Commercial apiary industry biosecurity management in NSW

Operation Unite | Sunraysia apiary pollination inspections 2018

Purpose
The Sunraysia region on the border of NSW and Victoria has a large commercial almond industry. Each year the industry relies on apiarists to assist with the pollination of trees to produce summer fruit.

This pollination event sees approximately 100,000 hives from NSW, Victoria, South Australian and Queensland coming into the area to participate in pollination. The convergence of such a large number of hives could increase the biosecurity risks to those participating in the event, with weak or poorly managed hives presenting as potential source of pests and disease.

Operation Unite was carried out jointly the NSW Department of Primary Industries (DPI) Biosecurity & Food Safety Compliance officers and Agriculture Victoria Compliance officers.

The operation was developed to unite bee brokers, interstate apiary inspectors and Bee Biosecurity Officers (BBOs) to assess the biosecurity risk of beekeeper’s bringing weak and diseased hives to this intensive pollination event.

Background
Weak and diseased beehives have the potential to be robbed by healthy bees. This increases the risk of brood diseases, such as American Foul Brood (AFB), spreading to other hives located within flight range. This may have a significant impact on the productivity of the NSW apiary industry.

The Biosecurity Act 2015 and the Biosecurity Regulation 2017 allows DPI to take compliance and enforcement action against beekeepers to ensure biosecurity threats are managed and risks are mitigated against their general biosecurity duty.

This operation aimed to raise awareness, provide education and undertake enforcement action where appropriate against NSW beekeepers that posed a biosecurity risk to other apiarists.

What we did
The purpose of the operation was to inspect live bee colonies for notifiable contagious brood diseases and to take appropriate compliance action if and diseases where identified.

In August 2018, a total of 273 brood inspections were carried out on NSW
beekeeper’s hives in 13 locations within NSW and Victoria as outlined below:

<table>
<thead>
<tr>
<th>Locality</th>
<th>Apiaries</th>
<th>Number of hives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bunargool</td>
<td>2</td>
<td>600</td>
</tr>
<tr>
<td>Toolebuc Farms</td>
<td>3</td>
<td>604</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td><strong>5</strong></td>
<td><strong>1,204</strong></td>
</tr>
<tr>
<td>Anuella</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td>Boundary Bend</td>
<td>2</td>
<td>261</td>
</tr>
<tr>
<td>Lake Powell</td>
<td>3</td>
<td>272</td>
</tr>
<tr>
<td>Wemen</td>
<td>2</td>
<td>344</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td><strong>8</strong></td>
<td><strong>1,277</strong></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>13</strong></td>
<td><strong>2,481</strong></td>
</tr>
</tbody>
</table>

Of the 102,000 hives at the pollination event, 71,000 were owned by NSW apiarists.

**Key biosecurity indicators**

Biosecurity and Food Safety Compliance officers assessed the following key biosecurity indicators during on-site inspections to determine if there was a biosecurity risk present:

- Was there any evidence of disease or pests present during the brood inspection (exotic or endemic)?
- Did the weak or diseased hives pose a biosecurity risk to surrounding apiarist’s hives?
- Where surrounding apiaries in a state of neglect, or were they being managed appropriately to minimise and manage a biosecurity risk?

Following inspection, as shown in the image below, apiaries where deemed as either posing or not posing a biosecurity risk.

**What we found**

**Inspection results**

Of the 13 apiaries inspected:

- 11 (84%) posed no biosecurity risk;
- 2 (16%) posed a significant biosecurity risk.

The majority of apiaries inspected were not deemed to pose a biosecurity risk due to the following reasons:

- biosecurity risks were appropriately managed;
- a management plan was already in place; E.g. the weak hives inspected on a previous audit by the broker were moved to a location that posed no risk to surrounding apiaries;
- weak hives were made bee proof and did not require intervention.

**Compliance and enforcement action**

The two (2) apiaries identified as posing a significant biosecurity risk were located within Victoria. Agriculture Victoria Apiary Inspectors were responsible for the enforcement action under their jurisdiction, which included the destruction of approximately 80 hives.

Another six (6) apiaries were found not to be complying with administrative requirements (e.g. notification, hive identification).

The following action was taken in relation to these non-compliances.
<table>
<thead>
<tr>
<th>Action/Sanction issued</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biosecurity Direction</td>
<td>2</td>
</tr>
<tr>
<td>Written warning</td>
<td>2</td>
</tr>
<tr>
<td>Penalty notices</td>
<td>2</td>
</tr>
</tbody>
</table>

**Strategies to manage biosecurity risk**

Biosecurity and Food Safety Compliance officers proposed the following strategies to owners of the apiaries identified as posing a biosecurity risk in a bid to mitigate these risks: e.g.

- ongoing disease surveillance programs;
- regular suspect brood sample and honey tests;
- removing and culling weak hives from loads going to pollination events;
- compilation of management plans with DPI’s Bee Biosecurity Officer (BBO);

**Reasons for neglecting apiaries**

Inspections revealed that the most common reasons for beekeepers to neglect their apiaries were:

- poor management practices,
- financial issues, and
- succession issues

**Taking remedial action**

The image below shows the remedial action of bee proofing as a hive was found dead in the apiary. Bee proofing in the field helps to eliminate the risk of robbing, minimising the potential of disease transmission.

**Outcomes**

Operation Unite was successful in identifying and minimising or eliminating several biosecurity risks associated with notifiable apiary diseases. It was also successful in bringing together the efforts of the NSW DPI and Agriculture Victoria.

Inspections by DPI provided sufficient motivation for work to be undertaken by apiarists to satisfy the requirements of minimising a biosecurity risk. In other cases, enforcement sanctions were issued to assist in addressing biosecurity risks.

The operation raised awareness within the states involved of the need to continue to mitigate biosecurity risks in relation to pollination activities. Commercial apiarists subject to inspections now have better understand the requirements in relation to the *Biosecurity Act 2015* and their general biosecurity duty.

**Next steps**

As part of the ongoing strategy to manage notifiable apiary disease, DPI will undertake future operations to support regular surveillance activities undertaken by the local compliance staff.

**More information**

For further information visit: https://www.dpi.nsw.gov.au/biosecurity

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**Disclaimer:** The information contained in this publication is based on knowledge and understanding at the time of writing (December 2018). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user’s independent adviser.