

Victoria's Agriculture Skills Statement: Smarter, safer farms

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Minister's foreword

Building hi-tech skills in agriculture and ensuring the safety and wellbeing of our agricultural workforce is vitally important for the sector's future, Victoria's economy and the inclusive growth of our rural communities.

In 2016-17, the gross value of agricultural production for Victoria was more than \$14 billion. Agriculture and related manufacturing employed 182,000 people with 94,000 employed in agriculture pre-farm gate.

Victoria's future in agriculture is a positive one. It will lie in embracing new and emerging technologies and ensuring the health and wellbeing of all who work in the sector.

This will allow us to plan, prepare, adapt and be ready for a changing climate and market conditions so we can grow a vibrant workforce.

Building the capabilities Victoria needs to be ready for future opportunities and challenges means we must keep investing in the skills and wellbeing of our farmers and agricultural sector participants.

Skills alone are not enough. Farms need to be safe places to work and live. We also need to build a culture where farm safety and looking after our health and wellbeing is an integral part of our businesses and lifestyles.

Many of our rural communities rely on agriculture as the predominant industry. Investing in a safe, capable and healthy sector means we will have a more resilient rural Victoria.

Through *Smarter, safer farms*, the government, is building on its already extensive investment in safety, education and training. Current investment includes fee-free training for 50 priority vocational courses and programs to enhance vocational pathways. In partnership with the Victorian Farmers Federation we deliver safe work programs and a \$6 million rebate scheme to help reduce quad bike deaths on farms. We invest in the National Centre for Farmer Health and rural health programs, including our place-based suicide prevention trials in rural communities and rural secondary school mental health programs.

This plan delivers on the skills and education component of the Victorian Government's *Digital Agriculture Strategy*. This strategy aims to support Victorian farmers to harness digital technologies and build a more efficient, sustainable and productive agriculture sector.

Smarter, safer farms invests in targeted approaches in partnership with industry so Victoria's agriculture has the culture, awareness and skills to:

- keep farmers, workers and families safe and well
- make sound business and farm management decisions
- prepare and be resilient through drought and other impacts of climate change
- make the most of emerging technology and a faster transition towards digital farming practices
- capture benefits from innovation.

This four-year \$20 million investment works towards a Victorian agriculture sector that is safe, empowered and innovative so that our industry and rural communities can thrive.



The Hon. Jaala Pulford MP

Minister for Agriculture
Minister for Regional Development

Victorian agriculture is changing and skills are key

Farm businesses are getting more complex and increasingly reliant on digital technology

Farmers need the skills and opportunities that will allow them to evaluate emerging innovations for their businesses. They also need the technical expertise to install and use such technology.

The Victorian Government is investing in building technology readiness through the *Digital Agriculture Strategy* including the \$12 million *On-farm Internet of Things (IoT) Trial*.

Smarter, safer farms recognises that more work needs to be done to make sure farmers and our future farming workforce have the skills needed to make the most of technology and emerging innovations.

With *Smarter, safer farms*, we have the opportunity to link Agriculture Victoria's SmartFarms with industry to demonstrate the capability of cutting-edge agricultural technology. Through school-based programs, we can use our SmartFarms to promote technology-based careers in agriculture.



The agriculture workforce is changing as businesses increasingly rely on skilled employees and specialist advisors

As farm businesses grow and specialise, agriculture career paths are becoming more diverse and new opportunities exist for science and technology specialist roles on farms and as farm advisors. The future is exciting, and the sector will benefit from the new career opportunities in agriculture that the *Smarter, safer farms* program will provide.

Farm businesses are becoming more reliant on paid employees. For the first time, the number of new entrants who are employed as managers (2860) almost equals the number of owner-managers

entering agriculture (2990) (ABS 2016). Fostering the career paths and development of paid employees as entrants is critical to the sector's future growth.

To capture the full benefits employees can offer, farmers need human resource management skills to improve attraction, retention and development of staff. *Smarter, safer farms* will deliver options to address this skills issue.

A 2017 survey of Victoria's Agriculture, Fisheries and Forestry employers found a lack of skilled employees is negatively affecting more than two-thirds of employers by:

- increasing the workload for other staff (reported by 55% of employers),
- increasing operating costs for the business (reported by 34% of employers) or
- leading to poorer quality services and products (reported by 21% of employers).

In addition to this, agriculture employers face recruitment challenges because of too few applicants, applicants lacking relevant experience or lacking the technical skills needed for the role (Victoria Employer Skills and Training Survey 2017).

Business volatility is increasing, making risk management central to success

Our farm businesses must be competitive to thrive in a global market that is often unpredictable and challenging. Being competitive is key to meeting market and trade requirements as well as consumer demands for high quality, sustainable foods that are safe and traceable.

Understanding operating environments is critical. The risk management, financial planning and business management skills provided through

Smarter, safer farms will better position farm businesses to plan for and manage market volatility.

Ensuring farmers have strong business, financial and risk management skills is critical.

We have an opportunity to increase farmers' confidence in their business decisions and their ability to manage through difficult conditions.

The 2016 Regional Wellbeing Survey indicates that Victorian farmers have varying levels of confidence in their farm management skills.

- 73% were confident they could make the right decisions about farm management
- 72% felt they could maintain and improve environmental health on their farms
- 61% felt they could meet their farm business objectives
- 60% felt they could handle changing market conditions
- 58% were confident they could achieve their desired farm management outcomes
- 56% felt confident that they could cope with difficult conditions.



Photo: Samantha Kaspers



Photo: Samantha Kaspers



The impacts of climate change on the agriculture sector are increasing, meaning drought and climate preparedness is a key part of risk management

Climate change is arguably the biggest challenge for Victoria's farmers. Seventy-one per cent of Victoria's farms have been severely affected by drought in the last decade, according to the 2016 Regional Wellbeing Survey. Recognising the important impacts that climate change has on agriculture, the Victorian Government has led the way in putting agriculture adaptation to climate

change on the national agenda. Victoria is now leading work to inform the development of a national strategy that supports farmers to adapt as the climate changes.

Farmers need the skills provided by *Smarter, safer farms* to plan for and adapt their farm businesses to a hotter, drier and more variable climate.

Climate risks for Victorian agriculture

MORE
days of
extreme
heat



HARSHER
fire
conditions



LESS
rainfall



MORE
frequent
and intense
heavy
downpours



Photo: Jennifer Fawkes

Ensuring farms are safe and healthy places to work and live is critical

The number of deaths and injuries on Victoria's farms is too high. Agriculture is consistently listed in the top two occupational groups for worker fatalities across Australia. Of the 27 Victorian workplace fatalities in 2017, more than 50% (14) of these were on farms.

A major factor on many farms is a culture that normalises risk taking. We need approaches that embed health, wellbeing and safety in farm business management and that recognise human resource is our number one asset.

Changing culture has to be farmer led. *Smarter, safer farms* will partner with the Victorian Farmers Federation and other industry leaders to deliver a safety and well-being campaign and education programs that will bring enduring cultural change.

Agriculture is a volatile industry. As we work to future-proof the industry, it is important to recognise that farmers and farm families face challenges and associated stress.

Enhancing personal resilience, mental health and wellbeing is central to the *Smarter, safer farms* program and will support industry and rural communities to manage tough times.



Photo: Samantha Kaspers

The Victorian Government's role in enabling skills development

Current approaches to agriculture skills development

Career decisions often begin in school. This is when students select subjects, work experience and vocational learning that inform their future careers.

Quality programs are available that expose students to agricultural careers, but more are needed. By expanding on these efforts and the partnerships we have with industry, we will introduce more students to the emerging career opportunities in agriculture.



Photo: Samantha Kaspers

Vocational education and training

The Victorian Government has been reforming the Vocational Education and Training (VET) system to ensure it is high quality, aligned with industry needs and accessible to regional students. This has included working with regions to address local training needs across all sectors, including agriculture. Starting in January 2019, the introduction of Free TAFE for Priority Courses will mean that students will not pay tuition fees for courses in horticulture, agriculture, agriculture (diary production) and meat processing. The government is also investing in our regional TAFEs, enabling them to deliver more agriculture courses aligned to industry needs.

VET training is an important entry pathway for a career in agriculture. At times there are gaps between structured nationally accredited courses the VET system delivers and informal local training that farmers need.

Partnerships with industry

Industry and government are jointly responsible for ensuring that the skills needed for today and tomorrow are developed now. The Victorian Government already partners with industry to deliver sector-specific skills programs as well as research, development and delivery. Through *Smarter, safer farms*, there is opportunity to build on these partnerships to deliver more and address skills gaps in rural and regional areas.

Addressing the remaining skills gaps

Some skills gaps persist because of difficulties experienced in accessing training, different learning preferences, demographics, diversity of needs and the rapid rate of change in the sector. The Victorian Government has a role in addressing these gaps where it creates public value.

This includes:

- ensuring farmers understand and can manage their regulatory responsibilities
- managing farm businesses to maintain food safety and quality assurance
- improving farmers' abilities to make decisions in response to crises and risk
- helping the sector capture opportunities from innovation
- addressing situations where market failures impede industry from being able to address gaps on their own.

Targeting the diversity of needs in agriculture

The Victorian Government recognises that skills training needs to match the diverse needs of the sector. Some groups may have difficulties undertaking the skills development they require because of where they live or their specific needs. This can include farmers working in remote areas, women, those new to farming, young farmers, culturally and linguistically diverse populations, Aboriginal and Torres Strait Islanders, and those considering transitioning out of agriculture.

The *Smarter, safer farms* program is introducing strategies to address remaining skills gaps and target specific groups with diverse needs.



Photo: Kerry Trapnell

Outcomes delivered from *Smarter, safer farms*



Reduced number of deaths and injuries on farms



Increased adoption of digital technology and innovation on farms



Farmers actively support, attract and retain skilled workers



Farmers use improved farm safety practices



Develop interest in future careers in agriculture



Women and young people in agriculture are more included in industry decision-making



Farmers have an increased capacity to manage stress and look after their wellbeing



Farmers will have increased capacity to manage risk



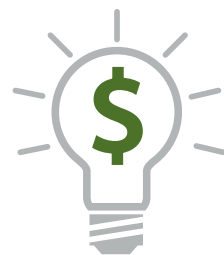
New entrants to agriculture are supported for success



Agricultural communities are engaged in a safety culture



Increased farmer confidence and skills in technology use



Improved farm business financial literacy



The Victorian Government's commitment: *Smarter, safer farms*

Through *Smarter, safer farms* we will deliver a series of initiatives over four years to ensure farm businesses are safe, empowered and innovative.

The \$20 million program is funded through the Agriculture Infrastructure and Jobs Fund.

Action area 1: Farming safe and well

The Victorian Government is committing \$10 million over the next four years to working with industry and stakeholders to develop a strong culture of safety and wellbeing in agriculture.

**+\$10
million**

**Farming
Safe & Well**



A key goal is to reduce the number of workplace deaths and injuries on farms so that they are healthier and safer places to work and live.

Our farm safety and mental health initiatives will be overseen and supported by a Farm Safety Council that will be established in partnership with the Victorian Farmers Federation, peak industry bodies, the National Centre for Farmer Health, WorkSafe and other stakeholders.

Through this action area we will:

- deliver a farm safety campaign to create a new culture of safety
- deliver safety education programs that begin in schools and flow through to vocational education and industry training, so that safety is part of our culture from the moment we start to learn about agriculture
- provide funding for research, events and activities focused on farm health and safety
- provide safety infrastructure and equipment grants for farm businesses
- deliver a mental health and wellbeing program focusing on building resilience in our farmers and farm families, so we are better prepared to manage tough times.

Initiative	Description
Farm safety and wellbeing leadership	<p>The Farm Safety Council will be established in partnership with Victorian Farmers Federation, peak industry bodies, the National Centre for Farmer Health, WorkSafe and other stakeholders.</p> <p>The council will provide advice and oversee implementation of the <i>Farming safe and well</i> initiatives.</p>
Safety education	<p>The initiative will focus on developing a culture of safety in farming through safety education from school to work, and a farm safety campaign.</p> <p>This will include resources and training for use by schools and the vocational education sector. It will also include tools and on-line resources to support farmers adopt better occupational health and safety practices in their workplaces and homes.</p>
Targeted farm safety and wellbeing support	<p>Funding will be available to organisations, farmer groups and schools, for research, events and activities focused on farm health and safety.</p>
Farm safety grants	<p>Grants for infrastructure and equipment that improve farm safety will be made available to address acute and chronic safety/health risks.</p>
Mental health education program	<p>A proactive mental health education campaign will be implemented to build the resilience of Victoria's farmers and their families to enable them to manage better in tough times.</p>



Action area 2: Skills for empowered and innovative decision-making

The Victorian Government is committing \$10 million over the next four years to ensure the agriculture sector has the skills needed to manage risk and capture benefits of new technology faster.



This action area will ensure Victorian farm businesses can capture the benefits of new technology earlier and highlight the opportunities of technology-driven career paths to a future workforce.

Farm Skills Victoria will be established in partnership with the Victorian Farmers Federation, TAFE and education providers, agribusiness and financial service providers and other key stakeholders to support the implementation of these skills initiatives. Farm Skills Victoria will also focus on building an ongoing strategy for collaborative skills growth in the sector and enabling a culture of learning for agriculture.

Through this action area we will:

- invest in four SmartFarms in Tatura, Hamilton, Horsham and Ellinbank as hubs for research, digital technology capability demonstrations and other industry-focused events. These events will help farmers learn from each other and technology experts and from the outcome of technology trials
- use SmartFarms as hubs for targeted school groups to consider STEM career pathways in agriculture. Digital technology will be used to provide a practical understanding of what future work may look like. There will be a focus on enabling partnerships between schools, industry and the training sector to channel students towards viable training and careers
- increase leadership diversity through skills development initiatives for rural women and young people in agriculture
- deliver targeted and flexible training and resources to increase business, financial, risk and human resource management skills of farmers, with an emphasis on drought and climate adaptation
- provide business fundamentals skills training for new entrants and other targeted groups, with topics that include financial literacy, biosecurity, food safety and establishing new food enterprises
- pilot place-based skills development approaches to addressing regional industry needs.

Initiative	Description
Farm skills leadership	<p>Farm Skills Victoria will be established in partnership with the Victorian Farmers Federation, TAFE and education providers, agribusiness and financial service providers and other key stakeholders, to support the implementation of the <i>Skills for empowered and innovative decision-making</i> initiatives.</p> <p>It will also focus on building an ongoing strategy for collaborative skills growth of the sector and enabling a culture of learning for agriculture.</p>
Developing four SmartFarm innovation and learning hubs	<p>Invest in Four SmartFarms as innovation and learning hubs located at Horsham (grains), Ellinbank (dairy), Tatura (horticulture) and Hamilton (high rainfall).</p> <p>The SmartFarms will become the focal point for delivering innovation and learning events for industry and students.</p>
Innovation and learning for industry and schools	<p>School students will be introduced to agricultural careers through curriculum-linked workshops, with a strong focus on Aboriginal engagement.</p> <p>A future scientist program for agricultural vocational education and tertiary students will include internships and PhD research opportunities.</p>
Increasing the diversity of industry leadership	<p>A rural women's leadership program will enable rural women in agriculture to participate in leadership and mentoring programs.</p> <p>A young farmer leadership program, in response to the needs of industry, will provide leadership development in young farmer networks. It will also provide leadership training and mentoring for young people in agriculture.</p>
Increasing risk management skills	<p>Informal training and innovative resources will be delivered to increase the capacity of farm businesses to manage farm business and climate change risks.</p>
Piloting a place-based skills development approach	<p>A pilot project will be established with the Goulburn Murray fruit industry and stakeholders to address recognised workforce access and retention issues.</p>
Targeted business fundamentals	<p>Farm business fundamentals skills training will be delivered to targeted groups. This will include financial literacy, biosecurity, and food safety skills for new entrants and businesses that need extra support; a farm skills pilot will be developed for two culturally and linguistically diverse communities; and an Aboriginal fellowship initiative to develop skills and knowledge in native food production.</p>

