and females). The average household size was 3.8 and 3.7 persons for the Islands of Mauritius and Rodrigues respectively.

Regarding the activity status of farmer's household members aged 12 years and over on the Island of Mauritius, over the period July 2013 to June 2014, it was found that 47% were engaged in agricultural work on the household farms. Out of these agricultural workers 62% were farmers, of whom 66% were working on a full-time basis. As regards to the Island of Rodrigues, 64% were engaged in agricultural work on the household farms. Out of these agricultural workers 62% were farmers, of whom 73% were working on a full-time basis. (Table 6)

Table 6: Percentage distribution of farmer's household members by sex and activity, Islands of Mauritius and Rodrigues

Item	Island of Mauritius	Island of Rodrigues
1. Number of farmer's household members	69,865	18,727
Household size	3.8	3.7
Both sexes (%):	100.0	100.0
Male	51.5	49.9
Female	48.5	50.1
2. Number of farmer's household members aged 12 years & over working on farm (July 2013 - June 2014)	31,038	9,405
Number of farmers:	19,234	5,862
Full-Time (%)	66.0	72.8
Part-Time (%)	34.0	27.2
Number of non-farmers:	11,804	3,543
Full-Time (%)	16.0	15.9
Part-Time (%)	84.0	84.1
All age groups in years (%):	100.0	100.0
12 - 19	2.6	6.3
20 - 29	7.5	11.3
30 - 39	14.7	19.4
40 - 49	22.3	22.6
50 - 59	24.7	20.1
60 - 69	21.2	11.9
70 - 79	5.9	7.0
80 - 89	1.1	1.4
90 - 99

4.2.4. Profile of paid employees on the farm

Table 7 shows that the non-household farms on the Island of Mauritius had 71% male and 29% female paid employees and they were mostly Mauritians (99%) compared to only 1% of foreign workers. As regards to the Island of Rodrigues, the non-household farms comprised 52% male and 48% female paid employees and they were all Mauritians.

The household farms on the Island of Mauritius comprised 38% male and 62% female paid employees and they were mostly Mauritians (98%) compared to only 2% of foreign workers. The majority (73%) of them were employed on a part-time basis.

As regards to the Island of Rodrigues, the paid employees of the household farms were made up of 67% male and 33% female and they were mostly Mauritians. The majority (95%) of them were employed on a part-time basis.

Table 7: Percentage Distribution of Holding's Paid Employees by sex, source of employee and type of employment, July 2013 - June 2014, Islands of Mauritius and Rodrigues

Item	Island of Mauritius		Island of Rodrigues	
	Household sector	Non-Household sector	Household sector	Non-Household sector
Both sexes (%):	100.0	100.0	100.0	100.0
Male	37.9	70.9	66.9	52.2
Female	62.1	29.1	33.1	47.8
Source of employees (%):	100.0	100.0	100.0	100.0
Mauritian	97.9	99.4	99.9	100.0
Expatriate	2.1	0.6	0.1	-
Type of employment (%):	100.0		100.0	
Full-Time	27.1		4.7	
Part-Time	72.9		95.3	

4.2.5 Main Purpose of Production

Figure 3 shows that the majority of household farms on the Islands of Mauritius (87%) and Rodrigues (73%) were growing crops and/ or raising livestock and poultry mainly for sale.

The lower figure for the Island of Rodrigues indicates higher importance of subsistence farming compared to the Island of Mauritius.

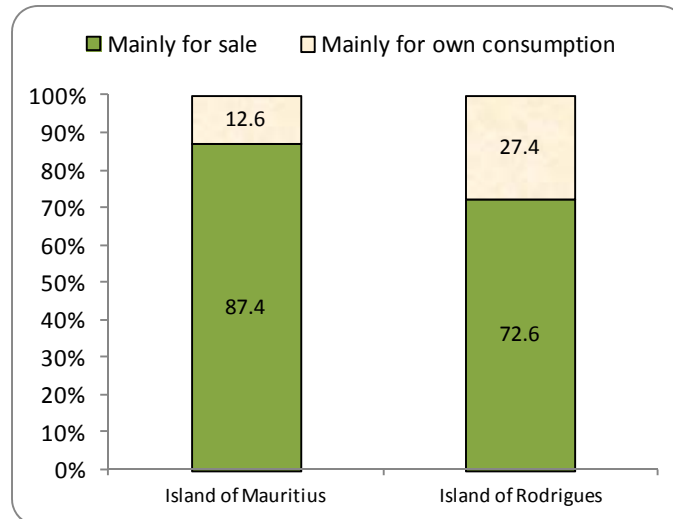


Figure 3: Percentage distribution of household farms by main purpose of production, July 2013 - June 2014, Islands of Mauritius and Rodrigues

4.2.6 Agricultural households

Figure 4 shows that household farms on the Islands of Mauritius (31%) and Rodrigues (20%) were deriving more than half of their household income from agriculture. These households are therefore classified as agricultural households (An agricultural household is a household whose largest source of income consists of income derived from agricultural production).

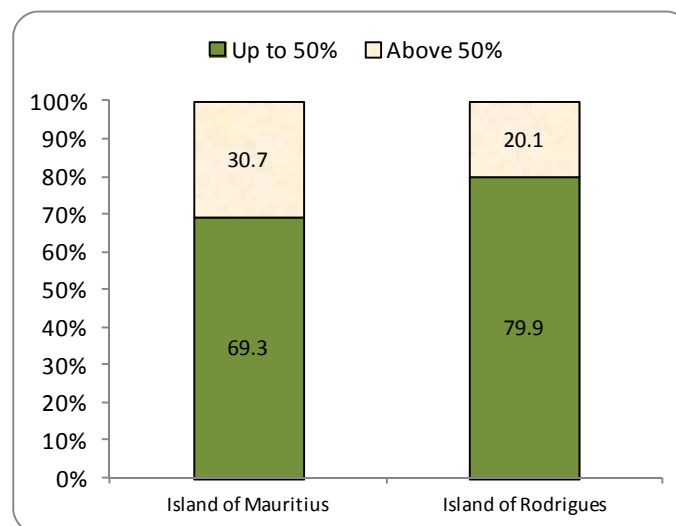


Figure 4: Percentage distribution of household farms by proportion of household income from agriculture, June 2014, Islands of Mauritius and Rodrigues

4.3 Harvested and planted area

4.3.1 Vegetables and cereals

The total harvested area of vegetables (including melons, oilseed crops, root/tuber crops and leguminous crops) and cereals on the Island of Mauritius was estimated at around 8,988 hectares, while that in Rodrigues worked out to 1,625 hectares (Tables 8a and 8b).

Table 8a: Harvested area of vegetables and cereals by agricultural practice, July 2013 - June 2014, Island of Mauritius

(Hectares)

Crop Name	Open field	Under cover		All practices
		Hydroponic	Non-Hydroponic	
Tomato	1,230.2	25.9	1.0	1,257.1
Potato	648.5	-	-	648.5
Carrot	526.8	-	-	526.8
Pumpkin	509.7	-	-	509.7
Calabash	478.4	-	-	478.4
Rice (paddy)	426.3	-	-	426.3
Cabbage	415.3	-	-	415.3
Chillies	405.9	-	-	405.9
Leafy vegetables (Brede)	412.4	-	-	412.4
Chouchou	383.4	-	-	383.4
Herbs	391.9	-	-	391.9
Cucumber	376.3	9.7	-	386.0
Brinjal	360.9	-	-	360.9
Onion	303.0	-	-	303.0
Beans	273.8	-	-	273.8
Ladyfinger (Lalo)	268.7	-	-	268.7
Bittergourd (Margoze)	162.9	-	-	162.9
Groundnut	149.5	-	-	149.5
Lettuce	142.4	22.1	0.1	164.6
Ridgegourd (Pipengaille)	109.1	-	-	109.1
Other vegetables	954.3	7.2	5.1	954.3
Total	8,929.7	64.9	6.2	8,988.5

Table 8b: Harvested area of vegetables and cereals, July 2013 - June 2014, Island of Rodrigues

(Hectares)

Crop Name	All practices
Maize	674.7
Beans	255.6
Sweet potato	94.7
Onion	82.1
Cassava (Manioc)	70.2
Groundnut	65.1
Pumpkin	63.3
Leafy vegetables (Brede)	45.3
Calabash	42.2
Cucumber	41.8
Tomato	38.4
Carrot	25.1
Chillies	21.8
Brinjal	16.3
Cabbage	15.9
Red beet (Betterave)	10.4
Lettuce	10.7
Potato	8.7
Other vegetables	42.6
Total	1,624.9

4.3.2 Fruits and nuts

The area under fruits and nuts on the Island of Mauritius was estimated at around 1,415 hectares.

The five most common fruits in terms of size of planted area on the Island of Mauritius were:

- Pineapple (31%)
- Banana (24%)
- Lychee (16%)
- Mango (6%)
- Palm heart (4%)

The area under fruits and nuts on the Island of Rodrigues was estimated at around 110 hectares.

The five most common fruits in terms of size of planted area on the Island of Rodrigues were:

- Mango (20%)
- Banana (16%)
- Watermelon (15%)
- Lemon (14%)
- Pineapple (8%)

4.3.3 Horticulture (Flowers and decorative leaves)

The total harvested area of horticultural products on the Island of Mauritius was estimated at around 136 hectares, the majority of which was from plantations under cover (69%) while open field plantations represented (31%).

Production of horticultural products on the Island of Mauritius comprised mainly three flowers: anthurium (31%), gerbera (28%) and rose (9%). Figure 5a shows that the three flowers were mostly grown under cover, representing 80%, 86% and 91% respectively.

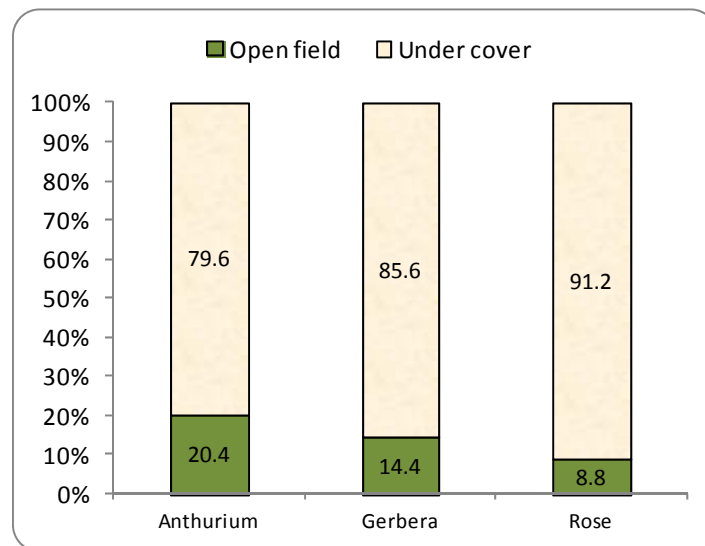


Figure 5a: Percentage distribution of harvested area of selected flowers by agricultural practice, July 2013 - June 2014, Island of Mauritius

The total harvested area of horticultural products on the Island of Rodrigues was estimated at around 0.3 hectare.

Production of horticultural products on the Island of Rodrigues comprised mainly the three flowers: rose (64%), gerbera (23%) and anthurium (9%). Figure 5b shows that the three flowers were mostly grown under cover, representing 92%, 75% and 64% respectively.

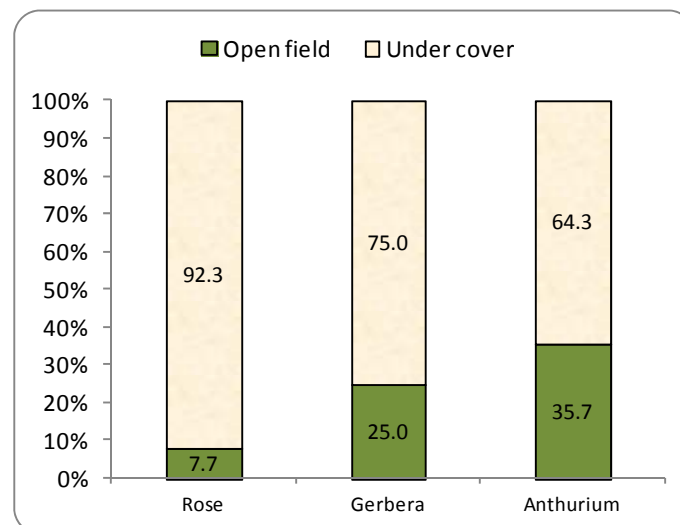


Figure 5b: Percentage distribution of harvested area of selected flowers by agricultural practice, July 2013 - June 2014, Island of Rodrigues

4.4. Livestock, poultry and apiculture

4.4.1 Livestock and poultry

	Island of Mauritius (Number in '000)	Island of Rodrigues (Number in '000)
Livestock (as at 30 June 2014):		
Cattle	14	11
Goats	42	19
Sheep	4	10
Pigs	21	16
Deer	34	-
Poultry (as at 30 June 2014):		
Poultry-broiler	3,100	76
Poultry-layer	670	16
Poultry-local	27	126
Ducks	5	14
Other poultry	9	Less than 1
Eggs production (July 2013 – June 2014):		
Number of eggs sold	65,000	400

4.4.2 Apiculture

The number of productive and non-productive beehives on the Island of Mauritius was estimated at 4,330 and 1,760 respectively. The corresponding figures for Island of Rodrigues were 2,900 and 825 respectively.

The production of honey in the Islands of Mauritius and Rodrigues was estimated at around 45 and 38 tonnes respectively. It is to be noted that most of the honey was produced by household farms on both islands. (**Table 9**)

Table 9: Number of beehives and production of honey, July 2013 - June 2014, Islands of Mauritius and Rodrigues

Item	Island of Mauritius	Island of Rodrigues
Number ¹ of productive beehives	4,330	2,900
Number ¹ of non-productive beehives	1,760	825
Production ² of honey (tonnes)	45	38

¹ as at 30 June 2014; ² covers the period July 2013 to June 2014

4.5 Agricultural and Marketing Practices

4.5.1 Agricultural Practices

Table 10 shows the agricultural practices reported by both household and non-household farmers. In many cases farmers reported more than one practice.

It is worth noting that there were significant differences in some agricultural practices among the farmers of the Islands of Mauritius and Rodrigues, namely: use of irrigation system (22% and 9% respectively), use of mechanisation (28% and 18% respectively), use of chemical fertilisers (64% and 22% respectively) and use of organic fertilisers (56% and 81% respectively).

Table 10: Percentage distribution of farms by agricultural practices, July 2013 - June 2014, Islands of Mauritius and Rodrigues

Agricultural Practice	Island of Mauritius	Island of Rodrigues
Irrigation	21.8	9.0
Mechanisation	27.6	18.1
Chemical fertilisers	64.0	21.9
Organic fertilisers	56.5	81.1
Pesticides	61.9	55.3
Herbicides	61.7	48.8
Seeds	48.3	49.1

4.5.2 Marketing Practices

Table 11a and Table 11b show the percentage distribution of marketing practices of selected agricultural products on the Islands of Mauritius and Rodrigues respectively.

The main channel used to market some selected agricultural products on the Island of Mauritius was as follows:

- Vegetables through Wholesalers (66%)
- Fruits through Wholesalers (48%)
- Flowers through Retailers (52%)
- Cattle through Retailers (57%)
- Goats through Consumers (72%)
- Sheep through Consumers (69%)
- Pigs through Wholesalers (48%)
- Poultry meat through Wholesalers (70%)
- Eggs through Retailers (59%)
- Honey through Consumers (54%)

For the Island of Rodrigues, the main channel used by farmers to market their agricultural products was as follows:

- Vegetables through Consumers (39%)
- Fruits for Own Consumption (41%)
- Flowers through Consumers (74%)
- Cattle through Wholesalers (53%)
- Goats through Wholesalers (47%)
- Sheep through Wholesalers (53%)
- Pigs through Consumers (43%)
- Poultry meat through Retailers (51%)
- Eggs through Retailers (98%)
- Honey through Consumers (43%)

Table 11a: Percentage distribution of marketing practices of selected agricultural products, July 2013 - June 2014, Island of Mauritius

Marketing practice	Vegetables	Fruits	Flowers	Cattle	Goats	Sheep	Pigs	Poultry ¹ meat	Eggs	Honey
Consumers	1.7	1.4	25.3	29.8	71.6	68.6	21.9	...	0.1	54.0
Retailers	26.1	5.2	51.8	56.9	16.6	17.9	29.1	29.4	58.9	7.7
Wholesalers	66.5	48.0	12.1	13.1	7.4	11.0	47.7	70.5	41.0	36.5
Auction	4.4	41.9	-	-	-	-	-	-	-	-
Own consumption	0.2	2.8	6.3	0.2	4.4	2.5	1.3	0.1	...	1.8
Other practice	1.1	0.7	4.5	-	-	-	-	-	...	-
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ includes poultry-broilers, poultry-layers and poultry-local

Table 11b: Percentage distribution of marketing practices of selected agricultural products, July 2013 - June 2014, Island of Rodrigues

Marketing practice	Vegetables	Fruits	Flowers	Cattle	Goats	Sheep	Pigs	Poultry ¹ meat	Eggs	Honey
Consumers	38.8	25.0	73.7	4.2	8.0	1.2	42.8	8.8	0.4	43.1
Retailers	11.9	17.8	1.9	26.7	28.5	33.2	26.6	51.3	98.0	15.2
Wholesalers	15.2	10.5	-	53.2	46.7	52.9	15.9	20.5	0.2	33.8
Auction	-	-	-	0.9	0.6	-	-	-	-	-
Own consumption	30.1	41.3	24.4	4.7	5.4	4.4	13.9	19.4	1.4	7.9
Other practice	4.0	5.4	-	10.3	10.8	8.3	0.8	-	...	-
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ includes poultry-broilers, poultry-layers and poultry-local

4.6 Main constraints

The five main constraints reported by farmers of the household sector on the Island of Mauritius were:

- Pests/Diseases (69%)
- Natural disaster (44%)
- Theft (34%)
- Unavailability of water (27%)
- High price of inputs (24%)

For the Island of Rodrigues the five main constraints reported by farmers of the household sector were:

- Pests/Diseases (88%)
- Unavailability of water (70%)
- Natural disaster (64%)
- High price of inputs (25%)
- Marketing (20%)

Statistics Mauritius
Ministry of Finance and Economic Development
Port Louis

October 2015

CONTACT PERSONS:

Mr. B.Unmar, Senior Statistician

Mr. E. Wong, Statistician

Statistics Mauritius

L.I.C Centre

J.Kennedy Street

Port Louis

Tel: (230) 208 1800

Fax: (230) 211 4150

Email: statsmauritius@govmu.org

2014 Census of Agriculture – Symbols and Acronyms***Symbols:***

ha	Hectare
‘000	Thousand
Mn	Million
-	Nil
...	Negligible

Acronyms:

FAO	Food and Agricultural Organisation of the United Nations
FAREI	Food and Agricultural Research and Extension Institute
MAIFS	Ministry of Agro-Industry and Food Security
NGO	Non-Government Organisation
SFWF	Small Farmers Welfare Fund
SM	Statistics Mauritius
TCP	Technical Cooperation Programme
WCA2010	World Programme for the Census of Agriculture 2010

Concepts and Definitions

The concepts and definitions follow the recommendations of the WCA2010.

1. An **Agricultural Census** is a collection of agricultural data related to the structure of holdings in a country. It covers all units engaged in agricultural production activities, regardless of size or importance.
2. A **farm** (agricultural holding) is an economic unit of agricultural production under single management, comprising total land area, cultivated or under fallow, and livestock owned, managed, rented or operated by the holder. A holding may be landless where there is no significant land area used for agricultural production as may be the case with livestock/poultry.
3. There two types of holdings in an agricultural census: **household** based (usually identified through a household census or survey) and **non-household** based (private agricultural enterprises, government farms, school farms, prison farms, church farms, etc.). For the purpose of the CA2014, a farm is classified in either the **household** or **non-household sector**.
4. A **farmer** (agricultural holder) is defined as the civil or juridical person who makes the major decisions regarding resource use and exercises management control over the agricultural holding operation. The agricultural holder has technical and economic responsibility for the holding and may undertake all responsibilities directly, or delegate responsibilities related to day-to-day work management to a hired manager.
5. **Area of holding** is the combined area of all the holding's parcels in the country, including land owned by the holder, rented from others and land under other tenure forms. Land parcels owned by the holder but rented to others are excluded.
6. A **land parcel** is a piece of land entirely surrounded by other land, water, road, forest or other features not forming part of the holding.
7. A **household** is defined as:
 - either *A person living on his/her own.*
 - or *A group of two or more persons, who may or may not be related, but who live together and make common provision for food and other essentials for living.*
8. The **head of household** is any adult member, male or female, who is acknowledged as such by the other members of any household.
9. An **agricultural household** is a household whose largest source of income consists of income derived from agricultural production.
10. **Persons engaged** in a production unit refer to the total number of persons who work in or for the unit. It includes working proprietors, employees and contributing (unpaid) family workers.
11. An **employee** is a person who works in a paid job and receives wages/salary in cash or in kind.
12. An **employer** is a person who works in his/ her own production unit and engages one or more persons to work for him/her as employees.

13. An **own account worker** is a person who works in his/her own production unit alone or with the help of unpaid family members and does not hire any employees.
14. A **contributing family worker** is a family member of the owner of the unit, who is actively engaged in the business, without any remuneration.
15. **Part-time** workers are those persons who work less than half of the usual working hours of the unit.
16. **Land under temporary crops** is land used for crops with a less than one year growing cycle. This includes all vegetables and food crops with a growing cycle of less than one year such as, melons, some types of flowers and also fodder crops.
17. **Land under temporary meadows and pastures** is land temporarily cultivated with herbaceous forage crops for mowing or pasture. A period of less than five years is used to differentiate between temporary and permanent meadows.
18. **Land fallow** is arable land at rest for a period of time before it is cultivated again (maximum 5 years). This may be part of the holding's crop rotation system or because the normal crop cannot be planted because of flood damage, lack of water, unavailability of inputs, or other reasons.
19. **Land under permanent crops** is land which is cultivated with crops which occupy it for a year or longer and which do not have to be planted after harvest. For example land under trees and shrubs producing crops, fruits and flowers, such as roses and jasmine.
20. **Land under permanent meadows and pastures** is land used permanently (for five years or more) to grow herbaceous forage crops, through cultivation or naturally (wild prairie or grazing land) including land used solely for livestock.
21. **Forest or other wooded land** is land which includes wood lots or tracts of timber, natural or planted, which have or will have value as wood, timber or other forest products. Nurseries of forest trees are classified under this category.
22. **Hydroponic farming** is a high-tech growing method, where vegetables are grown without soil. The roots of the plants are grown in a nutrient solution or in a medium such as perlite or gravel.
23. An **exercise yard** is an open enclosed (unroofed) where animals e.g. cattle, goats, sheep, deer etc excluding birds, poultry, pigs and animals living in pasture.
24. An **irrigation system** consists of an intake structure, a conveyance system, a distribution system and a field application system.
25. **Mechanisation** in agriculture is the process of using agricultural machinery to increase farm worker productivity.
26. **Organic fertilisers** are derived from animal or vegetable matter. (e.g. compost, manure).
27. **Improved/selected seeds** are normally seeds that farmers purchase as opposed to their own-produced seeds.

Methodology

Objectives

1. The main objectives of the 2014 Census of Agriculture were:
 - (i) To provide important information on the organisational structure of farms at geographic level for better and informed decision making (e.g farm size, land use, land tenure, crop area harvested, presence of irrigation, livestock numbers, farm labour as well as the number of holdings with each crop and livestock type);
 - (ii) To improve estimates on the contribution of agriculture for the economy;
 - (iii) To provide information on the household sector including subsistence farming which is important for food security; and
 - (iv) To improve the completeness of existing sampling frame that will be used as the base for sample selection for future agricultural surveys.

Scope and coverage

2. The CA2014 covered farms both in the household and non-household sectors of the Islands of Mauritius and Rodrigues. It, however, excluded
 - (i) sugarcane since most of the data required is available at the Sugar Insurance Fund Board (SIFB);
 - (ii) tea since most of the data required is available at NAPRO (ex-Tea Board); and
 - (iii) tobacco since nearly all tobacco growers have stopped cultivating tobacco due to the fact that this activity will cease in 2015.

Unit of enquiry

3. The unit of enquiry was an agricultural production unit (**farm or agricultural holding**) producing primarily for sale. In addition, all agricultural production units producing mainly for own consumption with at least 5 perches of land for garden crops and/or with a minimum number fruit trees in the backyard of private households, were considered as farms. The following thresholds were used:
 - (i) Any household cultivating a piece of land, on own account, and for commercial production (at least 5 perches)
 - (ii) Any housing unit having a kitchen garden (at least 5 perches)
 - (iii) Any housing unit having fruit trees on the premises with a certain cut-off:
 - Breadfruit, Lychee, Mango (at least 5 trees)
 - Lemon, Mandarin, Coconut, Guava, Other citrus, Mixed fruit trees (at least 10 trees)
 - Banana, Pawpaw (at least 20 trees)
 - Pineapple, Lychee, Vegetables, Fruits-other, Crops-other (at least 5 perches)
 - (iv) All honey producers
 - (v) All deer farms
 - (vi) No minimum size for livestock and poultry

Sampling frame for household farms

4. The sampling frame for household and non-household farms consisted of a list of agricultural production units obtained from the databases of Ministry of Agro-Industry & Food Security (MAIFS) and Food & Agricultural Research Extension Institute (FAREI) for livestock & poultry breeders, supplemented with information from other administrative sources such as small farmers registered at the Small Farmers Welfare Fund, persons engaged in growing of crops - vegetables, fruits and flowers (including vegetable crops in kitchen gardens and fruit trees in backyard) mainly for sale or own consumption with at least 5 perches of land (identified from the 2011 Housing Census), etc.

Frame for non-household farms

5. The frame for non-household farms consisted of a list of agricultural establishments obtained from the databases of MAIFS and FAREI for crops, livestock & poultry breeders, supplemented with information from other administrative sources.

Phase 1 - Census of non-household farms (agricultural establishments)

6. Some 200 agricultural establishments, which are mostly private sector establishments and Government institutions involved in agricultural production (excluding sugarcane, tea and tobacco) were surveyed in the Islands of Mauritius and Rodrigues.

Phase 2 - Sampling design for household farms

7. The sample comprised 10,339 units (8,007 for the Island of Mauritius and 2,332 for the Island of Rodrigues) which were allocated to the different strata according to disproportionate stratified random sampling. The stratifying factors were agricultural intensity, types of crops/livestock and geographical region. This type of allocation was considered to be more appropriate than the usual proportional allocation. Within the strata, selection of units was effected by Systematic Random Sampling to ensure representativeness. It covers all large farms and samples of medium and small farms. The sample represented some 38% of the estimated number of household farms.

Phase 3 - Sampling design for Survey of private households

8. A random sample of around 9,000 private households was interviewed. The sampling design was a stratified cluster sampling. The clusters or Primary Sampling Units (PSUs), around 1110 for Island of Mauritius and 41 for Rodrigues, were stratified according to their agricultural intensity. A representative sample of PSUs (25 for Mauritius and 7 for Rodrigues) was drawn. Each private household in the selected PSU was interviewed. The sample represented 2% of households in the Island of Mauritius and 13% in the island of Rodrigues.

Technical Assistance

9. FAO provided technical assistance, under the TCP Facility and TCP Project, to assist Statistics Mauritius in the design, conduct and data analysis of CA2014.

10. Several meetings were held with major stakeholders of the agricultural sector to discuss their needs and also the relevancy of the recommendations of the WCA2010 for Mauritius culminating in a Users/Producers workshop in March 2013.

Data processing

11. The whole data processing exercise (except for data capture which was contracted out) was done in-house using the CSPro software.

Reference period

12. The reference period for the collection of information on area harvested and production of crops (vegetables, fruits & flowers), and livestock and poultry sold live or for slaughter was one year (1 July 2013 – 30 June 2014).

Reference date

13. The reference date for the collection of information on number of persons engaged in the farms was end March 2014 whereas number of livestock and poultry was at 30 June 2014.

Legal authority and confidentiality

14. The 2014 Census of Agriculture was conducted according to the provisions laid down in the Statistics Act Amended 2011. The Statistics Act provides for an obligation on selected farms to furnish to the Director of Statistics such information as requested in the approved questionnaires and at the same time guarantees the confidentiality of all information provided.

Concepts, definitions and classifications

15. The FAO World Programme for the Census of Agriculture 2010 (WCA2010) provides guidelines for data to be collected in a Census of Agriculture. The concepts, definitions and classifications used in CA2014 follow the recommendations of the WCA2010. (see **Annex 1**)