

Queen Rearing Working Group

Kevin Beattie, Bee Health Policy Advisor at the Department of Environment, Food and Rural Affairs (Defra) discusses queen availability in the United Kingdom (UK) and the results of a recent survey

Since 2009, the number of honey bee queens imported into the United Kingdom (UK) has trebled and while the quality of genetic material from the continent is one driving force, it is likely that the increasing number of beekeepers taking up the craft has also contributed to a greater number of imports.

We are mindful of the important role that imported queens can play, whether that is in meeting early demand for queens in the spring following winter losses, bringing in desirable genetics from which to breed, or in providing much needed pollination services for our crops.

In choosing queens, there is an element of personal choice and, ultimately, it is up to the beekeeper to make an informed decision regarding the queens he/she wishes to use or buy and to make sure he/she is confident that the queens come from reliable and safe sources.

At the heart of the matter, however, is the need for high-quality queen bees on an as-needed basis, with guaranteed characteristics (as well as they can be). Can more of these queens be raised in the UK?

Our aim, with the support of beekeeping associations, is to investigate this premise. Increasing beekeepers' capacity to produce such queens – in the long-term – will reduce the sector's reliance upon queens from the continent. This would arguably see our beekeeping sector grow stronger and more resilient.

Working Group

In 2017, the Department of Environment, Food and Rural Affairs (Defra) chaired a working group of beekeeping organisations, all interested in furthering the development of queen rearing in England. The group's membership included representatives from Defra, the National Bee Unit (NBU), the Bee

Farmers' Association (BFA), the British Beekeepers' Association (BBKA), the Bee Improvement and Bee Breeders' Association (BIBBA) and the National Diploma in Beekeeping (NDB).

As a first step, a fact-finding survey was commissioned to build a picture of the current queen rearing practices used in England, including current levels of activity, beekeeper aspirations and possible measures to support the production of more home-reared queens.

Many beekeepers will recall seeing this survey in March 2018. A huge thank you goes to the 4,763 beekeepers that completed the survey and provided us with their views on queen rearing.

Key Findings

A summary report will be uploaded onto BeeBase (www.nationalbeeunit.com) in due course. All questions in the survey were voluntary. Listed here are some of



A new queen on a comb from a mini-nucleus hive

the key findings. Percentages indicated are as a proportion of all respondents.

Respondents

- 81 per cent of respondents owned or managed between one and nine colonies while four per cent had more than 40 colonies.
- 68 per cent of respondents had been keeping bees for less than ten years while 21 per cent had kept bees for more than 15 years.
- 50 per cent of respondents hold a beekeeping qualification, ranging from introductory certificates up to 'master beekeeper'.

On Purchasing and Rearing Queens

- 27 per cent of respondents bought queens during 2017. Of those that bought queens during 2017, most (91 per cent) bought between one and ten queens.
- 93 per cent of those that bought queens during 2017 bought from a supplier in the UK.
- 72 per cent of respondents who bought queens from a UK supplier said that these queens were reared in the UK. 20 per cent of respondents said the queens were imported by the supplier to the UK as adult queens.
- 44 per cent of respondents raised no queens while 49 per cent of respondents raised between one and ten queens.
- Only five per cent of respondents said they were part of a bee breeding/bee improvement group.
- 80 per cent of respondents were in favour of a breeding programme for *Apis mellifera mellifera*.

- 65 per cent of respondents would be interested in purchasing queens from an accredited supplier.
- 65 per cent of respondents would be willing to pay more for queens from an accredited supplier.

On Future Support Options

- Over 75 per cent of respondents identified a need for training or mentoring to help them increase the number of queens they rear.
- 41 per cent of people in the survey said they felt they did not have the experience to raise queens.

In percentage terms, training was requested by more keepers with one to nine colonies than any other group.

Proportionally, requests for financial assistance appeared to increase as the number of colonies kept increased.

Early Reflections

Respondents to the survey were mainly hobbyist beekeepers, with a small number of large-scale beekeepers and bee farmers taking part.

Most respondents were supportive of accreditation for those rearing queens; from this we can infer the desire for trusted suppliers who can meet certain standards attesting to the health and quality of queens. A follow-up question to the survey is: to what extent is this desire being met?

Most respondents were interested to know the heritage of their bees.

In terms of training, it is hugely heartening to see that beekeepers operating in all areas of the sector are embarking on training.

However, that over three-quarters of respondents felt more training and mentoring was needed to support their queen-rearing endeavours, coupled with the fact that 41 per cent of people in the survey said they did not have the experience to raise queens, suggests there is room within existing programmes for more to be done to meet this need.

There are also not many beekeepers that are part of queen rearing or bee improvement groups. Whether there is a place for such groups within the sector is something that could be considered further. Such groups often involve sharing best practice, equipment and breeding material and are seen by many as a means to foster improved techniques.

Next Steps

The working group's next task is to consider how we use these findings to develop a series of support measures for UK queen rearing. This is not without difficulty as there are differing views within the sector on how to achieve this, but at this early stage two areas stand out:

- the need for adequate training, and
- the need to support UK large-scale suppliers to increase output of home-reared queens.

These will be considered in more depth in the coming months and years, when the working group will attempt to turn ideas into practical solutions which increase the scale of queen rearing in this country.

In closing, we would like to thank all beekeepers for their continued engagement on this subject and we look forward to developing this area of the UK beekeeping sector further. □

Queen cells from a cell-raising colony (frame upturned)

Worker bees raising queen cells

