

He Puka Whakaaetanga, Whakamana Hōtaka | Socialisation Document

**Programme of Study:
New Zealand Certificate in Apiculture
(Queen Bee Rearing) (Level 4)**

**Leading to the award of:
2225 New Zealand Certificate in Apiculture
(Queen Bee Rearing) (Level 4)**



Te Pūkenga

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1 New Zealand Certificate in Apiculture (Queen Bee Rearing) (Level 4)

1.1 Te Tūhono Kawenga Hōtaka | A Unified Portfolio of Programmes

Te Pūkenga aims to develop a unified, sustainable, public network of regionally accessible vocational education programmes that have our ākonga (students) at the centre. This application for programme approval and accreditation forms part of the development of a national network of provision requiring partnerships and cooperation with co-responsibilities for programme delivery. This is consistent with Te Pūkenga academic delivery innovation strategic direction, which is aimed at establishing a coherent portfolio of programmes that will support ākonga, employers and industry to make informed decisions about future study and employment and achieve a sustainable network of ongoing delivery.

In order to develop a coherent portfolio of programmes that supports the above strategic direction, a unification process has been established that is aimed at achieving a future state of (in the main) one programme per qualification that supports and allows for a range of delivery modes, namely blended, distance and work-based learning. Currently, Te Pūkenga needs to work within the parameters of Programmes of Industry Training reporting via the ITR and Programmes of Study reporting via the SDR (as integrated NZ Programmes / Skills Standards and an integrated TEC reporting system are not yet available). The unified programme of study presented here unifies on-campus, blended and distance approaches, reported through the current SDR.

The unification process has been designed to employ a collaborative approach to redevelopment that will ensure that programme design meets the criteria set by [Te Pūkenga Charter](#) and our commitments under [Te Pae Tawhiti](#), our Te Tiriti o Waitangi Excellence Framework, and [Te Rito](#), our Ākonga at the Centre research project and reports. This approach also fulfills the expectations of the emerging Whiria Te Pūkenga (Mātauranga Māori Framework) and Te Pūkenga Ako Framework (Learning and Teaching Framework).

One of Te Pūkenga educational priorities is a relentless focus on equity and ensuring participation. Therefore, equity is integrated and embedded into Te Pūkenga operating model blueprint and business case. Te Pūkenga is also committed to putting ākonga at the centre of all we do, and working towards equity and success for ākonga of all genders, ethnicities, cultures and abilities, as outlined in our [Equity and Ākonga Success Strategy](#).

In 2020, Te Pūkenga commissioned the Ākonga at the Centre research project to gain insights from ākonga (and those that supported them) on the barriers and enablers to their success across the current learner journey. The project applied Te Tiriti o Waitangi inspired principles of excellence and used Critical Bicultural and Human Centred Design methodologies as a new and innovative approach for the public sector. The research led to three [Te Rito reports](#), focusing on Māori, Pacific and Disabled ākonga, respectively. [Te Rito](#) framework builds towards our Equity Outcomes framework, its purpose being to guide Te Pūkenga in its response to the unique needs of all ākonga, with a priority focus on Māori, Pacific and Disabled ākonga.

In accordance with Te Tiriti o Waitangi, Te Pūkenga is focused on ensuring our services work well and respond with excellence to the needs of Māori ākonga and their whānau, and to the aspirations of iwi and Māori communities throughout Aotearoa New Zealand. This objective comes from our Charter, our legislative mandate, and from the will of our Council, and is supported by the opportunities outlined in [Te Rito Report Part One](#). In working to achieve this objective, we know it is not Māori ākonga or communities that need to change to fit with us; rather it is our responsibility to ensure our services improve for the betterment of Māori.

In terms of the needs of Pacific ākonga, [Te Rito Report Part Two](#) indicated a range of opportunities to be taken up by Te Pūkenga. These range from targeted support for the wellbeing of Pacific learners to empowering and bringing effect to Pacific hopes and dreams for intergenerational development and prosperity. Te Pūkenga is committed to ensuring all Pacific ākonga and kaimahi feel that they belong, that their voices are heard, that the use of Pacific languages is normalised and that their cultures are valued.

In terms of the needs of Disabled ākonga, [Te Rito Report Part Three](#) indicated the need for Te Pūkenga to provide appropriate impairment-related learning support for Disabled ākonga to achieve their academic potential and to resolve barriers to learning. The research also indicated the need for mental wellbeing support, the reduction of financial barriers, a focus on the development of digital literacy skills and ensuring access to the physical learning environment. Te Pūkenga has developed a national strategic disability action plan, which incorporates the Enabling Good Lives principles. The National Strategic Disability Action Plan implements the Accessibility Charter across Aotearoa New Zealand and supports consistent data collection on Disabled ākonga, and training. The plan provides a unified national strategy across Te Pūkenga and was developed with ākonga and kaimahi (staff). The plan provides a comprehensive road map towards a vocational system that hears the voices of Disabled ākonga and what they need to succeed.

The unified programme presented here contributes to the ability of Te Pūkenga to offer a coherent portfolio of programmes that responds to the needs of ākonga, industries, iwi, hapū, hapori, Māori communities and Pacific communities. This also begins to take us towards addressing some of the inequities that exist for priority ākonga.

1.2 Te Huanui Whakawhanake i te Hōtaka | Development Approach

The New Zealand Certificate in Apiculture (Queen Bee Rearing) (Level 4) qualification was updated, with Version 2 published in October 2019.. The last date for assessments to take place for Version 1 of this qualification is 31 December 2022. Therefore, rather than each network partner dedicating time and resource to develop programmes of study for the new version individually, one programme of study was selected and revised to become the unified programme of study.

The programme of study presented here is based on a collaborative design process across the following Te Pūkenga network partners:

- Eastern Institute of Technology Ltd (EIT)
- Northland Polytechnic Ltd (NorthTec)
- Otago Polytechnic Ltd (Otago)
- Toi Ohomai Institute of Technology Ltd (ToiO)
- Primary Industry Training Organisation

The collaborative design process was supported by two groups: (i) a Steering Group with representation from every relevant network partner, i.e., every network partner delivering programmes of study in the broad discipline area of Agriculture; and (ii) a Working Group tasked specifically with the unification of this programme of study. The Workforce Development Council was included in the Steering Group membership, and has thus been engaged in the unification process. The functions of the Steering Group were defined in a mutually agreed Terms of Reference, and included the following:

- oversight of the development of a single unified programme for each qualification Te Pūkenga delivers in the discipline area
- leading engagement with regional internal and external partners (including (i) relevant regional industry, including Māori and Pacific employers; (ii) communities at a local level, including hapū and iwi, and Pacific communities; (iii) Te Pūkenga kaimahi; and (iv) ākonga)
- steering programme unification work and providing advice and support to Working Groups

The Working Group of members from the collaborating Te Pūkenga network partners listed above selected the Otago Polytechnic programme of study (an existing approved programme) for the programme unification process. The programme selection criteria included the following:

- Version changes or accreditation/regulatory body changes have already been made.
- The programme was developed in close partnership with industry, hapū, iwi and Pacific communities.
- The programme was updated within the past three years.
- Minor updates to the programme will allow it to align with Te Pūkenga Charter.
- The programme already enables multiple modes of delivery.
- Te Tiriti o Waitangi is evident across the programme.
- The programme is ākonga-centred and allows a focus on under-served ākonga (Māori, Pacific, Disabled) and adult and second-chance ākonga).
- Minor updates to the programme will enable it to align with industry and community needs and allow regional flexibility.
- The programme addresses identified future needs of ākonga, industry and community.

1.3 Te Whakawhitinga ki te Tūhono Kawenga Hōtaka | Transition to the Unified Programme

As is clear from the above, the unification of this programme of study was achieved by means of **transition** to a single unified programme, developed on the basis of existing approved programme offerings that were informed by regional/local needs. Thus, programme content and delivery are contextualised, and provide relevant pathways to meet the needs of those local communities.

It should be acknowledged that the selection of a current approved programme as the basis for the unified programme means that aspects of the selected programme will be adopted across the network, such as programme structure, course details, and the ways in which Mātauranga Māori is embedded throughout the programme. A Mātauranga Māori snapshot tool will be applied to this unified programme to identify how contextualised Mātauranga Māori content is evident and what next steps are required to enhance or develop this further.

The unified programme presented here contributes to the ability of Te Pūkenga to offer a coherent portfolio of programmes and takes us a step towards addressing some of the inequities that exist for priority ākonga. Transition arrangements may be required for ākonga who fail to successfully complete courses within the existing programme of any given network partner. To this end, each network partner currently delivering this programme will create its own transition plan based on equivalencies between existing and new courses. Transition pathways will be identified on a case-by-case basis, informed by these course equivalencies, logistics and individual ākonga knowledge gaps. All care will be taken to minimise any ākonga disadvantage by their transition to the new programme, while still maintaining the integrity of the new unified programme.

Appendix 1: Te Hono o te Kahurangi | Qualification Details

Details for the programme of study	NZQA Reference No.	Version No.	Credits	Level
New Zealand Certificate in Apiculture (Queen Bee Rearing)	XXXXX	2	60	4

which leads to the award of the following qualification

New Zealand Certificate in Apiculture (Queen Bee Rearing)	2225	2	60	4
NZSCED	050104 Agriculture, Environmental and Related Studies>Agriculture>Beekeeping			
Qualification developer	Muka Tangata - People, Food and Fibre Workforce Development Council			
Quality assurance body	New Zealand Qualifications Authority			
Next review	31/10/2024			
Next planned consistency review	2019			

Strategic purpose

The purpose of this qualification is to provide the apiculture industry with individuals who have the knowledge and skills to rear queen bees. The industry will benefit from having a supply of quality queen bees to ensure genetic diversification to establish and restock existing and new hives. The wider community (including parks and gardens) and New Zealand as a whole will benefit from having a supply of queen bees to enable new or restocked hives to operate effectively and contribute to the supply of bees for pollination which ensures the on-going supply of food sources. Graduates will be able to work independently and could supervise others.

Graduate profile

Graduates of this qualification will be able to:

1. Prepare a seasonal queen bee rearing management plan.
2. Implement a seasonal queen bee rearing management plan.
3. Manage compliance and pest and disease risk throughout the queen bee rearing process.
4. Maintain records of queen bee breeding, queen bee production, and distribution to clients.
5. Analyse seasonal queen bee rearing and pest and disease management plans and recommend improvements.

Qualification education pathway

This qualification can build on the New Zealand Certificate in Apiculture (Level 4) [Ref: 2224] and may lead on to qualifications in small business management at a higher level.

Employment/cultural/community pathway

Graduates of this certificate can work as queen bee rearers, or commercial beekeepers supplying their own hives, or other beekeepers hives with queen bees.

Professional recognition/accreditation

n/a

Other requirements of the qualification (including regulatory body or legislative requirements)

Graduates are expected to have completed an industry approved American Foulbrood recognition and destruction course. For information on courses available contact Apiculture New Zealand - www.apinz.org.nz.

General conditions for programme

It is expected that learners will obtain work experience in a practical beekeeping environment and be assessed throughout a beekeeping season to achieve this qualification.

Tertiary Education Organisations offering programmes leading to this qualification must maintain currency with amendments to, and replacements of, relevant legislation, regulations, and codes of practice which may include some or all of the following:

- Biosecurity Act 1993
- Biosecurity (National American Foulbrood Pest Management Plan Order) 1998
- Food Act 2014
- Health and Safety at Work Act 2015
- Hazardous Substances and New Organisms Act 1996
- Resource Management Act 1991
- Local bylaws.

Qualification version transition information

Version 2 of this qualification was published in October 2019 following review.

The last date for assessment for version 1 of this qualification is 31 December 2022.

It is the intention of Primary ITO that no existing trainee should be disadvantaged by these transition arrangements.

Any person who considers they have been disadvantaged may appeal to:

Primary ITO, PO Box 10383 The Terrace, Wellington 6143.

Republication Information:

This qualification was republished in May 2020 to correct the qualification and GPO credits.

Appendix 2: Waeture ā-Hōtaka | Programme Regulations

In the regulations presented here, unless the context otherwise requires, ‘delegated authority’ refers to an individual or role holder, or in some cases a committee, who has been delegated the authority to make a decision within a specific circumstance. A schedule of the various relevant delegations is maintained by the Programme Committee responsible for the programme. Te Pūkenga aims to enable broad access for ākonga and is committed to providing barrier-free access and participation for Māori, Pacific, Disabled and other equity groups.

Whakatapoko | Admission

General admission	To be admitted to this programme, applicants must hold one of the following: 40 credits at NCEA Level 1, including 10 Literacy credits and 10 Numeracy credits OR New Zealand Certificate in Apiculture (Level 3)
Special admission	Any ākonga who is 20 years of age or older and has not reached the general admission requirements for their intended programme is eligible for Special Admission. Te Pūkenga works with the ākonga to ensure they are prepared for their intended programme.
Discretionary admission	Any ākonga who is not yet 20 years of age and has not reached the general admission requirements for their intended programme may be eligible for Discretionary Admission. In assessing whether to grant Discretionary Admission, the delegated authority focuses on the applicant’s level of preparedness for their intended programme.
Additional requirements	Ākonga must be physically capable of meeting the demands of the programme. Any medical conditions which may affect the ability of ākonga to participate must be disclosed and assurance provided to ensure health and safety.
English language requirements	All applicants (international and domestic) for whom English or te reo Māori is not a first language need to provide evidence that they have the necessary English language proficiency required for the programme. International applicants are required to have an IELTS score of 5.5 (general or academic) with no individual band lower than 5 from one test taken in the preceding two years, or an equivalent described in NZQA Rules .

Selection Processes

Limits on enrolment may be applied due to health and safety reasons and/or availability of resourcing.

Tūtukitanga Whakamihi | Credit Recognition

The provisions and procedures for credit recognition through cross credit, credit transfer and recognition of prior learning in this programme are set out in with [Te Kawa Maiooro | Educational Regulatory Framework](#).

Tohu o te Hōtaka | Award of Qualification

Credit requirements	<p>To be awarded the Qualification Title (Level X) (Strand/s if any), ākonga must achieve a minimum of 60 credits in the pattern set out in Table 1 below from the courses set out in Table 2 below.</p> <p>Table 1: Credit Requirements</p> <table border="1" data-bbox="451 353 1385 479"> <thead> <tr> <th>Level</th> <th>Compulsory credits</th> <th>Elective credits</th> <th>Total credits</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>60</td> <td></td> <td>60</td> </tr> <tr> <td colspan="3">Total credits</td> <td>60</td> </tr> </tbody> </table> <p>Table 2: Schedule of Courses</p> <table border="1" data-bbox="451 533 1385 880"> <thead> <tr> <th>Course code</th> <th>Course title</th> <th>Credits</th> <th>Pre-requisites</th> </tr> </thead> <tbody> <tr> <td colspan="4">Level 4</td> </tr> <tr> <td>AGRI4251</td> <td>Queen Bee Biology & Management Plan</td> <td>15</td> <td>Nil</td> </tr> <tr> <td>AGRI4252</td> <td>Queen Bee Rearing</td> <td>15</td> <td>Nil</td> </tr> <tr> <td>AGRI4253</td> <td>Bee Breeding</td> <td>15</td> <td>Nil</td> </tr> <tr> <td>AGRI4254</td> <td>Beehive Management</td> <td>15</td> <td>Nil</td> </tr> <tr> <td colspan="2">Total compulsory credits @ Level 4</td> <td colspan="2">60</td> </tr> <tr> <td colspan="2">TOTAL CREDITS</td> <td colspan="2">60</td> </tr> </tbody> </table>	Level	Compulsory credits	Elective credits	Total credits	4	60		60	Total credits			60	Course code	Course title	Credits	Pre-requisites	Level 4				AGRI4251	Queen Bee Biology & Management Plan	15	Nil	AGRI4252	Queen Bee Rearing	15	Nil	AGRI4253	Bee Breeding	15	Nil	AGRI4254	Beehive Management	15	Nil	Total compulsory credits @ Level 4		60		TOTAL CREDITS		60	
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Programme completion	<p>The minimum time to complete this programme is 6 months (full-time study) or 1 year (part-time study).</p> <p>The maximum time to complete this programme is 4 years.</p> <p>The delegated authority may approve an alternative maximum completion time.</p>																																												

Waeture Aromatawai | Assessment Regulations

Grading	<p>Assessment in this programme is competency-based.</p> <p>Grading follows the guidelines in Te Kawa Maiororo Educational Regulatory Framework.</p> <p>Specific assessment and/or course pass requirements are detailed in programme delivery documentation.</p>
Assessment submission and additional opportunities	<p>Requirements and processes for</p> <ul style="list-style-type: none"> assessment submission, resit and/or resubmission opportunities for failed assessments, reassessment opportunities for failed courses, late submission of assessments, and extension of assessment deadlines <p>are outlined in programme delivery documentation provided to ākonga at the start of their course.</p>

Appendix 3: Ngā Hua o te Ako me te hāngai ki Ngā Putanga Ako a te Taurira | Learning Outcomes and Assessment Mapped to Graduate Profile Outcomes

Course Code & Title		Course Aim & Outcomes		Assessment	Prepare a seasonal queen bee rearing management plan. 15 credits GPO 1	Implement a seasonal queen bee rearing management plan. 30 credits GPO2	Manage compliance and pest and disease risk throughout the queen bee rearing process. 5 credits GPO 3	Maintain records of queen bee breeding, queen bee production, and distribution to clients. 5 credits GPO 4	Analyse seasonal queen bee rearing and pest and disease management plans and recommend improvements. 5 credits GPO 5
AGRI4251	Queen Bee Biology & Management Plan	Aim	The aim of this course is to develop the knowledge, skills, and attributes to prepare a seasonal queen bee rearing plan and to describe the biology of queen bees.						
		LO1	Describe the life cycle, anatomy and reproduction processes of queen and drone bees.	All LOs:	√				
		LO2	Prepare a queen bee rearing management plan to meet seasonal requirements.	Assessment portfolio (100%)	√				
AGRI4252	Queen Bee Rearing	Aim	The aim of this course is to develop the knowledge, skills, and attributes to prepare for and to rear queen bees.						
		LO1	Prepare queen bee rearing equipment to graft queen bees for distribution.	All LOs:		√		√	
		LO2	Describe beehive manipulations and the nutritional requirements of queen bees	Assessment portfolio (100%)		√			
		LO3	Carry out bee hive manipulations for queen bee rearing.			√			
AGRI4253	Bee Breeding	Aim	The aim of this course is to develop the knowledge, skills, and attributes to explore bee genetics and breeding programmes and characteristics for breeder queen selection.						
		LO1	Describe bee genetics in relation to bee breeding.	All LOs:		√			
		LO2	Explain the importance of bee breeding programmes for stock improvement.	Assessment portfolio (100%)		√			
		LO3	Assess characteristics of breeder queen bees for selection.			√		√	
AGRI4254	Beehive Management	Aim	The aim of this course is to develop the knowledge, skills, and attributes to analyse and implement a disease management plan for queen rearing and set up nucleus hives for mating queen bees.						
		LO1	Prepare and monitor a nucleus beehive.	All LOs:		√		√	
		LO2	Implement a pest and disease management plan for queen bee rearing.	Assessment portfolio (100%)			√	√	
		LO3	Analyse queen bee rearing and pest and disease management plans						√

Appendix 4: Akoranga | Courses

The following Course Descriptors provide an overview of the content and structure of each course in the programme. Learning and teaching, and assessment activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.

QUEEN BEE BIOLOGY & MANGEMENT PLAN					
Course code	AGRI4251	Level	4	Credits	15
Pre-requisites	Nil	Co-requisites	Nil		
Main programme	New Zealand Certificate in Apiculture (Queen Bee Rearing) (Level 4)				
Delivery modes	Provider-based	Total learning hours (See course delivery document for detailed breakdown.)			150

Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge, skills, and attributes to prepare a seasonal queen bee rearing plan and to describe the biology of queen bees.

Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākongā will be able to...		Graduate outcome alignment
LO1	Describe the life cycle, anatomy and reproduction processes of queen and drone bees.	1
LO2	Prepare a queen bee rearing management plan to meet seasonal requirements.	1

Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none">Queen and drone life cycles, reproductive anatomy, queen egg fertilisation, and caste determination as it relates to reproduction.The role of the drone when mating, mating behaviour, and effects of weather, chemicals and nutrition.The queen bee rearing impulses and pheromones.
LO2	<ul style="list-style-type: none">Seasonal queen bee rearing management plan.Schedule regulatory compliance, and disease and risk management strategies.Objectives, timeframes and procurement of resources

Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.

Aromatawai | Assessment

Assessment in this course is competency-based. Ākongā will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
Assessment portfolio Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

Wehenga/Standards

Std no.	Title	Version	Credits	Level
31606	Prepare a seasonal queen bee rearing management plan	2	5	4
31605	Describe the queen bee and drone bee life cycles, anatomy and reproduction processes	2	10	4

Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

QUEEN BEE REARING

Course code	AGRI4252	Level	4	Credits	15
Pre-requisites	Nil	Co-requisites	Nil		
Main programme	New Zealand Certificate in Apiculture (Queen Bee Rearing) (Level 4)				
Delivery modes	Provider-based	Total learning hours (See course delivery document for detailed breakdown.)			150

Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge, skills, and attributes to prepare for and to rear queen bees.

Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Prepare queen bee rearing equipment to graft queen bees for distribution to beekeepers.	2,4
LO2	Describe beehive manipulations and the nutritional requirements of queen bees	2
LO3	Carry out bee hive manipulations for queen bee rearing.	2

Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> Prepare equipment for establishing cell builder beehives to accept grafted larvae. Prepare equipment for grafting, making up nucleus hives and caging queens for domestic supply
LO2	<ul style="list-style-type: none"> Beehive manipulations Nutritional requirements
LO3	<ul style="list-style-type: none"> Beehive manipulations including swarm control, making nucs, uniting, dividing, caging queens, nutritional requirements of bees, establishing cell builder hives and grafting

Aromatawai | Assessment

Assessment in this course is competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
Assessment portfolio Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

Wehenga/Standards

Std no.	Title	Version	Credits	Level
31611	Prepare for and graft queen bees and distribute for domestic supply	2	8	4
31608	Demonstrate knowledge of, and carry out, hive manipulations for queen bee rearing	2	8	4

Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

BEE BREEDING

Course code	AGRI4253	Level	4	Credits	15
Pre-requisites	Nil	Co-requisites	Nil		
Main programme	New Zealand Certificate in Apiculture (Queen Bee Rearing) (Level 4)				
Delivery modes	Provider-based Work-based	Total learning hours (See course delivery document for detailed breakdown.)			150

Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge, skills, and attributes to explore bee genetics and breeding programmes and characteristics for breeder queen selection.

Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Describe bee genetics in relation to bee breeding.	2
LO2	Explain the importance of bee breeding programmes for stock improvement.	2
LO3	Assess characteristics of breeder queen bees for selection.	2,4

Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none">Genetics in relation to bee breeding
LO2	<ul style="list-style-type: none">Importance of bee breeding programmes and instrumental insemination of queen bees for stock improvement.
LO3	<ul style="list-style-type: none">Selection criteria for breeder queen beesSelection criteria template.Assess beehive characteristics suitable for breeder queen bees. Maintain yard sheet and individual queen records in a breeding diary

Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

Aromatawai | Assessment

Assessment in this course is competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
Assessment portfolio	100%	All

Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.		
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Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

Wehenga/Standards

Std no.	Title	Version	Credits	Level
31607	Demonstrate knowledge of genetics, bee breeding programmes, and instrumental insemination of queen bees	2	8	4
32204	Describe the selection criteria for breeder queen bees and beehive characteristics	1	6	4

Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

BEEHIVE MANAGEMENT

Course code	AGRI4254	Level	4	Credits	15
Pre-requisites	Nil	Co-requisites	Nil		
Main programme	New Zealand Certificate in Apiculture (Queen Bee Rearing) (Level 4)				
Delivery modes	Provider-based Work-based	Total learning hours (See course delivery document for detailed breakdown.)			150

Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge, skills, and attributes to analyse and implement a disease management plan for queen rearing and set up nucleus hives for mating queen bees.

Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Prepare and monitor a nucleus beehive.	2,4
LO2	Implement a pest and disease management plan for queen bee rearing.	3,4
LO3	Analyse queen bee rearing and pest and disease management plans	5

Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> Select and prepare equipment and beehives to make up a nucleus beehive. Prepare for, and make up a nucleus beehive, introduce a queen cell, and monitor until mated.
LO2	<ul style="list-style-type: none"> Implement a pest and disease management plan and control methods for a queen bee rearing operation. Maintain disease compliance requirements, including record keeping and reporting, and describe compliance procedures for American Foulbrood.
LO3	<ul style="list-style-type: none"> Seasonal queen bee rearing and pest and disease management plans Meet the requirements of the queen bee rearing business. Recommending improvements reporting according to the requirements of the queen bee rearing business.

Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

Aromatawai | Assessment

Assessment in this course is competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes

Assessment portfolio Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All
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Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

Wehenga/Standards

Std no.	Title	Version	Credits	Level
31609	Prepare a nucleus beehive suitable for producing mated queen bees, and introduce and monitor the queen cell until mated	2	5	4
31612	Implement a pest and disease management plan for queen bee rearing	2	5	4
32206	Analyse seasonal queen bee rearing and pest and disease management plans, and recommend improvements	1	5	4

Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

Version Tracking

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