

A Year in the Life of the National Bee Unit's Apiaries: Part 2

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We conclude our look at the apiary work at the NBU

LAST MONTH (page 4) we looked at the apiary activities of the NBU at the beginning of the season. We conclude by considering the rest of the year.

HONEY PRODUCTION

The 2009 season was excellent for honey production and therefore incredibly hectic. In fact, the nectar flow was so strong we had difficulty keeping up and there was a frantic rush to make up more boxes when needed. Despite all of the early planning, this is an all-too-familiar situation for many beekeepers! We were very fortunate that, in and around Sand Hutton, winter and spring sowings of oilseed rape meant flowers were available as forage for four continuous months. Our bees also had access to a wide range of spring and summer flowers.

In order to keep on top of the inevitable increased risk of swarming, throughout the summer months we visited each colony once every 6–7 days, swarm-checking and supering to provide more space where needed. Some of the colonies ended up with 6–8 supers on top of a double brood-chambered Smith. Supers were cleared using clearer boards for 48 hours. Honey was then extracted as soon as possible to prevent it granulating. We averaged 40 kg of honey per hive, with our best-performing colony producing 120 kg. Although most of the honey probably originated from oilseed rape (and not spring flowers), we weren't complaining (except perhaps the exchange of a few words in the extraction room at 10 pm in the evening!). Oilseed rape can produce a very nice textured soft-set honey once bottled, easy to spread on toast and very easy to sell.

Supporting the Research Programme

One of our apiaries is dedicated to a residues study that requires us to collect honey samples regularly. May 2009 was the first sampling time-point and sampling then continued weekly throughout the season.

In July, the NBU hosted the annual National Diploma in Beekeeping course



National Bee Unit

The NBU home apiary in 2009. A very productive season!

Supporting the Training Programme

In July 2009, we hosted the National Diploma in Beekeeping Course (NDB), which took advantage of the skills of our staff, our facilities and access to the NBU colonies. We have helped the NDB run this course annually for the past 12 years. Training is something we enjoy doing a great deal and this course in particular as it lasts a week and you get to know people very well during that time.

THE END OF THE SEASON – AUGUST/SEPTEMBER/OCTOBER 2009

Preparing for the Winter

Together, the months of August and September arguably comprise the most critical time of year for honey bees because it is then that the colonies have to be really well prepared for winter. Proper preparation of colonies in the autumn has a considerable impact on their survival through the winter and subsequent productivity during the following season.

In 2009, as with every year, our preparations for the winter involved removing any remaining supers and queen excluders. This reduces the space inside the colonies and leaves just two brood chambers behind on each one, making it easier for the bees to maintain their temperature when the weather turns cold. It also moves the bees closer to the stores in the brood boxes.

We also applied one of the year's varroa treatments at the beginning of August. It is absolutely vital not to delay treatments. Treating in October will be too late as varroa and the accompanying viruses will have done too much damage to allow the colonies to survive into the



A healthy cluster of bees during the 2009 winter months

autumn/winter. All of the NBU colonies are regularly monitored for varroa so we know the mite population levels and can then treat accordingly. We use a combination of treatments throughout the year, as required, which include Apiguard, Apivar and oxalic acid in the winter, plus biotechnical methods, where we usually apply queen trapping and drone brood removal. The Apivar was obtained via a special import licence, under the 'cascade agreement' that allows use of certain products approved in the EU. More information about this can be found on the Veterinary Medicines Directorate website (www.vmd.gov.uk).

At the same time as we treated the colonies, varroa inserts were put into the varroa floors to monitor mite drop over the treatment period.

Late in the 2009 season we had extensive problems with robbing by wasps, the level of which surprised us, and the attacks went on well into November. We lost more to this cause than any other loss we have ever experienced in the time we have been in North Yorkshire (29 colonies killed or severely weakened).

At the end of September, we checked each of the colonies for stores and fed those that needed it with at least 10 litres of Ambrosia. We leave at least 25 kg of honey on each colony to be on the safe side. However, given the problems that we had encountered with marauding wasps, we continued to check and feed colonies throughout the winter.

In September 2009, we were pleased to welcome both Claire Waring and Ann Harman, editors of *Bee Craft* and *Bee Craft America*, respectively, to our home apiary. The bees behaved themselves and no-one was stung!

Apiary Maintenance

As the bees calmed down, work in the apiary maintenance facility building picked up. Over October and the following winter months, we started bottling a proportion of our extracted honey. We give our honey to the local farmers around Sand Hutton as a payment for accommodating our off-site apiaries. We also donate a proportion of our yield to charity events hosted at Sand Hutton.

One of the biggest jobs at this time of year is to clean all the hive parts; old frames and brood boxes brought in during the busier times of the season.

Routine hygiene practices include scraping away all the debris and old propolis from the boxes, queen excluders and floors, then sterilising the equipment using a blow torch. After this, we service and repair damaged equipment, disposing of any brood boxes beyond repair. Old frames are salvaged by melting out and filtering the wax debris. This salvaged wax was exchanged for new foundation for the 2010 season.

These are annual chores,



(above) The NBU apiary building at Fera, Sand Hutton

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(left) Protecting the colonies from woodpecker damage with wire mesh. The birds make holes in the thinnest part of the brood box to feed on the clustering bees inside



Oxalic acid application with a dosing gun (5 ml per occupied seam)

but well worth the effort to ensure a flying start at the beginning of next season.

THE WINTER MONTHS – NOVEMBER/DECEMBER 2009 – JANUARY/FEBRUARY 2010

Putting the Bees to Bed

As we have said, we overwinter our bees on double-brood boxes as this helps the bees to cluster naturally close to their honey stores. The bees tend to cluster mainly in the top box of each hive, leaving an air pocket in the bottom box. This allows the air to circulate better, which can act to lower the relative humidity, keep the hive dry and also provide a good gap between the cluster and cold external air. In addition, all of our hives are off the ground, on purpose-built hive stands.

Although this is the time of year when we ‘put our bees to bed’, it is important to note that at the NBU, colony inspections can be (and often are) still carried out throughout the winter. Opening a colony will not normally have a detrimental effect on the bees as long as the inspections are kept brief.

November is always a good time to tidy up the apiaries. In 2009, hedges and trees and excessive vegetation were trimmed back away from the colonies, particularly around the Apidea sites, which benefit from some shade during the summer season.

FURTHER INFORMATION

BeeBase is regularly updated with the latest news and information at: www.nationalbeeunit.com This website gives a great deal of information about the NBU and its work. There is also a general e-mail address: nbu@fera.gsi.gov.uk to which you can send any enquiries about honey bees. For enquiries regarding Bee Health Policy and Regulatory issues, please contact Bee Health at: beehealthinfo@fera.gsi.gov.uk

Over the winter, we also have to check our colonies for woodpecker feeding activities. Woodpeckers can be very damaging to honey bee colonies when bees are clustering, as the destruction they cause impedes the bees’ abilities to maintain a safe constant temperature. Bees are easy pickings for woodpeckers.

Fortunately, despite the long cold snap, only one of our apiaries was affected, although some of the holes produced were quite large. Every hive has now been protected with wire mesh.

The New Year

At the NBU apiary, the first job after Christmas was to treat all our colonies for varroa using oxalic acid, before brood-laying began. This is a key point in the NBU’s varroa control programme as it ensures that our bees start the active season with low levels of mites. As always, the oxalic acid was obtained under prescription from a vet. Please see the veterinary medicines directorate website (www.vmd.gov.uk) for more information.

Oxalic acid (4.5% solution) was administered to the colonies at 5 ml/occupied seam of bees, using a cattle-dosing gun/backpack storage device. Fresh varroa inserts were then put into the colonies’ varroa floors to monitor mite drop. During 2009, mite drop was very low (5–10 mites over 10 days). This almost certainly reflects the efficacy of the previous treatments applied in August/September 2009.

The last job in February 2010 was to make up the frames with foundation, make up nucleus colony boxes ready for the coming season and, of course, to hope for a good year!

We hope this has given an insight into how we use the NBU colonies and our beekeeping techniques. We also hope that 2010 will be a good year for all beekeepers and we’re looking forward with impatience and anticipation as we always do to another beekeeping year. This is why we all became beekeepers and we are all itching for spring to turn up. ♦

Over wintering colonies on the home apiary, 2010

