



Australian Government

AHCBEK303 Re-queen a honey bee colony

Release: 2

AHCBEK303 Re-queen a honey bee colony

Modification History

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0.
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to locate and remove a queen from a hive and introduce a new queen into an existing honey bee colony.

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 and to solve problems.

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

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. Identify requirements for re-queening a colony	1.1 Assess the current queen performance against workplace specifications 1.2 Monitor colony for signs that indicate queen replacement is necessary 1.3 Determine the need and method for re-queening

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. Prepare to re-queen a colony	2.1 Identify health and safety in the workplace hazards and risks and apply appropriate controls associated with manipulating honey bee brood 2.2 Select, ensure serviceability, fit and use personal protective equipment 2.3 Select tools and equipment required for re-queening operations and ensure serviceability 2.4 Identify and obtain replacement queen to meet workplace specifications and biosecurity requirements 2.5 Store replacement queen and escort worker bees in appropriate conditions and monitor until re-queening is undertaken 2.6 Assess the condition and health of replacement queen 2.7 Monitor hive condition and environment to ensure re-queening occurs under optimum conditions
3. Introduce replacement queen bee	3.1 Open hive and conduct manipulations re-queening operations according to method selected 3.2 Locate queen bee to be replaced in the hive and remove 3.3 Introduce queen to hive according to selected method and workplace procedures 3.4 Allow time for queen and colony to adjust and stabilise according to workplace procedures
4. Monitor progress of a replacement queen bee	4.1 Monitor the hive for acceptance of replacement queen bee by colony according to workplace procedures 4.2 Monitor replacement queen bee for evidence of egg laying and adequate levels of hatching
5. Update and maintain apiary records	5.1 Confirm legislative and workplace procedures for record keeping 5.2 Update apiary records for re-queening activities according to workplace procedures, legislative and biosecurity reporting requirements

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
Reading	Interpret biosecurity protocols and codes of practice
Writing	Complete workplace documentation using appropriate terminology and in required format
Navigate the world of work	Takes responsibility for following explicit and implicit workplace procedures and industry practices
Get the work done	Takes responsibility for planning, sequencing and prioritising tasks required in preparing for and conducting a honey bee queen replacement procedure

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCBEK303 Re-queen a honey bee colony Release 2	AHCBEK303 Re-queen a honey bee colony Release 1	Minor changes to Elements and Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	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 AHCBEK303 Re-queen 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 the individual has demonstrated that they have re-queened a honey bee colony for at least one hive including:

- monitored colony performance, assessed the queen against specifications and determined the need and method for re-queening
- identified hazards and risks and implement control measures for re-queening operations
- selected, fitted and used suitable personal protective equipment
- selected and ensured serviceability of tools and equipment required for re-queening operations
- obtained, assessed the condition and stored the new queen according to workplace and biosecurity requirements
- monitored conditions to ensure optimum time for re-queening operations
- assessed the health and condition of the parent colony
- conducted hive operations to locate old queen and replace with new queen according to selected method
- monitored hives for colony acceptance of new queen and queen brood development performance
- updated and maintained apiary records.

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 re-queening honey bee hives
- common manipulations, methods and techniques used to re-queen colonies

- tools and equipment required for hive operations and re-queening, including:
 - maintenance
 - safe operation
 - hygiene and biosecurity
- natural processes for queen replacement and their signs, including:
 - supersedure
 - swarming
 - emergency queen replacement
- hive monitoring techniques and assessing the performance of queen bee in the colony, including:
 - behaviour
 - colony traits
 - brood and egg laying
 - honey bee brood production
- selection criteria for queen bees
- assessing the health of queen bees
- handling queen bees, including:
 - transport and storage requirements
 - handling cages
 - handling live queen bee
 - identifying, removing and destroying old queen
 - introducing new queen
- sources of queen bees their advantages and disadvantages, including:
 - commercial suppliers
 - apiary breeding stock
 - supersedure
- health and safety hazards and risks when handling bees and personal protection equipment
- biosecurity considerations when selecting queen bees and suppliers
- workplace and statutory records and reporting procedures for re-queening operations.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - an active apiary
- resources, equipment and materials:
 - live bees
 - live queen bee as supplied by commercial supplier or own apiary breeding program
 - tools for hive and queen bee manipulation
 - personal protective equipment

- specifications:
 - workplace procedures related to re-queening a bee colony
 - workplace queen bee specifications
 - access to biosecurity code of practice
- timeframes:
 - • within a specific time period according to queen bee replacement method.

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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