

**National Conference on Agricultural Education**

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# **Agricultural Education and Training Requirements In the Ireland of the Future**

**Mr Alan Dukes  
Director-General  
Irish Institute of European Affairs**

*(Note: The views expressed in this paper are those of the author  
and do not engage the IEA or WHPR)*

Agricultural education and training have undergone many changes in the thirty years since Ireland joined the then European Economic Community at the beginning of 1973. The institutions involved in agricultural education, training and research have all changed dramatically over that period. Along the way, we have seen prescribed levels of training become compulsory requirements for participation in publicly-funded development and assistance schemes. We have witnessed a rapid expansion in the range of skills required in farming in an environment which places a premium on quality and demands precise traceability of farm products. The application of IT to agriculture has created new demands for skills acquisition. The food industry requires an increasingly wide range of skills among its operatives. Environmental concerns have given rise to new levels of knowledge and understanding among all those involved in the food chain and in the production and processing of land-based products generally.

We can be sure that the requirement for further skills development in agriculture and agriculture-based activities will continue to grow.

A great many people, both on and off farm, have worked very hard to meet that requirement. Teagasc has transformed itself and its activities. In the very short summary contained in the Conference brochure, we can see an indication of the extent of this transformation. The brochure note points out that: "Even greater challenges lie ahead. The shift towards part-time farming and the increasing emphasis on distance and life-long learning require that we continue to refine how we deliver our programmes."

The future requirements of agricultural education and training will, of course, be heavily influenced by the factors governing the evolution of agriculture and of its downstream industries. Among these, the principal ones seem to me to be:

- world trading rules;
- the evolution of EU agricultural policy;
- productivity developments and other technical developments in agriculture;
- the socio-economic expectations of farm families;
- developments in environmental policy.

The signature of the Training Agreement in Agriculture by the European social partners in the field last December will be an important instrument in concerting our approach to these issues at EU level.

## **Principal Influences on the Evolution of Agriculture and of Downstream Industries**

### **1. World Trading Rules**

The clear trend in world trading rules is away from market protection at the levels to which we have been accustomed for most of the last thirty years. There will, of course, be hiccups in the process. We must hope that they will, on the whole, be less inimical to EU farming interests than the most recent Farm Bill in the USA. In many ways, that Bill was a cynical manoeuvre by the Bush administration to gain an

advantage for US agriculture in advance of the substantive negotiations and on the back of the 9/11 atrocity. I hope that EU negotiators extract a price for this blatant opportunism. On their record to date, however, I am afraid that this might turn out to be a vain hope.

It is clear that the EU will continue to come under pressure to reduce its market protection and to open its markets further to competition from its WTO partners, and especially to its partners in the developed world.

In response, the EU should insist on at least two things.

First, it should insist that market access guarantees are reciprocal, at least among partners in the developed world. US, Australian, New Zealand and Canadian consumers are entitled to enjoy EU food products in the same way as we enjoy theirs.

Second, the EU should insist on a minimum of commonality in rules relating to health standards and traceability for food products. I can see no good reason why EU consumers, on whose behalf we have forbidden EU producers to use growth-promoting hormones, should sometimes find themselves unknowingly eating hormone-stuffed American beef.

These and other trade issues will be important determinants of the economic climate for EU agriculture in the future. To put it at its simplest, we will have to educate and train farmers and downstream industry operatives to compete in an increasingly globalised market for their products. Unless they have an understanding of the global context in which they must work, their comprehension of the market forces with which they have to deal will be inadequate, leading to bad production decisions and serious demotivation.

## **2. The Evolution of EU Agricultural Policy**

It would take a wiser head than mine to predict with certainty the future course of EU agricultural policy. Nevertheless, I think that we can be fairly sure that “decoupling” across a wide range of enterprises will be a feature that we will have to live with in the future. One result of this will be that there will be potential rewards (in a relative sense) for farmers who develop an ability to “read” the market. As things stand at the moment, rewards for “reading” the market are limited by the operation of the all-pervasive quota systems now in operation. There is a strict limit to such rewards when production is limited by quotas, since the benefits of productivity or efficiency gains are limited to a fixed volume of production. Decoupling, if it is properly applied, will give efficient producers elbow room and space to gain from their abilities.

The potential benefits of decoupling would be reduced by the proposed modulation measure, which would have the effect of arbitrarily reducing the overall quantum of returns to primary production. In my view, there is a persuasive case for measures in favour of a fairly broad concept of rural development, particularly in view of what I consider to be the clear benefits of the LEADER initiative, but this should not be at the expense of the production system.

The protection of our environment is a public good, and clearly must be vigorously pursued. The REPS scheme has a good track record and should have an expanding future. Policy in relation to SACs is unpopular more because of the manner of its application than because of the inherent reasons behind it. Basically, the underlying logic is inescapable. The Nitrates Directive is eminently sensible in its inspiration. Had it been properly implemented here when it was first adopted, and when economic conditions were more favourable, it would not have been such an unpleasant dose to swallow, and its operation would by now be an accepted part of our system and practices.

Our agricultural and training systems must have elements which illustrate the validity of “off-farm” views of environmental policy, in order to avoid unproductive clashes of approach and to facilitate realistic dialogue based on real needs rather than on artificial doctrinaire misunderstandings.

My point is that all of these things will be integral parts of the policy landscape in the future. It is imperative, therefore, that our education and training systems be articulated to reflect this.

### **3. Productivity Developments and other Technical Developments in Agriculture**

As in any other sector of production, agriculture has always put the accent on research which aims at “producing more from less”. Over time, the results of such research are incorporated into the training and education systems.

In a more general way, research aims at reducing unit costs of production. This can often mean the adoption of more capital-intensive techniques which have implications for production structures. In a situation, such as we currently have in the EU, in which the operation of quota systems limits the scope for structural change in production systems, the parameters of research based on the cost-reduction model are substantially modified. These modifications must be understood in the research community and this understanding must be carried through into the education system.

Thus, research programmes and the structure of our education system must be firmly anchored in a realistic appreciation of the public policy environment, both present and future.

### **4. The Socio-Economic Expectations of Farm Families**

The socio-economic expectations of farm families are frequently more realistic and hard-headed than the pronouncements of representative organisations or of Governments. It is those families themselves, after all, who decide how many full-time and how many part-time farms we have at any given moment in time. It is they who have decided that a majority of our farms today are part-time and who will decide that that majority will increase in size in the years to come. This is their reaction to the policy and market environment.

Education and training in agriculture are today, and will continue in the future to be for a minority of the children of farm families. A majority of those participating will be engaged in agriculture on a part-time basis, or will seek employment off-farm in the food industry or in some other agriculture-related occupation. A minority will become full-time farmers. The structure and content of courses will have to take these factors into account.

This will mean, among other things, that IT and time management will have to be increasingly important parts of agricultural education and training curricula.

### **5. Developments in Environmental Policy**

We are witnessing a belated and, in many ways, an inadequate dawning of the comprehension of the importance of environmental protection to our society and to our future well-being. This will increasingly put new pressures on all the “productive” sectors of the modern economy. No sector will be immune, and no sector will be able to say that the conventional wisdom of past understanding or practice will suffice in the future. While it may now be true to say that farmers understand more about our natural environment than many of those who today claim special wisdom in laying down rules for conservation, they do not necessarily have the answers appropriate to an environment which has been irreversibly changed, not only by the pressures of development and urbanisation, but also by the development of farming practices over many years.

Today’s arguments about such issues as the Nitrates Directive and “one-off” housing in rural areas are only a foretaste of controversial issues to come.

Agricultural education and training must in future give those involved a new insight into these issues, which will figure more and more in how they run their businesses and live their lives.

## **The Training Agreement in Agriculture, Agreed by the Social Partners in Agriculture at EU Level**

This Agreement was worked out between the social partners in agriculture at EU level. It aims at raising the level of qualifications for agricultural workers and at facilitating mobility and free movement of workers within the European Union.

It is addressed to employers, to the relevant public authorities in the EU Member States and to the EU Commission, and recommends a number of initiatives relating to the vocational training of people working in agriculture and to the recognition of qualifications.

Its principal provisions are the following.

- Participation by and consultation of the agricultural social partners in the organisation of training courses.
- The establishment of an agreed method for the assessment of skills of those employed in agriculture.
- The validation of qualifications recognised on the basis of professional experience.
- Provision for the translation of diplomas or official certificates in at least two Community languages.
- The establishment of an “occupational reference” describing the tasks for which the holder of a certificate or diploma is qualified.
- The establishment of a qualifications and skills booklet confirming the certified vocational qualifications of the holder.

The implementation of this Agreement would help not only in promoting freedom of movement of agricultural professionals between the Member States of the EU (including the ten new Member States we will have from the beginning of 2004), but would also provide a valid basis for comparing the education and training systems of the Member States, thereby encouraging the definition and adoption of “best practice” on an EU-wide basis.

# The Challenges Facing the Teagasc Education and Training Programme

**Mr Paddy Browne  
Head of Education  
Teagasc**

## 1.0 Introduction

“Thoroughly sound and modern systems of agricultural education must precede any considerable or rapid progress towards a high rate of efficiency in our chief industry.” These words were written over 100 years ago in 1901 by Sir Horace Plunkett, the founder of both the co-operative creameries and the Department of Agriculture and Technical Instruction.

Given the relevance of these words 100 years later it might be interesting first of all to look back and trace the development of the agricultural education system in this country. I will then describe the current provision of Agricultural Education in Ireland and finally look forward to the challenges that lie ahead.

## 1.1 Demographic Trends

Firstly I will look at the demographic and economic trends over the last century. Table I outlines a number of key trends and the most striking one is the fall in the total number of farmers and the corresponding increase in the average farm size.

**Table 1: Demographic and Economic Trends 1920 – 2000**

Year	1920	1960	1990	2000
Total Number of Farmers	359,700	210,331	170,578	141,527
Number of Full-Time Farmers	N.A.	N.A.	124,746	78,723
Average Farm Size (ha)	12.4	21.1	26	31.4
Agriculture as % of Total At Work	54%	34%	14.4%	7.3%
GAP as % of GDP	N.A.	28.9%	11.9%	4.6%
Agriculture & Food as % of Total Net Exports	N.A.	N.A.	25%	27% (1997)

The increase in the number of part-time farmers is also quite striking and of the 78,723 farmers who described farming as their sole occupation in the 2000 census of agriculture, a big proportion have other sources of income such as farm assist or with partners working off farm and are likely to have quite small farms.

The decreasing importance of agriculture in terms of employment and contribution to the economy has been even more dramatic. In 1920 agriculture was by far the biggest employer and the major component of the economy whereas in recent years gross agricultural output has fallen to less than 5% of gross domestic product.

However, agriculture is still a significant sector and, when account is taken of the import content of non-agricultural exports, the agri-food sector makes a vital contribution to this country's foreign earnings.

## 1.2 Historical Perspective

The first agriculture colleges were established in 1900 and as can be seen in Table 2 further colleges were added right up to the 1960s.

**Table 2: Historical Perspective**

1900	Albert College, Munster Institute
1904	Mountbellew
1905	Mellows, Ballyhaise, Clonakilty
1919	Pallaskenry
1925	Warrenstown
1940s	St Patrick's, Gurteen
1950s	Multyfarnham, Botanic Gardens
1960s	Rockwell, Kildalton

A milestone in agricultural training was the establishment of the Farm Apprenticeship Board in 1964. For the past 38 years, it has run the Farm Apprenticeship Scheme leading to a Certificate in Farm Management. During 2002 the staff and programmes of the Farm Apprenticeship Board were integrated into Teagasc.

By 1980 demand for places in agricultural, horticultural and rural home economics colleges was continuing to increase and Table 3 lists the colleges and numbers enrolled in each college in the 1980/81 academic year.

**Table 3: Number of Students in Colleges 1980/81**

	Student Numbers
<b><i>Agricultural Colleges</i></b>	
Ballyhaise, Co Cavan	52
Clonakilty, Co Cork	50
Kildalton, Piltown, Co Kilkenny	93
Mellows, Athenry, Co Galway	86
Gurteen, Ballingarry, Co Tipperary	71
Mountbellew, Co Galway	95
Multyfarnham, Co Westmeath	126
Pallaskenry, Co Limerick	139
Rockwell, Cashel, Co Tipperary	108
St Patrick's Monaghan	42
Warrenstown, Drumree, Co Meath	131
<b><i>Rural Home Economics Colleges</i></b>	
Ardagh, Co Longford	44
Claremorris, Co Mayo	43
Dunmanway, Co Cork	49
Navan, Co Meath	61
Portumna, Co Galway	21
Ramsgrange, Co Wexford	44
<b><i>Other Institutions</i></b>	
An Grianan, Termonfeckin, Co Louth	49
Munster Institute, Cork	16
National Botanic Gardens, Dublin	46

The total enrolment in 1980/81 was 1,366.

It should be pointed out that, of the 20 colleges listed in Table 3 all but six were privately owned. The enormous contribution of the privately owned colleges and the religious orders to agricultural education in this state was absolutely vital and needs to be acknowledged.

A major review of agricultural education was completed in 1981 and arising from this review the two year Certificate in Farming was established.

As well as introducing a period of placement and a farm management module, demand for training was such that it was necessary to offer the Certificate in Farming at local centres as well as in the colleges.

Participation rates peaked in 1986 and since that time have gradually fallen to 2001 when total enrolments were 864 and largely concentrated in the colleges. (See Table 4).

**Table 4: Entrants to Agricultural Training 1985-2001**

<b>Year</b>	<b>Overall Number of Entrants</b>
1985	1756
1986	2313
1987	1433
1988	1968
1989	1528
1990	1745
1991	1434
1992	1555
1993	1688
1994	1768
1995	1475
1996	1669
1997	1360
1998	1338
1999	1070
2000	1215
2001	864

Another significant development was the modularisation of the programme which was implemented in 1993.

### **1.3 Recent Developments**

The fall in enrolments prompted Teagasc to commission two studies by the ESRI, one in 1995 and again in 1999. The latter study looked at demographic trends and recommended that future training needs would be met by six agricultural colleges and three horticultural colleges each with around 100 students. A number of colleges did voluntarily close their doors to training in the last number of years and Table 5 lists the colleges and their enrolments in the current year.

**Table 5: College Enrolments 2002/2003**

<b>College</b>	<b>Course</b>	<b>Numbers Enrolled</b>
Mellows	Advanced Certificate in Farm Management	17
Ballyhaise	Vocational Cert in Agriculture	70
	Vocational Cert in Forestry	22
	Advanced Cert – Dairying	10
Clonakilty	Vocational Cert in Agriculture	45
	Advanced Cert – Dairying	33
Kildalton	Vocational Cert in Agriculture	103
	Voc Cert in Horse Breeding & Training	26
	Advanced Cert – Machinery	10
Gurteen	Vocational Cert in Agriculture	60
Mountbellew	Vocational Cert in Agriculture	54
Pallaskenry	Vocational Cert in Agriculture	56
	Advanced Cert – Machinery	16
<b>Total Vocational Agriculture</b>		<b>522</b>
An Grianan	Vocational Cert in Horticulture	20
Kildalton	Vocational Cert in Horticulture	32
Warrenstown	Vocational Cert in Horticulture	42
	Vocational Cert in Hort Skills	6
Botanic Gardens	Vocational Cert in Horticulture	30
<b>Total Vocational Horticulture</b>		<b>130</b>
<b>TOTAL VOCATIONAL</b>		<b>652</b>
<b>THIRD LEVEL COURSES – Agriculture</b>		
Kildalton	National Cert in Agric Science	34
	National Cert in Agriculture	27
Mountbellew	National Cert in Agric Business	41
	National Cert in Agriculture	34
Clonakilty	National Cert in Agriculture	26
Pallaskenry	National Cert in Agricultural Mechanisation	18
Gurteen	National Cert in Equine Studies	23
<b>Total Third Level Agriculture</b>		<b>203</b>
Warrenstown	National Diploma in Horticulture	36
Botanic Gardens	National Diploma in Horticulture	57
Kildalton	National Diploma in Horticulture	21
<b>Total Third Level Horticulture</b>		<b>114</b>
<b>TOTAL THIRD LEVEL</b>		<b>317</b>
<b>GRAND TOTAL</b>		<b>969</b>

The figures in Table 5 refer to new enrolments in the current year while the total number of students in training amounts to 4180.

The total number of enrolments in 2002 at 969 represented an 8% increase on the previous year.

The next major milestone was the establishment, by Mr Joe Walsh TD Minister of Agriculture and Food, of a Task Force to carry out a major review of the provision of agricultural education and training in this country.

The Task Force reported in July 2000 and most of the ground-breaking recommendations contained in the report have since been implemented.

The most significant developments have been the national accreditation of all Teagasc training programmes and the mainstreaming of programmes with application through the CAO system.

The success of these new programmes has resulted in a reversal of the long term decline in enrolments with current year enrolments up on last year.

## 2.0 Current Provision

Teagasc's overall education and training programme can now be sub-divided into four areas:

- Third Level Courses
- Vocational Courses
- Adult Farmer Training
- Food Industry Training.

## 2.1 Third Level Courses

The provision of Third Level training has been a major step forward for Teagasc in recent years. There are now 11 third level programmes appearing on the CAO list and this is set to expand in the years ahead. All of these courses are conducted jointly with Institutes of Technology, thus facilitating the best use of the core competencies of each of the partner institutions.

The courses are accredited by the Higher Education and Training Awards Council (HETAC) and in most situations holders of National Certificates (with merit or distinction) are eligible to progress to National Diploma or Degree level.

Recruitment to the courses is through the CAO system with places reserved for mature students and holders of designated FETAC awards.

In 2002/2003 a total of 317 students were recruited onto Teagasc's third level programmes. These programmes are the recommended courses for future commercial farmers. The combination of an academic education and the practical training provided, opens up wider career opportunities for graduates of these courses.

Four Agricultural College/Institutes of Technology Partnerships offer **the National Certificate in Agriculture**. These are:

- Clonakilty Agricultural College and Cork Institute of Technology.
- Kildalton Agricultural College and Waterford Institute of Technology.
- Mountbellew Agricultural College and Galway/Mayo Institute of Technology.
- Ballyhaise Agriculture College and Dundalk Institute of Technology.

It is intended that an add on **National Diploma in Agriculture** will be in place in September 2003.

Three Horticultural College/Institute of Technology Partnerships offer **the National Diploma in Horticulture**. These are:

- Kildalton Horticultural College and Waterford Institute of Technology.
- College of Horticulture at the National Botanic Gardens and Institute of Technology Blanchardstown.
- Warrenstown Horticultural College and Institute of Technology Blanchardstown.

**The National Certificate in Science Agricultural Science is offered by:**

- Kildalton Agricultural College and Waterford Institute of Technology.

**The National Certificate in Business Studies in Agri-Business is offered by:**

- Mountbellew Agricultural College and Galway Mayo Institute of Technology.

**The National Certificate in Business Studies in Equine Studies is offered by:**

- Gurteen Agricultural College and Athlone Institute of Technology.

**Finally the National Certificate in Technology - Agricultural Mechanisation is offered by:**

- Pallaskenry Agricultural College and Limerick Institute of Technology.

## **2.2 Vocational Courses**

All of Teagasc's vocational courses have been benchmarked and upgraded in recent years and are now nationally accredited by the Further Education and Training Awards Council (FETAC).

These courses are suitable for people who wish to make a career in agriculture, horticulture, horses or forestry but who do not wish to complete a third level course. There is no minimum educational entry requirement but those who have completed the Leaving Certificate are most likely to benefit.

These courses open up a wide range of career options for participants. Many will return to farming either in a full-time or part-time capacity but there are excellent job prospects in the expanding amenity horticulture and forestry sectors.

Paid work experience is an integral part of these courses where participants have the opportunity to develop the skills and competencies associated with their chosen career.

Participants who achieve the necessary results may transfer via the Higher Education Links Scheme to third level courses.

In 2001/2002 a total of 677 students were recruited onto the various vocational programmes in Teagasc.

The **Vocational Certificate in Agriculture Level 2 and Level 3** is offered at six Agricultural Colleges - Ballyhaise, Clonakilty, Gurteen, Kildalton, Mountbellew and Pallaskenry. The course is also offered, on a part-time basis, at some Teagasc Training Centres. (These awards meet the training requirements for Stamp Duty exemption and Installation Aid.)

The **Advanced Certificate in Dairy Herd Management** is offered at Clonakilty Agricultural College and Ballyhaise Agricultural College.

The **Advanced Certificate in Farm Machinery and Arable Crops** is offered at Kildalton Agricultural College, Co Kilkenny.

The **Advanced Certificate in Farm Management** replaces the former Farm Apprenticeship Scheme operated by the Farm Apprenticeship Board, and is run at Mellows College, Athenry, Co Galway.

The **One Year Certificate in Horticultural Skills** is conducted at Teagasc Kinsealy Research Centre, Dublin, Teagasc Research Centre, Clonroche, Co Wexford and at Salesian College of Horticulture, Warrenstown, Drumree, Co Meath.

The **One Year Vocational Certificate in Horticulture Level 2 and 3** is provided at four Horticultural Colleges: College of Horticulture, An Grianan, Kildalton College, Salesian College of Horticulture, Warrenstown and the National Botanic Gardens.

The **Vocational Certificate in Greenkeeping Level 3** is delivered either at the College of Amenity Horticulture, National Botanic Gardens, Glasnevin, Dublin 9 or An Grianan Horticulture College, Termonfeckin, Drogheda, Co Louth.

The **Vocational Certificate in Horse Breeding and Training Level 2 and Level 3** is offered at Kildalton Agricultural College, Piltown, Co Kilkenny.

**The Vocational Certificate in Forestry Level 2 and Level 3** is offered at the Teagasc College, Ballyhaise, Co Cavan.

### **2.3 Adult & Continuing Education**

Lifelong learning and continuing education are now a feature of all professions and walks of life and in this regard farmers and rural dwellers are no different to anyone else. To meet this demand Teagasc now provide a comprehensive range of adult training programmes at local offices in each country.

Each year over 8,000 farmers and/or their partners participate in courses ranging from 12.5 hours right up to certificate level.

A modular approach, with standardised syllabi and assessment procedures, are used for all adult training programmes.

The Adult Farmer Training Programme includes a wide range of training courses of varying duration in the following areas:

- 100 Hour Agricultural Courses
- 80 Hour Farm Management Courses
- Advanced 120 hour Courses in Dairying, Tillage, Drystock etc.
- Rural Viability Modules
- Technology and Business Modules
- Diversified Enterprise Modules
- Information Technology Modules
- Environment/Food Safety Modules
- Discussion Groups

### **2.4 Food Industry Training**

The Irish food industry needs to be able to guarantee the quality of the product it is supplying to increasingly discriminating consumers. In order to maintain and improve market position food companies must be committed to training their personnel in the technologies required in modern food manufacturing.

Teagasc is the leading supplier of training to the food processing and retail sector in food safety and quality systems, food innovation and new product development. Teagasc provides training in all aspects of food quality and safety with a view to assisting food businesses to meet legal obligations, customer requirements and industry best practice.

Teagasc food industry training is provided at two main centres, the National Food Centre, Dunsinea, Castleknock, Dublin 15, and at the Dairy Products Research Centre, Moorepark, Fermoy Co Cork. Training is also provided at local level and on site where it is deemed appropriate.

Our objective is to deliver nationally accredited food industry education and training programmes each year to 500 food industry managers/trainers and over 2000 food operatives.

### **3.0 The Challenges Ahead**

Notwithstanding the radical overhaul of Teagasc's education and training programme, and the success of the new programme even greater challenges lie ahead. These challenges will require Teagasc to continually refine both the content of our programme and the methodologies for delivering these programmes.

### 3.1 Demographic Changes

While 20:20 vision might suggest we look at trends 20 years down the road, 2010 might be a more realistic approach, particularly since that was the timescale examined by the Agri-Food 2010 report commissioned again by Minister Walsh.

The 2010 committee predicted that by 2010 we will have 20,000 full time and 60,000 part-time farmers with a further 20,000 in transition out of farming. (See Table 6).

**Table 6: Demographic-Economics Trends 1920-2010**

Year	1920	1960	1990	2000	2010
Total Number of Farmers	359,700	210,331	170,578	141,527	100,000
Number of Full-Time Farmers	N.A.	N.A.	124,746	78,723	20,000
Average Farm Size (ha)	12.4	21.1	26	31.4	44.4
Agriculture as % of Total At Work	54%	34%	14.4%	7.3%	
GAP as % of GDP	N.A.	28.9%	11.9%	4.6%	
Agriculture & Food as % of Total Net Exports	N.A.	N.A.	25%	25% ('97)	

The 20,000 full-time farmers will be operating in a highly competitive market place and will need to be up to date with cutting edge technology.

Many of the 60,000 part-time farmers will also make an important contribution to the economy and will need training to equip them to run an efficient farming operation combined with off-farm employment.

In many situations, the part-timers will need training to be delivered outside of normal working hours or by distance/e-learning. We are currently piloting a number of e-learning courses and these will need to be rolled out in the near future to meet the demand of part-time farmers.

### 3.2 Policy Changes

The current Fischler proposals in the mid-term review of the CAP will place even greater emphasis on issues such as the environment, food safety, animal welfare and occupational safety. This will have implementations for programme content.

EU enlargement and WTO developments will, however, result in more liberal world trade and globalisation of markets. Accordingly, commercial farmers will need access to the best technology available.

### 3.3 National Qualifications Framework

Seán Ó Foghlú, Chief Executive of the National Qualifications Authority of Ireland will later outline progress with the development of a National Qualifications Framework. This process will bring absolute transparency to our education and training systems and will facilitate, to an even greater extent than present, access, transfer and progression through and between all the various programmes. The process will in turn make for a more level playing pitch and will challenge providers in terms of transparency, quality control and standardisation of procedures.

### 3.4 Enhanced European Co-Operation

The establishment of a National Qualifications Framework is being mirrored to some extent by developments in Europe.

The Copenhagen Declaration aims to ensure transparency in relation to qualifications in the field of vocational education and training. This process mirrors the Bologna Process which has the stated intention of developing an European Higher Education Arena. Both processes aim to facilitate the free movement of students and teachers.

In the context of an enlarged Europe, education providers here will be further challenged to go with the flow and meet the requirements of international harmonisation.

### **3.5 Lifelong Learning**

Teagasc's Adult Farmer Training programme which has already been described will need to be continually strengthened and promoted. Farmers and their families face many challenges in the years ahead and will need to view Teagasc's Adult Farmer Training Programme as necessary in-service training. For this to happen, courses will need to be relevant, timely and locally based.

They will also need to be underpinned by a strong foundation in ICT skills.

A well focused and delivered Adult Farmer Training Programme will help us to achieve Sir Horace Plunkett's ideal of

***“Better Farming, Better Business, Better Living”.***

# **Agricultural Education and Training in the Context of the National Qualifications Framework**

**Mr Seán Ó Foghlú**  
**Chief Executive**  
**National Qualifications Authority of Ireland**

## **Introduction**

The National Qualifications Authority of Ireland was established on a statutory basis, under the Qualifications (Education and Training) Act, 1999 on 26 February 2001.

The Authority has a range of functions to perform in leading a cultural change in learning. The key cultural change sought is to refocus from the needs of those running the systems to the needs of learners themselves. The outcome will be a diverse learner community throughout further and higher education and training; it will include a higher proportion of adults, more learners engaged in part-time programmes, workers seeking to update or extend their awards, and many learners with a variety of special needs. These new participants will require new entry arrangements to ensure accurate matching of learner and programme, the recognition of prior learning, new kinds of provision and new arrangements for progression as they seek to meet their personal learning and award objectives. Whatever specific strategies are adopted, it is certain that it will be necessary for many groups and individuals at all levels in our education and training systems to participate in, contribute to and be subject to processes of change.

The two principal tasks of the Authority are as follows:

- To establish and maintain a national framework of qualifications
- To promote and facilitate access, transfer and progression.

The Authority is now at a key time in its work. Over the past two years it has been consulting with stakeholders and developing its policy approach. The approach of the Authority to this consultation process is to use it as a way to help stakeholders to take ownership of the overall changes in approach that the Authority is driving and to listen to the suggestions of stakeholders in this context. This form of consultation is key to preparing the ground for the changes to be implemented. The Authority is now at the point where it intends to finalise the outline national framework of qualifications and to determine its policies on access, transfer and progression.

This update sets out the context to the establishment of the Authority, summarises developments since the Authority's establishment and outlines the emerging policy approaches of the Authority in relation to its two principal tasks.

It also addresses some of the challenges and opportunities for Teagasc arising from these developments.

## **Awards System in Ireland prior to the Qualifications Act**

Prior to the implementation of the Qualifications Act in 2001, awards for achievement in learning were made through a variety of structures and agencies, operating a diversity of systems and subsystems. These arrangements have evolved over the years: some elements of the system have their origins in the earliest stages of development of education and training in Ireland, while others were of quite recent vintage and have been developed in response to needs arising out of changing employment situations and corresponding new learning opportunities.

In general, the elements of the pre-2001 qualifications system mirror the separate organisational sectors that have evolved in the world of learning. The education and training strands of learning have separate organisational identities, and are co-ordinated through two Departments which have particular roles and responsibilities in relation to education and training (the Department of Education and Science, and the Department of Enterprise, Trade and Employment) as well as a number of other Departments which have

particular sectoral interests, for example, in agriculture, fisheries and tourism. By 2001, each of these elements of the learning system had developed separate systems for the recognition of learning.

Furthermore education in Ireland has traditionally comprised three main strands: Primary, Post-primary or Second Level, and Higher Education or Third Level. Higher Education is further divided into a binary system, comprising Universities on the one hand, and on the other, Institutes of Technology, National Institutions and certain other colleges and institutions. In more recent times, a new Further Education strand has been formalised, comprising a variety of learning opportunities for adults, a range of mainly vocational provisions organised on a sub-tertiary basis, and many community-based learning programmes. For each of these strands and sub-strands, separate systems of awards and qualifications have been developed.

Pre-2001, awards for learning at Second Level were made by the Department of Education and Science. In Higher Education, the universities and the Dublin Institute of Technology made their own awards. The other Institutes of Technology availed, in the main, of awards made by a statutory awarding body, the National Council for Educational Awards (NCEA). In the various programmes that are now included under the Further Education umbrella, many different awards were used to recognise learning, including a variety of specialised and international awards; however, the most common award system in use in Further Education was that developed by the National Council for Vocational Awards (NCVA). Pre-2001 awards for training were made by Teagasc, the National Tourism Certification Board (involving jointly CERT and the Department of Education and Science), FÁS (involving arrangements with the Department of Education and Science and City and Guilds) and Bord Iascaigh Mhara.

In addition to these arrangements a very wide range of awards was made in Ireland by other agencies:

- Professional organisations
- International awarding organisations (eg City and Guilds, Open University)
- Specialised training organisations.

Most of these awards were made for learning associated with a particular professional or occupational sector, but many were also used to recognise learning in community-based programmes and in mainstream training programmes. These bodies continue to operate at present.

### **Consideration of the Need for Change in the 1990s**

There was a consistent policy debate in the 1990s on the inadequacies of the awards systems set out above. In the early 1990s, a number of proposals emerged for new structural arrangements but none of these gained momentum at the time. At the same time, there was increasing consensus that a national framework of qualifications should be established. However, there was no consensus on what the nature of such a framework should be or what the structural arrangements should be to underpin it.

A particular initiative undertaken in 1995 was the establishment of Teastas. Teastas was an advisory body set up to advise the Government on the establishment and development of a national qualifications framework. Teastas engaged in public consultation and in late 1997 and subsequently in 1998 advised the Government on possible ways forward. However, there was no consensus emerging on what the best way to proceed was and there were particular difficulties around what were seen at the time by some as separate understandings of education on the one hand and training on the other.

At the same time, there were particular key issues arising in relation to the development of higher education. The Universities Act had recently been passed and the autonomous nature of the universities was underpinned therein. Furthermore, a review was underway in relation to the possible establishment of the Dublin Institute of Technology as a university. In addition, there was much contention among the then Regional Technical Colleges, in relation to their status. The policy approach that emerged was that each of these would be retitled as institutes of technology and that there would be a process put in place whereby they could seek delegated authority to make awards themselves.

Further important policy contexts for change were also the push for the development of a learning system that focuses on the needs of learners and supports lifelong learning. These had also been a consistent policy issue raised and discussed throughout the 1990s while actual concrete policy approaches did not begin to be implemented until the end of that decade. There has been an increasing recognition that many of the learning systems that are in place are based on the needs of young people, as perceived by education and training institutions, and assume a linear progression from school and into further learning opportunities whether in a further education, higher education or training context.

Increasingly it has been recognised that while the need are providers are important in the organisation of learning opportunities, there is a need to look at the needs of learners generally and the needs of adult learners in particular. Policy approaches have now been set out in the Qualifications Act that underpin this approach. There is also an increasing focus on adult learners in the 2000 White Paper on Adult Education and the 2002 report of the Task Force on Lifelong Learning which sees the work of the Authority in establishing and maintaining a national framework of qualifications as central to the implementation of its recommendations.

There have also been significant international developments which have fed into changes in Ireland. There are increasing calls for international agreements in relation to the nature of awards generally, common guarantees in relation to quality assurance and agreed recognition arrangements. These have led to, for example, the Bologna Declaration, the Copenhagen Declaration and the setting up of National Reference Points and National Academic Recognition Information Centres.

In 1998 and 1999 there were intense discussions between the two key Government Departments – the Department of Education and Science and the Department of Enterprise, Trade and Employment – to agree a way forward on the qualifications legislation. Arising from these discussions, in the context of the above developments and building on the advice of Teastas, the overarching policy approach which was to be put in place in the Qualifications Act emerged.

### **Qualifications (Education and Training) Act, 1999**

The Qualifications (Education and Training) Act, 1999 was fully commenced in June 2001. The four main objects of the Act are to:

- establish and develop standards of knowledge, skill or competence;
- promote the quality of further education and training and higher education and training;
- provide a system for co-ordinating and comparing education and training awards and
- promote and maintain procedures for access, transfer and progression.

The new structural arrangements in the Act provide for the setting up of the National Qualifications Authority of Ireland. The Act also provides for the setting up of two awarding bodies – the Further Education and Training Awards Council and the Higher Education and Training Awards Council. There was a strong rationale for separating the role of the Authority from that of the awards Councils. This reflected that the role of the Authority would be to concern itself as appropriate with all awards made in the State, for example the awards of the Dublin Institute of Technology, the universities and the Department of Education and Science in addition to the awards made by the Councils. Effectively the role envisaged for the Authority is to have the key policy development role in setting out the cultural change that is needed, leading such change and ensuring that it is implemented. It was also considered that there was a need to ensure that there was an external quality assurance agent for the Councils.

The particular role of the Authority is clear in the manner in which the membership of the Authority is representative of society with no direct representatives of providers of education and training. The full membership of the Authority is attached at appendix 1.

The rationale for having two Councils was very much to build upon the nature of the previous arrangements that were in place and to recognise that there is a wide diversity in learning outcomes which could appropriately be recognised by two Councils co-operating effectively together. It was felt that

there needed to be some reflection of the awards arrangements which had previously been in place. There was also the key issue of bringing together education and training under each of the Councils.

Under the Act, in general all publicly funded providers of education and training (other than the universities and the Dublin Institute of Technology) including, FAS, CERT, Teagasc, An Bord Iascaigh Mhara, the Institutes of Technology, Vocational Education Committees will be required to submit their programmes of further and higher education and training to the relevant Council for validation. Any provider of further or higher education and training may apply to the relevant Council for validation of a programme. Equally, a learner may apply to a Council for an award or the recognition of an award.

Effectively, HETAC and FETAC have assumed the certification powers of the National Council for Educational Awards, FÁS, the National Council for Vocational Awards, the National Tourism Certification Board and Teagasc under the Act

The Act also provides for the delegation of authority by the Councils to make awards in certain instances. HETAC can delegate such authority to institutes of technology and FETAC can do so to FÁS, CERT or Teagasc.

### **Work Undertaken by the Authority to date**

While the two principal tasks of the Authority are:

- To establish and maintain a national framework of qualifications
- To promote and facilitate access, transfer and progression

and these have been the focus of the work of the Authority to date, the Authority has engaged in a range of its functions since its establishment. These are set out below.

An important area of work for the Authority has been to put in place transitional arrangements for the work of the two Councils. This has involved:

- Initial consultation on the nature of the transitional arrangements that needed to be put in place for the performance by the Councils of their functions to ensure a smooth carrying on of existing business in the context of the rationalisation of awarding bodies
- The determination of such initial procedures and the updating of these
- The development of initial procedures for the Higher Education and Training Awards Council in relation to the Council delegating authority to make awards to certain recognised institutions and the further development of these procedures
- The putting in place of an interim appeals process where the validation of the programme is refused or withdrawn by one of the awards Councils.

The following paragraphs focus on the steps taken by the Authority in implementing its two principal tasks.

### ***Initial Consultation (summer 2001 – March 2002)***

The Authority has engaged in a formal consultation process to discuss the strategic approach of the Authority with all stakeholders. In November 2001 the Authority published “Towards a National Framework of Qualifications: A Discussion Document”. The publication of the document was an important step by the Authority; it set a context for the development of the work of the Authority and, in particular, for the development of the national framework of qualifications. The purpose of the document was to explore how the Authority might approach the performance of its functions. The Discussion Document formed the basis of a broad consultative process. The Authority received over 80 written submissions. These have all been published by the Authority on its website ([www.nqai.ie](http://www.nqai.ie)). On February 14<sup>th</sup>, 2002 the Authority hosted a National Forum at Dublin Castle. The Forum was attended by over 300 delegates. It provided an opportunity for all stakeholders to consider the issues raised in the Discussion Document and in the subsequent consultation process.

### ***Initial Policies and Criteria for the Framework (April 2002)***

This first part of the consultation process undertaken by the Authority prepared the ground for the next deeper phase of consultation and implementation by the Authority. This necessitated the determination by the Authority of some initial policies and criteria for the development of the framework and related work. Accordingly, in April 2002 the Authority published a document, “Towards a National Framework of Qualifications – Establishment of Policies and Criteria”. This presented the first determinations of the Authority, following the publication of its Discussion Document and the associated public consultation. This document contains:

- Vision and principles
- Process guidelines
- a definition of knowledge, skill and competence
- the basic architecture of the framework

### **Further Consultation Processes**

The Authority considered that a formal process of engagement with stakeholders was necessary to advance to the next stage of framework development. Accordingly, in March 2002, the Authority established a Consultative Group whose role is to assist the Authority in the preparation of:

- The national framework of qualifications
- Procedures for access, transfer and progression to be implemented by providers

The consultative group has a broad membership representing the main stakeholders of the Authority as follows:

- the Further Education and Training Awards Council
- the Higher Education and Training Awards Council
- the National Council for Curriculum and Assessment
- the Conference of Heads of Irish Universities
- the Council of Directors of Institutes of Technology
- Dublin Institute of Technology
- FAS
- CERT
- Teagasc
- Irish Vocational Education Association
- Union of Students of Ireland
- Education/training part of the community and voluntary pillar, e.g., via National Adult Literacy Agency
- Aontas
- Irish Business and Employers Confederation
- Irish Congress of Trade Unions
- Higher Education Authority.

The group meets on a regular basis and has been of great assistance to the Authority.

The Authority has also engaged in a wide range of bi-lateral and multi-lateral meetings with stakeholders.

In addition, the Authority has established an expert advisory group in relation to credit. The task of the group is to assist the Authority in the consideration of the possibilities for the development of a system or systems for credit accumulation and transfer to complement the national framework of qualifications, and the appropriate roles of stakeholders in such developments. The group is assisting the Authority in reviewing the existing systems in place. Moving from this, the group will assist the Authority in looking at possibilities for development. The policy of the Authority on credit is to work towards the development and implementation of a national approach to credit to complement the emerging national framework of qualifications. The implementation of a national approach to credit could potentially benefit all learners. It would enable small learning achievements to be recognised, allow learners to

participate in more flexible ways in education and training and ultimately achieve awards that would otherwise be inaccessible to them. For example, it is evident that a credit approach would be of crucial importance to certain learner-groups such as those engaged in non-formal and informal learning, learning on a part-time basis, and work-based learning.

In May 2002 the Authority also published a further discussion paper – “Towards a National Framework of Qualifications – Inclusion of Professional and International Awards – A Discussion Paper”. The paper was prepared with a view to discussing how to include in the national framework of qualifications awards from private bodies in the State, such as professional bodies, and from international bodies of various kinds making awards to learners in the State. Submissions are still coming in on this paper and are publicly available. Workshops in the issues are to take place in the near future.

The Authority also undertook some international research in relation to national frameworks of qualifications. A summary of this work has been published by the Authority on its website.

In addition, the Authority also looked at the development of the framework from an employment perspective. The report on focus groups organised by the Authority in this regard was published in January 2003.

#### ***Further Policies and Criteria for the Framework (October 2002)***

Further policies and criteria in relation to the framework were determined by the Authority at the end of October 2002. These were particularly complex concepts relating, inter alia, to the Division of Knowledge, Skill and Competence into Sub-strands. These are absolutely vital for the Authority in establishing a conceptual basis on which the framework that is as well understood and widely-accepted as possible is to be based and aims to take account of the diverse views that exist in this regard.

#### ***Development of an understanding of what the National Framework of Qualifications is***

The Qualifications Act sets out that the first object of the Authority is:

- the establishment and maintenance of a framework of qualifications for the development, recognition and award of qualifications based on standards of knowledge, skill or competence to be acquired by learners.

The April 2002 policies and criteria of the Authority further define the national framework of qualifications as

“The single, nationally and internationally accepted entity, through which all learning achievements may be measured and related to each other in a coherent way and which defines the relationship between all education and training awards.”

The approach of the Authority has been to work in terms of outcomes. This puts a focus on what has been learned rather than where, when or how the learning took place or who provided the learning opportunity. This approach requires everyone involved directly or indirectly in the provision of learning opportunities to refocus on what the aims and objectives of the learning process are and raises questions around existing practices. The placing of awards in the framework would build on this approach and would not be linked with providers of education and training.

The establishment of the national framework of qualifications is a very exciting development. It addresses the long-standing problem of lack of coherence in further and higher education and training awards in Ireland. It presents a new vision for the future, with the needs of the learner taking priority. This represents a new departure in Irish education and training, and there is a unique opportunity to further develop the awards system for education and training in an innovative and creative way, ensuring that Ireland is at the leading edge of international developments in this area.

The importance of knowledge to present day society and economies has never been greater. We are entering an age of knowledge in which the key strategic resource necessary for prosperity has become

knowledge itself. In order to be a knowledge society we must also become a lifelong learning society. The development of a lifelong learning society is a stated national and European policy. This will require a vision of learning whose development will have to be facilitated by the framework.

Lifelong learning is concerned with all phases and forms of learning from preschool to post-retirement. The framework must facilitate the cultural, economic, political/democratic and/or social participation of citizens in society as a whole and in their community by measuring, as appropriate, relevant learning achievements in this regard and relating them to each other. Such participation by citizens in society has become known as “active citizenship” and has been discussed across the European Union as part of the process leading to the recent declaration on lifelong learning. The concept incorporates the mutually supporting objectives of personal fulfillment, democratic participation, social inclusion, adaptability and employability.

The formal recognition and valuing of all learning (formal, non-formal and in-formal) is an integral part of the work of the Authority. The emerging vision of the framework is that it will facilitate such recognition. In addition, the structure and management of the provision of education and training is changing and subject to major influences from societal developments and from communications technology and the market place. For the first time in Ireland, the framework will assist all learners in receiving recognition for learning achievements and facilitating progression to other learning opportunities. The framework will be totally open and accessible to all learners.

#### ***Some Key Technical Aspects of the Framework***

It is important to note that the framework will be a new entity; its establishment will bring about major changes in the qualifications systems in Ireland, both in the range of awards available and in the relationship between awards. It will be comprehensive and flexible enough to provide awards that will meet all learning recognition needs. It will be possible to map most existing awards (from the pre 2001 systems) onto the new framework, but it is not intended that the framework be a compendium of those awards – it will have its own integrity as a new entity. The aim is that a common nomenclature, or titling system, will be adopted to describe awards by level and type.

Apart from the two Awards Councils (which have now replaced 6 previous awards systems and a plethora of awarding bodies), the range of awarding bodies in Ireland also includes the Department of Education and Science (including the Examinations Commission), the seven universities and the Dublin Institute of Technology. The National Qualifications Authority of Ireland sets the overall standards for the awards of the two Awards Councils and the Dublin Institute of Technology. In relation to the universities and the Department of Education and Science, it is intended that the Authority will accommodate their awards in the national framework of qualifications while not setting the standards of their awards.

There are also a range of professional and international awards made in the State and the Authority is looking at ways to include these.

The Authority has determined that the framework will be based on levels. Each level will have a specified level indicator. At each level in the framework there will be one, or more, award-types. Each award-type will have its own award-type descriptor. It is the responsibility of the Authority to develop these level indicators and award-type descriptors. For each award-type a wide range of named awards will be developed. It is the responsibility of awarding bodies to develop named awards.

## Framework Structure

<b>↑</b> <b>LEVELS</b>			
<b>LEVEL</b> <b>D</b>	<b>Award-Type</b> named award named award	<b>Award-Type</b> named award named award	<b>Award-Type</b> named award named award
<b>LEVEL</b> <b>E</b>	<b>Award-Type</b> named award named award		
<b>LEVEL</b> <b>F</b>	<b>Award-Type</b> named award named award	<b>Award-Type</b> named award named award	
<b>LEVELS</b> <b>↓</b>			

The Authority has determined policies and criteria for determining award-types. The framework is intended to enable the recognition of all learning achievements and the range of award-types provided will have to facilitate this inclusiveness. Not all combinations of achievement, at a given level, are of equal importance. Some award-types fulfill a broader range of purposes and these are labelled major award-types. Other, more limited or specialised, recognition needs are met by minor, supplemental and special-purpose award-types. The following are the classes of award-types determined by the Authority:

- Major award-types are the principal class of awards made at each level. At most levels, such award-types capture a typical range of achievements at the level
- A minor award-type will provide recognition for learners who achieve a range of learning outcomes, without achieving the specific combination of learning outcomes required for a major award
- Special-purpose award-types are made for specific, relatively narrow, purposes
- Supplemental award-types are for learning which is additional to a previous award

The Authority has determined that there are three general strands of learning outcomes that will be used in setting standards. These strands are knowledge, know-how and skill, and competence. In order to specify level indicators and award-types descriptors in sufficient detail, it is necessary to analyse the learning outcomes within these strands more fully. A number of sub-strands have been identified within these main strands that can be considered as the component structures of the three kinds of learning outcomes. Sub-strands can be followed through the levels indicators and give a structural basis for comparison between the indicators at neighbouring levels. They identify the sources of order within the kinds of learning outcomes associated with awards at the various levels. The sub-strands are based on the concepts introduced in the understandings of knowledge, skill and competence. The sub-strands are set out in appendix 2.

A particular dimension of the work of the Authority in relation to detailing what is understood by outcomes is the extent to which stakeholders from divergent traditions – in education and training, in formal and non-formal learning and in community education providers and national educational institutions – have worked through these concepts with the Authority and found that they have met the requirements to recognise the learning that they wish to see valued.

### Emerging National Framework of Qualifications

In October 2002 the Authority made an initial determination in relation to the framework – that it will consist of 10 levels. The sub-strands of knowledge skill and competence have been used to generate

level indicators for the 10 levels and the Authority has determined a 10-Level grid of level indicators. The grid shows how the outcomes in each of the eight sub-strands progress across the ten levels and is attached at appendix 3. This was the first part of the key determinations of the Authority in relation to the outline framework – the level indicators set out in the grid are intended to enable the Authority to place award-types at appropriate levels in the framework based on the mix of learning outcomes they contain. A synopsis of the outcomes at each level in the framework has been prepared. The synopsis is useful in understanding the nature of the learning outcomes at each level. This synopsis is attached at appendix 4.

The final stage of the development of the outline framework relates to the development of award-types. The issue of award-types is a key one in framework development. The Authority has set out that it is through the determination of award-types and descriptors for these that the Authority will set the overall standards of the awards of the two awards Councils and the Dublin Institute of Technology. While the Authority cannot set the standards of the awards of the Department of Education and Science and the universities, it is through the award-types and their descriptors that these award-types can be accommodated in the framework.

The awarding bodies are in the process of giving formal advice to the Authority in relation to award-types in the framework.

The next step, accordingly, is to look at the possible award-types which might be considered for the new framework. The following is the emerging situation for award-types in the new framework:

- 10 – Doctoral Degree
- 9 – Masters Degree and Post-graduate Diploma
- 8 – Honours Bachelors Degree and Graduate Diploma
- 7 – Ordinary/General Bachelors Degree
- 6 – Certificate/Diploma and FETAC Award-type
- 5 – FETAC Award-type and upper part of Leaving Certificate
- 4 – FETAC Award-type and lower part of Leaving Certificate
- 3 – FETAC Award-type and Junior Certificate
- 2 – FETAC Award-type
- 1 – FETAC award-type

The awards at levels 7 to 10 would be made by HETAC, the DIT and the universities. At level 6 the awards would be made by FETAC, HETAC and the DIT. At level 5 and below awards would be made by FETAC and the Department of Education and Science.

It is important to stress that, while the framework is accommodating the awards of the universities and the Department of Education and Science, it is setting the standards for new awards to be made by the other awarding bodies and this will also require some change of approach by the universities. In general, the impact on the awards made by FETAC, which currently still makes awards under a range of former systems, will be greatest.

No change is being suggested in relation to school awards or their titles. The approach is to accommodate them in the framework on an agreed basis. The Authority is interacting with both the NCCA and the Department regarding the implications that the establishment of the framework may have for perceptions of school awards. This is in the context of the NCCA review of the senior cycle.

On the titles of the other award-types, the aim is that we will discuss these with the awarding bodies once the determinations around the nature of the award-types are made. There is a consensus on the use of the terms honours bachelors degree, master and doctorate. Other than that, there are diverse views emerging.

In discussions with awarding bodies, we are moving towards general agreement about the award-types from level 7 up. The distinction in level between some awards that are post-graduate in time and others

that are postgraduate in level are not apparent in all existing awards systems. This will need further work.

At level 6, the emerging view is for an overlap between further education and training awards on the one hand and higher education and training awards on the other – there would be separate award-types for further education and training and for higher education and training respectively at this level. This appears to be the best solution to the difficult decision that the Authority needs to make in relation to this differentiation. The work undertaken by the Authority and its consultations have indicated that there is an overlap in the awards of what is traditionally considered further and higher and that the best way forward is to incorporate this into the new system on an interim basis. To do otherwise would be to change the existing understandings in the framework and this would impact in ways beyond the framework and could have unintended implications for issues other than recognition and valuing of learning achievements.

In relation to university awards at level 6 and below there is a diversity of existing arrangements and the universities are not proposing a framework award-type in use by the university sector at this level on an immediate basis.

In relation to FETAC award-types generally, these are still the subject of much discussion and while there would appear to be a preference for a single major award-type at each level at which FETAC makes awards.

It is anticipated that the main elements of the outline national framework of qualifications which have yet to be determined by the Authority will be determined in February 2003.

### **Access, Transfer and Progression**

Paralleling the work on framework development, the Authority has been working through its policy approach to access, transfer and progression.

The Authority is developed a composite vision for the promotion and facilitation of access, transfer and progression as follows:

*The learner should be able to enter and successfully participate in a programme, or series of programmes leading to an award, or series of awards, in pursuit of their learning objectives. The national framework of qualifications and associated programme provision should be structured to facilitate learner entry, and to promote transfer and progression, so that learners are encouraged to participate in the learning process to the full extent of their abilities and ambitions.*

Policies, actions and procedures for access, transfer and progression are being developed in accordance with the following operational principles:

- Programmes leading to awards in the national framework of qualifications should accommodate a variety of access and entry arrangements.
- The issues of access, transfer and progression should be addressed for all learners, but particularly for those learners who have in the past had limited access to education and training awards – those with limited levels of basic education, mature learners, older learners, learners who are unemployed or not in the labour force, workers in unskilled or low-skilled occupations, people with disabilities, those living in remote or isolated locations, members of the Traveller community or minority ethnic groups, and refugees.
- Policies should be designed in the context of national policy in relation to equality, with particular regard to the relevant provisions of the Equal Status Act 2000 and the Employment Equality Act 1998.
- All awards should have some associated opportunities for transfer and progression.

- Awards at the same level in the framework should be valued equally, even where they have differing access or entry arrangements, differing opportunities for transfer and progression or different purposes generally.
- A learner's continued participation in learning may require opportunities for either transfer or progression at any transition-point.
- The framework concept implies that a learner achieving an award is, in principle, eligible to progress to a programme leading to another award at the next level up where there is such an award in the same or a related field of learning, and may be eligible to progress to a higher level than that.

The emerging policy approach is that the actions to be taken by the Authority will be as follows:

- the development of a national framework of qualifications
- the facilitation of change
- the development of policies to supplement the framework development policies already established and published – these policies will relate to:
  - Credit (and Recognition of Prior Learning)
  - Transfer and Progression Routes
  - Entry Arrangements
  - Information Provision
- the definition of sets of actions and procedures for the implementation of the policies adopted; actions and procedures are defined for:
  - the Authority
  - the awards Councils
  - providers of further and higher education and training.

The policies and procedures that are developed by the Authority must be implemented by the Councils and by providers of further and higher education and training other than the universities. The universities must actively consider them and their implementation is reviewed by the Authority.

Among the key action lines that are emerging are the following:

- There is a consensus emerging that there should be a national policy approach to credit accumulation and transfer and the Authority is moving to put this in place
- providers, in co-operation with the relevant awarding bodies, should identify transfer and progression routes into and onwards from all programmes leading to awards in the framework and should make the necessary adaptations to programmes to facilitate participants in making successful transitions
- for each programme, there should be a clear definition of the awards in the framework that are recognised as demonstrating eligibility for entry, and where relevant, the attainments required in these awards
- for every programme, prospective learners should have available statements of the knowledge, skill and competence needed as a basis for successful participation, and there should comparability in the factors defined for similar programmes
- all providers, for each and every programme, should publish information on the above in a standard and accessible format
- The Authority is discussing with the Higher Education Authority, in the context of the establishment of the National Access Office, the issue of entry to higher education and training by adult learners. The possible establishment of a Consortium of relevant partner organizations is emerging and the Consortium would identify appropriate entry arrangements and seek agreement on their implementation. Appropriate entry arrangements could include additional or alternative entry arrangements and/or the adaptation of existing arrangements, as required to facilitate participation by adult learners.

### **Communications and Implementation**

Following the determinations of the Authority in relation to award-types, there will be a need to discuss implementation arrangements in relation to the outline national framework of qualifications. The aim would be that by the end of April there will be general agreement in relation to such issues. In particular,

these discussions will concern the timescale for the implementation of the changes – it will be necessary, for example, for the awards Councils to clearly define standards for their awards before they can make any new awards. Furthermore, there is a need to develop consistent approaches to the titles of award-types. A particularly complex issue will relate to how the existing and previously made awards are placed in the framework. It is anticipated that there will not be too many difficulties with the higher education awards, but for the awards of FETAC, the Council may not be able to advise the Authority until it actually sets the standards for the new awards. Accordingly, the implementation arrangements will be quite complex and require appropriate planning.

The Authority recognises that there is a need for a comprehensive communications strategy for the national framework of qualifications to explain

- What it is
- What it is for, and
- How it is to be implemented.

There is a need to develop the initial communications strategy in a number of Stages as follows. This strategy will need to be developed and implemented in consultation with national stakeholders, and with the active participation of many of them. Members of the consultative group will have a key role in assisting the Authority in this regard.

### **Teagasc**

Teagasc is a key provider of agricultural education and training programmes. Under the Qualifications Act it is required to submit further education and training programmes to FETAC for validation and all higher education and training programmes to HETAC for validation.

Prior to the commencement of the Qualifications Act, Teagasc was already working closely with the National Council for Vocational Awards and the National Council for Educational Awards and it is now working closely with two new Awards Councils. It is working to implement the transition arrangements pending the determinations of the framework discussed above in the paper.

There are also particular linkages in place between programmes provided by Teagasc and a degree programme provided by University College Dublin.

In moving forward Teagasc will need to ensure that it involves itself with the Councils in the performance by them of their functions. This will relate to the policy approaches which the Councils are in the process of developing in relation to setting standards, validating programmes and agreeing quality assurance procedures. It relates not only to involve itself in the policies about how the Councils should go about these tasks but also in assisting the Councils in undertaking these tasks in the future. A further important issue relates to the advice that the Councils are to make to the Authority in relation to the placement of previously made awards and how these will be accommodated in the framework. Teagasc will need to engage in this as well.

The developing policies on access, transfer and progression are an opportunity for Teagasc in terms of attracting learners but there also be challenges for Teagasc in developing their existing programmes to ensure that they meet the new emerging requirements.

Teagasc may also have to develop its quality assurance functions. It already had its own quality assurance functions but these will now be monitored and viewed by the Awards Councils. The nature of the interactions between Teagasc and the Award Councils in relation to the Councils function of satisfying itself in relation to the assessment procedures in place is also important.

The Qualifications Act gives a strong recognition to the role of Teagasc as being one of the primary providers of education and training in the State. The linkages to be put in place in the national framework of qualifications through the facilitation of transfer and progression should be of great benefit

to Teagasc in ensuring that it develops appropriate linkages for the future. Furthermore, there is a strong new opportunity for Teagasc to provide new ranges of nationally certified short programmes and to diversify its learner population.

### **Conclusion**

We are at a stage now where the Authority has engaged in extensive consultation at national level and the outline of the new national framework of qualifications and supporting policy approaches to access, transfer and progression are nearly complete.

There will be many issues relating to the implementation of the framework. The Authority recognises that these will require significant changes in systems, structures and attitudes. The outcome will be a diverse learner community throughout further and higher education and training; it will include a higher proportion of adults, more learners engaged in part-time programmes, workers seeking to update or extend their awards, and many learners with a variety of special needs. These new participants will require new entry arrangements to ensure accurate matching of learner and programme, the recognition of prior learning, new kinds of provision and new arrangements for progression as they seek to meet their personal learning and award objectives. Whatever specific strategies are adopted, it is certain that it will be necessary for many groups and individuals at all levels in our education and training systems to participate in, contribute to and be subject to processes of change. Furthermore, it will be necessary for Departments and funding agencies to consider the implications of such changes and the deployment of appropriate resources to encourage and contribute to such changes. The Authority is required to take a lead role in facilitating the implementation of change. Teagasc has a key role in this regard.

The implementation process for these will involve much endeavour from all national stakeholders and will need to be spread out to and worked through over time with those who will be implementing the change and those upon whom the change will impact. The eventual change will have a major impact on the organisation of learning with changing focus from the needs of providers to the needs of learners. This will impact further on the understanding of what learning is and when and where learning opportunities are made available.

### **Appendix 1**

#### **Membership of Authority**

Mr Richard Langford	Chairperson of the Authority
Mr Jim Dorney	Nominated by Irish Congress of Trade Unions
Professor Joyce O'Connor	Chairperson of the Further Education and Training awards Council
Professor Ciarán Murphy	Chairperson of the Higher Education and Training Awards Council
Mr Donal Kerr	Nominated by the Tánaiste and the Minister for Enterprise, Trade and Employment
Ms Inez Bailey	Nominated by the Minister for Education and Sciences as representative of Community & Voluntary Organisations
Ms Marie O'Mahony	Nominated by Forfás
Fr Nicholas Flavin	Nominated by the Minister of Education & Science
Mr Colm Jordan	Nominated by the Minister of Education and Science as a Representative of Learners
Dr Caroline Hussey	Nominated by the Universities
Ms Caroline Nash	Nominated by IBEC
Professor Anne Moran	University of Ulster, Co-opted by the Authority
Dr Abrar Hasan	OECD, Co-opted by the Authority
Mr Seán Ó Foghlú	Chief Executive of the Authority

## Appendix 2

### Sub-strands of Learning Outcomes

The main strands of learning outcomes are divided into sub-strands as follows:

- Knowledge
  - Breadth
  - Kind
- Know-how and skill
  - Range
  - Selectivity
- Competence
  - Context
  - Role
  - Learning to learn
  - Insight

The sub-strands can be summarised as aiming to answer the following questions:

1. How extensive is the learner's knowledge?
2. What nature or quality of knowing has the learner engaged in?
3. How extensive are the physical, intellectual, social and other skills demonstrated by the learner?
4. How complicated are the problems that a learner can tackle using the skills acquired and how does a learner tackle them?
5. In what contexts is a learner able to apply his/her knowledge and skills?
6. How much responsibility can the learner take, personally and in groups, for the application of his/her knowledge and skills?
7. To what extent can the learner identify the gaps in his/her learning and take steps to fill those gaps?
8. How far has the learner integrated the intellectual, emotional, physical and moral aspects of his/her learning into his/her self-identity and interaction with others?

Not all the sub-strands are equally familiar to current users of awards. The sub-strands within knowledge and know-how and skill have long formed the basis for awards. Context and role competence are familiar for users of some types of award. The competence of learning to learn makes explicit, as outcomes, certain kinds of learning that would previously have been considered as properties of programmes and, as such, were bound up in the learning process rather than elements to be explicitly certified in awards. Insight is perhaps the most innovative sub-strand. It is not clear to what extent this sub-strand has been taken up as an explicit objective of education and training programmes or incorporated in the design of awards. There are considerable difficulties in devising appropriate methods for assessing the attainment of such outcomes. Nevertheless, it seems desirable to make provision for such outcomes within the framework. It is likely that this sub-strand will need further refinement as education and training practice and associated awarding practice develops. In particular, the staging of progress in this sub-strand and the assignment of progress to levels (with the implied correlation to other learning outcomes in other sub-strands) cannot meaningfully run ahead of practice. This sub-strand will need to be developed iteratively in association with practitioners.



## **Appendix 4**

### **Synopsis of Level Outcomes**

#### **Level 1**

The learning outcomes relate to the performance of basic tasks in a controlled environment under supervision and the display of an ability to learn information and basic repetitive skills, as well as to sequence learning tasks. Literacy and numeracy achievements would correspond to those measured at the initial levels of international assessment systems.

#### **Level 2**

Key outcomes at this level are basic literacy and numeracy and the introduction to systematic learning. Learning outcomes relate to the ability to learn new skills and knowledge in a supervised environment and to carry out routine work under direction. Learning outcomes at this level are typically developmental rather than geared towards a specific occupation.

#### **Level 3**

Learning outcomes at this level relate to a low volume of practical capability and of knowledge of theory. The outcomes relate to the performance of relatively simple work and may be fairly quickly acquired. Outcomes at this level may also confer a minimum employability for low skilled occupations and include functional literacy and numeracy.

#### **Level 4**

Independence is the hallmark of the level. Learning outcomes at this level correspond to a growing sense of responsibility for participating in public life and shaping one's own life. The outcomes at this level would be associated with first-time entry to many occupational sectors.

#### **Level 5**

Learning outcomes at this level include a broad range of skills that require some theoretical understanding. The outcomes may relate to engaging in a specific activity, with the capacity to use the instruments and techniques relating to an occupation. They are associated with work being undertaken independently subject to general direction.

#### **Level 6**

Learning outcomes at this level include a comprehensive range of skills which may be vocationally-specific and/or of a general supervisory nature, and require detailed theoretical understanding. The outcomes also provide for a particular focus on learning skills. The outcomes relate to working in a generally autonomous way to assume design and/or management and/or administrative responsibilities. Occupations at this level would include higher craft, junior technician and supervisor.

#### **Level 7**

Learning outcomes at this level relate to knowledge and critical understanding of the well-established principles in a field of study and the application of those principles in different contexts. This level includes knowledge of methods of enquiry and the ability to critically evaluate the appropriateness of different approaches to solving problems. The outcomes include an understanding of the limits of the knowledge acquired and how this influences analyses and interpretations in a work context. Outcomes at this level would be appropriate to the upper end of many technical occupations and would include higher technicians, some restricted professionals and junior management.

#### **Level 8**

Innovation is a key feature of learning outcomes at this level. Learning outcomes at this level relate to being at the forefront of a field of learning in terms of knowledge and understanding. The outcomes include an awareness of the boundaries of the learning in the field and the preparation required to push back those boundaries through further learning. The outcomes relate to adaptability, flexibility, ability to cope with change and ability to exercise initiative and solve problems within their field of study. In a

number of applied fields the outcomes are those linked with the independent, knowledge-based professional. In other fields the outcomes are linked with those of a generalist and would normally be appropriate to management positions.

#### **Level 9**

Learning outcomes at this level relate to the demonstration of knowledge and understanding which is the forefront of a field of learning. The outcomes relate to the application of knowledge, understanding and problem solving abilities in new or unfamiliar contexts related to a field of study. The outcomes are associated with an ability to integrate knowledge, handle complexity and formulate judgements. Outcomes associated with this level would link with employment as a senior professional or manager with responsibility for the work outputs of teams.

#### **Level 10**

Learning outcomes at this level relate to the discovery and development of new knowledge and skills and delivering findings at the frontiers of knowledge and application. Further outcomes at this level relate to specialist skills and transferable skills required for management such as the abilities to critique and develop organisational structures and initiate change.

# **The Dutch Agricultural Education System – Challenges and Perspectives**

**Dr Betty E Valk Dr ir**  
**Head of Agricultural Education**  
**Ministry of Agriculture, Nature Management and Fisheries**

Because of historical developments, agricultural education is still more or less separated from other education. That is to say, education for the agriculture sector is still organized in separated schools.

In addition, at the policy level the responsibility in the Netherlands is under two Ministries. The Ministry of Education, Science and Culture and the Ministry of Agriculture, Nature Management and Fisheries (LVN). The general developments in the educational system are the responsibility of the Ministry of Education. Both ministries are responsible for the total system of education.

Nevertheless, education for the agricultural sector is subject to similar developments in education because it is only the content which is different. This means that education for the agricultural sector has a double task, to fulfil the development in education as well as in agriculture. In both areas there are major developments taking place.

Major developments in education are – of course – linked to the changes in society such as ICT, mass-communication. This kind of development urges the need for individual choices in the educational programmes and changes in the way in which teachers and students interact. It has a direct effect on the organization within schools and it influences the way companies/enterprises and schools are working together. Different and new arrangements between companies and employees for education have become necessary. The separation between school and enterprise is fading. The number of dual arrangements is growing.

In the last couple of years a development towards competencies has started. Life long learning has become a major subject. The policy of the government is to keep employees employable during a lifetime. General education has to fulfil this goal. A broad training with a sensitivity for the demands of society is becoming more and more necessary.

Within agriculture, major changes are going on. At international level, the agricultural policy of the European Community with the enlargement of Member States is important. However, also globalisation and the world-wide transport of agricultural products is a major development. For example, in horticulture and flowers, trade and production are world-wide. In addition, animal welfare and animal diseases, food and food safety are major subjects in agriculture.

At the national level, agriculture in the Netherlands has some specific aspects because of its density of population and also because of its small size. Hence the pressure on the rural area is considerable. Over 16 million people have to live, work and relax here. Besides, space is needed for agricultural production and transport, while valuable nature areas and unique landscapes have to be conserved for future generations. Therefore, a balance must be found continually between the various uses of the rural area. The Ministry of Agriculture, Nature Management and Fisheries plays a vital role in this process.

Within agriculture three major changes are ongoing:

## ***1 From bulk to sustainability***

In general, the position of the farmer as a producer has changed and is still changing. The ideas of the community about production have changed. Where as 10 years ago production – that is to say amount of production - came first. Today, social reliability and quality is (more) important.

Sustainability has to be present in all parts of the Community, including less-favoured areas as dr. Franz Fischler pointed out in his speech in the opening of the International Green Week in Berlin. Sustainable enterprise has become socially responsible enterprise. Farmers are accountable for their products not only the products themselves but also for the ways in and circumstances of production.

## **2 *From producer to consumer: the production chain is reversed***

In addition, the role of the consumer has become different. A decade ago the producer made the choices of how and what to produce and to bring to the market, now the consumer makes the choices relating to what he or she wishes to see on the shelf. The production chain is reversed. The producer has to be aware of the value of his product from a point of view of the consumer. The value is defined by the wishes of the consumer. It's said that "you are not only selling a product but a feeling too". You are not selling red roses but you are selling love. You are not selling beef but a product of a trustworthy production chain.

## **3 *Specialization and uniformity***

The world has become smaller by the new media. Europe becomes larger. The number of consumers rises to almost 500 million in 2004. The Netherlands is small and the population is still growing. This is translated into:

- Bigger and more specialised farms, often even international holdings. A farmer has become a manager with employees.
- A second branch in human welfare for physically or psychological damaged or disabled, as there are burn out managers; recreation/leisure, camping; farm made products such as cheese or butter etc; nature management.

Because of these developments, the major policy themes today within agriculture are: animal welfare, biotechnology, fisheries, forestry, glasshouse horticulture, international affairs, organic agriculture, outdoor recreation, nature management, protected plants and animals, rural areas, the environment, trade and industry. With the policy on these themes, the Ministry of Agriculture, Nature Management and Fisheries (LNV) wants to guarantee a rural area that is economically healthy and where landscape and culture are protected/conserved. The Ministry wants to strengthen the international competitiveness of the agricultural sector from the view of socially responsible enterprise. LNV points the direction, gives headlines, stimulates and supports financially.

Of course, changes in agriculture also have a major impact on the roll of a Ministry responsible for these sectors. The Ministry of Agriculture is still there, but we all know that its role is a lot more than agriculture in a small sense. To make its role more clear, the Ministry has developed labels for communication which show the content of subjects that are important, also for developments in agricultural education.

### **1 *Safe food, a choice of awareness***

No food without farmers, horticulturalists and fishermen, They are, as producers, responsible for the products they bring onto the market shelf. There are obvious/clear rules, made up by the ministry LNV. The consumer wants safe food, produced in a sustainable way. That's why LNV wants to be able to trace the origin of the ingredients in a simple way, for the safety of the food. The way in which the food is produced must be recognisable so that the consumer can make a founded choice.

### **2 *New paths, vital nature***

More nature, vital nature. That's what LNV stands for. The most important foundation is the development of a frame of nature through the whole country. LNV stands for the rich diversity of species of animals and plants. When those are threatened, LNV makes corrections. LNV also finances nature development. Together with private organisations the ministry wants to find new paths to improve the contact between man and nature. Nature to protect and to enjoy.

### 3 *Trustworthy rural areas, surprising perspectives*

LNV wants a countryside where anybody feels at home. LNV wants good economic perspective to farmers. They are taking care for a large part of the green environment/room. The rural areas must be attractive to inhabitants and people who wish to recreate. For that reason LNV invests in the quality of rural areas. Diversity, livability, and cultural identity are core items. Together with all participants LNV looks for surprising solutions to combine and integrate these – sometimes contradictory – functions.

### 4 *Green enterprising, innovative power*

LNV wants to empower the international competitor-ship of the agro production sector. Socially responsible enterprise is the starting point. More attention to the environment, animal welfare and product quality creates new chances in the market. To contribute to sustainable enterprise LNV invests in research and innovation. Education and extension do care that the results are available for everyone.

As mentioned before, all these developments have their impact on the content of education for the agriculture sector. On what students should know when they have finished their schools, university or other levels of degree. To give a few examples:

- Students should know much more about the developments at the international level.
- Students need to have general knowledge and specific knowledge linked to agriculture sectors, because they may start with their first job within agriculture but they should interact with partners in other sectors, or may have to find jobs later on in other sectors.
- Students need to have general competencies in order to interact with other sectors.
- Students need to know much more about new technologies such as biotechnology as well as about the social impact of new technologies.
- Students need to know how to handle chain management and how to act in the new international networks.

In addition, the consequences also influence the way agriculture education is organized and the role of the Ministries involved.

But before mentioning those in more detail, first some figures about the shape of agricultural education today in the Netherlands.

Education for agriculture in the Netherlands is organized at 4 different levels (figure 1).

**Figure 1: Number of Schools for Agricultural Education**

Vmbo – pre vocational education	12	in AOC and ± 42 in other types of schools
MBO – vocational education	12	AOC
HBO – higher education	6	HAO
WO – university	1	Wageningen University and Research Centre

Most students are found within the AOC's (figure 2) although these numbers are still small compared to the schools with education for other sectors. Also the agricultural university is quite small to other universities.

**Figure 2: Numbers of Students per AOC and Higher Education**

School	Vmbo		MBO		HAO	
	Pre-VET	VET		School		
AOC Friesland	1624	3220		Larenstein	2410	
AOC De Groene Welle	462	1790		Dronten	1126	
AOC Groenhorst College	2131	4480		Van Hall	1842	
AOC Limburg	1798	3003		Den Bosch	1387	
AOC West Brabant	3586	4668		STOAS	711	
Edudelta Onderwijsgroep	1693	2474		InHolland	911	
AOC Holland College	1647	2576				
Clusius College	3560	5160		Total	8387	
Helicon Opleidingen	1526	6436				
AOC Oost	2287	4223		Wageningen		
ROC Onderwijsgroep De Landstede	0	56		University	4000	
AOC Terra	3257	5510				
Wellantcollege	9466	13249				
Total	33037	56845		Totals Netherlands		
				University	32.000	
				HBO	80.000	
				MBO	423.100	

**Concentration in the Agricultural Education**

**Number of Institute for Agricultural Education Paid by the Ministry of LNV**

1985	1 Agricultural university 11 Agricultural colleges 1 Agricultural pedagogic college 11 Practical training centres 49 Agricultural schools for VET 133 Agricultural schools for pre-VET	206 institutes
2003	1 Agricultural university 5 Agricultural colleges 1 Agricultural pedagogic college 12 Agricultural schools for VET and pre-VET 1 Agricultural school for VET	20 institutes

Within the educational system in the Netherlands, national organisations (or national bodies) for vocational training are involved. They are educational organisations of and for the branches of industry in the Netherlands. They represent the link between schools for vocational training on the one hand, and business and industry on the other. Tasks are:

- Organising the discussion between companies, labour unions, - Vocational Educational Training
- Development and maintenance of qualification structure for agricultural sectors
- Approval of training establishment and registering companies where practical workspace training can be given, in VET and pre-VET.

Four levels in VET:

- 1 Relatively uncomplicated tasks carried out under guidance (assistant workers) [1-2 years education and training]
- 2 More complicated tasks partly carried out independently (semi-skilled workers) [ 2 years education and training]
- 3 Also complicated tasks carried out independently, involving co-ordination, planning, and control of other workers (skilled worker) [3-4 years education and training]
- 4 The manager's level [4 years of education and training]

All these levels are given after junior vocational education and training.

In addition, agriculture education at the level knows two learning routes:

- 1 School-based route: education and training mostly at school, but with compulsory periods of practical experience
- 2 Work-based route: education and training on a farm or in trade or industry (where trainee works as employee) and mostly 1 or 2 days per week to school

The qualifications of these routes are roughly comparable, with in the daytime education more emphasis on theoretical subjects and in the work-based route more emphasis on the practical education and training.

The development of ICT in agriculture education has been developed quite well. For ICT and schools there is created a large intranet on the internet, subsidised by the government. It is called “Kennisset”. Translated “Knowledge Net”. Within that intranet there are lots of sub divisions for students, teachers, different kinds of content. One of the subsections is “Livelink”. That is the part which holds the educational content for and from the agricultural schools. With overview over projects, chat possibility, e-mail facility.

There are 22 national organisations for vocational training. Aequor is the organisation for the agricultural sector. Aequor develops and maintains the qualification structure for secondary agricultural education. The qualification structure is a coherent collection of requirements and standards (in terms of knowledge, attitudes and behaviour) which indicates attainment targets of the qualifications and standards. These attainment targets are formulated on the basis of research and in consultation with the agricultural sectors, and submitted for approval to the Minister of Agriculture, Nature Management and Fisheries, who is responsible for agricultural education and training. Aequor has built up considerable expertise in the field of research and development of qualification structures and standards.

Within Aequor, agriculture education is divided in six sub sectors:

- the flower sector (flower shops, garden centres)
- animal care (zoos, animal asylums, veterinary practices)
- green spaces (landscape gardeners, natural parks, environmental consultancy services, recreation and leisure)
- plant growing (arable farming and market gardening, growers and nurseries)
- animal husbandry (cattle, pigs, poultry, horses)
- the food and beverages industry (companies processing agricultural products, the drinks industry)

Coming back to the impact of changes in agriculture for education. As mentioned before, education in agriculture is organized in particular schools. Broadening of agricultural education also implies a content that will overlap with other educations. And looking forward, this will diminish the need for keeping the two kinds of education in separate schools in the future.

Over the last couple of years, the position of the Dutch agricultural education under the Ministry of Agriculture, Nature Management and Fisheries is therefore being reconsidered. A new way of cooperation with the Ministry of Education, Science and Culture will be explored during the next year, whereby the Ministry of Agriculture will retain the responsibility for the content of the agricultural education and the Ministry of Education will take over the responsibility for the delivery of agricultural education. The changes in the content in the educational agricultural sectors are as huge as the changes in society. To integrate these changes in agricultural education will be a challenging exercise.

# The Virtual Agricultural College, Wales

Mr Peter Rees  
Director Enterprise Services  
Coleg Sir Gâr  
Wales

## The Agriculture Industry in Wales

### A brief overview:

1. There is long-run trend for income from farming in Wales to decline and for a significant dependence on subsidies and support payments.

	1998-99	1999-2000	2000-01
<b>Net farm incomes (b):</b>			
Type of farming:			
All dairy and livestock	41	35	35
All dairy	40	39	33
Cattle and sheep (LFA)	29	20	25
Cattle and sheep (Lowland)	-17	-8	8

<b>Subsidies and net farm income: 2000-01 forecast (£ thousands per farm)</b>			
	Total output	Direct subsidies	Total inputs
Type of farming:			
All dairy and livestock	64.3	18.0	59.0
All dairy	105.1	4.3	86.3
Cattle and sheep (LFA)	56.9	23.5	54.0
Cattle and sheep (Lowland)	48.3	11.5	48.9
<b>Principal grants and subsidies (£ millions):</b>			
	<b>1998</b>	<b>1999</b>	<b>2000</b>
Hill Livestock Compensatory Allowance	27.6	42.6	7.5
Tir Mynydd	..	..	34.9
Sheep Annual Premium Scheme	101.0	102.2	73.9
Suckler Cow Premium Scheme	34.2	27.4	33.3
Beef Special Premium Scheme	26.9	26.8	23.0
	<b>1998-99</b>	<b>1999-2000</b>	<b>2000-01</b>
Capital grants	1.5	0.5	0.3
of which:			
Farm and Conservation Grant Scheme	1.4	0.5	0.3

- (a) Indices adjusted to real terms (1994-95 to 1996-97=100)  
 (b) Since 1993-94, indices have been calculated with subsidies allocated to the scheme year in which they are due.

.. - Not available

## 2. Farming in Wales is largely based on family units

	1991	1999	2000	2001
<b>Labour on holdings (thousands):</b>				
Farmers, partners and directors:				
Full-time	22.6	25.5(a)	22.6(a)	22.8(a)
Part-time	11.7	20.1(a)	20.8(a)	22.1(a)
Wives, husbands of farmers, partners, etc	11.9	..	..	..
Family and hired workers:				
Full-time	5.7	4.1	3.4	3.3
Part-time	3.9	4.0	3.4	2.8
Seasonal or casual workers	8.5	6.7	5.2	4.9
Salaried managers	0.3	0.9	0.4	0.4
Total labour engaged on holdings (main and minor holdings)	64.6	61.3	55.7	56.4

(a) Includes wives, husbands of farmers, partners etc.

.. - Not available

## 3. The Industry is heavily dependant upon Livestock production

	2001
Production as percentage of gross output (forecast)	
Total Crops	5
Total livestock and livestock products	86
of which:	
Finished cattle	18
Finished sheep	23
Milk and milk products(farm manufacture only)	28

## Review of Vocational Training and Education for the Agriculture and land-Based Sectors 2002

The political imperative to support the land-based sector is evident in the work and publications of the National Assembly for Wales. In November 2001 it published “Farming for the Future” and requested that ELWa<sup>1</sup> review vocational training and education for the agriculture sector.

### Scope and remit of the review

The review was undertaken by ELWa and targeted primarily on the agricultural sector and other land-based industries closely allied to agriculture. Furthermore, the report did not seek to explore vocational education and training in some industries that form part of the Lantra<sup>2</sup> definition of the land-based sector.

The purpose of the report was to elaborate a review of agricultural and land-based vocations training and education in Wales to:

<sup>1</sup> The National Council for Education and Training for Wales and the Higher Education Funding Council for Wales are Assembly Sponsored Public Bodies, responsible for all post-16 education and training in Wales. Together these organisations are known as ELWa, Education and Learning Wales.

<sup>2</sup> LANTRA is the Sector Skills Council for the environmental and land-based sector, it is licensed by the UK government to drive forward the new skills, training and business development agenda for the sector.

1. Ascertain the extent to which current provision of vocational training and education are delivering in line with predicted future industry needs and on the broad agenda as established in Farming for the future.
2. Explore how providers, ELWa and the industry can more effectively work together to provide learners with education and training that meets their requirements and those future requirements of the industry. This includes examining issues related to:
  - Methods and mechanisms of provision (including balance between public and private provision).
  - Access – notably financial and geographical barriers to learning.
  - Raising standards of management and delivery.
  - Inter-provider and stakeholder networks.
  - Marketing to students and industry.
  - Initial entrants and lifelong learning / CPD.

The review has recommendations transferable across the land-based sector and makes specific recommendations in relation to:

- Agriculture (animal and crop production).
- Horticulture / Amenity Horticulture.
- Forestry.
- Agricultural Engineering.
- Equine.
- Countryside Management.
- Animal Care.

Environmental issues are seen as crosscutting all of the above.

The issue of value-added food processing is tackled as part of this review but it is being taken forward by ELWa who have commissioned a joint study with the WDA<sup>3</sup> to examine training needs and existing structures of provision with the intention of supporting the development of a strategic infrastructure for the industry. This research has yet to be published.

## **Key Issues**

The review identified at its outset that there were a number of key issues that needed to be addressed, amongst others they included:

- Excess competition between FEIs is counterproductive to the pursuit of a strategic approach to delivery across Wales.
- Enrolment trends on agriculture courses such as L3 National Diploma are attracting a declining number of students (just 85 in 2000/01 across 5 institutions, 42 at Coleg Sir Gâr!).
- Concerns about the credibility of work-based learning routes, among both students and industry.

## **Recommendations**

The review is currently out for consultation and includes the following recommendations:

- Develop networks of FE delivery partners

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<sup>3</sup> WDA – Welsh Development Agency

- Establish a national Strategy for Continuous Professional Development for employers and employees.
- In the case of agriculture, only full time level 3 provision should be focussed at two FEIs and Bursaries should be provided to support the residential costs of learners.
- FEIs should collaborate to develop common learning resources

So how is Coleg Sir Gâr responding to the report and where does the Virtual College provide some possible solutions?

### **Coleg Sir Gâr – a “Network of Excellence” for Agriculture and Farm Enterprise**

Coleg Sir Gâr is one of the largest further education Colleges in Wales and is the largest provider of higher education in further education in Wales. It was created in 1985 from the merger of four institutions across Carmarthenshire. The College became a Corporate Institution in 1993 and has developed a comprehensive range of academic and vocational education and training programmes at further and higher education level. It currently has in excess of 13,000 students at further and higher education.

The portfolio of Agriculture courses has been developed to facilitate progression on a full or part time basis to higher levels, whilst meeting the requirements of the industry sectors associated with the programme area. In order to meet both of these objectives, NVQ programmes are run parallel and in synchrony with some BTEC and City and Guilds awards. Considerable emphasis is placed on offering students opportunities to acquire a range of additional qualifications enhancing their prospects of obtaining employment. The faculty is also active in the development and delivery of commercial courses for the agriculture industry.

National Comparator evidence for 1998/1999 and 1999/2000 for Agriculture courses suggests that the level of completion, attainment and successful completion is consistent above the national standards for the programme area as a whole.

The College has recently been successful in winning a competitive tender to become the Dairy Development Centre for Wales under the new farming connect initiative established by the National Assembly for Wales and the Welsh Development Agency. The key themes of a Dairy Development Programme devised by the college for delivery through the centre will be:

- The provision of market information
- Technology transfer and co-ordination of research needs
- The development of benchmarking systems
- Identification and delivery of sector specific training to farmers and a programme of CPD to industry specialists.

A continuous progressive learning pathway from entry level to higher national level is available for students in Agriculture through a franchises HE provision from the Welsh Institute of Rural Science at the University of Wales, Aberystwyth. The successful development of this route has lead to Coleg Sir Gâr supporting the largest cohort of part time HNC/D students in Agriculture in Wales.

### **The Virtual College**

Coleg Sir Gâr has been developing and delivering nationally recognised qualifications by on-line distance learning for over four years. The aim of the development was to broaden access to training for small to medium-sized enterprises in Rural Wales who were unable to participate in conventional campus-based provision.

It currently has over 250 students on-line following a college devised BTEC Award in IT skills for business. The Award, one of five different on-line IT courses available, was developed at intermediate level to satisfy an identified training need in small companies. It has also proved popular with individuals who have home or work commitments stopping them attending college.

The typical student profile demonstrates that the provision directly addresses the lifelong learning agenda. With an average age between 35 & 45 years, the students are mainly in employment, often self-employed. Those not in employment tend to have home commitments or disabilities which make e-learning the only way they can access education. They are mature with very specific individual training objectives and demand a consistent, professional service.

Coleg Sir Gâr developed all the on-line materials, the on-line pedagogic methodology and the virtual learning environment that delivers the course on the e-learning web server. It has underpinned its developments with structured research concerning all the key quality issues to do with e-learning. This has included working with EDEXCEL as a member of their On-Line Assessment Project team and also with the EDEXCEL EV on the development of remote on-line IV and EV systems.

### **A Virtual College for Agriculture?**

The college has effectively asked itself whether the Virtual College can contribute to some of the land-based review's recommendations.

Can it support work-based trainees?

Does it have a role to play in implementing a Continuous Professional Development strategy.

Will it facilitate the development of common learning resources, a common curriculum and networking between Colleges?

Can it solve some of the problems that arose out of the Foot & Mouth crisis?

YES (but there are a number of "buts" to be resolved)

In our experience it can provide an effective communications strategy and support mechanism for learners to develop their own programme of study. It can enable them to work at their own pace and in their own time frame. It can provide an effective support tool for full time students and it can therefore become a means of sharing the curriculum across Colleges.

Used as a genuine distance learning environment it is dependent on the role of the tutor. If the trainee can be encouraged to engage in the learning process through regular personalised dialogue with the tutor and thought provoking contextualised learning materials it can be a high quality learning experience.

We regularly have problems in maintaining the progress of work-based trainees and yet there are times when it is quite reasonable to allow our full time students some flexibility in their attendance at the college. In these days of the customer being king we have to have systems to deal with these eventualities. We hope to use the Virtual College as means of delivering the underpinning knowledge (and tracking progress) so that we can concentrate our time with the trainees on those aspects that need direct contact.

It will not be just a knowledge based system (otherwise we might as well use books!) it must include innovative learning support materials, interactive files and self assessment opportunities.

We also feel there is an opportunity to link the CPD programme for the farmer with that for the trainee. An effective CPD programme will have to be customised to meet individual requirements and designed

to work alongside some of the more sociable aspects of learning. The VC should provide an opportunity for the clients to apply the learning to their own farm scenario.

We do not expect the VC to replace existing programmes but rather to supplement them. We are basing our materials on existing work (from Ireland and elsewhere). We do not want to reinvent the wheel - it will take long enough to repackage and contextualise existing materials and to develop good support materials.

## **The Problems**

We recognise that these will be significant!

Technology – The system will have to be designed to the lowest common denominator to address connectivity issues. If it takes too long to download it won't work!

Technophobes – We have taken the easy route too date in developing IT courses. With the greatest of respect farmers will be different!

Motivation – It won't work for everybody and we will continue to be dependent on the personal contacts.

If it is of any consolation it will be easier than addressing the problems in Welsh rugby!!

## **A Master Farmer's Perspective**

**Mr Jim McCarthy  
Marshalstown, Castledermot, Co Kildare**

In the Autumn of 1996 I went to Dararra Agricultural College, Clonakilty. A strange choice for a towny who had gone to the Gael Scoil in the North Mon. in Cork city for the previous six years. I had enough points to do commerce in UCC and until the day I die I will hear my mothers words "wouldn't you go to University and get yourself a nice secure job in the Civil Service". For as long as I can remember I always wanted to be a hands-on farmer and my parents for the life of them could not see why I wanted to farm especially when I was not going to inherit any land and they were not in a position financially to help me get started in farming.

Also, I was not interested in becoming a farm advisor or someone just employed in the agricultural industry, it was farming for myself or bust. After agricultural college I did three years in the farm apprenticeship scheme. At this time and until recently this was run by Liam Myles and his wonderful staff who have helped a huge amount of young farmers to get started on the farming ladder. I for one am truly grateful. Recently the farm apprenticeship have been integrated into Teagasc and I just hope that Teagasc realise the commitment needed to make a scheme like this work, for it is a truly brilliant scheme.

I had an eventful passage through the farm apprenticeship scheme serving on five farms rather than the normal three. It was normal to spend a full year with a farmer but as I was not happy with the training I was getting on two of the farms I asked to be moved. I suppose you could say I was a young man in a hurry. The other three farms I went to were outstanding and I can honestly say that the training on those farms has just made me. To all five farmers I would like to express my gratitude because now when I look back on my time with them I can scarcely believe where it has led to.

At that time the farm apprenticeship scheme was certainly not for the faint hearted. On one farm I milked seven days a week for four weeks and got two days off. This I did not mind in the least because I was working with and learning from one of the most progressive farmers in the country at that time. On another farm the standard day was 8:00 am until 11:00 at night and often longer. As one of the farmers neighbours said to me a few days into the job "young fellow, I feel sorry for you because unless you move quickly all day everyday you are not going to get to bed the same day you got up". I had a wonderful time on this farm because I was learning and because the farm was progressive. To this day it still surprises me the amount of stick I had to take because I was a towny wanting to go farming.

After the farm apprenticeship scheme I worked for a year as an assistant to the owner of a large tillage farm. In the autumn of 1981 while still only 23 years of age I got the job as farm manager, managing 500 acres consisting of two farms in south Kildare. These farms were in a very sorry state as the 500 acres were the out farms of a larger family business. The consultant's reports for the owners described them as derelict. The larger farm of almost 300 acres had to be drained and completely developed as it was more or less in rushes. So we started out to develop this business with very little capital and a staff of three men who between them had 110 years experience on the farm. Within the first year the two senior men retired and in the autumn of 1982 I took on my first farm apprentice and so the poacher had turned gamekeeper.

The youngest of the three men turned out to be a star. I never say anyone to change as much, from the day the farm apprentice arrived on the farm this 50 year old man who had worked on the farm from the age of 14 just sprung into action. In his 36 years on the farm most operations were done manually and in the early 1980's they were still using 35 hp tractors which on the heavy land which had to be reclaimed were about as useful as a pushbike. It was this older mans first time to work with someone young and enthusiastic and so he became young and enthusiastic. This man stayed with us until retiring at 66 having developed into a top class operator of modern machinery. This is one of the huge advantages of having a farm apprentice on the farm. The drive and enthusiasm of youth is irreplaceable.

Along with managing the 500 acre farm I found time to marry Attracta the girl next door to me on one of the farms I was an apprentice on. Together we started building our own business as well, renting land to grow crops. In 1992 – 1993 under a mountain of debt we managed to lease the 500 acres I had been managing and buy out the farm machinery. Today we farm in excess of 2000 acres which belongs to 19 other farmers, we own three acres of land in total. Along with this we bale about 15000 tonnes of straw for the mushroom industry, we dry all our own grain and contract dry grain for a grain merchant. We also provide a bulk fertilizer spreading business. Unlike most farmers we have felt that the opportunities for best return on our capital lay outside farming and so whatever capital the business had generated has been invested off farm. We have developed two other significant off farm businesses.

Attracta and I started another enterprise as well which has been by far the most rewarding called Liam and Emma. Attracta has devoted a huge amount of time to this enterprise, putting her own career on hold. We are both firmly convinced that this time will show by far the best return of all.

To help run the business we have a farm manager who has qualified through the farm apprenticeship scheme and one other full time man. Along with this we take green certs and farm apprentices and as we need 16 or 17 people for harvest and baling and grain drying, which all happens at the one time, we also take Australians and New Zealanders. It is a multi cultural experience. It is great to see the friendships that develop out of a harvest with Marburn Farms. Friendships that span the globe and friends to turn to in far corners of the world when travelling.

When taking on new people we only look for two characteristics, integrity and enthusiasm because people with these qualities can be trained to do anything. I am not particularly keen on taking very successful farmers sons. Firstly they have grown up with affluence and the hunger has been removed. Secondly they seem to have all the answers and treat our less qualified people with a certain amount of disdain. Our business is no different from any other, it is about team working in harmony not a couple of outstanding individuals.

For us one of the most important things has been that we have proved to ourselves that owning land is not necessary to make a decent return from farming. Therefore this opportunity is available to everyone entering farming. Today many parents are actively discouraging their children from farming just like mine did 27 years ago. They see no opportunities and no future in farming. The reality is if someone wants to farm and has the burning ambition to do so they will be successful in farming. I think it is far more important for parents to encourage their children to do what they really want to do. When a person is doing what they are really keen on they will be successful. Obstacles are what we see when we take our eye off our goals. I would say to any young person if you want to be a farmer above all else then do not let the moss grow on your dreams. Remember if it is to be it is up to me. It is you and you alone will develop the career you want.

Sadly our farming organisations have done more to discourage our young people from going into farming than anybody else. The constant weeping and wailing about how awful things are would surely discourage anybody. I fully accept that it is the farm organisations remit to represent their members and so continuously try to preserve the status quo. Sadly the world we live in is changing very rapidly and unless we as farmers change with it then we are lost. As one famous American businessman put it “when the rate of change outside your business is faster than the rate of change within then the end is in sight for your business”. Our farm business is completely different to what it was five years ago. And I guarantee you it will be completely different in five years time again as we adjust to the changes. People wonder why companies like Kerry Foods and CRH are so successful. One of the main reasons for their success is that they have incredibly strong, well-developed, strategic plans of where they are going to take their business over the next 15 years. Our farm leaders need to give a bit of thought to developing a strategic plan as to where they want to bring agriculture. Sadly they lack the honesty to tell farmers that the agriculture of the future will be a lot different from the past. There will be a lot less farmers who will need to be given the scope and the scale with competing in global markets.

Farming is about producing commodities and as world trade is freed-up and tariffs reduced under the WTO Irish farmers will have to compete on a global basis where commodity prices are generally lower than ours. To survive in the commodity business you have to be the lowest cost producer and this will not be achieved having 35,000 gallon milk quota or 40 sucker cows or 150 acres of cereals. I know I am making myself very unpopular by saying this but scale is going to have to be dramatically increased into the future so that we will have an agricultural industry. Which is best – to tell a pleasing lie or the hurtful truth?

Farming has worked itself into an incredible sweat over the Fischler Proposals. While I am in farming each year there has been some new crisis that was going to devastate farming but farming is very resilient and it always seems to survive. As a group of people we are amazing, we just fear and resist change so much. It seems to be seen by farmers that any form of change is a sign of weakness. In the future the farmers that will survive and prosper are not the biggest or the strongest it is the ones most open to change. Remember the McSharry Proposals, they were supposed to devastate farming, for me the five years after his reforms turned out to be the glory days.

I am looking forward to the future especially if we can have less bureaucracy and more freedom to farm. The life blood of any industry is young enthusiastic people and unless my generation and the farm organisations do not take seriously the importance of developing a vibrant agriculture in the conditions we presently find ourselves in we will be without these young people in the short term. In the long term without a host of young people coming in farming will go into stagnation. To any young person out there thinking about farming, go for it because farming needs you a lot more than you need farming. You will have a lot of other opportunities available to you but if you are interested in farming there is a quickly aging farming community and a lot of good farm land that owners want to have farmed. If you think that there are no opportunities in farming you are right but if you are like me and you think there are huge opportunities you are also right. I can honestly say I have 25 of the most wonderful years that I would not swop for anything.

# **An Horticultural Employer/Past Student Perspective**

**Mr Paraic Horkan  
Managing Director  
Horkans Lifestyle & Garden Centres, Co Mayo**

Horkans Garden Centre with branches in Sligo and Castlebar are currently under a major growth curve with their new centre which opened in Turlough in September 2002 and with plans to open additional lifestyle garden centres and pet shops in 2003 / 2004.

The company plans to open five centres along the western seaboard with a uniform and corporate image and brand concept.

To support this growth Horkans are planning to invest in two key areas.

1. Brand and corporate development for the entire group.
2. Human resource department – recruiting and staff training and development.

Both departments will play a key role in bringing a professional and uniform image and service to Horkans.

Each department will work with and support all five centres and will initially work with all existing centres in implementing the branding and Human resource policies.

## **Background to Business**

- Horkans garden centre has its origins in a large family owned grocery stores at Spencer St and Newton St Castlebar.
- In 1990 a decision was taken to refocus the business as an in town garden centre on account of the competition emerging from supermarkets including Dunnes and Supervalu, Tesco and lidi.
- Two of the family members had qualified in horticulture and the remaining three had qualified in business related skills.
- Their joint effort has been very successful with Horkans establishing itself as one of Ireland leading garden centres.
- Awarded national garden centre of the year by An Bord Glas for outstanding customer service and quality in plant and garden products Horkans continue to receive the national Q mark award from An Bord Glas each season in recognition of the excellent standards in customer care, service and quality of product offered to their customers.
- Horkans have opened their second retail centre in Sligo town in April 2000. This new centre has again won An Bord Glas Q awards for outstanding quality and customer service.
- Employment for the company comprises of 50 and 20 full and part time employees respectively.
- The addition of their new venture, opened September 2002, will mark a major milestone for Horkans with an investment of over €2 million in what will be one of Irelands finest purposely built retail garden centres.
- Considerable effort has been devoted to introducing systems and to staff training to position Hgc at the premium quality end of the market and to differentiate it from its competitors.

- The company plans to develop new centres in Letterkenny, Ennis, Limerick and Galway over the next three years.

### **Business Strategy**

Horkans Garden Centre Ltd plan to develop new and exciting garden and lifestyle centres along the western seaboard mirrored on their new Castlebar development.

The centres will include the following units:

1. All weather plant and garden sales area.
2. Quality coffee and restaurant facilities
3. Lifestyle and home products
4. Pet and aquatic centres
5. Additional franchise units with complimentary products

The proposed garden centre developments will be purposely built units, developed on green field site which are chosen for their

### **Location, Easy of Accessibility and Road Frontage**

- Space will allocated for attracting other franchise units to complement the overall development eg conservatories, garden sheds, furniture, home improvement products etc.
- A rental income will be derived from each franchise and they in turn will benefit and contribute to a high volume of customer traffic.

### **Strengths**

- Strong management team with individual expertise in key areas.
- Committed to developing and maintaining a team ethos within the company by rewarding employees on personal and team performances and providing internal and external training opportunities.
- To develop individuals into management positions and where appropriate to seek the best individual outside of the company to fill a position or role in the best interest of the company.
- Successful track record of increased sales in all departments.
- National recognised quality garden centre winners of An Bord Glas national garden centre award and winners of Q mark each year since 1992.
- Market penetration in Sligo, Donegal and Galway through marketing initiatives with gardening advice programmes on regional radio stations and through regular press articles and newsletters.
- Strong retail and management background held by all directors.
- Total commitment to maintain the highest standards of customer care and quality of products and service.
- Significant investment has been made on developing operational and financial systems, which will enhance the development of multi site garden centres.

- Investment with out side consultants on the development and operation of multi site garden centres has been on going since 1995.
- **Including**
  - Malcom Scotts garden centre consultants UK ( six months)
  - Eve Tigwell garden centre consultants UK
  - Century management – Irish
  - Bill Brett – New Zealand
  - Project development centre – Ireland
  - and specific training modules eg project development.
- Market research and competitors analysis confirm the opportunities available to a high quality garden centre service.

### **Training and Development**

Training and development has played a huge part in Horkans success to date.

As a graduate of the National Botanic Gardens in Glasnevin both Paraic and peter Horkan have brought the core background horticulture aspect to their business.

As qualified horticulturists they had both the required qualification and experience need to run a successful retail garden centre. Their qualification also added to their creditability with the gardening public and their joint experience was the start of a now very successful weekly gardening programme on both Mid and north west radio stations covering listeners in Donegal, Sligo, Roscommon, Galway and Mayo.

Weekly gardening articles are published in all the regional papers and Horkans are now seen as the experts in gardening in the west and north west.

### **Future Training and Development for the Gardening Industry**

Horkans have always recognised the need and benefit for continuous training and development with their own garden centre staff.

They have developed internal staff training programmes which are run weekly all year round and augmented with industry provided training such as the Horticulture retail plant care award available from the HTA in England.

Horkans would welcome and support Irish based apprentice training initiatives which are both classroom and garden centre based.

# **An Agricultural Student's Perspective**

**Ms Catherine Seale**  
**Student Representative on the Teagasc Education Forum**

I would like to thank you for the opportunity to make this presentation here today. I am a student at Mountbellew Agricultural College and Chairperson of the Agricultural and Horticultural student council. The student council which was established two years ago by Macra na Feirme has given me and my peers an opportunity to voice our concerns on issues that directly affect us. Through Macra na Feirme's role as a social partner the a student council has been able to raise issues and seek change in areas that directly affect students attending these colleges.

Since its inauguration the student council has been very successful. We have developed a positive and very worthwhile relationship with Teagasc over the past two years. This I feel is essential in order for both sides to gain an understanding of the issues that need addressing in our colleges and courses.

The delivery of the minimum wage while on course placement was to the fore of the council agenda last year under the chairmanship of Fergal McAdam. Before the minimum wage was adopted, students just received a paltry allowance, which was totally inadequate for the length of time the student spent on course placement.

The student council also secured a seat on the recently established Teagasc education forum. As the present chairperson I represent my fellow students on it. The purpose of this forum is to contribute towards the formulation of educational policy for agricultural and horticultural colleges.

The present council hopes to conduct a comprehensive survey on a number of issues in our agricultural and horticultural colleges. This study will hopefully explore all the elements involved in an agricultural or horticultural education from course content to extra curricular activities. We are also currently in discussions with a weekly farm paper, which offers the possibility of a student contribution to the weekly publication. This will help the general public in understanding what our needs are in colleges.

In my presentation today I would like to speak about five things

- The courses available in the college and what job prospects can be expected from completion of these courses.
- Why I chose my course
- Life as a student in the college
- Farm placement
- The future of Agriculture and Horticultural Education

## **Courses**

I shall begin by discussing Mountbellew College and the range of courses that it provides. There are 165 students in Mountbellew, which is located in East Galway. The college is owned and managed by the Franciscan Brothers. The programmes at the college have the maintenance and enhancement of the countryside and rural communities as their major priorities. The breakdown of students is:

40	Students on the Agri-Business course
34	Students on the National Certificate in Agriculture
55	Students on the Vocational Certificate in Agriculture Level 2
11	Second year students on the National Certificate in Agriculture
25	Second year students on the Vocational Certificate in Agriculture Level Three

The college is a private college but joins with Galway-Mayo Institute of Technology for the Agri-business course and the NCA course. This Agri business course has a strong financial element. Graduates from the course find work in the agri-business and agri-service sectors as sales reps for suppliers of machinery, building supplies and other farm inputs. Jobs are also available as development

officers for Macra na Feirme, Co-ops and farm relief services. More have found employment in the wider business area as accountants and sales managers. The National Certificate in Agriculture is similar to the Vocational Certificate in Agriculture however it has a stronger emphasis on Science and is awarded by the Higher Education and Training Awards Council (HETAC). Students of this course spend Friday of each week attending lectures on Chemistry and Biology in GMT. Graduates of the course can look forward to jobs in farm management, environmental management and monitoring, the agri industry, sales and marketing and jobs in quality control. Many return to their own home farms. Entry to both of these third level courses is through the CAO application system. My course is the Vocational Certificate in Agriculture and is accredited by the Further Education and Training Awards Council (FETAC). The course is aimed at people who do not wish to seek the usual third level route. Students apply for this course directly to the college. A large proportion of the people in my class either intend to do nine months work placement in a host farm in their chosen area; for example dry stock farming, tillage or dairying, or they intend to do an apprenticeship in such areas as carpentry or mechanics. More still intend to pursue third-level courses next year. These vary from one girl in my class who hopes to pursue a career in criminology to a fellow who hopes to do estate management. There are also a number of people in my class who have previous experience of higher education. We have an engineer, an automotive technician who chose farming over Formula One, and a graduate from the forestry course in Ballyhaise, Cavan. My own personal education history is a Bachelor of Arts in History, Politics and Sociology.

### **Reasons For Taking My Present Course**

I graduated in 2001 From NUI Galway and was almost certain that I wanted to pursue a master's in Irish heritage management in Cork University. This course however was dismantled and I found myself having to reconsider my options. In order to help me do this I took a year out from my education and went for two months to Australia, that is after I worked for the previous five months to be able to afford it! I was involved with a charity group called Conservation Volunteers Australia. Here a group of between eight and ten other volunteers and myself took part in a number of projects such as native plant rehabilitation, eradication of non-native species including hawthorn, willow and blackberry and also track-work in the Blue Mountains. These two months were two of the happiest in my life. I decided while there that I preferred the outdoors and consequently that I could not go back into a stuffy library and read books about a foot thick. I do intend to do a master's but I would prefer to do it part-time. As I had an interest in the environment and in the conservation of Ireland's Heritage, I decided I would pursue my present course. Farmers get far too much bad press about destroying the environment, so I thought this course would help me understand a little more about why environmentalists and farmers have such a bad relationship.

Fischler's proposals will have an extreme effect on Irish Agriculture. It is unlikely that they will be implemented as fully as he would wish. However he will have a hard time trying to induce change if people are not educated on why it is that change would be beneficial. I would not be completely in favour of these proposals, the countryside is not a playground for industry. Farmers should be allowed to pursue their business in an economical manner, provided they do not cause irreversible and needless vandalism to planet earth. The key is sustainable agriculture not stagnant agriculture!

### **Life in the College**

I must say I am enjoying my year – the course content is fascinating. Since coming to the college I have learned how to weld, lay blocks, dose animals and various other things that I would never have had a chance to do, had I not chosen this course. Every four weeks we go out on farm work on the various enterprises of the college farm. This has to be my favourite element of the course. It really is hands on and you will learn a lot more out in the field than you can ever do in the classroom. I remember being daunted by the prospect in September. I especially dreaded the thought of working in the dairy! I had no experience of milking, bar watching my granny milking a pet cow called Kerry Blue. Kerry Blue died when I was about eight! However this turned out to be my favourite week on work experience. It was not nearly as awful as I had imagined it would be. It is amazing how difficult something seems to be until one tries it.

I am a residential student in the college, I share a twin room with the other girl in my class, while there are ten girls altogether boarding in the college and about sixty lads. We have our own sitting room and kitchenette. This is in addition to the lounge and poolroom downstairs. Most of the residential students stay in the college, however about ten to twenty live in and around the town. The fact that we board in the college would be one of the major differences compared to ordinary student life. It has its perks however, there are no long walks into college in the morning, and you do not have to remember to pay the E.S.B bill or put out the bins. All our food is provided so we never have to cook, never have to wash up or dry, so in that sense we are lucky!

The Macra Club in the college is the main organisation within the college. We are currently in the middle of the college soccer league, although with the competitiveness of the lads you would think it was the Premiership. We have also undertaken such events as Table-quizzes and the organisation of trips to Galway. Gaelic Football and Hurling are strong in the college. The college recently won the ACC League.

I expect the highlight of the current year will be an Educational Trip to Europe. This tour is undertaken each year by the VCA students. We intend this year to visit farms in Belgium, Holland and France. All students are immensely excited by the prospect of the tour and are looking forward to it already. It will certainly be a once in a lifetime event!

### **Placement**

This is where students go out into the real world of farming. In my course, placement is for one month and students are placed in farms, which has the enterprise of their choice. As I mentioned previously, this could be drystock, dairying, tillage or alternative enterprises such as organics or deer. In the second year of this course, if they pursue it, students spend a further nine months on placement on an approved training farm where they learn management and develop competence in the skills associated with their chosen area. I believe that placement is an important part of the course as it allows students to see another farm and analyse how different it is from their own. Does it have better management practices, is it more cost effective and if so why? Some feel that the placement is not entirely worthwhile, as they believe that the time would be better spent at home on their own farm. A group of eight students from the second year NCA course intend to undertake their placement, which is a total of three months, on dairy farms in New Zealand. This is an extremely positive step in agricultural education. These students are going to see how a different country operates a similar system. When they return home they will be able to apply New Zealand's best practices to their own home farms.

### **The Future As I See It**

Agricultural training has indeed improved in this country. Many of the colleges have undergone face-lifts and have been modernised greatly. This is very much a continual process and it would be my hope that agricultural and horticultural education will continue to develop and achieve equality with the ITs and Universities. Continual capital investment is essential. Mountbellew is in the process of building a €1 million sportshall and gymnasium. This may seem like a lot of money but it is nothing in relation to the capital that is spent on other colleges and more importantly, why not spend the money in this way? Agricultural and horticultural students have the same rights to the facilities that are taken as a given in all other Universities and ITs.

Anyone intending to pursue a career in agriculture should not hesitate; career guidance teachers should encourage them as it is a vibrant and exciting discipline that has been modernised and deserves its place in this new millennium. One indication of its strength is the college drop-out rate. Agricultural courses barely register any attrition compared to other faculties where in some cases it is as high as fifty percent. To finish, the future looks positive for agricultural education as long as it continues to develop in a sustainable way. Student numbers must be maintained and course programmes should be kept up to date and relevant to the outside world. Employment in the agricultural sector must continue to be recognised as a promising and fascinating career. No two days are ever the same and there are rarely tailbacks on country roads.