

Beekeeping

Make-up of a standard National beehive

An open mesh floor with hive entrance block on top of which sits the brood box/chamber where the queen lives and young bees are raised. Supers are placed on top of the brood chamber during the spring and summer months to give space for the bees to store their honey. A queen excluder is placed between the brood chamber and the supers above to prevent the queen laying eggs amongst the stored honey. A crown board tops off the hive assembly with a metal-clad roof on top to keep hive contents dry.

Life of a Bee

The queen bee lays eggs, up to 1000 a day at the height of the season. It takes 3 days for an egg to hatch into a larva. The larva stage lasts around six days during which they are fed copious amounts of food (pollen, nectar, etc.) by the house bees. Once the larva reaches its mature size, the cell is sealed and the larva pupates, emerging about 12 days later as a fully formed bee.

The emergent bee spends the next 3 weeks in the hive as a working house bee, feeding larvae and the queen, cleaning the hive and preparing the cells in which the queen will lay her eggs as well as storing the nectar brought in by the foraging bees to make honey.

After 3 weeks in the hive the worker bee graduates to become a foraging bee, spending the next 3 weeks collecting nectar, pollen water and propolis (tree sap).

A worker bee's life span is around 6 weeks during the summer season, but emergent bees in late autumn will live for up to 6 months through the winter when the colony is hive bound by the weather and a shortage of any forage.

The Beekeeper's Work

Regular hive inspections from late March until mid-November to check on the health of the colony as it builds up for the summer, to ensure they have enough food and space to accommodate the growing number of bees that make up the expanding colony. There can be as many as 60,000 adult bees at the height of the summer season in mid July. For inspections, the smoker is an essential part of the beekeeper's equipment; a few puffs of smoke into the hive before opening interrupts the bees' pheromone communication system (their Wi-Fi goes down!) and they are less likely to mount defensive attacks.

During the autumn months, the queen reduces her egg-laying rate as the days shorten and temperatures drop, reducing numbers from high summer down to about 10,000 bees in the hive to overwinter the colony. A careful check is made through the winter months to ensure the colony has sufficient food supplies to keep them healthy. An important part of maintaining the health of bee colonies is the monitoring and control of the varroa mites which are endemic in bee colonies throughout Europe. The mite numbers need to be kept low using approved treatments to prevent them compromising the colonies overall health. As well as the varroa mite monitoring and general disease control the beekeeper has a responsibility to ensure his colonies are free from 4 notifiable pests and diseases: European Foulbrood, American Foulbrood, Small Hive Beetle and another parasitic mite *Tropilaelaps*.

The RPA Apiary Area and Swarms

The beehives are surrounded by high trees meaning that the bees have to rise up as they leave the hives, flying above the adjacent plots to forage on and around the site. A main source of forage for the RPA bees is the lime tree blossom from the park's trees. Trees provide a significant supply of food sources for bees with abundant blossom in spring and early summer.

Swarming is an essential part of bee colony reproduction, often caused by colony over-crowding. The queen will be encouraged to leave the hive with a large proportion of flying bees in order to set up a new colony elsewhere. When swarming the bees are not aggressive, as they have no hive to defend while looking for a new home, but they can be rather intimidating.

What can we do?

Report swarm clusters to one of the beekeepers – contact information is posted on the RPA website and the Committee noticeboard during the swarming season. The beekeepers will come and collect the swarm cluster and move it into the apiary.

Limit or avoid the use of pesticides and herbicides.

If you do use, then follow the RPA guidance contained in the RPA Chemicals policy found in Regulations on the website.

Notes provided by: Jem Negus and Jenny Bourne