

## **Surrey Beekeepers' Association AGM 2020 – BDI report**

### **Brood diseases**

In the last 10 years, the incidences of AFB in Surrey are as follows: Weybridge 10, Leatherhead 1, Staines 5, Godalming 7, Epsom & Sutton 1 and Farnham 1

In the last 10 years, the incidences of EFB in Surrey are as follows: Weybridge 32, Reigate & Horley 7, Caterham & Oxted 3, Croydon 10, Leatherhead 6, Kingston & Esher 40, SW London 1, Godalming 61, Haslemere 14, Dorking 24, Smallfield 20, Cranleigh 8, Reigate & Banstead 39, Guildford & Woking 120, Epsom & Sutton 24, Farnham 11,

In the last two years, particularly the trends for both AFB and EFB have been increasing particularly in Eastern and South-east England as reported by the National Bee Unit (NBU)

A two-year pilot trial to encourage the use of whole apiary shook swarm as a means of reducing re-occurrences of EFB is being trialled as a joint initiative by Bee Diseases Insurance Ltd (BDI) and the NBU during 2021 and 2022 – the start has been delayed 12 months due to Covid-19.

### **Adult bee diseases**

There are a number of bee diseases that affect adult bees, including nosema (two species currently known to affect honey bees *Nosema apis*, *Nosema ceranae*), amoeba, acarine (caused by tracheal mites, *Acarapis woodi*).

Honey bees are also subject to infection from a range of different viruses which vary in the severity of symptoms and incidence. All viruses have the potential to cause harm but many viruses associated with Varroa can be controlled if mite populations in a colony are also controlled.

Viruses can attack at different developing stages and castes of honey bees, including eggs, larvae, pupae, adult worker bees, adult drones, and queens. Although bee viruses usually persist as inapparent infections and cause no overt signs of disease, they can dramatically affect honey bee health and shorten the lives of infected bees under certain conditions. For example significant infestations of colonies with the *Varroa* mite (*Varroa destructor*) and its association with Deformed wing virus (DWV) can seriously harm the health and productivity of honey bees.

Many viruses can infect honey bees but six viruses are commonly recorded around the globe: Deformed wing virus (DWV), Black queen cell virus (BQCV), Sacbrood virus (SBV), Kashmir bee virus (KBV), Acute bee paralysis virus (ABPV), and Chronic bee paralysis virus (CBPV). Note that for the UK, KBV incidence is very low and Israeli Acute Paralysis virus (IAPV) has not been detected despite the completion of very large scale apiary surveys.

### **Exotic diseases**

Small hive beetle (SHB), *Aethina tumida*, is an invasive species originating from Africa which has proved to be a serious pest of honeybee in the USA and Australia. So far, not known to exist in UK.

There are currently four species of *Tropilaelaps* mites. Of these only two (*Tropilaelaps clareae* and *Tropilaelaps mercedesae*) are considered serious mite threats to the Western honey bee *Apis mellifera* and both are economically damaging pests throughout Asia. The potential effects of climate change and the risks this represents for establishment of these pests in the UK are being studied at the NBU. So far, not known to exist in UK.