

# Will Asian hornets be back this autumn?



Bayer's Richard Moseley

## What to do if you find Asian hornets

**Any sightings must be reported immediately.**

The best way to report a sighting is by using the *Asian Hornet Watch* app. Launched this March both iPhone and android versions are available.

Alternatively you can email [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk),

or fill in the the online form at [www.brc.ac.uk/risc/alert.php?species=asian\\_hornet](http://www.brc.ac.uk/risc/alert.php?species=asian_hornet)

**Even professional pest controllers must not attempt to deal with an outbreak until permission has been granted by Defra and The Animal and Plant Health Agency (APHA).**

The first UK sighting of an Asian hornet nest was confirmed by the Department for Environment Food & Rural Affairs (Defra) in Gloucestershire last September with further activity in the Channel Islands. So there's clearly a chance that the pests could return this autumn. Pest professionals are being urged to be vigilant and report any case immediately but also to remember that they are currently not authorised to treat this invasive species. Richard Moseley, Bayer technical manager reviews the situation.

Asian hornets, *Vespa velutina*, hover outside honeybee colonies and prey on bees picking them off, one by one, as they return to the hive. Captured bees are decapitated, the abdomen removed and the protein filled thorax then fed to the hornets' larvae.

Asian hornets can also act like a barricade to the bee hive, stopping the bees from leaving and so weakening the population that the hornets can potentially enter the hive and attack the bees in it.

Not only does this cause a problem for commercial bee keeping, but it also upsets the ecological pollinating role provided by bees. As Europe has seen a decline in bee numbers in recent years, it is important to protect them from these vicious predators.

### Detection

There are a few indicators that can help confirm whether it's a case of Asian hornets:

- Asian hornet nests can be considerably larger than a standard wasp nest;
- The nests are also often very high up in trees, but can also be found in buildings;
- While wasps enter from the bottom of the nest, Asian hornets entry points are around the sides of the nest;

- The Asian hornet is bigger than a wasp, but smaller than a European hornet;
- They have an entirely dark thorax, a dark abdomen with a bright yellow/orange band on the fourth segment and yellow tipped legs.

### Lifecycle

The Asian hornet life cycle begins in the spring. As temperatures rise fertile queens begin building small nests in which to lay and protect their eggs.

Unlike European hornets, each nest can contain multiple queens. Whereas a European hornet nest will have just one queen laying up to 50 eggs a day, an Asian hornet nest can have many queens, each laying up to 50 eggs a day. When the nest becomes too big or is disturbed the queens disperse and you then have multiple nests. Worker hornets live for up to 55 days and, in one season, a colony will produce on average 6,000 individuals.

Between August and October, the fertilised queens will leave their nests to find secluded places to over-winter ready to create new populations the following spring.

One of the main concerns when the nest was found in the UK last September was that fertilised queens might have already left the nest before it was destroyed and be over-wintering without anybody noticing them.

### Treatment

When the sighting last year in Tetbury, Gloucestershire was confirmed and the nest site discovered, the APHA and Defra approached Bayer for guidance on an appropriate insecticide to effectively treat Asian hornets in the nest. Ficam D, was the product selected and APHA liaised with Bayer on several occasions when planning the treatment to ensure that this was the most



suitable product for the target species. The dust formula is ordinarily used to treat wasps and ants, as well as a wide range of other crawling and flying insects. It is designed to penetrate voids and spread within nests, being transferred around the nest by the insects, without irritation, making them less aggressive to the applicator.

### The future

Asian hornets are currently a reportable pest, but there are concerns in the industry that last year's outbreak was simply the 'tip

of the iceberg'. There is a chance that we could see these hornets becoming as widespread in the UK as they are already in France.

It is not hard for the insects to enter the UK from Europe. Asian hornets could potentially fly, or be blown, over the English Channel, or they come across with tourists, especially those with caravans or tents, where there are lots of crevices for them to hide in.

The movement of goods such as timber via train or road haulage could also easily

introduce hornets if they are harbouring in the stored items.

### Frontline role

Because of this, it wouldn't be a surprise if Asian hornets become a common sight in the UK in the future. If their population becomes too high for Defra and the AHPA alone to control them, professional pest controllers may be authorised to take action. However, further training and better awareness may be required before pest professionals find themselves on the frontline.



At first the nests were always found high up in tree tops...



... but now they are found inside attics, garages and other buildings



Treating a nest with bendiocarb



One less nest to worry about!

## French lessons

Robert Moon has been living in France since 2006. He is the only Brit to hold the French diploma in pest control. Robert, who trades as Applicateur 3D, has been treating Asian hornets in central France since 2014. Here he shares his experience with us.

When the Asian hornet arrived, allegedly via a shipment from Shanghai to Bordeaux in 2004, there were a few sightings in and around the port. Each sighting had to be reported to the authorities with destruction of Asian hornet nests being the sole responsibility of the Pompiers (Fire service). Since then the Asian hornet has spread throughout France and its control is now handled by pest professionals.

In 2014 Robert treated just six Asian hornet nests, but 12 months later, he reports that he dealt with over 200 nests. "In 2016 there was a slight decline but that was probably weather related," he says.

"The queen comes out of hibernation in late spring and begins to construct the nest. When there are sufficient hornets to sustain the nest, further queens are produced. A large colony can have many queens in one nest – some say up to 50 queens, others say up to 1,500; such high numbers have not been proven – so I'll stick with up to 50."

Robert told us that they are adapting well to their life in France, originally constructing nests between 20 and 30 metres up in the tree canopy but now also found in garages, attics and stone walls. Their spread throughout France has been monumentally rapid and there are two main reasons for this success:

- First is their ability to have many sovereigns in one nest. These queens can quickly disperse when the nest becomes overcrowded or is disturbed;
- Secondly they are active for much longer in the year than wasps and European hornets. "I have treated live nests in December," says Robert.

Asian hornet nests in trees are usually detected in the autumn when the leaves have fallen and the beach ball shaped nests revealed.

"Unfortunately in France there was a lot of ignorance about how to deal with this new invasive species. To begin with farmers, not wanting to pay for nest destruction, would take it upon themselves to blast them out of the trees with a shotgun – a great way to disperse the queens. Now there is a concerted effort to eradicate them. In our commune, all nests are declared to the Police Municipale, who then contact me to do the necessary.

"I have invested in a telescopic pole, reaching to 20 metres, this enables me to access nests without the need of specialist climbing equipment. From ground level and using bendiocarb I can destroy the hornets within the nest without dispersing them," concludes Robert.



Robert Moon has plenty of experience controlling Asian hornets in France