

# Managing beehives exposed to floodwater

### **General information**

- Beehives can be seriously damaged during flood events, including by exposure to floodwater, which may contain sewage, oil, chemicals and other contaminants.
- Flood events often increase the amount and intensity of hive problems such as small hive beetle infestation and pathogens of bees.
- The apiary site should be assessed as soon as possible after a flood event and the appropriate action taken to deal with or dispose of flood affected hives.
- Use personal protective equipment designed for dealing with contaminants and other hazards, particularly when securing or disposing of flood affected hives.
- Hives must be secured and made bee proof as soon as possible to prevent access by robber bees until they are either cleaned, sterilised or destroyed, as appropriate.
- Apiary products (honey, beeswax, propolis pollen etc.) from flood affected hives pose risks to both human and bee health and must be safely disposed of to prevent product entering the human food chain.



Flood affected hives

Photo: John Jackson

## **Destruction and disposal**

 Contaminated hives, or parts of a hive (including frames, combs, honey or beeswax) that are beyond repair or salvage, should be disposed of by burning and the ashes buried to a depth of at least 30cm to prevent bees foraging on any residual wax and honey.

## Reclaiming hive boxes and apiary equipment

- Hives, or parts of a hive that can be repaired or salvaged, should be cleaned by removing all wax, washing, rinsing and drying as detailed below.
- Hives and contents that are suspected of being contaminated by bee pathogens or are infested by bee pests such as small hive beetle can be sterilised by gamma irradiation.

### **Hive boxes and external equipment**

- Hive boxes, queen excluders and hive stands (including metal equipment) should be cleaned to remove any residual wax, washed with soapy water, rinsed thoroughly in clean water, and dried before reuse, by:
  - 1. Removing wax/propolis/grime with a scraper or stiff brush.
  - 2. Rinsing hive boxes and equipment with clean water and soaking/immersion in warm soapy water before scrubbing thoroughly.
  - 3. Rinsing with clean water and allowing to dry.
  - 4. Repeating steps 2 and 3 until all residual odours are gone.
- Exposure of hive boxes and equipment to sunlight during the drying process can help to reduce drying time and helps to remove odours.
- Plastic components (including plastic brood boxes) may be cleaned in the same way as plastic frames above.
- Cleaned timber hive boxes may benefit from repainting before reuse.
- Ensure that hive boxes are appropriately marked with a Hive Identification Number (HIN) before reuse.

## Frames (wooden/plastic)

- Wooden frames should be cleaned by:
  - Completely removing all wax. Wired timber frames with wax foundation should be steamed or immersed in boiling water (possibly on two separate occasions) to bring them back to clean timber.
  - 2. Thoroughly wash frames in warm soapy water to remove any remaining residues.
  - 3. Rinse frames in clean water and allow to dry completely, this may take several days.
  - 4. Severely affected wooden frames may also require irradiation to prevent future problems, especially if disease risk is suspected.
  - 5. Contaminated wax should be disposed of appropriately by burning and/or burial to a depth of 30 cm.
- Plastic frames should be cleaned by:
  - 1. Scraping wax back to the plastic.
  - 2. Rinse frames in freshwater and thoroughly wash using a pressure washer.
  - 3. Wash in warm soapy water, thoroughly rinsed in clean water, and allowed to dry completely.
  - 4. Contaminated plastic frames may also require irradiation.
  - 5. Contaminated wax should be disposed of appropriately by burning and/or burial to a depth of 30 cm.

Remember to update your details as a registrable biosecurity entity if they have changed using the online portal here

For more information, call us on 13 25 23 or email: <a href="mailto:Bee.Biosecurity@daf.qld.gov.au">Bee.Biosecurity@daf.qld.gov.au</a>
You can also visit <a href="mailto:www.biosecurity.gld.gov.au">www.biosecurity.gld.gov.au</a>









