

About our bees

Honeybees are said to be in decline. In fact it had been thought that our native or Dark English bee was wiped out by Isle of Wight disease (Acarine) by the latter half of the twentieth century. Recent research has discovered that there are no known wild or feral honeybee colonies remaining in the UK and that, although a few ancient feral bee sites do remain, the bees populating them actually reflect the types of bees being kept by the local bee keepers. At Kings Orchard apiaries we have kept many of the different types of European honeybee, including the Italian yellow honeybee (*Apis mellifera ligusta*), the dark Carnolian honeybee (*A m carnica*), the little Greek honeybee (*A m cecropia*) and even the so-called “Buckfast” hybrid honeybee. This last has to be re-queened annually, often with imported queens, just to keep its temper!

We now keep New Zealand Italian honeybees, line bred for the last decade in our own Orchard and Meadow apiaries, which we have selected for productivity, good temper and disease resistance. The New Zealand Italian honeybee was taken to New Zealand by European settlers around 1860 and was re-imported to the UK about a century later. This gave the sub-species time to adapt to the South Island climate, said to be as variable as our weather here in the Tamar valley in Cornwall. We brought ours with us from the South Hams in Devon in 2010 and they have really flourished.





We also keep the rare Cornish Black honeybee, claimed by some to be extinct, but found very much alive in west Cornwall and on the Rame peninsula in east Cornwall. Breeding colonies have been sourced from bee keepers via the Bee Improvement Programme for Cornwall (BIPCo) and WCBBA and are now thriving in our isolated Deep Valley apiary on the banks of the river Lynher, where we are carrying out an extensive breeding programme. The Cornish Black honeybee is a dime of the European black bee *Apis mellifera mellifera*, that has survived along the whole of the west of the British Isles, Cornwall, west Wales, the Isle of Man and Ireland. The Northumbrian area has the biggest commercial bee keeper using only the black honeybee in the whole of the UK. Scotland has the only protected black honeybee population in Colonsay and to date this is Varroa free.

The Isle of Man, with its very own black honeybee, has a strict policy banning the importation of honeybees and is one of the very few places that has not been infested with the horrible pest Varroa (which was first discovered in 1992 in Cockington, just a short distance from Buckfast Abbey).

The Scilly Isles also do not have Varroa as it was populated with Hawaiian Italian honeybees prior to 1992.

Advances in molecular biology, in particular DNA analyses (micro-satellite/SNP), have given bee keepers the tools to differentiate between species where previously this could only be accomplished by extensive morphological measurements. We can now identify how much the native species has integrated with imported species, which may throw a light on how the native bee has evolved so quickly to cope with the viruses carried by imported bees and

spread by the Varroa mite. These viruses are now decimating imported bee species and may be the underlying cause of Colony Collapse Disorder.

At Kings Orchard we combat Varroa with thymol and other aromatic herb extracts and vapourise with oxalic acid (found in rhubarb). We treat for both Varroa and Nosema (another honeybee disease) after the honey harvest is over in the autumn. Following the autumn feed of sugar syrup to boost their winter stores, the hives are shut up and the bees are left undisturbed until spring.

Our beehives are scattered across quite a large part of the Tamar valley.

We are very proud of our bees. Honeybees are one of the many insect pollinators of our fruit crops. It seems that, along with bumblebees, the population has been in decline over the last few decades. Habitat loss, use of pesticides and climate change may all be playing their part, however I think the decline in honeybees may be due to the decline in the number of beekeepers! Three years ago a number of local beekeepers got together to form a new Branch of the Cornwall Beekeepers Association called the Kit Hill group.

Experienced beekeepers are helping new beekeepers to overcome the sometimes quite daunting problems that our charges present us with. At Kings Orchard we have been refining our own strain of Cornish Native honeybee for the last five years, selectively breeding for good temper, low swarming tendency, frugality with winter stores and prolific honey production. By raising our own queens locally we have not added to the number of bees imported into the UK annually and the propensity of bringing in bee viruses that are spread by the dreadful Varroa mite.



We also breed the Cornish black bee... the endemic bee to these islands since the last ice age and first mass importation of bees from Europe in the 1850s... and it may even be the solution to Varroa as they seem to be showing a natural resistance.