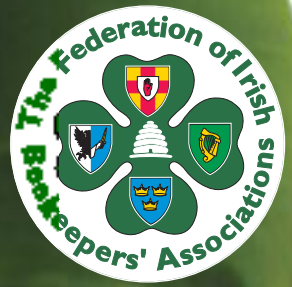


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NEW 2013-2014 SURVEY OF THE HEALTH STATUS OF IRISH HONEYBEE COLONIES: REQUEST FOR VOLUNTEERS

MARY F COFFEY AND JOHN BREEN, NATIONAL APICULTURE PROGRAMME

In general, data on the prevalence of parasites/pathogens in Irish honeybee colonies is poorly documented except for a pilot survey carried out in 2006. The outcome of this survey has been reported at various meetings and at Gormanston and a short account of this survey was reported in a previous issue of *An Beachaire*. Hence it is important that the current health status of Irish honeybee colonies is assessed especially since winter losses during 2012/2103 were one of the highest in Europe as indicated in the article on colony losses (see elsewhere in this issue of *An Beachaire*). The overall aim of this new National Survey, being carried out under the National Apicultural Programme 2013-2016, is to collect samples of adult bees and comb samples from 100 to 150 beekeepers throughout the country during the two active summer seasons, 2014 and 2015. Samples collected during this period will be analysed in the laboratory for the presence and absence of a number of parasites and pathogens. Participating beekeepers will also be expected to complete the annual COLOSS survey of winter losses during 2014/2015 and 2015/2016, thus allowing possible correlations between disease load and colony mortality to be assessed. The racial status and the purity of the Dark Native Bee (*Apis mellifera mellifera*) in the Irish honeybee population will also be determined as part of this survey. Considering the time frame restrictions within the present 2013-2016 National Apicultural Programme, we appreciate that this is an ambitious project, but with the support of beekeepers we feel it is achievable and will for the first time provide Irish beekeepers with reliable data on the incidence of diseases including parasitic mites (*Varroa* and Tracheal mites), microsporidia (*Nosema* spp.), bacterial diseases (AFB/EFB), fungi (chalkbrood) and viruses (DWV, ABPV, CBPV, IAPV) in managed honeybee colonies.

To ensure that the 'cohort of beekeepers' invited to participate in this survey is representative of Irish beekeeping/beekeepers; we will use a stratified random sampling method. This simply means that the entire beekeeping population is divided into groups using criteria such as geographical location or local beekeeping association. Then, from within each group a random sample will be selected which is representative of that group.

Beekeepers that are willing to participate MUST OPT IN – due to Data Protection issues, we CANNOT get a list of names from FIBKA or from local Association Secretaries. Hence we are now compiling a list of beekeepers willing to participate in the survey. Association apiaries can also be included if they agree and give us a contact (might be a good idea as novice beekeepers can take part in the sampling). Beekeepers that are willing to participate can either notify their local Beekeepers' Association secretary, who will forward the list to the coordinators or they can click on the 'link' (<https://www.surveymonkey.com/s/FX7QWCT>) which is included in the letter

forwarded to all secretaries who have been requested to make it available to all its members. By simply clicking on this link in this letter, beekeepers will be able to give their contact details (name/address/email) automatically. Alternatively you can email you name/address/email address to **Mary.Frances.Coffey@ul.ie**. Please note that the size of your operation (number of hives) or type of bee which your work with (Dark Native / Buckfast / Hybrid) is not important for your inclusion in this survey as the overall aim is to identify the prevalence of diseases in managed honeybee colonies and identify the racial of status of the Irish honeybee population. You must indicate your agreement to participate: WE CANNOT ASSUME YOUR PERMISSION.

All the names of volunteering beekeepers will be collated into a single list and 150 to 200 beekeepers will be randomly selected from the full list and invited individually to participate in the survey using email or post. At this point any selected beekeeper that wishes not to participate or is unable to participate for any reason will be given the opportunity to decline the invitation and as coordinators we will continue to select replacements randomly until we have approximately a cohort of 100 beekeepers which are representative of Irish beekeepers. Personal information acquired during this selection process will be protected under the privacy policy regulated by Directive 95/46/EC of the European Parliament. Each participating beekeeper will be given a specific code which will be only known to the database supervisor (Prof. John Breen) and coordinator (Mary F Coffey).

The participating beekeeper will randomly select one colony from his/her apiary. This colony will need to be sampled three times a year (Spring, Summer and Autumn) over a two year survey period (Year 1=April 2014-October 2014 and Year 2=April 2015-October 2015). The proposed multiple sampling over two full foraging seasons allows seasonal variations in pathogen loads to be identified and also allows for annual variations to be studied. On each of the three sampling dates the beekeeper will be expected to collect 150 adult bees from the periphery of the brood nest into a plastic vial which will be supplied by the coordinators and a brood sample on one sampling date (summer) each year. Samples will then be forwarded by the beekeeper to the laboratory for analysis and once the samples are analysed the results will be communicated to each participating beekeeper. Sampling instructions, sample containers and carriage costs will be covered for each participant. The completion of the annual COLOSS survey on winter losses will also be an essential part of this survey, thus in May when the annual survey is disseminated to beekeeping community at large, each participating beekeeper will receive a copy for completion.

In the laboratory the collected samples will be analysed for a number of parasites/pathogens using OIE Standard Techniques and will include: *Varroa* infestation (number of mites per 100 bees), *Nosema* spp. (initially to the level of *Nosema* spp., but subsequently in positive samples the species of *Nosema* will be differentiated). Four viruses (DWV, CBPV, IAPV and ABPV) will be identified using molecular techniques. This work will be carried out in collaboration with Dr Kevin Kavanagh in NUI Maynooth and all the laboratory analyses will be performed by Carla Surlis, a PhD researcher. All samples forwarded to NUI Maynooth will be identified

only by their code, hence maintaining the beekeeper's anonymity and adhering to the privacy agreement. Finally, to establish the racial status of the honeybees in Ireland, a morphometrics analysis will be carried out on bees collected in the 2014 Summer sampling period. This work will be carried out in collaboration with experienced members of the Galtee Bee Breeders' Group and DNA sequencing will be carried out to confirm the morphometrics if deemed necessary.

Close collaboration between participating beekeepers and the research team will be maintained throughout the research period and individual results will be made available on an on-going basis. Overall results of the survey will be disseminated at regular intervals in oral presentations, workshops and articles in *An Beachaire*. Anonymity of participating beekeepers will be ensured by adhering to the coding system at all times and results will only be made public in a form which summarizes overall results. However, individual beekeepers will be provided with their OWN results.

In conclusion, we acknowledge that by agreeing to participate in this survey additional work is required of the participating beekeepers. However if you are one of the beekeepers chosen, we urge you strongly to accept the invitation, and thus allow the survey to commence on schedule (start date scheduled for late April 2014). Your participation will ensure that a random sampling method has been adhered to and the data resulting will give for the first time a reliable picture of the health and racial status of Irish honeybees.

BEE DIAGNOSTIC SERVICE

Please Send Samples for Testing

Send live or newly dead bees, not those which died overwinter.

AFB: suspect comb containing sealed & dead brood, at least 6"square, packed so the comb is not squashed in transit.

Cost: €5 per sample, cheques/POs payable to Dr Mary Coffey.

SEND TO:

Dr Mary Coffey,
TEAGASC, OAK PARK,
CARLOW.

BE WISE - send samples of bees and comb twice a year for testing.

BEE BOOKS NEW & OLD

For sale 2014 list includes:

**Beekeeping Study Notes
for the FIBKA Preliminary Cert.
£12.50 (€15)**

Cards Welcome.

Ash View, Tump Lane,
Much Birch,
Hereford HR2 8HP



**Tel. 01981 540907
0044 1981 540907**