

IDENTIFYING THE COSTS OF UNPAID FAMILY LABOUR ON CATTLE AND SHEEP FARMS

Prepared for



Prepared by:

Sandra Callwood

Promar International

Rookery Farm Lane,

Tilstone Fearnall,

Tarporley, Cheshire CW6 9HY

Tel 01829 731 744

Fax 01829 730 903

Web www.promar-international.com

TABLE OF CONTENTS

| | |
|---|----|
| 1. BACKGROUND | 3 |
| 1.1 Key issue | 3 |
| 1.2 Approach..... | 4 |
| 2. RESULTS..... | 4 |
| 2.1 General business information..... | 5 |
| 2.2 Working hours and time use of family members..... | 6 |
| 2.3 Skills and levels of competence..... | 9 |
| 2.4 Qualifications..... | 12 |
| 3. KEY FINDINGS..... | 13 |
| 4. COMPARATIVE JOBS AND OCCUPATIONS..... | 14 |
| 4.1 Job classification..... | 14 |
| 4.2 Identification of comparable jobs and remuneration..... | 15 |
| 4.3 The value of unpaid family labour..... | 20 |
| 4.4 Additional labour costs..... | 22 |
| 4.5 Unquantifiable benefits and risks | 22 |
| 5. SUMMARY..... | 23 |
| APPENDIX | |
| Description of European Size Units (ESU)..... | 24 |

List of Figures

| | |
|---|----|
| Figure 1: Topographical location of respondents | 5 |
| Figure 2: Total amount of farm labour, including family labour..... | 6 |
| Figure 3: Percentage of time spent on different enterprises..... | 9 |
| Figure 4: Range of manual and semi-skilled work undertaken by beef and sheep farmers | 10 |
| Figure 5: Range of farm management skills used by beef and sheep farmers. | 11 |
| Figure 6: Range of business management skills used by beef and sheep farmers..... | 12 |
| Figure 7: Average involvement of family members..... | 21 |

List of Tables

| | |
|---|----|
| Table 1: Number of responses..... | 5 |
| Table 2: Average time use byr family members on beef and sheep enterprises | 7 |
| Table 3: Percentage of farmers and family members with qualifications | 12 |
| Table 4: Analysis of comparable jobs..... | 15 |
| Table 5: Comparable manual and semi-skilled jobs and salary levels..... | 17 |
| Table 6: Comparable farm management jobs and salary levels | 18 |
| Table 7: Comparable business management and salary levels | 19 |
| Table 8: Summary of full time salary equivalent | 19 |
| Table 9: The value of family labour, by family member | 20 |
| Table 10: Average value of beef and sheep enterprise family labour | 22 |
| Table 11: Additional labour on-costs | 22 |
| Table 12: Unquantifiable benefits and risks | 23 |

1. BACKGROUND

Cattle and sheep production costs are collected and published annually in Great Britain by the English Beef and Lamb Executive (EBLEX) in England, Hybu Cig Cymru/Meat Promotion Wales (HCC) in Wales and Quality Meat Scotland (QMS) in Scotland. In Northern Ireland, similar data are published by the Livestock and Meat Commission (LMC).

In early 2006, these bodies and the leading farmers' organisations agreed on the need to include wider, hitherto unrecorded, components that contribute to the overall cost of producing beef and lamb, notably the cost of unpaid family labour.

It was therefore agreed to carry out a reliable survey to identify the cost of unpaid family labour on a standardised basis.

1.1 Key Issue

The key aim was to establish on a consistent basis a better understanding of the true costs of producing a kilogram of beef or lamb. In the past, enterprise financial data, which were published by the various organisations, related to information taken from the farm's accounts, while the physical performance was obtained from farm records. This meant that only employed labour was included in the enterprise costs that were subsequently published. These costs did not include a value for the farmer's own labour or that of his family.

To address this data gap, additional information was collected from those farms contributing to the overall enterprise cost exercise.

This report describes the approach taken to quantify the value of unpaid labour on cattle and sheep farms across Great Britain, and identifies a cost per hour figure.

It follows the publication by the Royal Association of British Dairy Farmers (RABDF) of a report on the cost of farmers' own labour in the dairy sector, 'Identifying the True Cost of Farmer's Own Labour', in January 2005.

1.2 Approach

It is generally recognised that farmers and their families have a wide range of diverse business and technical skills. These skills will inevitably vary depending on the level of responsibility and experience, and are possibly also influenced by the scale and complexity of the farming business in which they are involved.

This study compares the skills that cattle and sheep farmers possess with the skills in other comparable industries. The salary levels in these other industries have been used as a means of establishing the market value of unpaid family labour on cattle and sheep farms. The study has been designed so that the value of the unpaid family labour can be updated over time by reviewing changes to the basket of salaries used to establish the hourly rate in the base year.

The following approach was used to establish the cost of unpaid family labour on cattle and sheep farms across Great Britain.

- A questionnaire was developed asking farmers a number of questions in order to identify the size and scope of their businesses, the involvement of unpaid family members, and what skills they possess. 318 completed questionnaires were analysed in the survey.
- A Human Resource specialist was then asked to consider the farm family's transferable skills and other jobs against which they could be benchmarked.
- The salary levels of the benchmarked jobs were used against a GB database to establish appropriate salary levels. The benchmark information can be updated over time to take account of salary inflation.

2. RESULTS

The survey, which was jointly funded, by EBLEX, QMS and HCC covered Great Britain. The survey was conducted largely as a postal survey with questionnaires completed and returned by farmers themselves. In total, 318 questionnaires were completed fully and returned during July and August 2006. The number of responses from each region was as follows.

Table 1: Number of responses

| Region | Responses |
|--------------|------------|
| Wales | 64 |
| Scotland | 96 |
| England | 158 |
| Total | 318 |

The results have been broken down into the following sections:

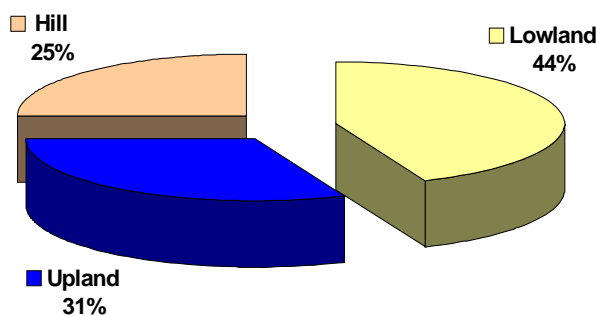
- General business information
- Working hours and time use of family members
- Skills and levels of competence
- Qualifications

2.1 General Business Information

Two thirds of the businesses surveyed were partnerships, with further 25% sole traders. Therefore, at nearly 92%, the profit and loss accounts of a large proportion of the businesses would exclude the farmer’s own remuneration.

There was a representative response from the topographical locations of hill, upland and lowland, with over 43% of the respondents from lowland areas and the remaining 56% from hill and upland regions.

Figure 1: Topographical location of respondents

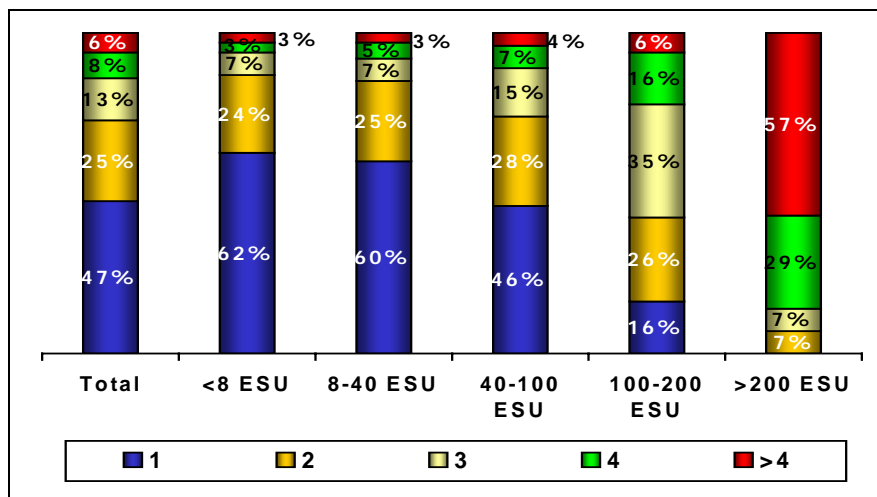


Of the total number of responses, 228 (72%) businesses have suckler herds with an average herd size of 80 cows. Of these businesses, 40% have herd sizes of less than 50 cows, whilst 26% have herds greater than 100 cows.

In terms of sheep, 238 (75%) businesses have a breeding flock with an average number of breeding ewes at 639. Just over half (53%), of these businesses have a flock size of less than 500 ewes and 19% with more than 1,000 ewes in the flock.

The average amount of labour on the farms in the survey (including family labour) was two. This increased to over seven people for the largest businesses. Nearly half of the businesses had just one person working on the farm, and a further 25% had two people.

Figure 2: Total amount of farm labour, including family labour



Note: ESU = European Size Units – a method of categorising business sizes. See Appendix for further details. Totals may not add due to rounding

Of the total number of responses, 55% involved the spouse in the business and 31% involved sons or daughters. A significant proportion, 24%, had some other relative of the farmer working on the farm.

2.2 Working Hours and Time Use of Family Members

Farmers and other family members were asked how they allocated their working day with regard to beef and sheep enterprises.

They were also asked how their time was divided between manual (semi-skilled) activities, farm management and business management work. These areas were defined in the questionnaire.

Table 2: Average time use by family members on beef and sheep enterprises

| | Farmer | Spouse | Son or daughter | Parent | Other |
|---|----------------|----------------|-----------------|----------------|----------------|
| | <i>Average</i> | <i>Average</i> | <i>Average</i> | <i>Average</i> | <i>Average</i> |
| Average working day (hours) | 9.6 | 5.3 | 6.5 | 10 | 4.9 |
| Working week (days per week) | 6.3 | 4.6 | 4.7 | 4.5 | 3.4 |
| Holidays (incl. bank holidays) | 7.9 | 7.5 | 8.4 | 5.0 | 0.6 |
| Proportion of time on beef and sheep enterprise (%) | 72 | 60 | 65 | 63 | 72 |
| Time on beef and sheep enterprise (hours per day) | 6.9 | 3.2 | 4.2 | 6.3 | 3.5 |
| Average week on beef and sheep enterprise (hours) | 44 | 15 | 20 | 28 | 12 |
| Proportion of time spent on: | | | | | |
| Semi-skilled work (%) | 60 | 44 | 80 | 70 | 70 |
| Farm management (%) | 19 | 12 | 11 | 11 | 11 |
| Accounts management (%) | 13 | 29 | 6 | 11 | 11 |
| Business management (%) | 8 | 16 | 3 | 8 | 8 |

The beef and sheep enterprise includes beef and sheep youngstock

Other - relates to other family members or relatives e.g. brothers, sons or daughters-in-law, etc.

On average, the farmer worked 44 hours per week on the beef and sheep enterprises, of which 60% of the time was involved in manual or semi-skilled work. The remainder was spent on business and account management tasks.

The spouse allocated 56% of their time on management tasks, but spent less time per week (15 hours) on the business. However, they still allocated 44% of their time to manual work.

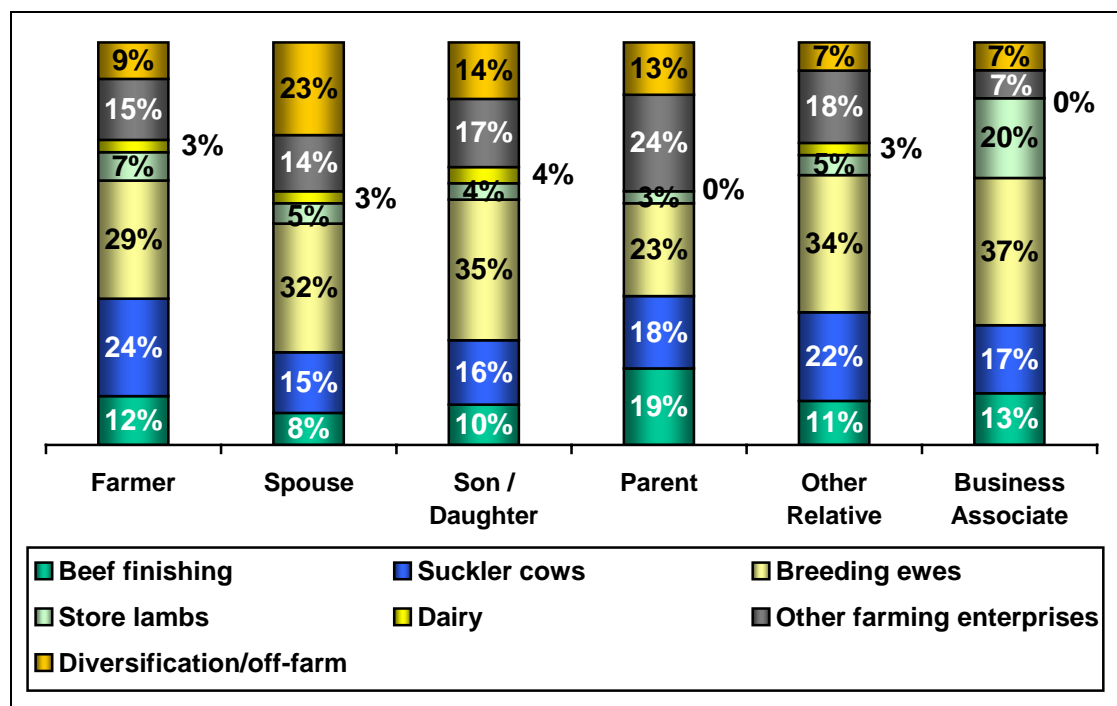
Sons and daughters reported spending about half their time on beef and sheep enterprises, compared to the main farmer at 20 hours per week who

tended to be more involved in off-farm activities. The majority of their time was spent on manual and semi-skilled tasks.

Parents of the farmer worked 28 hours per week on average and spent 70% of their time on manual work on the beef and sheep units. They also spent a lower proportion of their time than the farmer on these livestock enterprises.

In terms of the proportion of time spent on different enterprises, across the family members, around a quarter to a third of the time was worked on beef enterprises. Another third of the time was spent on sheep enterprises with the remaining time worked on dairy, diversification or other farming enterprises. The farmer and parent spent the greatest proportion on beef enterprises (36%) and sons/daughters were more involved in the sheep enterprises than other family members, although the proportion is fairly consistent across all family members. On non-beef and sheep enterprises, spouses spent the most amount of time on diversification/off-farm enterprises (23%) but parents spent the greatest proportion of their time on other farming enterprises (24%).

Figure 3: Percentage of time spent on different enterprises



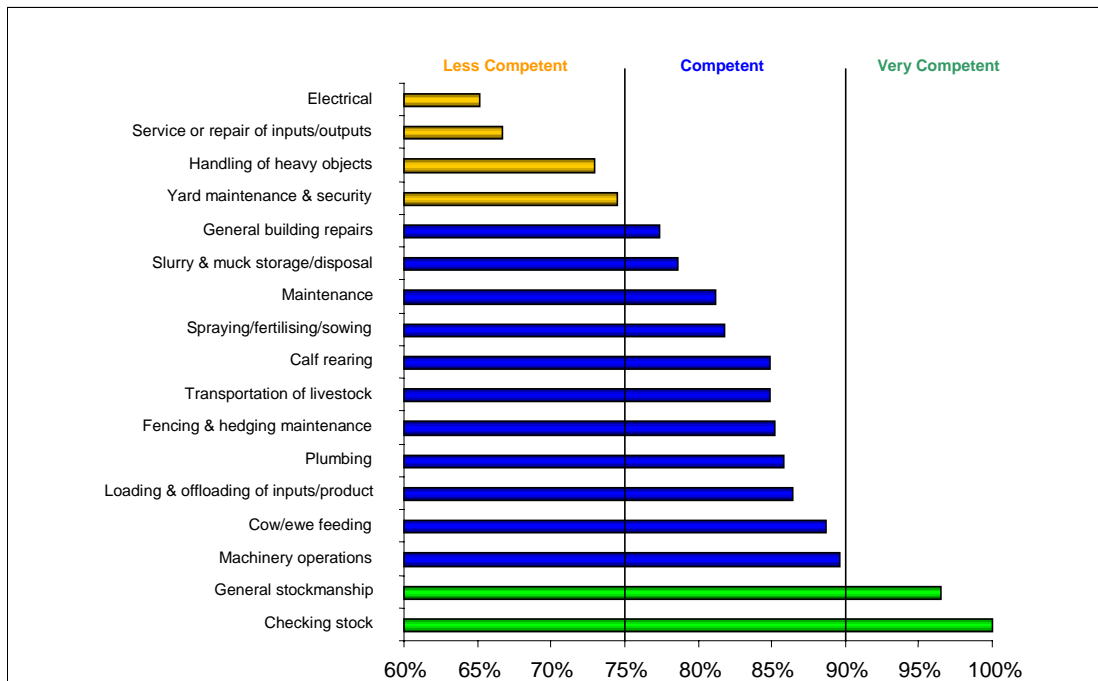
2.3 Skills and Levels of Competence

To allow a comparison with other jobs in other industries, it was necessary to get an idea of the level of current competence of producers. Against various farm tasks, farmers were asked to indicate whether they felt competent enough to charge for their time on a wide range of skills.

Where a farmer was happy to charge for their time, this indicated a high level of competence whereas if they were not, then it would suggest lower levels of ability.

Of the range of manual and semi-skills listed, most of the farmers felt competent with the tasks. Out of 16 skills, on average, there were only four in which farmers felt less competent, including the specialised skills of electrical and machinery service/repair work.

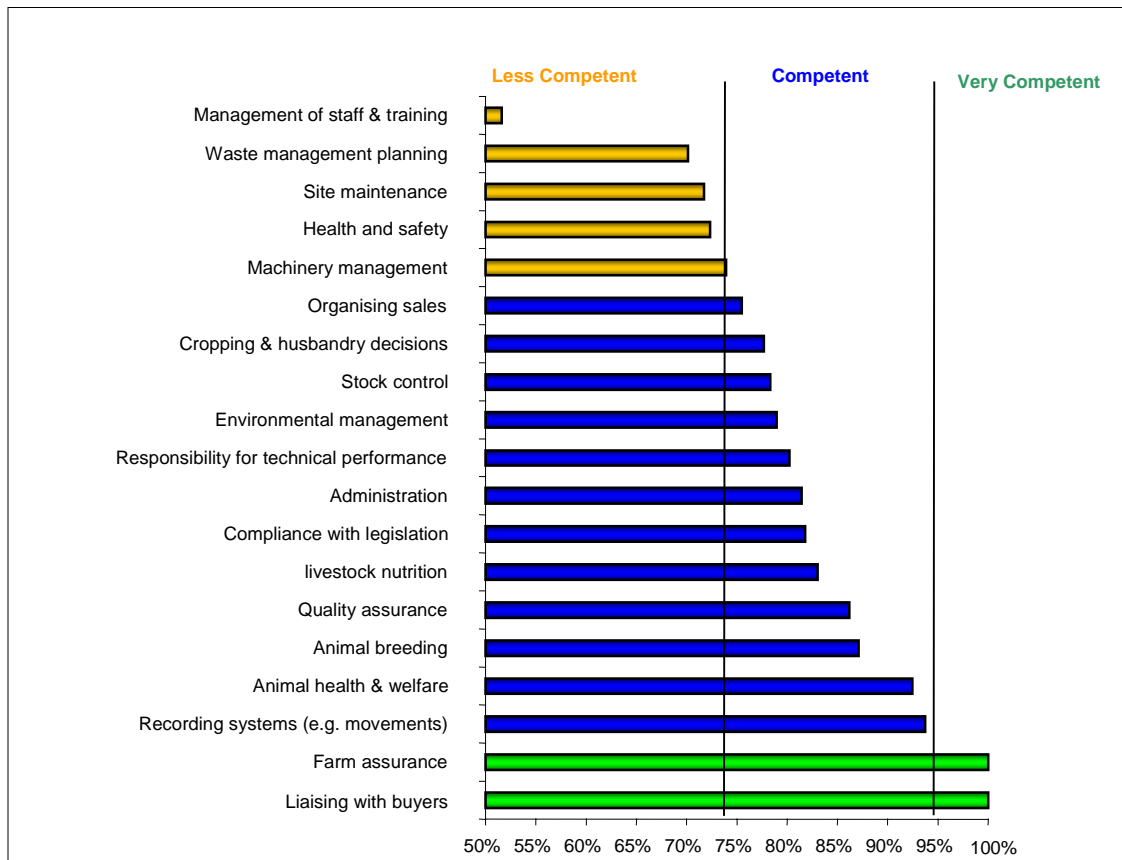
Figure 4: Range of manual and semi-skilled work undertaken by beef and sheep farmers



E.g. 100% of the farmers surveyed felt “very competent” in checking stock

Out of the range of 19 farm management skills, on average, farmers felt competent or very competent in 15 of the skills. These areas tend to be tasks that are used on a regular basis rather than, for example, the training of staff or machinery management.

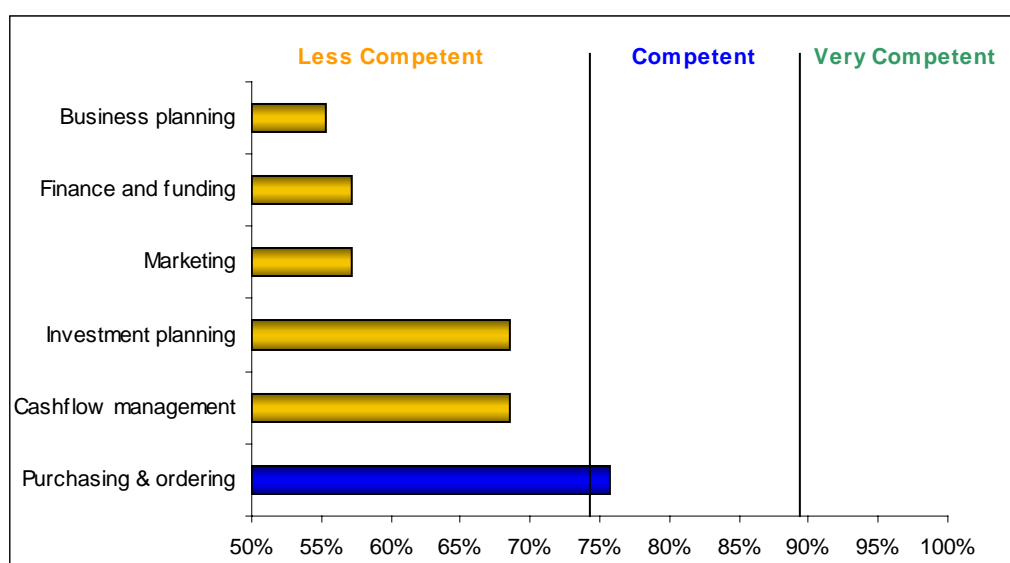
Figure 5: Range of farm management skills used by beef and sheep farmers



E.g. 100% of the farmers surveyed felt "very competent" in liaising with buyers

Generally farmers felt they were less competent in some areas of business management. These are areas where outside expertise is more widely bought in.

Figure 6: Range of business management skills used by beef and sheep farmers



2.4 Qualifications

The questionnaire asked what qualifications the farmer or members of the family had obtained.

Table 3: Percentage of farmers and family members with qualifications

| | Further Education | Higher Education | Certificates of Competence | Computer Literacy |
|--------------|-------------------|------------------|----------------------------|-------------------|
| Farmer | 36% | 30% | 55% | 44% |
| Spouse | 14% | 30% | 4% | 56% |
| Son/Daughter | 46% | 23% | 53% | 38% |

Notes:

Further Education – NVQ 1 & 2, OND, National Diploma

Higher Education – Higher National Diploma, Degree

Certificates of Competence – Forklift, HGV, spraying etc.

Computer Literacy – Basic, intermediate & advanced

A significant number of the farmers and their sons/daughters in the survey had certificates of competence (>50%), reflecting their high involvement in manual/semi-skilled work. Spouses had the highest level of computer literacy (56%), explaining their greater time spent on accounts and paperwork.

3. KEY FINDINGS

- The survey responses provided a representative sample of beef and sheep enterprises in Great Britain.
- Including the family labour, the average number of people working on beef and sheep enterprises was two. This ranged from 1.4 on the smaller units to over seven in the largest businesses. Respondents from smaller farms tend to rely more on family labour compared to the larger farms. However, even the largest category of farm in this survey on average used three family members in the business.
- A key finding of the survey is the involvement of spouses in the farm enterprises. 55% of the businesses had a spouse involved in the farm. This reinforces the general perception that spouses play an active role in most farm businesses.
- On average, farmers worked a 44-hour week on the beef and sheep enterprises, of which 60% of the time was spent on manual/semi-skilled work. The spouse worked fewer hours on such tasks and was more involved in office-type work.
- The farmer and spouse took 7.5 to 7.9 days holiday a year (including bank holidays). This is considerably less than the UK average and also less than that found in the dairy labour survey (10.4 and 10.5 days respectively).
- The level of farmers' ability in various skills shown in this survey is subjective. But it does highlight that general business management skills are the main weakness for most of the respondents, as well as other skills, which are less commonly used, such as management of staff and training.
- The qualifications recorded from this survey show a relatively high level of ability and are very similar to the findings from the dairy industry. Computer literacy levels are particularly encouraging.

4. COMPARATIVE JOBS AND OCCUPATIONS

4.1 Job Classification

When identifying comparative jobs to those undertaken by beef and sheep farmers, these have to be set at the correct level. For the purpose of this report we have classed them into:

- unskilled
- semi-skilled
- skilled
- supervisor/middle manager
- managerial position

Table 4 shows some examples for each of the categories and the required training. Comparisons can be made with the skill set of a beef and sheep farmer. For example, unskilled work is comparable to a basic general farm labourer; a stock person would be skilled; and, a farm manager would range from middle manager to senior manager depending on the scale of the business.

Table 4: Analysis of comparable jobs

| Category ¹ | Job Examples | Training and Study for Young People | Training and Study for Adults |
|---------------------------|---|--|---|
| UNSKILLED | <ul style="list-style-type: none"> • Labourer • Garden Centre Assistant | Usually less than 1 year | On the job up to 3 months |
| SEMI-SKILLED | <ul style="list-style-type: none"> • Food Service Assistant • Horse Groom • Carpenter / Joiner • Laboratory Assistant | Training 1 - 2 years sometimes on short course or part time course as required | Mainly on the job lasting several months, possibly short course run by employer or college, relevant work experience an advantage |
| SKILLED | <ul style="list-style-type: none"> • Food Technician • Computer Support Technician | 1 - 3 years training often including part-time short course at college | Short full time course plus "on the job" training – relevant work experience an advantage |
| SUPERVISOR/MIDDLE MANAGER | <ul style="list-style-type: none"> • Town Planner | 1 – 4 years training and study full or part-time in higher education | 2 – 4 years training and study - relevant work experience an advantage |
| MANAGERIAL POSITION | <ul style="list-style-type: none"> • Civil Engineer • Dentist | 3 – 5 years degree or equivalent | Degree necessary, sometimes plus post graduate qualification |

4.2 Identification of Comparable Jobs and Remuneration

Using the skills analysis in the survey, a range of jobs has been identified which are comparable to those of beef and sheep farmers (using the National (GB) Occupations Directory). These jobs have then been categorised into three

¹ Vocational Skills Categories from Occupation Annual Publication

different levels based on their entry-level qualifications. National Salary surveys have been used to set the pay rates for those jobs. The Incomes Data Survey has mainly been utilised (rather than using information from a variety of different sources) to allow easy updating of the figures in this report. However, it has been supplemented by other survey information – and care has been taken to ensure the most up-to-date information is used.

Since the main aim of this exercise was to identify a national pay level for a beef and sheep farmer, regional differences in pay rates have not been taken into account, as this would increase the scope and complexity of this work.

The range of jobs has been selected from the following job families:

- Administration, Business and Office work
- Construction
- Engineering
- Environment, Animals and Plants
- Transports, Logistics and Warehousing

These have then been further divided into the following categories to reflect the three farmer skill levels:

- Manual / Semi-skilled
- Farm Management
- Business Management

Table 5 describes the job families, jobs and salary levels that have been used for the manual and semi-skilled jobs that farmers and their families undertake.

Table 5: Comparable manual and semi-skilled jobs and salary levels

| Job Family | Job | National (GB) Range Survey Information £ per annum | National (GB) Average £ per annum |
|---|---|---|---|
| Administration, Business and Office Work | Clerical Assistant | 12,355 - 16,757 | 13,799 |
| | Typist/Word Processor | 11,040 - 16,433 | 13,672 |
| | Telephonist Receptionist | 11,394 - 16,488 | 13,573 |
| | Accounting Technician | 12,990 - 17,750 | 16,005 |
| Construction | Skilled Construction and building trades | 13,485 - 32,618 | 22,639 |
| | Carpenter/Joiner | 18,847 | 18,847 |
| | Bricklayer | 19,227 | 19,227 |
| | Welders (cars) | 11,271 | 11,271 |
| | Fitter Maintenance | 19,998 | 19,998 |
| Environment, Animals and Plants | Skilled agricultural trades | 12,025 - 20,427 | 17,192 |
| | Forestry Worker | 13,680 - 17,391 | 15,536 |
| | Environment Agency | 12,218 - 14,357 | 13,288 |
| | Gardener | 13,334 | 13,334 |
| | Agricultural trades | 9,996 | 9,996 |
| | Forest Ranger | 18,795 - 24,792 | 21,794 |
| | Veterinary Nurse | 11,716 - 15,446 | 13,581 |
| Transport and Logistics | Transport and mobile machine operators | 13,029 - 29,316 | 20,880 |
| | Lift Truck Driver | 15,353 | 15,353 |
| | Van Driver | 14,743 | 14,743 |
| | Large Goods Vehicle Drivers | 17,837 | 17,837 |
| | Warehouse Worker | 14,708 | 14,708 |
| AVERAGE | | | 16,060 |

[Annual Survey of Hours and Earnings 2005/2006](#)

IDS Survey 2006

[Croner Rewards 2006](#)

Table 6 describes the job families, jobs and salary levels that have been used for the farm management jobs that farmers and their families undertake.

Table 6: Comparable farm management jobs and salary levels

| Job Family | Job | National (GB) Range Survey Information £ per annum | National (GB) Average £ per annum |
|---|--|---|--------------------------------------|
| Administration, Business and Office Work | Management / Business Consultant | 40,000 | 40,000 |
| | PA Executive Secretary | 19,759 - 27,346 | 22,824 |
| | Administrative and Secretarial Occupations | 12,200 - 27,610 | 19,120 |
| | Senior Administrator | 25,023 - 38,112 | 31,366 |
| | Property, Housing and Land Manager | 22,518 | 22,518 |
| Construction | Department Head - Projects | 30,000 - 80,301 | 45,150 |
| Environment, Animals, and Plants | Conservation Advisor | 15,239 - 25,007 | 20,123 |
| | Agricultural Consultant | 23,600 - 28,200 | 26,800 |
| Transport and Warehousing | Warehouse Manager | 18,991 - 34,092 | 25,985 |
| | Distributions Manager | 19,125 | 19,125 |
| AVERAGE | | | 27,301 |

BLT Management Consultancy Survey Q3 2006

Annual Survey of hours and Earnings 2005/2006

Industry Confidential Information

IDS Survey 2006

Croner Rewards 2006

Table 7 describes the job families, jobs and salary levels that have been used for the business management jobs that farmers and their families undertake.

Table 7: Comparable business management and salary levels

| Job Family | Job | National (GB) Range Survey Information £ per annum | National (GB) Average £ per annum |
|--|--|---|--------------------------------------|
| Administration, Business and Office Work | Managing/Principal Consultant Small Business | 40,000 - 82,000 | 61,000 |
| | General Manager | 42,646 - 74,707 | 58,509 |
| | Admin Manager | 29,711 - 49,121 | 37,169 |
| Construction | Engineering Technical Manager | 31,476 - 47,038 | 38,621 |
| Environment, Animals and Plants | Forest Manager District | 44,694 - 58,531 | 51,613 |
| | Conservation Team Leader | 26,800 | 26,800 |
| | Agricultural Advisor Team Leader | 29,000 - 34,000 | 31,500 |
| Transport and Logistics | Department Head | 24,857 - 40,189 | 32,058 |
| Average | | | 42,159 |

BLT Management Consultancy Survey Q3 2006

Industry Confidential Information

Croner Rewards 2006

Table 8 summarises the full time salary equivalent for the three job categories identified above.

Table 8: Summary of full time salary equivalent

| Job Type | Full Time Salary Equivalent £ per annum |
|-----------------------|--|
| Manual / Semi-Skilled | 16,060 |
| Farm Management | 27,301 |
| Business Management | 42,159 |

4.3 The Value of Unpaid Family Labour

In order to calculate a value for the family labour, the time spent by the different family members carrying out the three different job areas (Manual/semi-skilled, Farm Management and Business Management) have been used.

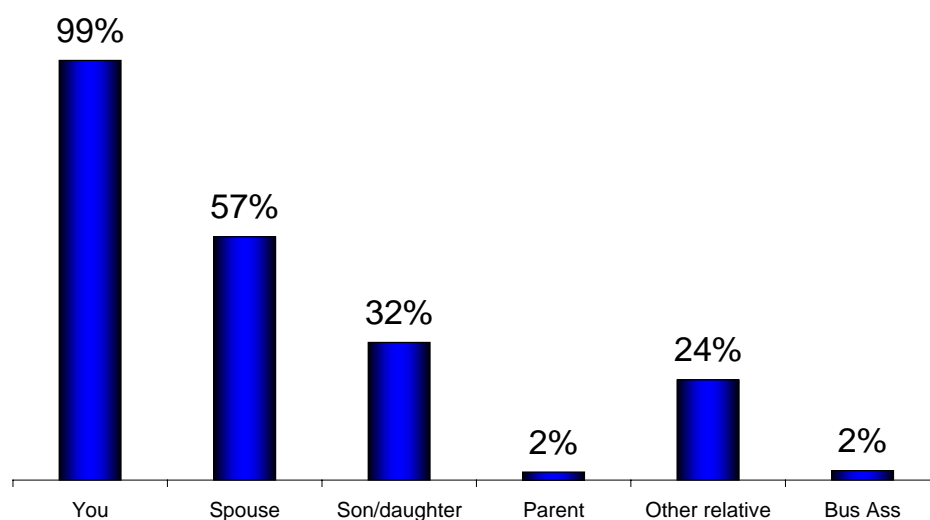
Table 9: The value of family labour, by family member

| Salary categories | Full time Salary Equivalent | Farmer | Spouse | Son or Daughter | Parent | Other | Business Associate |
|---|-----------------------------|---------------|---------------|-----------------|---------------|---------------|--------------------|
| Manual and Semi-skilled | 16,060 | 9,636 60% | 7,066 44% | 12,848 80% | 11,242 70% | 11,242 70% | 12,045 75% |
| Farm Management Skills | 27,301 | 8,736 32% | 11,193 41% | 4,641 17% | 6,006 22% | 6,006 22% | 4,368 16% |
| Business Management Skills | 42,159 | 3,373 8% | 6,745 16% | 1,265 3% | 3,373 8% | 3,373 8% | 2,457 9% |
| Total salary for beef and sheep enterprise (£) | | 21,745 | 25,005 | 18,754 | 20,621 | 20,621 | 18,870 |
| Percentage of full time on beef and sheep enterprise | | 100% | 34% | 46% | 65% | 28% | 31% |
| Cost to the beef and sheep enterprise (£) | | 21,745 | 8,400 | 8,552 | 13,425 | 5,680 | 5,795 |

* Percentages rounded to the nearest whole number

Figure 7 shows the average involvement of the family members, e.g. on 57% of all surveyed farms, the spouse worked on the farm.

Figure 7: Average involvement of family members



Using the information from the above chart and the value of farm labour as shown in Table 9 the average value of farm labour has been calculated.

The average hourly rate is £11.18.

Table 10: Average value of beef and sheep enterprise family labour

| | Contribution | Value | Average Value |
|--------------------------------|--------------|--------|---------------|
| Farmer | 100% | 21,745 | 21,745 |
| Spouse | 57% | 8,400 | 4,788 |
| Son or daughter | 32% | 8,552 | 2,737 |
| Parent | 2% | 13,425 | 269 |
| Other | 24% | 5,680 | 1,363 |
| Business associate | 2% | 5,795 | 116 |
| Average cost of family labour* | | | 31,017 |
| Average hourly rate - £ | | | 11.18 |

Note: *Based on 40 hour week excluding overtime

4.4 Additional Labour Costs

In the previous section, we calculated a comparative wage. However, to work out the true labour costs to the beef and sheep enterprise additional on-costs such as the employer contribution for National Insurance and pensions should be included.

Table 11: Additional labour on-costs

| | |
|--------------------|------------------------------|
| National Insurance | 12.8% over £5,040 per annum |
| Pensions | Typically 5% of basic salary |

4.5 Unquantifiable Benefits and Risks

There are a number of factors where farmers have additional benefits, but also risks, compared to other salaried jobs. These have not been taken into account but should not be forgotten.

Table 12: Unquantifiable benefits and risks

| Farmer | Salaried worker not farming |
|--|---|
| Vehicle paid in part by the farming business | May have a company car |
| Pension scheme paid out of personal funds | May have contributory pension scheme |
| Farm house provided | Salary has to finance own house purchase |
| Some costs allowable against the business | All household costs out of taxable earnings |
| No travelling to work required | May have to travel for up to 1 hour |
| Own boss | Requirement to report to management |
| Self employed – some job security | Could be made redundant |
| May have to work weekends | Most weekends off |
| No paid holiday | Paid holiday available |
| Flexible hours | May have to work fixed hours |
| Income dependent on farming business | Fixed regular income |

5. SUMMARY

- This detailed survey is based on 318 beef and sheep farmers and quantifies the costs of family labour for the first time.
- The skill set that is needed to run a technically efficient beef and sheep operation has been compared to a set of jobs in other, but comparable, industries and their corresponding salary levels are identified.
- An average hourly wage of £11.18 has been calculated for unpaid family labour on beef and sheep farms. To establish the total costs of family labour, additional on-costs, such as National Insurance and pension provisions should be included.

APPENDIX: DESCRIPTION OF EUROPEAN SIZE UNITS (ESU)

Categorising Farm Sizes

For the purposes of this report, farm sizes were categorised using the established methodology of European Size Units (ESU). This is a method that is used by Defra's Farm Business Survey and the European Commission's Eurostat agency.

It is measured with the use of Standard Gross Margins (SGM) but the actual unit of size is called the European Size Unit (ESU). One ESU is defined as 1,200 Euros of SGM. It is a measure of the economic size of holdings in terms of the value they add to variable inputs and thus differs from physical measures, such as area, which take no account of the intensity or quality of production. It is calculated by summing the total SGM across all enterprises on a farm and then dividing by 1,200 to produce the more manageable ESU figure.

The size groups below form the basis of the labour survey and align with those used by Eurostat:

| | |
|------------|------------------|
| Very small | 0 < 8 ESU |
| Small | 8 < 40 ESU |
| Medium | 40 < 100 ESU |
| Large | 100 < 200 ESU |
| Very large | 200 ESU and over |

What are Standard Gross Margins (SGMs)?

SGMs are a means of weighting together different areas of crop production with different units of livestock production. A hectare of wheat production cannot be directly compared with a hectare of beef production. This is because the value of inputs required and outputs produced by each enterprise differ considerably. SGMs are a method of overcoming this problem.

The SGM is a financial measure founded on the concept of the gross margin for farming enterprises. The gross margin of an enterprise is the value of its total

output (the goods which it produces) less the variable costs, which are directly attributable to it. A variable cost is a cost that can both be readily allocated to a specific enterprise and which varies in approximately direct proportion to changes in the scale of that enterprise. Examples of variable costs are seed, fertiliser, pesticide, feedingstuffs and veterinary and medicine costs.

Because information on gross margins is not available for each farm, standards or norms per production unit have been calculated as the average for five years centred on 2000. These standards are set by Eurostat and are representative of what could be expected on the average farm under 'normal' conditions (i.e. no disease outbreaks or adverse weather conditions).

The total SGM for each farm in the survey is calculated by multiplying its livestock numbers by the appropriate SGM figure and then summing the result for all beef and sheep enterprises on the farm.