

Report on the TIAG Industry Forum on skills, education and training for Agriculture

Part A. Discussion based on the forum record

1. Introduction

The TASTA Industry Advisory Group (TIAG) made the decision to convene an industry forum on agriculture based on State of Growth, the State strategy for primary industry.

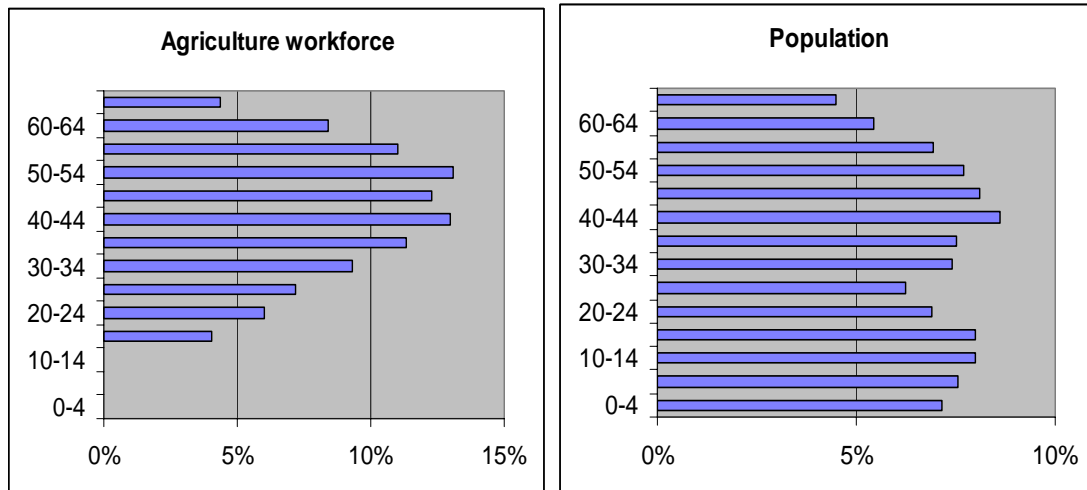
The forum was held on 16 June 2004.

This paper is part of the process of turning the forum outputs into actions. It is a discussion paper for a post-forum group that will firm up and recommend and agree to, where possible, specific actions by a range of stakeholders.

The context of the forum is illustrated by some of the statistics below:

The Agriculture Workforce

The following charts provide a snapshot of the agriculture workforce from the 2001 Census, with a comparison with the Tasmanian population (June 2003).



- 8,700 people employed in agriculture (vegetables 2,100; dairy farming 1,900; sheep 1,500; fruit 1,000; beef 800; sheep-beef 700)
- Another 6,300 employed in food and beverage manufacturing
- 52% of the workforce in Agriculture is over 44, only 10% is under 25 (the comparative figures for the whole workforce are 36% and 16%)
- 17% are at least 60 (whole workforce 5.1%)
- 68% of farmers and farm managers have no post-school qualification (55% for the workforce)

The State labour force

Unemployment is at 6.6%, down from 8.8% in 2001 and much higher levels earlier.

What are the messages about workforce skills from these statistics?

- Not only will there be a need for a larger workforce, there will be a need to replace people leaving.
- The whole workforce will need more skills and new skills.
- There are fewer people looking for work.
- There is strong competition for new entrants to the workforce and a limited local supply.

- Skills and labour issues need to be considered on a whole of industry basis.
- New or innovative approaches to workforce skills may be necessary to meet the objectives of State of Growth.

2. State of Growth and changes in Agriculture

2.1 The State of Growth

The State of Growth is an ambitious project to strategically expand Tasmania's primary industries and ensure their long-term prosperity.

It provides support for producers, processors, transporters, wholesalers and retailers – the key people and organisations working together to grow our State's primary produce and exports.

The State of Growth will guide decision-making throughout all levels of the Tasmanian Government and its agencies. It will be used to prioritise policies and allocate resources in five priority areas:

- Market development and access;
- Water development and sustainable management;
- Investment, innovation and competitiveness;
- Building on our island advantage; and
- Managing our natural resources.

This better approach focuses on partnerships and alliances, concentrating Government resources on activities with identified potential.

The State of Growth talks about:

- The capacity to significantly boost production, employment and profitability
- Skill development for all links in the supply chain
- Increased employment
- Skills development - a major challenge
- Uncertain availability of casual labour
- Availability of labour and production skills
- An emphasis on business skills and product quality assurance as an aid to competitiveness.

2.2 Changes in Agriculture

2.2.1 Business conditions and practices

Agriculture remains a mainstay of the State economy largely relying on the ability to sell profitably into national and international markets. This fact sets the context of many of the changes and change management issues. The forum discussed many. Some of the main ones related to the overall pressures from increasing business complexity, technology, declining margins and competitive pressure resulting in a need for more and higher level business and management skills in Agriculture. This includes product research, market research, financial management, human resource management and marketing. It includes the ability to respond to all the external pressures being placed on agricultural producers and the need to take advantage of opportunities such as vertical integration, diversification, both into new agricultural areas and into areas such as tourism and the possibilities offered by cooperative approaches to a range of business practices.

There are a range of known and possible financial issues such as taxation, exchange rates, cost increases both for agricultural inputs, (including water, land, labour) and for a range of risk management, safety and environmental issues, lower margins, interest rates, leasing, E-commerce.

Occupational health and safety came through in the forum as a major issue now and in the future.

Agriculture has synergies with Tourism, the strongest growing area of the State economy. Agriculture is becoming more corporatised; there are larger business units and more complex business structures. It is a business rather than a lifestyle, although there is the sea change or hobby farmer component of the industry that needs to move with mainstream producers or risk being a problem.

Generally people in agriculture need to do much more, and do it more cleverly than before to maintain financial viability.

2.2.2 The operating environment

The growth in external factors impacting on the average agricultural operator is huge. It includes everything from threats of bio-terrorism to a lack of understanding by the urban majority.

There is a range of deregulation and regulation issues; there is the decline in rural communities and services, flowing through to impacts on the agricultural workforce. There is the increased environmental awareness and understanding of the links between agricultural practice, community health and economic sustainability.

Agriculture is not immune from the generational changes that are impacting everywhere; things such as changes in attitudes to work or social issues and there are agricultural issues that have become general community topics such as GMOs and organics.

While markets become less regulated, new issues around things like health, safety, competition policy or employment have introduced new sets of imposed controls and regulations. Combined with the perception that there is a disjoint between urban and rural communities is the pressure emanating from urban communities for greater controls over activity, competition for land use, urban expansion and expectations that public resources such as water are recognized as having economic value.

The movement of people and products and the push for reduced barriers to trade bring substantial threats through exotic pests and diseases as well as economic threats as more powerful nations have less pressure to comply with moves to free up access to protected markets.

Despite the difficulties Tasmania still benefits from the relative isolation and the "clean, green" reputation that Tasmanian produce still has.

Tasmania may also benefit from the inevitable restrictions on water use in other States where some agricultural activity such as dairying may not be able to pay market rates for water.

2.2.3 Farm production

The product mix emerging from Tasmanian agriculture is also subject to great change as markets and opportunities change. There is both increased diversity and specialization in new areas. There have been shifts from grazing to cropping, increased intensive cropping, many new crops and new ventures, decreases in some orchard fruit but growth in others such as stone fruits and walnuts. There is growth of niche market products and better access to distant markets. There has been some increase in organics but generally much greater sophistication in chemical, water and land use.

There is an increasing trend to combine agriculture with tourism and retail business activity.

Diversification also extends to plantation farming and fish farming.

The wine industry is expanding rapidly and becoming more a big business activity and blueberries, olives, nuts and truffles are some of many new or expanding products.

2.2.4 Technology

Changing technology is a pervasive force that is impacting across all agricultural activity and bringing with it problems of understanding, management, opportunities and cost.

Increased mechanization in agricultural production is not new but is continuing rapidly. The technology and science associated with farm systems, irrigation and pest or weed control is increasingly important. Electronic communication systems, E-commerce, computer and internet based business and farm management systems are all part of modern operations. These all change the economics of agricultural activity, change the role of labour and require new sets of skills.

2.2.5 Customer expectations

Customers in both retail and wholesale markets are becoming more informed, stronger and are demanding more from producers. Quality, freshness, GMOs, organics, freedom from chemicals and pesticides as well as aesthetics is all issues. Food safety is a major factor for consumers and has resulted in extremely high standards imposed by large retail chains that use freshness and cleanliness as a marketing advantage. While this has produced major technical advances such as in packaging salad products, the sanitization of farm produce through the retail process is contributing to the distance between consumers and producers and adding to the lack of understanding between agricultural activity and the general urban community.

Production for export is also facing the impact of the discerning consumer and standards are also high and subject to the impact of exotic disease threats. In addition, overseas buyers of agricultural products will readily switch sources according to market conditions leaving local producers subject to the whims of foreign protection and dumping practices. Not only overseas buyers, but also local retailers are prepared to source products externally if they can get a better deal.

So in the modern world of agriculture, often the individual producer is not in a power position in the market, with buyers in the form of both big business and consumers holding the power and it has been the major achievements in product quality and costs of production that are maintaining the competitive advantage and enabling the industry to prosper.

2.2.6 Industry structure

Industry structure is reflecting the change from family lifestyle to business. Corporate agriculture, consolidation and fewer producers overall are changing the typical farm. Business decisions are about return on investment, margins, rationalization, diversification, economies of scale and niche markets. Agriculture has for some products become an investment of choice for entrepreneurs, investments in farm businesses are marketed for their tax effectiveness and decisions are increasingly made in boardrooms. In some of the growth areas development is almost wholly driven by large business interests.

The role of families is still strong but changing substantially and what agriculture does is changing to embrace products such as timber, fish and tourism.

2.2.7 Employment, the labour market, the workforce and jobs

The agricultural workforce is aging but agriculture is competing in a tightening labour market for increasingly skilled people and is suffering in its ability to offer wages and conditions that will attract and retain enough people. People have been moving out of rural areas as services and opportunities diminish.

Business decisions favour contracting out specialized functions and substantial businesses have developed to carry out functions on many farms that were once done by individual farm employees or by government agencies.

Seasonal activity is a major factor in agriculture and a large proportion of the labour requirement is seasonal. This means that people must have access to other work or adequate transport and short-term accommodation and be able to move easily between seasonal work and benefits.

Very little can be done now in agriculture without skills. Business and management skills, technical agricultural skills, multiple skills, skills required by service industries, government officers working in agriculture, researchers, farm workers and all the jobs associated with diversified agricultural activity all mean more and higher level skills. The farming community needs leaders and leadership skills are important.

The forum discussed the lack of attractiveness of a career in agriculture for young people both relating to living in rural areas and a perception of a lack of career opportunities and also discussed

the experiences of employing young people with unrealistic expectations about their role.

2.2.8 Skill shortages

Skill shortages and potential shortages are clearly a major business problem. The forum discussed shortages in many areas and the risks associated with the aging workforce.

Multi-skilled people, young people with employability skills, not enough people to fill farm worker vacancies, seasonal and casual workers, higher level skills consistent with new technology and farm systems, skills in new and boutique industry sectors, business and management skills, leadership skills, skills in operating in complex international markets, skills in occupational health and safety, in water issues, in product quality were all discussed in the context of shortages.

The shortages are both in the existing workforce where more and higher level skills are needed, and needed at the right time and the right place, and in the inability to recruit new entrants to the workforce.

3. Impact on requirements for skills, education and training

3.1 Managing in the industry

The need for management skills in the industry was strongly stated in the forum. Discussion covered a very broad range of skills.

3.1.1 Business management

Decisions about anything that happens on a farm are more and more business decisions, often involving substantial costs and revenues. People managing agricultural enterprises need the same range of business and management skills as managers in any kind of enterprise with complex groupings of inputs, uncertainties with markets and business conditions and subject to changing exchange rates. Business management, commercial skills, market analysis, entrepreneurial skills are all requirements in the modern farm business. Project management and risk analysis have become required tools and things like supply chain management, networking, business diversification are part of the agricultural business skills kit.

3.1.2 People management

This subject was a feature of discussion particularly in the context of recruiting and retaining an agricultural workforce. The skills required to do this effectively are lacking.

The ability to manage the workforce is clearly a critical issue and many of the human resource management issues common to any business are relevant here.

There are the basic issues such as leadership, team building, OH&S, motivation, mentoring, industrial relations that are important. In addition there seems to be a belief that there are aspects of the relationship between farm owners or managers and employees that have changed and are currently quite deficient to an extent that they are holding back development. Issues like the need for older generations to change or adapt, a loss of recognition of inherent values of agricultural work, the recognition of workers as an asset rather than a cost, the recognition that workers need pathways, careers, interests other than the job, good wages and conditions, the belief that new workforce entrants have unrealistic expectations. All these suggest that there are people management issues that need attention.

Include demand for higher-level skills, casual and seasonal on-farm workforces, an aging workforce, outsourcing, consulting, labour hire, and a tightening labour market and more alternatives the management issues become quite complex. No doubt skills development in this area is important.

3.1.3 Partnerships and cooperation

There is a set of skills needed to build the alliances and partnerships and cooperative arrangements that support individual businesses. These can be within the industry, within local areas, with government, with suppliers or buyers or with other industries. They can relate to information, farm inputs, skills, market opportunities. The skills may relate to technology or specialized communication, lobbying, strategic planning, marketing or accreditation schemes and may require industry leadership or coordinated action.

3.1.4 Promoting the industry

This largely relates to the perception that agriculture is not a destination of choice for workforce entrants and the industry image is at fault. The argument is that marketing the industry is an answer to this and that skills to do this effectively are lacking.

3.2 The on- farm workforce

The skills requirement of the farm workforce received much attention at the forum.

General skills

Employability skills including literacy and numeracy and customer service are clearly important to employers along with multi-skilling and a broader range of skills. There is also a requirement for more high-level skills, information and communication technology skills and management and leadership skills.

More specific skills issues

Generally there is a need for an increase in specialized skills.

These cover a wide range, including:

- Chemical handling, water use, natural resource management skills, environmental management.
- Horticulture, picking, harvesting, pruning, machinery use
- Logistics & transport, QA, research, OH&S, understanding international requirements e.g. labeling, regulations, licensing
- Understanding development of whole of enterprise (paddock to plate)
- Up-skilling of hobby farmers and re-skilling career changes and mature age workers
- Seasonal workforce skills.

3.3 The off-farm workforce

Skills requirements listed here cover a range of management and business skills including:

- Business and people management, leadership, communication
- Project management, contracting, financial
- Agribusiness.

Together with technical skills:

- Natural resource management/ environmental management/ water use
- Technology
- Knowledge of licensing requirements
- OH&S consulting.

Greater specialization and high-level skills are required.

3.4 The Government workforce

Skills required include:

- Ability to communicate with industry
- Management and leadership, project management, change management

- Research and high level scientific and technical knowledge
- Infrastructure development
- Quarantine, accreditation, understanding international requirements and markets
- Natural resource management.

3.5 Impacts on education and training systems

The discussion here covered a broad range from a total review of agriculture education and training to a seasonal work calendar to questions of who should pay to stronger partnerships.

There is clearly a desire for more people to be trained in specific areas such as management, agricultural business, multi-skills and the range of specific technical skills and a need for more access to higher-level skills.

Industry is looking for whole of government approaches, an industry group as a conduit between education/training & industry, better planning and more efficient funding for VET.

It wants University to be more flexible with recognition of VET qualifications, research, and practical skills for graduates, innovation & entrepreneurial skills, VET qualifications recognized as part of TCE/TER scores, a professional year in addition to degrees.

Industry wants more on-farm training and training specific to regions, greater incentive to develop skills, more online VET, more training focus beyond the farm gate, better grassroots pathways planning, the training package flexibility that is built into Training Packages available in practice, greater flexibility in delivery.

It wants skills passports, traineeships for casual & seasonal workers, new approaches to training to address environmental & sustainability needs, more opportunities for skills development across ages.

Better attention to the needs of the casual and seasonal workforce is critical, with pathways, funding, better information for employers, and better recognition of skills all important.

Employers want new entrants to have more realistic expectations about their work and they want the problems of needing a job before getting training and timetabling issues VET in schools and school based new apprentices addressed.

4. Barriers and opportunities

4.1 Industry characteristics and perceptions

The industry has, or has had a range of characteristics that are a barrier to recruiting and maintaining a workforce. These include perceptions of what agriculture does and how it does it, career pathways, wages and conditions.

There is a general lack of understanding and knowledge and many ideas about how to overcome this often summarized as fixing the image.

The level of skills available in the workforce to participate in the training of new entrants together with a lack of a training culture may be barriers. Time to train and costs of training are also listed as barriers.

4.2 Cost, resources and funding

Training is seen as a cost, when margins are small and there is pressure to minimize costs. There is an opportunity to understand training as an investment rather than a cost.

There is a range of opportunities around cooperation between employers. There are opportunities for better information and more government funding for training and employment incentives.

4.3 Role of government and industry advice

There is a clear desire for good relationships and a good process for getting industry advice on skills and training issues to government and an expectation that government will continue to support education and training for agriculture.

Industry leadership is important, as is a whole of government approach to industry issues and a cooperative approach to solutions.

Employers would like streamlined employment processes and issues such as employment and accommodation tackled.

Government as an employer has an opportunity to increase skill levels in conjunction with industry with graduate positions in government agencies and industry placement.

4.4 Innovative approaches to skill development and acquisition

It is absolutely clear that innovative methods have to be part of the new world of agricultural education and training.

There are a range of possibilities for system innovation through training packages, delivery, flexibility and partnerships. Farmers particularly are seen as a difficult group to reach and innovative approaches are required.

Managing skills within regional clusters has enormous potential to keep and build skills locally through developing groups of people with skill sets that match a range of local industry activity. Skill ecosystems are an innovative approach that should be investigated for Tasmania.

There are opportunities available through the State Government Budget initiatives for agricultural businesses. For example businesses that incorporate skills development in their formal business planning will be able to apply for assistance with training. This could include training farmers to be better employers.

There are opportunities for collaborative arrangements across industries, across government and using bodies such as business enterprise centres. Not all of these are VET and many could be managed within existing networks such as supply chains.

Technology offers opportunities.

There are opportunities for better collaboration and articulation between VET and higher education and even benefits from one body doing both.

4.5 Innovative business practices

There are many opportunities ranging from many possibilities for cooperation and partnerships in a range of areas to simply investing in skills as a sound business decision.

4.6 Population, labour market and workforce issues

There are barriers. The aging population and aging agricultural workforce and a very tight and competitive labour market together with career path issues and wages and conditions create barriers. The cost and complication of employing people when margins are low is a barrier as is the difficulty of moving between benefits and wages.

Issues such as both employee work ethics together with poor employing skills are barriers.

While it appears that there are too few skilled people available, there are opportunities such as better advance planning for new labour requirements and the possibility of importing agricultural skills through immigration.

VET in schools and better communication with schools and between schools and higher education present opportunities.

While wages and conditions are a barrier, a higher skill, higher wage industry may be possible. Better retention, re-skilling older workers and phased in retirement are opportunities.

There is a greater reliance on contractors but the difficulty for self-employed contractors to access funding for training is a barrier.

4.7 Expanding the range of skills available through education and training

Institutional inertia and funding are barriers. Many opportunities exist for new training ranging from human resource management, entrepreneurship and a range of high-level skills through to many very specific technical skills, specific skills for seasonal workers and skills that cross industries.

A degree in rural entrepreneurship was suggested.

4.8 Promotion of the industry

Promotion of the industry and promotion of career paths together with greater support for young people interested in entering the industry are seen as opportunities. The industry needs to cooperate in promotion rather than as individual sectors.

Part B. Outcomes

1. Explore possibilities for industry to take a lead in progressing skill, education and training opportunities.

Action:

- i) The Tasmanian Agricultural Productivity Group considered possibilities around forming a high-level industry group.
- ii) The Vineyards Association of Tasmania's development of a skills development plan for the wine industry.
- iii) The Tasmanian Farmers & Graziers (TFGA) Association has applied for funding from the Department of Economic Development under the Fast Track Skills Initiative for a proposed TFGA Strategic Assessment Project. Additional funding for the project is proposed to be sourced from the Office of Post-Compulsory Education & Training (OPCET), Department of Primary Industries, Water & Environment (DPIWE) and TFGA. The funding will assist TFGA in the development of a business plan to determine an effective, self-sustaining organisational structure for identifying whole of industry skills, education and training needs and providing advice to industry and other stakeholders.

2. Ensure information about State and Commonwealth Government funding and assistance programs for skills development is circulated widely to agriculture industry sectors.

Action:

OPCET is providing information about the Workforce Development Fund (a part of the Fast Track Skills Initiative) to industry associations and councils for circulation to members.

*Completed – information sent September 2004 to:

- Tasmanian Farmers & Graziers Association
- Vineyards Association of Tasmania
- Tasmanian Apple & Pear Growers Association
- Tasmanian Stonefruit Association
- Tasmanian Olive Council

3. Investigate options to relieve skill shortages in the casual/seasonal workforce.

Action:

- i) OPCET will investigate opportunities for the production of a detailed seasonal work resource kit, including a calendar.

ii) Although not a direct response to the forum but complementary to it, the Department of Economic Development is funding a pilot project to address casual/seasonal work issues. The total funding available is \$100,000. Funded projects will need to be focused on regions at the local level and applicants need to demonstrate partnerships with local government, industry and other relevant organizations within the community.

4. Identify articulation arrangements between TAFE Tasmania and the University of Tasmania.

Action:

There is currently an agreement in principal between TAFE Tasmania and the University of Tasmania for articulation from the Diploma & Advanced Diplomas of Agriculture at TAFE into the Bachelor of Applied Science (Agriculture).

The proposal under these articulation arrangements is that credit of up to one year in the undergraduate course may be available to students that hold a TAFE Diploma or Advanced Diploma in Agriculture.

The university is looking at the issue of mapping equivalencies between the competency-based qualifications delivered by TAFE and the university undergraduate course.

Promotion of these articulation arrangements will be investigated and discussed by TAFE and the University.

5. Development of a Wine industry skills development proposal.

Action:

OPCET is working with the Vineyards Association of Tasmania on a proposal to assist with skills development for participants in the wine industry.

6. Attract new entrants to the agriculture workforce.

Action:

The Vocational Education & Learning (VEL) unit in OPCET to assist the wine industry to pilot a program to showcase career opportunities and pathways to young people in schools. Where there are similar opportunities in other agriculture sectors this will be communicated and encouraged by OPCET.

7. The Institute of TAFE Tasmania will respond to the industry needs presented at the forum.

Action:

TAFE will:

- deliver Certificate IV, Diploma and Advanced Diplomas in Agriculture and Horticulture during 2005. These qualifications are offered as flexible delivery workplace project models and provide participants with supervisor and management training specific to the agriculture industry.
- deliver Certificate II and III in Agriculture New Apprenticeships during 2005. These are offered on a rolling intake basis and attract commonwealth financial incentives to employers for eligible employees.
- promote New Apprenticeships at Certificate III and IV levels for Existing Employees to the agriculture/rural sector.
- deliver short courses aimed at addressing the OH&S issues facing the agriculture industry, including: Chemicals (Chemcert); Chainsaws; All Terrain Vehicles (ATVs); First Aid; OH&S Induction and OH&S – Establish and Maintain.
- deliver Intro to Viticulture; Short Courses; Certificate I, II and III in Food Processing (Wine) to the wine industry during 2005.
- promote delivery of Certificate IV and Diploma of Production Horticulture to supervisors and managers in the wine industry during 2005.
- support the implementation of the 'skills passport' as identified by the Vineyards Association of Tasmania (VAT) as a priority initiative to meet the needs of enterprises with seasonal workforces.
- deliver through Competitive Bids funding and in partnership with industry Pre-Employment training for 200 participants in Food Processing (vegetable specific) for the up-coming 2004-05 season.
- deliver a range of Small Business management programs on a flexible and statewide basis.