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### **FOREWORD**

We are very pleased to present the Primary Industries Skills Leaders Working Group Food & Fibre Skills Action Plan 2019–2022.

The food and fibre sectors are vital to New Zealand. They generate income, provide employment, support communities and form part of our national identity. Today many of the sectors are growing.

But the pace of change is accelerating and the future demands a strong and agile workforce ready to respond to new challenges and to take advantage of opportunities.

Collaboration is key. While much work is already being done by our individual sectors, the Skills Leaders Working Group has drawn this all together in a cohesive skills action plan.

With input from across industry, government, and the education sector, the skills action plan represents a decisive step forward in the partnership between the food and fibre sectors and government in embracing a dynamic future.

The action plan is a living document and a first step in working together. While primarily focused on the agriculture and horticulture sectors, the potential for growth and a pan-sector vision is real and our intention is for all sectors to be involved and receive the benefits of these actions.

We thank all of those who have contributed to the development of the food and fibre skills action plan. We look forward to continuing to work in genuine partnership to build an exemplary and sustainable food and fibre workforce.

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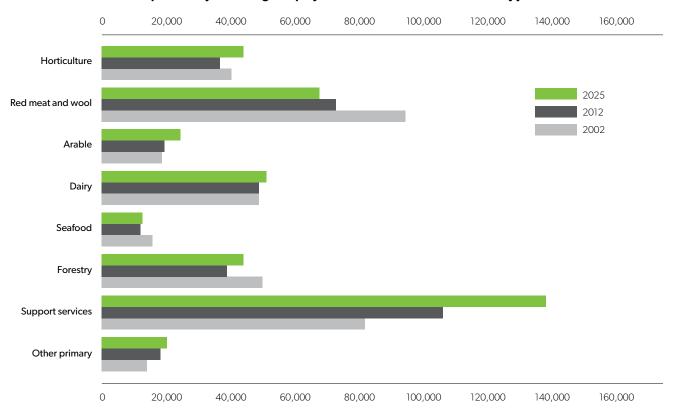
The future demands a strong and agile workforce ready to respond to new challenges and to take advantage of opportunities."

### INTRODUCTION

The food and fibre sectors underpin New Zealand's economy. Over 350,000 New Zealanders, or one in seven people, are employed in our sectors, and we contribute over \$46.4 billion in export revenue and account for 11% of New Zealand's GDP.<sup>1</sup>

We have a strong reputation for exporting high-quality and sustainable food and fibre, but we must work hard to adapt if we're to maintain that reputation in a fast-changing world, with an increasingly urban and ageing population and changing attitudes towards work. In future, there will be increasing demand for higher skills, different skills and specialist skills to take full advantage of changing consumer demands, the emphasis on value-added products, advances in technology, specialised production and processing, and a greater focus on sustainability.

### Past and predicted June average employment in the food and fibre sectors by job count<sup>2</sup>



<sup>&</sup>lt;sup>1</sup> These figures are for the year ended June 2019. Situation and Outlook for Primary Industries. https://www.mpi.govt.nz/news-and-resources/economic-intelligence-unit/situation-and-Outlook-for-primary-industries/sopi-reports/

MPI (2014). People Powered: Building capabilities to keep New Zealand's primary industries internationally competitive. https://www.mpi. govt.nz/dmsdocument/3892-people-powered-building-capabilities-to-keep-new-zealands-primary-industries-internationally-competitive

The food and fibre sectors face significant challenges in meeting their workforce needs. We have an ageing workforce and increasing competition for replacement employees in the regions. Much work is seasonal, creating peaks and troughs in demand, which can be a disincentive to people wanting more stable work opportunities. Attitudes to work are changing, making it harder to attract young people to rurally based roles that involve manual labour. Recreational drug use also presents a barrier to people entering the industry.

Successful food and fibre sectors are vital to New Zealand and the wellbeing of our communities, particularly in the regions. As we take steps to meet our challenges and remain successful, we need a responsive and innovative workforce. We need to invest in our workforce to benefit both individuals and their employers and all New Zealanders, through more prosperous communities and improved environmental performance.

The food and fibre sectors and government have individually done a lot to address workforce challenges and take advantage of opportunities. This is a great start, but we can do better together. By collaborating and developing a cohesive action plan, delivered under strong governance and accountability mechanisms, we will be able to tackle issues across the food and fibre skills pipeline to meet current and emerging needs.

Recognising this, the Ministry for Primary Industries (MPI) convened the Skills Leaders Working Group (the Working Group) in February 2019 to develop an action plan to co-ordinate the vast pool of resources and initiatives across industry and government that aim to strengthen the food and fibre workforce.

### This plan is intended to be a first step in working together to overcome food and fibre workforce challenges

This action plan addresses common food and fibre workforce challenges by complementing or building on existing initiatives. It does not cover general workforce challenges faced across other sectors or general trades or professional services. We see the food and fibre sectors as encompassing the primary sector production industries (other than mining) and the related processing industries.

Actions initially focus on the agriculture and horticulture industries, including meat and dairy processing, and do not cover the fishing or forestry sectors (forestry will have its own action plan later this year) or other food processing industries. However, we recognise that close connections and shared challenges exist across all food and fibre sectors.

This plan is therefore a first step, and the start of a pan-sector and government partnership that gives us an ongoing mandate to work together to address challenges. Implementation and governance arrangements will support the development of a broader and more inclusive approach.



The Skills Leaders Working Group was formed to develop an action plan for the agriculture and horticulture sectors. The Working Group is made up of a range of individuals representing the agriculture and horticulture sectors and is supported by officials from MPI.

### **Working Group Members**

Ben Allomes	Hopelands Dairies
Miles Anderson	Federated Farmers
Jeremy Baker	Beef + Lamb New Zealand
Fiona Duncan	Ministry for Primary Industries
Michelle Glogau	Primary Industry Capability Alliance (GrowingNZ)
Paul Goldstone	Meat Industry Association
Chris Lewis	Federated Farmers
Chelsea Millar	Grass Roots Media NZ
Lynne Miller	Dairy Companies Association of New Zealand representative
Penny Nelson	Ministry for Primary Industries (Chair)
Mark Paine	Primary Sector Council
Erin Simpson	New Zealand Apples & Pears
Linda Sissons	Primary ITO
Geoff Taylor	DairyNZ

In developing this action plan, we heard from, and were supported by, a number of subject matter experts on the challenges and opportunities for attracting, educating and employing the workforce we need. We also drew on information from MPI, our sectors and our own experience.

We would like to thank the schools, universities, farm boards, and other government departments including the Ministry of Education (MoE), Tertiary Education Commission (TEC) and Ministry of Business, Innovation and Employment (MBIE) that shared their perspective of the food and fibre skills pipeline with us.

# GOALS, OBJECTIVES & SUCCESS MEASURES

This action plan provides the basis for first steps towards a genuine partnership between the food and fibre sectors and government. Our goal is to shift behaviour, practice and system settings to achieve positive outcomes and enhance the wellbeing of all New Zealanders.

This action plan aims to support the development of a workforce that can meet the current and future needs of the food and fibre sectors by delivering on the following four focus areas:



1

**KNOWLEDGE** 

Food and fibre sectors understand and can articulate their workforce needs

### We will know we have achieved our goal when:

- there is a shared understanding across all stakeholders of workforce and employment trends, challenges and opportunities, and what we need to do to address them; and
- interventions to improve the capability and capacity of our workforce are underpinned by highquality, accurate and up-todate information.



2

# ATTRACTION Food and fibre education and employment opportunities are widely understood, respected and sought after

### We will know we have achieved our goal when:

- a diverse range of people want to study and work in the food and fibre sectors;
- employers easily fill vacancies with quality, skilled employees; and
- there is strong public support for investment in the food and fibre workforce because it is a respected and attractive career choice.



3

**EDUCATION** 

People have the skills, knowledge and capabilities to be successful in food and fibre careers



4

### **EMPLOYMENT**

People thrive in food and fibre workplaces with excellent conditions

### We will know we have achieved our goal when:

- the education system is fit-for-purpose and meets the needs of the food and fibre sectors;
- individuals are supported to train and upskill at any stage of their career; and
- new starters are work-ready and engage quickly on the job, and employers are supported to value and invest in upskilling their workforce.

### We will know we have achieved our goal when:

- individuals are supported in the workforce, have great workplace conditions, can easily move between sectors and have access to year round, seasonal employment opportunities;
- employers value and provide great workplace conditions, easily fill vacancies, and retain staff that are skilled and engaged; and
- the workforce is prepared to respond to new challenges.





### **Opportunity one:**

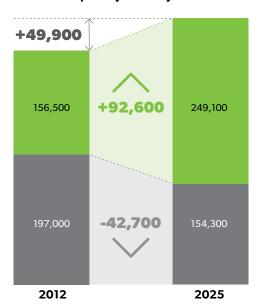
### Generating accurate and consistent information on our skills and labour needs

Many of our sectors have assessed their labour and skill needs, providing us with insights on the current and emerging needs of the food and fibre workforce, especially the numbers of new workers needed. For example:

- the wool industry reported in 2019 that it needs 250 to 300 new entrants each year for the next three years;
- New Zealand Apples & Pears calculated in 2018 that by 2030 the sector will need an additional 1,150 orchard, 1,200 post-harvest and 400 head office workers;
- New Zealand Kiwifruit Growers Incorporated found the industry was 1,200 staff short at the start of the 2018 harvest, especially in the low-medium skills area;
- the Meat Industry Association found meat processors were more than 2,000 workers short for the 2018 season; and
- MPI's 2014 research, Future capability needs for the primary industries in New Zealand, found that there will likely be an increase in demand for highly skilled (degree or higher) workers, especially in the support services.<sup>3</sup>

Each of our sectors assess their labour and skills needs differently, with some looking into the specific roles they expect to grow, while others have looked at the capabilities needed in their sector more generally. Much of the data held by government is not current or is incomplete – MPI's 2014 'Future capability needs' report is now five years old.

### Predicted capability needs by 2025



With qualifications

No post-school qualifications

We need up-to-date, accurate and consistent information to better understand current and emerging skills gaps and how best to address them. We also need to know if our interventions are working, which means having a coherent evaluation strategy, transparency in sharing our findings, and openness to learning from initiatives outside the food and fibre sectors, such as the Attitude Gap Challenge<sup>4</sup> and the Passport to Life initiative.<sup>5</sup>

- <sup>3</sup> MPI (2014). Future capability needs for the primary industries in New Zealand. https://www.mpi.govt.nz/dmsdocument/3893-future-capability-needs-for-the-primary-industries-in-new-zealand
- The Attitude Gap Challenge. https://www.aucklandco-lab.nz/attitudegap
- <sup>5</sup> Passport to Life. https://www.tpk.govt.nz/en/whakamahia/taiohi-ararau-passport-to-life

THE ATTITUDE GAP CHALLENGE, led by the Auckland Co-design Lab and sponsored by the Ministry of Social Development (MSD) and MBIE, is centred on understanding the reasons behind the lack of connection between employers and young people in South Auckland. Anecdotally, employers struggle to find local candidates with the right attitude; while young people find job applications and workplace culture an unfamiliar, foreign experience. The overall finding of this project was that the challenge is much broader than attitude. It is a complex "clash of norms and expectation, which could be overcome through greater preparedness and proximity between different groups involved".



### THE PASSPORT TO LIFE INITIATIVE, launched by Te Puni Kökiri in 2018, is

launched by Te Puni Kōkiri in 2018, is designed to act as a bridge for Māori youth from school or unemployment into further education, training and employment by helping them to get essential credentials such as birth certificates, driver's licences, IRD numbers and bank accounts.

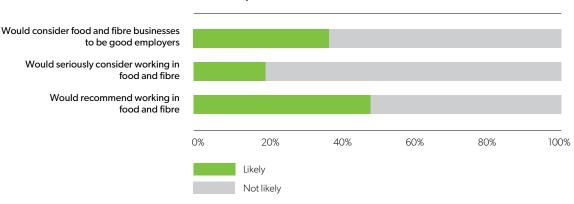
### **Opportunity two:**

### Changing perceptions to attract more people with the right skills into food and fibre careers to support a high-quality, adaptable and innovative workforce

Roles in the food and fibre sectors need to be seen as highly valued career options and have to be able to attract new entrants from a range of sources. More needs to be done to promote the food and fibre sectors as positive, appealing places to work, offering good work conditions, within industries that are committed to sustainable business practices and care about the environment.

The impact of negative perceptions is especially evident in the urban population:<sup>6</sup>

### **Urban respondents**



These views are sometimes the result of a lack of information or are caused by misinformation. Many young people and graduates are not aware of the range of career opportunities and pathways available. They don't know that the industry needs people with a wide range of skills, such as those qualified in design, languages, engineering, communications and technology, and that job locations aren't necessarily rural and isolated.

There is a range of initiatives underway to promote food and fibre careers. By aligning, co-investing in and strengthening these initiatives, we will be able to improve their collective impact.



Raising awareness makes a difference. GrowingNZ's campaigns at careers expos successfully raised awareness about career opportunities in the food and fibre sectors by 83% among visitors. They also lifted their attitudes to a career in the sector: 58% of the students were very or extremely likely to consider a career – up from the 22% baseline." (PICA post-event surveys)

<sup>&</sup>lt;sup>6</sup> UMR (2017). New Zealanders' views of the primary sector. https://nzppi.co.nz/documents/MPI\_primary\_sector\_report\_2018.pdf pages 97, 99.



### **Opportunity three:**

### Celebrating the food and fibre sectors with students, teachers and New Zealand

We need the right education and training opportunities to prepare a wide range of learners for the workforce. Graduates need to be skilled and flexible, with good technical skills as well as the right aptitude and attitude to work across sectors during their careers. It's vital that our school, tertiary education, and on-the-job training systems function as a cohesive pipeline that supports students into and on the job.

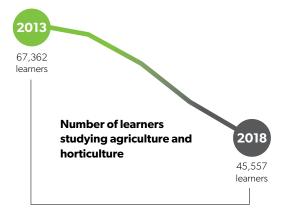
### Secondary schools are critical for the food and fibre workforce

Since 2012 there has been an increase in students studying agriculture and horticulture science and agribusiness at senior secondary school (from 5,468 in 2012 to 10,152 in 2018<sup>7</sup>). We need to build on this momentum and ensure specialist subjects are offered and taken up by students across New Zealand. We also need to support graduates of specialist agriculture, horticulture or agribusiness subjects into teaching to better support students and other teachers. However, food and fibre skill needs extend beyond horticulture and agriculture and agribusiness. We need better linkages between secondary school subjects and employment in our food and fibre sectors.

We need to combat the perception among some that vocational education is less desirable than other forms of higher education, such as university.

### Tertiary providers, industry, employers and learners need to work together

Close engagement is needed to ensure training remains relevant, innovation is supported, and policies and funding are appropriate. Falling learner numbers in tertiary study are a challenge.<sup>8</sup>



We have heard anecdotally that the tertiary system can be too focused on young, full-time students undertaking full-time qualifications, and that it is not flexible or responsive enough to support career changers and allow for incremental learning, shorter or faster qualifications, or the recognition of skills gained outside the formal education system. The introduction of micro-credentials<sup>9</sup> by NZQA in 2018 is a good start, but development and uptake need to be increased.

<sup>&</sup>lt;sup>9</sup> Micro-credentials are stand-alone education products intended to enable learners to access specific knowledge and skills in a cost-effective and time-efficient way. They focus on skill development opportunities not currently catered for in the tertiary education system, and for which there is strong evidence of need by industry, employers, iwi and community.



### Early Apprenticeship Grows into a Rewarding Career for Owen Clegg

When Owen Clegg left Hawera High School at age 16 to go dairy farming, he promised his mum he would continue to study. His subsequent apprenticeship and industry training over the past decade through the Primary ITO have set him on the path to success and future farm ownership.

Owen's apprenticeship took him two years to complete, and combined on-the-job learning with weekly classroom lessons. Owen says an apprenticeship was the perfect introduction to dairy farming and has opened up many opportunities. "My apprenticeship is where I learnt the basics, so training is an important part of moving our industry forward, so we continue to grow and remain productive."

Owen and his partner, Hollie Wham (pictured left), won the 2018 Taranaki Dairy Industry Awards Share Farmer of the Year title. Owen explains that his studies allowed him to gain "knowledge as well as practical skills", giving him greater job opportunities. He says he wouldn't be where he is today without it. "Everyone has a chance to be successful in their own career and life; with hard work and determination it is achievable."

 $<sup>^{7}\,\,</sup>$  Provided by the Horticulture & Agriculture Teachers Association of New Zealand.

<sup>8</sup> Tertiary Education Commission enrolment data 2013-2018.



In July 2019, the Wool Industry, through the Primary ITO, launched three Level 2 wool industry micro-credentials, which were developed with industry input. They cover: introduction to the wool shed; shearing; and wool handling. These micro-credentials were developed to address the wool industry's need for short and relevant qualifications that address specific training challenges, and provide people with formal, certified evidence of their skills."

Many people face additional barriers to entering education and employment pathways. We need more emphasis on pre-employment, wrap-around support and pastoral care for people who need extra support in education and the workplace, such as ensuring that drug and alcohol services are accessible.

### On-the-job learning is critical and needs to meet current and emerging needs

It's critically important that employees can learn while they earn. Many of our sectors rely on on-the-job training provided by the employer rather than an education provider. In 2018, 21,683 employees undertook courses towards national qualifications while working for 5,284 employers. Of these employees:

- 22% were Māori well above the demographic percentage in the population; 10 and
- 77% were studying at Level 3 and upwards.

To ensure that on-the-job learning continues to meet current and emerging needs, we will be strongly involved in the Reform of Vocational Education.

### We will need more high-skilled workers with university-level qualifications

In 2015 MPI identified a need to increase skill levels across the food and fibre sectors. This means that we need:

- to increase enrolment in critical areas of university education for the food and fibre sectors (e.g., Bachelor of Agricultural Science, Horticultural Science and Forestry Science);
- to increase the use of the food and fibre sectors as learning examples across all areas of study at university; and
- for university graduates of specialist and other subjects (such as IT, engineering and robotics) to be encouraged into food and fibre career pathways.

To achieve this, we need to engage with universities to understand what they are offering and how they are encouraging people into food and fibre careers.

<sup>10</sup> Primary ITO. Annual Report 2018. https://www.primaryito.ac.nz/assets/About-us/bc3c575fe4/Annual\_Report\_PITO-2019-Digital.pdf



### Sam Lockwood-Geck - Mechatronics Innovation

"I am a third-year student studying engineering and innovation management, minoring in Mechatronics. Being born and raised on both a dairy farm and kiwifruit orchard has made the primary industries very much a part of the family. It is these jobs which have highlighted the need for automation in these sectors and led me to pursue a degree in engineering."

"I am particularly interested in manufacturing strategy, vision-based control systems, and their use in automating modern-day enterprises. My most recent employment was at BBC Technologies – a producer of turnkey solutions for the small fruit industry, where I gained insight in 'design for manufacture', process control and quality control. In the future, I hope to work on the integration of supply chains and achieve a seamless flow of information between consumers and producers. I am currently planning a research project [looking at] different [international] models of entrepreneurial/innovation ecosystems to identify which would be best suited for Massey University and New Zealand to implement."





### **Opportunity four:**

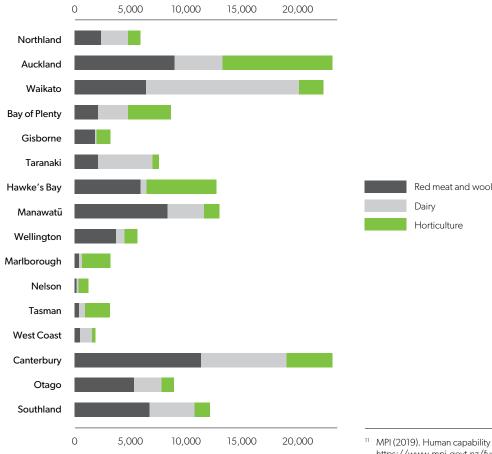
### Creating great workplace conditions to attract and retain the talented employees we need long-term

Great workplace conditions are necessary to attract, train and retain the workforce the food and fibre sectors need.

Given the demographic challenges of an ageing population and increased urbanisation, along with competition from other sectors, employers will have to go above and beyond minimum standards to build their workforce.<sup>11</sup>

While there are pockets of great practice, many employers do not know what good looks like and do not have immediate access to the support, and tools needed. They may find it difficult to fill positions because they are unaware of what attracts workers or how to implement good workplace practices.

### **Employment count by region and sector 2016**



MPI (2019). Human capability in the primary industries. https://www.mpi.govt.nz/funding-and-programmes/other-programmes/future-skills/

**PRIMARY INDUSTRIES GOOD EMPLOYER AWARDS** – understanding that excellent employers are integral to attracting and retaining a skilled workforce in the food and fibre sectors has been recognised through the establishment of the Primary Industries Good Employer Awards. In late 2018 MPI and AGMARDT together celebrated the finalists and winners who have set the benchmark for others in our sectors.



Immigration is important to fill immediate gaps and provide the critical skills some sectors need. However, it's important we balance this with a focus on employing and training New Zealanders. When we don't have this balance right, there is less time for, and investment in, supporting employees to upskill or retrain. This can increase workplace risks, such as in health and safety, especially if workers are not properly trained.

We also need to ensure that we are retaining workers across our sectors. Retention rates in the food and fibre sectors are lower than the New Zealand average, with only 29% of workers still employed in the food and fibre sectors after three years, based on MPI's analysis of 2013 new entrants. $^{12}$ 



Recruitment is expensive, and labour shortages leave workplaces vulnerable to critical issues, such as biosecurity threats or health and safety incidents, and deter employers from investing in measures that may improve innovation and productivity.

Improving workplace culture is more challenging than in other areas, such as environmental or technical productivity, as it requires employers to value and use soft skills, such as team work, communication, and adaptability. When employers associate good employment practices with good business practices, we are more likely to see advances in workplace culture and improving workplace conditions.

If you care about your staff and you treat them like you care about them and you actually do care about them, it makes a huge difference."

(MPI Farmers Hui)



Ben and Nicky Allomes, of Hopelands Dairies, won the Innovative Employment Practices Award. Ben identified his lightbulb moment as a realisation that people, rather than cows, were the foundation of his operation. Ben makes his work appealing to his employees by "having [work] available in the hours that suit [the employees]". Nicky adds, "I think the diversity and the range of personalities is what makes it really work for us."

Photo: Chris Williams

<sup>&</sup>lt;sup>12</sup> Sourced from the Integrated Data Infrastructure, 2018.

# OPERATING ENVIRONMENT

### This action plan complements wider work already underway to support the food and fibre workforce.

Many actions draw together and build on work already underway across government and the food and fibre sectors to address workforce challenges in order to form a cohesive and comprehensive action plan that has strong governance and funding mechanisms.

The Government-led Reform of Vocational Education (RoVE) aims to create a unified and sustainable system that meets the needs of all learners, employers and communities. Included in the RoVE is the establishment of Workforce Development Councils (WDC), which will give industry greater leadership across vocational education, and Centres of Vocational Excellence (CoVE), which will bring together experts to grow excellence in the provision of vocational education. Developing institutions that meet the needs of the food and fibre sectors has been identified as a priority by government and industry.

These changes have significant implications for a number of the actions in this plan. As a consequence, we are proposing a two-stage implementation process – with quick wins being progressed immediately, while a secondary tranche of actions is progressed once the role, function and funding arrangements for the proposed WDC and prototype CoVE are clarified.

Other relevant work programmes across government and industry include:

- advice provided to the TEC by its Industry Advisory Group on growing the food and fibre sectors;
- MBIE's proposal to establish 15 Regional Skills Leadership Groups across New Zealand;
- secondary education reforms that include developing clearer pathways to further education and employment;
- the work of the Primary Sector Council to provide strategic advice to the Government on issues and opportunities for the food and fibre sectors;
- work undertaken by the Primary Industry Capability Alliance (PICA) to co-ordinate attraction initiatives through its GrowingNZ brand;

- the Forest Strategy and Forestry and Wood Processing Workforce Action Plan being developed by an industry-government working group;
- the Provincial Growth Fund, including funding set aside for regional employment, skills and capability through Te Ara Mahi;
- the Sector Workforce Engagement Programme (SWEP), which helps employers get access to skilled regional staff;
- the Sustainable Food and Fibre Futures (SFF Futures) fund administered by MPI to support innovative projects in the food and fibre sectors;
- the Sustainable Dairying: Workplace Action Plan developed by DairyNZ and Federated Farmers to assist dairy farming businesses to adopt good workplace practices;
- curriculum resources developed across industry and government for primary and secondary schools;
- work undertaken to promote the food and fibre sectors in schools by New Zealand Young Farmers' national engagement team;
- integrated farm planning and extension services that, for example, aim to ease compliance and reporting, and help farmers respond to challenges;
- productive and sustainable land use where MPI is looking at how it can better support Māori land owners;
- social sector initiatives to support people into work;
- immigration policy changes that aim to balance support for businesses to employ New Zealanders with ensuring access to migrant labour where needed: and
- Trades Academies and Gateway that support secondary students to undertake study and/or work-based learning.<sup>13</sup>

<sup>&</sup>lt;sup>13</sup> Further information on related work programmes is included in Appendix One.



We recognise that this action plan will require stakeholders across the system, with their own roles and responsibilities, to work together. These are outlined in the table below.

stry-community interface oving workplace conditions iding input into the RoVE implementation process ulating an attractive value proposition to future sector participants esenting industry in: efining current and future skill needs esign and implementation of future initiatives  view of the industry, its structure, dynamics and skill needs t into RoVE and wider workforce development initiatives
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# THE SKILLS ACTION PLAN The action plan aims to support

The action plan aims to support the development of a skilled workforce that meets the current and future needs of the food and fibre sectors.





The actions have been developed under four focus areas that each addresses the key food and fibre workforce challenges. These focus areas are, and seek to achieve, the following:

- **KNOWLEDGE:** we will have the information and enabling systems required to develop, implement and evaluate food and fibre workforce initiatives.
- ATTRACTION: we will strengthen support for initiatives that attract more people into food and fibre education, training and employment.
- **EDUCATION:** we will help shape the education and training system to produce sufficient learners with the skills required to meet food and fibre workforce needs.
- EMPLOYMENT: we will encourage improvements in workplace employment practices to attract, develop and retain a skilled and productive workforce.

The plan's actions have been structured into two stages:

- **Stage 1:** 'quick wins' that have funding and are already underway or will commence shortly. Quick-wins are identified by a ★; and
- Stage 2: other actions that are dependent on, or related to, wider government policy changes, such as the RoVE and Regional Skills Leadership Groups. Once the role, function and funding arrangements for the proposed WDC, CoVE, the NZ Institute of Skills and Technology and the Regional Skills Leadership Groups are clarified it will be possible to progress the further development and implementation of these actions.

### **FOOD & FIBRE**

OUTCOME

### The food and fibre sectors have a skilled

MEDIUM-TERN

Food and fibre sectors understand and can articulate their workforce needs

Food and fibre education and employment opportunities are widely understood, respected and sought after

FOCUS AREAS

### KNOWLEDGE

We will have the information and enabling systems required to develop and evaluate food and fibre workforce development initiatives



We will strengthen support for initiatives that attract more people into food and fibre education, training and employment

**ACTIONS** 

- **1.1** Develop a pan-sector skills and employment dataset
- **1.2** Develop a workforce supply and demand model and improve forecasting capability
- **1.3** Commission research into the current state of degree-level tertiary education
- **1.4** Undertake research on the benefits of great workplace practices
- **2.1** Support a pan-sector approach to investment in, and evaluation and delivery of, attraction initiatives
- **2.2** Assess the impact and improve the alignment of industry curriculum resources
- ★ 2.3 Support teachers to improve their knowledge of the food and fibre sectors and available careers
- ★ 2.4 Support the TEC's food and fibre careers hub and Inspiring the Futures Programme
  - **2.5** Develop a targeted marketing campaign

GOVERNANCE

Establishment Group • Food and Fibre Skills



### **SKILLS ACTION PLAN**

### workforce that meets their current and future needs

People have the skills, knowledge and capabilities to be successful in food and fibre careers

People thrive in food and fibre workplaces with excellent conditions



We will help shape the education and training system to produce sufficient learners with the skills required to meet food and fibre workforce needs



We will encourage improvements in workplace employment practices that attract, develop and retain a skilled and productive workforce

- **3.1** Grow and support the specialist teacher workforce
- ★ 3.2 Support the design and establishment of a Workforce Development Council
- ★ 3.3 Support the establishment of a prototype
  Centre of Vocational Excellence
- ★ **3.4** Support the development and delivery of priority micro-credentials

- **4.1** Develop a workplace and employment resource hub
- **4.2** Strengthen and scale up existing social and employment networks
- **4.3** Expand and promote programmes that upskill rural women and rural professionals
- **4.4** Encourage the adoption of excellent workplace practices

Partnership Group • Lead agencies for each action





## FOCUS AREA ONE: KNOWLEDGE

Food and fibre sectors understand and can articulate their workforce needs

We need more consistency across the food and fibre sectors in how we collect, track and share data on workplace needs. Better data is critical to informing the actions we should take.

The information we have is fragmented, incomplete and difficult to access. We don't know whether current programmes are meeting workforce needs; nor do we hold a shared understanding of the benefits of workplace and employment good practices, or the risks of poor practice.

Our sectors are not homogeneous, so the information we collect needs to help direct improvements that work for every sector. Information also needs to meet the needs of government and education providers.

By working together to collect and analyse data, we can increase our knowledge about what works, what doesn't, and where resources should be directed.

### We will have the information and enabling systems required to develop and evaluate food and fibre workforce development initiatives

We will support the development of a shared understanding of the food and fibre workforce and employment trends and issues by:

1.1 Developing a pan-sector and sector-specific skills and employment dataset. This dataset will be publicly accessible and updated over time, and will provide the sectors with data on education and training, workforce and employer profiles, workplace employment practices, and current and forecast skill needs.

We will inform the development of attraction, education and training, and employment interventions by:

- **1.2** Developing a workforce supply and demand model, which enables scenario-based assessments of workforce supply and demand. This will include publishing periodic workforce reports that monitor trends and support implementation and evaluation of initiatives and programmes.
- 1.3 Commissioning research into the current state of university-based agriculture and horticulture education. This will include looking at the current courses available, their relevance to industry, and delivery models, as well as overseas models (for example, Wageningen), and identifying the right institutional arrangements required to have world-leading food and fibre university capability.

We will ensure that research which enhances stakeholders' understanding of great workplace practice is accessible by:

**1.4** Undertaking research that identifies the benefits of great workplace practice at both industry and individual employer level and informs the development of initiatives designed to encourage the voluntary implementation of excellent workplace practices.



# FOCUS AREA TWO: ATTRACTION

Food and fibre education and employment opportunities are widely understood, respected and sought after

The food and fibre workforce needs to grow in size, capability and diversity. However, negative perceptions, poor information, and competition for workers make attracting the right people difficult.

There is a range of initiatives underway to encourage people into food and fibre career; however, these are limited by fragmented delivery, market saturation, and insufficient investment.

We need to improve the collective impact of attraction initiatives by ensuring successful actions are well-supported and target acute skill shortages as well as long-term needs. This includes creating better connections between schools and our sectors and connecting to career changers.

### We will strengthen support for initiatives that attract more people into food and fibre education, training and employment

### We will co-ordinate our attraction efforts by:

**2.1** Supporting a pan-sector approach to investing in, evaluating and delivering attraction initiatives to achieve shared goals and extract the most value across the system. Successful initiatives will have sustainable funding and the resources required to grow.

### We will connect the education community to the food and fibre sectors by:

- **2.2** Improving the alignment and effectiveness of school curriculum resources that the food and fibre sectors fund and develop, assessing whether current resources are effective at encouraging students into food and fibre careers with the aim of reducing duplication and cost, and delivering more effective material following the review of NCEA.
- ★ 2.3 Supporting teachers and career advisers to improve their knowledge of the food and fibre sectors and available career pathways to increase student participation in industry training and careers, including continuing to fund Teachers' Day Out.

### We will connect people to food and fibre careers by:

- ★ 2.4 Supporting and promoting the TEC's food and fibre careers hub as the main source of information to encourage more people into food and fibre training and education pathways, supporting the rollout of the Inspiring the Futures programme by growing the network of professionals who can showcase priority careers and promote the food and fibre sectors in schools.
  - 2.5 Co-investing in a targeted marketing and promotion campaign to create positive perceptions of careers in the food and fibre sectors, with a specific focus on roles where there are acute shortages or emerging need. Target audiences will include students participating in Gateway and Trades Academies and other youth-related programmes, as well as late primary, secondary school and tertiary students and career changers.





# FOCUS AREA THREE: EDUCATION People have the skills, knowledge and

People have the skills, knowledge and capabilities to be successful in food and fibre careers

Our education and training system is not functioning as well as it could be to respond to industry needs to support a highly skilled and agile workforce.

Education and upskilling of all types and at all levels are essential to building capacity and capability. Fit-for-purpose education will help ensure that employees in the food and fibre sectors have the necessary skills, understanding, and innovative capacity to foster sustainable productivity growth and respond to future challenges.

We need to improve how the overall system functions by making it more responsive to industry needs and ensure people have access to quality education and training opportunities and support throughout their careers.

We will help shape the education and training system to produce sufficient learners with the skills required to meet food and fibre workforce needs

### We will support and grow the specialist teacher workforce by:

3.1 Encouraging agriculture and horticulture graduates into teaching, upskilling existing teachers in agriculture and horticulture subjects, and giving young people better access to subjects that lead them into higher education and employment in the food and fibre sectors.

### We will ensure vocational education meets the needs of the food and fibre sectors by:

- ★ 3.2 Supporting the establishment of a Workforce Development Council relevant to food and fibre, which will give industry greater control over all aspects of the vocational education system and make the system more responsive to employers' needs and the changing world of work.
- ★ 3.3 Supporting the establishment of a prototype Centre of Vocational Excellence for food and fibre, which will bring together key experts across industries, academia and communities to establish best practice provision, share high-quality programme design across the system and support good outcomes for learners and employers.
- ★ 3.4 Continuing to develop and support the development and delivery of priority microcredentials that meet pressing skills needs across the food and fibre workforce.



## FOCUS AREA FOUR: EMPLOYMENT

People thrive in food and fibre workplaces with excellent conditions

Food and fibre career pathways are changing; there is now greater diversity in the opportunities and pathways available.

Employees are increasingly looking for a different work-life balance. People no longer choose jobs on salary alone but are looking for more alignment between the objectives and culture of the business and their own values.

Good employment practices are important, with direct benefits for businesses who attract and retain top talent by having great workplaces.

We need to make our sectors more attractive and rewarding places to work and ensure the wellbeing of our people. We need to scale up promotion of best practice and innovative workplace conditions so we are better able to respond to the changing nature of work.

### We will encourage improvements in workplace employment practices that attract, develop and retain a skilled and productive workforce

We will improve workplace standards and support good practice by:

- **4.1** Providing information, research and tools to employees and employers through a great workplace and employment resource hub that also links to relevant domestic and international workforce and skills data.
- **4.2** Strengthening and scaling up existing social and employment support networks, giving employers and employees ready access to advice and support through an employer hotline for all food and fibre employers and through a support service for employees seeking guidance and legal advice.

We will support rural women and rural professionals to improve workplace and management practices by:

**4.3** Expanding and promoting programmes that upskill rural women in human resources, including on-boarding and pastoral care for employees, and ensuring rural professionals have management knowledge and expertise.

We will drive culture change about the importance of good people management and workplace practices by:

**4.4** Communicating examples of what great workplaces look like and implementing initiatives that will encourage voluntary adoption of excellent workplace practices such as promoting voluntary certification schemes and supporting industry recognition of excellent practices.



### **GOVERNANCE**

Robust governance, management and funding arrangements are required to successfully implement the action plan and ensure that food and fibre skills needs are met.

To achieve this, we propose establishing a Food and Fibre Skills Partnership Group (the Partnership Group) to oversee the implementation, monitoring and evaluation of the action plan.

In the short term, an industry-led Establishment Group will be convened to take responsibility for engagement across the food and fibre sectors, government and Māori stakeholders to:

- secure commitment to the action plan's goals, actions and proposed governance arrangements; and
- develop a 'charter' setting out the Partnership Group's role, operating principles, governance and organisational structure and the rights and obligations of government agencies and peak bodies that choose to join the Group.

The Establishment Group will be responsible for inviting key stakeholder organisations to be members of the Partnership Group, including:

- peak bodies across the agriculture, horticulture, forestry and wood processing, and seafood sectors;
- employer and employee groups;
- Māori leadership bodies; and
- government agencies, such as MPI, TEC, MBIE, MoE and MSD.

To ensure momentum is not lost, the Establishment Group will be responsible for progressing this action plan until the Partnership Group is established and can assume responsibility.

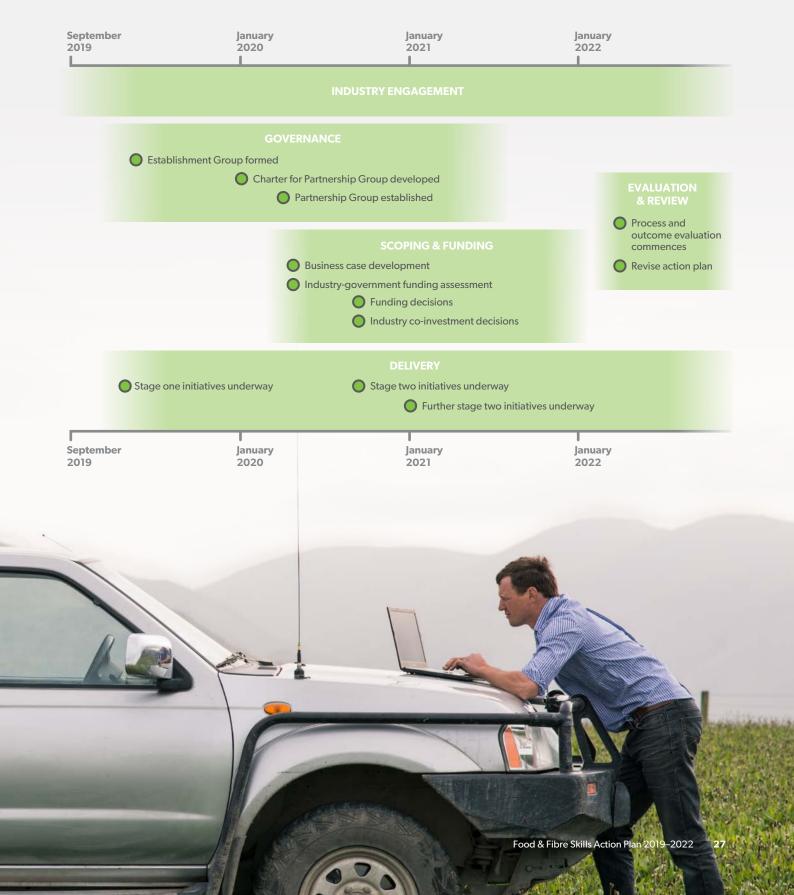
Over time, the Partnership Group may be an umbrella group for technical working groups that focus on specific actions or related work programmes, including:

- the anticipated Forestry and Wood Processing Workforce Action Plan;
- industry-led business case development; and
- youth input into policy.



# KEY IMPLEMENTATION MILESTONES

To ensure an effective industry-led, government-enabled partnership achieves the skills action plan's goals, we have identified the following key implementation milestones:



### APPENDIX ONE: RELATED PROGRAMMES

**Tertiary Education Commission (TEC) Industry Advisory Group (IAG):** the TEC identified the food and fibre sectors as one of its key focus areas in 2017 and set up an IAG to provide it with advice on implementation of its Primary Sector Skills, Education and Investment Programme and to connect it with key stakeholders and influencers. Much of the advice provided by the IAG is incorporated into this action plan.

**Secondary education reforms:** the NCEA Change Package aims to make NCEA more robust, consistent, inclusive and accessible for students. One key focus is on developing clearer pathways to further education and employment. Another focus is on strengthening literacy and numeracy requirements to better support students into education and work.



**Primary Sector Council (PSC):** established in April 2018, the PSC provides strategic advice to the Government on issues and opportunities for food and fibre.

### **Primary Industry Capability Alliance (PICA):**

PICA is a collaborative alliance of industry, educators and government that co-ordinates food and fibre attraction initiatives through its GrowingNZ brand. These include careers expos, Innovation Challenge Days, and engagement with educators and careers advisers. PICA also carries out research and facilitates the sharing of knowledge in capability building. Co-ordination with PICA forms a key part of the attraction actions in this action plan.

Forest Strategy and Forestry and Wood Processing Workforce Action Plan: Te Uru Rākau is developing a Forest Strategy with stakeholders that will set the strategic direction for commercial and indigenous forestry and wood processing. An industrygovernment working group is developing an action plan to support the strategy.

**Provincial Growth Fund (PGF):** the PGF aims to lift productivity in the provinces by, for example, enhancing economic development opportunities, creating sustainable jobs, enabling Māori to reach their full potential and building resilient communities. PGF funding has been set aside for regional employment, skills and capability through Te Ara Mahi. The PGF has partnered with Horticulture New Zealand to maximise the employment of New Zealanders and ensure sustainable growth in the sector by investing in six horticulture career co-ordinators across the country.

**Sector Workforce Engagement Programme** (SWEP): SWEP helps employers to access reliable, appropriately skilled staff at the right time and place, while giving priority to domestic job seekers including beneficiaries. Dairy, horticulture and viticulture are sectors that SWEP supports.

### Sustainable Food and Fibre Futures (SFF Futures):

SFF Futures is an MPI-administered fund supporting innovative projects that will create value for the food and fibre industries. SFF Futures is a potential funding avenue for aspects of this action plan.

### The Sustainable Dairying: Workplace Action Plan:

developed by DairyNZ and Federated Farmers to assist dairy farming businesses to adopt good workplace management practices. It describes what a quality work environment looks like, and sets out the co-ordinated actions and commitments of the industry. Through the Workplace Action Plan, dairy farm businesses will be able to improve their ability to attract, motivate, develop and retain employees.

**Curriculum resources:** a number of food and fibre focused primary and secondary school curriculum resources have been developed to raise the profile of our sectors in schools. These include DairyNZ curriculum resources about the dairy sector; Red Meat Profit Partnership resources on a number of sectors; and MPI's Te Ao Tūroa resources on three key interrelated systems: animal welfare, biosecurity and food.

**New Zealand Young Farmers (NZYF):** NZYF has a national engagement team, mainly made up of former teachers, who work in schools to promote opportunities in the food and fibre sectors. NZYF also runs Teachers' Day Out events and supports the uptake of the various curriculum and learning resources available to students.

### Integrated farm planning and extension services:

MPI is working with industry to develop an integrated farm planning framework to ensure better co-ordination between regulators, to ease the compliance and reporting requirements on farmers, to help farmers respond to challenges, and to improve environmental and economic outcomes and wellbeing. Where appropriate, this action plan will adopt such existing mechanisms for engagement and delivery.

Productive and Sustainable Land Use: MPI has been looking at how we can better support Māori land owners and Māori agribusinesses. This includes designing and delivering programmes that integrate agribusiness and cultural issues relevant to Māori, supporting Māori participation and retention in the extension services programme, and establishing a pool of experienced food and fibre sector advisers to deliver one-to-one technical advice to Māori agribusinesses in commonly identified areas of need.

**Social sector initiatives:** there are a number of programmes, led by MSD, that support people into work, or to remain in work. For example, the Mana in Mahi programme is designed to support young people into apprenticeships and an industry training pathway. Since it was launched in 2018, over a quarter of Mana in Mahi placements were into food and fibre roles.

Immigration policy changes: in late 2018 the Government consulted on proposed changes to employer-assisted temporary work visa settings. The proposals are designed to strike a balance between providing more incentives and support for businesses to employ New Zealanders, and ensuring access to migrant labour is available where there is a genuine need. Sector agreements make up part of the changes and will provide employers with greater certainty of access to migrants in the short term, in exchange for a range of commitments, including increased productivity and wellbeing. The reforms ultimately aim to support employers to place more New Zealanders into jobs, and as a result reduce their reliance on temporary migrant workers in the medium to long term.

**Trades Academies and Gateway:** Trades Academies enable senior secondary students to undertake full-time study that combines school, tertiary and/or workbased learning. Gateway enables secondary schools to arrange, manage and access structured work-based learning placements for students in Years 11 to 13.

# APPENDIX TWO: SKILLS ACTION PLAN DETAILS

# FOCUS AREA: 1. KNOWLEDGE – Food and fibre sectors understand and can articulate their workforce needs

Priority area	Actions	Expected outcomes	Proposed next steps	Stage
Shared understanding of workforce trends and issues	1.1 Develop a pan-sector skills and employment dataset	A publicly accessible pan-sector and sector-specific time series dataset. This will provide stakeholders with data on education and training, workforce and employer profiles, workplace employment practices, and demand. Food and fibre sectors are confident in the information provided and use that data to inform and underpin policies, actions and interventions.	Identify key stakeholders and jointly scope data requirements, data sources and reporting platforms.	Two
Informing and underpinning the development of	1.2 Develop a pan-sector workforce supply and demand model and improve forecasting capability	Stakeholders can assess current and forecast workforce supply and demand information that informs education and training and wider workforce development interventions.	Commission and generate a Request For Proposals (RFP) to build workforce models.	Two
attraction, education and training, and employment interventions	1.3 Commission research into the current state of degree-level tertiary education	Report identifying strengths, weaknesses, opportunities, and threats of current university-level provision for food and fibre sectors, and recommendations for creating world-leading food and fibre university capability.	Discuss and establish terms of reference and commission a review.	Two
Research enhances stakeholders' understanding of great workplace practices	<b>1.4</b> Commission research on the benefits of great workplace practice	Stakeholders have access to research that enhances their understanding of the benefits of great workplace practice at both industry and individual employer level.	Discuss and establish terms of reference and commission a review.	Two

# FOCUS AREA: 2. ATTRACTION – Food and fibre education and employment opportunities are widely understood, respected and sought after

Priority area	Actions	Expected outcomes	Proposed next steps	Stage
Co-ordinate attraction efforts	2.1 Support a pan-sector approach to investment in, and evaluation and delivery of, attraction initiatives	Investment in food and fibre attraction initiatives has a clear collective benefit and extracts the most value across the system to achieve shared goals. Initiatives are evaluated using common measures and successful initiatives are provided with sustainable funding and the resources required to grow.	Discuss and establish terms of reference and commission the development of framework to guide investment in and evaluation of attraction actions.	Two
Connect the education community to the food and fibre sectors	2.2 Assess the impact and improve alignment of curriculum resources	Reduced duplication and cost in developing quality curriculum material and the effective and efficient delivery of material to more teachers following the review of NCEA.  Improved understanding of the impact on student awareness of, and attitude towards, food and fibre related education, training and career pathways, including assessing the effectiveness of curriculum resources and materials in encouraging students into food and fibre careers.	Commission a stocktake and assessment Two of current curriculum material and commission the development of a framework for generating and delivering new material.	O ×
	★ 2.3 Support teachers and career advisers to improve their knowledge of the food and fibre sectors	Improved teacher and career adviser knowledge of career pathways resulting in increased student participation in food and fibre careers. Improved understanding of curriculum impact on student awareness of, and attitude towards, food and fibre related education, training and career pathways, including continued funding of Teachers' Day Out.	Continue to support the delivery of Teachers' Day Out, evaluate current food and fibre careers material for careers advisers, and facilitate the development of new food and fibre careers material for careers advisers.	One

er pathways in Support and promote the TEC's launch One of the food and fibre careers hub and continue to support development of the Inspiring the Futures Programme.
The TEC's food and fibre careers hub actively promotes education, training and career pathways in Support and promote the TEC's launch the food and fibre careers hub and continue sectors and accurately depicts each sector.  The Inspiring the Futures Programme continues to be a success.
★ 2.4 Support the development of the the TEC's food and fibre careers hub and Inspiring the Futures programme
Connect people to food and fibre careers

# FOCUS AREA: 3. EDUCATION – People have the skills, knowledge and capabilities to be successful in food and fibre careers

Priority area	Actions	Expected outcomes	Proposed next steps	Stage
Grow the specialist teacher workforce	3.1 Encourage agriculture and horticulture graduates into teaching and upskill existing teachers in agriculture and horticulture subjects	Across New Zealand, students have access to experienced agriculture and horticulture teachers. Young people can access agriculture and horticulture science or agribusiness subjects that lead into higher education and employment in the food and fibre sectors.	Discuss and identify required interventions, confirm funding and implement a programme of intervention actions.	NW O
Ensure vocational education meets the needs of the food and fibre sectors	* 3.2 Support the design and establishment of a Workforce Development Council (WDC) that meets the needs of the food and fibre sectors	A Reform of Vocational Education (RoVE) co-design group to inform early design decisions and provide advice to the MoE and the TEC to ensure the primary sector WDC and the CoVE prototype meet the needs of the food and fibre sectors.  The WDC will provide more information on the skills needed in the food and fibre sectors and provide the sectors with greater influence over all aspects of the vocational education system.	Discuss, design and support the establishment of a WDC and develop a proposal for a prototype CoVE.	One
	*3.3 Support the establishment of a prototype Centre of Vocational Excellence (CoVE) that meets the needs of the food and fibre sectors	The prototype food and fibre CoVE will drive innovation and excellence in vocational teaching and learning within the food and fibre sectors. It will be set up in a way that enables monitoring and evaluation of the prototype to support vocational education for the food and fibre sectors.		
	* 3.4 Continue to develop and deliver priority micro-credentials	Development and delivery of priority micro-credentials to meet current and emerging skills needs.	Discuss and establish micro-credential priorities and develop a programme to deliver these. Develop the micro-credentials and establish a phased delivery programme.	One

FOCUS AREA: 4. EMPLOYMENT - People thrive in food and fibre workplaces with excellent conditions

Priority area	Actions	Expected outcomes	Proposed next steps	Stage
Improve workplace standards and support great practice	<b>4.1</b> Develop a workplace and employment resource hub	A Great Workplaces Resource Hub is established to collate, refine and actively promote sector and government resources on employing and managing people to make it as easy as possible for employers to understand how to best employ, on-board and manage employees. Material may include the Sustainable Dairying: Workplace Action Plan and Apple and Pears GlobalG.A.P. GRASP. <sup>14</sup>	Discuss and jointly confirm the scope of a resource hub, commission the design and building of the Hub, and launch and actively promote the Hub.	Two
	<b>4.2</b> Strengthen and scale up existing social and employment support networks	Employers and employees have ready access to advice and support that enables them to address workplace management issues and apply great practice to ensure our people's wellbeing is supported.	Commission an assessment of the available services and develop a proposal for strengthening or filling identified gaps. Implement a programme of initiatives.	Two
Support rural women and rural professionals to improve workplace and management practices	4.3 Expand and promote programmes that upskill rural women and ensure rural professionals have management knowledge and expertise	Rural women and professionals have access to programmes that help them develop the knowledge and expertise they require to improve workplace conditions and management practices. This includes expanding training courses and certification courses that include:  • modules for upskilling rural women in HR practices including how to on-board workers and provide pastoral care; and,  • refining and promoting the people management certification module for rural professionals.	Commission an assessment of the available services and develop a proposal for strengthening or filling identified gaps. Implement a programme of initiatives.	One
Drive culture change about the importance of good people management and workplace practices	<b>4.4</b> Encourage voluntary adoption of excellent workplace practices	Increased employer and employee awareness of what great workplaces look like and access to initiatives that encourage the adoption of excellent workplace practices such as voluntary certification schemes and industry recognition of excellent practices.  Food and fibre employers are exemplars of excellent employment practice and attract good employees. Good employment practices result in improved industry performance.	Complete action 1.4 – the commissioning of research on the benefits of great workplace practice. Discuss, identify and implement initiatives that will encourage voluntary adoption of excellent workplace practices.	Τwo

<sup>14</sup> The New Zealand Apple & Pear Industry 2018 http://www.hortnz.co.nz/assets/2018-RSE-Conference/Presentations/13-20-Gary-Jones-2018-08-RSE-Conference.pdf



