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Unit Standards teaching and assessing in the  
agricultural industry

**UNIT STANDARDS TEACHING  
AND ASSESSING  
IN THE AGRICULTURAL  
INDUSTRY**

**REPORT IN REQUIREMENTS  
AS PER  
THE KELLOGG  
RURAL LEADERSHIP  
PROGRAMME**

**PREPARED BY:  
LYN BERRY**

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## 1.0 INTRODUCCION

“What Counts as Knowledge?

The shift in what counts as knowledge is a world-wide phenomenon. Barnett suggests that it is, in part at least, a shift from knowledge as process to knowledge as product. He observes that:

“The university has become less a place of broad educational and personal development, through an interactive process deemed valuable in itself, and more a place in which knowledge is viewed as a commodity, picked up by those who pass through in acquiring the latest technical competencies and analytical capacities.”

(Barnett, 1994: 13)

(Olssen and Morris Matthews , 1997, pp. 16,133)

This report is written to look at unit standards learning in Agriculture. For many years farming has been a knowledge passed down through the generations or learnt over a period of time through trial and error.

Not everything passed down suited the next generation, some generations found it hard to come to grips with the changing economic times or agricultural trends. This inflexibility or the holding on to ideas that had become out a dated, in many cases, because the families knew no better or did not have the opportunities to experience new ideas and new methods, lead to poor financial return, or at worst, sale of their property.

All farming systems must be flexible enough to change with the changing times. Long before the invention of the automobile, milk/cream was carted on horse and dray to the many small factories that lay dotted around the country like pins in a pin cushion. At these factories came the opportunity for the farmers to mix with their neighbours, to spin a few yarns, compare notes on production, the weather, grass growth and the rumours about new fang dangled inventions that were popping up within the industry.

With the invention of automobiles, refrigeration, electricity to woodsheds and milk sheds came more of these new fang dangled inventions.

These inventions ranged from sharing plants, milk vats and milking machines, drills to sow grass seed and a whole range of machinery to pull behind tractors. But that is not all. There were also tankers to take the milk to the factory, stock truck and the railways to transport stock to sales or freezing works. The world began to move very fast for the members of the Agricultural sector.

Now it was possible to milk more than a handful of cows on one farm. Cow numbers began to rise, farms became larger and with these changes came the changes needed in management. This management change encompassed not only pasture management but stock management, financial management, soil management and labour management, to name but a few. Management of proprietries was changing and in some cases changing fast.

To learn by trial and error or to be inflexible in farming practise cost money and time and sometimes farms.

So like many industries, training programmes were introduced. Initially programmes were developed in New Zealand's universities. The challenge was then taken up by the agricultural industry itself and farm cadetships and training schemes began to spring up. With the development of Polytechnics, even more agricultural courses became available.

All courses, no matter at what level, required the learner to acquire knowledge and be assessed on the retention of knowledge through the mode of examinations.

These examinations, were norm referenced, i.e. percentage based and were the hub of our education system until the start of the 1990s.

As change had swept through the agricultural sector over a number of decades, so change now hammered, with a swift and well documented speed, at the doors of our educational sector. It is with the economists, politicians, businessmen and wolves howling monotonously at the door that I present to you the main body of my report.

## 2.0 HISTORY AS IT WAS MADE FROM THEN TILL NOW

As the policies behind these changes are vast and complicated I will use extracts from a number of sources that put these changes into perspective far better than I could.

“In New Zealand, rising economic rationalism came about at the same time as the election of the fourth Labour government in 1984. From then the role of the government was radically reduced and the role of the market was correspondingly increased. The driving force behind most areas of government policy had been to increase New Zealand's productive capacity and generate economic growth. Treasury and advice from the business roundtable tended, strongly, to influence any policy or decision making.

Through such policies the fourth Labour government adopted a combination of macro- and micro-economic policies aimed at reducing inflation, increasing productivity and stimulating employment growth.

In relation to education, the market model entailed four major features:

- the way to improve schools is to ensure that they are consumer driven
- the user should pay
- private schools are better than state schools and should be encouraged
- the school system must be made accountable. (Snook,1994:37-38)

In short, Treasury argued that state-provided-and-controlled education meant that education had performed badly and would continue to do so unless changes of a radical sort were implemented. The Treasury sought to buttress its arguments for the necessity of change by reference to 'falling standards' and 'rising mediocrity', and by discrediting the notion of education as a 'public good'.”

(Olssen and Morris Matthews , 1997, pp. 16,132)

### 2.1 The Reports

In 1988, with the political situation as it was, it appears that many people jumped on the band wagon and the result was an environmentalist's nightmare. Miles and miles of paper, report after report. How was your average New Zealander ever going to wade through so many report, let alone understand them, to make a clear and well informed decision on our education system.

Listed below are the array of reports produced by the government or agencies.

#### **In relation to early childhood education:**

*Report of the Early Childhood Care and Education Working Group* (Meade Report)  
(Department of Education, 1988c)

*Before Five: Early Childhood Care and Education in New Zealand* (Department of Education, 1988b)

#### **In relation to primary and secondary education:**

*Administering for Excellence* (Picot Report) (Department of Education, 1988a)

*Tomorrow's Schools* (Department of Education, 1988e)

*Today's Schools* (Lough Report) (Ministry of Education, 1990a)

*The National Curriculum of New Zealand* (Ministry of Education, 1991 a) *The New Zealand Curriculum Framework* (Ministry of Education, 1993a)

**In relation to tertiary education:**

*Universities Review Committee* (1987) (Watts Report)

*Report of the Working Groups on Post-Compulsory Education and Training* (Hawke Report) (Department of Education, 1988d)

*Reforming Tertiary Education in New Zealand* (New Zealand Business Roundtable, 1988)

*Learning for Life* (Department of Education, 1989)

*Report of the Ministerial Consultative Group* (Todd Report) (Ministry of Education, 1994a)

**Of general significance in terms of the relationship between education and the economy:**

*Bulk Funding of Teachers' Salaries* (Ministry of Education, 1990b; 1991 c)

*Designing the Framework* (NZQA, 1991 )

*Upgrading New Zealand's Competitive Advantage* (Porter Project) (Crocombe, *et al.*, 1991)

*Learning to Learn* (NZQA, 1992)

*Education for the Twenty-First Century* (Ministry of Education, 1993b; 1994b)

*OECD Economic Surveys 1992-1993* (OECD, 1993)

*Towards an Enterprise Culture* (New Zealand Business Roundtable, 1993).

“With the plethora of reports came dramatic changes in the operation and functioning of education at the early childhood, primary, secondary and tertiary levels. The very notion of education also changed. For the first time in New Zealand's history, the conception of education as a private commodity.”

(Olssen and Morris Matthews , 1997, pp. 17)

With the completion of yet another report, the Hawke report (July,1988), and the formation of a working group, more recommendations were put in place. The main points that I have picked out are;

- The establishment of a new Ministry of Education to provide policy advice;
- A new funding system to allocate bulk funding to tertiary institutions in a fair and consistent way;
- A co-ordinated qualifications system;
- Wider participation in tertiary education, to be achieved by requiring institutions to specify in their charters how they intend to remove barriers to access.

These were put into law through the Education Amendment Act, 1990.

## **2.2 The New Agencies**

With the demise, on the 1 October 1989, of the Department of Education, along with those agencies with tertiary responsibilities, these functions were redistributed among a set of new central agencies:

### **The Ministry of Education**

Responsible for policy advice to the government, including recommendations to the Minister of Education on bulk funding levels for tertiary institutions, funding for industry training and entry level training programmes through contractual arrangements with other agencies and providers.

### **The New Zealand Qualifications Authority (NZQA),**

Which is responsible for the development of a national qualifications framework but recognises the authority of the New Zealand Vice Chancellors' Academic Programmes Committee and to the academic programmes committees of tertiary institutions. Reports directly to the Minister of Education. Co-ordinates all qualifications in post-compulsory education and training from senior secondary to degree level so that they have a purpose and a relationship to each other that students and the public can understand. Set and regularly review standards as they relate to qualifications. This new system was based on the SCOTVEC system used in Scotland. (Scottish Vocational Education Council).

### **The Education Review Office (ERO)**

Is a Crown agency responsible for reporting how well schools (including their senior secondary components) are performing.

### **The Education and Training Support Agency (ETSA)**

Responsible for the funding of the labour markets training programmes. They administer the industry training fund (ITF) contract and the government's industry training polices. Works under a document of accountability to the Minister of Education. (Note; ETSA has been renamed recently to Skill New Zealand).

### **Careers Service (Quest Rapuara)**

Responsible for providing careers education, information, and advice.

“Excellence in education lies at the heart of a knowledge-based economy. It will also be required for the jobs needed to support such an economy. If we are to step off the slow track of commodities and onto the highway of innovation, we all need to have the skills and knowledge to push frontiers, break barriers, and find new niches.....

In this increasingly global and diverse market-place, keeping at the forefront means having focused tertiary institutions that are integrated with the business and research sectors, and which are world leaders in their fields.”

(Department of Education, 1999, pp. 24)

## 2.3 Industry Training Policy

Government's industry training policy allowed industries to become responsible for developing, implementing, and administering their own training arrangements such as on and off job training. This included apprenticeships and primary industry cadet schemes, through the establishment of Industry Training Organisations (ITOs). (There are currently over 50 industry groups, including Agriculture, with over 45,000 people signed up to Industry Training agreements).

The National Qualifications Framework (NQF) was to be the king pin to the success of the industry training policy by allowing trainees to accumulate credits towards national qualifications from a broad range of training opportunities, including work-place assessment. Within this framework all qualifications are to have a purpose and a relationship to each other. These relationships are to be easily understood by the students and the general public.

The New Zealand Qualifications Authority is responsible for developing and implementing the National Qualifications Framework for secondary schools and post-school education and training.

The National Qualifications Framework's broad goals are to assist the decisions of learners and employers:

- by providing them with an assurance of the quality of qualifications;
- by improving information about the purposes of qualifications and how different qualifications relate to one another.

The National Qualifications Framework is intended to be comprehensive, spanning general, vocational and industry-based qualifications across the post-compulsory sector, including senior secondary school.

The National Qualifications Framework is based on 'outcomes' or 'standards', i.e. clear statements about what learners know and can do, and which provide a basis for fair assessment.

## 2.4 The Levels

“In March 1991, within six months of its establishment, the NZQA released a discussion document under the title ‘Designing the Framework’, proposing a national qualifications framework that would incorporate, within eight specified levels, ‘all national and nationally recognised qualifications’ (NZQA, 1991: 36). The document proposed a unified, logically planned and systematic approach to the design and issue of all educational and vocational awards, qualifications and credentials. The new form of assessment was to be ‘standards-based’ and the new credential was to be a National Certificate. From the outset, it was asserted that any distinction between academic and vocational has been ‘discredited’ and that all qualifications should comprise transferable units of learning, designed around clearly specified outcomes. These have become the controversial unit standards.”

(Olssen and Morris Matthews , 1997, pp. 132,133)

The National Qualifications Framework has eight ‘levels’ which signal progressively more difficult or complex outcomes required of learners. Levels are not prescriptions for learning: they are conventions for describing qualifications, similar to the university, practice of designating degree stages as 1, 2 and 3.

- NQF level 1** School Certificate subjects and some foundation courses such as the National Certificate in Boating Industries (Core Skills)
- NQF level 2** Sixth Form Certificate and the National Certificate in Agriculture Introductory farming skills
- NQF level 3** University Bursaries, National Certificate in Security
- NQF level 4** National Certificate in Agriculture Dairy
- NQF level 5** Stage 1 of an undergraduate degree, New Zealand Institute of Management Diploma in Management
- NQF level 6** Stage 2 of an undergraduate degree, National Diploma in Agriculture
- NQF level 7** Undergraduate degrees such as a Bachelor of Applied Science (Agriculture)
- NQF level 8** Postgraduate study such as Master of Arts, Doctor of Agricultural Science

Each of these levels is made up of units. Each unit has a set of guide lines made up of learning outcomes, elements, and credits. Learning outcomes describe what people will know and can do when they complete their qualification.

Levels describe the complexity of the learning outcomes.

Credits are a measure of the amount of learning and assessment required on average to gain a qualification or to complete a course. The credit value is approximately proportional to the average amount of time required by learners to achieve the unit standard. One credit equals ten to twelve hours of training. (This estimation is also under discussion and I have heard figures of 5 hours per credit quoted. This is only an issue when providers are tendering for

courses based on a set number of credits and the number of hours per course).

Elements are components of the unit standards. An element states the outcome a person must achieve.

Detailed field will be part of a standardised set of subject classifications covering all qualifications and courses, under which the various qualifications and components will be classified.

"One of the major overarching policy developments has been the attempt to integrate traditional forms of education with work place training, represented by the notion of a 'seamless education system'. This concept of a 'seamless education system' was first envisaged in the report Education for the Twenty-First Century (Ministry of Education, 1993), and was based on the absence of barriers between schools and post-school education and training. The concept is also linked to the National Qualifications Framework where all courses of study, now to be hierarchically structured within eight levels, will lead to national qualifications regardless of the place of study."

(Olssen and Morris Matthews , 1997, pp. 19)

## 2.5 Overview Of Assessments Within New Zealand

### *Senior school*

Under the present system, senior secondary school students may take certain national examinations.

#### **The School Certificate Examination is**

Sat by most students at the end of three years of secondary schooling at about the age of 15. A student may sit exams in any number of subjects up to a maximum of six. This usually including English and they are credited with a grade ranging from A (highest) to E.

#### **The Sixth Form Certificate is**

Internally assessed at the end of year 12 or the Form 6. awarded on a single subject basis after completing an approved course of one year in one or more subjects. Students take five or six subjects. Usually including English and grades are awarded on a 1 to 9 scale, 1 being the highest.

#### **The National Certificate of Educational Achievement (NCEA) is**

A qualification that confirms a person has achieved a broad general education, including basic literacy and numeric. Made up of the credits earned at school, in the workplace, through recognition of prior learning or with other accredited providers.

#### **The National Certificate in Employment Skills (NCES) is**

A qualification certifies a person is competent in key workplace related skills. Is a unit standards based qualification.

#### **The Higher School Certificate is**

Awarded to students who have satisfactorily completed five years of secondary schooling beginning at year 9 (Form 3).

#### **The University Bursaries/Scholarship examination is**

Taken at the end of year 13 (Form 7). Percentage marks and grades range from A (highest) to E. A and B Bursaries are awarded on the basis of getting total marks of 300 or more, or 250-299 respectively. Scholarships are awarded for high performance in particular subjects. These awards attract a cash reward.

“By 1990, the preoccupation with economic productivity had become overwhelming. This was clearly exemplified early in 1991 with the publication of what was called ‘**The Porter Project**’. This project began in 1990 when Professor Michael Porter of the Harvard Business School, in collaboration with a team of economists and business consultants, carried out a detailed analysis of the New Zealand economy. The aim was to diagnose the causes of New Zealand's economic decline and prescribe remedies for recovery.

The Porter Project produced another report entitled *Upgrading New Zealand's Competitive Advantage*. This report concluded that New Zealand's economic recovery would require ‘sustained and systematic change in our education system, attitudes towards competition, and prevailing management philosophies, to name but a few’

(Crocombe *et al.*, 1991 : 156). New Zealanders, according to Porter, are **poorly motivated, inappropriately skilled and insufficiently competitive**. The total absence of evidence to support such assertions does not deter the authors of this report from their graphic portrayal of a crisis of motivation, the responsibility for which is unequivocally laid at the door of the education system. Thus, in Porter's words:

“There is a glaring mismatch between the skills needed to upgrade the New Zealand economy and those provided by our education system.”

(Crocombe *et al.*, 1991 : 161 )

It is no coincidence that the central message is the same as that used by the NZQA to promote the National Qualifications Framework.

(Olssen and Morris Matthews , 1997, pp. 132,133)

What we can now see, in retrospect, is that the advent of the Qualifications Framework represents a fundamental and far-reaching shift in what counts as knowledge, initially within society and subsequently within higher education.

## 3.0 THE CURRENT SYSTEM

As there are many areas of the education system that have changed since the early 1990s I will only be looking at Unit Standards learning in Agriculture.

### 3.1 AgITO

Training in the agriculture sector is overseen by the Agriculture Industry Training Organisation, AgITO.

“The Agriculture Industry Training Organisation (ITO) is the leader in agricultural education and training in New Zealand. It is recognised by government as the organisation responsible for setting and maintaining standards in the quality delivery of training and education programmes. A non-profit organisation, the Agriculture ITO is funded by both Government and the associated industry sectors.”

(Fax, ITO.doc).

The main areas that the AgITO is involved with are;

- Managing and promoting training opportunities for people with a wide range of abilities and experiences employed in the agricultural sector.
- Developing qualification programmes in consultation with industry sectors.
- Developing qualification programmes that are nationally recognised.
- Subsidising the cost of training for people employed within the industry.
- Monitoring the quality of training, moderation.
- Providing information and advice to trainees and their employers.
- Arranging on-job training and delivery.
- Arranging the assessment of trainees.
- Arranging the off-job training.

### 3.2 How it Works

Like all educational systems, learning in the agriculture industry was exam based or norm referenced. People like myself sat our Trade Certificate in Dairy or Sheep. The Trade Certificate was based on passing an exam at the end of each year to move on to the next level. After three years the Certificate was yours. From there you could go on and sit your Farm Business Management Certificate which was four papers in all.

Currently these levels still exist but instead of sitting exams at the end of each stage or year you now complete units/modules that are grouped together to make up the equivalent qualification.

The National Certificate in Agriculture Introductory farming skills (level one) is now made up of 80 credits of which 40 must be at Level 2 or above.

The National Certificate in Agriculture, Dairy/Sheep/Beef/Arable (level 3/4) is made up of 210 credits of which 40 must be at level 4 or above

For all the agricultural qualifications there are on job and off job requirements. On job units are assessed by the farmer trainer while the student is working for them. The off job units are assessed by the training providers such as Telford Rural Polytechnic or Agriculture New

Zealand.

It is the job of the Agriculture ITO to oversee the farmer trainers, through a network of field advisors, and to tender out courses, keep an eye on the providers and divide out the money they are given to assist the running of courses.

### **3.3 The Building Block of Skills**

Units/modules

These are the building blocks of our agricultural qualifications. All new units have to be registered with the NZQA and put on the framework. There are set rules in regards to what has to be included in a unit and the areas to be covered. Each unit standard which can be found on the frame work. The following unit, Unit 16 Demonstrate Knowledge of Pasture Production, is an example of a unit standard taken from the NZQA framework.

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**FARMING SKILLS**  
**Demonstrate knowledge of pasture production**

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**Level:** 2  
**Credit:** 3  
**Final date for comment:** February 1998  
**Expiry date:** December 1999  
**Sub-field:** Agriculture

**Purpose:** People credited with this unit standard are able to: explain the importance of pastures to New Zealand agriculture; describe the relationship between legumes and grasses in New Zealand farm pastures; identify the structure and growing stages of pasture species; describe ways producers optimise pasture growth and utilisation; and identify major pasture species of local significance and their general attributes.

**Entry information:** Open.  
**Accreditation option:** Evaluation of documentation by NZQA and industry.  
**Moderation option:** A centrally established and directed moderation system has been set up by the Agriculture Industry Training Organisation.  
**Special notes:** None.

**Elements and Performance Criteria**

**Element 1**

Explain the importance of pastures to New Zealand agriculture.

**Performance criteria**

- 1.1 The national economic significance of pasture is explained in terms of economic advantage over feed alternatives, farmer income, flow on effects on community incomes, and national levels.
- 1.2 The influence of the New Zealand climate on pasture production is described in terms of comparative advantages over other climate types.

**Element 2**

Describe the relationship between legumes and grasses in New Zealand farm pastures.

**Performance criteria**

- 2.1 The complementary growth patterns between legumes and grasses are described in terms of balance between pasture production and nitrogen fixing capacity of lovers.
- 2.2 The recommended ratio between legumes and grasses is stated and justified in terms of a given situation.

### **Element 3**

Identify the structure and growing stages of pasture species.

#### **Performance criteria**

- 3.1 Pasture plants are identified by structure, parts, and basic function.
- 3.2 Plant growth is identified in terms of stages, sequence, and seasonal responses.

### **Element 4**

Describe ways producers optimise pasture growth and utilisation.

#### **Performance criteria**

- 4.1 Current industry techniques are described in terms of optimal pasture growth and utilisation.
- 4.2 Feed conservation is outlined in terms of basic principles and methods.
- 4.3 Major grazing systems used in New Zealand are described in terms of regional effectiveness.

### **Element 5**

Identify major pasture species of local significance and their general attributes.

#### **Performance criteria**

- 5.1 Pasture grasses are identified in terms of local significance.
- 5.2 Common pasture legumes are identified in terms of local significance.
- 5.3 Pasture grass and pasture legume are described in terms of their attributes.

**Please Note:** Providers must be accredited by the Qualifications Authority before they can offer programmes of education and training assessed against unit standards. Accredited providers assessing against unit standards must engage with the moderation system that applies to those unit standards.

### 3.4 The Jargon

Each unit has the same basic information.

- The version and date. Units are update periodically to keep them up to date with new methods and technology or just to improve aspects of the document.
- The field, in this case “Farming Skills” and describes a broad area of learning.
- The name of the unit.
- The level
- The credit value. A value assigned to a unit standard that reflects the relative time and effort required to achieve its outcomes.
- Final date for comment refers to feed back on the units and it’s suitability at this level or the criteria’s.
- Expiry date. When this unit will need to be revised and rewritten or replaced by another unit standard.
- Purpose. Describes what the student should be able to do once they have completed this unit.
- Entry information. For some units there maybe other papers they may have to sit first before doing this unit.
- Accreditation option. This explain that the NZQA and the agricultural industry will evaluate this unit.
- Moderation option. Each industry training group must have a moderation process to check that there is constancy within it’s sector when it comes to assessing and signing students off.
- Elements. An element states the learning that must be demonstrated for successful completion of a unit standard.
- Performance criteria. They are the nuts a bolts of the unit. They state what the students has to be able to do. They are the standard against which the attainment of elements or outcomes is assessed.

From these basic requirements training providers can then go and write modules of learning, assessments for each unit and answers/justifications. (ref. Appendices 3).

### 3.5 A System with Indigestion

Through out the whole education system there have been rumblings of discontent with some of the new reforms and initiatives. The Agriculture sector is no different form the rest of the educational system.

If you remember earlier in this report there was a extract form the Porter Project,

“New Zealanders, according to Porter, are **poorly motivated, inappropriately skilled and insufficiently competitive.**”

Porter was referring to the “old” educational system but like all new things the new educational system has drawn it’s own share of brick bats and bouquets.

There are opponents of the new unit standards system who believe that unit standards do nothing to improve this view, in fact they may even reinforce these perceived unwanted aspects in New Zealanders.

“The constant highlighting of positive features of the new system by the NZQA has increasingly been balanced by a tide of criticism from various educational groups. The universities, represented by both the AUS and the NZVCC, have been the most consistent and vocal opponents of the National Qualifications Framework (and of a `unit standards' methodology in particular).”  
(Olssen and Morris Matthews , 1997, pp. 182)

On the other side of the fence are those who believe that unit standards allow students to learn at their own pace and in many cases achieve faster results thus gaining more or higher qualification.

“ It gives everyone an opportunity to gain a qualification..... units advantage the great number of non-academic students that work in agriculture.....They are able to achieve more, faster.”  
(Survey Results ref. Appendices 2)

With any system there will always be points for and against, people who love it and people who hate it.

## 4.0 ALL SURVEYED OUT

I have been involved with unit standards based assessments in agriculture for close to four years. First as a consultant with Agriculture New Zealand and of late as a tutor at Telford Rural Polytechnic in Balclutha. I can see some great advantage to the system and some other parts that I find hard to come to grips with.

As part of my job I tutor a total of approx. 90 AgITO students, who range in age from 16 to 52. These students are working out in the industry and have their on farm units assessed by farmer trainers. I also tutor a further 73 students attending Telford on various courses. These students gain their Telford qualifications as well as their National Certificate in Agriculture, Introductory Farming Skills.

For the purpose of this report and to find out more from the industry about how unit standards in agriculture are perceived I have constructed a survey which I sent out to 53 training providers New Zealand wide. (ref. Appendices 4). I received a total of 21 replies or a return rate of 39.6%.

I also discussed with those in the AgITO classes and the Telford students what their feelings were about unit standards teaching in agriculture.

Below is a summary of the survey and the discussions.

### 4.1 Survey

There are 4 main points that came out of the survey.

1. ***The New System is Better:*** Many believe the units standards system to be better than the old exam based system but it still need some more modifications. However, for the higher levels there needs to be a different or more complex way of assessing whether a student is competent or not yet competent. By complex I mean a combination of assessment types. These can range from exams, projects, reports, research topics or assignments.
2. ***Rewards for High Achievers???*** The unit standards system is not seen to reward high achievers. Students can sit more units and pass them, thus getting more qualifications, but there is no reward for putting in extra effort or gaining the unit first time round. Motivated students who can work the system can achieve at a far greater speed than other. Unit standards learning for these people is great. However, it is hard for these motivated students when the person next to them can take 2-3 times to gain the unit and still come out with the same qualification. The majority of those surveyed saw this as an issue. Most providers allowed students up to 2-3 re sits of a unit with a few allowing more. These re sits are not recorded any where on a students records so there is no way to tell the student who completed first time from the student who completed on the following attempts.
3. ***Lack of Consistency:*** There needs to be more consistency from providers in the marking and awarding of unit standards. The majority of respondents saw this as a major issue and

with a ‘free market’ more and more private providers are moving into this training area. Each ITO is responsible for the moderation of its unit standards and some respondents suggested that the AgITO needed to improve its moderation process. Moderation is a process for ensuring the consistency of assessment with the required standard. When students move in to a new area for training, take on a new job, it can be quite surprising the different skills levels even through they already have the units.

4. *Training for Farmer Trainers:* The providers surveyed believed, on the whole, that the agriculture sector supported the unit standards. Some farmers trainers still had problems understanding the system and what was required of them when assessing students and filling out assessment books. As with moderation, to maintain a consistency within providers, all, without exception, believed that farmer trainers should undertake some form of training. This maybe on a one to one bases or in groups. The national skills day, which is another form of moderation used by the AgITO, was seen as a way to partly moderate on farm units but needed to be followed up with something more. A number of the students who attended these days were at varying levels and competencies. It was suggested that these days did not go into enough depth to test the skill/knowledge of the students.

## 4.2 Group Discussions

In the discussions I had with various student groups I was able to get comments from students who had experienced both the old system of exams and now the new system of unit standards.

For the older students they saw this as the easier option where only the bare minimum of work was required to gain competency in a unit. Their comments were that in exams you always aimed for the highest mark but in the unit standards you did not gain anything for putting in extra work or effort. This they saw as being away of teaching student to underachieve. “just aim to be average, that’s all it takes to pass so why bust a gut doing any extra”.

The older students did see the benefit of self passed learning and the little rewards that could be achieved by students who would have “failed” under the old system. The comment was made that,

“We are setting our young people up to fail when they leave the educational system and go out into the wider community. Many will, for the first time, experience what it is like to not be able to achieve something and be told about it as well. People learn from their failures, and one of the things they learn is how to cope with it. The new system of learning doesn’t allow students to learn this very important skill”. (This comment came from a school teacher).

The younger students I discussed this with were, mostly, in favour of the unit standards system. “It’s great cause if you don’t get is right the first time you get to have another go at it” was a favourite comment. Some made the remark that they didn’t like having to do so many assessments and re sits and would prefer just one or two exams instead.

### **4.3 Feedback on On-Farm Assessments**

Some of the students commented on the fact that they could not get some on job assessments marked off because, “I had to show my boss how to tie a number eight knot in the fence so how is he going to be able to sign me off?”

Other comments ranged from, “I take my book to the boss and say sign this off please and he just does it,” to “My boss goes over it with a find tooth comb before he will sign anything off for me.”

Other more common comments are usually heard when the group is being assessed or taken through some practical aspects, “Gee, that’s not how my boss does it,” or “That’s not how my boss showed me how to do it.”

### **4.4 Feedback form the Classroom**

The most common comment heard by all tutors at Telford, and I would suggest many other training providers hear the same thing, “Do we have to know this? Are we getting assessed on it, is it worth any credits?”

## 5.0 Issues For the Agricultural Sector

The two main areas of concern, as I see them, are;

- **The consistency of assessments and awarding of units by all providers within the industry and the need for tighter moderation.**
- **The consistency of assessments and awarding of units by all farmer trainers and the need for some form of training and or more formal/tighter moderation for this group.**

The other main issue of whether the unit standards system of education rewards high achiever is an issue that reaches far outside the agricultural sector right to the heart of the educational system. It is therefore not within the scope of this report to meander any further through this mine field.

My last comment, on this topic, would be,

“it would be a shame for our young people to become a generation of “just enough is good enough” thinkers. We would then surly fall well under Professor Michael Porters current description of us as **poorly motivated, inappropriately skilled and insufficiently competitive.**”

## **6.0 Where to from Here?**

So what is the agriculture sector going to do about these issues. It is you and I, the producer, the tax payer who are footing the bills to provide training for people within our industry.

There is a movement within this country that is calling for more transparency in areas of public and industry spending, more accountability.

With the perceived inconsistencies between the current training provider, what is going to happen once more and more private training groups come on line. Should we not get what we have in place now up to a more consistent standard before we expand things?

Does the moderation system within the AgITO need to be over hauled or does it just need to be policed more efficiently to help achieve more consistency?

How much paper work or bureaucracy can we enforce on our farmer trainers before they say enough is enough and we have an industry ITO with no industry support?

It is also you and I as farmer trainers who have to take some responsibility as well. There is an issue with consistency within the on farm assessments. As farmers we all know that one thing can be done in many different ways, but not all of them are the right or best way for the job at hand.

Do we as farmer trainers need to under take some form of training ourselves or do we just need a better understanding of what is required in the awarding of on farm units?

## 7.0 Conclusion

The purpose of my report was to look at Unit Standards Teaching in the Agriculture Industry. The survey conducted highlighted three main areas of concern,

- *Rewards for High Achievers*
- *Lack of Consistency*
- *Training for Farmer Trainers*

One issue is on a national bases, the other two on an industry bases.

If these two issues are to be addressed further more research will need to be undertaken to ascertain the feelings and ideas of the farmer trainers, the AgITO field staff and the AgITO itself.

Once this has been done the industry will have a far more concise idea of just where the areas of concern lie. Once these areas have been identified then the industry, as a whole, can move ahead united to address the issues and develop a far stronger robust system that is seen to be fair and consistent for all involved.

**”The National Qualifications Framework may turn out to be either a key vehicle for the cementing of market liberalism in the educational sector or a mechanism for its future demise.”**

(Olssen and Morris Matthews , 1997, pp. 184)

**NOTE:** It is my understanding that the SCOTVEC system in use in Scotland and which our NZQA is based on are experiencing major problems and may soon be a thing of the past.

## 8.0 References

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## Appendices 1 - Glossary

*Accreditation (of national standards bodies)* – a process for ensuring that national standards bodies have the capability, including quality management systems, to register assessors.

*Accreditation (of providers)* – a process for ensuring that providers have the capability, including management of quality, to deliver and assess unit standards.

*Assessment* – a process of collecting and interpreting evidence of competence or achievement.

*Certificate* – documentary evidence that a qualification has been awarded.

*Competence* - the application of knowledge, skills and attitudes to the standard required.

*Credit* – a value assigned to a unit standard that reflects the relative time and effort required to achieve its outcomes.

*Element* – the learning that must be demonstrated for successful completion of a unit standard.

*Field* – a term describing a broad area of learning, corresponding to an ISCED field and defined in the Index of Unit Standards and National Qualifications.

*Index of Unit Standards and National Qualifications* – a database that defines fields, sub-fields and domains, used for naming qualifications and unit standards, and in associating unit standards for provider accreditation.

*Industry Training Organisation* – a body recognised by the Education and Training support Agency, now Skill New Zealand, as the national standards body and training coordinator for its industry sector.

*Levels* – the eight levels of the National Qualifications Framework.

*Moderation of Assessment* – a process for ensuring the consistency of assessment with the required standard.

*National Qualifications Framework* – collectively, all nationally registered qualifications and the nationally registered unit standards from which they are derived. Implicit is a defined and logical relationship between them.

*Performance Criteria* – statements of the standard against which the attainment of elements or outcomes is assessed.

*Provider* – an individual or organisation providing education or training.

*Recognition of Prior Learning* – a process of awarding credits for unit standards in the National Qualifications Framework where the learning outcomes have been acquired outside the Framework.

*Registration of Unit Standards and Qualifications* – a process for ensuring that unit standards and qualifications have been evaluated and endorsed by national standards bodies as representing an acceptable and exclusive national standard, and so registered with the Authority.

*Standards* – nationally registered statements of education and training outcomes and their associated performance criteria.

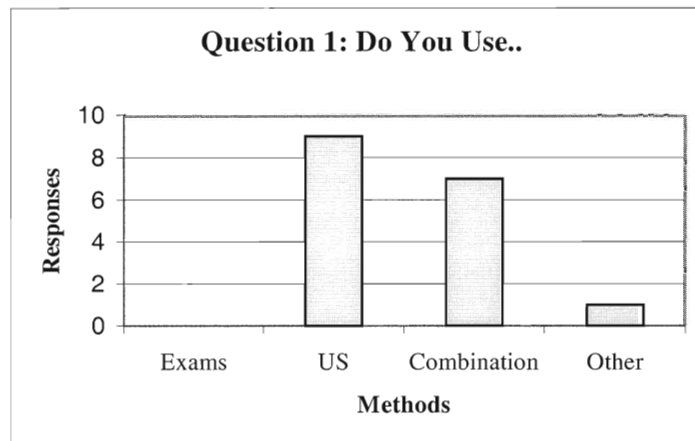
*Sub-field* – a term describing a specific area of education or training at qualification level, corresponding to an ISCED sub-field and defined in the Index of Unit Standards and National Qualifications.

*Unit Standard* – a nationally registered set of element or outcome statements and their associated performance criteria, with administrative information.

## APPENDICES 2

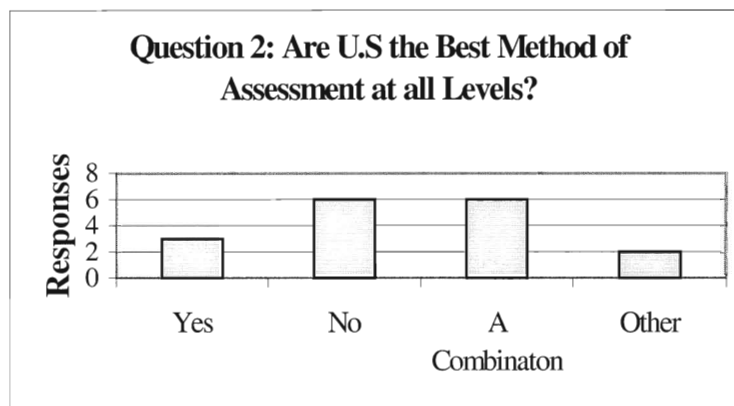
### Results for My Survey in Regards to Unit Standards Teaching in the Agriculture Industry

#### Question One: Do you use...



- For NCA unit standards. For Dip's a combination but mostly non U/S.
- We have started using exams on a term by term basis for formative assessment only.

#### Question Two: Do you think unit standards are the best method of assessment at all levels?



- Above level 3 or 4 need to express oneself more therefore assignments, projects and exams best mix.
- Allows both assessor and assessee to be absolutely clear as to what is being assessed.
- Some gaps, revisiting by exams does help students go over work, although some don't like exams.
- What do you mean all levels? For the levels 1-6 for farm production and business management they re fine but so was the previous series of descriptions of the skills

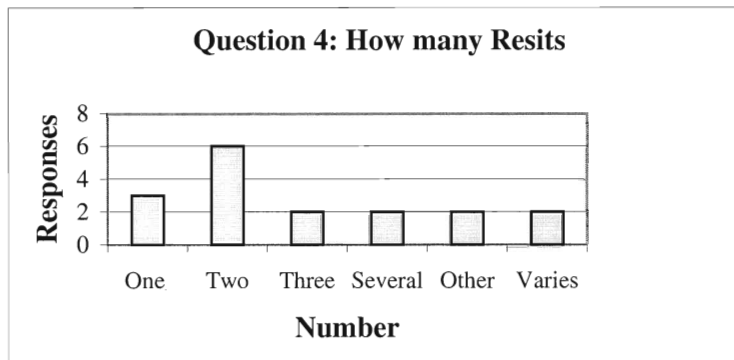
needed to establish competence.

- Unit Stds don't limit the way you assess people. They only define what skill/knowledge etc you should be assessing.
- Slower achievers have a chance to keep working at their level. Higher achievers can move up levels of units at own pace.
- Some tasks, especially the higher level ones, are not easy to assess to give a competent or NYC grading.

### Question Three: If not at what level are they?

- Fine at all levels, but exams are also useful at higher levels.
- Level is probably less important than the type of skill. A practical task for a micro-surgeon may be more appropriately assessed using a standards based assessment than a 75% pass mark!
- Up to 3 and possibly 4.
- Up to level 4
- Up to level 3-4. >4 some subjects are not suitable for competency based assessment only.
- Level 5,6 and 7 units stds lack some flexibility.
- Up to level 3 and some units at level 4.
- Levels 1-6 with other methods at level 5/6 for certain topics.
- Vocational, practical tasks and High School, lower level.
- Fine at all levels, but exams are also useful at higher levels.
- Levels 1 – 4.

### Question Four: How many resits do you allow your students?



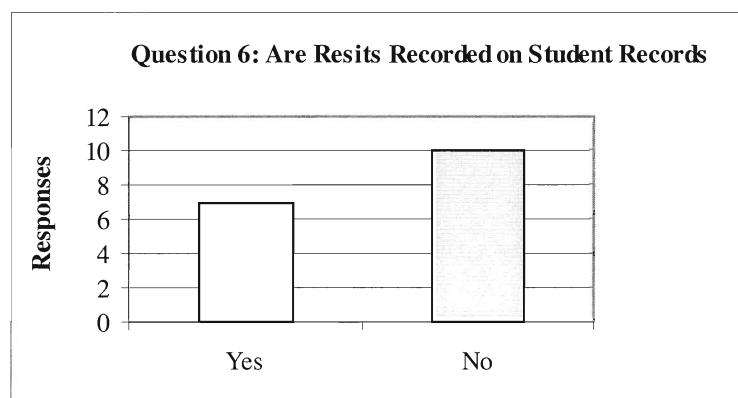
- Varies depending on subject and how good the assessment is, normally 2.
- Time off with flu or colds, may allow a resit in some areas.
- Do you mean resits of a particular test or resits that are required to demonstrate that the standard has been achieved? This is dependent on the amount of time required for the education and training and when during the course the assessment is held. In on-going industry training the trainee continues training until competent or loses employment
- One (as per provider policy).
- 1 free, then charged after.
- As many as needed. In reality they have run out of time in 2-3 attempts.

- The second one is a new assessment.
- They get sick of it before we do. They wither get he skill or give up till they have got it – maybe next year.
- Numerous – too many.
- No consistency amongst staff – how often can you do an exam?
- Students expect it.
- Generally two is sufficient.
- As many as needed, but generally 3.
- After explaining where they went wrong and what you expect, if they don't get it right the second time then perhaps they weren't really ready to be assessed hence aren't competent.

**Question Five: What happens once students have reached this number of resits and are still not competent?**

- Maybe give them another one or actually verbally discuss and ask question on their problem areas.
- They must participate in at least 80% of the course to have reasonable information for a resit.
- Must re-enroll in course.
- Charged.
- Pay a re-sit fee or come back on another course.
- Do course again.
- Never had the problem.
- They do not achieve the U.S.
- They have tried my patience.
- Hasn't occurred.
- They have to learn the unit again in their own time and pay for another assessment.
- Haven't really had a problem with this at this stage.
- Give student more tutoring.
- Re-assessed at a later date.

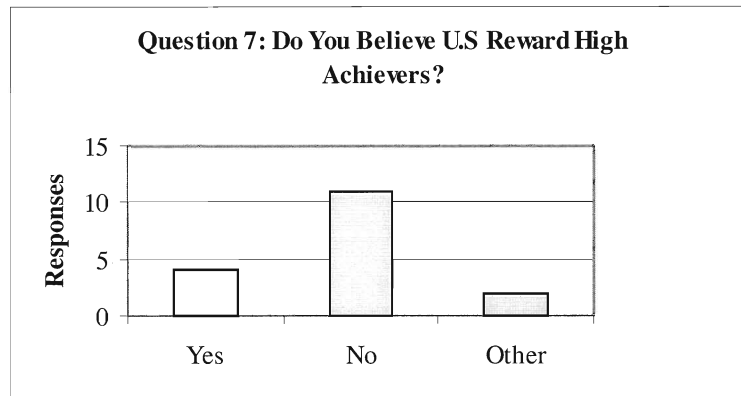
**Question Six: Are the resits recorded on the students records?**



- Only on the assessment sheet.
- Only I that they can get through more units than others.
- The consequences for the student are much slower and less progress.

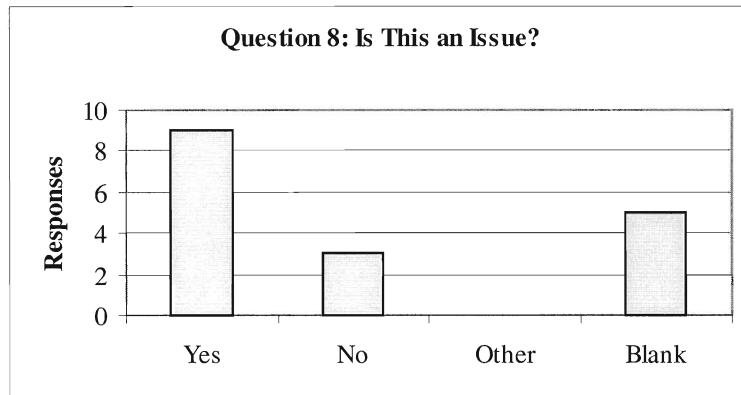
- They should be.
- Once unit achieved student recorded as competent.

**Question Seven: Do you believe that the unit standards based system reward high achievers?**



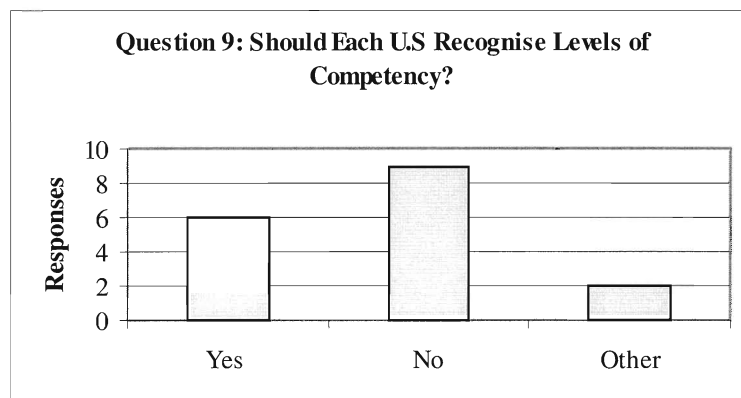
- Simply they do not.
- Some of the unit standards are basic and are easily covered by most students.
- They are able to achieve more, faster.
- High achievers should be able to gain credit (and therefore qualifications) at a faster rate or at the same rate at a higher level. However, this is dependent on the training provider. The system was never designed to rank students.
- Very disappointing for students, and employers wishing to measure against others who apply for job.
- Of course not.
- If the delivery allows accelerated achievement of additional unit standards and if supplementary teaching is delivered. It depends on how much of a straight jacket teachers have on unit standards.
- They can study many more areas. They become strong independent and confident learners.
- They have the opportunity of doing extra units if they are a high achiever.
- There is no way that you can show that a student has excelled in any unit or just scraped through. One of the ITOs was trying to sort out a method whereby this could be done but I think it fell over.
- Once unit achieved student recorded as competent

**Question Eight: If not, is this an issue?**



- Definitely if we pride ourselves in excellence and high achievers.
- They should be able to gain further credits for showing their learning ability.
- People who can not get their heads around criterion based instruction and competence assessment have a problem with it. I am surprised you ask the question.
- No motivation to do a task, especially learn some knowledge well. Just do enough to pass – not an encouraging point for high achievers and tutors alike.
- Hard to give the required recognition for high achievers.
- Of course it is.
- Reward should come with effort. I believe U.S don't allow this to happen so it comes down to the tutor.

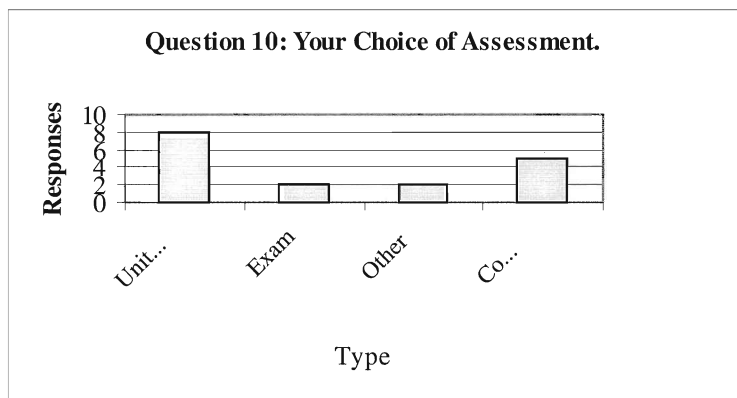
**Question Nine: Should each unit standard recognise varying levels of competency rather than the student being either competent or not yet competent?**



- Not sure – maybe at end of course rate them into this.
- This would be alright for slow learners or students who have had time off.
- At the in house level of assessment we have always used 3 levels of assessment but competence is what it is and if lower level is required write another unit.
- This would be an administrative nightmare if each unit standard were involved.
- Goes against principles of – might as well go back to norm based assessments/reference.
- I think students would like this also.

- The level should change.
- Competency is an absolute. That is the concept.
- For practical units – Yes. Theory – No.
- That’s why there are different unit levels.
- I believe the system would not work if you tried this.

**Question Ten: If you had the choice of unit standards assessments or Trade Certificate type examinations which would you prefer as a tutor/training provider?**



- A mix of both but again depends on level your are dealing with.
- I use unit standards assessments but also have exams which allow me to set % marks for final marks.
- Less chance for misunderstanding.
- USA for technical skills, exams for knowledge.
- Enhances reliability and validity.
- Both have merits.
- Combination of – assignment, report and examination.
- It gives an all rounded assessment of whether a student is competent especially in practical training. For Level 5-6 project based assessments are excellent for students based on their work experience.
- Slower achievers have a better chance to achieve units rather than outright fail.
- I would be happy to see a combination of both with say an examination at the end of the students study period to test their knowledge before issuing a Certificate. Some of the ITOs actually do this now eg electrical, as they can compete all the Uss but before they can be registered to practice on their own they have to pass an exam.
- There are two parts to this question. Preference of an internal assessment system over a national assessment system and preference of a standards based assessment over a variation of a norm based assessment system. Whether or not a tutor prefers unit standard assessment may be linked to workload issues rather than whether it is a preferable system. Many tutors do not have an appreciation of the problems associated with national Examinations to make a valid comparison.

**Question Eleven: What do you see as the advantages of the unit standards based system.**

- Concentrates on understanding and minimum acceptable knowledge.
- They are easy to follow with guidelines set out.
- Less chance for misunderstandings.
- Decisions made on a wider range of evidence about student performance.
- Assessment more accurately linked to content knowledge and ability rather than assessment technique.
- Assessment integrated with delivery.
- None.
- Enhances reliability and validity.
- They are able to achieve more, faster.
- Moderation, standard setting for all.
- It gives everyone an opportunity to gain a qualification.
- Consistency.
- Consistency across providers in teaching, portability for students, progressive achievement of learning.
- The assessment process can be much more focused on the real world of the learner.
- Units advantage the great number of non-academic students that work in agriculture.
- Even slow progress can be rewarded.
- Helps low achievers, those with learning problems, establishes “can do” and very good for task based skills.
- Can modularise (?) courses, package them to suit a group’s requirements better than a standard exam.
- Flexible, practical, and students are continually being assessed.
- Allows easier transition from one qualification/trade to another.
- As per previous questions – individually pace learning.
- Very clear, well defined assessment guidelines that helps you decide competency. Easy to credit skills across a number of units in one assessment.

**Question Twelve: What do you see as the disadvantages of the units standards based system.**

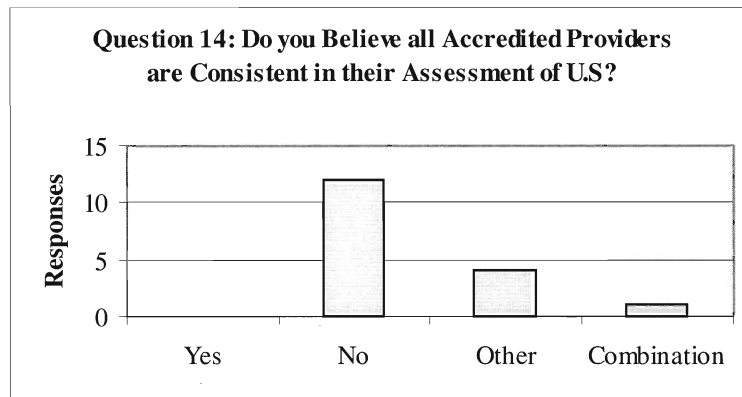
- Does not recognise high achievers and does not challenge students to do the extra bit.
- The unit standards written are only guidelines, and more subjects have to be covered to gain good results.
- Variability between unit standards.
- No credit for varying degrees of competence, let’s face it some are better than others.
- There is no distinction between a good/bad written assessment.
- Narrow.
- Different standards between assessors.
- Huge amount of paperwork (for no return).
- More difficult to gain qualification.
- Administration, cost, language used in standards.
- Desegregation of learning, it can be a straight jacket for providers, usually requires heavy reliance on reading heavy requirement of administration.

- Administration.
- Students can develop a just enough attitude just as they can with exam type systems. It can be difficult to be sure that context and whole systems are understood.
- Useless for knowledge areas and extending student learning. Doesn't cater for all.
- Paper work.
- Continual assessments not recognised and skill done well.
- Cumbersome and confusing to both students and employers.
- Ambiguity of interpretation of wording in unit standards.
- Unit Stds change so resource material needs updating – is expensive + time consuming.

**Question Thirteen: What is your opinion on the consistency of unit standards attainments across training providers nationally.**

- Not sure – but will be a variation. Within standards should be okay.
- For the small number that I have seen consistency seems to be fair.
- Poor.
- Poor consistency.
- Moderation keeps standards of assessment similar for Polytechnics.
- Moderation is not effective in identifying substandard private sector assessors.
- There is a variation but the variation is not having a significant negative impact on the industry and will be reduced over a period of time.
- Poor, we all know some are slack and moderation doesn't pull them up.
- There may be different standards amongst the training providers, therefore some students may achieve competency at some establishments and not at others if they were to attend.
- Better than the old system.
- Difficult to say when Polytechnics will not co-operate in external moderation and AgITO has largely been inactive up till now.
- It is not very even. The ITO farmer trainers must be included in this sweep too.
- In my opinion – don't know enough but on several sample of students, not consistent.
- Poor – not enough rigid moderation is done by ITOs – which is what they are suppose to be doing.
- There appears to be a wide variety of standards. This has shown up at moderation exercises. It was particularly bad when units were first introduced, then it improved and recently it has tended to slip back again.
- Probably not good as no-one agrees on what is competent? E.g. 80% pass or 100% pass.
- Moderation useful but probably doesn't go far enough. Inevitable that providers have different teaching and assessing styles/methods/philosophies. Will effect student performance and attitudes of providers towards assessing and what is competency.

**Question Fourteen: Do you believe that all accredited providers are consistent in their assessment of unit standards?**



- Not sure – but will be a variation. Within standards should be okay.
- No, but further work during internal moderation will allow for further changes.
- Poor, we all know some are slack and moderation doesn't pull them up.
- Eventually if the national moderation system is in place (like computing).
- No they are not and it is not getting much better as privatisation kicks in more and more.
- The question should be asking whether any variation of consistency is at an acceptable level. A more important question is whether people think that there are providers who award credit to people who have not reached the standard.
- Even within learning institution different assessment methods, resits allowed, degree of help etc.
- Moderation useful but probably doesn't go far enough. Inevitable that providers have different teaching and assessing styles/methods/philosophies. Will effect student performance and attitudes of providers towards assessing and what is competency.
- I believe it depends on the level of moderation supported by each ITO e.g. Hort. ITO very tough; AgITO rather lax.
- Don't know. All should have internal moderation.

**Question Fifteen: How do you deal with recognition of prior learning?**

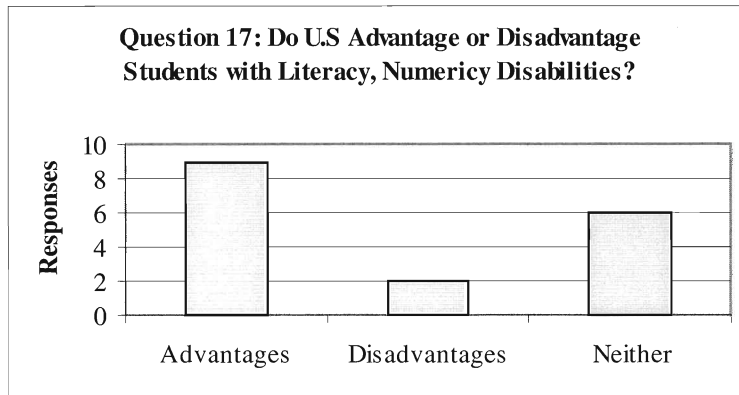
- Form records provided from school or whatever and discussion with student.
- Assess how much of previous program was covered and make adjustments in relation to our program.
- As per provider policy.
- Set process for this institute – standard rules.
- I encourage student to use RPL to the max.
- We have a policy and assessment center.
- Ask a series of questions (test) on a sprinkling.
- Through the use of assessments for the U.S.
- Up until recently we have referred applications for RPL to Training Providers. We will now accept applications and will bring together a small panel to consider portfolios of evidence.
- Usually we use parts of our existing tests as indicators for challenge testing.
- Don't.

- As per the unit standards on recognition of prior learning.
- At this stage we have no procedures for handling it.
- Proof form the assessor required and recognised.
- We don't very well as have yet to see any guidelines as to the appropriate process.
- Normally assess trainee as appropriate to the U.S.

**Question Sixteen: How do you think employers feel about the unit standards based assessment?**

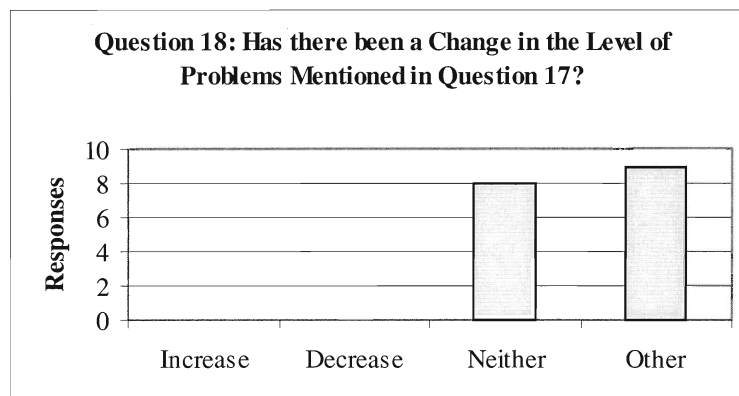
- Not sure. For farming and NCA probably okay for levels 1-3.
- As long as the assessments are in line with the work requirements it's OK.
- Varies.
- If the administration can be kept to a minimum then they generally find it ideal for the situation they are in.
- Lost some faith in the support aspect, and don't have time and don't want to be trainers, especially after the initial hype!
- Ask them.
- Most don't understand how it works.
- Most prefer old system (trade certificates).
- Their confidence would depend on where they, the students, obtained their unit standards (i.e. what polytechnic).
- No @#\*"" **idea.**
- OK in the main after training and explanation.
- They seem to support it.
- Confused, enthusiastic (if have been moderators, behind system e.g. AgITO).
- An unknown entity to most.
- Nothing adverse about them.
- Most of them are horribly confused and snot sure what to do. It is also very difficult to maintain a standard from employer to employer.
- Good idea – specific skills identifiable.
- Positively supportive mostly. Like the clear guidelines, especially for practical units.

**Question Seventeen: Do you think the unit standards based system advantages or disadvantages students with literacy, numeric disabilities?**



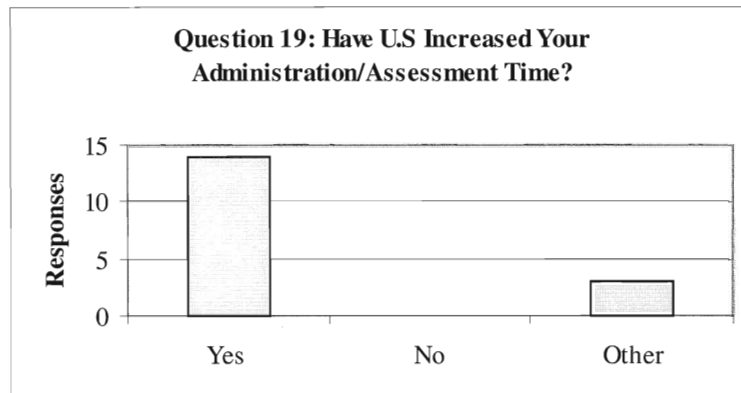
- Think it helps them.
- They must be assessed by a qualified person in that area.
- Advantages for practical skills only.
- Removing the time barrier allows people to work at their own pace. Internal assessment is better for people with disabilities.
- It's better than exams.
- They can make better progress. Math's in the units has been a good thing too.
- Makes exams etc. easier.
- I don't think students with these problems are any more affected by unit standards than any other method of teaching/assessing.
- These students are a challenge for any learning/teaching system.
- Depends on provider policy/philosophy for dealing with students needs.

**Question Eighteen: Have you noticed an increase or decrease in the problems mentioned in question 16 (17) since you have been using units standards?**



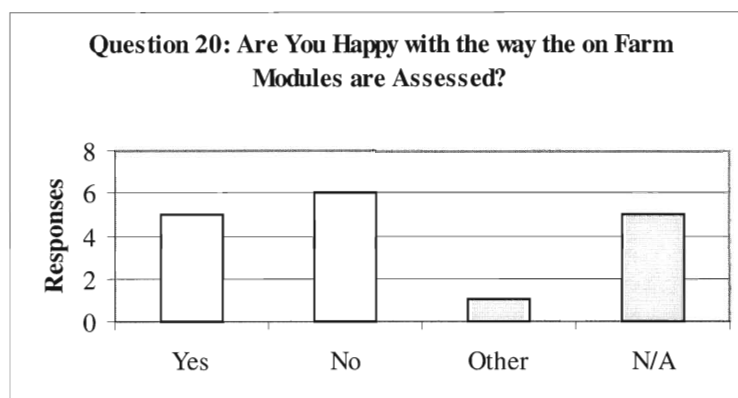
- Not sure on this – difficult to evaluate.
- Not applicable as I haven't been in NZ long enough to comment
- No @#\*"" idea.
- Employers tend to take more notice of the units being taught.
- No problems.

**Question Nineteen: Since the introduction of unit standard based learning has this increased your administration/assessment time?**



- Again not sure – once assessment is made up it cuts down time.
- Some extra time has been required for modification to modules and assessment forms.
- A lot, less time for delivery aspects.
- Writing assessment, marking untold resits, heaps of moderation. Making sense of performance criteria which don't really match skill/ knowledge level.
- Probably by 15-20% compared with without them.
- This is mainly as a result of the reporting to ITOs.
- Probably for the better however. We are a lot more trainee focused – watch the individual, not just the group.
- Assessment is overkill.
- There has been an increase in administrative and assessment time for ITO workplace assessors.

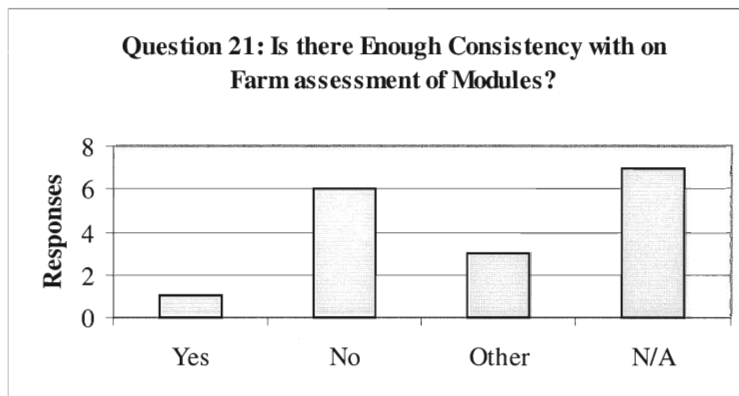
**Question Twenty: Are you happy with the way the on farm modules are assessed?**



- Great variation between farmers – what is competent and not.
- Some slackness in ITO moderation and support.
- No @#\*"" idea.
- Given the constraints.
- They are generally well enough done.
- Poor training, non existent on going quality control.

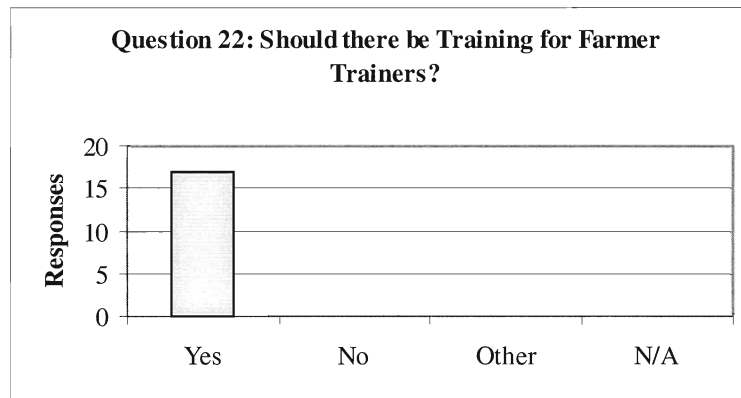
- There appears to be a wide variation in the standards between different farms.
- I'm not involved with on-farm units.
- I presume this refers to on-job elements of unit standards? Training providers also assess on-job elements. It should be noted that the ITO does not allow its Farmer Trainers to assess off-job elements.

**Question Twenty One: Is there enough consistency with the on farm assessment of modules?**



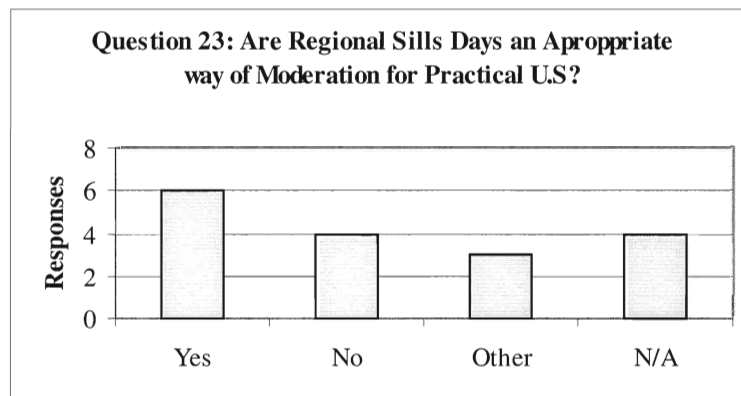
- Great variation between farmers – what is competent and not.
- Don't know.
- No idea.
- As for 14 – The question should be asking whether any variation of consistency is at an acceptable level. A more important question is whether people think that there are Farmer Trainers and/or providers who award credit to people who have not reached the standard.
- The ITO has had more complaints about Training provider assessment of on-job elements than it has had complaints about Farmer Trainers. Most Farmer Trainer criticism is anecdotal.
- Probably. The failures are there but not as bad as between the different providers.
- Consistency between providers? Depends on tutor's leniency or otherwise.

## Question Twenty Two: Should there be training for farmer trainers?



- Definitely but still difficult to do needs to be more overview/auditing and input from AgITO staff.
- They must be competent to be able to teach their students. Some farmer training may need to happen. Perhaps we should assess them first?
- Same requirements as accredited providers.
- It is a total shambles, joke.
- One to one basis.
- The question should be what level of training should Farmer Trainers have. Farmer Trainers are qualified in a number of ways. Training Advisers do give training. Farmer trainers receive documentation. Generally they have better opportunities to assess whether a farm trainee is competent in practical skills than a training provider does.
- Of course.
- For the system and standard to familiarise themselves to the system .
- New trainers come on stream all the time. They get some on site training but allocation for more and in groups would help.
- Who moderates the farmer trainer. Being in business doesn't mean you are educationally sound.
- Yes, but hard to implement.
- Yes. Not enough consistency in this area.
- I feel that these people are in the best position to instruct and assess but there needs to be a higher level of training for these people and stricter moderation.

### Question Twenty Three: Are the regional skills days an appropriate way of moderation for the practical unit standards?



- One way – but needs more of this – this evaluates the student not the boss.
- It's always been a full days activities not too much time left for any other work.
- Don't know.
- No @#\*"" idea.
- One way only – needs more depth.
- Depends on your interpretation of the word appropriate. It may depend on whether the respondent's interpretation of "appropriate" is 'pragmatic and cost effective' or 'ensures that Farmer Trainer assessments are consistent'. Given that there are over 2000 active assessors at any one time I consider that the system is appropriate.
- They are one way. But up to now have not given sufficient consideration to the day as moderation.
- But they are generally followed up and are limited in the range of skills that can be assessed. They are indicators only. Some on farm visiting would be good but would cost heaps and I would rather see that money spent on the learners off job rather than the on job standardisation of skill learning.
- Some tasks should not be in the hands of farmers and mostly they have been removed. Chainsaws, spraying etc.
- The conditions on these days are very artificial and it is almost impossible to set up assessment of a lot of the units on these days.
- Skills days have a range of trainees involved (i.e. varying age + experience); not all trainees are yet competent in the units involved. What are we really assessing at skills days?

### OVER ALL COMMENT

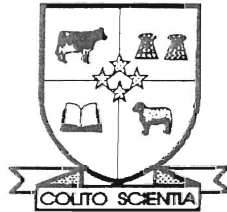
As time goes by we will have a lot of students who will have some of the units standards that we are offering. We perhaps should be looking at a higher level to enter for the next generation of students.

This has always been my concern as time goes by.

It is an improvement of TCB in removing exams. It is assessment over kill.

LEVEL 2  
CREDIT 3

16



TELFORD RURAL  
POLYTECHNIC

## DEMONSTRATE KNOWLEDGE OF PASTURE PRODUCTION

(PURPOSE: To Demonstrate A Basic Understanding Of The Role Of  
Pasture In New Zealand Agriculture, And The Ways In Which Pasture Is Managed)

PLEASE READ ALL INFORMATION CAREFULLY

This is an open book assessment  
You Have To Complete This Assessment

PLEASE COMPLETE THIS TABLE BEFORE YOU START

NAME	
DATE	
COURSE	
TUTOR	

FOR ASSESSOR USE ONLY

	Yes	No
Competency Achieved	<input type="checkbox"/>	<input type="checkbox"/>
Reassessment Required	<input type="checkbox"/>	<input type="checkbox"/>

Assessor .....

Date.....

1. New Zealand pastoral efficiency depends on legume-based pasture, and outdoor wintering of livestock. Explain this statement in relation to New Zealand farmer's ability to grow grass more efficiently than other countries

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1.1

2. Give 3 reasons why New Zealand's climate gives it's farmers an advantage over farmers in other countries

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1.2

3. Explain why the clover is such an important pasture plant for New Zealand agriculture

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2.1

4. Explain why white clover is preferred other types of clover for use in general pasture

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2.1

5. Explain what the result would be if pasture on a farm had a ratio of 90% clover and 10% grass

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2.2

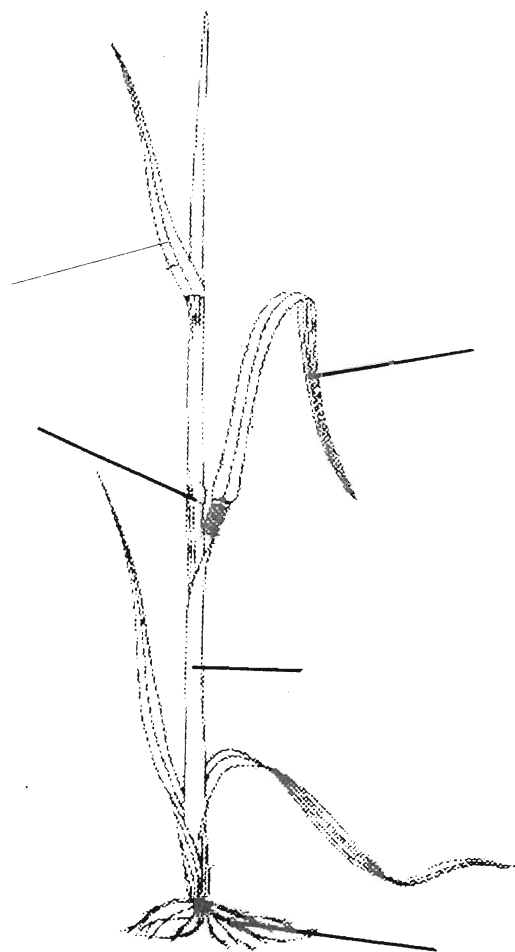
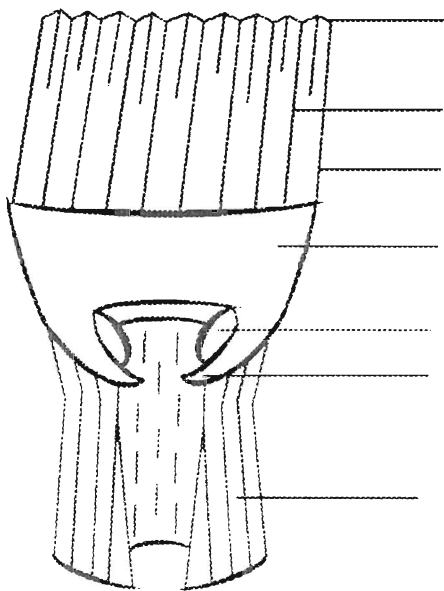
6. Describe how farmers maintain a good balance between clover and grass in their pastures

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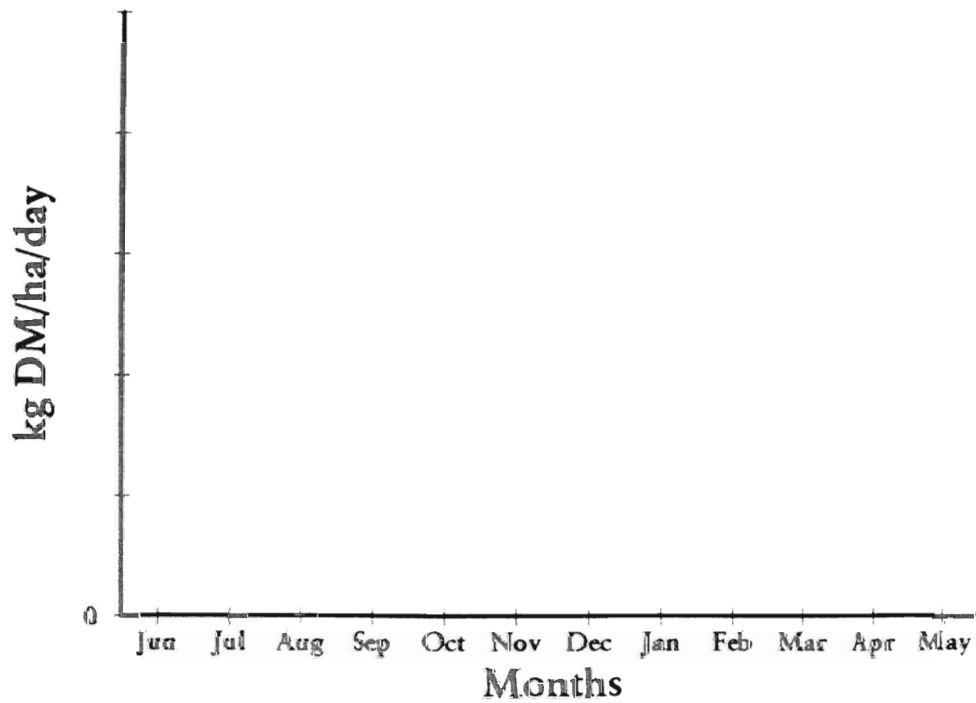
2.2

7. Using the names in this list, label these two diagrams:  
midrib, rib, leaf blade, grooves, sheath, blade, roots, ligule, stem, collar, auricle, node

**ARRANGEMENT OF LEAF BLADE & SHEATH (Monocotyledon)**



8. Draw an outline of the growth of ryegrass and clover throughout the year. Assume average rainfall and temperatures, and average soil fertility.

3.2

9. List the ways farmers use to optimise the production form their pastures

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4.1

10. List the advantages for each of these pasture conservation methods:

i. hay .....

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ii. silage .....

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iii. winter saved pasture .....

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4.2



12. Give an accurate description for each of these terms:

i. rotational grazing .....

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ii. block grazing .....

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iii. strip grazing .....

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iv. zero grazing .....

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4.3







Unit Standard 16 (Version 3) "DKO Pasture Production"

QUESTION	P.C.	EVIDENCE	JUSTIFICATION
1	1.1	b, c, g,	must give all 3 ways pasture assists New Zealand agriculture
2	1.2	climate mild enabling pasture to grow most of the year; allows year-round feeding of livestock on pasture climate allows clovers to fix nitrogen for most of the year	must give minimum of 3 influences
3	2.1	(i) grass; (ii) grass; (iii) legume; (iv) legume; (v) grass; (vi) legume; (vii) grass; (viii) legume	must identify correctly 6 out of 8
4a	2.2	<i>Clovers produce nitrogen which enables grass to grow. They also provide high quality livestock feed which is only required in small amounts compared to that required from grasses. Grass is grown to provide bulk and a quality feed that is available all year around</i>	must provide 3 reasons which includes keywords
4b	2.2	Lack of bulk in feed resulting in underfed livestock possibility of high levels of weeds	must give minimum of 1 result
5	3.1	Grass: tiller, first leaf, root, rib, collar, sheath Clover: roots, stipule, stolon, flower head, trifoliate leaf	must name all parts correctly
6	3.1	(i) photosynthesis; (ii) support and transport; (iii) anchorage and absorption; (iv) reproduction	must give 1 basic function for each structure
7	3.2	(i) II; (ii) II; (iii) I; (iv) III; (v) III; (vi) II	must give minimum of 5 out of 6 stages correct

QUESTION	P.C.	EVIDENCE	JUSTIFICATION
8	3.2	autumn - leaf production; winter - slow growth spring - rapid growth; summer - seed head production	must correctly match up 3 out of 4
9	3.2	low growth during winter, increasing rapidly in spring, slowing and decreasing during summer, with increase again during autumn	graph must follow general pattern as described
10	4.1	fertiliser; irrigation; grazing systems and management; topping; conservation of surplus pasture; drainage; pasture renewal; sowing new species	must give minimum of 4 ways of optimising pasture growth
11	4.2	(i) There are 3 main processes involved in the production of hay. These are cutting, conditioning and windrowing. cutting, the plant material is first conditioned and then placed back onto the ground in a thin layer, where it is windrowed before being baled and stored. (ii) Plant material is cut and then left on ground to wilt. It may be then cut for a second time. Cut material is collected and stored in a structure where it is compacted and covered to keep air and rain out	must give an outline which accurately describes both processes and covers main points for each process
12	4.3	<i>rotational grazing</i> - able to assess feed intake, control livestock intake, easy to identify pasture surplus <i>set stocking</i> - higher livestock performance, less costly and labour intensive <i>zero grazing</i> - ability to feed out supplements in exact amounts, livestock intake generally lower	description must cover main points of system as well as advantageous and disadvantageous
13	5.1 5.2 5.3	Common name; Botanical name; General description Growth habit; Conditions (soil, climate) best suited for; Annual growth performance; Main uses.,	pasture and legume species must be correctly identified and their main attributes described

**Questionnaire to Gather Information in Regards to Units Standards  
Teaching in the Agriculture Industry  
This is in fulfillment of the Project Requirement for the  
Kellogg Rural Leadership Programme**

1. Do you use (bold the required answers for all questions)

- Unit Standard Assessments                       Exams                       A Combination of Both

**Comments**

2. Do You Think Unit Standards are the best method of assessment at all levels?

- Yes                       No                       A Combination

**Comments**

3. If not at what level are they?

4. How many resits do you allow your Students?

**Comments**

5. What happens once students have reached this number of resits and still not competent?

**Comments**

6. Are the resits recorded on the students record?

- Yes                       No

**Comments**

7. Do you believe that the unit standards based system reward high achievers?

- Yes                       No                       Other

**Comments**

8. If not, is this an issue?

- Yes                       No                       Other

**Comments**

9. Should each unit standard recognize varying levels of competency rather than the student being either competent or not yet competent?

- Yes                       No                       Other

**Comments**

10. If you had the choice of unit standards assessments or Trade Certificate type examinations which would you prefer as a tutor/training provider?

- Unit Standard Assessment                       Examinations                       Other

**Comments**

11. What do you see as the advantages of the unit standards based system

**Comments**

12. What do you see as the disadvantages of the units standards based system.

**Comments**

13. What is your opinion on the consistency of unit standards attainments across training providers nationally?

**Comments**

14. Do you believe that all accredited providers are consistent in their assessment of unit standards?

Yes

No

Other

**Comments**

15. How do you deal with recognition of prior learning?

**Comments**

16. How do you think employers feel about the unit standards based assessment?

**Comments**

17. Do you think the unit standards based system advantages or disadvantages students with literacy, numeric disabilities?

Advantages

Disadvantages

Neither

**Comments**

18. Have you noticed an increase or decrease in the problems mentioned in question 16 since you have been using units standards?

Increase

Decrease

Neither

**Comments**

19. Since the introduction of unit standard based learning has this increased your administration/assessment time?

Yes

No

Other

**Comments**

20. Are you happy with the way the on farm modules are assessed?

Yes

No

Other

**Comments**

21. Is there enough consistency with the on farm assessment of modules?

Yes

No

Other

**Comments**

22. Should there be training for farmer trainers?

Yes

No

Other

**Comments**

23. Are the regional skills days an appropriate way of moderation for the practical unit standards?

Yes

No

Other

**Comments**

24. Would you like to receive a summary of the completed survey?

Yes

No

If you have any other comments you would like to make about the unit standards based system I would be only to pleased to receive them.

**Further comments**