



**AGRI-FOOD
& BIOSCIENCES
INSTITUTE**

Northern Ireland
Honey Bee
Husbandry Survey
2024-25

Northern Ireland Honey Bee Husbandry Survey 2024-25

An AFBI research report

About the Agri-food and Biosciences Institute (www.afbini.gov.uk)

The Agri-Food & Biosciences Institute (AFBI) was created on 1st April 2006 as an amalgamation of the Department of Agriculture and Rural Development (DARD) Science Service and the Agricultural Research Institute of Northern Ireland (ARINI). Based at seven sites around Northern Ireland, AFBI carries out research and development, statutory, analytical, and diagnostic testing functions for Government departments, public bodies and commercial companies.

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Other Staff involved: Ashley Uprichard & Amanda Browne – AFBI Analytics (website development)
Ciara Isaac – AFBI Bee Health laboratory testing

Period of survey investigation: March to June 2025

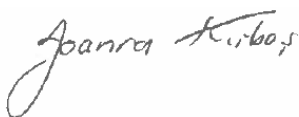
Date of report: August 2025

Disclaimer: There are currently estimated to be 1,400 active beekeepers in Northern Ireland (c.2018). The data presented in this report was volunteered from 99 beekeeper respondents, therefore it may not accurately reflect beekeeping husbandry practices during the period of investigation.

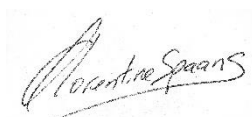
Data Protection: AFBI has processed the data from this survey in compliance with the EU General Data Protection Regulation (GDPR) which came into effect from 25th May 2018.

Declaration: We declare that this work was done under our supervision according to the procedures outlined and that the findings of this report are a true interpretation of the results obtained.

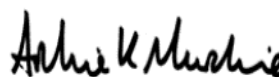
Acknowledgements: We gratefully acknowledge the assistance of the Chairman and Hon. Secretary of the Ulster Beekeepers' Association; the Institute of Northern Ireland Beekeepers; the secretaries of all the local beekeeping associations, and of course the beekeepers who gave up their time to fill in our questionnaire.



Joanna Kirbas



Dr. Florentine Spaans



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Summary

This is the seventeenth annual survey of beekeeping husbandry issues in Northern Ireland.

- Reported colony losses for the 2024-25 survey were 33% compared to 24% in 2023-24 and 14% in 2022-23.
- 48% of beekeepers reported no loss of colonies, which compares with 50% in 2023-24 and 54% in 2022-23.
- Of the 160 colonies reported as lost by the respondents, 81 (51%) were attributed to queen problems.
- Oxalic acid; products containing Amitraz; products containing Thymol; drone brood removal and formic acid and were the five most popular Varroa mite treatments used by 53%, 33%, 31%, 17% and 14% of beekeepers respectively.
- 2 beekeepers imported queens. All imported queens came from GB (England, Scotland & Wales).
- There were 99 survey responses from beekeepers. This compares with 91 in 2023-24, 61 in 2022-23 and 57 in 2021-22.

Method

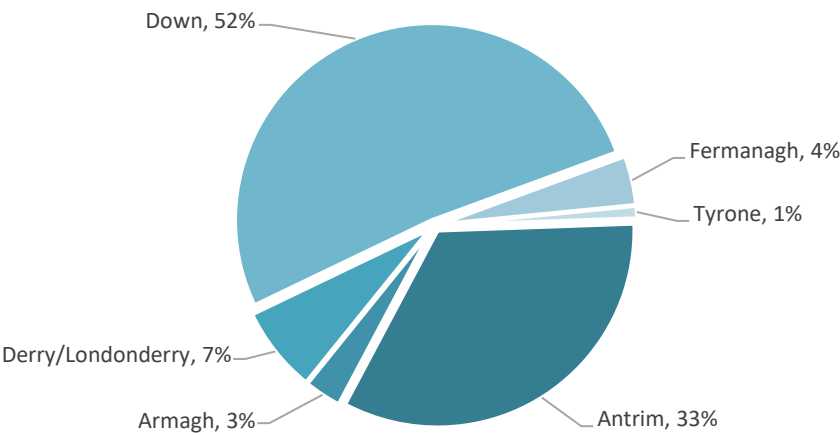
The honey-bee husbandry survey was shared with Beekeeping Associations to distribute to their members with details on how to complete the survey. The survey was in questionnaire format available online at the AFBI website (<https://www.afbini.gov.uk/articles/bee-health>) [with adapted tablet and smartphone versions](#). Paper questionnaires were also available by request. The survey was exclusively completed electronically using PCs, laptops and mobile devices such as smartphones and tablets.

The survey closed on 3rd June 2025.

Questions and Responses

Q1. In which county do you keep your bees in the majority of the season?

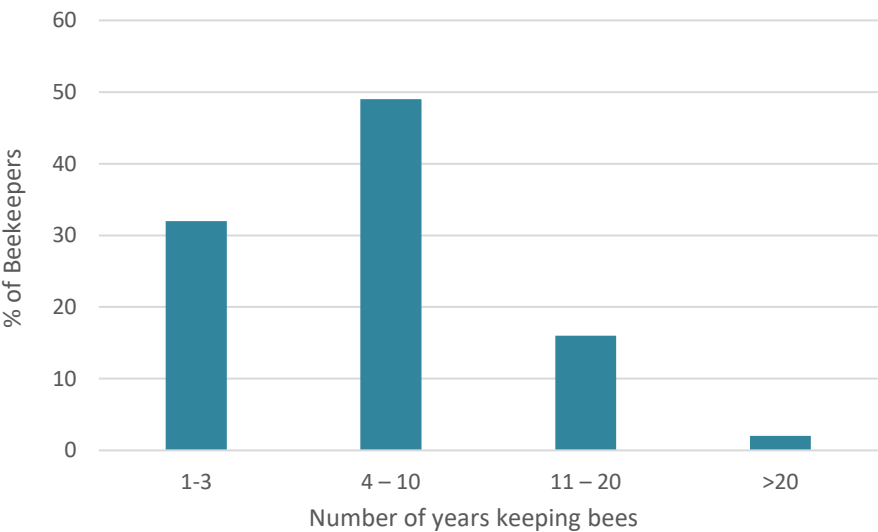
Figure 1: Number of beekeepers per county



County	Count of respondents
Antrim	33
Armagh	3
Derry/Londonderry	7
Down	51
Fermanagh	4
Tyrone	1
99 in total	

Q2. How many years have you kept bees?

Figure 2: Number of years keeping bees



Number of year’s beekeeping divided into categories				
Number of years keeping bees	1 - 3	4 – 10	11 – 20	>20
% of beekeepers	32	49	16	2

Q3. To describe the location of your main apiary or operation, please state

- a. The name of a city/town/village near to your apiary**
- b. The post code of the apiary (or a post code nearby)**

All answers received are confidential and are processed according to the AFBI Privacy Notice in compliance with the EU General Data Protection Regulation (GDPR), 2018.

Q4. How many apiaries do you have?

69 beekeepers (70%) had 1 apiary.

30 beekeepers (30%) had from 2 – 7 apiaries.

Q5. If you have more than one apiary, are all your apiaries within a distance of about 15km (9 miles) of each other

25 beekeepers responded 'Yes' to having all their apiaries within a 15km distance.

5 beekeepers responded 'No' to having all their apiaries within 15km distance to each other.

Q6. How many production colonies did you have before winter 2024-25?

Most respondent beekeepers (37.4%) had 1 - 2 production colonies. Another 30.3% of respondents had 3-5 production colonies. The total number of reported colonies was 480.

The numbers of production colonies, divided into categories, maintained by individual beekeepers before winter 2024-25

	No. of production colonies maintained				
	1 - 2	3 - 5	6 - 10	11 - 20	20+
No. of beekeepers	37	30	25	5	2

Q7. How many of these colonies (in Q6.) did you lose:

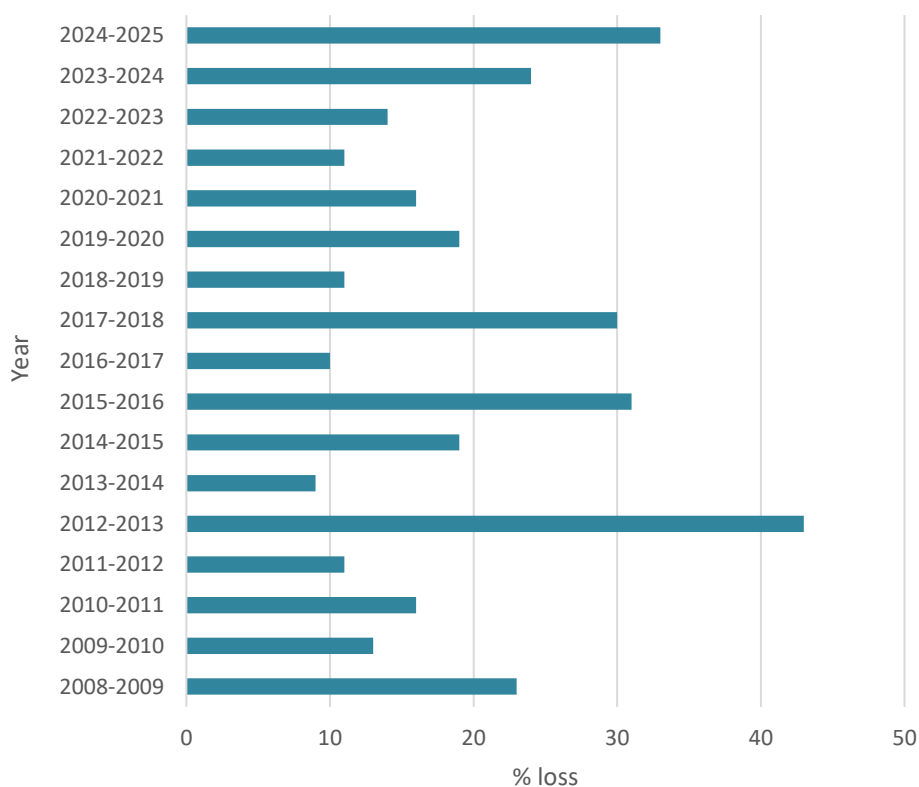
- 1. Because they still had live bees present but had unsolvable queen problems? 81**
- 2. Because of a natural hazard (e.g. storm/wind damage, floods)?..... 7**
- 3. Because they were dead or the hive was empty?..... 72**

The table below shows the breakdown figures per county.

<u>Colony losses during the winter of 2024-25 per county</u>			
County	Live before winter	Colonies lost	% loss
Antrim	150	65	43
Armagh	21	11	52
Derry/Londonderry	41	12	29
Down	242	72	30
Fermanagh	17	0	0
Tyrone	9	0	0
TOTAL	480	160	x = 33.3

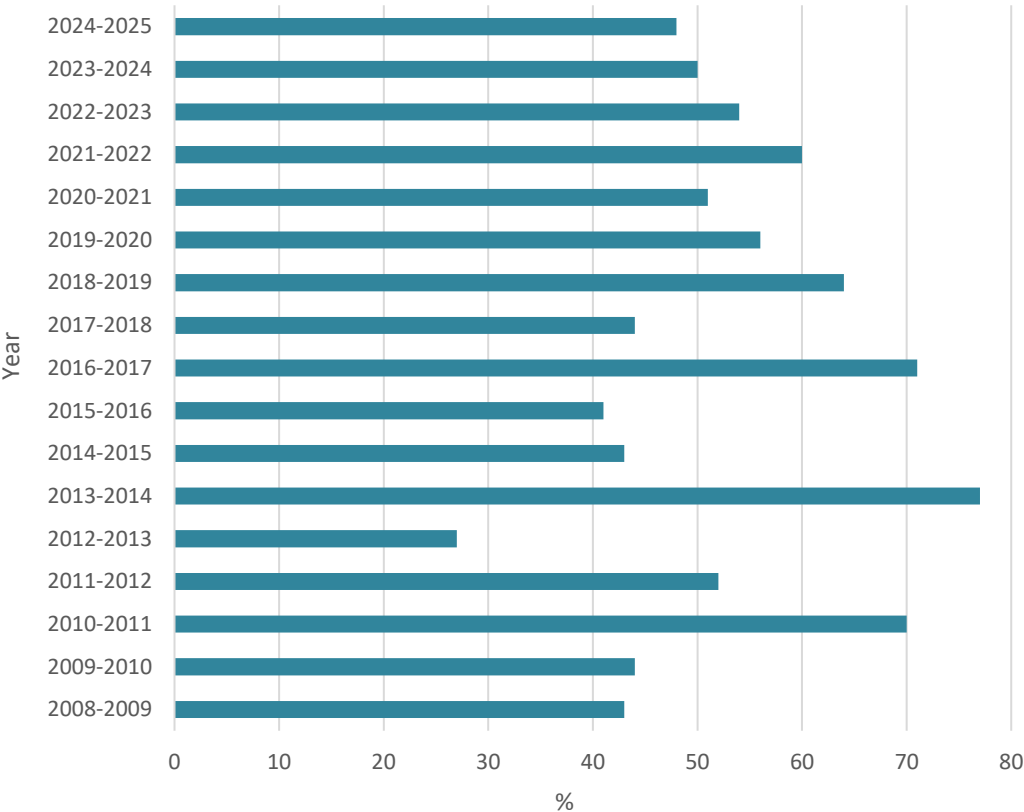
Overwintering losses in 2024-25 were **33%** compared to 24% in 2023-24 and 14% in 2022-23.

Figure 3: Comparison of overwinter loss (%), 2008-2025.



48% of respondent beekeepers had no losses; in 2023-24 it was 50% and in 2022-23 it was 54%.

Figure 4: Comparison of zero reported colony loss (%), 2008-2025



Q8. How many of the dead colonies or empty hives (in Q7.3)

- a. Had many dead bees in or in front of the hive?..... 16 (22%)
- b. Had no or only a few dead bees in or in front of the empty hive?..... 10 (14%)
- c. Had dead workers in cells and no food present in the hive (signs of starvation)? 6 (8%)
- d. Had dead workers in cells while food was present in the hive?..... 34 (47%)
- e. Had none of the above or unknown symptoms?..... 6 (8%)

Q9. How many of the wintered colonies (in Q6.) were weak but queenright after winter 2024-25?

Of the 320 surviving colonies, 107 (33%) were reported as weak but queenright.

Q10. How many production colonies did you have in:

- a. Spring 2024 (last year)? 417 in total.
- b. this year, Spring 2025? 409 in total.

Q11. How many of your wintered colonies had a new queen in 2024?

Why were they replaced?

Out of 480 colonies, 116 (24%) wintered colonies (2024-2025) had a new queen.

The main reasons given for new queen replacement were old age, swarming, colony splits, and supersedure.

Q12. What are the origins of your queens?

Reared by the colony itself 64 beekeepers used only their own colony.

Reared by one of your own selected queens 18 used only their own selected queens.

Acquired from local beekeepers 51 only acquired locally.

Imported **Yes:** 2 beekeepers. **No:** 97 beekeepers.

If you answered 'Yes' to Imported, please give the number of queens you imported and from which country?

	Total Number of Queens	
GB (England, Scotland & Wales)	7	* Please specify EU/Non-EU countries below
Other Non-EU countries *	0	
EU countries (inc. ROI) *	0	

Q13. To what extent did you observe queen problems in your colonies during the foraging season of 2024 compared to what you usually have?

More 19% of beekeepers

Normal 57% of beekeepers

Less 12% of beekeepers

Don't know 12% of beekeepers

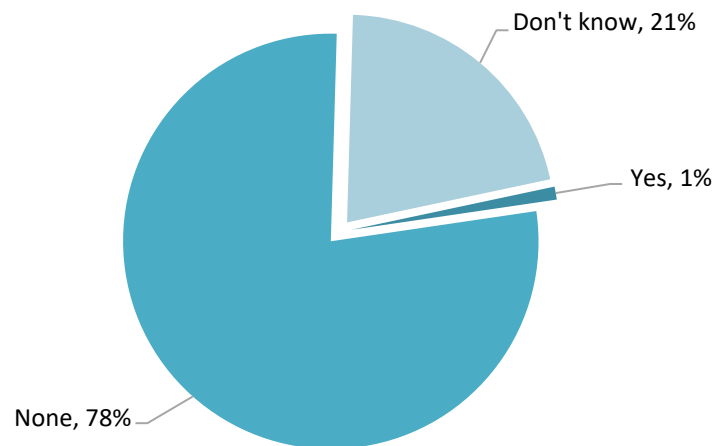
Q14. How many of your surviving colonies had a large amount of faeces inside the hive after winter?

77 beekeepers had no colonies with a large amount of faeces inside the hive after winter.

21 beekeepers replied, 'Don't know'.

1 beekeeper replied 'Yes' for 1 colony.

Figure 5: Percentage of beekeepers reporting a large amount of faeces inside the hive after winter



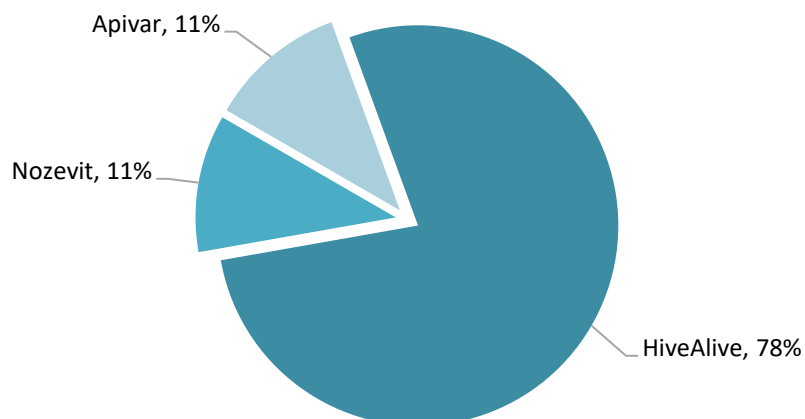
Q15. Did you treat your colonies for *Nosema* before overwintering in 2024?

Yes: 9 beekeepers.

No/Don't know: 90 beekeepers.

7 beekeepers treated with the product, HiveAlive; 1 beekeeper treated with the product Nozevit and 1 beekeeper treated with the product Apivar.

Figure 6: *Nosema* treatments used by beekeepers (N=9)



Q16. Did you migrate any of your colonies at least once for honey production or pollination in 2024?

Yes: 4 beekeepers (4%).

No/Don't know: 95 beekeepers (96%).

Q17. Have you noticed bees with crippled/deformed wings in your colonies during the 2024 summer season? (These are signs of the presence of Deformed Wing Virus, which is spread by Varroa mites)

Not at all 55% of beekeepers
 To a limited extent 41% of beekeepers
 To a large extent 1% of beekeepers
 Don't know 3% of beekeepers

Q18. What particular measures apply for the majority of your beekeeping?

	<u>Percentage of beekeepers</u>	
a. Screened bottom board in Winter	Yes : 72%	No/Don't Know: 28%
b. Insulated hives in Winter (including double-walled hives)	Yes: 51%	No/Don't Know: 49%
c. Hives made from synthetic materials	Yes: 27%	No/Don't Know: 73%
d. Certified organic beekeeping	Yes: 1%	No/Don't Know: 99%
e. Queens bred from Varroa tolerant/resistant stock	Yes: 8%	No/Don't Know: 92%
f. Small brood cell size (5.1mm or less)	Yes: 3%	No/Don't Know: 97%
g. Comb without foundation	Yes: 10%	No/Don't Know: 90%
h. Purchase wax from outside own operation	Yes: 76%	No/Don't Know: 24%
i. Non-wax foundation in brood chamber	Yes: 2%	No/Don't Know: 98%

Q19. Have you monitored your colonies for Varroa during the period April 2024 – March 2025?

77 out of 99 beekeepers (78%) responded 'Yes' to monitoring for Varroa.
 2 beekeepers monitored continuously throughout the period.

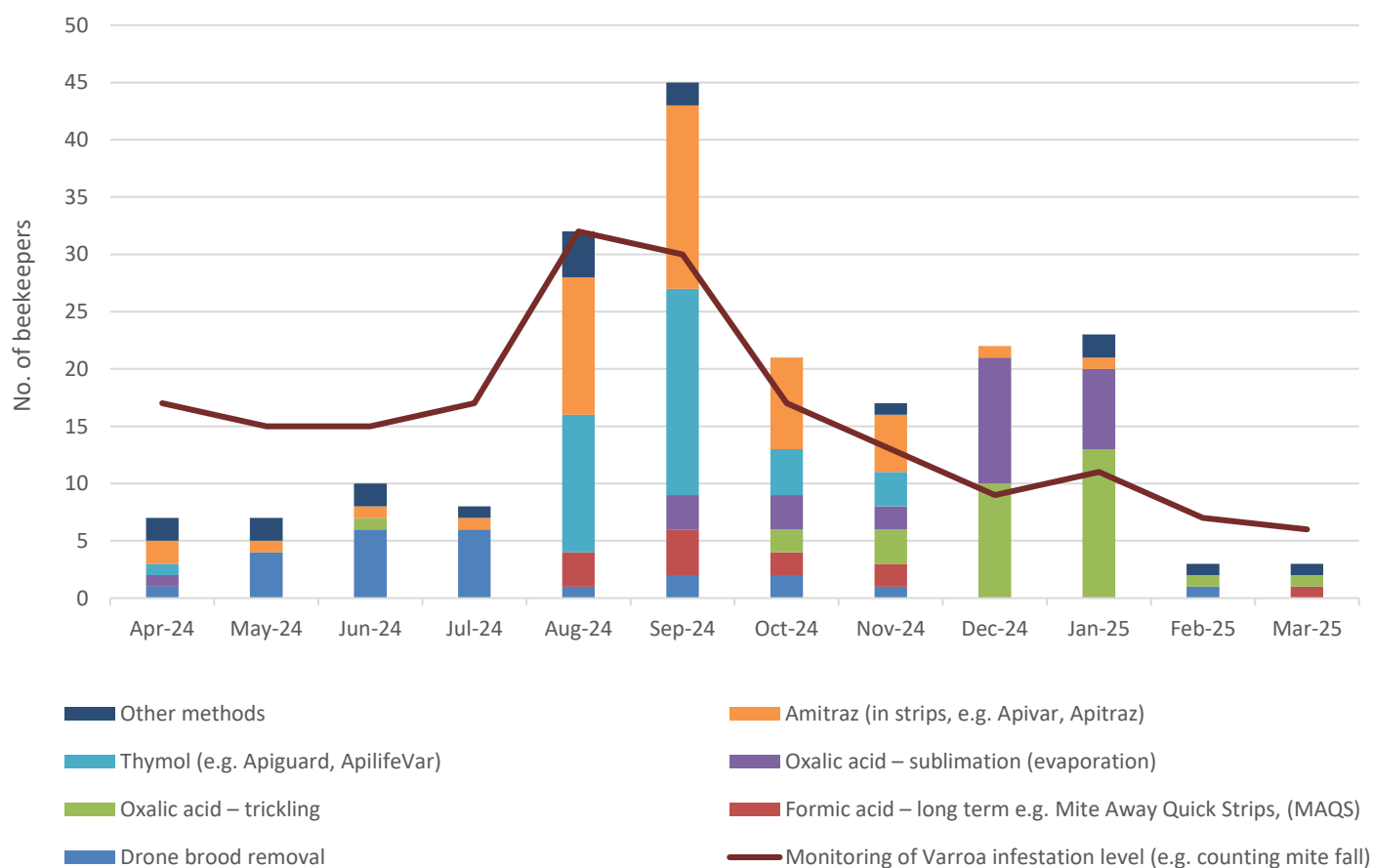
Q20. Have you treated your colonies for Varroa during the period April 2024 – March 2025?

87 out of 99 beekeepers (88%) responded 'Yes' to treating for Varroa.

The top 5 treatments used by these beekeepers were:

1. **Oxalic acid** - trickling and sublimation (evaporation)..... 59%
2. **Amitraz** (Apivar/Apitraz) strips 37%
3. **Thymol** (Apiguard/Apilife Var) 36%
4. **Drone brood removal** 20%
5. **Formic acid** – short term and long term, e.g. MAQS (Mite Away Quick Strips)
..... 16%

Figure 7: Methods used to treat Varroa per month, April 2024 to March 2025



Q21. What method did you use to monitor your production colonies for Varroa during the 2024-25 season?

Mite fall on bottom board	84% of beekeepers
Visual inspection of the colony	61% of beekeepers
De-capping brood	18% of beekeepers
Adult bees (sugar shake/roll, washing with detergent, CO ₂).....	12% of beekeepers
Sent sample to laboratory	5% of beekeepers
None of the above	6% of beekeepers

54 beekeepers (55%) used two or more of the above methods.

Q22. As a mode of prevention of spread of an invasive honey-bee pest, the Tropilaelaps mite, are you familiar with the signs of this pest?

Yes: 47 beekeepers (47%). **No/Don't know:** 52 beekeepers (53%).

Q23. How trustworthy do you consider each of the following sources of information on beekeeping?

		<u>Percentage of beekeepers</u>			
a.	Scientists	Not at all 3%	Sometimes 13%	Most of the time 57%	All of the time 27%
b.	Beekeeping advisors	Not at all 4%	Sometimes 12%	Most of the time 65%	All of the time 19%
c.	Beekeeping Associations	Not at all 1%	Sometimes 10%	Most of the time 68%	All of the time 21%
d.	Experienced beekeepers	Not at all 1%	Sometimes 11%	Most of the time 68%	All of the time 20%
e.	Veterinarians	Not at all 30%	Sometimes 26%	Most of the time 30%	All of the time 13%
f.	Government authorities	Not at all 18%	Sometimes 35%	Most of the time 36%	All of the time 10%
g.	Beekeeping magazines	Not at all 7%	Sometimes 40%	Most of the time 45%	All of the time 7%

Q23 Cont. How trustworthy do you consider each of the following sources of information on beekeeping?

h.	Beekeeping Books	Not at all 3%	Sometimes 36%	Most of the time 53%	All of the time 8%
i.	Internet webpages/blogs	Not at all 8%	Sometimes 72%	Most of the time 17%	All of the time 3%
j.	YouTube clips	Not at all 19%	Sometimes 67%	Most of the time 11%	All of the time 3%
k.	Tiktok	Not at all 75%	Sometimes 23%	Most of the time 2%	All of the time 0%
l.	Facebook	Not at all 52%	Sometimes 44%	Most of the time 3%	All of the time 1%
m.	Instagram	Not at all 68%	Sometimes 29%	Most of the time 2%	All of the time 1%
n.	X (formally Twitter)	Not at all 62%	Sometimes 19%	Most of the time 2%	All of the time 2%
o.	Reddit	Not at all 73%	Sometimes 25%	Most of the time 1%	All of the time 1%
p.	LinkedIn	Not at all 77%	Sometimes 22%	Most of the time 0%	All of the time 1%
q.	AI – generated content (e.g. Chat-GPT)	Not at all 74%	Sometimes 22%	Most of the time 3%	All of the time 1%

Q24. Can you recognize and/or do you know any information about the following bee diseases and pests?

- a. Acarine..... 48% of beekeepers**
- b. Nosema..... 83% of beekeepers**
- c. Chalkbrood..... 97% of beekeepers**
- d. Sacbrood..... 65% of beekeepers**
- e. American Foulbrood (AFB)..... 93% of beekeepers**
- f. European Foulbrood (EFB)..... 92% of beekeepers**

- g. Varroa.....** 96% of beekeepers
- h. Wax moths.....** 91% of beekeepers
- i. Asian Hornet.....** 90% of beekeepers

43 beekeepers (43%) recognised and/or knew information about all 9 diseases/pests.

Q25. Have you made use of any of the following services, provided by DAERA and/or AFBI, in 2024-25?

- Sent a sample of bees/brood comb for laboratory examination to AFBI** 14 beekeepers
- Asked for advice from either DAERA or AFBI** 7 beekeepers
- Registered on DataBees** 29 beekeepers
- None of the above** 62 beekeepers

8 out of 91 beekeepers (9%) made use of two or more of the above services.

If you would like information about registering on DataBees, please go to
<https://www.daera-ni.gov.uk/articles/beekeepers-voluntary-registration>

Q26. If you found it difficult to answer the questionnaire, please indicate which question(s) you found difficult to answer and say why they were difficult to answer.

Comment

“Type of hives used. Some questions are: Do you use wooden or poly hives for example. This year I will be using both and have used poly nucs for several years. Answering this will be difficult next year as there is no option for both.”

Reply

These comments will be forwarded to the survey webpage designers to adjust for next year’s survey.

Comment

“Your focus is solely on production colonies so you are missing the data on new colonies started from splits/swarms in 2024.”

Reply

These comments will be considered for next year’s survey.

Comments

“Varroa treatment questions (where I selected date of treatment etc.) did not seem to register my input

after I had made a selection. Hard to know if it was working”

“One of the earlier questions on what months do you check for varroa was unclear. People check over a variety of months and this can only be selected by holding down shift.”

Reply

These comments will be forwarded to the survey webpage designers to adjust for next year’s survey.

Comments

“There should be options for ‘no experience’ on the pull down menus for what do you think of ‘tic-tok’ etc. Most people won’t have experience of them. There will be ambiguity as some of the Facebook posts etc. report to originate from "experienced beekeepers" or beekeeping associations as in one of the earlier options.”

“Do not use social media Facebook, vets or receive any govt guidance so there is no choice to say "don’t use". These could have lots of valuable information, but I can’t really say as I don’t know.”

Reply

This question was added to this year’s survey as a one off for 2025 and was standardized by COLOSS, a Europe based honey-bee research association, as part of their world-wide survey and cannot be changed locally. It may be possible to pass on the feedback to the COLOSS team.

Comments

“I lost 2 colonies to wasps in autumn 2024. You could include wasps.”

“Possibly more possible options for losses, I know the majority of my losses were due to wasps late in the 2024 season. I had one dead out during winter which I believe was due to a blocked entrance.”

Reply

These comments will be forwarded to the survey webpage designers to adjust for next year’s survey.

Comments

“The section at the start used 0/1 to answer questions this was a little confusing and took some time to try and understand. Perhaps when one box is ticked the rest get blanked out.”

“It would be good to be able to select a Not Applicable option for the not applicable answers.”

Reply

These comments will be forwarded to the survey webpage designers to adjust for next year’s survey.

Questions 3, 6-7, 9, 11, 16-17, 19-20 and 22-23 are standardized by COLOSS, a Europe based honey bee research association, as part of their world-wide survey and cannot be changed.

Once again, thank you to all the beekeepers who participated in this survey.

Without your help we would have little knowledge of Northern Ireland beekeeping practices and the various challenges that beekeepers face. Your responses will contribute to future departmental policy for the sustainability of honey-bee health.