



Australian Government

AHCBEK313 Manage pests and disease within a honey bee colony

Release: 1

AHCBEK313 Manage pests and disease within a honey bee colony

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0.

Application

This unit of competency describes the skills and knowledge required to inspect a honey bee colony for indicators of disease or evidence of pests, and take appropriate follow-up action.

The unit applies to beekeepers who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection, allocation and use of available resources.

State and territory legislation, regulations and local government by-laws apply in some jurisdictions to beehive ownership, compliance with biosecurity codes of practice and notifiable pests and diseases.

Pre-requisite Unit

Nil

Unit Sector

Beekeeping (BEK)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to check honey bee colony	1.1 Identify health and safety in the workplace hazards associated with opening and inspecting a hive and take actions to minimise risk 1.2 Select, fit and use suitable personal protective equipment 1.3 Select and use tools and equipment for opening and inspecting a hive

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Inspect hive and identify possible pests diseases and poor health	2.1 Inspect flight paths around hive entrance for evidence of poor health of adult bees 2.2 Inspect the outside of hive for signs of diseased brood 2.3 Open the hive and inspect colony for signs and symptoms of poor health, pests and disease 2.4 Identify and record possible poor health, disease or pests according to signs and symptoms
3. Undertake field diagnosis procedures	3.1 Collect samples for testing and gather evidence to help with diagnosis according to symptoms and industry standards 3.2 Conduct field diagnosis procedures appropriate for the pest or disease to identify likely cause 3.3 Collect, secure and label samples for transport to specialist for confirmation 3.4 Communicate with specialist to ascertain pest or disease identity 3.5 Report notifiable pests and diseases to authorities
4. Implement biosecurity and treatment measures	4.1 Identify biosecurity control measures and treatments for identified pest or disease 4.2 Implement biosecurity measures or treatments to rectify pests or diseases according to treatment product label, workplace procedures and biosecurity code of practice 4.3 Monitor the impact of control measures and treatments
5. Monitor treatments and maintain records	5.1 Review the effectiveness of control measures and treatments 5.2 Record results of inspections and remedial actions taken 5.3 Maintain records for future beekeeping operations

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Writing	Complete workplace documentation using appropriate terminology and in required format
Oral communication	Clearly explain detailed information using language, tone and pace appropriate to audience
Numeracy	- Interpret numerical information from product labels - Calculate weight, volume and area for pest treatments
Navigate the world of work	Takes responsibility for following policies, procedures and industry codes of practice
Interact with others	Selects and uses appropriate conventions and protocols when communicating with specialists for pests and disease diagnosis
Get the work done	Takes responsibility for planning, sequencing and prioritising tasks and workload

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCBEK313 Manage pests and disease within a honey bee colony	AHCBEK306 Manage pests and disease within a honey bee colony	Changes and additions to Elements and Performance Criteria for clarity Biosecurity content increased	No equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBEK313 Manage pests and disease within a honey bee colony

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that on at least one occasion the individual has demonstrated an ability to manage pests and diseases that affect brood and adult bees including:

- selected and ensured serviceability of tools and equipment for opening and checking hives
- identified health and safety in the workplace hazards and risks and implemented control measures when working around bees
- selected, fitted and used appropriate personal protective equipment (PPE)
- conducted inspections to hive to assess general health and condition of brood and adult honey bees and identified signs and symptoms of disease and pests that affect brood or adult honey bees
- collected samples and conducted field diagnosis following workplace procedures and industry standards
- labelled and secured samples for dispatch to specialist and confirmed diagnosis and reported notifiable diseases
- identified and implemented appropriate treatments and biosecurity measures to control pests and diseases
- monitored, reviewed and recorded outcomes of treatments for future beekeeping operations.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles and practices of disease management within a honey bee colony
- pests and diseases of bees including common and notifiable species, including:
 - mechanism for infection/infestation
 - level of risk to bees and beekeeping industry
 - biological processes relevant to infection and control

- hive inspection procedures and recording pests and disease observations
- identification of pests diseases, including:
 - signs and symptoms
 - field diagnosis techniques
 - collecting, labelling and sending samples for specialist diagnosis
 - immune detection kits
- types of samples and procedures, including:
 - adults
 - brood
 - honey
 - comb
- legislative and biosecurity standards for pests and diseases control and notification for Australian apiaries including procedures for reporting
- tools, equipment, materials and safe handling procedures when manipulating hive components and taking samples
- hazards and risks when working with bees and collecting pests and disease samples
- hygiene and sanitation practices for tools and equipment
- biosecurity procedures for pests and diseases of honey bees, including:
 - barrier systems
 - isolation
 - quarantine
 - frame rotation
- treatment of contaminated hive components, including:
 - burning and burial
 - sterilisation and irradiation
 - dipping treatments (e.g. hot wax or caustic dips)
 - scorching
- hive health, pests and disease control
- treatments for specific pest and diseases, including:
 - chemicals, types and application methods
 - antibiotics and prescription treatments
 - environmental treatments
- procedures for monitoring and reviewing treatments
- record keeping for pests and diseases including mandatory and workplace documents.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - an active aviary or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- live bees
- hive management tools
- treatments appropriate to pests or diseases
- equipment and materials required for field diagnosis activities
- PPE
- inert samples or representations of bee pests and diseases
- specifications:
 - workplace procedures for managing pests and diseases within a honey bee colony
 - safety data sheets for pest and disease treatments
 - access to specific legislation and codes of practice relevant to biosecurity and mandatory reporting
- relationships:
 - • specialists in honey bee pest and disease diagnosis.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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