

Beekeepers Census 2016



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Table 1: Numbers of Beekeepers, Number of Bee Colonies and Honey Production in the Republic of Ireland by County in 2011 & 2016

Beekeepers Census 2016

Introduction

The Beekeepers Census 2016 was conducted by the Federation of Irish Beekeepers' Associations (FIBKA) among the 3,173 members of its affiliated associations (as at September 2016). A total of 1,366 census forms were completed by beekeepers, and this data was used to extrapolate to the entire 3,173 membership. The census does not include beekeepers that are not members of an affiliated association, but it is thought these beekeepers have smaller-scale operations and do not contribute significantly to overall honey production in Ireland. The 2016 census is the second census of beekeepers in the Republic of Ireland, the first census being conducted by FIBKA in 2011.

Bord Bia, the Department of Agriculture, Food and the Marine and FIBKA wish to thank beekeepers for their co-operation with this census.

Notes:

For convenience, figures in this report are rounded.

Statistical analysis for this census was carried out by Franklin Research, Dun Laoghaire, Co. Dublin.

Executive Summary

There are 3,173 beekeepers in Ireland in September 2016 that are members of affiliated associations of the Federation of Irish Beekeepers' Associations (FIBKA), representing a 37% increase in membership since the previous census in 2011. The members have an estimated combined total of 21,390 viable colonies as at September 2016. Though many members have large apiaries, the 'typical' beekeeper is smaller scale, with the median average number of full hives being three.

Counties with the highest number of colonies tend to be in the south and east of the country. County Cork has the highest number of colonies (3,449 colonies), followed by Dublin, Tipperary, Wexford and Waterford. Together these 5 counties account for 47% of all bee colonies in Ireland in 2016.

Total honey production in 2016 is 151,142 kilograms, indicating an average honey output of 8.5 kg. per full hive. Honey output varies by size of apiary. Beekeepers with one full hive achieved an average of 6.7 kg. of honey, while beekeepers with 10-49 full hives achieved an average of 11.4 kg of honey per hive.

The utilisation of the honey output depends very much on the size of the apiary. Among beekeepers with 1-3 hives, 85% is for their own consumption whereas among beekeepers with 50 or more hives 96% is sold. Overall, 29% of total honey output in 2016 is for own consumption and 71% is sold (either direct to consumers, direct to retailers or to honey packers).

The census form included a question on issues that may be limiting the development of beekeeping in Ireland and/or the expansion of their own apiary. Beekeepers were provided with a list of six factors and asked to choose their top-three factors. The most chosen factor was the *level of support, expertise and funding* provided by public bodies (chosen by 66% of beekeepers), followed by *reduced biodiversity* (56% of beekeepers) and the *promotion of beekeeping and the value of bees as pollinators* (46%). Beekeepers' own comments on the census form indicate that the use of

chemical sprays, the cost of beekeeping and poor weather are also significant concerns.

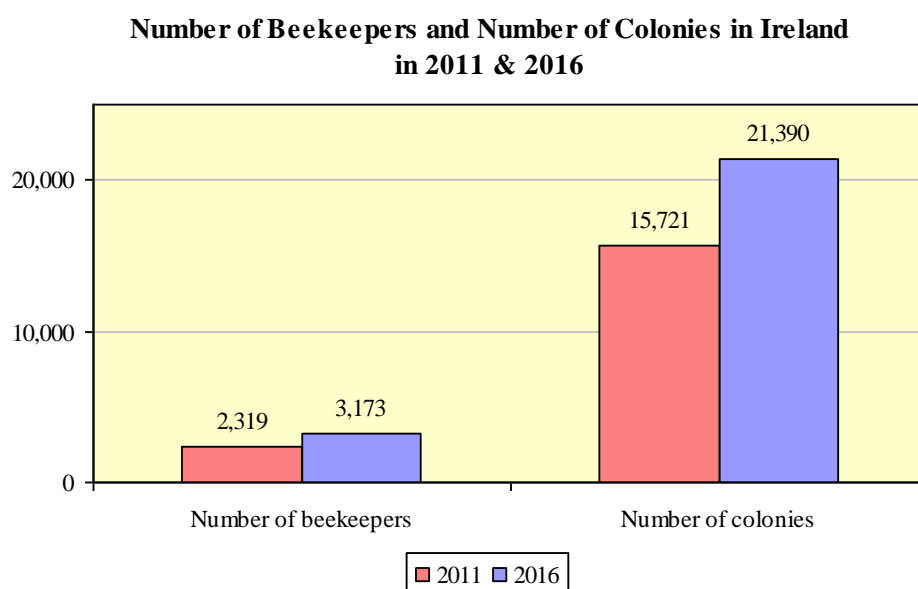
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Section 1: Number of Beekeepers, Number of Colonies & Honey Production

This section provides an overview of beekeeping in Ireland in 2016. It includes information on the number of beekeepers, colonies and honey output at national and county level, average honey output per hive and the proportion of beekeepers producing queens and/or nuclei for sale.



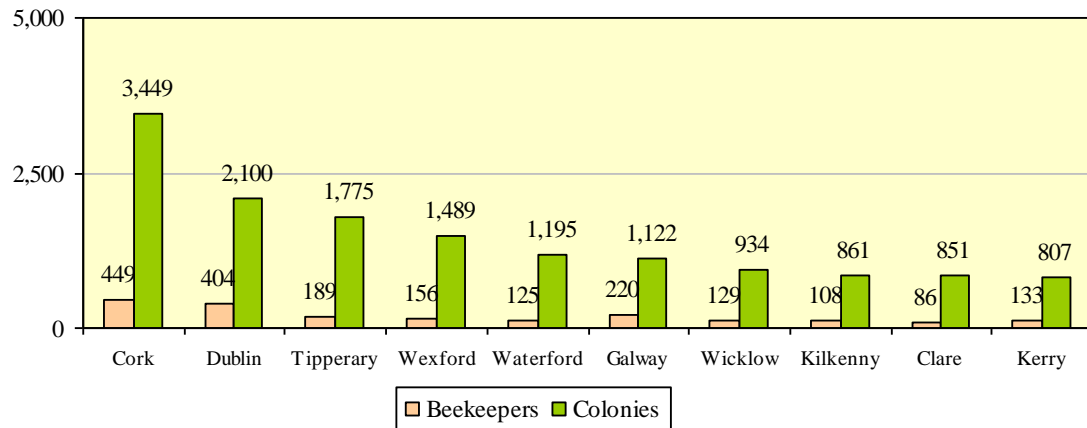
There are 3,173 beekeepers in Ireland in September 2016 and 21,390 bee colonies* (full hives and nuclei**). Though there are some commercial beekeepers with 100+ hives, the vast majority of beekeepers in Ireland are hobbyists, the median average number of hives per beekeeper being 3 full hives.

In comparison to the 2011 census, the number of beekeepers has increased by 37%, while the number of colonies has increased by 36%.

* viable colonies of bees carried into winter as at September 2016

** nuclei are hives that have not reached honey producing stage

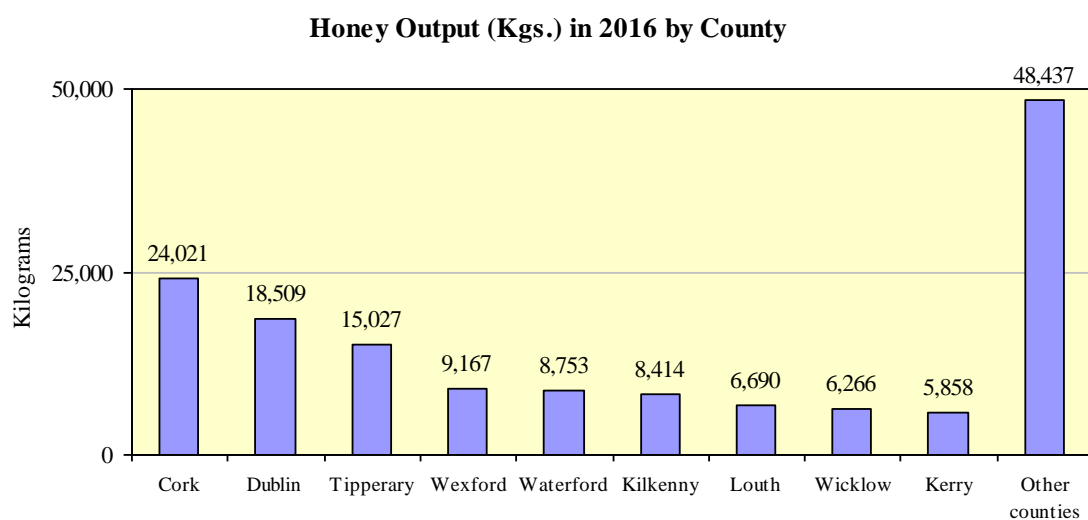
Number of Beekeepers and Colonies in 2016 in Top-10* Beekeeping Counties



* Based on number of colonies per county.

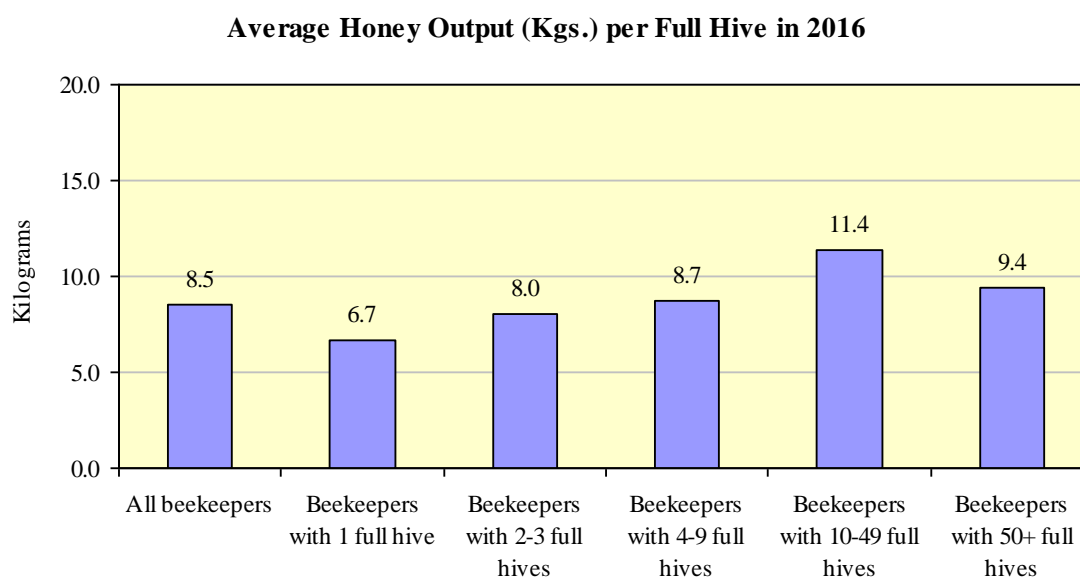
Total number of beekeepers in 2016 = 3,173; total number of colonies in 2016 = 21,390

The main counties for beekeeping tend to be in the south and east of the country. County Cork has the most beekeepers and colonies, with 449 beekeepers and 3,449 colonies. Dublin, Tipperary, Wexford and Waterford have the next highest number of colonies. Together these 5 counties account for 47% of all bee colonies in Ireland in 2016.



Total honey output in 2016 = 151,142 kilograms (i.e. 151 tonnes).

Total honey production in 2016 is 151,142 kilograms. Cork has the highest honey production with 24,021 kilograms. The five counties of Cork, Dublin, Tipperary, Wexford and Waterford together account for half (50%) of total honey production in Ireland in 2016.

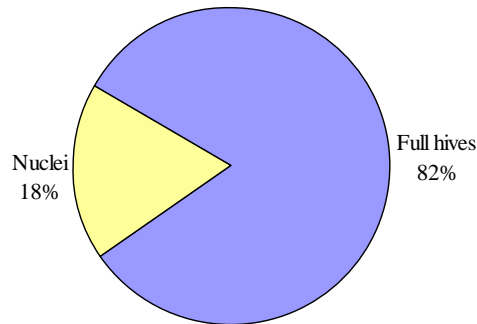


Among all 3,173 beekeepers in Ireland in 2016, the average honey output per full hive is 8.5 kilograms. Average output per hive is lower among those with a small number of hives. Beekeepers with one hive have an average output of 6.7 kg. of honey, while beekeepers with 2-3 full hives have an average output of 8.0 kg. This is most likely due to the fact that for these beekeepers it is a leisure pastime and also many are new to beekeeping and still learning.

Among beekeepers with larger apiaries, average honey output per hive in 2016 is lower than would be achieved in ideal conditions. Beekeepers with 10-49 full hives have an average 2016 honey output per hive of 11.4 kg, while beekeepers with 50 or more hives have an average output per hive of 9.4 kg. Both figures are far below what larger apiaries would be expected to achieve in ideal conditions and may be due to poor weather conditions or other atypical factors such as involvement by some of these beekeepers in significant levels of queen and nuclei production for sale.

Overall, it is likely that inadequate disease control, reduced biodiversity and poor summer weather are all contributing to reduced honey output per hive (see beekeepers' opinions on factors limiting development of Irish beekeeping in Section 2).

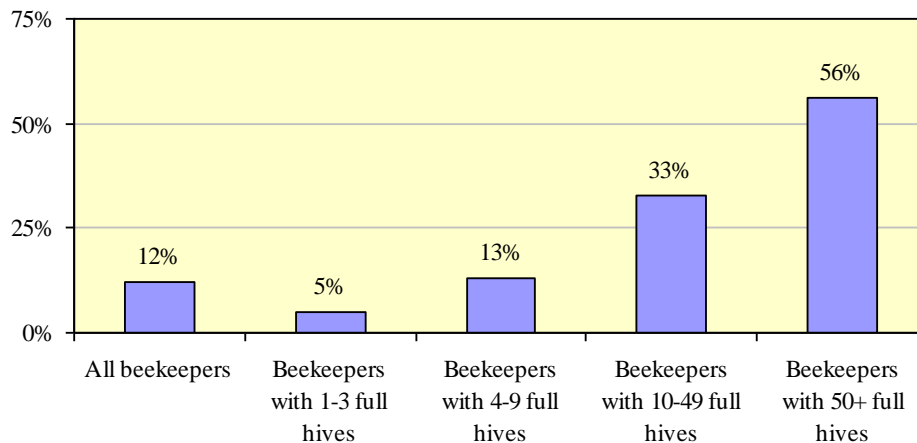
**Breakdown of Colonies Between Full Hives
and Nuclei Among Irish Beekeepers in
September 2016**



Number of colonies in 2016 = 21,390.

Of the total of 21,390 colonies in Ireland in 2016, 82% are full hives and 18% are nuclei (i.e. hives that have not reached honey producing stage).

**Percent of Beekeepers in Ireland Producing Queens and/or Nuclei for
Sale/Transfer to Other Beekeepers in 2016**

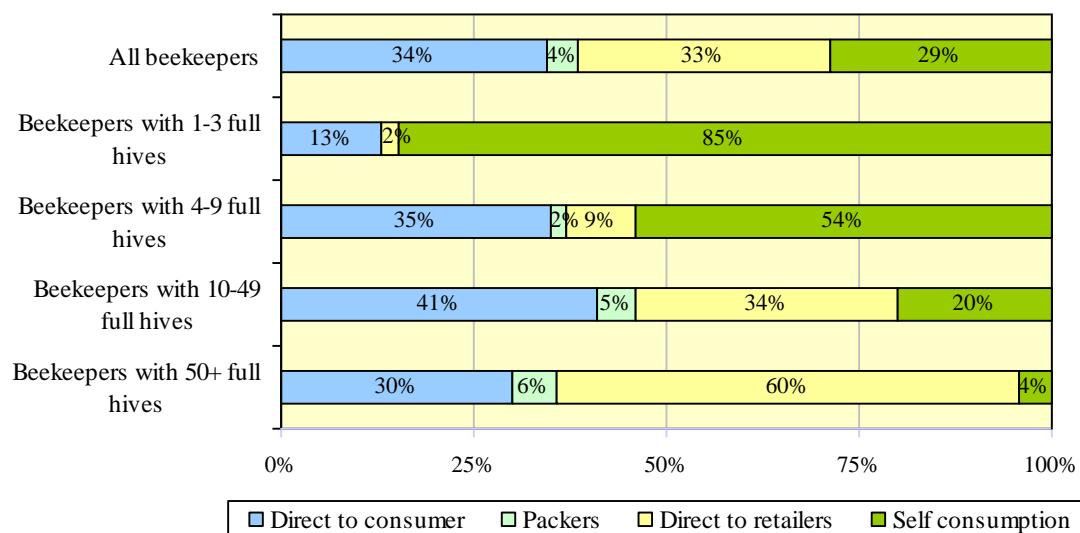


Beekeepers producing queen bees and nuclei for sale are primarily those with a large number of hives. Twelve percent (12%) of all beekeepers in Ireland produce queens and/or nuclei for sale. Among beekeepers with 50 or more full hives, 56% produce queens and/or nuclei for sale.

Section 2: Sales/utilisation of Honey & Factors Affecting Development of the Beekeeping Sector

This section looks at the sales channels and utilisation of honey as well as beekeepers' opinions on the factors limiting the development of the beekeeping sector in Ireland and and/or the development of their own apiaries.

Sales/Utilisation of Honey by Beekeepers in Ireland in 2016



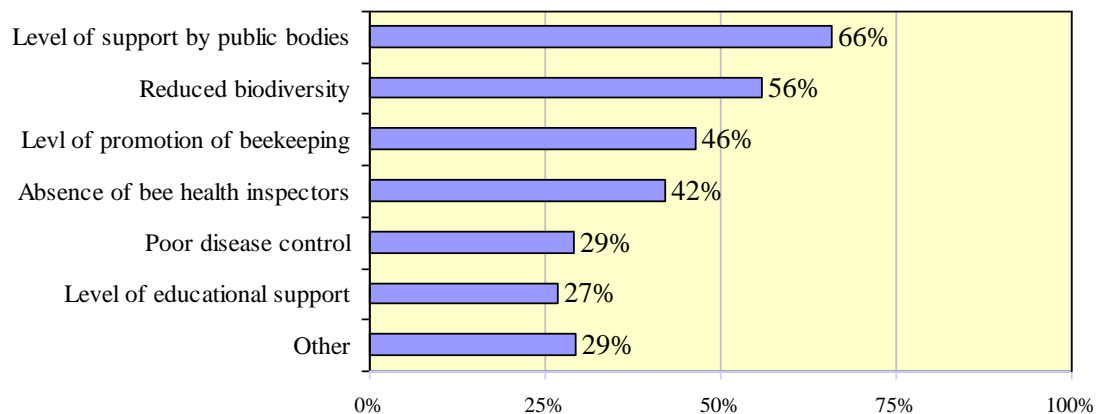
Of the total of 151,142 kg. of honey produced in Ireland in 2016: 34% is sold direct to consumers; 4% is sold to honey packers; 33% is sold direct to retailers and 29% is for own consumption.

The utilisation of honey output varies between those who are hobbyists and those who are commercial beekeepers. Among those with 1-3 hives, the vast majority (85%) of their output is for their own consumption. Among those with 50 or more hives, 60% is sold direct to retailers, 30% is sold direct to consumers, 6% is sold to honey packers and only 4% is for self consumption.

Beekeepers were asked to choose their top-three issues from a list of six factors that might be limiting the development of the Irish beekeeping sector and/or preventing them from increasing their number of hives. The six factors were described as follows:

1. Inadequate disease control / inadequate disease awareness among beekeepers.
2. Level of educational support available to beekeepers (including new / prospective beekeepers).
3. Level of support, expertise and funding provided by Department of Agriculture / Teagasc / Local Authorities.
4. Absence of bee health inspectors to diagnose disease and promote bee health.
5. Reduced biodiversity impacting on bees' ability to forage.
6. Failure to adequately promote beekeeping and to publicise the value of bees as pollinators.
7. Other (please specify): _____

Irish Beekeepers' Opinions on Factors Limiting the Development of Beekeeping in Ireland in 2016



Percents add to more than 100% as beekeepers were asked to list their top-3 factors..

The most commonly chosen limiting factor was the *level of support, expertise and funding provided by the Department of Agriculture, Teagasc and Local Authorities*. Two-thirds (66%) of beekeepers chose this factor as one of their limiting factors. *Reduced biodiversity impacting on the bees' ability to forage* was chosen by 56% of

beekeepers, while 46% chose the *failure to adequately promote beekeeping and to publicise the value of bees as pollinators*.

Among the other factors: 42% chose the *absence of bee inspectors to diagnose disease and promote bee health*; 29% chose *inadequate disease control/inadequate disease awareness among beekeepers*; 27% chose *level of educational support available to beekeepers* and 29% cited 'other factors'.

Among beekeepers mentioning 'other' factors, issues included:

- Use of chemicals & sprays by farmers, county councils and members of the public (mentioned by 5% of beekeepers)
- Costs associated with beekeeping, including cost of equipment, cost of buying colonies, cost of having bees checked for disease, and cost when obliged to destroy colonies (4%)
- Age of beekeeper, lack of time and/or no desire to expand apiary (3%)
- Weather, including climate change and recent poor summers (3%)
- Availability and protection of Irish bees and the importation of non-native bees (1%)
- Sourcing and availability of queens and certified disease-free nuclei, including sourcing native Irish bees (1%)
- Failure to promote real Irish honey, including lack of traceability and lack of controls on labelling (1%)

In 2017 DAFM has covered the cost of testing for bee diseases. This should positively impact on beekeepers most chosen limiting factor in 2016 "*the level of support, expertise and funding by DAFM / Teagasc / Local Authorities*". It should also improve disease control levels.

APPENDIX TABLES

Table 1: Numbers of Beekeepers, Number of Bee Colonies and Honey Production in the Republic of Ireland by County in 2011 & 2016

	2011			2016				
	Number of beekeepers	Number of bee colonies	Honey produced (kg.)	Number of beekeepers	Number of full hives	Number of nuclei hives	Number of bee colonies (full hives + nuclei)	Honey produced (kg.)
Carlow	18	322	5,469	26	323	120	443	3,604
Cavan	41	125	1,306	53	201	53	254	1,178
Clare	63	382	3,896	86	686	165	851	5,302
Cork	328	2691	37,029	449	2,869	580	3,449	24,021
Donegal	52	178	1,613	71	255	58	313	1,556
Dublin	295	1139	14,052	404	1,681	419	2,100	18,509
Galway	161	683	6,693	220	936	186	1,122	4,793
Kerry	97	753	9,968	133	653	154	807	5,858
Kildare	78	470	5,332	107	508	114	621	3,369
Kilkenny	79	741	9,907	108	704	157	861	8,414
Laois	33	208	2,071	45	324	51	375	2,966
Leitrim	57	178	1,509	78	267	105	372	2,894
Limerick	37	211	1,874	52	235	54	289	2,394
Longford	37	120	985	51	165	44	209	958
Louth	75	449	6,849	103	646	148	794	6,690
Mayo	115	467	4,779	157	586	164	750	3,962
Meath	119	491	7,003	163	633	163	796	5,032
Monaghan	32	116	829	44	160	21	180	1,362
Offaly	55	741	7,883	75	465	171	636	3,651
Roscommon	37	136	1,564	51	226	40	266	1,635
Sligo	28	182	1,440	38	213	67	280	1,913
Tipperary	138	1328	22,680	189	1,484	291	1,775	15,027
Waterford	91	1448	25,396	125	1,063	133	1,195	8,753
Westmeath	45	208	2,454	62	213	17	229	1,865
Wexford	114	1366	18,880	156	1,228	261	1,489	9,167
Wicklow	94	588	6,554	129	771	163	934	6,266
Total	2,319	15,721	208,012	3,173	17,493	3,897	21,390	151,142

2011 figures are based on 1,587 census forms completed by beekeepers and estimates from FIBKA for the remaining 732 beekeepers; 2016 figures are based on 1,366 census forms completed by beekeepers and estimates for the remaining 1,807 beekeepers.

Number of beekeepers per county in 2016 was estimated based on the 2011 census, as the 2011 census had the highest response level per county.

Honey output per county in 2016 was estimated by excluding the top 5% of apiaries (by number of colonies) and extrapolating based on the mean average honey output per county.