

## **Senate Standing Committee on Rural and Regional Affairs and Transport**

### **Inquiry into the Adequacy of Australia's biosecurity measures and response preparedness, in particular with respect to foot-and-mouth disease**

#### **Question taken on notice**

#### **HANSARD excerpt (Page 5)**

**Senator COLBECK:** I was going to ask the same question in relation to the importation of the virus and you have covered that well. I will go to varroa, which is the other key element of what we have been looking at. Your submission talks about key locations and ports, and about our capacity to improve surveillance measures. It is pretty clear that the infection that was discovered was a secondary event in the sentinel hive. It has been put to me by those in the beekeeping sector that you are more likely to find the primary site in, say, a baited trap hive rather than in a sentinel hive because a group of bees is not likely to go into an occupied hive but more likely to go into one that is not. A baited-trap hive could be monitored electronically, which would also give you some capacity for remote detection. Do you have any sense of the balance that we have at the moment? We do have, as you say in your submission, four to six hives at each port. What's the balance of sentinel versus trap in detecting these sorts of incursions and how might we improve that?

**Dr Sathyamurthy:** I'll take parts of that question on notice to get a bit more information back to you, but, specifically, a combination of both of those could be useful. The Current National Bee Pest Surveillance Program, as you're aware, is largely managed through the department and Plant Health Australia. There are distinct advantages with those catch boxes or remote surveillance

#### **CSIRO Response**

The Commonwealth's Department of Agriculture Fisheries and Forestry (DAFF) and Plant Health Australia (PHA) are best placed to address this question taken on notice, but the following are some general perspectives on which CSIRO is able to offer input.

Both sentinel hives and catchboxes, including remote surveillance catchboxes, are key components of the National Bee Pest Surveillance Program (NBPSP) which is managed by Plant Health Australia. Remote catchboxes are gradually increasing in number, for example use of remote catchboxes in the NBPSP increased from 0 in 2016 to 23 in 2021 (Taylor 2022).

We are not aware of any evidence that suggests that one is more effective than the other at detecting bee pests including Varroa mite. It is important to bear in mind that sentinel hives and catchboxes have slightly different roles in the NBPSP. The role of sentinel hives is to pick up diseases from both feral honey bees, i.e. bees already present in the landscape, and exotic honey bees, i.e. those that may have come off vessels at a port. Catchboxes serve to detect multiple bee species, including other exotic bees like the Asian honey bee. However, they can be colonised by feral honey bees that are resident in the environment.

#### **References:**

Taylor, S. 2022. Enhanced National Bee Pest Surveillance Program (MT16005), Hort Innovation Australia, North Sydney.