

Dear Beekeeper,

Your contribution to this annual survey on colony losses is much appreciated. At various points in the questionnaire below, there are points of **Information** marked in **RED**. Hopefully these will explain the logic of the questions that follow. Please try to complete **all** the questions as this will allow not only the number of winter colony losses to be calculated, but will also contribute to identifying the possible causes for these losses.

Please send completed questionnaires to:

**Dr Mary F Coffey, Teagasc, Oakpark Research Centre, Carlow**

All completed surveys **should be returned by 1 June 2017.**

*Please note that the questionnaire will also be available online from May 1<sup>st</sup> on both the FIBKA and NIHBS webpages, however it is important that each beekeeper only completes the survey once.*

**Thank you**

**Mary F**

**Information:** Information about your name and address will be removed from the file used for processing the data and kept confidential.

First name \_\_\_\_\_  
Last name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
Postal Code \_\_\_\_\_  
Email \_\_\_\_\_  
County \_\_\_\_\_  
Country **Ireland**

- ① 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) and the postal code of the apiary (or a postal code nearby) \_\_\_\_\_

② How many apiaries do you have?

- ③ If you have more than one apiary, are all your apiaries within a distance of about 15 km of each other? If you have only one apiary, please answer yes.  
 Yes  No  Don't know

**Information:** Numbers of colonies, losses and status of the colony post-winter. Please consider winter as the period between the moment that you finished the pre-winter preparations for your colonies and the start of the new foraging season. In this questionnaire we try to gather information about production colonies. Please consider colonies which are queenright and strong enough to provide a honey harvest as production colonies.

④ How many production colonies did you have before winter 2016-2017?

**Information:** In the next questions you are asked for numbers of colonies lost. Please consider a colony as lost if it is dead (or reduced to a few hundred bees) or alive but with queen problems, like drone laying queens or no queen at all, which you couldn't solve.

5 How many of these (4) colonies did you lose, because they were alive but had unsolvable queen problems. If none, please answer 0.

6 How many of these (4) colonies did you lose, because of natural disaster (flooding, wind, fallen tree, cattle/sheep, vandalism, theft)?

7 How many of these (4) colonies did you lose, because they were dead?

8 How many of the dead colonies (7)

a) ... had many dead bees in or in front of the hive?

b) ... had no or only a few dead bees in or in front of the empty hive?

c) ... had dead workers in cells and no food present in the hive (signs of starvation)?

d) ... had dead workers in cells while food was present in the hive?

e) ... had none of the above or unknown symptoms?

9 How many of the wintered colonies (4) were weak but queenright after winter 2016-2017?

**Information:** We would like to calculate increases and decreases in the number of colonies, so if you had colonies in spring 2016 and remember how many you had, please answer the following two questions, considering spring as the start of the foraging season:

10 How many production colonies did you have in a) spring 2016 (last year)?   
b) spring 2017?

**Information:** Conditions in the colonies, the environment around the apiary, and management:

11 How many of the wintered colonies had a new queen in 2016?

12 To what extent did you observe queen problems in your colonies during the foraging season of 2016 compared to what you usually have?

More

Normal

Less

Don't know

13 Compared with your colonies with old queens, have your colonies with young queens survived winter?

Better

No differently

Worse

Don't know / not applicable

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

15 Did you migrate any of your colonies at least once for honey production or pollination in 2016?  
 Yes  No  Don't know

16 Approximately what proportion of brood combs did you replace with comb foundation per colony in 2016?  
 0%  1-30%  31-50%  more than 50%

17 Did the majority of your bee colonies have a significant flow on one or more of the following plants in 2016?

- a) Orchards  Yes  No  Don't know
- b) Oil seed rape  Yes  No  Don't know
- c) Maize  Yes  No  Don't know
- d) Heather  Yes  No  Don't know

18 Have you monitored your colonies for Varroa during the period April 2016 - April 2017?  
 Yes  No  Don't know / not applicable

19 Have you treated your colonies against Varroa during the period April 2016 - April 2017?  
 Yes  No  Don't know / not applicable

20 Could you please indicate the months when you monitored your production colonies for Varroa <b>AND</b> also indicate when you <b>STARTED</b> a Varroa treatment or management plan during the period April 2016 - April 2017? <b>Method / Product:</b>	Month in which each measure started:														
	2016												2017		
	April	May	June	July	August	September	October	November	December	January	February	March	April		
Monitoring of Varroa infestation level (e.g. counting mite fall)															
Drone brood removal															
Hyperthermia (heat treatment of brood/bees)															
Other biotechnical method (as e.g. trapping comb, complete brood removal, queen confinement)															
Formic acid - short term															
Formic acid - long term (e.g. MAQS)															
Lactic acid															
Oxalic acid - trickling															
Oxalic acid - sublimation (evaporation)															
Hiveclean/Bienenwohl/Beevital															
Thymol (e.g. Apiguard, ApilifeVar)															
Tau-fluvalinate (e.g. Apistan)															
Flumethrin (e.g. Bayvarol)															
Amitraz (in strips, e.g. Apivar, Apitraz)															
Amitraz (fumigation/aerosol)															
Coumaphos (e.g. Perizin)															
Coumaphos (in strips, e.g. Checkmite+)															
Another chemical product															
Another method															

22 If you gave your colonies a supplemental sugar feed (sugar solution or inverted sugar) last year to prepare for winter, how many kg of sugar (dry matter) did you give on average per production colony?

23 Do you keep your bees in an area where Varroa has still not been detected?  
 Yes  No  Don't know

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

Not at all     to a limited extent     to a large extent     Don't know

25 What particular measures apply for the majority of your beekeeping:

- |  |                           |                          |                                  |
|--|---------------------------|--------------------------|----------------------------------|
| a) Screened (mesh) bottom board in Winter  | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |
| b) Insulated hives in Winter               | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |
| c) Plastic hives                           | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |
| d) Certified organic beekeeping            | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |
| e) Varroa tolerant stock                   | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |
| f) Small brood cell size (5.1 mm or less)  | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |
| g) Natural comb (without foundation)       | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |
| h) Purchase wax from outside own operation | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |
| i) Polystyrene hives                       | <input type="radio"/> Yes | <input type="radio"/> No | <input type="radio"/> Don't know |

26 Did you observe *Vespa velutina* (Asian hornet) foraging for honey bees in your apiary/apiaries?

Yes     No     Don't know

**On behalf of the National Apiculture Programme sincere thanks for completing this annual survey. We appreciate the time you have put into completing the Survey.**

*Mary Frances Coffey*

*April 2017*