

He Puka Whakaaetanga, Whakamana Hōtaka | Programme Socialisation Document

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

**Leading to the award of:
2224 New Zealand Certificate in Apiculture (Level 4)**



Te Pūkenga

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1 New Zealand Certificate in Apiculture (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, hāpori, 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 (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.

decision making.

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	XXXXXX	2	60	4

which leads to the award of the following qualification

New Zealand Certificate in Apiculture		2224	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 supervise and oversee a viable apiculture business. This qualification is for people who are single source, comb, or medical grade manuka honey producers; pollination service providers; or self-marketing producers. Graduates will be able to work independently and could supervise others.

Graduate profile

Graduates of this qualification will be able to:

1. Implement and monitor annual and seasonal beehive management plans.
2. Implement and monitor a plan for the management of exotic and endemic pests and diseases in the beehive.
3. Implement and monitor a Risk Management Programme for safe beehive products.
4. Analyse beehive management and pest and disease management plans, and recommend improvements.

Qualification education pathway

This qualification can build on the New Zealand Certificate in Apiculture (Level 3) [Ref: 2223] and may lead onto the New Zealand Certificate in Apiculture (Level 4) (Queen Bee Rearing) [Ref: 2225] or other qualifications in small business management at a higher level.

Employment/cultural/community pathway

Graduates of this certificate can work as an independent beekeeper or as a supervisor or leading hand in a commercial beekeeping operation.

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 Educations 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.

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 Maiororo | Educational Regulatory Framework](#).

Tohu o te Hōtaka | Award of Qualification

<p>Credit requirements</p>	<p>To be awarded the New Zealand Certificate in Apiculture (Level 4), 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="451 412 1385 533"> <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="451 584 1385 891"> <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>ARGI4201</td> <td>Plants, Pollination & Nutrition</td> <td>15</td> <td>Nil</td> </tr> <tr> <td>ARGI4202</td> <td>Bee Diseases & Management plans</td> <td>15</td> <td>Nil</td> </tr> <tr> <td>ARGI4203</td> <td>Seasonal Management & Food Safety</td> <td>15</td> <td>Nil</td> </tr> <tr> <td>ARGI4204</td> <td>Beehive Products & Management Evaluation</td> <td>15</td> <td>Nil</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				ARGI4201	Plants, Pollination & Nutrition	15	Nil	ARGI4202	Bee Diseases & Management plans	15	Nil	ARGI4203	Seasonal Management & Food Safety	15	Nil	ARGI4204	Beehive Products & Management Evaluation	15	Nil	TOTAL CREDITS		60	
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<p>Programme completion</p>	<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

<p>Grading</p>	<p>Assessment in this programme is competency-based.</p> <p>Grading follows the guidelines in Te Kawa Maiooro Educational Regulatory Framework.</p> <p>Specific assessment and/or course pass requirements are detailed in programme delivery documentation.</p>
<p>Assessment submission and additional opportunities</p>	<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	Implement and monitor annual and seasonal beehive management plans. 25 credits	Implement and monitor a plan for the management of exotic and endemic pests and diseases in the beehive. 15 credits	Implement and monitor a Risk Management Programme for safe beehive products. 10 credits	Analyse beehive management and pest and disease management plans, and recommend improvements. 10 credits
					GPO 1	GPO 2	GPO 3	GPO 4
Code AGRI4201	Title Plants, Pollination & Nutrition	Aim	The aim of this course is to develop the knowledge, skills, and attributes to understand the relationship between bees and flowering plants and apply nutritional management plans.					
		LO1	Explain the relationship between flowering plants and bees and the influence of weather.	All LOs: Assessment portfolio (100%)	√			
		LO2	Describe the role of bees in arable crop, orchard and pasture pollination.		√			
		LO3	Describe the nutritional requirements and feed types of bees and beehives.		√			
		LO4	Implement and monitor a nutritional management plan for beehives.		√			
Code AGRI4202	Title Bee Diseases & Management plans	Aim	The aim of this course is to develop the knowledge, skills, and attributes to examine and manage bee diseases and disorders.					
		LO1	Describe the implications of exotic bees, pests, diseases and disorders in relation to bee management practices.	All LOs: Assessment portfolio (100%)		√		
		LO2	Implement and monitor a bee disease management plan to inform decision making.			√		
Code AGRI4203	Title Seasonal Management & Food Safety	Aim	The aim of this course is to develop the knowledge, skills, and attributes to manage beehive operations, including food safety procedures.					
		LO1	Implement and monitor beehive management operations in accordance with the management plan.	All LOs: Assessment portfolio (100%)	√			
		LO2	Implement and monitor food safety procedures in an apiculture operation.				√	
Code AGRI4204	Title Beehive Products & Management Evaluation	Aim	The aim of this course is to develop the knowledge, skills, and attributes to explore the characteristics of honey and beehive products and evaluate management plans to inform decision making.					
		LO1	Describe the properties and types of honey, the process of honey production and factors affecting honey quality.	All LOs: Assessment portfolio (100%)			√	
		LO2	Describe the properties and production of beehive products other than honey.				√	
		LO3	Evaluate beehive management and pest and disease management plans to enable recommendations for improvement.					√

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.

PLANTS, POLLINATION & NUTRITION					
Course code	AGRI4201	Level	4	Credits	15
Pre-requisites	Nil	Co-requisites	Nil		
Main programme	New Zealand Certificate in Apiculture (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 understand the relationship between bees and flowering plants and apply nutritional management plans.

Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākongā will be able to...		Graduate outcome alignment
LO1	Explain the relationship between flowering plants and bees and the influence of weather on beekeeping.	1
LO2	Describe the role of bees in arable crop, orchard and pasture pollination.	1
LO3	Describe the nutritional requirements and feed types of bees and beehives.	1
LO4	Implement and monitor a nutritional management plan for beehives.	1

Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> Describe the relationship between flowering plants and bees, the function of nectar and pollen, and practical applications of moving bees. Describe the way in which factors relating to weather, seasons and soil influence flowering patterns and honey flows. Describe nectar and pollen, and their contribution to bee nutrition. Describe flowering plants which are common sources of honey and pollen.
LO2	<ul style="list-style-type: none"> Demonstrate knowledge of the contribution of bees to pollination of arable crop, orchard, and pasture production. Describe factors affecting the numbers of beehives required for crop or orchard pollination. Describe management of alkali bee, bumble bees, lucerne leaf cutting bee for pollination
LO3	<ul style="list-style-type: none"> Describe the nutritional requirements of bees. Describe feeding regimes for bees in different seasonal conditions.
LO4	<ul style="list-style-type: none"> Implement a beehive nutritional management plan. Use a seasonal calendar for feeding and nutritional tasks. Monitor a beehive nutritional management plan.

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
30802	Describe flowering plants and their role in beekeeping	2	3	4
20255	Demonstrate knowledge of the role of bees in arable crop, orchard and pasture pollination	4	3	4
30801	Describe the nutritional requirements of bees and feeding regimes for bees in different seasonal conditions	2	3	4
30800	Implement and monitor a beehive nutritional management plan	2	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

BEE DISEASES AND MANAGEMENT PLANS

Course code	AGRI4202	Level	4	Credits	15
Pre-requisites	Nil	Co-requisites	Nil		
Main programme	New Zealand Certificate in Apiculture (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 examine and manage bee diseases and disorders.

Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Describe the implications of exotic bees, pests, diseases and disorders in relation to bee management practices.	2
LO2	Implement and monitor a bee disease management plan to inform decision making.	2

Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> Demonstrate knowledge of significant exotic bees, bee diseases, disorders, pests, and bee management practices. Identify exotic diseases and pests by physical appearance, damage caused and presence in the hive.
LO2	<ul style="list-style-type: none"> Implement a bee disease management plan. Varroa treatments and the timing of their application and removal from the apiary. Determine when American foulbrood (AFB) disease checks and sampling will be undertaken. Monitor a bee disease management plan and recommend changes. Use records, seasonal outcomes and industry references to recommend changes to a disease management plan.

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
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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
30787	Demonstrate knowledge of significant exotic bees, bee diseases, disorders, pests, and bee management practices	2	5	4
30804	Implement and monitor a bee disease management plan, and recommend changes	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

SEASONAL MANAGEMENT & FOOD SAFETY

Course code	AGRI4203	Level	4	Credits	15
Pre-requisites	Nil	Co-requisites	Nil		
Main programme	New Zealand Certificate in Apiculture (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 manage beehive operations, including food safety procedures.

Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Implement and monitor beehive management operations in accordance with the management plan.	1
LO2	Implement and monitor food safety procedures in an apiculture operation.	3

Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> Implement key beehive management operations. Assess status of beehives for disease, food requirements, performance of the queen, beehive equipment, suitability for honey harvesting, and status of hives when wintering down. Monitor beehives in accordance with the seasonal hive management plan.
LO2	<ul style="list-style-type: none"> Implement and monitor food safety procedures in an apiculture operation. Identify food safety risks and critical control points in an apiculture operation. Produce a contaminant free beehive product.

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 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
30786	Implement and monitor a seasonal beehive management plan.	2	10	4
30793	Implement and monitor food safety procedures in an apiculture operation	2	4	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

BEEHIVE PRODUCTS & MANAGEMENT EVALUATION

Course code	AGRI4204	Level	4	Credits	15
Pre-requisites	Nil	Co-requisites	Nil		
Main programme	New Zealand Certificate in Apiculture (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 explore the characteristics of honey and beehive products and evaluate management plans to inform decision making.

Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Describe the properties and types of honey, the process of honey production and factors affecting honey quality.	3
LO2	Describe the properties and production of beehive products other than honey.	3
LO3	Evaluate beehive management and pest and disease management plans to enable recommendations for improvement.	4

Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> Describe the properties and types of honey, the process of honey production, and the factors affecting honey quality. Chemical composition and physical properties of honey Factors used to measure honey quality Understanding granulation, homogenisation, creaming process Types of honey Procedures to minimise product contamination from humans with contagious disease Different types of contaminants present while harvesting honey and in a honey extraction plant.
LO2	<ul style="list-style-type: none"> Describe the properties and production processes of beehive products other than honey, and the factors affecting beehive product quality which may include pollen, propolis, royal jelly, beeswax, bee brood, honey mead, honeydew, bee venom, package bees. Describe honey processing procedures to minimise the risk of product contamination. Composition, properties, factors affecting quality, production and marketing of a range of beehive products
LO3	<ul style="list-style-type: none"> Analyse beehive management and pest and disease management plans, and recommend improvements. Review seasonal calendar and apiary diary Written and oral presentation

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 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
20256	Describe honey and honey production, and the production processes for beehive products	4	6	4
32205	Analyse beehive management and pest and disease management plans, and recommend improvements	1	10	4

Ngā Rauemi Ako | Learning Resources

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

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