

COLOSS WINTER COLONY LOSS SURVEY 2017/2018

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 2018**.

Please note that the questionnaire will also be available online from May 1st with links on the webpages of FIBKA, NIHBS and IBA CLG, however it is important that each beekeeper only completes the survey once.

**Thank you
Mary F**

Information. Completing your personal details (name, address and contact details) is optional but providing details of the county and the town closest to apiary is essential (Question 1). We translate this data into latitude-longitude before submission to the international data set. The name of your town is enough for most. A street name is useful for larger towns and cities. Townlands are VERY useful for rural addresses.

******Please note that ALL personal information is removed from the file used for processing the data and is confidential to Mary Coffey and John Breen ONLY******

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 Eircode of the apiary OR the townland _____

2 How many apiaries do you have?

3 If you have more than one apiary, are all your apiaries within a distance of about 15km 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. A production colony is a colony which is queen right and is strong enough to produce honey.

4 How many production colonies did you have before winter 2017-2018?

Information. In the next questions you are asked for numbers of colonies lost. Please consider a colony as lost if it: a) died out (or reduced to a few hundred bees) during winter, b) died due to natural disaster or c) was alive but with queen problems (*drone laying queens or no queen at all*) which you couldn't solve. Each lost colony should be included in only one of these three categories.

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, storm, fallen tree, cattle/sheep, vandalism, theft, rodents)?

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 2017-2018?

Information. We would like to calculate increases and decreases in the number of colonies, so if you had colonies in spring 2017 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 2017 (last year)?
 b) spring 2018?

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

- 11 How many of the wintered colonies had a new queen in 2017? Don't know

12 To what extent did you observe queen problems in your colonies during the foraging season of 2017 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?

Don't know

15 Did you migrate any of your colonies at least once for honey production or pollination in 2017?

- Yes No Don't know

16 Approximately what proportion of brood combs did you replace with comb foundation per colony in 2017?

- 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 2017?

- a) Ivy Yes No Don't know
 b) Oil seed rape Yes No Don't know
 c) Maize Yes No Don't know
 d) Sunflower Yes No Don't know
 e) Heather Yes No Don't know
 f) Autumn forage plant Yes No Don't know

(Autumn forage plants = nectar plants growing in land lying fallow: eg mustard)

18 Have you monitored your colonies for Varroa during the period April 2017 - April 2018?

- Yes No Don't know / not applicable

19 Have you treated your colonies against Varroa during the period April 2017 - April 2018?

- Yes No Don't know / not applicable

20 Could you please indicate the months when you monitored your production colonies for <i>Varroa</i> AND also indicate when you STARTED a <i>Varroa</i> treatment or management plan during the period April 2017 - April 2018? Method / Product:	Month in which each measure started:												
	2017												
	April	May	June	July	August	September	October	November	December	2018	January	February	March
Monitoring of <i>Varroa</i> 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 (ApiBioxal) - trickling													
Oxalic acid (ApiBioxal)- 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 Yes No Don't know
 - b) Insulated hives in Winter (incl. double walled hives) Yes No Don't know
 - c) Hives made from synthetic materials Yes No Don't know
 - d) Certified organic beekeeping Yes No Don't know
 - e) Queens bred from *Varroa* tolerant/resistant stock Yes No Don't know
 - f) Small brood cell size (5.1 mm or less) Yes No Don't know
 - g) Natural comb (without foundation) Yes No Don't know
 - h) Purchase wax from outside own operation Yes No Don't know
 - i) Non-wax foundation in brood chamber Yes No 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 2018.