

## **Knowledge and skill ‘down on the farm’: Skill formation in New Zealand’s agriculture sector**

**Nicky Murray\***

### **Abstract**

Skill formation is a crucial feature of the broader employment relations landscape. There is a growing recognition within the agriculture sector that good education and training practices are an important part of the solutions to many of the challenges facing farming. The New Zealand agriculture sector is defined by particular labour market and employment relations issues, which must be understood in an historical context. These factors have implications for skill formation in agriculture. This paper provides a brief history of labour market issues within the agricultural sector, before discussing the current agricultural training situation. Canterbury dairy-farming is used as a case study.

### **Introduction**

“Agriculture and forestry continue to play a critical part in the New Zealand economy. Attracting, training and retaining the right people will be vital for the primary industries to continue to grow their contribution to New Zealand and its economic revival.” (Morriss, Tipples, Townshend, MacKay & Eastwood, 2001: 3)

Not only is agriculture the archetypal New Zealand industry, agricultural products<sup>1</sup> remain the mainstay of New Zealand’s exports, earning 53% of New Zealand’s total merchandise export value in the year to June 2004 (Ministry of Agriculture and Forestry, 2004). The shape of the agriculture sector<sup>2</sup> in New Zealand can be characterised by three main components. First, its prosperity is largely dependent upon international markets. Second, productivity is comparatively high, fuelled by technology and innovation. Finally, many New Zealand farms are small, family enterprises. The sector is also defined by particular labour market and industrial relations issues, which must be understood in an historical context. These factors all have implications for agriculture industry training policies. This article, which is based upon a case study from my PhD thesis (Murray, 2005), gives a history of the agricultural sector and its labour market issues, before discussing the current agricultural industry training situation.

Agriculture in New Zealand has changed significantly over the past decade, with less emphasis on sheep-farming and strong growth in dairying and horticulture. Since 1992, the number of agriculture and fisheries workers has fluctuated, mirroring the changing strength of farm exports: “Export conditions are the main influence on employment trends in the primary sector” (Department of Labour, 2003: 1). From 1992 to 2004, the number of agriculture and fisheries workers declined by 3.6%, compared with a 29.7% growth in the total number of people employed, and their proportion of the workforce has also declined, from 11% in 1992 to 8% in 2004 (Statistics New Zealand, 2005). Nevertheless, the primary sector has experienced a significant increase in labour productivity over the last 15 years: “...real output per worker has increased by a third,

---

\* Nicky Murray PhD, is currently working in a Workforce Development and Research role at the Community Support Services Industry Training Organisation.

<sup>1</sup> Meat, dairy products, fish, fruit and vegetables and other primary products (Canterbury Development Corporation, 2003)

<sup>2</sup> This paper focuses on farming, as opposed to forestry and horticulture.

## Knowledge and skill 'down on the farm - 3-

from \$33,000 in 1988 to \$44,000 in 2002, one of the highest increases in labour productivity across the different industries" (Department of Labour, 2003: 4).

### **History**

While the early pattern of farming in New Zealand was dominated (economically, if not numerically) by large-scale pastoralism, the introduction of refrigeration in 1882 changed the nature of the export market. By the 1890s, meat and dairy products joined wool as the staple exports, making smaller-scale family farms viable. The establishment of these farms was encouraged by bush clearance and the acquisition of Maori land in the North Island, and by the gradual breaking up of many of the large estates in the South Island (Martin, 1990). This new model of farming was heavily reliant on the farmers' labour, and that of their families. In the 1926 census, for example, 60 per cent of farmers reported hiring no labour, and farmers outnumbered rural labourers (Brooking, 1996).

The intensive nature of farming and the imperatives of producing for refrigerated export led to a ready acceptance of mechanisation and scientific and technological advances. Thus, between 1896 and 1926, the percentage of the workforce engaged in the primary sector had dropped from approximately 42 per cent to 30 per cent; "...mechanization of farming, which proceeded steadily from the later nineteenth century on, not only substituted capital for labour but also, with help of new scientific procedures, increased productivity" (Brooking, 1996: 236).

Productivity growth accelerated after 1938, while the percentage of the labour force engaged in agriculture continued to decline. The proportion of the active working population engaged in agriculture has now stabilised at around eight per cent, still one of the highest rates in the OECD (Morriss et al., 2001). The 'dramatic' increase in output per employee was the result of ongoing mechanisation, and greatly improved farm management practices, such as fertilisation, and crop and animal husbandry (Hawke, 1996). These changes required a more skilled work force, and an increasing degree of business acumen on the farmer's part.

The post-war years were the hey-day of the family farm, with the number of farm holdings rising from 86,239 in 1946 to a peak of 92,395 in 1955. As land prices increased, however, and the size of an economic unit rose, the numbers involved in farming began to decrease, and by 1972 the number of farm holdings had fallen by nearly a third. The composition of the labour force also altered as the number of small farms decreased, so by 1971 farm labourers comprised 41 per cent of the farming labour force (Dunstall, 1996).

### **The Agricultural Labour Market**

Greater reliance on hired labour engendered a vulnerability to shortages in that labour supply. This was not a new issue in New Zealand; the mismatch of the rural labour force with the needs of farmers had been a major theme during New Zealand's colonisation phase. The situation was volatile, with dire shortages of labour through the 1850s, which continued into the 1860s as agricultural workers flocked to the goldfields. During Vogel's expansionist phase, the government intensified the ongoing effort to attract "...that very desirable class of emigrants, agricultural labourers and country

mechanics” (Vogel, 1874; cited in Martin, 1990: 19). The success of this immigration policy, however, became problematic as the ‘long depression’ that began in 1879 caused a contraction in the rural economy. Wage rates dropped and unemployment increased, exposing the predominantly seasonal nature of much rural work, and increasing the number of itinerant ‘swaggers’ (Martin, 1990).

As the depression ended, and the twentieth century began, the rural economy entered a prosperous period. The nature of the sector had changed dramatically, however, as family farms and mechanisation “...undercut the role of rural wage earners...[and] simultaneously diminished the need for seasonal workers and increased local sources of labour” (Martin, 1990: 197). The development of contracting systems for harvesting and shearing smoothed out seasonal labour demand, contributing to a relatively stable agricultural labour market.

Nevertheless, debate about the extent and nature of labour supply issues has remained a common theme. Concerns expressed at the 1963 *Agricultural Development Conference*, for example, have been echoed in reports and conferences through to the present day.<sup>3</sup> Many of the recommendations ensuing from the 1963 conference are also current concerns, such as the need to provide positive publicity about farming to school leavers (for a recent example, see Tipples et al., 2004: 5). The requirement for responsiveness to international trends and economic fluctuations by New Zealand’s agricultural sector means that labour shortages can often be unpredictable; based upon capricious seasonal, regional or product-specific changes<sup>4</sup> (Morriss et al., 2001).

### **Employment Relations in the Agricultural Sector**

The predominance of smaller, family farms may help account for the particular nature of employment relations in the agricultural sector. Despite often poor wages and conditions, farm labourers had generally a less adversarial relationship with their employers than workers in the secondary sector. There was some militancy in the early twentieth century, as the Canterbury Agricultural and Pastoral Labourers’ Union applied, in August 1907, to the Court of Arbitration for minimal standards of protection. This was viewed by farmers as a test case to ascertain if farming could be brought under the arbitration system. The Court’s recommendations conceded some of the union’s demands, but refused to grant any award, farming being considered too important to the country to be unionised (Martin, 1990). Industrial matters in agriculture continued to be dealt with separately “...because of a perceived need for special arrangements and because of the power of farmer organisations to influence political decisions” (Angove, 1994: 155). Thus, from 1936 farm workers’ wages and conditions were set by Orders in Council made under the *Agricultural Workers Act 1936*.

Although some categories of farm workers were union members, over 30,000 stock, station and dairy farm workers had little or no statutory protection. An attempt was made in 1973, via the *Agricultural Workers Amendment Bill*, to give these workers

---

<sup>3</sup> Cameron Report, 1984/85; Anderson, 1988; Agricultural Innovation Conference, 1991; Agricultural Strategy Council, 1991; Riddell Report, 1991/92; GAT – Capturing the Opportunities Conference, 1994; Morriss, Anderson & Parker, 1997 (Morriss et al., 2001: 5).

<sup>4</sup> For example, in the late 1970s the burgeoning kiwifruit industry experienced severe, but localised, labour shortages during harvest time; and the rapid growth of the dairy industry in Canterbury, Otago and Southland from the mid-1990s has precipitated another shortage of skilled and experienced labour (Morriss et al., 2001).

union representation under the New Zealand Workers' Union. The resultant outcry from farm workers, however, resulted in the formation of the Farm Workers Association (FWA):

“Farm worker antagonism to the threat of blanket union coverage was based on the perception of a shared community of interests with farmers, and a negative attitude to unions that had been hardened over time...Even though redress of wages and conditions was needed, it was widely believed that union activity would destroy the special relationship between worker and boss and damage prospects of upward social mobility through land ownership.” (Angove, 1994:157)

The FWA avoided the taint of unionism by being voluntary and non-militant. The organisation achieved some successes through the mid to late 1970s, including encouraging training. The FWA advocated a career structure in agriculture and had representation on the Telford Training Board, the Agricultural Training Council and at Lincoln College. However, the organisation was never well supported by the bulk of farm workers, many of whom were 'free-riders' under voluntary membership. Given that the catchment of members was characterised as "...mobile, dispersed, conservative and influenced by the attitudes of employers [and] ambivalent in their own attitudes because of their self-perception as future farmers..." it is hardly surprising that the FWA eventually disintegrated in the mid-1980s (Angove, 1994: 169).

### **Industry Training in Agriculture**

Clearly, then, the agricultural labour market has several significant characteristics that have implications for the way in which industry training is organised. Farmers' attitudes to training, and the response of the formal education sector, have also been the subject of debate:

“Agricultural education over the past century has been characterised by a general reluctance on the part of farmers to train in any formal sense of the word, and by the apparent failure of agricultural training institutions to communicate effectively with farmers who have learnt farming by farming.” (Moore, 1990: 23)

While agricultural degrees were available at Lincoln College (established in 1878) and Massey University (established in 1927), trade courses in farming were not offered until the formation in the late 1940s of the New Zealand Technical Correspondence Institute (Moore, 1990; Morriss et al., 2001). Pressure for some form of farm cadet scheme mounted throughout the 1950s and early 1960s and the first Farm Cadet Scheme annual conference was held in 1966 (Morriss et al., 2001). The scheme was run by Federated Farmers, with funding from the Ministry of Agriculture and Fisheries (MAF), and cadets studied for trade certification while completing a minimum of three years practical farming.<sup>5</sup> There were 1600 farm cadets in 1985, but this number had dropped to just over 1000 by 1988, representing only approximately one per cent of the farming workforce (Moore, 1990).

---

<sup>5</sup> Trade Certificate in farming was introduced in 1971, with Advanced Trade Certificate following in 1974 (Morriss et al., 2001)

Despite fluctuations in industry involvement with the cadet scheme, depending on economic cycles, the cadetship model enjoyed strong industry support, with a Horticultural Cadet Scheme established in 1976, an Equine scheme in 1982 and a Pork scheme in 1985 (Robertson, 1990; Morriss et al., 2001; Riddell, 1992). These were collectively known as the Primary Industry Cadet Schemes (PICS).<sup>6</sup> Riddell (1992: 17) argued that "...farmers prefer[ed] cadets to young people trained in most of the institutions...", and spoke of the importance of the 'investment in kind' from industry, in the form of voluntary administrators and farm trainers.

Farm training institutes were mooted in 1958 by the Consultative Committee on Agricultural Education. Two of these were established at Telford and Flock House, providing one-year practical and academic course for school leavers. Another institute, Taratahi, had been set up in 1919 as a training farm for men returning from the First World War. In the early 1950s, the focus of this institute moved to training young people aged 16 to 20 years (Taratahi Agricultural Training Centre, 2004). From 1974, the training institutes also ran block courses for those entering farming via the Land Settlement Scheme farm ballots. Once this scheme was scrapped in 1984, however, numbers in training at the institutes dropped dramatically,<sup>7</sup> compounded by the fee increase engendered by the 'full cost recovery' required (Moore, 1990).

Morriss et al. (2001) set out the recent history of primary industry education and training, highlighting five distinctive eras. The *Agriculture Development Conference* of 1963 marked the beginning of the first era, (that of agricultural production), during which the main focus of agriculture, and of agricultural training, was maximising production, mainly for export to Britain. The 1970 *Training in Agriculture* conference recommended the formation of an Agricultural Training Council (ATC), which was duly established in 1971. One of the main contributions of the ATC was the production of training guides for farm tasks, which allowed some examinations to be replaced with internal assessment, a precursor of competency-based training (Moore, 1990). This 'production' era ended when Britain joined the European Economic Community in 1972.

The need to find new markets heralded the next era, the 'marketing' era. No longer was it sufficient merely to learn to produce a commodity; business and marketing skills also became essential. The agriculture industry was still heavily subsidised, with government-supported agricultural extension, education and training services. In the early 1980s, the Prime Minister, RD Muldoon had looked to the farming industry to salvage an economy under siege. Billions of dollars, acquired through overseas borrowing, were poured into the pastoral industry; directly, through subsidies and indirectly, through an overvalued exchange rate (Jesson, 1987). During this era, the Ministry of Agriculture and Fisheries was responsible for vocational level training through the primary industry cadet scheme and farm training institutions. The *Cameron Report* of 1984/1985 indicated that "...Government was looked to as the provider of funds and significant leadership in Agricultural Training" (Riddell, 1992: 1).

Government subsidy, however, became an anathema after the election of the fourth Labour government in 1984. This era is characterised as the 'cold-turkey' era, as farmers bore the brunt of the reform process (Morriss et al., 2001). Agricultural subsidies were removed wholesale in 1985 and government funding for the Agricultural Training Council was also reduced (Moore, 1990; Morriss et al., 2001). In light of this,

---

<sup>6</sup> Forestry and Fishing cadet schemes were established during 1991.

<sup>7</sup> The training of young people at Flock House stopped in 1987 (Robertson, 1990).

Federated Farmers, after much debate, removed its financial support from the Council in March 1986, believing that it "...could operate agricultural training more efficiently than the current system" ("The mood of farming: state of shock!" 1986: 5). The Agricultural Training Council was disbanded later that year (Moore, 1990).

As the 'user pays' mantra took hold, "...MAF services became less of a responsibility for Government to provide, and more of a responsibility for the industry to buy" (Riddell, 1992: 7). At the same time, vocational training in general came to be seen as much more an education matter than a labour market issue (Murray, 2001). In agricultural training, this meant that the responsibility for both the farm training institutes and the primary industry cadet scheme was transferred to the Ministry of Education. There was a rapid expansion of polytechnic-based agricultural training, despite the relative cost-effectiveness of the industry-based schemes<sup>8</sup> (Riddell, 1992).

The years 1989 to 1999 are described as the 'free market' era, in light of the increasing role for market forces in determining education and training outcomes (Morriss et al., 2001). The competitive model encouraged a proliferation of agricultural courses, which were offered at many dispersed sites, with little co-ordination between parent polytechnics (Riddell, 1992). The expansion was short-lived, however, as industry reverses in the mid 1990s saw training reduced and in some cases no longer offered at all.<sup>9</sup> Private training establishments (PTEs), often staffed by former polytechnic tutors, moved to take up the slack (Morriss et al., 2001).

Industry-based training continued under the primary industry cadet scheme. Despite the government's preference for polytechnic-based training, support remained relatively stable for the cadet scheme, which attracted around 1,900 to 2,500 participants each year from 1983 to 1992 (Riddell, 1992: 17). The scheme, along with other industry training, came under the umbrella of the Education and Training Support Agency (ETSA). Riddell (1992) argued that the equity in funding and policy offered as the rationale for the transfer to ETSA had not occurred, and that the future of the primary industry cadet scheme was dependent on increased industry funding.

Increasing the contribution industry made to training was one of the main drivers of the National government's Industry Training Strategy, enacted in part via the *Industry Training Act 1992*. The agricultural sector was cautious, however:

"An impediment to increased Industry contributions to funding its own organisations is their suspicion of Government's longer term intentions. They fear that any increased funding will be matched by a decline in the Government share and with no gain in training effectiveness being achieved."<sup>10</sup> (Riddell, 1992: 2)

---

<sup>8</sup> In 1992, for example, the primary industry cadet scheme received \$714 per trainee per year, while the EFTS funding for a polytechnic student was \$9700. In total, the primary industry cadet scheme received 2.7 per cent of the government's agricultural education for 30 per cent of the total students (Riddell, 1992).

<sup>9</sup> For example, Christchurch Polytechnic ceased to teach agricultural courses in 1999 (Morriss et al., 2001).

<sup>10</sup> Fears of withdrawal of government funding proved largely groundless, with 66 per cent of the AgITO's 1999 income coming from government grants, and only 20 per cent from industry grants (Agriculture Industry Training Organisation, 2000). The figures were similar for 2000 (Agriculture Industry Training Organisation, 2001).

Nevertheless, the industry embraced the new strategy, with the farming and pork industries forming the Farm Education and Training Association of New Zealand (FETA) in the early 1990s. This organisation was charged with facilitating training for both new entrants and existing agricultural workers, and evolved into the Agricultural Industry Training Organisation (AgITO) in 1997 (Morriss et al., 2001; Riddell, 1992). The horticultural industry also formed the New Zealand Horticulture Industry Training Organisation (NZHITO) in 1992 (NZHITO, 2002).

The current era, which began with the election of the Labour/Alliance coalition government in 1999, is characterised by Morriss et al (2001) as the ‘knowledge economy’ era. The intellectual capital of the country is seen as the driving force behind competitiveness and growth. ‘Marketing’ has been replaced by an emphasis on quality assurance and supply-chain management. Increasingly, large supermarket chains are the export focus, with requirements for niche products and extensive trace-back systems: “...to meet these requirements the standards of agricultural education, training and development will inevitably have to rise in the new millennium” (Morriss et al., 2001, 7). Indeed, in 2003 there were nearly 10,000 trainees participating in some form of agriculture or horticulture education or training (Department of Labour, 2003).

### **Case study: The Dairy Industry in Canterbury**

The primary sector is of vital importance to the Canterbury region, with agricultural goods contributing over half of the region’s total exports. The trend towards diversification identified in New Zealand agriculture has also been noted in Canterbury, with increased irrigation allowing more intensive farming, such as horticulture, viticulture and, in particular, dairying (Canterbury Development Corporation, 2003). The size of the dairy industry in the region increased approximately ten-fold from 1993 to 2002, as high export prices led many sheep and beef farmers to convert to dairying (Career Services, 2002). The region is notable for above-average herd sizes; 600 cows compared to the national average of 300 (Department of Labour, 2003).

The field work for this case study was comprised of interviews, which were carried out in 2002 and 2003, and the monitoring over the same period of various initiatives focused on labour issues related to dairying. The dairy industry encapsulates many of the issues that impact on industry training in agriculture as a whole. While conditions for dairy farm workers have improved “vastly” over the past decade, it remains a mobile workforce, with shortages of skilled labour (Department of Labour, 2003: 8). The labour intensive nature of dairying, coupled with increasing farm sizes, has meant that the family-based farm is often no longer viable; “...employing staff has become a fact of life for dairy farmers” (Verwoerd & Tipples, 2004). Employment relations, within which training is set, have been somewhat problematic in dairying, and industry training may have a wider role to play than merely the acquisition of specific farm-related skills.

### **Recruitment**

As training in agriculture has developed from the farm cadet scheme, trainees are not defined as apprentices as such. Since the inception of Modern Apprenticeships in 1999, however, a number of industry trainees have moved onto this scheme. The Agricultural Industry Training Organisation (AgITO) has a pro-active role in recruiting trainees and apprentices: “...our role is to go out on the farms and find people who are already in

*employment, and encourage them into training*" (Interview with AgITO training advisor). There are also four pre-employment training groups in the region: the National Trade Academy; the Rangiora Academy, attached to Rangiora High School, Hurunui Academy attached to Amuri Area School; and a course run by Agriculture New Zealand (AgNZ).<sup>11</sup>

### **Organisation of training**

AgITO trainees begin with an entry-level Level 2 course, the National Certificate in Agriculture: Introductory Farming Skills. This is a generic farming course, with an emphasis on basic farm skills and safety, and usually takes one year to complete. Some of the Level 2 course may have been delivered by a pre-employment training provider. Trainees may then move onto the Level 3 and 4 course, where they are able to choose a specialist farming option. The Level 4 qualification requires around three years of part-time study. It is at this point that some trainees are identified as potential Modern Apprentices and offered the opportunity to move onto that scheme. The funding tied to Modern Apprentices obligates the training co-ordinator to carry out four visits to the apprentice per year. The distances involved and lack of ITO funding, however, precludes such close attention being given to ordinary AgITO trainees:

*"It's not too dissimilar to what the AgITO is doing already, we're training advisors, we're out visiting our trainees anyway, and (in theory) we visit our trainees twice a year. That's regardless of the apprenticeship scheme, and so they already were getting that contact with us. But the apprenticeship scheme...puts it into a tighter framework...Physically it wouldn't be possible [to have all trainees as Modern Apprentices] because of the extra work required to maintain a Modern Apprentice, like four visits a year... We're struggling to, my region we're struggling to do one visit, not for the Modern Apprentices, for the people who are non-apprentices. Like I certainly get my Modern Apprenticeship visits done, but for the non-Modern Apprentices, I'd be struggling to get one visit done a year, and, as you increase the number of Modern Apprentices, for a training adviser, their work increases...But there is a ceiling though, you couldn't have all Level 4 [trainees] doing it, unless you put more labour on the ground, and that's potentially possible I suppose."*  
(Interview with regional agriculture ITO official).

The isolation of many trainees is not the only distinctive feature of training in the agricultural sector. Dairying, in particular, has high rates of both internal migration and staff turn-over (Tipples, Wilson & Edkins, 2004). This movement traditionally occurs on 'Gypsy Day' (1 June), which marks the beginning of a six-to-eight week period (on factory-supply farms) when cows are not milked and calving occurs. It is on this day that farmers, sharemilkers, workers and herds may shift farms (Tipples & Lucock, 2004). Clearly, the reality of such a mobile workforce has ramifications for the both the motivation to train, as the farmer may be unable to capture directly the benefit of the training investment, and the organisation of the training:

---

<sup>11</sup> AgNZ is a subsidiary of Wrightson (a major agriculture business). It was formed when, after more than 100 years, the farm and horticultural advisory services of the Ministry of Agriculture and Fisheries ended. AgNZ had three strands: marketing and business consulting; on-farm consultancy; and the training group, which is a NZQA accredited private training provider (AgNZ, 2001).



*“Yeah, they do move around a lot...I’ve got around 25 to 30 per cent of my trainees moved this quarter. Yes, so I terminate (nasty term) them when they leave my area...There is a large movement of trainees between regions, and probably 30 per cent is getting on the high side. I have heard farmers say that it’s healthy that there is some movement, they all agree they don’t want too much movement, but some movement is good, because some of that is employees going on to better things, going up the ladder and becoming more skilled, and they want to take on herd manager’s positions so they move to do that because they can’t do it with the existing farm they’re on. Also a couple or two years on a farm, it’s good to get a new employer and get fresh ideas and a different way of doing things.”* (Interview with regional agriculture ITO official)

## **Assessment**

Because of the particular nature of the agriculture industry, the main emphasis of assessment is on-farm assessment. Formalising the assessment of training may prove a challenge for some farmers, requiring good support systems. For example, Verwoerd and Tipples’ (2004) study of the staff management practices of 20 Canterbury dairy farmers found that, while the farmers generally enjoyed training, “...the pressure of work tended to limit that training to practical, here-and-now tasks with little opportunity for theoretical or wider extension” (Verwoerd & Tipples, 2004, 34). In recognition of the need for support, when they take on an AgITO trainee or apprentice, farmers are signed up as registered assessors. While this system is generally regarded as working well, moderation is an issue because farmers are in the main working on their own, and are often geographically isolated. In the Canterbury region, AgITO has recognised the difficulties that may arise with assessment by appointing a ‘roving’ moderator, who will visit each contracted farm and advise the farmer on assessment.

Off-farm assessment is carried out at classes held approximately once a fortnight in varying locations. These classes provide around 72 hours of tuition a year. In the Canterbury region, which has a predominance of dairy farms, the classes are held between 9.30am and 2.30pm, to cause the least interference to the farming day. AgITO contracts training providers, one of which is Agribusiness Training, to run the courses. This company was formed as the region’s polytechnics closed down their agricultural departments. As well as providing technical tuition and assessment opportunities, the classes also provide social contact for trainees and another contact point for the AgITO training advisor.

## **Industry issues**

### ***Recruitment and Retention of Skilled Workers***

An over-riding issue for the agriculture industry currently is the recruitment and retention of skilled workers. This is hardly a new phenomenon, yet the current buoyancy of the sector and the increasing demand for higher skilled workers have brought the issue to prominence. The changing nature of the industry has also contributed to the problem of attracting skilled workers. The trend away from family or owner-operated farms to larger, corporate-style businesses has meant that for many people the dream of eventual farm-ownership is no longer attainable. Thus, a recognised

career path becomes crucial to providing motivation for those entering the industry ("Agriculture 'unattractive to youth'," 1998). This career progression may be from farm worker to herd manager to farm manager or sharemilker.<sup>12</sup> Sharemilking may be a step towards farm ownership or a career in itself. As land prices rise, however, and farmers' financial commitment to the dairy companies increase, there is a trend towards employing salaried farm managers, rather than sharemilkers.

An 'environmental scan', conducted as part of a pan-industry Human Capability Strategy (launched in February 2003), provided a background of the labour and skill issues. Several challenges were identified: the largely urban nature of New Zealand, which divorces many people from any 'agricultural' experience; the perception of the sector as low-skilled; many small-scale, isolated employers; perceptions of low pay and poor conditions; intensification of farming practices, requiring improved people management skills; a poor health and safety record; seasonal work; and poor promotion of farming as a career option (Department of Labour, 2003).

Many of these factors are in evidence in the Canterbury dairy industry, which formed the basis for much of my field work. One interview I conducted with a dairy farmer encapsulated the paradoxes surrounding training. The farm, a large dairy conversion milking approximately 670 cows for factory supply, employed four full-time staff who worked on a rotating roster, with three staff on at any one time. While the farmer was happy to have pre-employment trainees from the National Trade Academy for one to two-week work experience placements, the farm had not had an AgITO trainee or apprentice in the previous four or five years. The farmer explained that there was a concern that the trainees would leave the farm or the industry after the (expensive) training was completed and that some aspects of the AgITO support and training were not to her liking. Another major contributor to the reluctance to take on a trainee was the time required to train; as the farm expanded there simply was not enough time to train a less skilled employee. The farmer also felt that 'soft' skills, such as attitude, organisational skills and people management skills (clearly perceived by her as *not* delivered by formal training), were more important than technical skills, especially given the close nature of farm working relationships.

The farm had a high level of staff-turnover (not uncommon, as discussed above), however, and the farmer reported that it was extremely difficult to source staff with the required experience and skills. One response to these difficulties was to use a farm employment agency, Marvin Farm Services,<sup>13</sup> which organises overseas farm labour for short or long-term placements. At the time of the interview, all four of the farm's staff had come from overseas. This farmer was impressed with the training these employees had received overseas, especially from Britain and Ireland, arguing that they had a better grasp of general farming techniques than their New Zealand counterparts.

One point on which the farmer was most emphatic was the need for a change of attitude, especially on the part of secondary schools. It was felt that farming needed to be promoted as a skilled occupation, with a formal career path available. Clearly, this farmer felt that the low status accorded to farming, discussed in greater detail below, was a major contributor to recruitment and retention problems. Yet, paradoxically, the desire to train, recognition of the benefits of training, and a call for a formal career

---

<sup>12</sup> Sharemilkers operate a farm on behalf of the farm owner for an agreed share of the farm profits. In 2000/2001 37.3 per cent of New Zealand dairy farms were sharemilked (Verwoerd & Tipples, 2004).

<sup>13</sup> [www.marvinfarms.co.nz](http://www.marvinfarms.co.nz)

progression (presumably reliant on formal qualifications) did not translate to participation in AgITO training by the farm.

### ***Responses to Recruitment and Retention Issues***

There has been a wide range of responses to labour and skill issues in the agriculture sector. Several government departments are involved in a number of initiatives at both national and regional levels "...around issues concerning matching labour supply with demand, skill development of employees and growers, and improving employment practices and conditions" (Department of Labour, 2003: 2). These include the development of the human capability strategy mentioned above; initiatives focusing on seasonal workers;<sup>14</sup> and health and safety programmes.

There are also industry-level initiatives. For example, the dairy industry 'industry good' organisation, Dairy InSight,<sup>15</sup> committed around \$2 million of its approximately \$36 million 2003/2004 budget to education and training. Of this, over \$1 million was used, in collaboration between Dexcel<sup>16</sup> and the AgITO, to "...improve the knowledge and skills of people from the dairy industry who enter AgITO training programmes...leverag[ing] government funds using dairy industry investment" (Dairy InSight, 2004b). Similar investment in 2002 meant that over 3000 dairy farm employees (17 per cent of those available) were trained during the year (Dexcel, 2003: 11). Another nearly \$900,000 was granted to Dexcel to:

"...continue to strengthen the education framework within and available to dairying to meet changing industry and farm business needs and to assist in raising the perception of dairying as the *career choice of intelligent people*." (Dairy InSight, 2004b: 1, emphasis added)

Dairy InSight also funded a Lincoln University report that aimed "...to evaluate the future employment situation of the New Zealand dairy farming industry" (Tipples et al., 2004: 1). This report provided a statistical profile of the industry and inter-census changes to that profile. While acknowledging the initiatives outlined above, the report found that:

"The dairy industry's image continues to be unattractive to potential entrants and is resulting in too few people entering the industry. The low levels of qualification of the existing labour force and the problems of retaining the 20-29 age group is depriving the industry of the skill it requires." (Tipples et al., 2004: 95)

---

<sup>14</sup> It is important to distinguish between the seasonal nature of, for example, dairy farming, where there tends to be an annual movement of workers, and the seasonal needs of growers, where a large number of workers are required for a short time span.

<sup>15</sup> Dairy InSight is a funding organisation only; services are provided by organisations such as Dexcel. Dairy InSight is funded by a levy of 3.4 cents per kilogram of milksolids on all New Zealand dairy farmers and sharemilkers (Dairy InSight, 2004a). According to the dairy farmer respondent, this translated to an average yearly payment of around \$2700 per farm, but would be nearer \$7000 on her farm.

<sup>16</sup> Dexcel is the research and extension arm of New Zealand's dairy industry, incorporating the former Dairying Research Corporation and the Consulting Officer Service of Livestock Improvement. Initially set up by the New Zealand Dairy Board (NZDB), Dexcel is now 100 per cent owned and funded by dairy farmers (Dexcel, 2004).

There is an increased level of awareness of the need to rectify such image issues and to invest in training at the regional level. For example, in 2000 a group of dairy farmers in North Canterbury banded together to form the Amuri Dairy Employers Group, in response to difficulties in attracting and retaining staff (Edkins, 2002). While such problems were endemic to dairying in Canterbury as a whole, they were particularly severe in the Amuri area, for three reasons. First, dairying was comparatively new to the area, meaning that the Amuri was not well-known for dairy employment. Second, many of the farmers were relatively inexperienced, resulting in some cases in unhappy staff, poor employment relations and high staff turnover. Third, the area is quite isolated, presenting social problems for staff, many of whom are young, single males. Thus, "...the entire region developed a bad reputation as somewhere to live and work" (Edkins, 2002: 225). The response to these issues from the employers' group was to develop a code of practice, covering such things as hours of work, employment conditions and training. The group also aims to promote the dairy industry as a positive career choice (Mathais, 2002: 16).

### ***Status of agriculture***

The low status of agricultural work was of great concern:

"Agriculture is not, probably never has been, a favourite occupation/profession for capable young people. The unfavourable perceptions of agriculture were made worse by dramatic, often disastrous, events in New Zealand agriculture in the 1980s." (Holmes; cited in "Code key to building skilled labour force", 2002)

Many of the perceptions plaguing the trades as a whole have also been cited as reasons for difficulties with recruitment and retention in agriculture: low pay, poor working conditions and a predominance of 'dirty' or manual tasks. Over-riding these commonalities, however, was a feeling that agriculture, in particular, was the epitome of an unfashionable, 'un-sexy' industry. Contributing to this is the broader repudiation of the importance of agriculture to New Zealand. Baragwanath (2003) described this as "... the (agric)cultural cringe – embarrassment at New Zealand's 'unsophisticated' pastoral heritage" (Baragwanath, 2003: 3). Thus, despite the fact that the primary sector is the single largest contributor to New Zealand's export earnings, and the fact that productivity levels in the sector are amongst the best in the world, the government's attempt to insert New Zealand into the global 'knowledge economy' via biotechnology, information technology and the 'creative' industries virtually ignores New Zealand's traditional area of expertise. It is little wonder that this message filters down to many school-leavers to brand agriculture as a 'no-go zone'.

### **Conclusion**

As the historical sections of this article illustrated, the nature of industrial relations within the agriculture sector, together with a deep suspicion on the part of many farmers about the 'theoretical' (as opposed to the practical or hands-on) and the fact that many farms are small or family-based businesses, have been barriers to formal training. But as farming was exposed to the rigours of international competition without the safety net of guaranteed markets, three factors exacerbated over time both the ability of farmers to offer training and lessened the likelihood of people wishing to take part in that training.

First, the removal of subsidies in the mid-1980s severely impacted on agriculture. Many farmers were forced off the land, or into survival mode; training was clearly not a priority in that environment. Secondly, in the same neo-liberal vein, training itself was exposed to market forces during the 1990s. Finally, although agriculture may have survived the harsh medicine meted out in the 1980s and is now relatively thriving, the 'knowledge society', may only have limited tolerance for a (supposedly) old-fashioned, commodity-based industry.

Nevertheless, there is a clear enthusiasm for training on many farms and a growing recognition within the industry that good training practices are an important part of the solutions to many of the challenges facing farming. The immediate benefits of training, a better skilled workforce and improved productivity, are obvious, but training may also help with worker retention, play a role in developing surer career paths in the industry, ease the adoption of new technology and assist in raising the image of the industry. Formal training may also encourage a more diverse workforce; not coming themselves from a farming background is less of a barrier if recruits know they will be well-trained and supported. In the long term, an employer who has received formal training is likely to feel obliged to ensure his or her workers are also trained; therefore as formal training becomes more the norm in agriculture, it may become a self-perpetuating ethos.

## References

AgNZ. (2001), *Agriculture New Zealand Ltd* [Website]. Wrightson. Retrieved 3 March, 2004, from the World Wide Web: [www.wrightson.co.nz/agnz/index.asp](http://www.wrightson.co.nz/agnz/index.asp)

Agriculture Industry Training Organisation. (2000), *Agriculture Industry Training Organisation Annual Report 1999*. Wellington, AgricultureITO.

Agriculture Industry Training Organisation. (2001), *Agriculture Industry Training Organisation Annual Report 2000*. Wellington, AgricultureITO.

Agriculture 'unattractive to youth'. (1998, October), *Dairy Exporter*, 16.

Angove, N. (1994), The New Zealand Farm Workers Association: Its rise and fall 1974-1987. In Walsh, P. (ed.), *Trade Unions, Work and Society*, Palmerston North, The Dunmore Press, pp. 155-176.

Baragwanath, L. (2003), *Escaping the groove of globalisation: Disentangling description, discourse and action*. Paper presented at the December 2003 Sociological Association of Aotearoa Conference: "Knowledge, Capitalism, Critique" (Quality-assured Stream), Auckland University of Technology.

Brooking, T. (1996), Economic transformation. In Rice, G.W. (ed.), *The Oxford History of New Zealand*, Auckland, Oxford University Press (2nd ed.), pp. 230-253.

Canterbury Development Corporation. (2003), *Christchurch and Canterbury: Pure business*. Christchurch, CDC.

Career Services. (2002), *Agriculture in the Canterbury region* [Website]. Kiwi Careers. Retrieved 11 March, 2004, from the World Wide Web: [www.careers.co.nz/industry](http://www.careers.co.nz/industry)

Code key to building skilled labour force. (2002, July), *Dairy Exporter*, 104-105.

## Knowledge and skill 'down on the farm' - 15-

- Dairy InSight. (2004a), *About us* [Website]. Dairy InSight. Retrieved 8 March, 2004, from the World Wide Web: [www.dairyinsight.co.nz/main.cfm](http://www.dairyinsight.co.nz/main.cfm)
- Dairy InSight. (2004b), *Dairy InSight funding portfolio 2003/2004* [Website]. Dairy InSight. Retrieved 8 March, 2004, from the World Wide Web: [www.dairyinsight.co.nz/main.cfm](http://www.dairyinsight.co.nz/main.cfm)
- Department of Labour. (2003), *Industry profile - agriculture and horticulture*. Wellington, Department of Labour.
- Dexcel. (2003), *Annual Report*. Hamilton, Dexcel.
- Dexcel. (2004), *About us* [Website]. Dexcel. Retrieved 8 March, 2004, from the World Wide Web: [http://www.dexcel.co.nz/about\\_dexcel](http://www.dexcel.co.nz/about_dexcel)
- Dunstall, G. (1996), The social pattern. In Rice, G.W. (ed.), *The Oxford History of New Zealand*, Auckland, Oxford University Press (2nd ed.), pp. 451-481.
- Edkins, R. (2002, 21-22 November), *Dairying and employment in the Amuri: 1983-2002*. Paper presented at the Labour, Employment and Work in New Zealand, Victoria University, Wellington.
- Hawke, G. (1996), Economic trends and economic policy, 1938-1992. In Rice, G. W. (ed.), *The Oxford History of New Zealand*, Auckland, Oxford University Press (2nd ed.), pp. 412-450.
- Jesson, B. (1987), *Behind the mirror glass*. Auckland, Penguin Books Ltd.
- Martin, J. E. (1990), *The forgotten worker: The rural wage earner in nineteenth-century New Zealand*, Wellington, Allen and Unwin/Trade Union History Project.
- Mathais, R. (2002), Employers' group works for staff. *Dexcelink*.
- Ministry of Agriculture and Forestry. (2004), *New Zealand's agriculture and forestry sectors*. MAF. Retrieved 11 November, 2005, from the World Wide Web: <http://www.maf.govt.nz/mafnet/rural-nz/statistics-and-forecasts/sonzaf/2004/2004-sonzaf-04.htm>
- Moore, K. (1990), *Learning on the farm: the educational background and needs of New Zealand farmers*. Wellington, New Zealand Council for Educational Research.
- Morriss, S., Tipples, R., Townshend, W., MacKay, B. & Eastwood, C. (2001), *Skill and labour requirement in the primary sector* (Report). Wellington, Ministry of Agriculture and Forestry.
- Murray, N. (2001), *A history of apprenticeship in New Zealand*. Unpublished Master of Social Science Thesis, Lincoln University, Lincoln.
- Murray, N. (2005), *Who gets their hands 'dirty' in the Knowledge Society? Training for the skilled trades in New Zealand*. Unpublished PhD Thesis, Lincoln University, Lincoln.
- New Zealand Horticulture Industry Training Organisation (NZHITO). (2002), *About us* [Website]. NZHITO. Retrieved 31 July, 2002, from the World Wide Web: [www.hortito.org.nz/about\\_us/default.shtml](http://www.hortito.org.nz/about_us/default.shtml)
- Riddell, R. (1992), *Towards an agricultural training strategy for the 1990s*, MAF Policy Public Information Paper 2, Wellington, Ministry of Agriculture and Fisheries.
- Robertson, L. (1990, July), History of NZ agricultural education. *Dairy Exporter*, 84-85.

- 16 - Nicky Murray

Statistics New Zealand. (2005), *Labour market statistics 2004: People employed by occupation and sex, 1992-2004*, Wellington, Statistics New Zealand.

Taratahi Agricultural Training Centre. (2004), *History of Taratahi Agricultural Training Centre* [Website]. Taratahi Agricultural Training Centre. Retrieved 5 March, 2004, from the World Wide Web: [www.taratahi-ag.ac.nz/history](http://www.taratahi-ag.ac.nz/history)

The mood of farming: state of shock! (1986, 19 March), *Straight Furrow*, 5.

Tipples, R. & Lucock, D. (2004), Migrations and dairy farming. *Primary Industry Management*, 7(1): 33-35.

Tipples, R., Wilson, J. & Edkins, R. (2004), *Future dairy farm employment* (A report prepared for Dairy InSight as Project 10015/2003). Lincoln, Lincoln University.

Verwoerd, N. & Tipples, R. (2004), *Dairy farmers as employers in Canterbury*, FHMG Research Report 01/2004, Lincoln, Lincoln University.