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Agricultural education and employment for the future

There are great people in agriculture, and we have some terrific younger generation members who are bright and motivated to achieve, coming through the pipeline from school into the workforce. However, they are very few in number in comparison with others in their age group. Anybody in agriculture now is clearly unusual. Our challenge is to understand the majority mentality to be able to attract a greater proportion of the younger generation into the industry which provides the foundation for existence.

Top people feel encouraged in the workplace, and they spread the word to others about the influence they have in making the world a better place, as well as the personal benefits. 'Come this way' is the message. Recruitment increases from the schools and tertiary education, with training institutions creates a vibrant, well-informed and capable workforce that leads New Zealand primary production and processing forwards.

As discussed in a previous article in this journal, money is the ignition for the vision. Research since 1966 by the University of California Los Angeles and in 1975 by the University of Michigan has shown that the proportion of students for whom being wealthy was very important changed from 45 per cent for baby boomers, born between 1946 and 1964, to 75 per cent for Generation Y, born between the early 1980s and the early 2000s. In contrast, 'developing a meaningful philosophy of life' decreased from 73 per cent for baby boomers to 21 per cent for Generation Y members. It seems clear that the reasons for choosing a career are quite different for current generations than in the past.

The current state of play in terms of graduate numbers was outlined in the last article. Some initiatives to increase involvement at the tertiary level were proposed. This article discusses what other countries are doing to address tertiary studies, attempting to make them more attractive to students while still meeting the requirements of employers. It also considers what employers might do to ensure that graduates feel valued in their chosen career.

The challenge in tertiary education

Almost all tertiary institutions, from the University of Melbourne ranking highly in any global assessment to a college somewhere obscure, face the same challenge of where to draw the line between quantity and quality in their student recruits. Increasing enrolment numbers without decreasing standards is difficult unless the degree has high kudos, such as veterinary or medical studies. For

graduates in general, salary and benefits, security, career growth, location, leadership and brand are the top factors in job consideration. Getting the message to school students that these factors are found in the primary sector is vital. The industry employers also need to ensure that the message is true.

Countries overseas are already making changes to the interaction between education and employment, and some of these could be effective for New Zealand's primary sector. The changes are beyond the common approach of asking what the industry wants in graduates and whether industry agrees with the proposed changes. The first has been studied extensively and the second tends to result in agreement because industry feels the academics should know what they are doing.

Laying the foundation

A 2011 report from the SCRE Centre for Research in Education at the University of Glasgow found a 'broad understanding of what qualities, characteristics, skills and knowledge constitute employability both in general, and specifically, for graduates.' The list of expectations was founded on technical and discipline competencies from the completed degrees and included teamwork, communication, leadership, critical thinking, problem-solving and managerial abilities.

A 2013 report for the Association of American Colleges and Universities highlighted the need for 'skills that would enable employees to contribute to innovation in the workplace.' Critical thinking, communicating clearly and solving complex problems were also skills considered to be more important than the actual major of the degree. Conducting research, using evidence-based analysis and applying learning in real-world settings were advocated.

Last year results from a web survey by California Polytechnic State University researchers involving agribusiness graduate employers put 'creativity' into the list as well. Creativity was suggested to be increasingly

important to the future because of the 'unlimited horizons it may open through multi-disciplinary creative processes and innovation.'

In these reports from the United Kingdom and United States, and in those from McKinsey examining education to employment, the same refrain is clear. Technical knowledge lays the foundation but more is required – not instead, but as well. This conflicts with the attraction to students of a three-year rather than four-year degree. A fourth year of study has an opportunity cost that might not be recouped from higher starting salaries in eventual employment.

Workloads for students

Of equal concern to current students are the expectations in terms of academic contact hours and workloads associated with degrees. Contact hours have been reduced in some degrees on the basis that more self-directed study is undertaken, but students still make choices that allow them to work while doing their studies.

In 2010, Professors Babcock and Marks from the University of California reported that full-time students allocated 40 hours a week towards class and studying in 1961. By 2003, the time allocation was down to 27 hours. More recently, Professor Richard Arum of New York University led research which surveyed over 2,300 students in four-year college courses. On average students in a typical semester spent between 12 and 14 hours a week studying, but one-third of the time studying was with peers in social settings 'which are not generally conducive to learning.' Combining the hours studying with the hours in classes and laboratories, students spent only 16 per cent of their time each week studying. Over a third of students reported that they spent five or fewer hours a week studying alone.

In 2013, Universities Australia released its report on university student finances in 2012. Almost 12,000 students responded to the survey request. Main findings were that the average income of full-time students in 2012 was substantially higher than in 2006, but that reliance on income from family and government student allowances had increased. Despite this, students indicated that they were experiencing far greater financial stress in 2012 than in 2006 and reported higher debt. Expenditure for undergraduates increased from A\$27,319 in 2006, adjusted for the consumer price index, to A\$37,020 in 2012, which is greater than the minimum wage for full-time work.

To allow for this expenditure over 80 per cent of students worked, and the average employment for undergraduates was 16 hours a week, with a quarter of the employed undergraduate full-time students working over 20 hours. Over 50 per cent of full-time undergraduate students reported that increased hours of work affected their performance at university, and 33 per cent of domestic students reported missing classes regularly because of work commitments.

Overseas initiatives

Practical work experience is significant in the sandwich courses that used to be offered by polytechnics in the United Kingdom – a year of post-school study in what was termed a vocational course was followed by a year in work and then another year of study. The result was a diploma not a degree, but gave work-ready mature candidates for employment. When the polytechnics were accepted into the university system the sandwich course survived as a degree, but enrolments in sandwich degrees have been decreasing. This is despite the apparent advantages of experience, salary and improved job prospects once the qualification has been achieved. A possible reason for the decreasing enrolment is fees. Universities can charge as much as £4,500 for a sandwich year – a guideline of £1,000 has been proposed.

Bucking the norm is Leicester University, which has seen the benefits of internships to students as a recruitment opportunity and has launched a paid internship scheme for 2014. Up to 500 interns will be selected for up to 12 weeks of paid work at a pro rata yearly rate between £12,000 and £16,000. The aim is not only to give students an insight into what employers want from recruits, but also to showcase the talent in undergraduates.

Work placements

Another initiative announced last year addresses the skills gap in food engineering. The industry itself has commissioned a new degree at Sheffield Hallam University in the United Kingdom. The mechanical engineering food engineering degree includes 50 weeks of work placements with food manufacturers, during which they will be expected to display core skills including planning, organisation and financial management. The degree has been designed to increase the pipeline of graduates who are engineers, know the food sector, have relevant practical experiment, and are employment-ready the moment they graduate.

The benefits of internships to the companies which offer them are significant. Research by Ithaka for Innovate+Educate suggests that –

- Previous performance in work is twice as effective a predictor of future performance as an academic degree
- A job try-out is four times as effective
- A cognitive skills assessment is five times as effective.

Using skills-based hiring techniques Ithaka reports a 25 per cent to 75 per cent reduction in staff turnover, 40 to 70 per cent in time to hire, 70 per cent in cost to hire, and a 50 per cent reduction in time to train. High Fliers research in the United Kingdom released in January 2014 reported that a record 37 per cent of this year's entry-level positions are expected to be filled by graduates who have already worked for their organisations in paid internships, industrial placements or vacation work.

More involvement for agriculture

The New Zealand website www.NZgradconnection.com has graduate vacancies of various types from a large number of companies. For agriculture there were only four companies listed in February 2014 for graduate positions and only one for internships. In contrast, for accountancy there were 18 companies listed for graduate positions and 12 for internships and for engineering there were 35 companies with jobs and 16 with internships. Pew Research in the United States reported in February 2014 that 50 per cent of graduates wished they had gained more work experience during their education.

Clearly agriculture could be more involved in broadcasting the opportunities the industry has, and in thinking more about what could be done in the way of formal internships and placements. Student work is formalised in agriculture in some cases in New Zealand. Massey and Lincoln Universities have practical work requirements of 26 and 39 weeks respectively.

Reports of the enterprise are required as part of completion, but do not contribute to academic credits and are not supervised formally by the employer or university. At the University of Waikato, agribusiness students can take internships for academic credits as part of their four-year degree. Supervision is in the workplace and from the university and so requires goodwill and time from employers, noting that internships as part of credits are not formally associated with pay. Posting vacancies on the website would allow a greater range of students to learn about the opportunities available in agriculture from paddock to palate, soil to saliva.

Employment

Once in the workforce the younger generations have attitudes and expectations which differ from previous ones. McCrindle Research results published in 2008 suggest the major contrasts as shown in the table.

Traditional employers	New employees
Work ethic live to work	Work-life balance work to live
Task focus	Team focus
Commitment	Enjoyment
Authority	Empowerment
Independence	Support
Structure	Flexibility
Tell them	Involve us
Conformity	Creativity
Tradition	Innovation
Regional	Global
Long careers	Many jobs
Learn then earn	Lifelong learning
Loyalty	Variety

Hudson Research results indicate that baby boomers and Generation Y have a strong work ethic. However

Peter Sheahan, Generation Y member and author of *Generation Y: Thriving and Surviving With Generation Y at Work*, points out that there is a 30 hour a week difference in what that work ethic means to them. This may be because the Generation Y members were forming their worldview during the 1990s when their parents were being urged to ‘work smarter not harder.’

The urging was supposed to stop baby boomers working even longer hours. Generation Y members who, in Sheahan’s words, ‘are manipulative, and will twist and distort information to get what they want, exploiting any loophole they can’t, work smarter so that they can go home early, having ticked all the boxes or at least enough for a pass on their job list.’

Sheahan identifies motivators for Generation Y employees as culture, team, management style, flexibility, conditions and salary. Inclusion is vital. McCrindle Research reported that 97 per cent of the Generation Y members surveyed valued a leadership style which involved empowerment, consultation and partnership and would leave if they did not get it. Similarly, Robert Half International in 2008 put working with good people at the top of the list, followed by work-life balance.

Requirement	Score out of 10
Working with good manager	8.74
Fun people	8.69
Work-life balance	8.63
Short commute	7.55
Green company	7.42
Nice office	7.14
Technology	6.89

Research by Massey University reported in 2007 that common features in top workplaces were excellence in leadership, focus on performance and results including performance-based rewards, recognition systems and formal management structures, allowing employees to feel they are making a difference, and ensuring that they are acknowledged for their contribution.

A keynote paper given by Martin Thorley of Merston Peters Ltd, a recruitment and human resources management company, at the Oxford Farming Conference in 2013 gave the following summary –

- Work on the quality of your management
- Become world class
- Be flexible in how you attract and reward people
- Show that you care
- Be prepared to invest in success through training and development.

Thorley warned that there is a talent shortage which is getting worse, competition is getting stronger for good people, and that the best people are wanted by everyone – they have choices. He also warned that, ‘growing new people is a long-term strategy.’ Robert Half International research suggests that in recruiting people, emphasise the competitive salary being offered, as well as the benefits,

the stability of your operation and its reputation. Support the employees' professional goals and create opportunities for training and career development. Do salary reviews regularly, perhaps more than annually, and award bonuses.

Rural employers must also ensure they have the six dimensions of high-performance work systems –

- A fair promotion process
- Few status differences
- Accurate performance appraisals
- Regular constructive feedback on performance
- Information sharing
- Inclusion in decision-making.

Creating such a system has been reported to lift job satisfaction, commitment, trust in leadership, and ultimately performance, for the business.

In times of economic uncertainty, which applies to agriculture all the time, past history shows that benefits exist for employers prepared to invest in good people. Under-performing companies die, and there is release of capital from fading sectors to new industries, as well as movement of high-quality skilled workers toward stronger employers.

Perhaps of most importance for the new generations is inspirational leadership which creates a shared vision. In a project surveying tens of thousands of workers globally, over 70 per cent of respondents want forward thinking in their leaders and this must reflect the aspirations of the workers. They want to know how their dreams will come true and their hopes fulfilled.

This suggests that the best way to lead is to connect with the followers in the present – the visions that will take hold are those which are shared. Sharing results and an involved workforce is productive, reflecting positively in the bottom line. The human resource challenge in the agricultural industry can be met by intelligent people observing the human condition, that is, the fundamental need to be creative and be valued.

Developing leadership

Inspirational leadership must also be developed in the young, and being given leadership development opportunities is becoming important in employment. Deloitte's research released in January 2014 reported that over a quarter of people in the workforce born in 1983 or later are already asking for a chance to show their leadership skills. Also 75 per cent believe their organisations could do more to develop future leaders.

Another factor for almost 80 per cent of the 7,800 respondents in 26 countries in the survey was working for an innovative company. Most felt that their current employer does not encourage them to think creatively.

At school Generation Y students have been given leadership opportunities, as two-thirds of them believe that they are leaders, and high grades because in the United States 43 per cent of grades are As. Sheahan explains that they have also been encouraged to evaluate

and challenge other people's ideas and decisions, and are inclined to argue if they do not like what is being said or done whether or not they have taken the time to inform their opinion. This has resulted in an education system with more focus on 'teaching to the exam', mastery tests where students can have repeated attempts at passing, and multi-choice and internal assessment, so that teachers can justify the assessment.

In New Zealand research has shown that this style of education has suppressed motivation as well as innovation and creativity. Similar observations have been made about the A level system in the United Kingdom which has 'become more standardised, prescriptive and a question of the boxes that need to be ticked.' People who are not motivated do not become inspirational leaders.

Conclusion

Creating the workplace of choice for the younger generations will benefit all generations. It means developing a creative and personal work environment where employees are treated and developed as individuals. The cost of 'backing off' on accountability, while increasing coaching and mentoring efforts, will be more than covered by increased productivity.

In his crystal ball gazing Pita Alexander, specialist farm consultant and author, has suggested that there will be more volatility in the next seven years than there has been in the past seven – on all fronts. Farming is going to get more complicated. So will business, and preparing students to be able to adapt to change and challenge is part of the role of education. Headlines such as 'The degree is doomed' may be overstating the case, but certainly higher education is in the midst of disruptive change.

For the primary sector land and labour will continue to be of great importance, but in order to go on creating wealth we need new thinking. Mercer, a global leader in human resource consulting, published *Nine Rules for Leading Creative People* earlier this year. They state, 'The art of leading creative people is particularly intriguing because they have certain attributes that run counter to various aspects of corporate life, yet when that paradox is managed effectively, it is precisely what unleashes the power of their contributions to their organisations.'

New ways are required to cope with what is becoming an old problem. If we do not adapt and respond, the students will continue their path to other employment areas. For the younger generations, talking about the country's or the world's needs is irrelevant. Offering them opportunities where their education moves seamlessly into holiday jobs and then internships and employment, and where employment conditions meet their expectations about personal development and rewards, is fundamental to achieving the vision of a vibrant workforce.

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