



Australian Government

Assessment Requirements for AHCBEK402 Perform queen bee artificial insemination

Release: 2

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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.

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 artificial insemination on at least one occasion including:

- reviewed options and developed artificial breeding objectives
- selected and scheduled an artificial breeding option for breeding program
- obtained resources and determined artificial insemination activities
- identified hazards and risks and implemented control measures
- selected, fitted and used appropriate personal protective equipment (PPE)
- obtained and ensured genetic material complied with breeding characteristics and objectives
- received, checked and stored genetic materials to ensure maximum viability
- ensured queen and drone maturity and breeding cycles aligned
- prepared queen and drone honey bees for artificial insemination
- used appropriate techniques to extract semen from drones and inseminate queens
- complied with required hygiene practices
- introduced inseminated queen bees to new hive and monitored progress and success
- reviewed and documented genetic material transfer and management practices
- determined the success of artificial insemination program by calculating success rates
- maintained records in relation to an artificial insemination program.

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 artificial insemination of queen honey bees

- anatomy and physiology of reproductive organs and reproductive process in queen and drone honey bees
- genetics and inheritance for bee characteristics required in genetic material, including:
 - honey bee health
 - abnormalities
 - productivity
 - habit
- artificial breeding methods and the benefits and limitations
- identification systems for queen and drone honey bees and semen
- physical resource requirements for artificial insemination practices
- safe handling and transportation of bees and genetic material
- artificial insemination policies and recording and reporting requirements
- preparation requirements for artificial insemination
- semen collection and preparation processes
- reviewing and maintaining effective insemination procedures.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a laboratory or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - live queen bees and donor drones
 - tools and equipment for collecting sperm and inseminating queens
 - PPE for hygiene and safety
- specifications:
 - workplace procedures for laboratory operations
 - workplace specifications for bee breeding.

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

Links

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