# Beekeepers Census 2011







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# Beekeepers Census 2011

### Introduction

The Beekeepers Census 2011 was conducted by the Federation of Irish Beekeepers' Associations (FIBKA) among the 2,728 members of its affiliated associations. A total of 1,587 census forms were completed by beekeepers, with FIBKA providing estimates for the remaining 732 active beekeepers (i.e. a total of 2,319 active beekeepers). 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 census is the first of its kind and provides important information on beekeeping and honey production in the Republic of Ireland.

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 2,319 beekeepers in Ireland in 2011 and over 15,000 bee colonies/hives. Total honey production in 2011 is 208,012 kg. Cork has the highest honey production with 37,029 kg. The five top honey producing counties (Cork, Waterford, Tipperary, Wexford and Dublin) together account for 57% of total honey production.

Most beekeepers in Ireland have only a small number of colonies/hives. Among the 2,319 beekeepers, the average number of bee colonies/hives is three. However, there are 70 beekeepers with 50+ bee colonies, including 13 with 100+ bee colonies. Most honey production from the sector comes from these commercially orientated beekeepers. The 70 beekeepers with 50+ colonies account for 42% of honey production, while beekeepers with 10-49 colonies (348 beekeepers) account for a further 37% of honey production (i.e. 79% of honey production comes from 418 beekeepers with 10 or more colonies).

Beekeepers with only a few bee colonies tend to harvest the honey for their own use. Among beekeepers with 50+ bee colonies, 65% of honey is sold direct to retailers, 26% is sold direct to consumers, 7% is sold to honey packers and 2% is for their own use.

'National' hives are the most popular type of bee hive, accounting for 58% of all bee hives in 2011. 25% of bee hives are 'Commercial' bee hives, 5% are 'Dadant' bee hives, 4% are 'Smith' bee hives and 3% are 'Langstroth' bee hives.

The Varroa parasitic mite is the most commonly-reported type of pest or disease affecting bees in Ireland. Of beekeepers who reported pests/diseases affecting their bee colonies, 98% reported Varroa infestations. Other pests/diseases included the Nosema fungus (reported by 7% of beekeepers who reported pests/diseases), the Acarine mite (reported by 5%), American foulbrood disease (reported by 4%) and European foulbrood disease (reported by 2%).

The top-three issues mentioned by Irish beekeepers as affecting the development of the beekeeping sector in Ireland were:

- the level of support, expertise and funding provided by public bodies
- the absence of bee health inspectors to conduct field disease diagnosis and promote bee health
- the failure to adequately promote beekeeping and to publicise the value of bees as pollinators

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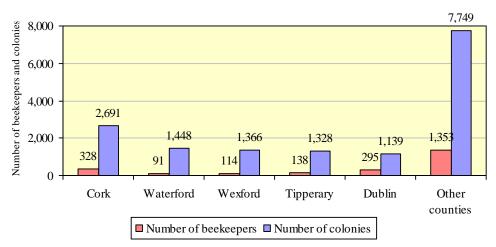
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# Section 1: Beekeeping, Honey Production & Markets/Outlets

This section provides an overview of beekeeping in Ireland in 2011. It includes information on the number of beekeepers and bee colonies/hives, honey production and sales channels.

#### Number of Beekeepers and Bee Colonies in Ireland in 2011

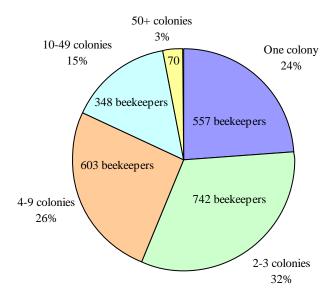


Total number of beekeepers in 2011 = 2,319; total number of colonies in 2011 = 15,721.

There are 2,319 beekeepers in Ireland in 2011 and 15,721 bee colonies/hives.

Cork has the most bee colonies/hives, with 2,691 colonies among 328 beekeepers. Waterford, Wexford, Tipperary and Dublin have the next highest number of colonies. Together these 5 counties account for 51% of all bee colonies in Ireland in 2011.

### Number of Bee Colonies Among Irish Beekepers in 2011

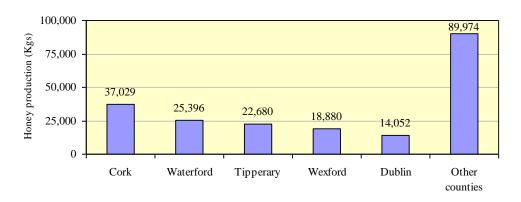


Number of beekeepers in 2011 = 2,319.

Most beekeepers in Ireland have only a small number of colonies/hives. 24% of Irish beekeepers have one bee colony, 32% have 2-3 colonies and 26% have 4-9 colonies. Only 3% of beekeepers have 50 or more bee colonies.

The average (median) number of bee colonies/hives per beekeeper in Ireland in 2011 is three.

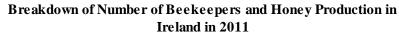
Honey Production in Ireland by County in 2011 (kgs)

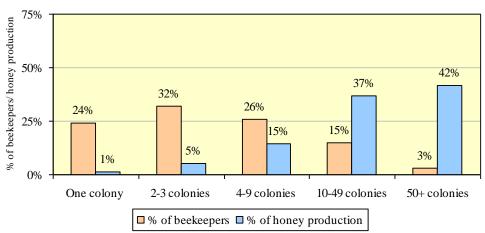


Total honey production in 2011 = 208,012 kgs.

Total honey production in 2011 is 208,012 kg. Cork has the highest honey production with 37,029 kg. The five counties of Cork, Waterford, Tipperary, Wexford and Dublin together account for 57% of total honey production.

Average honey output per bee colony/hive is 13 kg (29 lbs.) in 2011.

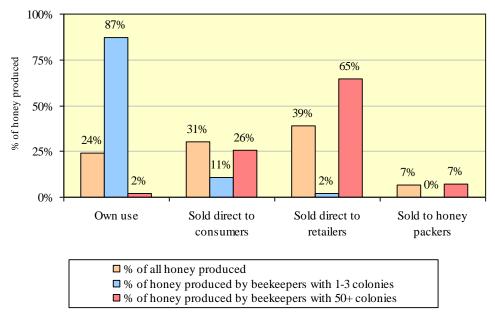




Number of beekeepers in 2011 = 2,319; honey production in 2011 = 208,012 kgs.

Most honey production is produced by the more commercially orientated beekeepers. Beekeepers with 50+ colonies represent only 3% of all beekeepers, but account for 42% of total honey production. Beekeepers with 10-49 colonies represent 15% of all beekeepers, but account for 37% of honey production. In contrast, 24% of beekeepers have just one bee colony; these beekeepers account for only 1% of honey production.

Market Destination of Honey Produced by Irish Beekeepers in 2011 - all beekeepers, beekeepers with 1-3 colonies & beekeepers with 50+ colonies -



Honey production in 2011 = 208,012 kgs.

Of the total honey produced by Irish beekeepers in 2011, 24% is for their own use, 31% is sold directly to consumers, 39% is sold directly to retailers and 7% is sold to honey packers.

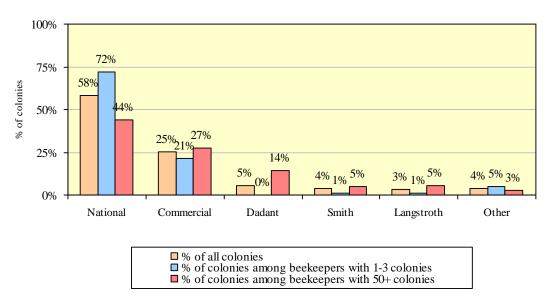
Beekeepers with only a few bee colonies tend to use the honey themselves. 87% of honey production by beekeepers with 1-3 bee colonies is harvested for their own use.

Two-thirds (65%) of the honey produced by beekeepers with 50+ bee colonies is sold direct to retailers, 26% is sold direct to consumers and 7% is sold to honey packers.

# Section 2: Hive Types & Bee Health

This section provides information on the types of bee hives used and on the incidence of pests and diseases in bee colonies.

Percentage Share of Colonies by Hive Type Among Irish Beekeepers in 2011 - all beekeepers, beekeepers with 1-3 colonies & beekeepers with 50+ colonies -

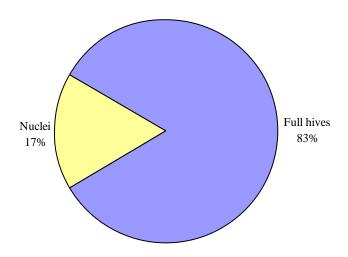


Number of colonies in 2011 = 15,721.

'National' is the most popular type of bee hive, accounting for 58% of all bee hives in 2011. 25% of bee hives are 'Commercial' bee hives, 5% are 'Dadant' bee hives, 4% are 'Smith' bee hives and 3% are 'Langstroth' bee hives.

The 'National' bee hive is particularly popular among beekeepers that maintain a small number of colonies/hives. The 'National' bee hive accounts for 72% of bee hives among beekeepers with 1-3 bee colonies/hives. However, 'National' hives account for only 44% of hives maintained by beekeepers with 50+ colonies/hives.

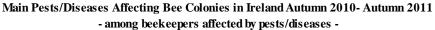
### Breakdown of Colonies Between Full Hives and Nuclei Among Irish Beekeepers in September 2011

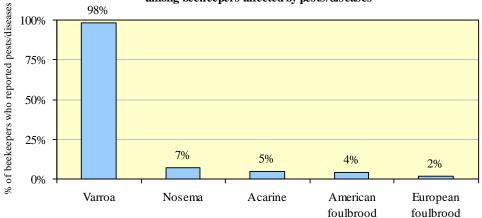


Number of colonies in 2011 = 15,721.

Of the 15,721 bee hives in Ireland in 2011, 83% are full hives and 17% are nuclei\* hives. This is considered to represent the number of colonies carried into the winter of 2011/12.

<sup>\*</sup> nuclei hive: a colony/hive that has not reached honey producing stage.





Note: number of beekeepers reporting pest or disease in the 2011 Census = 1,178.

The Varroa parasitic mite is the most commonly-reported type of pest or disease affecting bees in Ireland. Of beekeepers who reported pests/diseases affecting their bee colonies, 98% reported Varroa infestations.

7% of beekeepers who reported pest/disease infection reported infection by the Nosema fungus, 5% reported infection by the Acarine mite, 4% reported American foulbrood disease and 2% reported European foulbrood disease.

Information on the methods of diagnosis and treatments for pests/diseases is provided in Table 4 in the appendix.

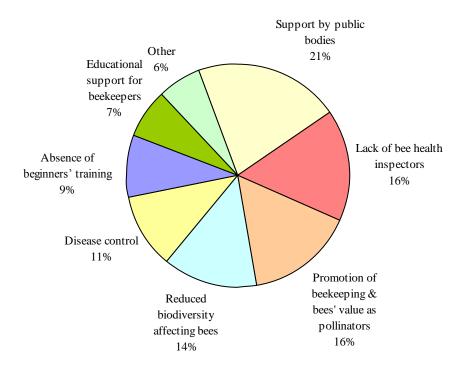
# Section 3: Factors Affecting Development of Beekeeping Sector & Beekeeper Profile

This section provides information on beekeepers' opinions on the problems affecting beekeeping in Ireland, as well as a beekeeper profile in terms of age and experience in beekeeping.

Beekeepers were asked to choose their top-three issues from the following list of seven factors that might be limiting the development of the Irish beekeeping sector.

- 1. Inadequate disease control / inadequate disease awareness among beekeepers
- 2. Level of educational support available to beekeepers in general
- 3. Absence of a strong beginners' training programme for beekeepers that would be delivered over 1-2 years
- 4. Level of support, expertise and funding provided by Department of Agriculture / Teagasc / Local Authorities
- 5. Absence of bee health inspectors to conduct field disease diagnosis and promote bee health
- 6. Reduced biodiversity impacting on bees' ability to forage
- 7. Failure to adequately promote beekeeping and to publicise the value of bees as pollinators

Irish Beekeepers' Opinions on the Issues Affecting the Development of Beekeeping in Ireland in 2011



Note: number of beekeepers completing this section of the Census in 2011 = 1,366.

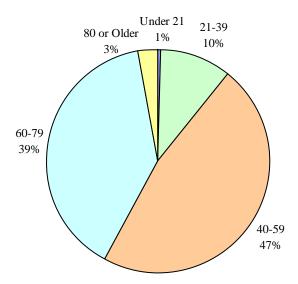
21% cited the *level of support, expertise and funding* provided by public bodies such as the Department of Agriculture, Food & Marine, Teagasc and Local Authorities. The next most commonly chosen issues at 16% each were i) the absence of bee health inspectors to conduct field disease diagnosis and promote bee health and ii) the failure to adequately promote beekeeping and to publicise the value of bees as pollinators.

Among the 6% who cited 'other' issues, the issues were:

- The weather
- Limited range of products available to treat the Varroa mite
- Harmful effects of pesticides on bees
- Introduction on non-native bees to Ireland

- Limited availability of suitable sites for hives
- Difficulty in sourcing bees
- Failure to promote health benefits of Irish honey
- Costs/set-up costs of beekeeping
- Beekeepers' age/ beekeepers' time limitations

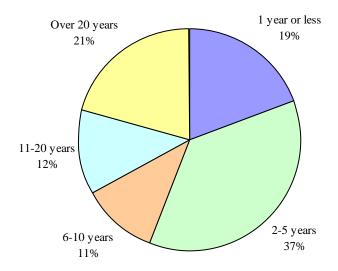
Age Profile of Irish Beekeepers in 2011



Note: number of beekeepers completing this section of the Census in 2011 = 1,562.

Beekeeping as an activity would appear to be most practiced amongst people over 40 years old. Most (89%) Irish beekeepers are aged 40+ years, including 42% aged 60+ years. Only 1% of Irish beekeepers are under 21 years old and only 10% are 21-39 years old.

Number of Years Experience Keeping Bees Among Irish Beekeepers in 2011



Note: number of beekeepers completing this section of the Census in 2011 = 1,569.

A high proportion of Irish beekeepers are relatively new, with 19% of all Irish beekeepers having 1 year or less of beekeeping experience, and 37% having 2-5 years of beekeeping experience. However, a fifth (21%) of Irish beekeepers have over 20 years of experience in beekeeping.

## APPENDIX TABLES

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

1 Toduction in the Republic of Iteland by County in 2011						
	Number of beekeepers	Number of bee colonies	Honey production (Kg.)			
	всексерств	Colonics	(IXg.)			
Carlow	18	322	5,469			
Cavan	41	125	1,306			
Clare	63	382	3,896			
Cork	328	2691	37,029			
Donegal	52	178	1,613			
Dublin	295	1139	14,052			
Galway	161	683	6,693			
Kerry	97	753	9,968			
Kildare	78	470	5,332			
Kilkenny	79	741	9,907			
Laois	33	208	2,071			
Leitrim	57	178	1,509			
Limerick	37	211	1,874			
Longford	37	120	985			
Louth	75	449	6,849			
Mayo	115	467	4,779			
Meath	119	491	7,003			
Monaghan	32	116	829			
Offaly	55	741	7,883			
Roscommon	37	136	1,564			
Sligo	28	182	1,440			
Tipperary	138	1328	22,680			
Waterford	91	1448	25,396			
Westmeath	45	208	2,454			
Wexford	114	1366	18,880			
Wicklow	94	588	6,554			
Total	2,319	15,721	208,012			

Table 2: Number of Locations for Keeping Bees Among Irish Beekeepers in 2011

	Percent of all beekeepers*	
One location	67%	
2 locations	20%	
3 locations	7%	
4-9 locations	6%	
10+ locations	1%	

<sup>\*</sup> Number of beekeepers in 2011 = 2,319.

Note: number of beekeepers completing this section of the Census in 2011 = 1,567

Table 3: Percent of Irish Beekeepers Producing Queens/Nuclei for Sale/Transfer to Other Beekeepers by Number of Colonies Maintained in 2011

	% of beekeepers involved in producing queens/nuclei for sale
	1
One colony	1%
2-3 colonies	5%
4-9 colonies	12%
10-49 colonies	30%
50+ colonies	68%
All beekeepers	11%

Table 4: Method of Diagnosis of Pests/Diseases and Most Common Treatments Among Irish Beekeepers in 2011

	Method of diagnosis		
	Self diagnosed	Lab diagnosed	Most common treatments
Varroa	98%	2%	Bayvarol; Apiguard
			colony destruction or
Nosema	64%	36%	management
European Foul Brood	78%	22%	colony destruction
American Foul Brood	57%	43%	colony destruction
Acarine	48%	52%	Apiguard; colony destruction

Number of beekeepers reporting pest or disease in the 2011 Census = 1,178.