

Birchip Cropping Group Submission to the “Higher education and skills training to support agriculture” Federal Inquiry

The trends of rural depopulation and increasing farm size both have an impact on the availability, interest and suitability of people to study and work in the agricultural industry. Declining rural populations while city populations have continued to grow, has led to a decreasing contact or connection between these groups, and a subsequent lack of knowledge or understanding of farming and rural lifestyle within city populations.

As farming has had to increase productivity by 1-5% p.a. to maintain income levels, there has been an increasing use of science and technology, making this a much more complex business than before. Therefore, services to agriculture are also more complex, but also offer much bigger and broader career opportunities than in the past.

As agriculture and services to agriculture is such a broad and complex business, it requires staff and business people with a wide range of skills in areas such as: business management, accounting, economics, finance, banking, sales, marketing, communication, PR, HR, psychology, IT and science (agronomy, research, development, chemistry, biology, animal health, animal nutrition, genetics and many, many more).

Areas of current and increasing need for skilled people include topics such as: cropping, livestock and horticulture; farming systems; sustainable environment, climate change and adaptation, carbon economy; adaptive management techniques and extension; social and community support.

I propose three main areas where improvements and key actions could be taken:

1. Improve the perception of working and living in rural communities (rural lifestyle)
2. Raise awareness of agriculture as a career option
3. Broaden the focus and offer of agricultural education to better suit this broad range of rurally based careers

1. Perception of rural living

There are many negative perceptions and stereotypes about rural living, such as:

- There is no social life; that it is 4 hours drive to anywhere or anything; there are no services available; it is expensive; education is of a low standard; and there are no job opportunities etc.
- Yet the reality in most rural Victorian small towns is that many basic services are available locally; other services are available in rural centres – usually just 1.5 hours drive away; housing (the main expense for most people) can be less than 1/3 the cost of city housing, many country schools offer a very good standard of education; and there are plenty of job opportunities for professional, skilled and semi-skilled people.

Proposal: that an ongoing campaign about the benefits of rural living be run by the Federal Government. Potential benefits could include:

- Rebuilding the city-rural connection
- Encouraging people to move to rural areas, slowing the depopulation trend and supporting rural economies
- Raising awareness of this career path, prompting students to consider this in their subject choices

2. Raise awareness of agriculture as a career option

This is a longer term project, but could bring substantial long term benefits. To help students see the opportunities clearly, we should provide real examples of ag-based careers, with a study path and subjects identified, and a real link to future employers. Key players (future employers) would offer specific and real job examples, familiarisation tours, work experience and cadetships. The objective is to create a better link right through; from high school, to appropriate tertiary study, to potential employer. I envisage a program where:

- Students from Year 9 are offered a 'reverse list', from which the student can see how the subjects that they enjoy, can be a path to a career in agriculture
- Workplace training and familiarisation opportunities with these key players are offered to students
- Cadetships or interviews on graduation for entry level positions are also offered to those who follow the program through

I would like to acknowledge some very good work, which I believe is already on the right track and could be developed further with increased support and a co-ordinated focus. For example, the agricultural programs of Tyrrell College in Sea Lake and Birchip P-12 are highly dedicated to this agricultural subject. NCLLEN are also strong supporters of agricultural education and have brought good value through the North Central Cluster Centre. The Gateways program in Queensland has also offered a good example in this direction.

However, there is clearly a need to take this approach further, better direct the tertiary study and involve key players in the Agribusiness (including Agri-services) industry by detailing and demonstrating career opportunities.

A good example towards the 'secondary to tertiary to career' link comes from the "Grow Mildura" campaign (NMLLEN is a strong driver behind this), where they offered programs of getting children out into the agriculture industry, and have created guides such as: "Working in the Olive Industry", "Working in the Wine Industry" and "Working in the Beverage Industry". These guides clearly indicate what kinds of (real) jobs are available in the industry, and what study should be chosen to work towards this career. See: http://growmilduraregion.com.au/html/horticulture/mildura_region_olives_oil.html and: http://growmilduraregion.com.au/html/viticulture/mildura_region_processing_services.html

3. Broaden the focus and offer of agricultural education to better suit this broad range of rurally based careers

Agriculture is known at high schools as a 'less challenging' topic, perhaps intended for students with a lower academic level or lower academic interest. The Agriculture exam results are regularly 'scaled down' to reflect that this is an easier subject (whereas foreign languages for example are regularly 'scaled up'). While this is positive and appropriate for those students it suits, it definitely discourages higher academic achievers from taking Agriculture as a subject, as this scaled down result would negatively affect their entry score for university courses.

TAFE type courses such as Marcus Oldham College and Longerenong College are usually very practical and suitable for the low to mid-level roles; i.e. those more physical or operational type jobs within the industry.

Higher educational levels in multiple business, social and scientific degrees seem to be focussed more towards industrial, consumer, pharmaceutical (city based) industries and the connection to agriculture is lost, or never made.

Agricultural university courses seem to be very narrow, only servicing a very scientific or agronomic portion of the ag-industry careers, with limited emphasis on business, marketing or communication; therefore, graduates are not work-ready. Furthermore, essential work in communication, extension and pursuit of practice change in agriculture is largely done by people with training in agronomy and without any background in communication and extension. This is probably the largest skill gap in our current situation and likely to get significantly worse over the next 10 years.

There is a strong need already identified in agriculture RD&E (Research, Development & Extension) to substantially improve the skills in the 'E' area, to substantially improve the speed of adaptation uptake in farming. i.e. there is a wealth of established and proven scientific work, which is not yet taken up by the majority of farmers = practice change. Practice Change has been taking 13-29 years (USA study, but similar in Australia) as the average farmers have not been sufficiently convinced to change their practices.

A substantial improvement could be achieved in this area by incorporating some units of agriculture into existing degrees and creating AgriBusiness (AgriMarketing, AgriFinance etc.), AgriSocial or AgriCommunication qualifications. Of course this is already offered to some extent, but could be improved and better connected to the potential career.

Further examples of connection between study and careers can be seen in the following list:

- Agriculture (general) -> farming
- Ag + business -> farming, rural businesses
- AgScience -> research and development (multi-nationals, consultancy)
- AgSci + genetics -> plant breeding, livestock breeding
- AgSci + communication -> R, D & Extension (becoming the most important part of R&D; Ag journalism)
- AgSci + communication/marketing/business/management -> sales, marketing, business development (multi-nationals in fertiliser, seed & agchem; consultancy)
- Ag + economics/mathematics + marketing -> finance industry, commodities trading, grain marketing

- Ag + social sciences -> rural community related, social services roles
- Ag + mathematics + geology -> PA (Precision Agriculture) GPS technology use in agriculture and environment
- Ag + IT -> agricultural modelling (another huge gap currently), simulation tools, decision support tools
- and of course multiple animal health and animal welfare opportunities too

Summary: An aging agricultural workforce and rural depopulation concerns can be at least partially addressed through the three points above, and ag-education is central to resolving these issues.

Improving the perception of rural living; raising awareness and better direction of study towards ag-career opportunities; ensuring a broader and higher quality of ag-based high school study which enables higher academic performers to also choose an agriculture topic; and clearly defining and offering a career path will give a complete package for students to consider and follow through.

If you would like clarification, discussion or further communication on any points raised I am very happy to do so.

Yours sincerely

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