

# Grange Beef Research Centre

## LABOUR USE

### Discussion groups response to farm labour issues

It was decided that suckler-beef discussion groups which were facilitated by Teagasc advisory specialists had the potential to be an excellent method of ascertaining the opinions of a group of individual farmers who are categorised as being at the “cutting edge” of suckler-beef cow technology. As a result, discussion groups were used in this study to ascertain the opinions of suckler-beef farmers in relation to the labour use and labour saving practices on their farms. The data was collected from the discussion groups by two methods (i) a questionnaire which each participant completed initially and (ii) moderator introduced a set topics for discussion by the group.

The farm/farmer profile was obtained using the questionnaire and included size of farm, number of cows, type of suckler system, labour units on the farm, off-farm employment status, hours spent in off-farm employment, other enterprises on the farm, use of contractors, labour saving facilities, completion of paperwork, planning of leisure time, number of children on the farm, opportunities for diversification, ranking of farm tasks in order of importance and ranking of farm tasks in order of time demand.

The three questions asked of each discussion group were (i) what was the most time-consuming task, (ii) have you done anything in the last 5 years that has improved labour efficiency and (iii) what could you do now on your farm to improve labour efficiency?

The farm profile results of the 66 participants are presented in Table 54 and Table 55.

**Table 54: Farm scale, and labour-use from participants in the Discussion groups (N=66)**

Average no. of ha	62
Average no. of cows	49
Average farmer hrs/week on farm	46
Average all operatives hrs/week on farm	48
Number that have off-farm employment	21

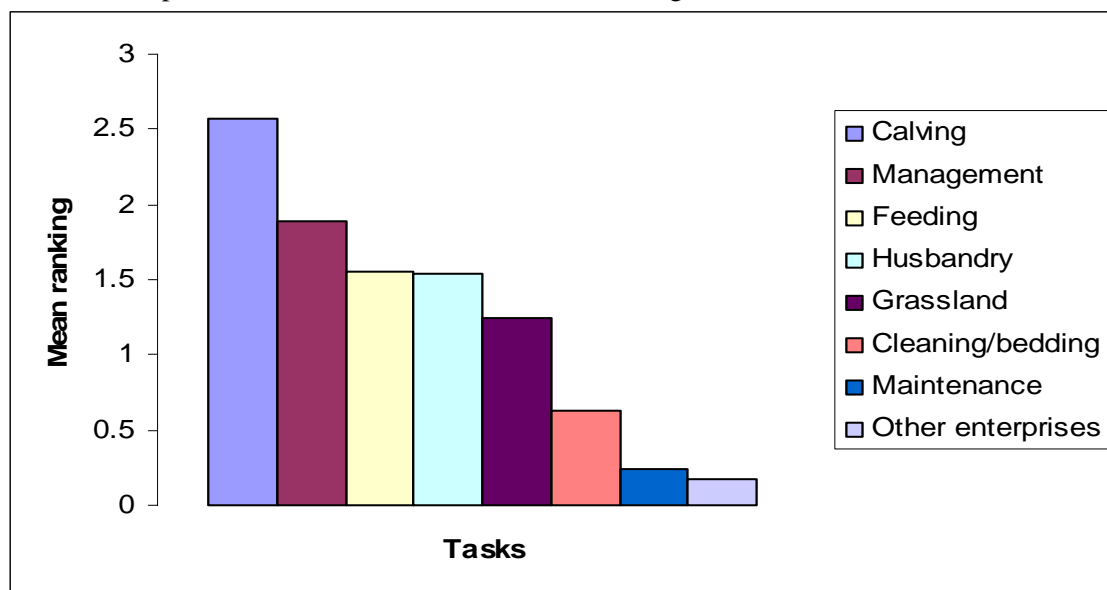
**Table 55: Type of suckler enterprises operated on the farms surveyed (N = 66)**

Type of suckler enterprise	Frequency
Weanling production only	29
Calf to finish beef only	25
Store production only	5
Weanling and calf to finish beef	4
Weanling, store and calf to finish beef	2
Weanling and store production	1

Other information emerging from the questionnaire were, the majority of the respondents (89%) use contractors for tasks on their farm, and contractors were used on the majority of the farms (83%) for silage conservation.

Eighty-eight percent of the respondents reported the use of labour-saving facilities are farmers with off-farm employment spend less time working on the farm than farmers who do not have off-farm employment. Farmers with enterprises other than suckling expended longer hours working on the farm per week. There was no relationship found between the presence of labour-saving devices on the farm and the hours expended per week by the farmer working on the farm. Farmers that did not plan for adequate leisure time expended longer hours per week working on the farm. Sixty-eight percent of farmers who believed that they planned adequately for leisure time. Farms with no other enterprises on their farm have the least hours expended working on the farm.

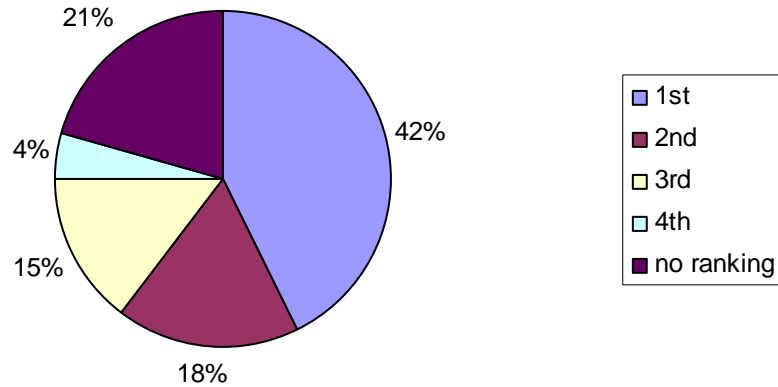
In order of importance the essential tasks are shown in Figure 13.



**Figure 13. Farm tasks ranked in order of importance by beef discussion group participants surveyed individually.**

Calving was ranked as the most important task by the farmers participating in the discussion groups. Forty-two percent of respondents ranked calving as the most important task, 18% of respondents as the second most important task, while 21% of respondents did not rank calving as being one of the top four most-important tasks on the farm (Figure 14).

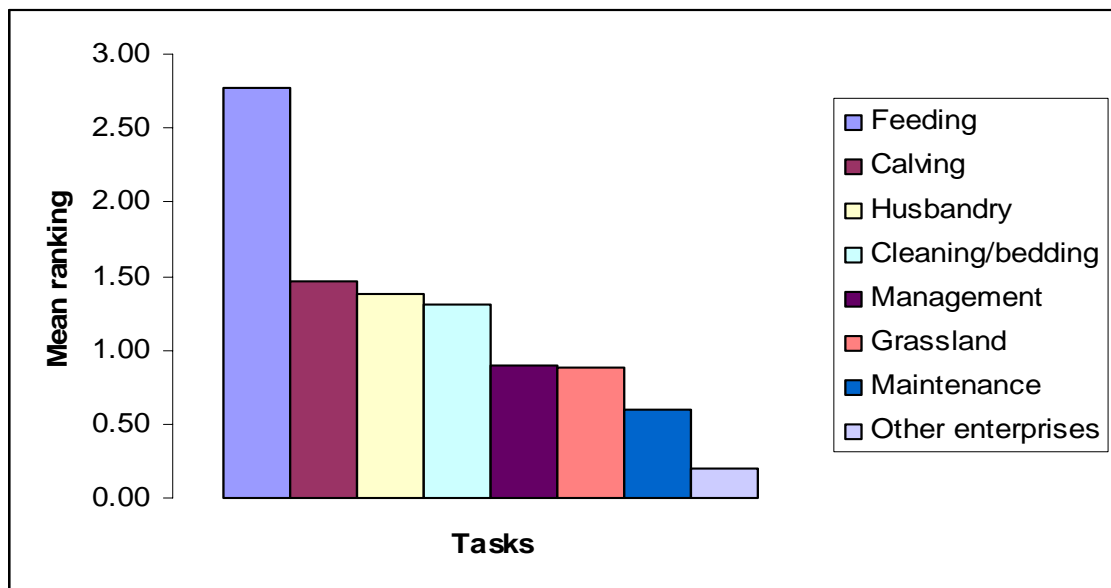
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**Figure 14. The proportion of ranked preferences allocated to the task of calving in terms of importance, from respondents to a questionnaire distributed to discussion group participants.**

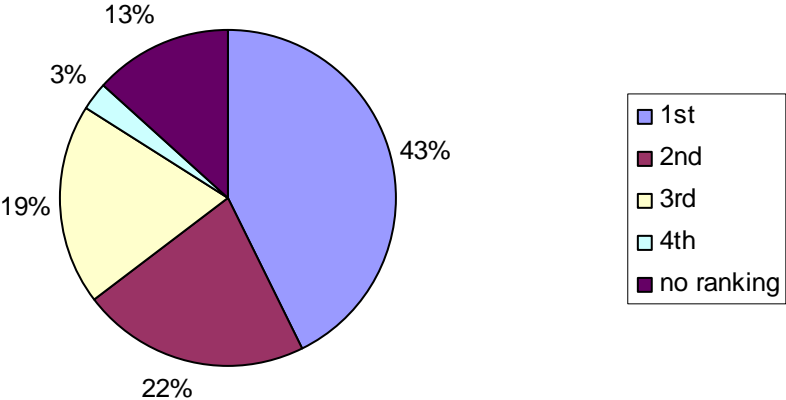
## *The most time-demanding task*

In order of time demand, respondents ranked eight essential tasks, (Figure 15).



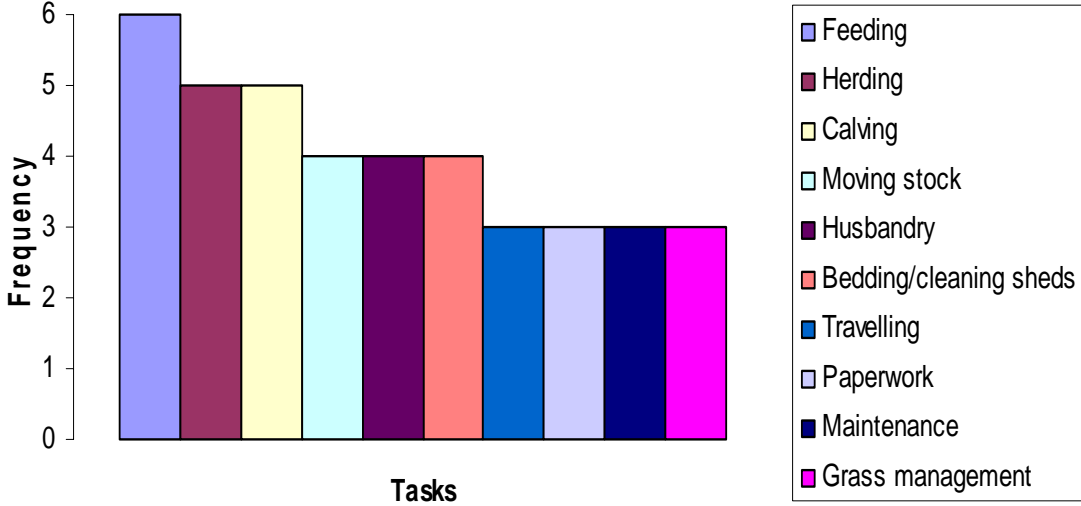
**Figure 15. Farm tasks ranked in order of most time-consuming by beef discussion group participants surveyed individually.**

Feeding was identified as the most time-demanding task on the farm. Figure 16 shows that 43% of respondents ranked feeding as the most time-demanding task while only 13% did not rank feeding as one of the top four time-demanding tasks on their farm.



**Figure 16. The proportion of ranked preferences allocated to the task of feeding in terms of time-demand, from respondents to a questionnaire distributed to discussion group participants.**

The most time-consuming task categories as suggested by the survey are shown in Figure 17.

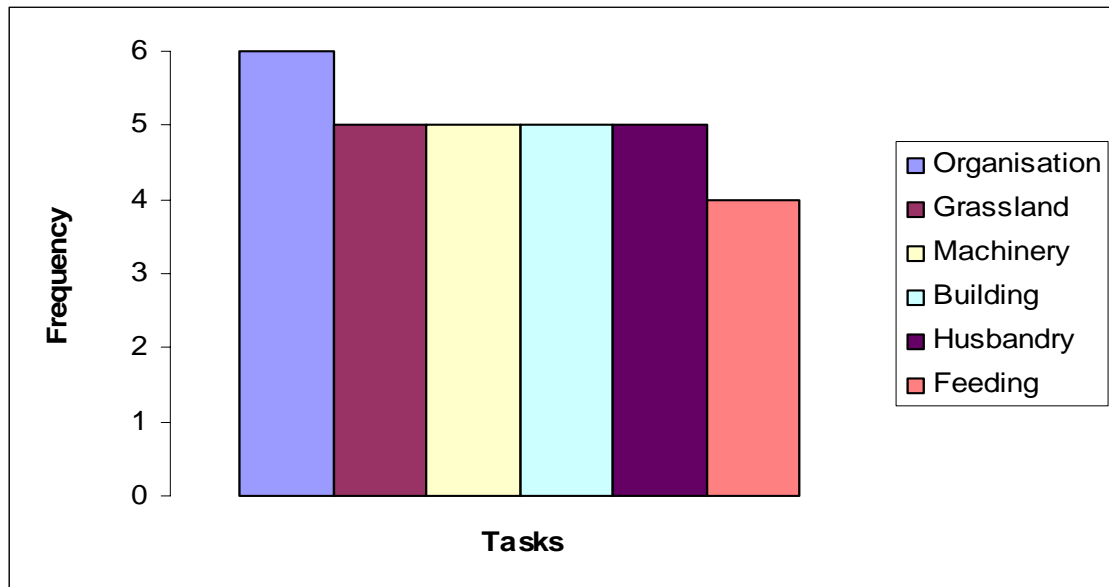


**Figure 17. The most time-consuming farm tasks as identified by six beef discussion groups.**

The most time-consuming task identified on a group basis was feeding with all six discussion groups identifying this task. Calving and herding were both referred to in five out of the six discussion groups, designating them as the second most time-consuming tasks by the discussion groups. Bedding/cleaning sheds, husbandry and moving stock were cited in four out of the six groups while travelling, paperwork, maintenance and grassland management were quoted in three of the six discussion group meetings as being most time-consuming tasks.

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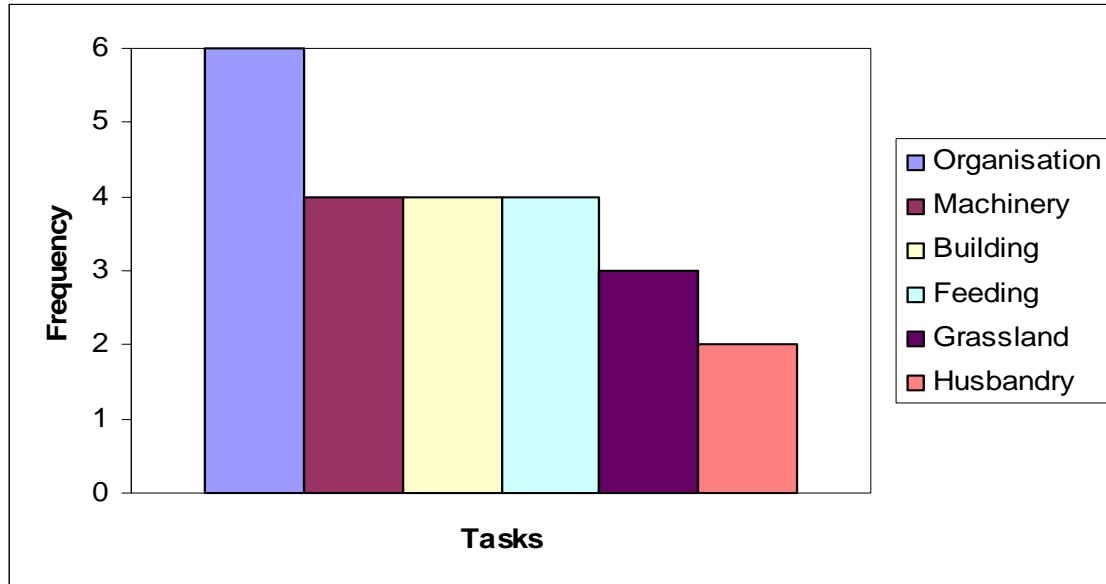
In terms of improved labour efficiency on farm, Figure 18 shows the frequency being cited as activities that farmers have modified in the past 5 years in order to improve efficiency on their farm.



**Figure 18. The most frequently identified activities that farmers have modified in order to improve the effective use of labour on the farm.**

The most frequently identified activity modified in the past five years to improve labour efficiency was “farm organisation”. Organisation on farms is viewed as a management function that involves the assignment and grouping of tasks and the allocation of resources across the farm. Grassland, machinery, buildings and husbandry were the second most frequently identified activities where improvements were made by the farmers, being cited in 5 out of the 6 groups. Feeding was also identified by four of the six discussion groups as an activity that farmers have altered in order to improve labour efficiency.

Figure 19 summarises the participants views on what a farmer could do to improve labour efficiency on the farm.



**Figure 19. The most frequently identified activities as being important in improving the effective use of labour on farms in the future.**

The most frequently identified activity that farmers wished to modify on the farm to improve labour efficiency was organisation. Machinery, buildings and feeding were the second most frequently identified activities that farmers intend on altering in order to improve labour efficiency on the farm. Grassland was identified by three out of the six groups while husbandry was focused upon in two of the six groups.

The farm profile revealed the average size of the farms (62 ha) is similar to a study on labour-use conducted by Leahy (2003). The average of 48 hrs/week worked on the farm were shorter when compared with Leahy’s (2003) study. The proportion of part-time farms participating in this study was slightly higher which may account for some of the differences. Farmers that had off-farm employment expended less time working on the farm than the full-time farmers. This finding was similar to that reported by Leahy (2003).

The results from the questionnaire found that almost 90% of farmers used contractors on the farm, similarly to what was found by Leahy (2003) and Ruane *et al.* (2003). These results show high dependency on contractor-use for specialist tasks on beef suckler farms. The opportunity for diversification could not be adequately addressed based on the response from the participants, as so few of the respondents had a diversified enterprise.

Calving was ranked as the most important task at the farm. This result was expected as the respondents were suckler farmers and the production of a healthy calf per cow is the starting point of the enterprise. They also indicated that a “bad day” as when a calf died.

The issue of the most time-consuming task stimulated an extensive response from the discussion groups. Feeding of cattle was reported as the most time-consuming task during discussion and was also ranked as the most time-demanding task in the individual responses given by the farmers in the questionnaire. This result contrasts with Leahy (2003) where it was reported that farmers expended substantially more time on the animal husbandry tasks than on the task of feeding. Feeding of cattle was also identified as a task high on the priority list for introducing labour-saving devices.

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The organisation of the farm was identified as the most important activity that farmers have improved or plan to improve to become more labour-efficient. It was evident from the discussion that the participating beef farmers were aware of the need to organise farm tasks and find methods to make the task less time-consuming.

Upgrading of machinery and purchasing of new machinery were identified as ways that farmers have improved or intend to improve their labour efficiency. Some farm machinery and equipment used is in bad repair through age and/or constant use. The general feeling during the discussion was that improving the machinery on the farm would not only improve labour efficiency but would also make tasks such as feeding and herding easier and more comfortable for farmers, thereby reducing or eliminating drudgery.

Many of the farmers have improved or intend to improve their building in order to become more labour-efficient. Old farm buildings were cited as being the most problematic in relation to labour efficiency as they were built in an era when machinery, especially tractors used by farmers were of much smaller design.

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### **Daily task activity by time of day on beef suckler farms**

It was evident following the meetings with the beef discussion groups that the most important tasks were feeding, husbandry, calving and grassland management. These tasks could also be classified under the heading “essential” as they are tasks which need to be undertaken on a daily basis in order to ensure the successful operation of a beef-suckler herd. In order to quantify the daily time allocation to various beef-suckler tasks on the farm it was necessary to relate tasks to the actual time of day at which they were undertaken. Using this approach it was expected that it was possible to confirm that essential tasks had a priority over non-essential tasks, particularly at time of year when demands on labour are greatest.

The data used was taken from time sheets for 115 farms each month over a 12 month period. The data was included in an excel spread-sheet for 4 winter months (December, January, February and March) and for 4 summer months (June, July, August and September). The process selected all operators whose time sheets displayed the actual time for tasks in the particular month.

The tasks entered on the time sheet were categorised as follows for comparative purposes

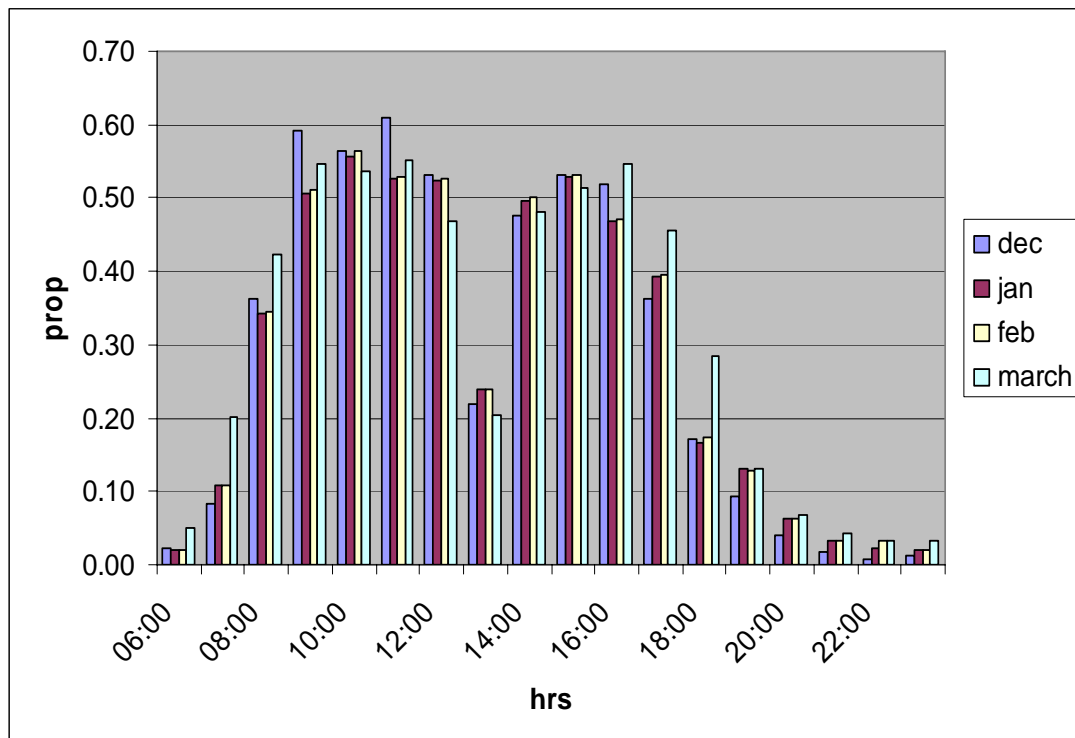
1. *Suckler Time:* Time on the farm which was devoted specifically to suckler tasks (feeding, husbandry, stock checking, grassland, management, cleaning, slurry, maintenance, stock trading, calving, silage making and other suckler work).
2. *Essential Time:* Time on the farm which was devoted specifically to essential tasks (feeding, husbandry, stock checking, grassland, calving).
3. *Maintenance Time:* Time on the farm which was developed specifically to maintenance of machinery land on buildings.

The average hours per day expended on various farm tasks during the winter and summer months on 115 farms surveyed by Leahy (2003) are detailed in Table 56.

**Table 56: Average hours per day expended on farm tasks for the winter and summer months (Calculated from timesheet data recorded on 115 farms by Leahy (2003))**

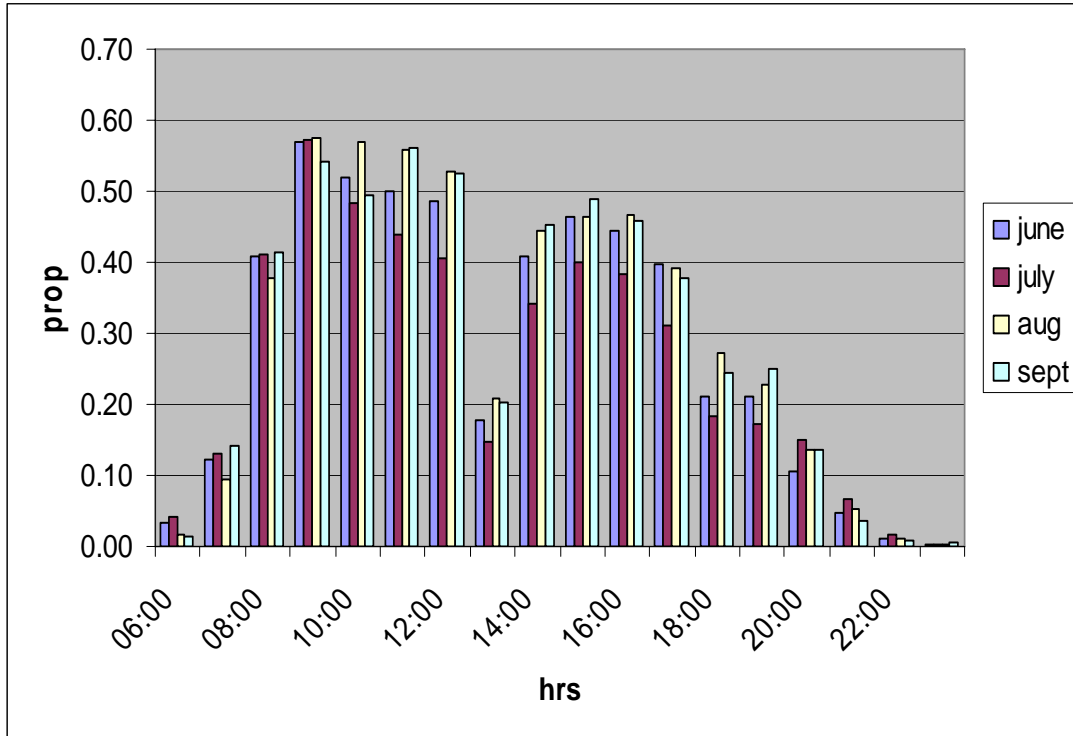
<u>Farm Tasks</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>
Suckler	5.2	5.2	5.2	5.6	5.1	4.7	5.4	5.4
Essential	2.9	2.9	2.9	3.4	3.0	3.0	2.9	3.0
Maintenance	0.8	0.6	0.6	0.5	1.2	0.9	1.3	1.1

The daily pattern of labour demand for suckler tasks was consistent over the four winter months with 50% of the day devoted to suckler tasks between 9:00 and 13:00 hrs and again from 14:00 to 17:00 hrs (Figure 20). The daily pattern of time expended on suckler tasks in summer was similar with approximately 50% of the available time devoted to suckler tasks between 9:00 and 13:00 hrs and with approximately 40% 14:00 to 18:00 hrs (Figure 21).



**Figure 20. The distribution of time expended on suckler tasks at hourly intervals throughout the day during the winter months.**

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**Figure 21. The distribution of time expended on suckler tasks at hourly intervals throughout the day during the summer months.**

The daily pattern of time expended on essential tasks for the four winter months was similar with 40% of the day devoted to essential tasks between 8:00 and 11:00 hrs (Figure 22). The daily pattern for essential tasks for the summer period was similar to that reported for the winter period (Figure 23). The morning peak in summer (8:00 to 11:00 hrs) was slightly higher than the corresponding winter peak.

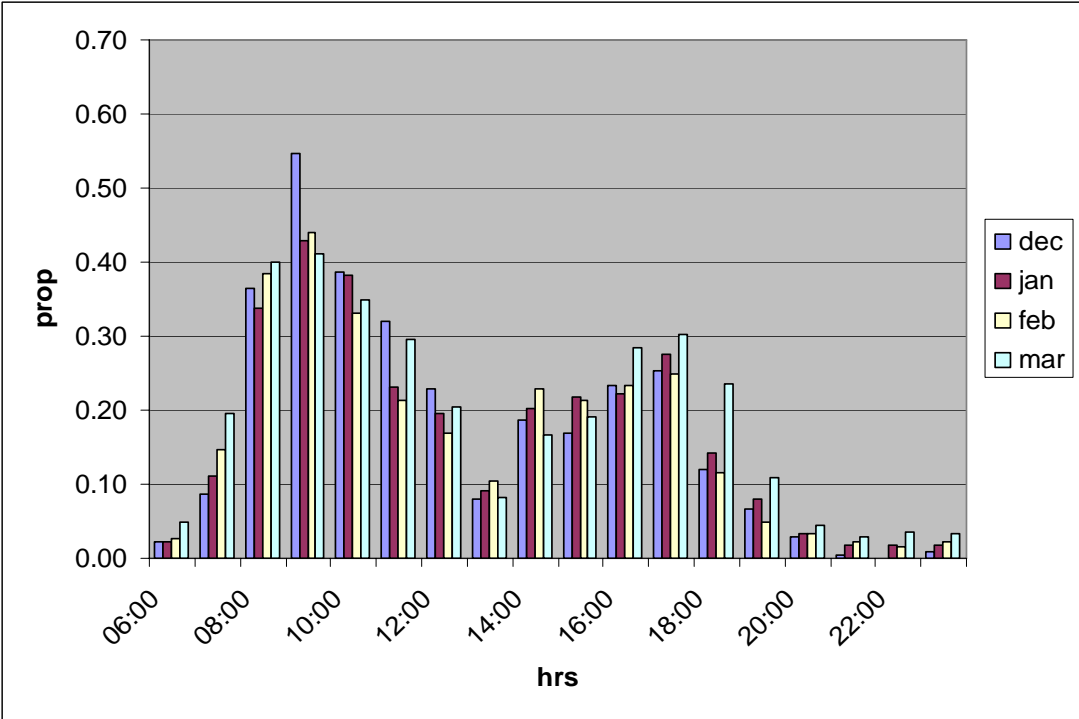


Figure 22. The distribution of time expended on essential tasks at hourly intervals throughout the day during the winter months.

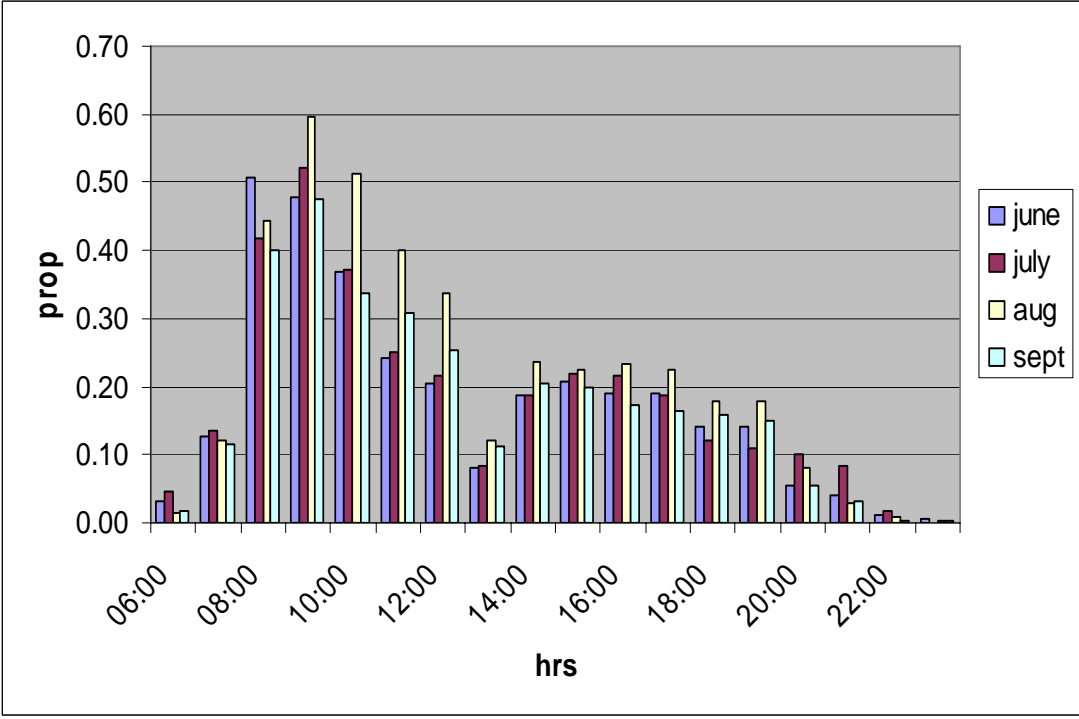
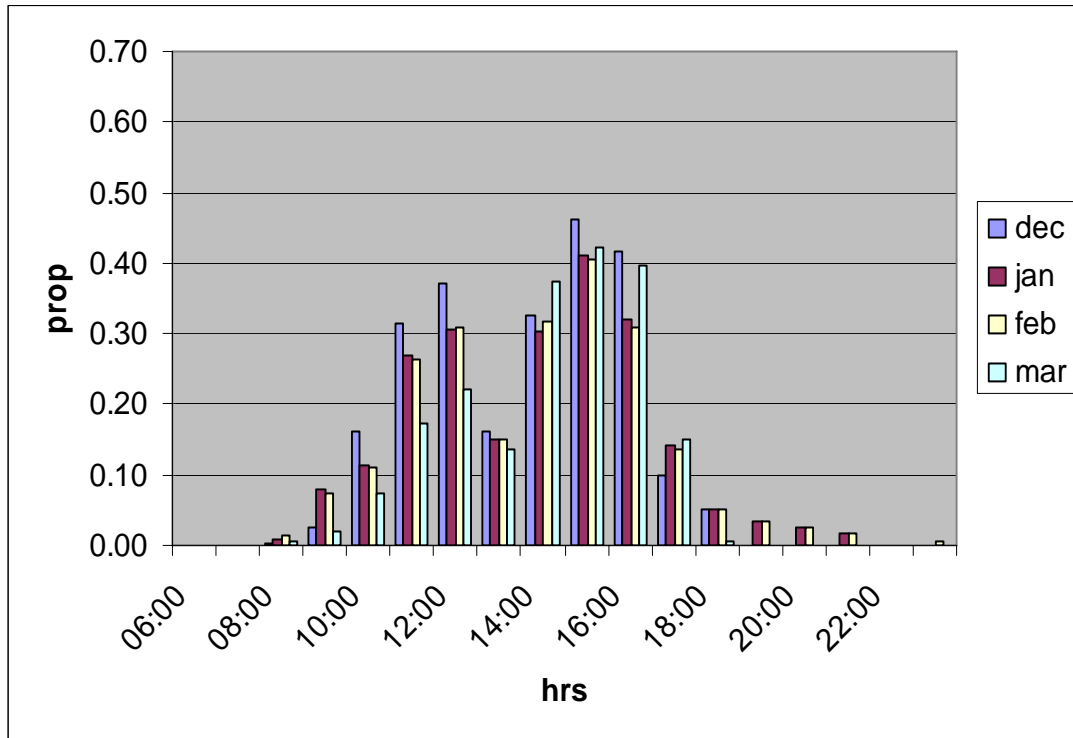


Figure 23. The distribution of time expended on essential tasks at hourly intervals throughout the day during the summer months.

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The daily pattern for maintenance tasks for the four winter months was similar for each month with 20% of the available time devoted to maintenance (Figure 24). The daily pattern for maintenance tasks in the summer period following a similar pattern with 30% of the day devoted to maintenance (Figure 25).



**Figure 24.** The distribution of time expended on maintenance tasks at hourly intervals throughout the day during the winter months.

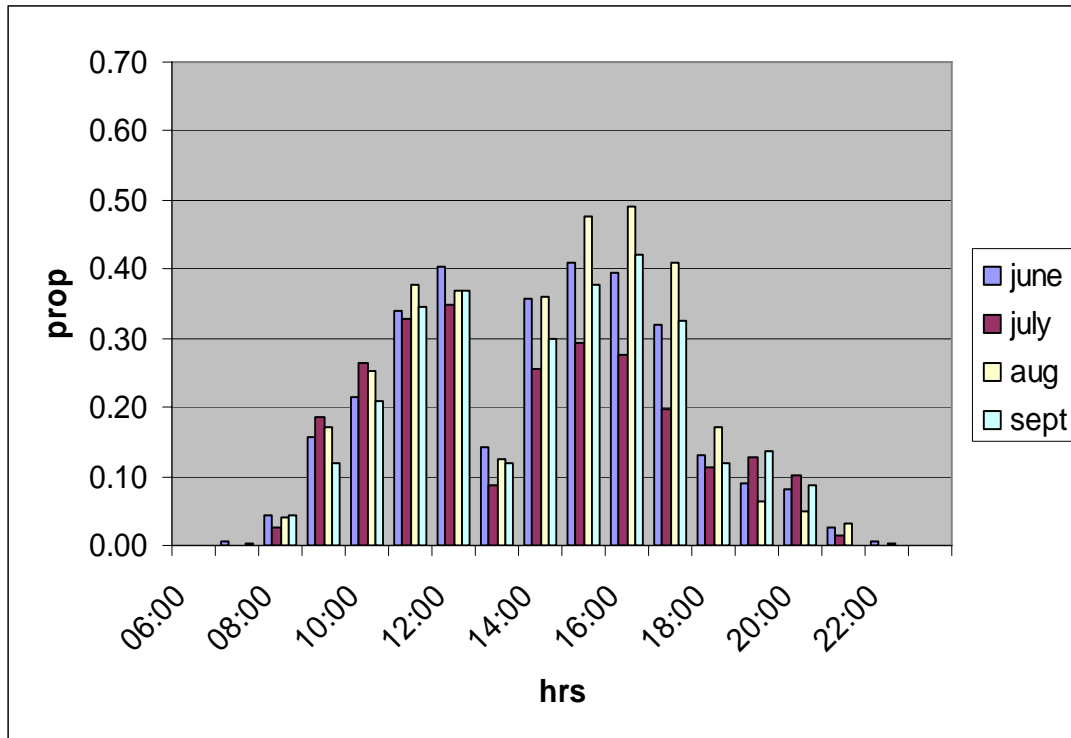
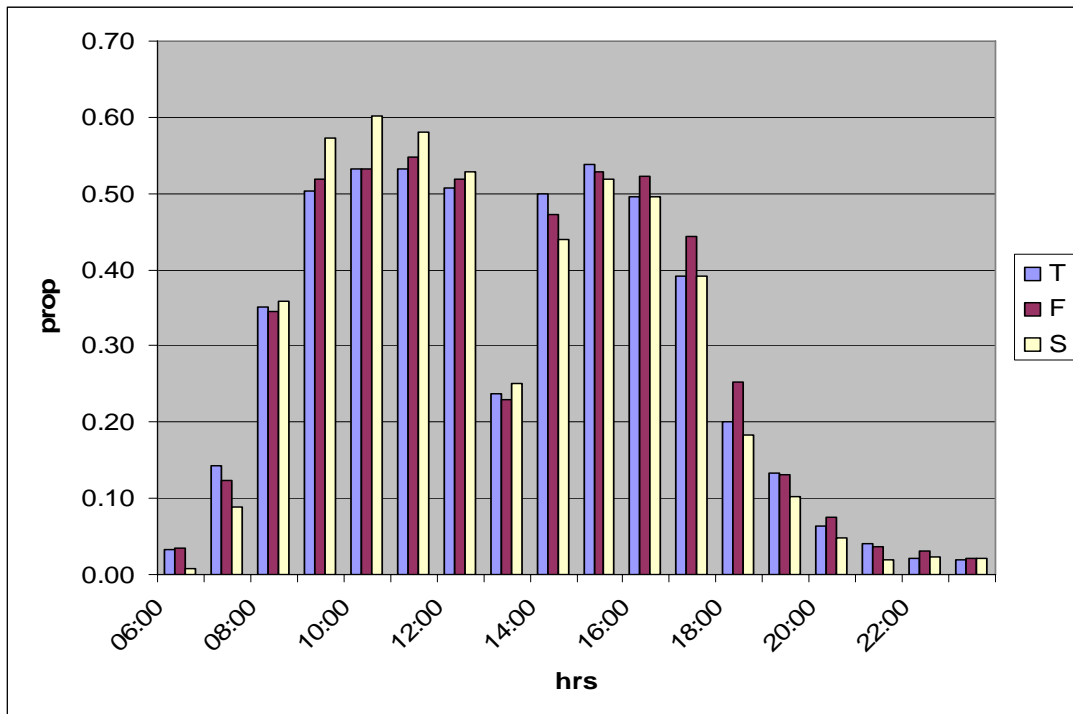


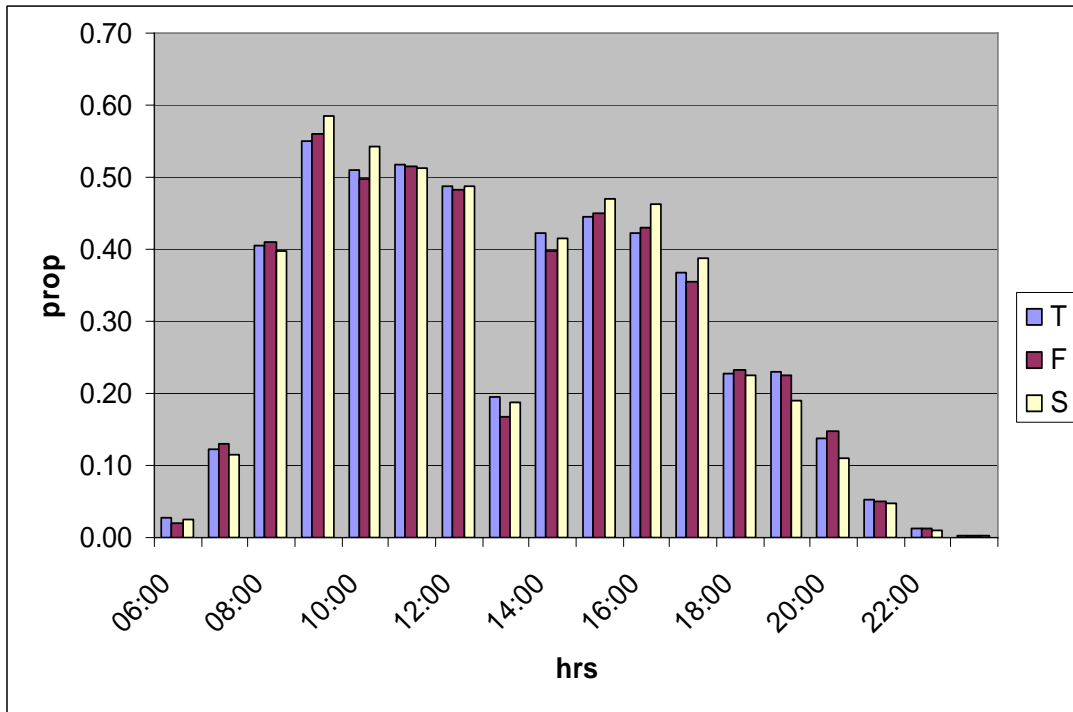
Figure 25. The distribution of expended on maintenance tasks at hourly intervals throughout the day during the summer months.

The daily working pattern for Thursday (T), Friday (F) and Saturday (S) was similar for the winter period with 50% of the time devoted to suckler work in the period 9:00 to 13:00 hrs. (Figure 26). The daily pattern for the summer period had 50% of the working time devoted to suckling in the period 9:00 to 13:00 hrs (Figure 27).

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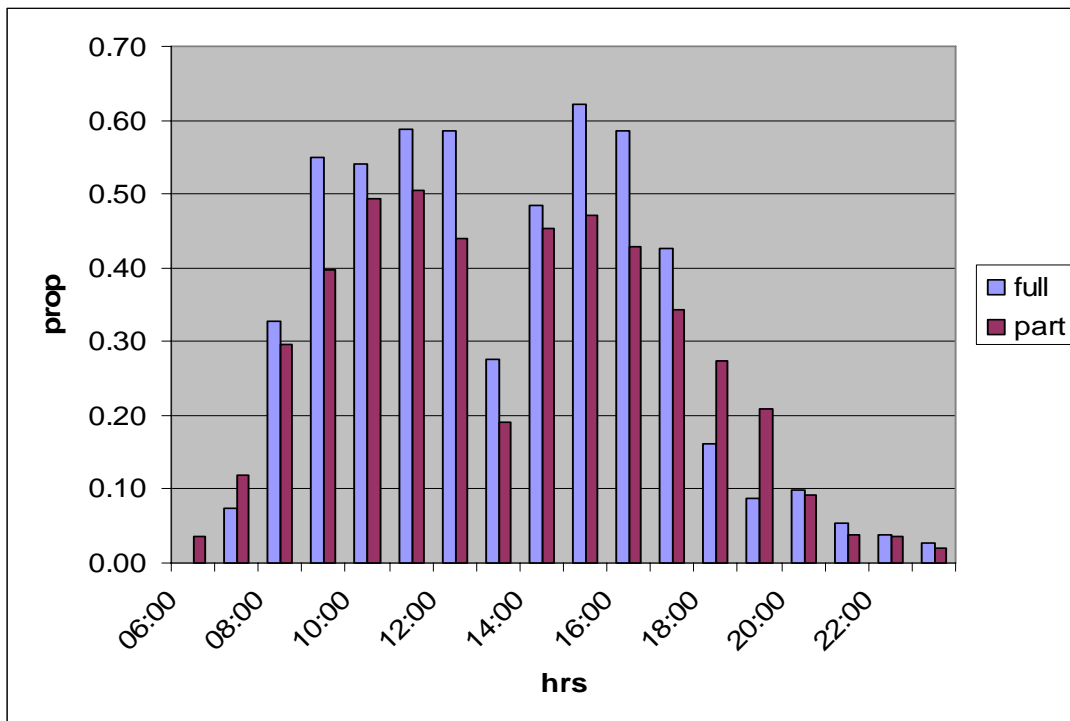
**Figure 26.** The distribution of time expended on suckler tasks at hourly intervals throughout the day, on the three recording days (Thursday, Friday and Saturday) during the winter months.



**Figure 27.** The distribution of time expended on suckler tasks at hourly intervals throughout the day, on the three recording days (Thursday, Friday and Saturday) during the summer months.

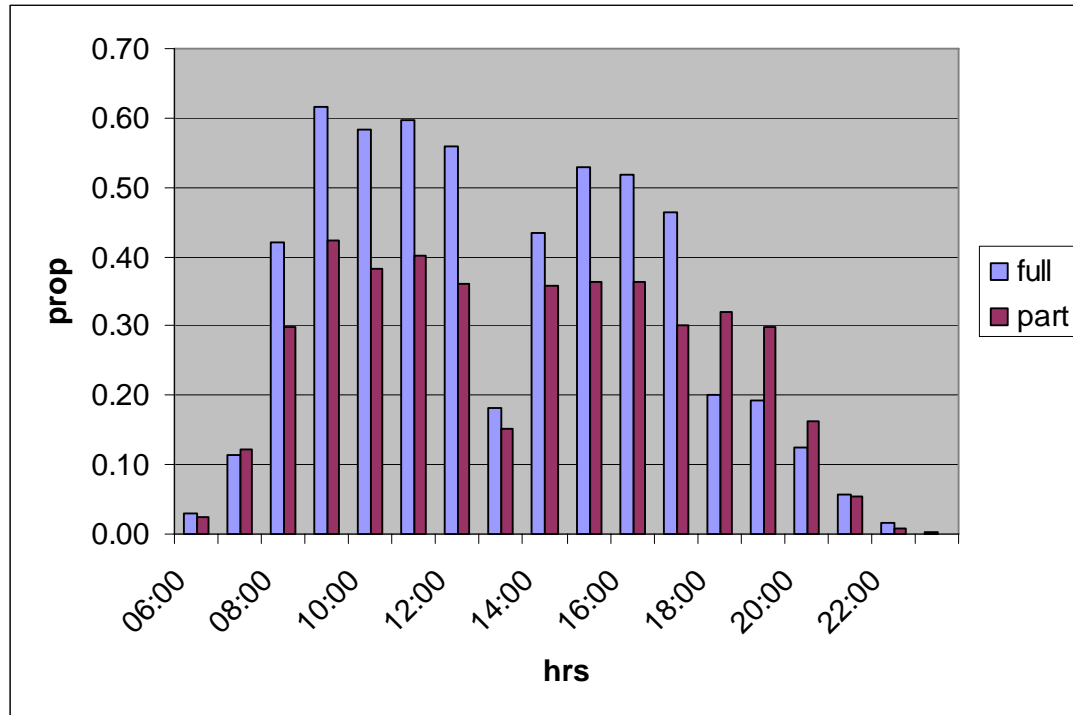
*Full-time versus part-time*

The daily pattern of time spent on suckler tasks was consistent for full-time (full) and part-time (part) respondents in both the winter and summer months. The full-time farmers expended more of the available time at suckling tasks in the period 09:00 to 13:00 hrs and in the period 14:00 to 18:00 hrs, while the part-time farmers expended more time at suckling task in the period 18:00 to 20:00 hrs (Figure 28 and 29).



**Figure 28. The distribution of time expended on suckler tasks at hourly intervals throughout the day, by full-time farms and part-time farms during the winter months.**

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**Figure 29. The distribution of time expended on suckler tasks at hourly intervals throughout the day, by full-time farms and part-time farms during the summer months.**

### *Efficient versus inefficient farms*

Farms were categorised into high, medium and low efficiency rates based on hours per livestock unit per year (Table 57). The top third of farms with least hrs/LU/yr were categorised as 'high'. The bottom third of farms that were least efficient (greatest hrs/LU/yr) were categorised as 'low'.

**Table 57: Profile of the average farm in each of the labour efficiency categories of high, medium and low**

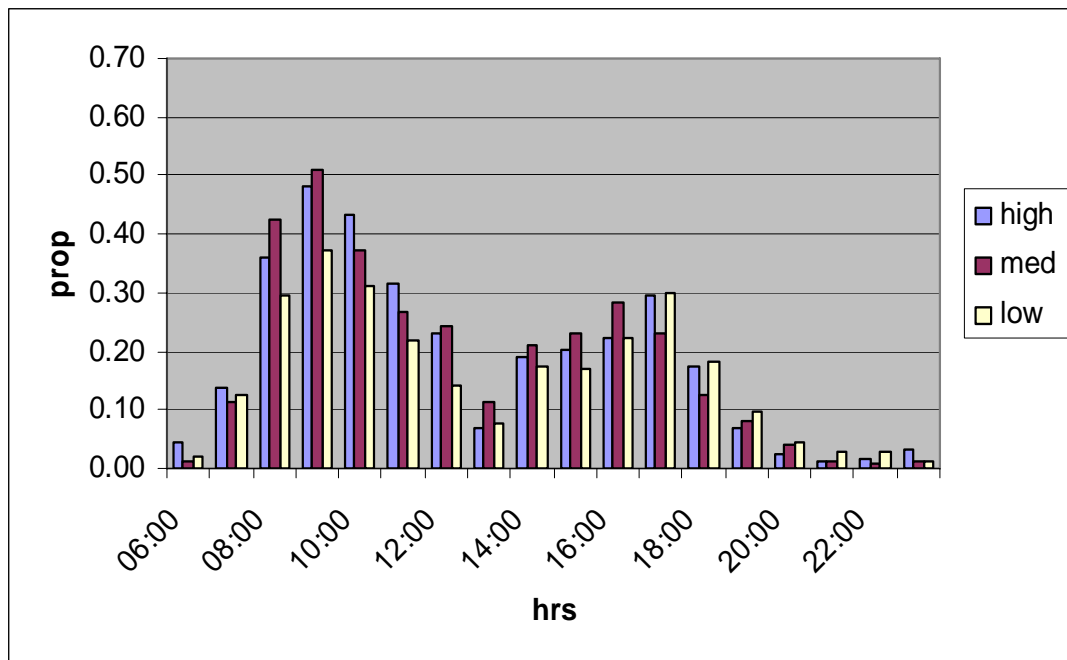
	<u>High</u>	<u>Med</u>	<u>Low</u>
Labour (hrs/LU/yr)	20.9	33.2	60.4
Cow LU	72	56	35
Bovine LU	64	35	18
Size (ha)	84	80	45

The average time per day spent on essential tasks during the winter was similar for both the high and medium efficient farms at 3.3 hours per day, while farms of low labour efficiency spent 2.9 hours per day (Table 58). The time per day expended on essential tasks during the summer was similar for all categories (Table 58).

**Table 58: Time expended per day as measured by hrs and number of observations (in brackets) on essential tasks on farms categorised by high, medium and low labour efficiency**

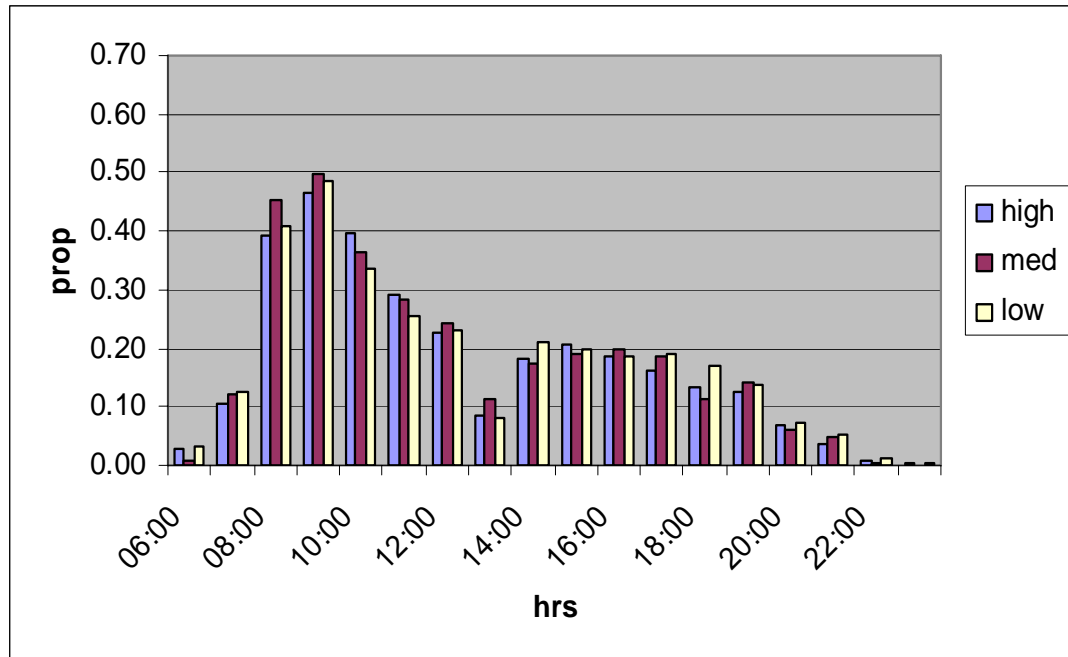
<u>Winter</u>	<u>High</u>	<u>Med</u>	<u>Low</u>
December	3.5 (95)	3.2 (79)	2.6 (77)
January	3.1 (103)	3.1 (101)	3.0 (105)
February	3.0 (103)	3.1 (101)	2.9 (105)
March	3.7 (109)	3.8 (84)	2.9 (99)
<u>Summer</u>			
June	3.0 (122)	3.6 (101)	3.1 (120)
July	3.2 (113)	3.4 (97)	3.3 (102)
August	2.9 (109)	2.8 (105)	3.3 (113)
September	3.3 (100)	3.1 (107)	3.1 (107)

Farms categorised as being of high and medium labour efficiency spent more than 35% of the available time between 09:00 and 13:00 on essential tasks while those of low efficiency expended 25% of this time on essential tasks (Figure 30). The work pattern during the summer period of farms in all three categories was similar throughout the day (Figure 31), with most time expended on essential tasks in the morning period (09:00 to 13:00).



**Figure 30. The distribution of time expended on essential tasks at hourly intervals throughout the day during the winter months, by farms categorised by high, medium and low labour efficiency (hrs/LU/yr).**

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**Figure 31. The distribution of time expended on essential tasks at hourly intervals throughout the day during the summer months, by farms categorised by high, medium and low labour efficiency (hrs/LU/yr).**

Time expended on maintenance during the winter and summer months was similar for all three efficiency categories (Table 59). However, more time was expended on maintenance tasks during the summer than was expended during the winter.

**Table 59: Time expended per day as measured by hrs and number of observations (in brackets) on maintenance tasks during the winter months, on farms categorised by high, medium and low labour efficiency**

<u>Winter</u>	<u>High</u>	<u>Med</u>	<u>Low</u>
December	2.8 (34)	2.5 (33)	1.9 (26)
January	2.3 (25)	2.0 (31)	2.4 (37)
February	2.5 (28)	1.8 (30)	2.4 (36)
March	1.9 (28)	2.3 (19)	1.9 (30)
<u>Summer</u>			
June	2.6 (47)	3.4 (43)	3.4 (58)
July	2.8 (35)	2.5 (37)	2.6 (38)
August	3.5 (40)	3.3 (41)	3.4 (43)
September	3.0 (39)	3.0 (38)	2.9 (42)

The pattern of time usage throughout the day at maintenance tasks was similar for all three categories during both the winter months and summer months (Figure 32 and Figure 33 respectively). Farms in all categories tended to spend some time on maintenance tasks in the evening (between 18:00 and 20:00) during the summer months while very little time is expended on maintenance in this time period in the winter months.

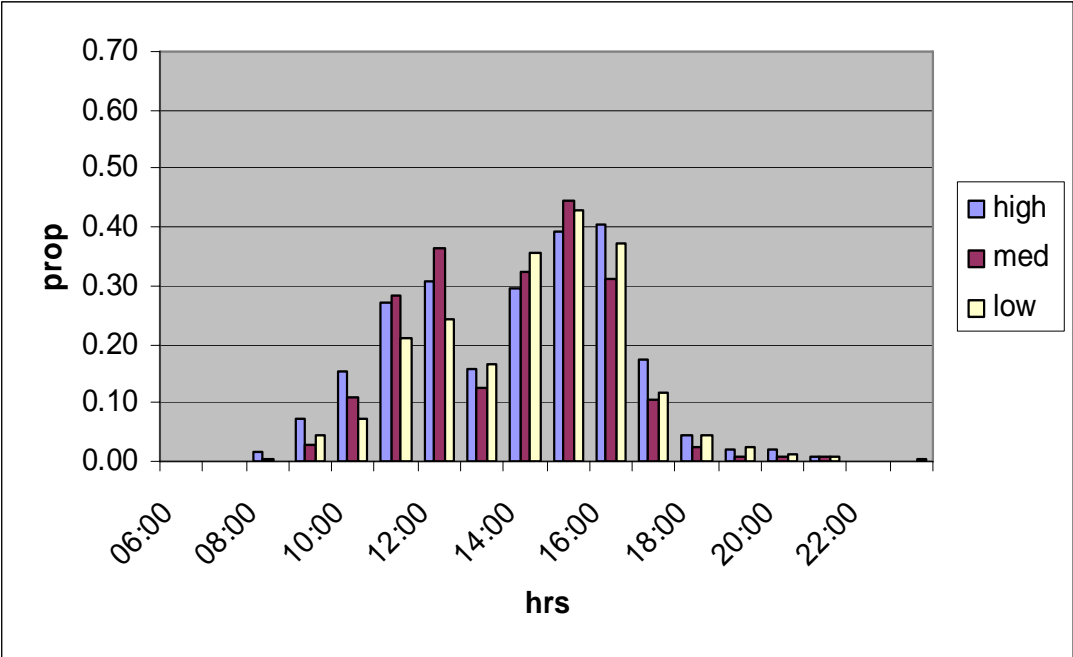


Figure 32. The distribution of time expended on maintenance tasks at hourly intervals throughout the day during the winter months, by farms categorised by high, medium and low labour efficiency (hrs/LU/yr).

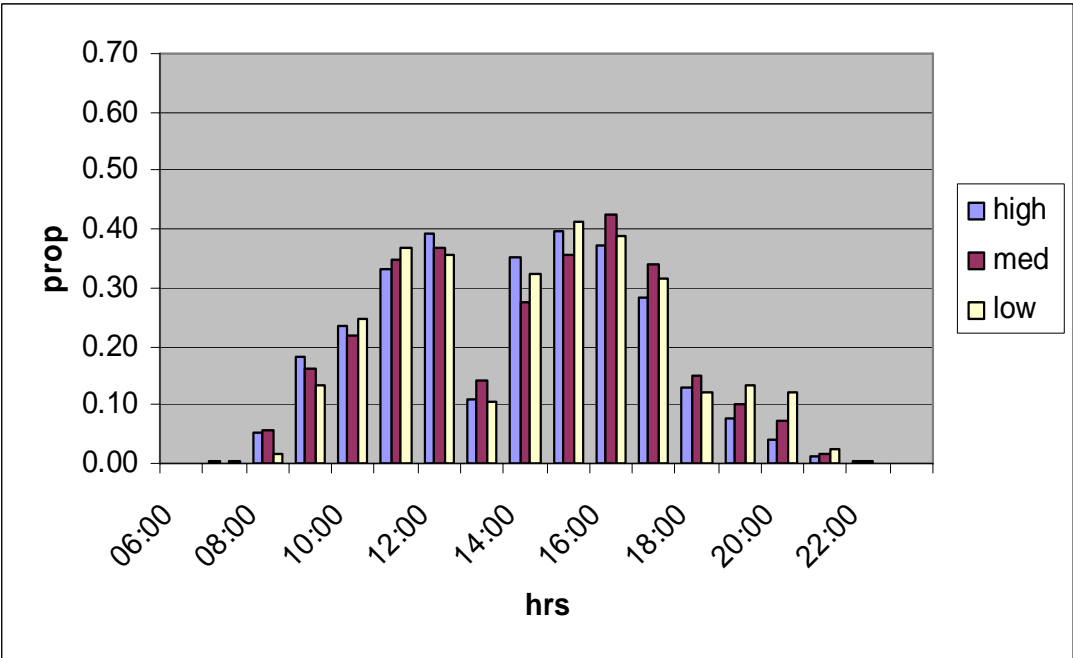


Figure 33. The distribution of time expended on maintenance tasks at hourly intervals throughout the day during the summer months, by farms categorised by high, medium and low labour efficiency (hrs/LU/yr).

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Overall it is concluded that farmers have a general routine pattern to their work day. Regardless of the time of year the majority of the essential suckling tasks (feeding, stock checking, stock movement and animal husbandry) are carried out in the morning between the hours of 09:00 and 13:00. Some farmers carry out essential tasks late in the evening during the winter months which coincides with the monitoring and calving of cows. However during the summer months farmers tend to finish their work earlier despite the longer daylight hours in the evenings. Some maintenance tasks were undertaken in the late morning (between the hours of 11:00 and 13:00) but they were mainly carried out in the afternoon between 14:00 and 18:00 hours after the essential tasks have been completed. Maintenance tasks are undertaken in late evening (18:00 to 20:00 hours) only during the summer months. This practice may be influenced by the longer daylight hours during the summer and a decrease in need to undertake urgent essential tasks i.e. calving. The working pattern of each day is similar for both the weekdays and the weekend recording day (Saturday) during both the summer and winter months, suggesting that Saturday is considered the same as any other working day to the farmer. There were no major differences found in the working pattern of farms based on their level of efficiency (hours/LU/year).

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