



Milk Development Council, Trent Lodge
Stroud Road, Cirencester GL7 6JN
Telephone: 01285 646500
www.mdc.org.uk

© Milk Development Council 2006



Training & Skills Development Opportunities for Dairy Farming

Courses, Qualifications & Continuing Professional Development



farm management

Training & Skills Development Opportunities for Dairy Farming – Courses, Qualifications & Continuing Professional Development

Contents

Acknowledgements	1
Executive summary	2
1. Introduction	4
2. Methods	6
3. A Competence Framework for Dairy Farmers	7
4. Outreach: consultancies and the wider dairy industry	
4.1 Survey of training and skills provision by dairy industry consultants	9
4.2 Funding for training and development activities	16
4.3 Summary comments and recommendations - consultants	17
5. Education & training at the colleges and universities	
5.1 Opportunities at the land-based colleges and universities	19
5.1.1 Part-time, work-based Further Education	21
5.1.2 Full-time, college-based Further Education	23
5.1.3 Technical Certificates	26
5.1.4 Higher Nationals and Foundation Degrees	28
5.1.5 Courses and qualifications available at the land-based colleges 04/05 - 05/06	29
5.1.6 Higher Education - UCAS & survey data	31
5.1.7 Key findings – case study review	33
5.1.8 Survey of training and skills provision by the land-based colleges	34
5.1.9 Summary comments and recommendations – colleges and universities	36
5.2 Funding for Adult Education	38
5.2.1 Summary comments and recommendation – funding for adult education	40
5.3 The Skills White Paper	41
5.3.1 Sector Skills Agreements	41
5.3.2 Regional Skills Partnerships	41
5.3.3 Level 2 Skills & Qualifications – The National Employer Training Programme	41
5.3.4 Level 3 Skills & Qualifications	42
5.3.5 Summary comments and recommendations – the Skills White Paper	42
6. Discussion	43
Appendices	
Appendix A1 Competence Framework circulated to consultants and colleges	46
Appendix A2 Questionnaire – In depth review of training and development activities	48
Appendix A3 Letters to consultants	50

Acknowledgements

This project relied to a great extent on the contribution to survey and comments on survey data from a range of organisations and individuals. We are most grateful to these companies, educational institutions, organisations and individuals and in particular to those who were good enough to comment on our first draft results. All of the comments which were received were constructive and were clearly given with the best intentions for dairy farming in mind.

Staff of seven separate colleges and universities gave up significant amounts of time to meet with project staff and to provide a valuable insight into the workings of the education systems in England, Scotland and Wales; these were Barony College, Colleg Sirgar (Gelli Aur), Duchy College, Harper Adams University College, Myerscough College, The University of Reading and the SAC at Auchincruive.

Finally, we would like to thank Ian Browne, project manager for the MDC, and Charlotte Bullock of the MDC, for supporting the project and the project team from the outset.

Executive summary

Overview

This project has gathered data on training and skills opportunities for dairy farming from a wide range of sources and appropriate to all levels, from entry to the industry through to higher level CPD and including informal learning as well as formal certificated courses. A competence framework has been drawn up against which training courses and training provision have been assessed and through which gaps and duplications in provision identified. A detailed survey of training providers including educational establishments, consultancies, industry bodies and others has been undertaken to ascertain details of provision and to better understand how this activity is marketed and promoted to dairy farmers, and a review of funding mechanisms has been carried out. From a critical analysis of these data, recommendations have been drafted for actions which would improve and develop the training and skills development opportunities for dairy farming.

Method of working

A definition of training was developed and agreed with the MDC before proceeding. This, critically, made distinctions between training, advice and information. Alongside this the competence framework for dairy farmers was created. This took into account the changing structure of the sector and was based on a target group of farmers that represent the top two quartiles in terms of business and technical performance, but not necessarily on the very best (top 5%) of farmers. The eight areas of competence considered vital to the successful future of dairy farm businesses were;

- Financial management.
- Statutory compliance.
- Environmental management.
- Business support.
- Farm health planning.
- People management.
- Personal development.
- Livestock technical skills.

This definition of training and the competence framework were circulated to a total of 168 companies, organisations and individuals and to 42 land-based colleges and universities along with a questionnaire which sought to ascertain involvement in training, and the extent to which this satisfied the skills highlighted within the competence framework. An additional questionnaire was circulated to the land-based colleges, to identify which courses and qualifications were being offered for the benefit of dairy farmers. Summarised results of these surveys were circulated to respondents, and to a selection of dairy farmers, and additional comments received were taken into account in drawing up the recommendations for action.

Seven educational establishments, in England, Scotland and Wales, were selected for more in-depth analysis through direct interview with staff delivering education and training both to students and to working farmers. Common qualification routes for new entrants to the dairy industry were analysed for their dairy content; funding mechanisms for English Colleges were assessed, and the Skills White Paper, published in March 2005, was reviewed.

Results and areas of recommendation

There are many consultants and colleges involved in training and skills development for dairy farmers. Over half of the survey respondents stated that they were involved in training and skills development for the dairy industry; variously accessing funding, facilitating and delivering into activities. The importance of the colleges in larger scale, often regionally based programmes, cannot be overstated. Similarly, consultants play a critical role in bringing activities directly to their clients.

However, the educational sector and the consultancy sector appear to operate in isolation from each other and delivery is fragmented. Furthermore, it is clear that the topics currently being selected for training do not reflect the actual needs of the dairy farming industry in the 21st century. We propose that a clear framework for training and development is needed. Such a framework should highlight to dairy farmers the importance of subject areas including business and people management and should bring together the colleges, universities and consultants to deliver clear and consistent messages to the dairy farming industry. By working more closely together, gaps in provision should be more readily identified.

There is evidence that farmers are discouraged from taking part in training as a result of previous poor experiences. It is known there is no formal quality control of those delivering training and skills development activities outside of the college sector. Also, the data collected in this study supported previous findings that the promotion and marketing of training activities do not reach a consistent or sufficiently large body of dairy farmers. It is therefore suggested that a quality assurance scheme is introduced for those delivering training activities, and that suitably accredited activities are promoted through, for example, a dedicated window on the home-page of the MDC website.

Funding for training and skills development varies across England, Scotland and Wales; both for formal education and qualifications and for informal, non-certificated training programmes. In each country there is a continuing need to ensure that available funding is fully exploited for the dairy sector: this is not happening at the moment.

Ensuring the availability of funding is a considerable task; it involves three government administrations, a number of English Regional Development Agencies, Lantra and any number of local Learning and Skills Councils. As such, whilst we recommend that the MDC treats this as a priority, we suggest that it considers sharing this task with other levy bodies.

Qualifications offered by the land based colleges and universities have been shown by a number of institutions to provide a sound format for the development of training and skills development packages for working farmers. However, there is currently a gap at the higher levels of qualification, with a shortage of 'off the shelf' accredited courses and qualifications. The RABDF/Plunkett Foundation courses in Director Training, alongside the IAM/Worshipful Company of Farmers courses for agricultural managers fulfil part, but not all, of the needs for higher level training and education. The development of Foundation Degrees may provide a useful format for filling the qualification gaps at these higher levels. We suggest that the land based colleges and universities should be encouraged to develop their Foundation Degrees with adult education in mind.

We believe there is a definite and active role for the MDC to take in supporting and promoting training and skills opportunities for dairy farmers. This role is at the executive level, ensuring for example that government funding and government funded institutions are providing for the needs of dairy farming. It is at a management level, in steering and encouraging the provision of appropriate training and skills development and it is at an operational level, ensuring for example that dairy farmers are made fully aware of the opportunities afforded to them. This role is not included within Schedule 1 (functions of the Milk Development Council) of the Milk Development Council Order 1995, amended by the Milk Development Council (Amendment) Order 2000. As such, the MDC is not currently in a position to take on this role. We recommend that this situation is reviewed by Defra and by the MDC at the earliest opportunity.

The MDC's remit to create the opportunities, insights and expertise that spur dairy farmers to improve their profits in a changing world would be well served by taking on these roles. As far as we are aware there is no organisation other than the MDC that has the knowledge or the capability to take on this responsibility.

I. Introduction

The UK dairy farming sector is going through a period of rapid and dramatic structural change, due largely to the milk market being deregulated after some 60 years in 1994 and to continuing reform of the Common Agricultural Policy. This will inevitably lead to a much smaller and more focused industry with a far closer relationship to the ultimate consumer.

During this difficult transition period we are seeing a sharp decrease in producer numbers resulting from low milk prices, generally low profitability and uncertainty about the future. Producer numbers are forecast to be around 16,500 in the UK by 2015¹ but with an increasing UK milk yield and herd size. The probable outcome is that UK dairy farming will move to a USA-style structure, increasingly polarised between small family farms which are often not commercial ('lifestyle choice') and large agribusiness enterprises (with 500+ cows) that produce most of the milk. Indeed in 2003, 36% of UK milk production came from only 2700 farms².

Clearly the UK will never be the lowest cost producer (e.g. because of high labour costs and expensive plant and machinery) and thus farm businesses need to undertake one or more of the following options:-

- Get bigger or collaborate in sharing, buying and/or marketing.
- Rise above commodity price by offering substantial product attributes backed by strong branding.
- Be dedicated to certain customers or markets, knowing and fulfilling exactly the requirements of milk purchasers.
- Add value on the farm.
- Achieve operational excellence.

If the UK is to have a sustainable and profitable dairy farming sector to meet the challenges and opportunities ahead then on-farm efficiency needs to be second to none. For this to be the case it is imperative that training and skills in the widest sense are actively pursued, not only to enhance and keep up to date with technical (husbandry) developments but also to hone business skills so that decisions are taken on a commercial basis. Farming will not afford decisions taken on the grounds that "we've always done it that way" or for emotional reasons. This may appear to be nothing other than common sense, but unfortunately it is well documented that around 60% of producers still do not know their true costs of production³.

That technical training has a real effect on bottom-line performance was clearly demonstrated in the pig industry by Peter English and colleagues⁴. Similar work has not been conducted for the dairy sector, although it is known from the studies of Seabrook⁵ that farmer attitude and behaviour has a direct impact on milk yield, and it may be inferred that training could therefore have similar bottom-line effects. That training and development activities alter farmer behaviour is not in doubt. Forward Farming, Defra's pilot demonstration farm initiative, showed that over 40% of farmers attending farm demonstration days subsequently changed their management practice on farm as a direct result of attendance⁶. It seems clear that training and skills development have a large role to play in the adaptation and evolution of the milk industry.

The infrastructure to support the dairy farming sector has also changed radically in the recent past, particularly in the areas of advice provision and skills and training. Lantra, the Sector Skills Council, for example is a very different body to its predecessor the Agricultural Training Board (ATB), whilst there has been a sea-change in formal education both at Further Education level, following the incorporation of colleges in 1992, and at Higher Education level, including the huge expansion in course choice and student numbers. These changes have not been well explained to potential employers or indeed the industry as a whole.

Furthermore, since the deregulation of ADAS, the delivery of advice is no longer a nationally co-ordinated or free-to-use service. The MDC provides a limited extension team and Business Links, Defra's Rural Development Service, and the Farm Business Advisory Service also provide some limited advice, whilst project-based initiatives such as Farming Connect in Wales provide technical and business development activities. In Scotland, the SAC have retained a network of offices and dedicated field advisors. Through a subscription scheme and other advisory work, they have a penetration level of some 60% of farmers which is used for communicating new information and technology transfer.

¹ Colman, D. & Harvey, D. 2004. The Future of UK Dairy Farming

² Brigstocke, T. 2004. The Future Strategy for Dairy Farming in the UK. Journal of the RASE, Volume 165.

³ RABDF survey of 508 dairy farmers attending the Dairy Event, 2004; conducted by Promar International.

⁴ English, P. R. et al, 1999. Evaluation of the effects of training methodologies. Occasional Publication no. 23, British Society of Animal Science

⁵ Seabrook, M. 1974. A study of some elements of the cowman's skills as influencing the milk yield of dairy cows. PhD thesis, University of Reading

The educational infrastructure continues to change. The Government's Skills White Paper, published in March 2005, set out how Sector Skills Agreements will be instrumental to matching training and skills developments to industry needs, and the role of Regional Skills Partnerships in ensuring that funding is given to those activities which best serve economic development. Defra's Vocational Training Scheme (VTS), which is separate to core educational funding, is currently under review as part of the negotiation of a new Rural Development Regulation.

The need of the dairy industry to adapt is self evident and is well accepted. Funding and support for education, training and skills development is complex and fluid. It is critical that the dairy sector's needs and capabilities are made similarly plain to see to those organisations and institutions which provide the infrastructure and support for education, training and skills development.

Concurrent with this, there is a desperate need to coordinate and communicate to dairy farmers the opportunities that exist for such activities. There has been considerable recent interest in Continuing Professional Development (CPD) for farmers. CPD is clearly a 'must have' activity for consultants, but it is difficult to see the uptake of CPD when the industry is in such a fragile state. The Institute of Agriculture Managers' study ⁷ on farmer attitudes to CPD showed a high level of uptake of training and development by farmers, but a lesser enthusiasm for a formal system of CPD. However, Meredith & Webster's ⁸ study on the possible content for a farmer CPD system demonstrated a broad range of necessary skills for the farming industry. Without a framework for delivering this, there is every possibility that dairy farmers will not be offered, or may not take up, the necessary training and skills development. Indeed, the previous MDC-commissioned study 'Labour Sourcing and Management for the Dairy Enterprise' ⁹ identified that the quantity and quality of training activities for dairy farmers and their staff is of varied quality and sometimes non-existent in catering for the needs of the modern dairy farm.

Identifying the areas where the greatest progress can be achieved on farm depends very much on the circumstances of an individual farmer and their family. However, a particularly worrying trend, which links into the general low profitability in the sector, is the difficulty of getting high quality labour. One temporary solution is to import from some of the new emerging Central and Eastern European states, but if this trend is to continue then a recruitment/training package needs to be established to attract the highest calibre of staff to work on British dairy farms. Similar initiatives are already underway in the pig sector, wherein those delivering training and development activities were easily identifiable. For the dairy sector, a prerequisite is to examine just what is the state of play with training and skills development opportunities for dairy farmers.

With this background, the MDC therefore commissioned Delta-innovation to conduct a review of training and skills development opportunities for dairy farmers with the following objectives;

1. To detail the funding mechanisms / initiatives available for training providers and associated costs to dairy farmers.
2. Detail the range of course titles and associated content to assess relevance.
3. Describe the delivery mechanism and body responsible for interacting with the delegates on a course.
4. Identify the awarding body for each initiative, and the level of national recognition.
5. Identify duplication of training and development activities.
6. Identify any gaps in opportunities for dairy farm staff to continue development.
7. Suggest a model that may be implemented on a national basis that encourages control, streamlining, relevance, national delivery and recognition.

⁶ Moss, A. & Webster, S.D., 2004. Final Report on the Forward Farming project, 'a pilot network of demonstration farms'.

⁷ Byles, S., Barrball, K. & Ansell, D., 2005. An assessment of farmers' views on the benefits and uptake of any industry-owned system for skills recognition and development.

⁸ Meredith, B. & Webster, S., 2005. Proposals for content to be included in a skills recognition and development framework for farmers.

⁹ Marden Management, 2003, Labour Sourcing and Management for the Dairy enterprise.

2. Methods

The project took a series of approaches to data collection, including desk-review, postal and telephone survey and direct interviews. To create a structure within which to assess training and skills development opportunities the project began with the creation of a basic competence framework for dairy farming. This gave a summary of the principle areas in which skills and training opportunities would provide immediate benefit to dairy farming, and highlighted areas in which skills and training may provide benefits in the future.

Based on this competence framework, a postal survey of training and development activities offered through dairy industry consultants and service industries was conducted; followed up with telephone discussions with a proportion of respondents. Survey results were circulated to respondents and further comments invited.

A desk-review was conducted of funding opportunities for vocational training and further data was gained through enquiries within funding and administrative organisations. Additional desk-reviews were conducted of educational opportunities and funding.

Using the competence framework, and a schedule of qualifications which are available through the English land-based colleges, a postal survey of further education colleges was conducted in order to ascertain the availability of dairy-related qualifications throughout the country. Again, the results of this survey were circulated back to the participating colleges and further comments invited. Finally, to gain a better insight into the drivers behind college and university based provision a series of seven case studies were conducted in England, Scotland and Wales.

Further details of methodology and data sources are provided within each of the following chapters.

3. A Competence Framework for Dairy Farmers

In order to assess the training and skills opportunities for dairy farmers a competence framework was drafted against which provision could be measured. As a basis for the competence framework the following documents were used:

- i) A generic farmer competence framework devised by ELITE Consortium Ltd under a Defra CPD contract¹.
- ii) A SWOT analysis prepared by Tim Brigstocke for the Dairy Supply Chain Forum.
- iii) The RABDF report of a survey of dairy farmers at the 2004 Dairy Event and a separate RABDF study into the family labour inputs in dairy farming.

Whilst the generic framework devised by ELITE was based upon 'ideal practice', it was felt necessary to devise a simplified framework for the dairy sector which took into account the immediate priorities for the industry as outlined in the SWOT analysis and the current state of knowledge and understanding within the industry, as indicated in the RABDF reports. The competence framework was based on a target group of farmers that represent the top two quartiles in terms of business and technical performance, but not necessarily on the very best (top 5%) of farmers.

The following points relating to the structure of the dairy industry were considered to be of particular note:

- a. The continuing predominance of family farms, employing no out-of-family labour.
- b. The relatively high weekly working hours of dairy farmers.
- c. That the majority of dairy farmers are sole-traders, with very few operating as limited companies.
- d. That the trend in dairy farming will be towards fewer mid-sized farms and increased numbers of larger sized farms, with a continuing reduction in small dairy farms other than those serving niche and/or regional markets or needs.

A definition of training was developed which, critically, made distinctions between training, advice and information. This is given in Box 1, below. Further, it was considered necessary to consider training as 'developing understanding such that farmer behaviour was changed' (i.e. to avoid tick-box responses).

Box 1. Definition of training

Training is any identifiable, directed activity which aims to develop the skills and understanding of a person to meet their business's and their own needs.

Training is distinct from 'advice', which is business or enterprise specific and which need not develop skills and understanding.

Training is distinct from 'information', the provision and uptake of which does not necessarily of itself develop skills and understanding.

The outcomes of training may be measured by attendance, may be certificated, or may more preferably be seen through assessment. Many of the outcomes of training will be less tangible for the individual but will relate to factors including confidence and ability.

Areas of critical competence

The following areas were considered to be those in which farmer competence was critical to the future of dairy farm businesses at this point in time. These take into account the current state of knowledge and understanding in the industry, as well as the political, environmental, social, technical and economic factors affecting dairy farm businesses.

I. Financial management

Financial management includes understanding of the costs of production, benchmarking, and taking appropriate action. This was identified by the SWOT analysis as a weakness in UK production, and encouraging rational economic decision making was identified as a specific challenge.

¹ Meredith, B. & Webster, S., 2005. Proposals for content to be included in a skills recognition and development framework for farmers.

2. Statutory compliance

Much of the information coming through to dairy farmers is not taken up and there is a requirement for signposting of future issues which will affect farm businesses as well as continual updating and refreshing of statutory requirements.

3. Environmental management

The volume of initiatives which will impact on farmers is great, and the opportunities for farmers to gain from these initiatives whilst complying with statutory instruments, must be exploited. Areas for immediate review include those which are being addressed by Defra's Farm Advice Unit (e.g. diffuse pollution) but it is likely that other areas will arise on an ongoing basis.

4. Business support

Producing goods to specification (following contracts and complying with the Sale of Goods Act) was identified as being of immediate relevance to dairy producers.

5. Farm health planning

The incidence of animal disease was identified by the SWOT analysis as a weakness in UK dairy production across the whole of the supply chain, and animal disease outbreaks and persistent animal health problems were identified as threats to the industry. The financial impacts of farm health are great and it is critical that the features and benefits of farm health planning are taken to farm level.

6. People management

All areas identified in the generic competence framework for farmers were agreed as important areas for developing robust farm businesses. These relate to recruiting, employing, motivating, retaining, delegating, instructing and communicating with staff. Whilst the majority of dairy farmers employ only family labour, it is nevertheless essential they adopt good practice in all areas of people management.

7. Personal development

Four areas of specific concern were highlighted, relating to communication (and negotiation) skills, organising and chairing meetings, facilitating discussions and making public speeches/presentations. These are of particular importance if farmers are to work more closely together for mutual business benefit.

8. Livestock technical skills

The opportunities to develop the technical efficiency of dairy farming are ongoing and the following areas were agreed as being of particular importance:

- Genetics, and tailoring herd genetics to farm structure
- Practical health and welfare management
- Basic nutrition including grassland and silage management
- Housing, including technical, legislative and financial considerations

Whereas previous competence frameworks have separately addressed the need for each critical competence according to the person's role on the farm, it was felt that for the current dairy industry structure, with a high proportion of sole-traders relying on ad-hoc family support, such a breakdown would be counter-productive. In addition, the following areas were considered as important but for only a very small proportion of dairy farmers at this point in time:

- Business planning – not critical for the majority of farmers at yet, as basic financial management is a necessary prerequisite.
- Post farm-gate training – on factors involved in running co-operative ventures, for example: regarded as important but a long way down the line.
- Understanding the market – not essential to most farmers at this point as it will have little impact on most on-farm businesses. The immediate importance to dairy farmers of understanding the market is in situations where farmers are diversifying/adding value to their produce e.g. through cheese production. However, most farm businesses will be made more robust by training and skills development in other areas.

4. Outreach: consultancies and the wider dairy industry

4.1 Survey of training and skills provision by dairy industry consultants

Approach

A questionnaire (Appendix A2) was issued together with a copy of the Competence Framework (Appendix A1) and a covering letter (Appendix A3) to a wide range of consultancy businesses, membership organisations and individuals known to have direct contact with dairy farmers. The aim was to understand how the agreed areas of competence were being developed in dairy farming by these groupings which deliver a range of services to dairy farmers.

58% of the 168 companies, organisations and individuals contacted responded to the letter and questionnaire, 48% completed the questionnaire and that number included the main consultancy groups. Follow-up telephone discussions were held with 15% of the respondents. The response is in our view remarkable and especially so when one bears in mind that many consultants were deeply involved at the time with their clients' SFP applications.

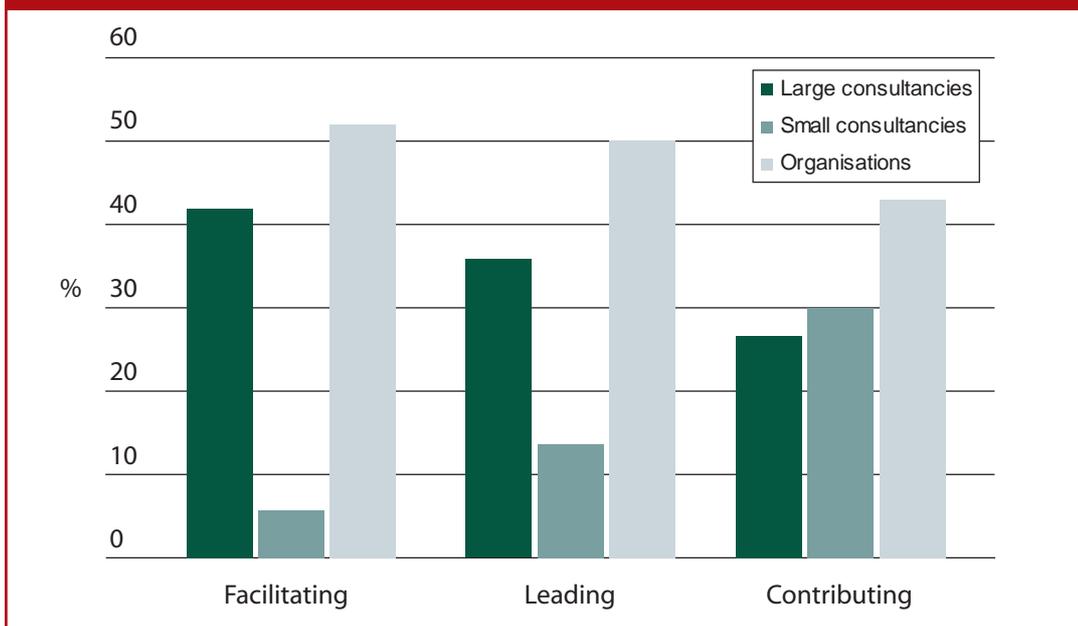
The results are summarised in the following paragraphs. The analysis is based on the responses from the 168 companies, organisations and individuals contacted. Out of 98 replies there were 81 completed questionnaires from 78 organisations (Appendix D1¹). In addition there were 17 replies from individuals or companies not involved in skills and training development, or where training was limited to company representatives.

Q1 Involvement in training and development activity

Of the 81 respondents, 76 indicated they were actively involved in training and development activity. The other five were associated with consultancy or advisory work but did not consider themselves to be active deliverers or facilitators of training.

There was a considerable mix of facilitating (22% of respondents), leading (31%) and contributing (47%) to training events. Many of the established consultancies do all three, and some will also seek funding to support the training activity. Smaller consultancy businesses tended to focus on management and business training and import experts from elsewhere for specialised, particularly technical/husbandry topics. Individual consultants and specialists such as nutritionists and veterinarians were more likely to be invited to participate in delivery.

Fig. 1. Proportion of facilitators, leaders and contributors to training and skills development from large consultancies, small consultancies and organisations.



¹ Appendix not included in this document. Available from MDC on request

A handful of organisations directed their activity towards the farmer controlled business and co-operative sectors, with a quite different range of topics to those specified in the questionnaire, but nevertheless directed at farmers. In particular the RABDF/Plunkett training programme, English Farming and Food Partnerships and SAOS are of note, and the Institute of Directors has also been used by at least one large milk cooperative.

It should be noted that much of the 'unfunded' training is largely directed to client groups, or to attract new clients, and thus partly and indirectly funded by the clients themselves through their consultancy fees.

Observations

- *There is no shortage of training providers although there may be regional differences.*
- *The ability of the providers is an unknown quantity.*
- *There is little or no coordination of training activities between consultancies, commercial organisations and charities, with all activities competing for farmers' time and attention in a free market.*

"An area of training that would be interesting to follow up on is the quality of the trainers and the response or impact they have on farm... Basically there is, with a few notable exceptions, a dearth of extension skills out there".
M. Wilkinson, ADAS

Q2 How topics for training and development are chosen

In summary:

- Farmer-demand 76%
- Own-knowledge 72%
- Industry or Government leads 50%
- Other 24%

Discussion groups, focus groups and individual clients, through their consultants, were commonly used by consultancies to identify the topics for training. A lesser number would rely on their own knowledge of industry trends with statutory and market developments acting as drivers. Local issues of interest were a focus for some. Some two-thirds of respondents would use more than one of the above identified methods of topic selection.

Observations

- *Topic choice appears to be focused on immediate issues of concern and unrelated to required competencies and/or planned farmer development.*
- *The emphasis on farmer-demand and companies' own knowledge appears to lead to the selection of "softer, more comfortable" zones and less focused approaches to the development of farmer business skills.*

"... 'adding value', if not preceded by a healthy dose of training in sales and marketing skills, is a recipe for disaster. Farmers and farmers' cooperatives are still in danger of making this fundamental mistake. Associated with this issue is a need by many for better negotiating skills and the development of business acumen with which to combat the various forces that seek to erode our margins". J. Alvis, Alvis Bros. Ltd.

Q3 Topics delivered

A set of topics was selected based on the previously agreed list of required competencies. On the basis of replies:

- Financial management 53%
- Statutory training 25%
- Environmental management 35%
- Business support 35%
- Farm health planning 54%
- People management 32%
- Personal development 37%
- Livestock technical skills 65%

Only a handful of companies declared they delivered or facilitated delivery of all topics whilst more than one half were involved in two or more topics reflecting a more specialised area of activity.

The results show that the more practical, traditional topics associated with cattle management continue to attract the most interest. Those who delivered farm health associated training would also deliver livestock skills training. Similarly, statutory and environmental management training went together. It is noteworthy that the business-driven topics, which may be considered more important in today's climate, were of less interest than cattle management/technical issues.

The relative reluctance by farmers to undertake business training is perhaps due to it being out of the comfort zone and there may be concerns over the need for openness about their own business. The lack of interest in people management should be noted as, in the future, staff management may be equally if not more important than herd management.

Respondents were sent the list of competencies the group had prepared and asked to suggest additional ones. Farm Assurance, Health and Safety, Succession Planning, and in particular, Information Technology were seen by many as increasingly important and in need of attention. However looking further forward, negotiating skills for both inputs and outputs will be increasingly important, as prosperity will increasingly depend on farm profitability. As the market becomes more international, and as the number of overseas employees increases, languages will become more important but at this stage it may be viewed as a non-essential competence and outside the remit of this study.

Observations

- *In general, the topics selected were targeted to immediate and interesting needs but not directed to meet any declared competencies.*
- *Whilst livestock skills are important, it appears from this survey that they are more popular, and perhaps more enjoyable to learn, than business management skills. The emphasis needs to be adjusted.*
- *There is a need for industry to agree and embrace a framework of competencies and skills development.*

"The skills required to successfully manage both individuals and a team of people are many and detailed. I wonder how much of the current labour shortage on dairy farms is due to poor man management as opposed to all the other reasons that are put forward?" W. Madders, Church Farm

"One has to be sensitive to people's apprehension about attending one of these training sessions and not wanting to appear to be ignorant about some of the terminology. I genuinely believe that this is where the intimate training groups have an advantage over the ad hoc groups as the former are gradually brought in to the business side of their operation and these groups generally attract people who are very determined about the success of their business".
N. E. Young, UK Dairy Academy

Q4 Preferred (most effective) methods for developing farmers' skills

Of those suggested:

● Group discussions	76%
● On-farm talks/walks	69%
● Seminars	51%
● Others	26%

Different methods meet different needs and many groups used all of the first three. Some topics are better suited to particular methods and to particular groups of people. Farm walks and discussion groups, that dominate the overall activity, tend to take a broad-brush approach. A number of respondents commented on the difficulty of training at the right level. The practical workshop, especially if related to the farm business, was popular and better targeted as was the seminar approach, although fewer training days are delivered in this manner.

Learning was best when in very small numbers, perhaps a maximum of 15, with one to one mentioned by some as the most effective. Discussion groups were seen as more successful for learning than farm walks. The on-farm and classroom combination was highlighted by several consultancies as the most effective. Those who appeared to be involved in more structured training emphasised the importance of real farmer participation. The discussion group and farm walk combination was useful, one said, for the non-innovators! There appears no one answer although the discussion groups and farm walks are more popular whilst being less demanding on the individual.

It became evident from the replies that in the view of many consultants information, advice and training were a continuous process and could not easily, and perhaps should not, be separated. Whilst some farm walks, for example, could be information gathering, others could be clearly focused on a special topic and as such termed a training experience. Events organised by some membership societies would likely fall into the latter category. However, as was pointed out in one of the telephone discussions, "training is a process not an event".

Observations

- *There is no one right way to deliver training and a combination of all forms appears necessary.*
- *There is a reluctance to join in with more targeted training.*
- *Small groups are thought to be more successful than larger ones in bringing about change.*
- *There is currently no attempt to establish layers of training; i.e. enabling - training followed by more detailed study.*

"Meetings work better during the day... Day meetings are seen as part of a work regime, whereas night meetings are seen as more social and recreational". T. Dobson, Radmore Green Farm

Q5 Use of external expertise

The larger groups would mainly, but not always, use their own specialists to deliver training, whilst most made use of a wide range of experts. Based on the questions asked:

● Nutritionists	44%
● Vets	50%
● Exemplar farmers	49%
● Bankers	15%
● Others	43%

Vets feature strongly along with nutritionists but a number used a wide variety of professionals including not only academics but also lawyers, planners, land agents and accountants. Farmers themselves are well respected as trainers and in the views of many, are the most successful in bringing about change in others and encouraging the adoption of best practice.

Training facilitation and delivery by commercial companies appears to be able to attract audiences through the network of reps and good communication. They tend to deliver to high standards, using good materials and will also use exemplar farmers and stockpersons.

Observations

- *The value of exemplar farmers and other specialists should be recognised.*
- *There is surprisingly less interest in financial matters (i.e. the use of bankers, financial advisers, risk management expertise etc.) than should be the case given the current state of the industry.*
- *Those deliverers identified in the "Others" category tended to be related to Government schemes or legislation.*
- *Commercial organisations, including veterinary practices, feed companies and such, may prove a highly useful conduit to delivering training and skills development.*

Q6 Use of external materials to support training delivery

From a narrow range of suggested training materials, the percentage of groups using them were:

● pd+	12%
● grass+	10%
● MilkBench	8%
● Other	43%

Most used in-house developed materials based on their own knowledge and experience with some based on literature and research reports. The above results are surprising, although in follow up telephone calls to a number of respondents, it was evident that whilst external materials were used infrequently for training purposes, products such as **grass+** would be recommended for use by the farmers within their own businesses.

Observations

- *The MDC and others could be mindful of the preference for 'in-house' materials and produce materials which can be personalised by delivery organisations.*
- *In line with other support materials, the MDC's **pd+** and **grass+** will need continuing promotion in order for them to become embedded as tools for training and skills development.*

Q7 Methods of recruitment

As expected a wide range of recruitment methods were used. Client bases, mailings, membership lists, reputation and personal contacts were common. Those 'contributing' as opposed to 'leading' relied on others (e.g. MDC, veterinary practices and commercial companies) to promote and recruit to events. Relatively few used any fliers, press adverts or other materials to promote; whilst a small number referred to promotion via their company websites. The National Federation of Young Farmers Clubs (NFYFC) circulated a request for information on training and skills development opportunities to a small number of their members and the responses to this concurred with our survey data; awareness of opportunities can be by chance, for example, if highlighted by a friend or colleague.

Respondents had been asked what percentage of their clients, memberships or contact groups were interested in receiving training. Only a few responded to the question as, it is suspected, they do not measure this factor. When training is delivered by a specialist group, a breed society for example, the figure could be 80% of invitees in an area. More generally, some 15 to 25% of farmers were reported to be interested in participating in training activity.

Those groups that have strong client bases claimed a greater response. Some commercial companies also hold training days. Whilst there is always a product to sell, it is evident that training could be viewed as generic, for example, a breeding company discussing the principles of heifer rearing, and thus contributing to training and skill development.

Observations

- *Recruitment is very much a "hit and miss" arrangement. The more successful appear to be able to target their clients or members closely. Scattergun approaches seem less successful.*
- *There is currently no one place in which training and skills development opportunities are collated and promoted.*

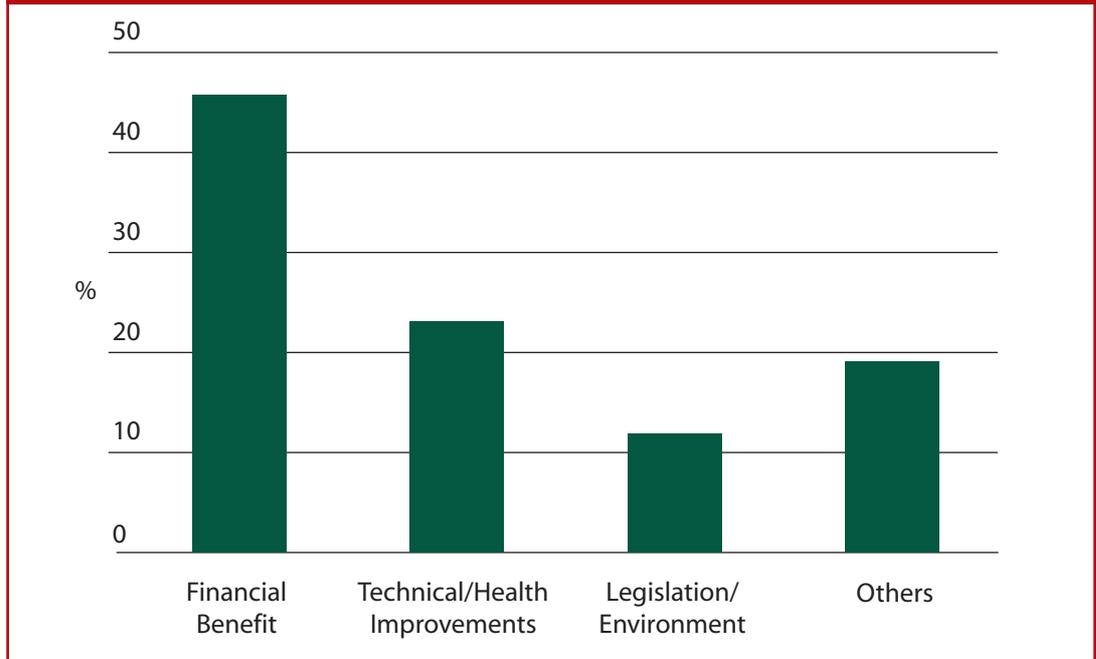
"...whilst there is a wealth of advice and training available, it is generally the successful who avail themselves to the opportunities." D. J. Lunniss, SAS Partnership & SKS Dairy Group

Q8 Drivers and threats to training provision

Respondents were asked to identify the drivers for and threats to training. Drivers for delivery included:

- New legislation and government policy
- Financial benefits
- Cost reduction
- Improved technical performance
- Perceived commercial demand
- Adding value to their clients business
- Needs recognised by farmers
- Keeping ahead/extend knowledge/enthusiasm
- Being profitable

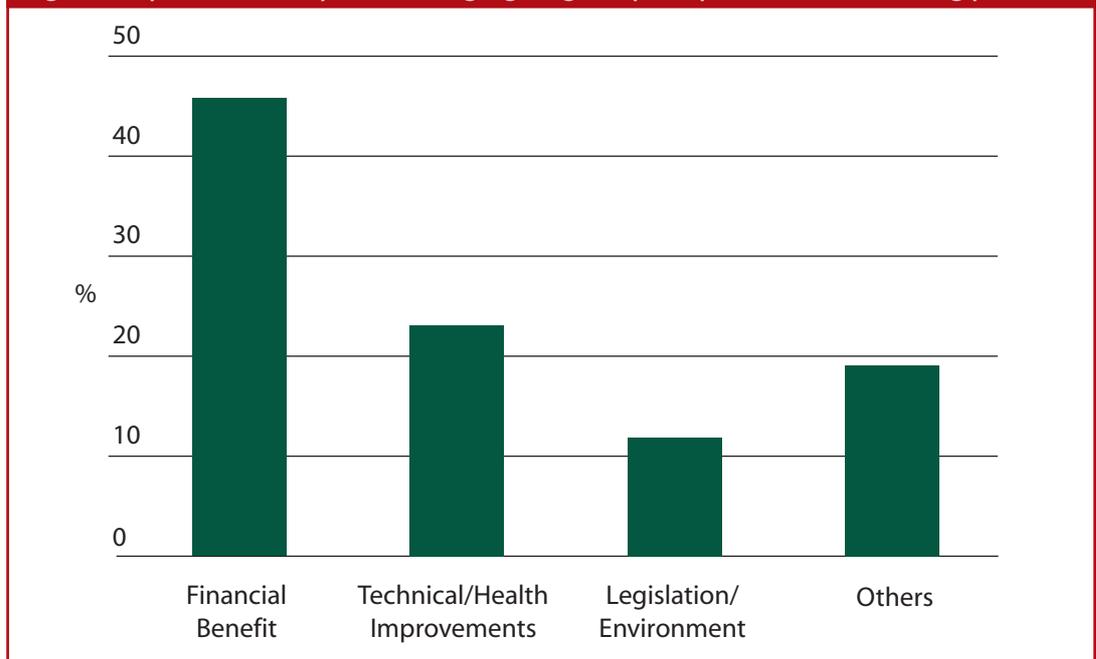
Fig. 2. Proportion of respondents highlighting the principle drivers for training provision



An obvious omission from the list respondents identified was that of personal development or some degree of CPD. There is no evidence from this study that farmers have embraced the concepts of CPD or life long learning.

A serious threat for many respondents was the danger of funding being withdrawn. A demoralised industry and complacency was mentioned by some but nearly all said that time constraints, farmers getting away from the farm and/or arranging cover, were a major barrier to training provision. There is also evidence that a poor experience of training, that is where the trainer and /or subject matter is poor, results in farmers being discouraged from training in general.

Fig 3. Proportion of respondents highlighting the principle threats to training provision



A significant barrier to the uptake of training is that, historically, farmers have not seen themselves as business people. For many it remains a way of life. The attitude to the value of training and development is different in industry and also in agriculture in Europe, where training is either compulsory or seen as vital for career development or business viability. It is a barrier that needs to be overcome if the identified competencies for viable dairy farming are to be achieved. Farmers need to be shown and persuaded that training will bring value.

It was interesting to note that a number of the more established consultancies have been running training courses on behalf of milk co-operatives. Through the co-op facilitation comes encouragement that training is linked to milk supply management, returns and viability, and thus has an identified value.

In a similar way there is an example of a vet school running courses for practice vets accompanied by their clients. Farmers are then invited to farmer-only sessions. Clearly the subject matter is limited to animal health but again there is a perceived benefit and value acting as a driver.

Observations

- *There is low recognition amongst farmers of the value of personal development, and training is not seen by all as providing value for money.*
- *Time constraints are seen as a major barrier to uptake, although the extent to which this is an actual rather than a perceived barrier is questionable.*
- *Withdrawal of funding (especially VTS) would be a major threat to the delivery of training.*
- *The current Vocational Training Scheme is administratively demanding and, whilst important, is perhaps not attuned to the needs of smaller businesses.*
- *The co-operative and the veterinary school routes provide a useful means of recruiting farmers into training activities which could be developed in the future.*

"...all the successful [professional] sectors have in common... some kind of industry-driven organisation that designs and organises training and professional development" Professor P. C. Thomas, Artilus Consultancy & Research

Q9 Charges for training

This must have been a difficult question as relatively few clear replies were received. Confidentiality is probably a concern for some.

Nearly 60% did free events if linked to their clients, with costs carried either by consultancy fees to individual businesses or through externally sourced funds. It was interesting that more than one respondent said that some level of charge to the farmer was important in order to give the event 'value'. Where a training event is free and particularly held in the evenings, it is more likely to be seen as social or recreational.

A lesser number placed a nominal charge in the general range of £20 - £40 for a days training although reported day costs of £100 were noted. Many referred to funding through the VTS and often via the UK Dairy Academy (see 4.2 in this report). Others saw the MDC as a means of supporting training. Specialists invited to participate in delivery would usually expect to recover their full costs.

The level of reported charges appeared to reflect the type and degree of "formal" training involved. Overall, very few consultants charge anywhere near full cost recovery. One large consultancy argued that "it is easier to get one farmer to pay £1000 for a focused one to one training day, than to get ten each to pay £100". It can be assumed from this study that consultancy businesses could not, in the current environment, run a viable farmer training business without subsidy. As one respondent stated, "a good consultant/trainer cannot work at £250 per day".

Observations

- *There appears an association between some level of charging and perception of benefit.*
- *If a high level of delivery expertise is required it must be recognised that appropriate consultant fees may be necessary.*
- *There is a significant reliance on VTS funding, without which a large proportion of training for the dairy industry would not take place.*

"Funding is important, especially to a one man band" M. Lemmey, Liberty Farm

"There are now funding streams becoming available via Business Link which do not appear to be any less bureaucratic than VTS and in some cases may be considerably more demanding on administrative processes". W. Waterfield, The Farm Consultancy Group

4.2 Funding for training and development activities

There is a range of funding routes which may apply to developmental activities for farmers, operated regionally and through sector schemes. EU money has been available to the least well-off parts of the country through Objective 1 and Objective 5b funding, more widely through the European Social Fund and for large-scale initiatives aimed at developing disadvantaged members of the workforce, through EQUAL. Three funding routes which are of continuing relevance to skills development activities for dairy farmers are detailed below. There are similar funding routes to the Regional Development Agencies and to the Rural Development Service in Scotland and in Wales. Whilst it should be noted that there is no equivalent to the Vocational Training Scheme in Scotland, where there is a critical gap in funding for adult training to be addressed, the positive actions of SEERAD in supporting initiatives such as the Hi Health initiative should nevertheless be applauded.

Regional Development Agencies have supported a range of projects aimed at improving the business and financial performance of the agricultural industries. These are generally larger-scale projects and require the corporate structure, of Business Links and Colleges for example, for successful management and delivery. Ensuring that these serve the needs of the dairy industry will require continuing lobbying and the careful management of relationships with each of the RDAs, as well as the development of partnerships with the relevant corporate bodies.

The **Rural Development Service** took over the mantle of supporting demonstration activities for farmers following Defra's pilot demonstration farm programme, Forward Farming. In the year 2004/05 approximately £100,000 was available per government region for demonstration activities, and similar sums are expected for the year 2005/06. Projects are determined by the RDS on a regional basis and, as for RDA funding, ensuring the needs of dairy farming are met requires that relationships with the RDS in each of the regions are carefully managed. The RDS also manage, on a regional basis, the Farm Business Advisory Service, delivery of which is outsourced to consultancy consortiums. In Scotland SEERAD support FarmBASS, which offers grant-aided whole farm business advice through accredited advisors and which funds Local Enterprise Companies to set up workshops covering business development, planning and benchmarking. The Welsh Assembly together with the Welsh Development Agency (and with additional EU funding) supports Farming Connect, providing advice, demonstration, grant funding and training.

Defra's **Vocational Training Scheme (VTS)** is part of the England Rural Development Programme (ERDP), a seven year initiative which is due for review / renewal over the coming eighteen months. The VTS provides up to 75% of funding towards the costs of vocational training for those engaged in farming or forestry. Eligible training must fall into at least one of eleven categories, which together cover all of the areas of competence identified at the outset of this project.

Training grants may be applied for by individuals, by persons on behalf of groups of individuals or by training organisations / providers. Individual applicants are required to complete a training-needs-assessment, whilst training organisations must submit 'detailed business plans and supporting documentation' together with training-needs-assessments for potential students. There is a limited annual budget and grants are therefore awarded selectively, through eligibility and technical assessments and against regional and national criteria.

Data from Defra indicates that just over 450 VTS applications have been approved to date, accounting for over 13,000 training courses / workshops within agriculture and forestry. However, the response by individual agricultural industries to the VTS has been variable, which may be due in part to the perceived bureaucracy of the application and administration process. Data in this report indicates that many dairy consultants have rejected the option of applying for VTS funding for their clients on the basis that it was time consuming and was too much of an administrative burden.

Two specific VTS initiatives are therefore of note. The first is that of the Duchy College and the other colleges within the South West of England Land Based Colleges (SWELBC), wherein the Colleges are administering VTS funding throughout the southwest (see 'Training at Duchy College', Appendix C3¹²).

The second initiative is that of the UK Dairy Academy (UKDA). The UKDA was established by Nigel Young and Hugh Crooks in Spring 2002 and since that time has administered the delivery of over 270 courses to more than 3,200 individuals in dairy farming. Training so far has been mainly directed towards livestock skills but has also covered farm assurance, staff management and first aid, and the need to widen this range to higher business levels has been recognised. Training is delivered by consultants (including many of the consultants who responded to our survey), with funding applications, paperwork and documentation undertaken by the UKDA. Most training is delivered through one-day courses to groups of 25 – 30 delegates, with costs to the recipients in the range of £25-£75.

These initiatives have demonstrated the value of the VTS as a means of bringing training and skills development activity to farmers. However, they have also quite clearly demonstrated the need for *expertise in the administration of funding*. This expertise allows those most able to exploit such monies for the benefit of dairy farmers to do so without the encumbrance of administration. Without this expertise the VTS, and whatever funding opportunities might follow the VTS, would be of minimal benefit to the dairy industry.



4.3 Summary comments and recommendations – survey of consultants

It is evident that opportunity for training and skills development is being offered by a large number of individuals, organisations and companies. A number of points are worthy of note:

Quality of training & skills development

There is no 'quality standard' for delivering training and skills development activities and there is an indication that farmers are discouraged from participating in training through previous unsatisfactory experiences.

We recommend that the MDC;

1. Works with the other levy bodies and with Defra to establish a kite-mark of quality for training and skills development, learning from established mechanisms for quality assurance within the Further Education sector.
2. Works with the British Association of Agricultural Consultants (BIAC) to develop an industry-approved register of Dairy Consultants.

Technical vs. business training

Dairy farming remains a technically driven industry with technical rather than business solutions often sought to business problems.

We recommend that the MDC;

3. Promotes a training framework to consultants and to others highlighting the critical competences required by the industry. This should allow consultants and farmers to rapidly identify the level and area of training and skills development which is most appropriate to them.
4. This training framework should embrace all technical, business and personal development needs, allow for the various methods of delivery, and offer a continuous training and development programme for individuals.

Value for money of training

Farmers are not seen to accept the value for money of training, and in particular the value to their business

performance of ongoing professional and personal development.

We recommend that the MDC;

5. Develops the work started by Peter English and his team at Aberdeen University, so as to demonstrate the financial link between training/skills development and business performance.

Co-ordination of promotional activities

There is no one site or organisation collating and promoting training activities for dairy farmers, and knowledge by farmers of events is a critical issue.

We recommend that the MDC;

6. Collates ongoing training activities and promotes these through a database-driven window on the home-page of the MDC website.
7. Works through its regional officers and through the MDC databases to inform dairy farmers of relevant training and skills development activities in their areas and beyond.

Conduits for training

The delivery of training through commercial companies, veterinary schools and dairy co-operatives provides what appears to be a very effective means of targeting farmers through the dairy support sector, and one which could be exploited further for the benefit of the industry as a whole.

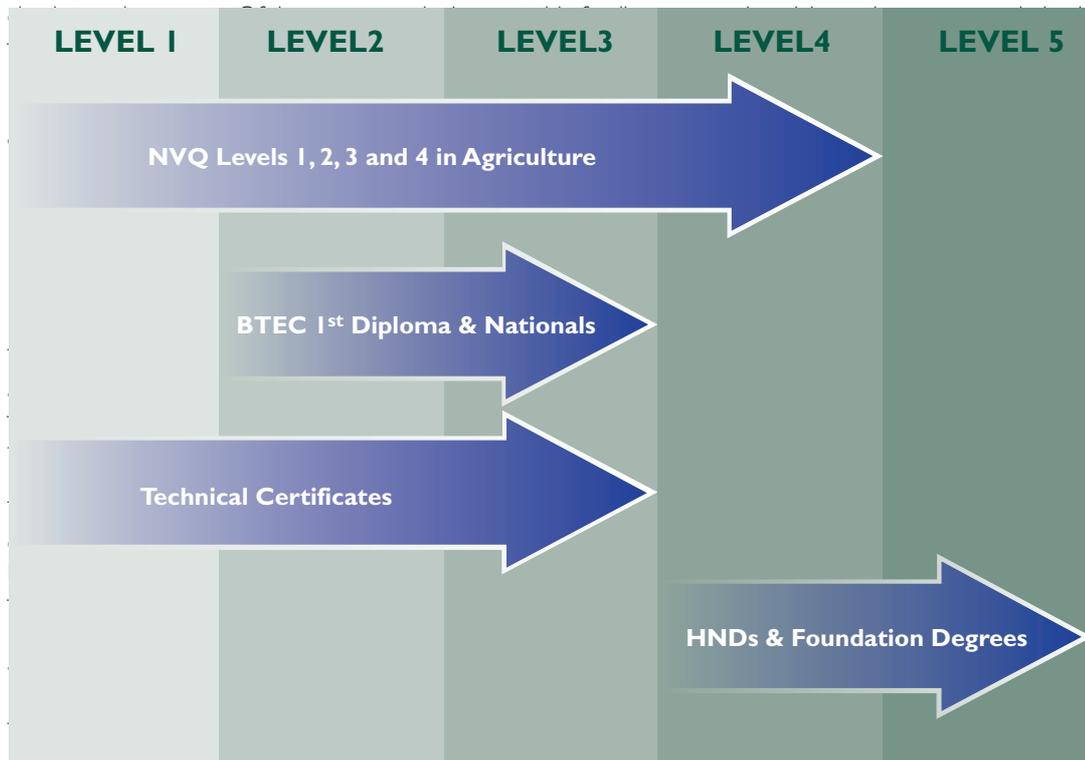
We recommend that the MDC;

8. Fosters relationships with various trade bodies, in particular the Agricultural Industries Confederation, in order to proactively support the activities of companies, educational organisations and co-operatives which are working to deliver training and skills development for the dairy sector.

Training and skills development fall outside of the MDC's functions, as listed in Schedule 1 of the Milk Development Council Order 1995, amended by the Milk Development Council (Amendment) Order 2000. However, we are not aware of any other organisation with the breadth or capability to take on these roles.

Funding

Funding streams which enable the various consultancy groups and individuals to facilitate and deliver training are



Development Council Order 1995, amended by the Milk Development Council (Amendment) Order 2000. However, we are not aware of any other organisation with the breadth or capability to take on these roles.

Table 5A. Proposed level indicators in the NQF

The proposed level indicators in the NQF are a guide to the range of qualifications and levels. They describe the learning and achievement that happens at each level and show how the skills and knowledge relate to job roles. The indicators are not intended to be precise or comprehensive - they are working guides. (Source: Qualifications & Curriculum Authority, www.qca.org.uk, amended for the purpose of this report.)



Currently, qualification titles such as 'certificate' and 'diploma' are not indicators of the level of a qualification.

5.1.1 Part-time, work-based Further Education

NPTC Levels 2&3 NVQ Livestock Production and Levels 2&3 Mixed Farming

These qualifications are gained through assessment of the student's competencies in the workplace and are typically achieved with an Apprenticeship (for the Level 2 NVQ) or within an Advanced Apprenticeship (for the Level 3 NVQ).

The **Level 2 NVQ Livestock Production** allows students to specialise in dairy farming. Candidates must achieve 12 units in total, of which those under Group C are of particular relevance to dairy.

There are five mandatory units including;

- Monitor & maintain health & safety
- Assist in establishing and maintaining conditions appropriate to the welfare of livestock
- Assisting in maintaining the healthy performance of livestock

Candidates must also choose one or both of units;

- Maintain site biosecurity and personal hygiene
- Provide feed and water to livestock

Group C Dairy (NVQ Level 2) units;

- Control the movement of livestock
- Establish pregnancy and maintain livestock during pregnancy
- Maintain livestock during and after parturition
- Assist with establishing livestock within their accommodation
- Prepare and monitor livestock on outdoor sites
- Milk livestock by machine
- Assist with selecting livestock and preparing them for transfer
- Transport supplies of physical resources within the work area
- Prepare and operate a tractor with attachments
- Prepare and operate a power vehicle
- Maintain and repair structures and surfaces
- Maintain equipment and machines
- Load and unload animals for transportation

National Vocational Qualifications (NVQs) are work-related, competence-based qualifications. They reflect the skills and knowledge needed to do a job effectively, and show that a candidate is competent in the area of work the NVQ framework represents. NVQs are based on national occupational standards. These standards are statements of performance that describe what competent people in a particular occupation are expected to be able to do. They cover all the main aspects of an occupation, including current best practice, the ability to adapt to future requirements and the knowledge and understanding that underpin competent performance.

NVQs are achieved through assessment and training. Assessment is normally through on-the-job observation and questioning. Candidates produce evidence to prove they have the competence to meet the NVQ standards. Assessors sign off units when the candidates are ready. The assessor tests candidates' knowledge, understanding and work-based performance to make sure they can demonstrate competence in the workplace.

When new candidates start an NVQ, the assessor will usually help them to:

- identify what they can do already
- agree on the standard and level they are aiming for
- analyse what they need to learn
- choose and agree on activities that would allow them to learn what they need

At this point, candidates might take a course if that seems the best way to learn what they need. Or they might agree with their employer or supervisor to do slightly different work to gain the evidence of competence they need.

(QCA, 2005)

The structure for the **Level 3 NVQ Livestock Production** is similar and again offers the opportunity to specialise in dairy farming. Candidates must achieve 12 units in total, of which those in Group C are of particular relevance to dairy.

There are five mandatory units including;

- Promote, monitor & maintain health & safety and security
- Establish, monitor and maintain conditions appropriate to the welfare of livestock
- Promote and maintain the healthy performance of livestock

Candidates must also choose one or both of units;

- Establish, monitor & maintain site hygiene and biosecurity
- Monitor, maintain and evaluate the provision of feed and water to livestock

Group C Dairy (NVQ Level 3) units;

- Establish pregnancy and manage livestock during gestation
- Monitor and maintain livestock during and after parturition
- Prepare, and receive livestock into, their accommodation
- Prepare, monitor and maintain livestock on outdoor sites
- Monitor and maintain the selection of livestock and prepare them for transfer
- Collect and prepare semen for the future artificial insemination of livestock
- Prepare, monitor and maintain the milking of livestock by machine
- Plan, monitor & evaluate the disposal of waste
- Transport and maintain supplies of physical resources within the work area
- Prepare and operate a tractor with attachments
- Prepare and operate a power vehicle
- Construct & maintain structures and surfaces
- Prepare for and maintain equipment and machines
- Load and unload animals for transportation
- Maintain the health and well-being of animals during transportation

The **Level 2&3 NVQs in Mixed Farming** do not allow this specialisation in dairy farming. Candidates are assessed in a combination of units split between working practice, general livestock and general cropping.

Apprenticeships and Advanced Apprenticeships

Grading criteria – DAIRY PRODUCTION UNIT		
Pass	Merit	Distinction
1. Evidence must show ability to;	Evidence must show ability to;	Evidence must show ability to;
2. A Technical Certificate (Adv. App. only), City & Guilds Level 3 Certificate in Agriculture, the Agricultural Environmental unit plus three other units to meet local and regional variation (with a minimum of 190 guided learning hours). This is intended to provide underpinning knowledge and understanding for the NVQ.	Describe the reasons why milk becomes contaminated and explain the correct methods of disposing of such milk	Explain the structure of the dairy industry and how milk is marketed
3. Key Skills (Communication, Application of Number and Information Technology)	Explain the effects of lactation on the appetites, weight change and yields of dairy cows	Identify performance indicators for the efficient use of feed and use to analyse the herd's actual performance
4. Additional Employer Requirements, For the Apprenticeship these include Emergency First Aid plus one other legislative or occupational qualification, nationally recognised and appropriate to the enterprise. For the Advanced Apprenticeship these include two legislative or occupational qualifications, nationally recognised and appropriate to the enterprise, including Emergency First Aid if this has not been gained previously.		
Evaluate options to satisfy building requirements for a dairy herd and devise a checklist with suitable criteria for assessing designs of cow housing	Evaluate methods of farm waste storage	Estimate the capital investment in buildings for a dairy herd

The schedule of legislative / occupational tests is held by Lantra and includes, for example, the Safe Use of Veterinary Medicines and Artificial Insemination.

Apprenticeships are expected to last on average for 18 months, and Advanced Apprenticeships for 30 months, and at a minimum for two 'growing seasons'.

Grading criteria – GRASS CROP PRODUCTION UNIT		
Pass	Merit	Distinction
Evidence must show ability to;	Evidence must show ability to;	Evidence must show ability to;
Explain the annual growth pattern for grass and identify the characteristics of the major regional grasses.	Recommend seed mixtures for given situations	Describe how farmers are able to influence the growth pattern of grass
Evaluate the factors that determine the establishment and maintenance of a high quality grass sward.	Calculate the fertiliser requirements of a grass sward	Produce a reasoned plan for the establishment of grass for a given situation
Select the most appropriate one for a given class of livestock	achieve efficient utilisation	for a given situation
Compare the methods of production and storage of quality hay, silage and haylage	Explain the chemistry of grass preservation and discuss the implications of COSHH in grass preservation	Evaluate the machinery required to conserve grass

Full-time, College-based Further Education are comprised for the most part by the BTEC First Diploma and BTEC Nationals, which are taken alongside Technical Certificates / Certificates of Competence. These BTEC Nationals are outlined below.

The Edexcel BTEC First Diploma is a Level 2 qualification and the Edexcel BTEC National Awards, Certificates & Diplomas in Agriculture (BTEC Nationals) are all Level 3 qualifications. That is, the Award, Certificate and Diploma train to the same educational level, but they differ in the numbers of units and covers Awards are 6-unit qualifications, Certificates 12-unit and Diplomas 18-unit qualifications. Each unit is specified by BTEC, and equates to 60 'guided learning hours'.

There are six separate National Awards in Agriculture, covering 'Agricultural Production' (Grazing Livestock or Organic Production or Poultry Production or Pig Production) and 'Agriculture' (Farm Diversification or Land-based Business).

Edexcel Level

BTEC National

The National Award in Agricultural Production (Grazing Livestock) includes nine units, of which five must be taken [plus one compulsory unit, a Specialist Project Study]. The optional units are;

- Principles of Animal Science
- Principles of Plant & Soil Science
- Genetic Improvement
- Animal Health
- Forage Crop Production
- Livestock Management
- Dairy Production
- Grass Crop Production.

The Dairy Production and Grass Crop Production units are not contained in any other of the National Awards.

Grading criteria – BUSINESS MANAGEMENT UNIT		
Pass	Merit	Distinction
Evidence must show ability to;	Evidence must show ability to;	Evidence must show ability to;
Describe the effects that monitoring performance can have on business planning	Use data, from a variety of sources to interpret and analyse factors affecting performance	Compare, using selected examples, the performance of a range of businesses, including the effects of availability and limitations of resources
Describe the main roles and responsibilities of those working with a range of businesses	Explain how the main job roles help the businesses meet their objectives	Evaluate the possible effects of performance management on the success of the business
Describe the different types of record keeping with a range of businesses	Explain the importance of and the legal aspects of record keeping	Interpret data from business records to analyse the performance of a business
Describe the principles of financial operations and identify a variety of financial records	Explain the importance of and conventions used in financial recording and the concepts of depreciation and insurance	Produce a report based on simple financial records

Taken from BTEC Nationals in Agriculture, Unit 40: Dairy Production.

Taken from BTEC Nationals in Agriculture, Unit 41: Grass Crop Production.

National Certificates

There are four separate National Certificates in Agriculture, covering pure Agriculture or focusing on Livestock, Crops or Agribusiness.

The National Certificate in Agriculture includes five core units plus thirty four optional units, of which seven must be taken. Business Management and Principles of Animal Science are included within the core units.

The National Certificate in Agriculture (Livestock) option contains the same core units but has a reduced schedule of optional units. Both qualifications include the Dairy Production, Grass Crop Production and other livestock-specific units available in the National Award.

The Dairy Production and Grass Crop Production units are not contained in any other of the National Certificates.

The grading criteria for the Business Management option are shown below.

Taken from BTEC Nationals in Agriculture, Unit 2: Business Management.

National Diplomas

There are four separate National Diplomas in Agriculture, covering pure Agriculture or focusing on Livestock, Crops or Agribusiness.

The National Diploma in Agriculture includes seven core units plus thirty five optional units, of which eleven must be taken. Business Management, Principles of Animal Science and Industry Experience are included within the core units. For Industry Experience learners are required to complete at least 400 hours or 10 weeks of work experience, whichever is the longer.

The National Diploma in Agriculture (Livestock) option contains the same core units but has a reduced schedule of optional units. Both qualifications include the Dairy Production and Grass Crop Production units available in the National Award.

The Dairy Production and Grass Crop Production units are not contained in any other of the National Diplomas.

Flexibility

Units may be imported from other BTEC National specifications, to a maximum of two units for the Certificate and four for the Diploma. This allows providers to deliver courses tailored to their local industry and learners needs; by increasing the environmental or business management portions for example.

The BTEC Nationals are designed to relate to the National Occupational Standards in the sector which in turn form the basis of the National Vocational Qualifications (NVQs). The BTEC Nationals do not purport to deliver occupational competence in the sector, which should be demonstrated in a work context. However, the qualifications provide much of the underpinning knowledge for the National Occupational Standards, as well as developing practical skills in preparation for work and possible achievement of NVQs in due course.
Edexcel Level 3 BTEC Nationals in Agriculture, Guidance & Units, August 2002.

5.1.3 Technical Certificates

A range of technical certificates exist which are of direct relevance to dairy farming. For the most part these are accredited through the NPTC. Of particular note are the Safe Use of Veterinary Medicines Certificates; the Certificates, National Certificates and Advanced National Certificates in Agriculture and the Certificate in Rural Business Administration. Outline details of these are given below.

Certificates of Competence are similar to NVQs in that the emphasis is upon assessing competence, rather than teaching per se; 'Attendance at a course of instruction is not a pre-requisite for an application for an assessment but potential Candidates are strongly advised to ensure that they are up to the standards that will be expected of them when they are assessed'.

However, funding from the Learning Skills Council (LSC) to deliver training for these awards is based upon the number of guided learning hours for each of them, so that where they are offered by colleges they are typically part of training package. The City & Guilds Level Certificate in Agriculture is now an integral part of the Advanced Apprenticeship and within the funding for this a 'minimum of 180 guided learning hours (glh)' is stipulated.

NPTC Level 2 Certificate of Competence in the Safe Use of Veterinary Medicines

Learning outcomes for this qualification are summarised by the NPTC as follows; the candidate will be able to:

1. Comply with current, relevant health & safety legislation.
2. Follow an animal health management plan.
3. Administer a range of veterinary medicine types, safely & humanely.
4. Store and transport veterinary medicines correctly.
5. Maintain the health of user, public and animals.
6. Dispose of unwanted veterinary medicines safely.
7. Record the use of veterinary medicines.
8. Prevent unnecessary pain and unnecessary distress to the animals.
9. Identify signs of health and ill-health in animals.

The assessment is divided into two compulsory units:

- Safely store and administer veterinary medicines - practices
- Principles of storing and administering veterinary medicines

Data from the LSC indicates that the qualification is achieved with 14 glh.

NPTC Level 3 Certificate of Competence in Planning & Supervising the Safe Use of Veterinary Medicines

The Level 2 Certificate of Competence in the Safe Use of Veterinary Medicines is a pre-requisite for this qualification. Learning outcomes for this qualification are summarised by the NPTC as follows; the candidate will be able to:

1. State relevant legal requirements relating to the planning and supervising of veterinary medicines.
2. Plan to comply with relevant legislation and welfare considerations.
3. Prepare an animal health management plan.
4. Supervise veterinary medicine use.
5. State legal safety points applicable to veterinary medicines.
6. Identify hazards and assess risks associated with veterinary medicines and plan for controlling these risks.
7. Plan suitable transport and storage facilities and supervise its use.
8. Plan and supervise the disposal of clinical and pharmaceutical waste.
9. Plan for modification of regime.
10. Develop a recording system for the use of veterinary medicines.

The assessment is divided into two compulsory units:

- Plan the safe use and storage of veterinary medicines
- Principles of the Animal Health Management Plan

Data from the LSC indicates that the qualification is achieved with 13 glh.

NPTC Level 3 Certificate in Rural Business Administration

This Certificate includes two mandatory units;

- Preparation and maintenance of rural business accounts
- Payroll, Legal & Management Records for Rural Business Staff

There is also a choice of two optional units;

- Legislative, farm assurance and production records for livestock
- Legislative, farm assurance and production records for crops

A recommendation of 30 glh for each of the two mandatory units and 10 glh for each of the optional units is made. This qualification has in effect replaced the previous C&G Agriculture and Horticulture Phase 3 Accounts as a standard introduction to farm business accounting.

Institution	Foundation Degree Title
University of Wales, Aberystwyth	Agriculture
Askham Bryan	Agriculture
Bishop Burton College	Agriculture
Duchy College	Agriculture & Rural Business Development Organic Farm Business Development
Easton College	Land-based Studies
Harper Adams University College	Agriculture Agriculture with Mechanisation Agriculture & Land Management Agriculture & Conservation Agricultural Business Management
Hartpury College	Dairy Herd Management (to be validated)
Kingston Maurward	Land Management
Moulton College	Land Management
Myerscough College	Agriculture (Livestock Management / Crop Production)
Newton Rigg	Farm Management
Writtle College	Agriculture Animal Science

5.1.4 Higher Nationals and Foundation Degrees

A stepping stone between Level 3 qualifications and full Degrees, Higher National Diplomas traditionally provided a vocational route into higher education and have been supplemented by the provision of 'top up' courses giving full degree status. Of late there has been a move towards Foundation Degrees; these effectively serve the same purpose, but whilst the HND was a qualification with standardised content, Foundation Degrees are developed separately by higher education institutions, allowing for a greater flexibility in subject matter and approach.

Data on the provision of Foundation Degrees was collected directly from the survey of colleges (see below), and additional information was obtained from the UCAS database. The Colleges and Universities in Table 5B,

English Region	Colleges responding	National Vocational Qualifications			BTEC				Technical Certificates			Higher Level Quals.	
		NVQ 1 Agriculture	NVQ 2 Livestock Production	NVQ 3 Livestock Production	BTEC Level 2 First Diploma	BTEC Level 3 National Certificate	BTEC Level 3 National Award	BTEC Level 3 National Diploma	Level 2 National Cert. Agric	Cert. Comp. Safe Use Vet. Meds.	Cert. Rural Business Administration.	Higher National Diploma	Foundation degree
South West	4	3	4	4	3	2	2	4	1	1	1	1	2
West Midlands	4	2	2	3	2	3	4	4	1	2	1	1	1
North West	2	1	2	2	1	0	0	2	0	1	1	1	2
South East	3	2	1	1	1	0	0	2	2	0	0	0	0
Eastern	1	1	1	1	1	0	0	1	0	1	0	1	0
East Midlands	3	0	1	0	3	0	1	1	2	2	0	0	1
Yorks & Humber	2	2	2	2	1	0	1	2	2	2	0	0	2
North East	1	0	0	0	0	1	0	1	0	0	0	0	0
London	0	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL 04/05	20	11	13	13	12	6	8	17	8	9	3	4	8
TOTAL 05/06	20	11	13	12	13	7	10	17	5	9	5	3	9

5.1.5 Courses & qualifications available at the land-based colleges

04/05-05/06

To ascertain the provision of further education relevant to dairy farming, a questionnaire was sent to all of the Napaeo¹⁴ member colleges asking for details of their current and planned course provision. Twenty-three of these colleges responded, including the majority of those in the West of England. Sample results for English colleges, by region, for 2004/05 are shown in Table 5C below.

Table 5C. Sample Qualifications: Land-based Colleges, England, 2004/05

English Region	Colleges responding	National Vocational Qualifications			BTEC				Technical Certificates			Higher Level Quals.	
		NVQ 1 Agriculture	NVQ 2 Livestock Production	NVQ 3 Livestock Production	BTEC Level 2 First Diploma	BTEC Level 3 National Certificate	BTEC Level 3 National Award	BTEC Level 3 National Diploma	Level 2 National Cert. Agric	Cert. Comp. Safe Use Vet. Meds.	Cert. Rural Business Administration	Higher National Diploma	Foundation degree
South West	4	3	4	4	3	2	2	4	1	1	1	1	2
West Midlands	4	3	3	3	2	3	4	4	1	2	1	1	1
North West	2	1	2	2	1	0	1	2	0	1	1	0	2
South East	3	1	0	0	1	0	0	2	1	0	0	0	0
Eastern	1	1	1	1	1	0	0	1	0	1	0	1	1
East Midlands	3	0	1	0	3	1	2	1	1	2	1	0	1
Yorks & Humber	2	2	2	2	2	0	1	2	1	2	1	0	2
North East	1	0	0	0	0	1	0	1	0	0	0	0	0
London	0	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL 05/06	20	11	13	12	13	7	10	17	5	9	5	3	9
TOTAL 04/05	20	11	14	13	12	6	8	17	8	9	3	4	8

others, e.g. Newton Rigg, vary the choice of options dependant upon the student intake.

Higher level Technical Certificates such as the Certificate of Competence in Planning the Safe Use of Veterinary Medicines are less widely available. Of note for 2005/06 is the increase in colleges intending to offer the Certificate in Rural Business Administration, seen by many who provide training to dairy farmers as prerequisite to running farm businesses. A range of college-certificated courses, such as the Level 2 College Certificate in Milking and the Level 3 College Certificate in Cattle Husbandry at Hadlow College, may be seen as responding to local needs, although the level of uptake for these courses was not assessed. Reaseheath, traditionally a specialist dairy college, offers the City & Guilds Advanced National Certificate in Dairy Herd Management on both a full time and a part time basis.

¹⁴ Napaeo is the 'association of land-based colleges' and has a membership of 30 specialist FE Colleges in England and 5 specialist Higher Education Institutes. Concerned at the quality of provision outside of the specialist land-based colleges, Napaeo is looking at how it might implement a self-regulation / quality control system, so as to demonstrate the standards of training and education delivered by its members, and the quality of appropriateness of training

resources, both in core-funded activities and in externally funded projects.

Foundation degrees, which are Level 4 qualifications, are offered in the South West, North West, East and West Midlands and the Yorkshire and Humber regions. Additionally, Foston College plans to offer an agricultural qualification, since the Institutes of Higher Education are not included within the summary, and since some of

Institution	Qualifications
The University of Aberdeen	Honours Degrees Agricultural Science, Ag. Business Management
The University of Wales, Aberystwyth	HND, Foundation Degrees, Honours Degrees Agriculture, Ag. & Countryside Conservation / Management, Ag. & Animal Science, Ag & Business Studies, Ag. & Marketing, Ag. & Business, Organic Agriculture
The College of Agriculture, Food & Rural Enterprise	HND Agriculture
Anglia Polytechnic University	HND Agriculture & Food Production
Askham Bryan College	Foundation Degrees, Honours Degrees Agriculture, Animal Management
The University of Wales, Bangor	Honours Degrees Agriculture, Ag. Conservation & Environment, Management & Agriculture
Bishop Burton College	Foundation Degrees, Honours Degrees Agriculture, Ag. Resource Management, Applied Animal Science
University of Brighton	Foundation Degrees Agriculture
University of the West of England Bristol	Foundation Degrees, Honours Degrees Agricultural Business Management, Ag. & Conservation, Ag. & Land Management, Animal Science
Cornwall College	Foundation Degrees Ag. & on-Farm Processing, Ag. & Rural Business Development
University of Glamorgan	HND Agriculture
University of Greenwich	Honours Degree International Agriculture
Harper Adams University College	HND, Foundation Degrees, Honours Degrees Agriculture, Ag. & Animal Science, Ag. & Crop Management, Ag. & Env. Management, Ag. & Food Quality Management, Ag. & Land & Farm Management, Ag. & Marketing, Ag. & Mechanisation
University of Leeds	Honours Degrees Applied Biology, Biology
Myerscough College	Foundation Degrees and Honours Degrees Agriculture (Crops/Livestock)
The University of Newcastle upon Tyne	Honours Degrees Agriculture, Agri-business Management, Agronomy, Animal Science, Animal Production Science
The University of Nottingham	Honours Degrees Agriculture, Animal Science, with Certificates in EU Studies
University of Plymouth	Foundation Degrees and Honours Degrees Agriculture, Animal Science
Queens University Belfast	Honours Degrees Agricultural technology
The University of Reading	Honours Degrees Agriculture, Ag. Business Management, Animal Science
Royal Agricultural College	Honours Degrees and Diplomas Agriculture (Crops / Livestock / Land management / Organic Farming), Ag. & Farm Management, Business Management
Scottish Agricultural College	HND and Honours Degrees Agriculture, Agricultural Science (Crops / Livestock), Rural Enterprise, Animal Science and Bioscience
College of West Anglia	HND Agriculture & Food Production
Wiltshire College	HND Agriculture
Writtle College	Foundation Degrees and Honours Degrees Agriculture, Ag. & Environment and Ag. & Business Management

the land-based colleges are known to deliver agriculturally related degrees through arrangements with the owning Institute.

Higher National Diplomas, the precursor of the Foundation Degrees, are only offered by four colleges for the current year and this will reduce to three for 2005 entry. Two colleges indicated that they offered a Level 4 NVQ in Agriculture. Again, Reaseheath offers Higher National Certificates and Diplomas as well as a Foundation Degree in Dairy Herd Management, and a range of qualifications for the dairy processing sector (e.g. Higher National Diplomas and Foundation Degrees in Dairy Processing and Production).

Myerscough and Moulton Colleges offer degrees in Agriculture and Land Management respectively, with Myerscough providing a particular focus on dairy production. Hartpury College offers degrees in Agriculture & Conservation and in Agricultural Business Management and, of particular note, is awaiting validation of a Foundation Degree and BSc in Dairy Herd Management. Details of all of these are included below, under Higher Education.

Examining the projected provision of responding colleges for student intake in 2005, the figures do not alter dramatically from the current academic year. Table 5D below gives details.

Table 5D. Sample Qualifications: Land-based Colleges, England, 2005/06

5.1.6 Higher Education – UCAS and Survey data

The UCAS database reveals 25¹⁵ colleges/universities offering Honours Degrees, Foundation Degrees or Higher National Diplomas (HNDs) in agriculturally related subjects for the year 2005/06 (see Table 5E, below). Seven of these offered only HNDs / Foundation Degrees, with nine offering only Degrees, and nine offering HNDs / Foundation Degrees as well as Honours Degrees. These range from institutions with a limited range of qualifications (five have only one agriculturally related Higher Qualification) to land-based specialists such as Harper Adams and the SAC, with their broad range of agricultural Degrees, Foundation Degrees and HNDs.

A number of courses validated by Higher Education Institutions are delivered through specialist land based colleges. For example, the specialist courses run by the University of the West of England are in fact run in conjunction with Hartpury College in Gloucestershire, and the Degree in International Agriculture validated by the University of Greenwich is delivered through Hadlow College. As such, vocationally-oriented institutions may offer qualifications appropriate to a range from school-leavers through to degree, whilst the redbrick universities generally focus on degree level and above, with a greater emphasis on research and higher degrees.

Five of these institutions are clear leaders in agricultural research, with Reading, Nottingham, Leeds, Aberdeen and Aberystwyth standing out as high quality research establishments (both Reading and Nottingham received a 5A in the last Research Assessment Exercise, the highest grade given), whilst others such as the Royal Agricultural College, Myerscough College and Harper Adams University College are involved, but to a lesser extent, in agricultural trials work.

Two of the Universities offer courses in organic farming; the Royal Agricultural College and the University of Wales, Aberystwyth. Both institutions include competences for dairy farming within their 'straight agriculture' courses. Cornwall College, through Duchy, are also known to offer a Foundation Degree in Organic Farm Business Development.

Given the extent to which specialised staff are necessary for the development and delivery of undergraduate courses, and given the requirements for keeping up to date in terms of academic knowledge and understanding (attending conferences, reading academic journals and the trade press at the minimum; preferably partaking in research or trials work, writing for academic journals and the trade press and presenting at seminars and conferences) it is perhaps surprising that there are so many Universities and Colleges which continue to offer agriculture as an undergraduate course. It was noted during discussions with universities that agriculture is seen as an expensive course to run, and in a Higher Education sector which is increasingly market driven the ability of institutions to maintain specialised, lower student-number courses into the future is questionable.

Responses to a survey of Universities as to the extent to which dairy is covered as a subject within straight agriculture degrees revealed that because many of them are modular, the extent to which dairy competences are covered is very much dependant upon student choice. Writtle College highlighted an issue seen in many HEIs; that 'increasingly students are choosing to take business modules to give them more opportunity to diversify', but also stated that HE students interested in livestock would cover the eight areas of critical competence. This would appear to be the case with most of the Agriculture-related degrees reviewed through this survey.

Fewer of the HEIs stated involvement with outreach work than was apparent in the survey of Further Education Colleges. However, the Royal Agricultural College (RAC) and Harper Adams University College in England, Aberystwyth in Wales and the SAC in Scotland are each involved in outreach work – through consultancy, and through specific professional development courses. The RAC runs the Institute of Agricultural Management Leadership Course, 'John Edgar' training courses (including financial management, people management) and personal development and '100 Club' seminars, dairy training through the College's Business Development Centre and development activities through the South West's 'Regional Enterprise Gateway'. Harper Adams runs AMTRA, BASIS and FACTS courses and has in the past run 'Recent Developments in Dairy Cow Nutrition' courses for those working with dairy farmers. It is also involved in the BOCM Pauls ETHOS programme. The University of Wales, Aberystwyth, is a key partner in the Welsh Farming Connect programme (see the case study of Gelli Aur, Appendix C5¹⁶), and the SAC runs its own consultancy and training services.

¹⁵ It should be noted that this is not an exhaustive list of institutions offering agriculturally related degrees, since it is known that some institutions such as the University of Wales, Bangor, did not appear using these search terms in the UCAS database.

¹⁶ Appendix not included in this document. Available from MDC on request

Table: 5E. Universities and Colleges validating agriculture HNDs, Foundation Degrees and Degrees, 2005/06

5.1.7 Key findings – case study review

To gain a better insight into the drivers behind college and university based provision of formal education and of outreach activities a series of seven case studies were conducted. Face to face interviews were held with staff of The University of Reading, Harper Adams University College, Duchy College, Myerscough College, Coleg Sirgar (Gelli Aur) and Barony College, together with a telephone interview conducted with the SAC at Auchincruive. Full details of each of these interviews are contained in Appendices C1-C7¹⁷. The following paragraphs highlight the pertinent findings from across these case studies.

1. Colleges have taken a proactive stance to delivering training and skills development for the dairy industry. One result of this is a wide range of methods of delivery of core qualifications including combinations of National Diplomas, National Vocational Qualifications and Technical Certificates.
2. The popularity of the NVQ route, which allows students to stay on-farm, is countered by its limitations in developing the breadth and depth of understanding of students. Colleges have taken different approaches to amending these deficiencies, but typically see the need to introduce a 'farm business management' type course after students have gained some post-qualification experience.
3. The gap between work-based learning routes and college based training and education is seen to cause difficulties for some students, who are not given the opportunity to 'learn to enjoy the college based learning experience'. This may exacerbate future attempts to raise skills levels within the industry.
4. Some colleges are heavily involved in outreach work. Within these there has been a strong lead from senior management level, and good use of a mix of funding sources (e.g. EU, VTS, RDS) for farmer training and development work. However, the extent to which the levy bodies (including the MDC) are involved with this work is variable.
5. Colleges have made significant and successful efforts to work with each other within regional consortia. This has allowed them to achieve a much broader regional coverage and it has enabled them to access significant regional funding for outreach type work with farmers.
6. Successful training and development offered to farmers is often seen to be mixed, including formal and informal training routes, sited both on and off-farm and combining farm-walks, discussion-groups, seminars and internet-based information.
7. Funding is available through the Further Education college system for education and training for dairy farmers. However, this forms part of each individual college's funding quota and may be limited. There is clearly room for improvement in the way in which the industry and the colleges work together to ensure training and funding are available. This will require an element of expert knowledge on the part of the MDC, in understanding the drivers behind the funding for college based provision.
8. Colleges have been creative in using formal qualifications as a basis for outreach work and this has provided a useful route to bringing dairy farmers into training and skills development, and to demonstrating to funding bodies the value of supporting adult education.
9. Funding from the Higher Education Funding Council for England (HEFCE) is provided for higher education only, and cannot be used to support outreach work. Increasingly, funding for research includes a requirement for 'knowledge transfer', although the extent of this is limited. There remains a significant, critical and on-going gap in knowledge transfer from high quality research academic establishments to the dairy farming population.
10. The employment prospects for graduates of agriculture programmes are generally very bright, with students from The University of Reading, for example, facing the prospect of 0% unemployment.

¹⁷ Appendices not included in this document. Available from MDC on request

5.1.8 Survey of training and skills provision by the land-based colleges

To ascertain the provision of further education relevant to dairy farming, the questionnaire developed to survey consultants' involvement in training and development (see section 4.1 and Appendix A2) was sent to the Napaeo member colleges along with the questionnaire of course provision (see section 5.1.5). A total of 15 responses were received, and these were supplemented by questionnaires completed through direct interview with Gelli Aur, Barony and Duchy Colleges, giving a total of 18 completed questionnaires.

Q1 Involvement in training and development activity

Twelve of the responding colleges were involved in training and skills development for dairy farming. Each of the English Regions was serviced by at least one college, with the exception of the North East, South East and Greater London. Welsh Colleges in the north and the south are highly involved in dairy farmer training, in particular through the Farming Connect programme which brings together Gelli Aur and Lysfasi. Barony College is active in Scotland. Six of the responding colleges were not involved in training for dairy farmers.

Colleges in the South West were notable for working together through SWELBC (South West England Land Based Colleges) on projects delivering training to dairy farmers. A similar consortium approach is apparent in the north-west, where Reaseheath, Myerscough and Newton Rigg work closely together on North West Development Agency funded projects. In Scotland, Barony, Elmwood and Oatridge Colleges maintain close working relationships, but this is less applicable to outreach work due to the greater distances between the colleges.

Two of the respondents gave details of their involvement as 'leading/contributing, facilitating, sourcing funding'. A further two (GA and Duchy) are also in this class, (as is Bishop Burton).

Q2 How topics for training and development are chosen?

Farmer-demand and Industry-leads were given most frequently as the means of deciding on topics for training and development. Farmer demand was assessed directly through, for example, dairy business clubs, training needs analysis, industrial liaison meetings, questionnaires given to farmers at events, and farmer group requests. Industry-leads cited include the MDC and the RABDF, as well as a small number of dairy consultancies and supply industries.

Interviews with colleges (see section 5.5) indicated additional means of choosing topics for delivery. Duchy College's project work involves placing staff 'in the field', from where they can feed back directly from farmers as to industry training and development needs (Appendix C3¹⁸). Gelli Aur run ad-hoc brainstorming events with the Dairy Development Centre steering group (the MDC Regional Committee together with a subset of the Welsh Dairy Strategy) to identify training requirements for dairy farmers (Appendix C5¹⁹).

Q3 Which topics are delivered?

Livestock technical skills and statutory training were covered by almost all of the colleges providing training for dairy farmers, whilst Business support and Financial Management were covered by 7 out of 10. Competencies to add to the list include arable skills for some dairy holdings, planning for the future, succession planning and equipment technical skills.

Q4 Preferred (most effective) methods for developing farmers' skills

Most respondents marked more than one response for methods of developing farmer skills, distributed fairly evenly between group discussion, farm walks/talks and seminars. The business club format was noted as working well, as were 'small, bite-sized programmes' and programmes which brought farmers together. The need to choose the format according to the topic and the advantages of combining a variety of formats within a single training session were highlighted, as was a preference of farmers for on-farm activities.

Q5 Use of external expertise

Vets, nutritionists and exemplar farmers were all used as sources of expertise for delivering training and skills development activities. The south west was notable in that the college-organised herd health programme is delivered by vets and nutritionists. MDC Staff, consultants, breeding companies and college staff were used by some, and the use of the colleges as hosts for externally organised events for dairy farmers was also raised.

¹⁸Appendix not included in this document. Available from MDC on request

¹⁹Appendix not included in this document. Available from MDC on request

Q6 Use of external materials to support training delivery

There was little reference to materials used in training and skills development activities. **grass+** and **pd+** were used by three and one of the colleges respectively. Software (Impel Pro, Interherd and Crystal) and 'data recording software'.

Q7 methods of recruitment

Recruitment methods included personal contact, recommendation, advertisements, local marketing and flyers, direct letters of invitation to databases of farmers (5 respondents) and vets, personal contact with business club members, the NFU and networks of contacts.

Q8. Drivers and threats to training provision

Drivers for training included legislation(4 respondents), farm assurance schemes, personal development, commercial pressures/changes to business needs, technical innovation / skills, improving performance (2), peer pressure (peer recommendation). Drivers for delivering training included funding (3) and support for the industry.

Threats to training and skills development include cost (2), time (4) and timing, commercial pressures, lack of quality speakers, lack of perceived benefit (2), business profile (lack of young entrants) and a lack of funding (2). Some of the non-dairy training colleges reported that a lack of appropriate resources at their college prevented them from delivering training, whilst others identified a lack of demand for training from industry.

Q9 Charges for training

Charges for training activities varied across respondents, perhaps reflecting the range of activities which the colleges are involved with. Half of the colleges offered some activities at no charge, whilst 80% offered activities at either a nominal charge or at full cost recovery. Figures cited for FCR were relatively low, at £10+ to £30+. However, the comment of one college that charges 'depend on LSC and VTS support' is notable.

5.1.9 Summary comments and recommendations – colleges & universities

It is evident that colleges and universities are highly involved in training and skills development for the dairy industry, and in providing underpinning education to those entering the industry as farmers and those entering the dairy support industries. A number of points are worthy of note;

Ensuring the equivalence of Further Education courses

Students are thought to be choosing their FE courses, in part, according to the 'approved additional courses' which are available on these, rather than by more detailed consideration of the pros and cons.

We recommend that the MDC;

1. Works with Lantra to ensure that the most relevant technical courses (e.g. foot trimming) are included on the schedule of approved additional courses within the Advanced Apprenticeship, and to encourage a greater degree of equivalence, in perceived farmer benefit, between approved additional qualifications within the National Diploma and the Advanced Apprenticeship.

Understanding of qualifications

The qualification system today is quite changed from that in place when many current employers were at college or university.

We recommend that the MDC;

2. Provides an explicit resumé of courses and qualifications and what each of them actually means to students and to employers. This should be made available through the MDC website and through the MDC's extension officers, and may be supported and updated through, for example, Napaeo.

Recognising the benefits of agricultural education

Colleges and Universities consistently report good employment prospects for students completing agriculture courses; yet these are subject areas which are increasingly difficult to recruit students into.

We recommend that the MDC;

3. Works with other agricultural levy bodies and trade organisations, with Defra, Lantra and the colleges and universities to identify the financial benefits of formal training and education and to highlight and promote the employment prospects for suitably qualified graduates.

Transfer of research findings

Knowledge transfer from leading edge research establishments to farm level remains a significant gap in the industry. Prospects for technical improvements and business/product developments are potentially being lost due to this gap. The degree of innovative thinking on the practical application of R&D which can be gained at grass-roots level should not be underestimated.

We recommend that the MDC;

4. Works with those Universities conducting dairy-related research (including product development research) in order to update the farming population on R&D activities, and to transfer fundamental research findings.

Reaching further

Surprisingly few of the colleges involved in outreach and extension were actively involved with the MDC in delivering training and development activities. There is room for improved use of these college based initiatives, which can provide a significant benefit to levy-payers.

We recommend that the MDC;

5. Works alongside those land-based colleges involved with outreach and extension work with dairy farmers to integrate MDC activities, including the MilkBench benchmarking scheme. Given the need for a strong buy-in at senior management level, it is suggested that the levy bodies work principally with those colleges which are already involved in outreach work, rather than attempting to encourage other colleges to follow the same route.

Penetration of the industry

A clear difficulty in delivering outreach and extension work is informing *all* potential beneficiary dairy

farmers of activities.

We recommend that the MDC;

6. Works alongside those land-based colleges which are involved with outreach and extension work with farmers to gain greater penetration into the dairy industry for these activities – through sharing of databases (subject to the Data Protection Act) and joint promotional activity.

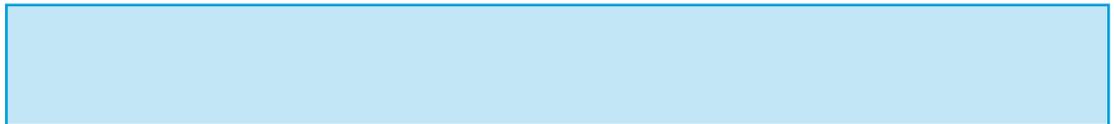
Filling the regional gaps

Some colleges retain a limited involvement in training for the dairy industry but have an expressed desire to be more closely involved.

We recommend that the MDC;

7. Works, in areas where there is no alternative provision, to encourage more highly involved colleges to share best practice with these 'less involved' colleges in order to cover regional gaps.

Training and skills development fall outside of the MDC's functions, as listed in Schedule 1 of the Milk Development Council Order 1995, amended by the Milk Development Council (Amendment) Order 2000. However, we are not aware of any other organisation with the breadth or capability to take on these roles.



5.2 Funding for Adult Education

Funding for training courses for the dairy sector comes from a variety of sources. For adult education and training, agriculture has used the Vocational Training Scheme in England together with EU monies – Objective 1 funding for example. Similarly in Wales the Welsh Development Agency / Welsh Office / EU funded Farming Connect programme, and in Scotland the Hi Health and other SEERAD funded schemes have provided for targeted vocational training activities. However, the largest single source of funding available for training in the agricultural industries in England is from the Learning & Skills Council (LSC) and in Wales it is from ELWA. In Scotland, funding intended for Further Education is more difficult to capture for adult education purposes.

It is worth reviewing the LSC funding available in England, as it is provided within rigorous guidelines through the land-based colleges, and a better understanding of these gives an idea as to how it might be better exploited for dairy farming. Such a review is not considered essential for Wales, wherein a recent review of land-based education and training has clarified which colleges shall be involved and how they shall be funded (see Case Study: Gelli Aur, Coleg Sirgar, Camarthenshire, Appendix C5²⁰), and where we are confident that monies available for dairy farming will be fully exploited.

The key points relating to LSC funding are given below;

1. Funding in England is administered through the auspices of the LSC. While many of the Council's policies are set nationally, there is considerable local flexibility within the system which allows for regional needs to be prioritised.
2. The key document detailing eligibility for funding is the LSC Funding Guidance 2004. This is available to download from the LSC website (www.lsc.gov.uk). The Guidance details, with particular reference to FE providers (i.e. colleges and other approved establishments), what can and cannot be funded.
3. Funding regulations and guidance for the Apprenticeship and Advanced Apprenticeship scheme are set out separately within the document Requirements for Funding Work-based Learning for Young People 2004/05, also available to download from the LSC website. The key point relating to these schemes is that funding is available for Work Based Learning (WBL) for 'the priority age group for WBL, that is, those aged 16-18'. Learners who are aged 19-24 'may be funded at the LSC's discretion' and funding is not available in England, for learners aged 25+.
4. Whereas the duty of the LSC towards persons above compulsory school age but below the age of 19 is to secure the provision of proper facilities for training and education, for persons who have attained the age of 19 this duty extends only to the provision of reasonable facilities.
5. The LSC expects providers (i.e. Colleges) to give priority to learning aims that lead to nationally recognised qualifications. Qualifications which have been approved by the Qualifications and Curriculum Authority (QCA) for inclusion within the National Qualifications Framework are termed 'approved qualifications' and it is these which the LSC expects and encourages providers to use. All provision outside of this (i.e. that which does not lead to qualifications within the NQF) is termed 'other provision'.
5. Qualifications approved for people aged 19+ are included in Schedule 97 (referring to Section 97 of the Learning & Skills Act, 2000). A database of all approved qualifications (given that most are approved for 16-18 and 19+) can be found at www.openquals.org.uk, the QCA's searchable online database. Individual units or modules of these qualifications are eligible for LSC funding for adult learners provided that 'unit certification' is available from the awarding body.
6. The expectation is that providers will over time increase the proportion of 'approved' qualifications relative to 'other provision' i.e. providers are under continued pressure from their principal customer to reduce 'other provision' and if the industry needs training in a particular area it is therefore sensible to consider how this might be included within a current or a new qualification.
7. There is a funding 'formula' included within the Guidance which determines the amount of funds a college may draw down to support training for adult education. Within this, for 2004/05, there is an assumption that 25% of the total available funding will be deducted from the LSC's contribution and will instead be charged to the individual under training. In other words 75% funding is available for adult learners.

²⁰ Appendix not included in this document. Available from MDC on request

8. The LSC does not fund Higher Education, which is the responsibility of the Higher Education Funding Council for England. However, paragraph 336 of the Guidance states that 'The LSC may fund non-prescribed HE learning aims in LSC-funded colleges and providers. Non-prescribed learning aims are those that fall outside the schedule of prescribed learning aims of HE as defined in the Education (Prescribed Learning Aims of Higher Education) (Wales) (Amendment) Regulations 1998'.
9. These higher-level vocational learning aims are generally professional learning aims leading to accreditation by a professional body, and do not include, for example, part-time certificates in HE. Changes in the volume and type of this provision should be considered by the local LSC in the context of local needs analyses. [of relevance to Levels 4 and above].
10. For learners aged 19 or over other learning falls into three categories, each of which may be eligible *subject to LSC approval*;
 - Learning aims that lead to external qualifications / certificates of attainment not approved by the Secretary of State (i.e. not within Schedule 97)
 - Learning aims that lead to internal qualifications / certificates of attainment (e.g. college certificated)
 - Learning aims with attainment but with no certification
11. 'Within the policy of actively seeking to reduce the volumes of 'other' provision, colleges and providers will need to assure their local LSC that the needs of learners are being properly met, that there is no alternative provision within the NQF, there are no adverse implications for local targets and that other provision is delivering priorities'.
12. Certain types of provision are excluded from LSC funding. It should be noted that these include 'company specific knowledge learning aims' and 'vendor-certificated courses – unless they are approved qualifications or are embedded within and contribute directly towards the generic learning required to achieve an approved qualification'.

FE Planning and funding for 2005/06

Guidance to FE Colleges on planning and funding for 2005/06 has been released by the LSC. With respect to funding for 19+ yr olds, the guidance states that 'we will maintain the overall volume of adult provision, but there are no funds for additional growth in the FE budget'. Colleges are strongly encouraged to 'achieve a better link between allocations and priorities' and it is noted that for 2004/05 'adult provision not contributing to targets grew above planned levels by approximately £78million'.

Colleges will each be assessed by the LSC as to whether actual priority adult provision is in line with plans and to agree allocations for funding in the 2005/06 year. Paragraph 12 of this guidance states 'the overall funding constraints make it essential that allocations are realistic, and the LSC will work intensively with colleges, providers and other partners to direct resources to where they have maximum benefit for individuals and employers'.

In 2005/06 the LSC will increase the fee assumption from 25 to 27.5% of the base unit funding for adult learners and it is assumed that they will continue to increase this figure by 2.5% per annum until the fee assumption is at 35% of the base unit funding. That is, adult learners will receive 72.5% funding in the coming year falling to 65% funding in 2008/09.

5.2.1 Summary comments and recommendations – funding adult education

Achieving Learning & Skills Council funding

Learning and Skills Council (LSC) funding is not being fully exploited by the agricultural industries as a whole, including the dairy sector, to the best advantage of farmers.

We recommend that the MDC;

1. Works with selected colleges to articulate the need for dairy industry training to regional Learning and Skills Councils, in order that these colleges are aware of the needs of the dairy industry and in order that funding may be drawn down by these colleges, from the LSCs, to support education and training for 19+ year olds.
2. Lobbies in order that LSC funding accessed by the colleges is preferentially directed towards activities to support the dairy sector (and, by default, other industry sectors) as opposed to recreational learning courses.

Scottish funding

Funding for adult learners in the dairy industry is less available in Scotland, through the absence of the Vocational Training Scheme and through lesser availability to access core Further Education funding.

We recommend that the MDC;

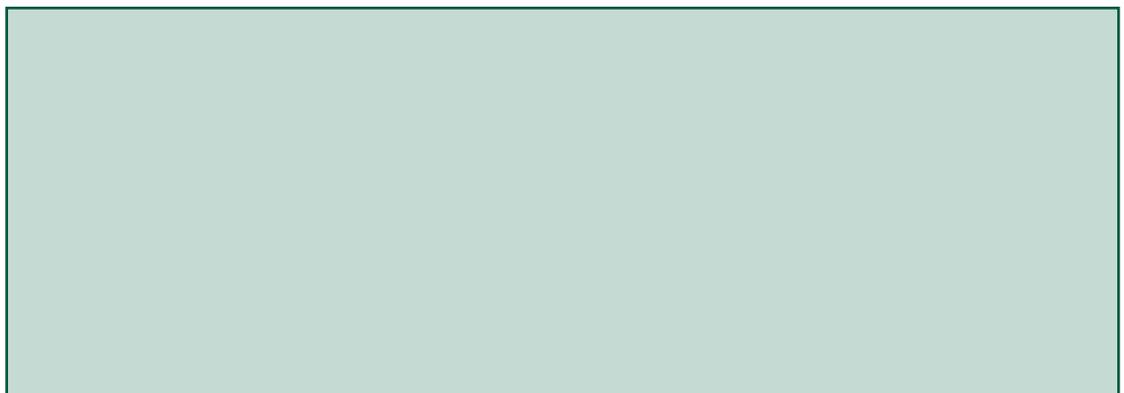
3. Works with the trio of Barony, Oatridge and Elmwood Colleges and with SEERAD to ensure that Scottish dairy farmers are not disadvantaged by cost-barriers to training and skills development activities.

Welsh funding

Funding in Wales is rather efficiently exploited for the benefit of dairy farmers, not least because of the close working relationship between the colleges (Gelli Aur in particular), the MDC and the Welsh Development Agency.

We recommend that the MDC;

4. Continues to work closely with Gelli Aur to secure WDA/Welsh Office support and ELWA funding, and uses the processes developed through Farming Connect (e.g. the use of the Dairy Development Steering Group to identify training needs) as a model for implementation on a GB-wide basis.



5.3 The Skills White Paper

In March 2005 the Government released the Skills White Paper, which outlines some fundamental changes in the way in which vocational training and education is to be controlled and funded. In the immediate future there are two developments (Sector Skills Agreements & Regional Skills Partnerships) of which the dairy industry should be aware, as they provide opportunities to influence the provision of education and training for dairy farmers.

5.3.1 Sector Skills Agreement

The Sector Skills Agreement (SSA) is, quite simply, an agreement between the sector industries, the funding bodies, training providers and other relevant parties, as to the priorities for learning and education within the sector. It is important because it will provide a clear route to influence what is funded at all levels of training. Paragraph 42 of the White Paper states 'In return for a convincing assessment of demand-side priorities and the commitments which the employers themselves are prepared to sign up for, they can expect the LSC, the Higher Education Funding Council for England (HEFCE) and other public agencies to support those priorities'. The Sector Skills Agreement will be a powerful document and it is one which the dairy industry should be expected to influence.

The SSA is being developed by Lantra, with the majority of activity taking place between May and September 2005. However, it is intended to be a working agreement rather than a rigid tie to the industry and its training and funding providers and a continued reinforcement of the changing needs of dairy farmers will be required.

5.3.2 Regional Skills Partnerships

It is intended that regional economic development should be driven by Regional Skills Partnerships (RSPs), led by the Regional Development Agencies and comprising the LSC, Jobcentre Plus, Small Business Service and Sector Skills Councils (either the Sector Skills Development Agency or individual SSCs). They will set regional priorities and they will take a role in defining how training and skills development are delivered on a regional basis. The RSPs are to report back to the Department for Education & Skills on their proposed approaches in the Autumn of 2005, and they are already developing their 'prospectuses'. Because the RDAs' concerns are primarily with economic development, maintenance of primary production may appear low down on their agenda. Ensuring that the needs of dairy farmers are met may therefore be through the twin routes of 'social inclusion' and 'rural regeneration'.

The best means to influence the RSPs is still not clear, but the dual routes of regional Learning & Skills Councils and Regional Development Agencies may be advisable in critical areas such as the South West, West Midlands and North West. In order to have any influence over the RSPs it will of course be necessary to first ensure that the dairy industries priorities are reflected within the Sector Skills Agreement.

5.3.3 Level 2 skills and qualifications – the National Employer Training Programme

There is a strong political will to support training to a first full Level 2 qualification and this is endorsed within the White Paper. Paragraph 57 states 'For adults in employment who want to train as part of their employer's training programme at work, the National Employer Training Programme will support free training to a first full Level 2 qualification, with agreed paid time to train within normal working hours'. The National Employer Training Programme (NETP) is intended to be a brokerage service linking training to business performance and signposting training providers to meet business needs. It will be rolled out nationally from 2006-07, with initial funding prioritising first qualifications at Level 2.

It should also be noted that priority will be given to funding programmes which have the greatest impact in raising employability and productivity. In the long term, as more sectors develop their SSAs, it is likely that these will play a significant role in defining the programmes which are accepted as raising employability and productivity. It is also apparent that brokers involved in the NETP will need to be fully informed of the existence, of and routes to, working with the dairy industry.

5.3.4 Level 3 skills and qualifications

In the long term an increasing volume of Learning & Skills Council funding for adult learning may be routed through the NETP, 'enabling brokers to include within integrated training packages an element of subsidised support for Level 3 training' (Para 35). Initially this will be trialed in two English regions, and on a limited budget, to provide up to 50% match funding towards work based Level 3 training. The NETP shall also serve to signpost employers to Level 3 training, whether full cost or subsidised through the LSC. Alongside the trial within the NETP, the RSPs will be asked to 'assess how best to use existing public funding to meet Level 3 priorities in colleges and training providers and in the workplace. These will take account of both regional and sectoral needs.' (Para. 62).

Data presented within the White Paper shows a correlation between Level 3 training and benefits to individuals and employers and it is therefore unlikely that training at Level 3 will become funded to any greater degree than the initial match-funding proposal. Paragraph 60 states 'The rates of return to a Level 3 qualification benefit the individual and the employer as well as the wider economy and this should be reflected in relative contributions to the cost. But we must ensure that available public and private funds are spent to best effect, and that we develop over time a stronger range of Level 3 programmes'.

5.3.5 Summary comments and recommendations – the Skills White Paper

Sector Skills Agreement

The Sector Skills Agreement will clearly be an important document in ensuring the availability of appropriate training and skills and funding in the future.

We recommend that the MDC;

1. Takes an active role in contributing to the Sector Skills Agreement for the Environmental and Land-based Industries, including the submission to Lantra of the evidence contained in this report and the ongoing liaison with Lantra to monitor the extent to which the Sector Skills Council is taking the needs of dairy farmers on board.

Regional Skills Partnerships and National Employer Training Programmes

2. Liaises with 'Improve', the name of the Sector Skills Council for the food processing industry, to ensure that the needs of those dairy farmers requiring training and skills development in dairy processing are fully incorporated into the Sector Skills for the Food Industry.

Involvement with the development of the Sector Skills Agreements will not in itself ensure access to suitable training for dairy farming; the role of the Regional Skills Partnerships and National Employer Training programmes are equally important.

We recommend that the MDC;

3. Forms solid working relationships at regional level with those bodies serving on the Regional Skills Partnerships and with those bodies delivering the forthcoming National Employer Training Programme.

Training and skills development fall outside of the MDC's functions, as listed in Schedule 1 of the Milk Development Council Order 1995, amended by the Milk Development Council (Amendment) Order 2000. However, we are not aware of any other organisation with the breadth or capability to take on these roles.

6. Discussion

Dairy farming, like any industry, must continually adapt to survive. However, dairy farming is comprised of many thousands of micro-businesses operating in a liberal market economy. Adaptation cannot be forced upon the industry in a top-down fashion. Rather, the evolution of the industry can only be encouraged and enabled. The choices about the direction and pace of change and ultimately about whether or not the industry will survive are entirely in the hands of those thousands of micro-businesses themselves.

Training and skills development are integral to the evolution of dairy farming. They allow a greater pace of change, and better adaptation to, the developing economic climate. Put bluntly, learning how dairy farming practice can change and having the courage to implement such change has a significant impact on bottom line performance. Clearly this is not a one-off event, but a continual process. Successful businesses the world over are characterised by a 'never stop learning' mentality.

It is therefore reassuring to find within this project that a great deal of training and skills development activity is being undertaken by and for the dairy farming industry. Consultants, colleges and service industries are all involved. That dairy farmers are partaking in training activities supports the findings of the survey of farmers at the 2004 Dairy Event, that they are generally positive about their future business prospects. Such a sentiment should now be built upon: barriers to the uptake of training must be knocked down, and opportunities to deliver training that will develop and improve farm business performance created.

This will require actions over a wide range of areas. It will not happen overnight, but it is, we believe, thoroughly achievable. Perhaps the most difficult task we face is this: farmers need to be persuaded that training and development in business, personnel management, and other 'non-technical' subjects are not simply important, but imperative to their survival. The topics chosen by colleges and by consultants reflect the demands of the market place. In general they are technical, dealing with cattle management rather than business management; they do not reflect the most critical needs of the industry. A cultural change within dairy farming is necessary, and it will be best led from within farming itself.

Delivery of training and skills development opportunities is currently fragmented. The consultancy sector and the educational sector work, for the most part, in isolation from each other. There are very good examples of where this has been overcome, showing that by working together the service offered to farmers is considerably improved. However the data collected in this project indicates that, save for these few exceptions, neither sector knows what the other is doing and whilst we did not identify any overlap in delivery, there are clearly gaps in provision.

We propose that it would be to the advantage of dairy farmers if a framework for training and development was created, which would describe the key areas for improvement in dairy farming and the levels of understanding required, and which would bring together the colleges, universities, consultants and service industries to deliver clear and consistent messages to the dairy farming industry. With this in place gaps in provision would be more readily identified and the need for joint working made more explicit. This joint working may take the form, for example, of colleges providing the infrastructure for funding and delivery and consultants providing farmer-facing expertise. Or, for example, it may be that colleges and consultants work together on creating, promoting and delivering foundation degree modules as a form of professional development for farmers. However, without it being made clear to dairy farmers, colleges and consultants as to where the gaps in provision are, then neither the demand nor the supply of appropriate training will come into being.

Similarly, the opportunities for using veterinary schools and supply-side industries, for example, as a means of bringing farmers into training and development could be better exploited if a framework for training and development were in place. Activities led by feed companies and buying groups, but using independent consultancy expertise, have been seen to be very successful in the red meat sector. Data from this project indicates that the same could be done within the dairy sector. Furthermore, it is of direct advantage to the supply-side industries to be involved: it provides a means of adding value to their service, and it supports the very sector upon which the supply-side depends. The framework would allow these activities to be focused on the right subjects, at the right level, for the benefit of dairy farming.

There are questions over the standard of training activities delivered, and evidence that farmers are discouraged from taking part in training as a result of previous poor experiences. We therefore suggest that a quality assurance scheme is adopted for those delivering training activities. The facilities for training to be a trainer are in place through the education system. The facilities for recording and accrediting the Continuing Professional Development activities of consultants are also in place through organisations such as the British Institute of Agricultural Consultants. Accreditation through a Quality Assurance scheme would help to remove some of the poorer elements of training, and would hopefully prevent farmers from being discouraged through unsatisfactory

experiences.

The promotion of training and development activities remains an issue which impacts on deliverers (through financial – and time-cost implications) and on dairy farmers, who may variously and justifiably complain of 'too much information' and 'not being told of training opportunities'. We must consider how to cut through the information overload and develop the means for farmers to draw down information. Therefore, we suggest that the MDC acts at two levels: on a national basis, through promoting training and development activities (offered through suitably accredited organisations or individuals) via the MDC website, and on a regional level, by informing farmers through local channels of all the opportunities that are available to them. Informing farmers, consultants and others through the MDC website solves the issue of farmers being able to draw down information as they need it. We believe that it is necessary that such information should be live, and contained in a window on the home-page of the MDC website, so that the importance and immediacy of development activities are reinforced to those browsing the site. However, we also recognise that a proportion of farmers will use the internet less than others. For these farmers the secondary route of regional targeting, assisting with mail-shots for example, is necessary.

Funding is a prerequisite for formal, qualification-driven training. Funding for informal training is necessary for a variety of reasons, not least in that it supports the infrastructure to promote and encourage participation and provides access to the expertise of scientists and consultants. Funding for training and development activities varies across England, Scotland and Wales. This is the case for formal education and qualifications and also for informal, non-certificated programmes. Differences are exacerbated by the means of funding and extent of government sponsored advisory services. Of particular note in England is the fact that a large proportion of funding is drawn from the Vocational Training Scheme through just one organisation, highlighting the potential for such schemes to be under-exploited by the dairy sector. Comparisons might easily be made to the college sector's activities in drawing down regional and EU funding; a great deal relies on the impetus and activities of a very few people. There is a very real possibility that dairy farming may suffer as a result of funding opportunities being inadequately exploited.

Therefore, we suggest that the MDC should place a high priority on ensuring that funding for formal and informal education for dairy farming is fully exploited. This will require lobbying and negotiation on the one hand, with government administrations, English-Regional and Welsh Development Agencies, Scottish Enterprise Companies and SEERAD, Lantra, and local Learning & Skills Councils to name but some of the key partners. It will also require that the MDC acts to ensure the continued availability, for example, of VTS funding in England following the renegotiation of the Rural Development Regulation. Equally, the MDC has a role in ensuring that whatever funding schemes are in place these are accessed, either centrally or through external organisations, for the benefit of dairy farming.

The qualifications offered by the colleges have changed over the years: what is now offered to new entrants is in many cases very different what was offered to the older generation of farmers. There is an apparent gap in understanding of what courses actually mean in terms of content and level. Furthermore, the extent to which the various qualifications actually cover dairy farming issues may vary by institution. Therefore we suggest that there is a need for a central point of information on agriculturally related qualifications, perhaps accessible through the MDC website, and which could be updated on an annual basis through Napaeo, the association of land-based colleges.

Qualifications within the National Qualifications Framework have been shown to provide a sound format for the development of training packages for working farmers. This provides additional advantages in England and in Wales, via access to core educational funding. However, there is currently a gap at the higher levels of qualification, with a shortage of 'off the shelf' accredited courses and qualifications. The RABDF/Plunkett Foundation courses in Director Training, alongside the IAM/Worshipful Company of Farmers courses for agricultural managers fulfil part, but not all, of the needs for higher level training and education. The development of Foundation Degrees may provide a useful format for filling the qualification gaps at these higher levels. We suggest that the land based colleges and universities should be encouraged to develop their Foundation Degrees with adult education in mind. Parallel to this, the NVQ level 4 in Agriculture may also prove a useful starting point for higher level training packages.

Encouraging a 'never stop learning' mentality amongst dairy farmers will require effort and activity across a broad span of activities. A framework for training and development will serve to drive up demand and to match this with supply. It will also help the educational institutions, consultancies and service-industries to work together to deliver clear and consistent messages to dairy farmers. Ensuring the quality of training provision, and more accurately targeting the promotion of activities, will both help to stimulate uptake. Working to bring in funding for training will lower the cost-barriers to skills development, and working to develop new higher level courses and qualifications will help to drive supply. More detailed and specific recommendations are given within the body of this report; all are intended to work within a liberal market for training and skills development.

The role of the MDC in this is paramount. There is no other organisation with the remit or capability to drive these initiatives. It is a role that will need to be taken on at the executive level, particularly in ensuring that educational institutions and government funding routes are delivering to the needs of dairy farmers. It is a role that will need to be taken on at the management level; developing and encouraging the provision of appropriate training and skills development. And it is a role that will need to be taken on at the operational level; promoting opportunities to dairy farmers and building-in the quality control of provision.

However, we are aware that whilst this role is not included in Schedule 1 of the Milk Development Council Order 1995, amended by the Milk Development Council (Amendment) Order 2000, the MDC does not have the remit to take forward this training and skills agenda. We recommend that this situation is reviewed by Defra and the MDC at the earliest opportunity.

In our opinion it is critical that the MDC takes on these roles and delivers at all three levels; executive, management and operational. Training and skills development and the adoption of a 'never stop learning' mentality must be central to the successful evolution of dairy farming.

Appendix A I

A Competence Framework for Dairy Farmers

Introduction

Following the Commission on Sustainable Farming and Food and Defra's subsequent Learning, Skills and Knowledge Review, there has been broad discussion across the whole of the agricultural industry on Continuous Professional and Personal development.

As part of the MDC's work on training and skills development opportunities for dairy farmers, the following competence framework for dairy farming was created. The thinking behind such a competence framework is that it provides a schedule of skills and abilities against which training provision can be assessed.

As a basis for the competence framework for dairy farmers, the following documents were used;

- i) A generic farmer competence framework devised by ELITE under a Defra CPD contract.
- ii) A SWOT analysis prepared by Tim Brigstocke for the Defra Dairy Supply Chain Forum.
- iii) The RABDF report of a survey of dairy farmers at the 2004 Dairy Event and a separate RABDF study into the family labour inputs in dairy farming.

Whilst the generic framework devised by ELITE was based upon 'ideal practice', it was felt necessary to devise a simplified framework for the dairy sector which took into account the priorities for the industry as outlined in the SWOT analysis and the current state of knowledge and understanding within the industry, as indicated in the RABDF reports.

The group considered future changes in the structure of the dairy industry and agreed that the following points were of particular note;

- a. The continuing predominance of family farms, employing no out-of-family labour.
- b. The relatively high weekly working hours of dairy farmers.
- c. That the majority of dairy farmers are sole-traders, with very few operating as limited companies.
- d. That the trend in dairy farming will be towards fewer mid-sized farms and increased numbers of larger sized farms, with a continuing reduction in small dairy farms other than those serving niche and/or regional markets or needs.

It was agreed that the competence framework should be based on a target group of farmers that represent the top two quartiles in terms of business and technical performance, but not necessarily on the very best (top 5%) of farmers.

A definition of training was developed which, critically, made distinctions between training, advice and information. This is given in Box 1, below. Further, it was considered necessary to consider training as 'developing understanding such that farmer behaviour was changed' (i.e. to avoid tick-box responses).

Box 1. Definition of training

Training is any identifiable, directed activity which aims to develop the skills and understanding of a person to meet their business's and their own needs.

Training is distinct from 'advice', which is business or enterprise specific and which need not develop skills and understanding.

Training is distinct from 'information', the provision and uptake of which does not necessarily of itself develop skills and understanding.

The outcomes of training may be measured by attendance, may be certificated, or may more preferably be seen through assessment. Many of the outcomes of training will be less tangible for the individual but will relate to factors including confidence and ability.

Areas of critical competence

The following areas were considered by the group to be those in which farmer competence was critical to the future of dairy farm businesses at this point in time. These take into account the current state of knowledge and understanding in the industry, as well as the political, environmental, social, technical and economic factors affecting dairy farm businesses.

1. Financial management

Financial management includes understanding of the costs of production, benchmarking, and taking appropriate action. This was identified by the SWOT analysis as a weakness in UK production, and encouraging rational economic decision making was identified as a specific challenge.

2. Statutory compliance

Much of the information coming through to dairy farmers is not taken up and there is a requirement for signposting of future issues which will affect farm businesses as well as continual updating and refreshing of statutory requirements.

3. Environmental management

The volume of initiatives which will impact on farmers is great, and the opportunities for farmers to gain from these initiatives whilst complying with statutory instruments must be exploited. Areas for immediate review include those which are being addressed by Defra's Farm Advice Unit (e.g. diffuse pollution) but it is likely that other areas will arise on an ongoing basis.

4. Business support

Producing goods to specification (following contracts and complying with the Sale of Goods Act) was identified as being of immediate relevance to dairy producers.

5. Farm health planning

The incidence of animal disease was identified by the SWOT analysis as a weakness in UK dairy production across the whole of the supply chain, and animal disease outbreaks and persistent animal health problems were identified as threats to the industry. The financial impacts of farm health are great and it is critical that the features and benefits of farm health planning are taken to farm level.

6. People management

All areas identified in the generic competence framework for farmers were agreed to as important areas for developing robust farm businesses. These relate to recruiting, employing, motivating, retaining, delegating, instructing and communicating with staff. Whilst the majority of dairy farmers employ only family labour, it is nevertheless essential that they adopt good practice in all areas of people management.

7. Personal development

Four areas of specific concern were highlighted, relating to communication (and negotiation) skills, organising and chairing meetings, facilitating discussions and making public speeches/presentations. These are of particular importance if farmers are to work more closely together for mutual business benefit.

8. Livestock technical skills

The opportunities to develop the technical efficiency of dairy farming are ongoing and the following areas were agreed as being of particular importance;

- Genetics, and tailoring herd genetics to farm structure
- Practical health and welfare management
- Basic nutrition including grassland and silage management
- Housing, including technical, legislative and financial considerations

Whereas previous competence frameworks have separately addressed the need for each critical competence according to the person's role on the farm, it was felt that for the current dairy industry structure, with a high proportion of sole-traders relying on ad-hoc family support, such a breakdown would be counter-productive.

The following areas were considered as important but for only a very small proportion of dairy farmers at this point in time;

- **Business planning** – not critical for the majority of farmers at yet, as basic financial management is a necessary prerequisite.
- **Post farm-gate training** – on factors involved in running co-operative ventures, for example: regarded as important but a long way down the line.
- **Understanding the market** – not essential to most farmers at this point as it will have little impact on most on-farm businesses. The immediate importance to dairy farmers of understanding the market is in situations where farmers are diversifying/adding value to their produce e.g. through cheese production. However,

most farm businesses will be made more robust by training and skills development in other areas.

Appendix A2

Questionnaire – In depth review of training development activities

Name of contact:

Organisation / Private Consultant:

We need to know the opportunities for training and skills development afforded to dairy farming and to ascertain how these meet the needs of the modern dairy industry. *This information will enable us to identify where the gaps in provision lie and how support might best be given to effective farm and farmer development activities.*

We are particularly interested to know how the areas of competence listed in the attached 'Competence Framework for Dairy Farmers' are being developed in dairy farming, although we'd like to know all areas in which training and development take place and would of course appreciate the views of industry experts on the Competence Framework itself.

Could you tell us, for yourself or for your organisation?

Yes Comments [e.g. is your involvement in leading/contributing to activities, facilitating, sourcing funding or other activities].

No

Farmer-demand Comments
Own-knowledge
Industry/govt. leads
Other

Financial management Comments [e.g. are there any areas which you think should be added to the list as critical competences?]
Statutory training
Env. management
Business support
Farm health planning
People management
Personal development
Livestock technical skills

Group discussions Comments

On-farm talks / walks

Seminars

Other (please tell us)

Nutritionists Comments

Vets

Exemplar farmers

Bankers

Other (please tell us)

pd+ Comments

grass+

MilkBench

Other (please tell us)

Free

Comments [note: information will be kept strictly confidential & only consolidated data will be reported].

Nominal charge £

Full cost recovery + £

Group discounts %

If you'd like to include further information which you think would add to this review, please do so. We shall also be contacting individuals & organisations by telephone. Please let us know if you would rather not be contacted, or if you feel there are other organisations with whom we should also be consulting.

We are grateful for your input to this study. The final report will be published and due to the important nature of this work, it will receive a high profile. It is our intention to acknowledge all those individuals & organisations which have contributed to this study unless they ask us not to do so.