

AUSTRALIA'S HONEY BEE BIOSECURITY & SURVEILLANCE PROGRAMS

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Improving national biosecurity outcomes through partnerships



Plant biosecurity system

Protecting agriculture and the environment



Plant Health Australia

Fostering partnerships to work collaboratively to strengthen Australia's biosecurity system

- Co-ordinate strong partnerships that minimise pest impacts, boosting industry productivity and profitability while enhancing market access.
- Bringing together plant industry stakeholders to share biosecurity responsibility.
- Biosecurity partnerships = producers, governments & the wider community.
- Not-for-profit company to service our 58 members.



Improving national biosecurity outcomes through partnerships for 21 years



Why plants & bees



- Manager, Bee Biosecurity and Surveillance
- Coordination of national industry and Government programs aimed at safeguarding Australia's honey bee industry
- Fortunate to work with animal biosecurity and plant biosecurity divisions within all Australian governments



National Bee Pest Surveillance Program

Safeguarding industries

- Aims to early detect the arrival of new pest/diseases before they have the chance to establish and spread widely.
- Joint-funding = pollination-reliant industries, honey bee industry and the Australian Government.



Operations

- At least 20 government staff + 25 beekeepers involved.
- Operates at the 32 high risk locations.
- Targets **18 (including European honey bees) pests and diseases.**



Achievements from 2016 to 2021

	2016	2021
Sentinel hives	123	172
Rainbow bee-eater locations	0	2
Standard catchboxes	53	210
Remote catchboxes	0	28
Floral sweep netting locations	13	21

- ❖ At least 28,000 surveillance records
- ❖ 27,715 total absences
- ❖ 293 total records for the presence of established pests

National Bee Biosecurity Program

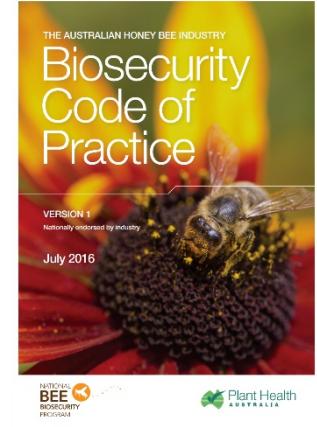
Preparing the industry

- Industry consists of 30,000 registered beekeepers.
- Around 669,000 hives.
- Mostly hobbyists in urban areas.
- Almond industry hires at least 270,000 hives.
- Honey bee industry produces between 20,000 and 30,000 tonnes of honey annually.
- Top ten honey producing countries in the world.



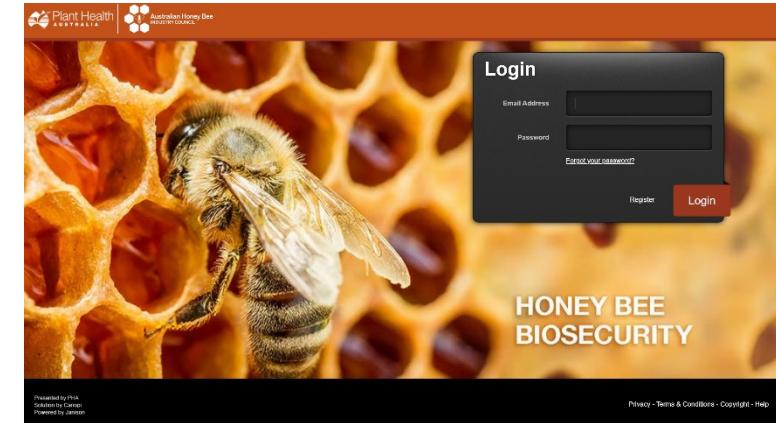
National Bee Biosecurity Program

- The Australian Honey Bee Industry Biosecurity Code of Practice.
- Improve the management of established pests and diseases.
- Bee Biosecurity Officers
 - Providing training
 - Education and resources
 - Biosecurity obligations
 - Code compliance



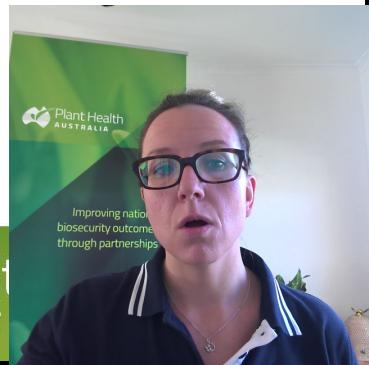
Program training

- **Biosecurity for Beekeepers** OnLine Training
 - Why biosecurity is important
 - Describes the main pest threats to bees
 - Shows how to check hives for signs of pests and diseases.
- Training (every 3 years) is a requirement.
- Since course available
 - 3,080 completed
 - 1,636 new enrolments



Where to next

- Planning the next National Bee Pest Surveillance Program



Where to next

- Planning the next National Bee Pest Surveillance Program
- Improving our smart surveillance technologies



Where to next

- Planning the next National Bee Pest Surveillance Program
- Improving our smart surveillance technologies
- Improving diagnostics
 - exotic virus diagnostics & development of National Diagnostic Protocol
 - Molecular tests for detection multiple targets
 - Rapid field diagnostic tools
 - eDNA



Where to next

- Planning the next National Bee Pest Surveillance Program
- Improving our smart surveillance technologies
- Improving diagnostics
- Improving our real time data collection

QP301 - Milestone 36 27/07/2021 - 07/09/2021 REQUEST EXTENSION FINALISE MILESTONE

Milestone > Port of Townsville

Port surveillance Yes CHANGE Port marked complete ADD SWARM COLLECTION

Collection	Latitude	Longitude	Status	Action
Remote Catchbox RCTv06	-19.215921	146.857425	Complete	VIEW →
Remote Catchbox RCTv18	-19.262129	146.855313	Complete	VIEW →
Standard Catchbox SCTv01	-19.265600	146.836810	Complete	VIEW →
Standard Catchbox SCTv02	-19.265420	146.837893	Complete	VIEW →
Standard Catchbox SCTv03	-19.248960	146.837930	Complete	VIEW →
Standard Catchbox SCTv04	-19.249880	146.838993	Complete	VIEW →

Program Dashboard: National Bee Pest Surveillance Program

Filters: Surveillance date, Pest, Any

Pest	Common name	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	NA
Acarapis woodi	Tracheal mite	12	194	43	108	15	22	21	85	
Acute Bee Paralysis Virus	Acute Bee Paralysis Virus	38	195	18	118	79	14	21	35	1
Aethina tumida	Small Hive Beetle	50	27	208	79	215	136	443		
Apaletta	Asian honey bee	187	473	59	784	138	8	5	20	
Apaletta	Giardia varroae	20	71	28	120	81	7	3	19	
Apaletta	The Trig Bee	20	71	28	120	84	9	3	19	
Apaletta	European honey bee	187	473	69	782	148	9	5	20	
Bombylius major	Large Leaf Bumble Bee	20	71	28	92	73	6	3	18	
Brouardella	Bee fly	131	650	79	895	252	21C	204	452	
Dolichoderus	Dolichoderus	38	195	18	118	79	14	21	35	1
Dolichoderus	Dolichoderus Virus - A	39	190	9	118	83	14	21	35	
Dolichoderus	Dolichoderus Virus - B	39	190	9	118	83	14	21	35	
Opetiota	Large American honey bee	64	392	72	533	218	93	130	226	
Slow Bee Paralysis Virus + Herp	Slow Bee Paralysis Virus + Herp	38	195	18	118	88	14	21	35	
Slow Bee Paralysis	Slow Bee Paralysis	39	195	18	118	84	14	21	35	

All data points loaded



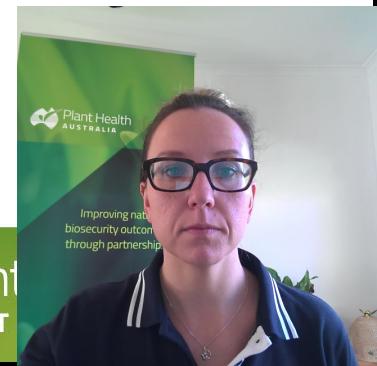
Where to next

- Planning the next National Bee Pest Surveillance Program
- Improving our smart surveillance technologies
- Improving diagnostics
- Improving our real time data collection
- Development of a targeted National Sugar Shake & American Foulbrood Programs



Further information

- Australia's plant biosecurity system and information on our work with the Australian honey bee industry
 - <https://www.planthealthaustralia.com.au/national-programs/national-plant-biosecurity-status-report/>
 - <https://animalhealthaustralia.com.au/industry-publications/>
- Information on the bee biosecurity and surveillance programs
 - <https://www.planthealthaustralia.com.au/national-programs/honey-bees/>
- *Biosecurity for Beekeepers* online course
 - <https://beeaware.org.au/training/>
 - Contact Plant Health Australia
- Further resources and information
 - <https://beeaware.org.au/>
 - <https://www.biosecurity.gov.au/individual/beekeeper>





Plant Health
AUSTRALIA

21
years