A Profile of Labour Resources and Pattern of their Labour Contribution on Irish Dairy Farms

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Introduction
An international trend of fewer young people entering the farming industry is evident, with many farm family members having no career ambition or intention to enter farm-based agriculture (Watkins, 2001). This has been facilitated in Ireland through the recent positive economy which has provided opportunities for many farm family members to obtain a more lucrative career outside of the farm. The wage rate differential between industrial and agricultural work is prompting a review of the roles of full and part-time, hired and family labour sources on Irish farms. In the absence of large increases in efficiency, increases in scale and the decreasing availability of supplementary labour sources will increase the demands on the principal farm operator. This shortage of skilled, trained labour is likely to have a negative impact on the development of the commercial farming sector. Therefore, a requirement exists to establish current daily labour input levels and the sources from which they are comprised as well as the dependency of certain tasks on particular labour sources and how these factors are influenced by scale of production.

Purpose
The objective of this study was to establish the profile of farm labour personnel resources on Irish dairy farms and to measure the labour contribution of these personnel to the overall farm labour requirement for a range of herd sizes.
Methods and Data Sources

The data in this study was generated on 45 spring calving dairy farms over a 12-m period. The farms were categorized into two herd size groups; medium (50 – 80 cows) and large (> 80 cows). Farms in the medium and large herd size groups had average herd sizes of 60 and 150 cows, respectively. A questionnaire survey was completed for each farm. This survey recorded the levels of available labour on the farms, i.e. all labour persons available to the farm, whether family or hired, full-time or part-time. Additionally, all operators on the participating farms recorded the duration of the different tasks which they performed throughout the day (using data loggers), over a 5-day period on one occasion per month.

Results

The number of full-time family persons available on medium and large farms was 1.2 and 1.0, while the number of part-time family persons was 0.7 and 0.7, respectively. The number of full-time hired persons available on medium and large farms was 0.1 and 0.7, while the number of part-time hired persons was 0.2 and 0.2, respectively. The average number of hired full-time labour persons available increased significantly (P<0.05) with increasing herd-size group. Herd-size had a significant effect (P<0.01) on the average proportional contribution of full-time family and full-time hired labour sources. Full-time family labour sources contributed less, on a proportionate basis, (P<0.05) on large farms (0.58 of total farm labour) than on medium size farms (0.87). Full-time hired labour sources contributed more (P<0.05) on large farms (0.27) than on medium size farms (0.01). On large farms, the contribution of full-time hired labour sources was highest to the tasks of cleaning (0.34), maintenance (0.29) and milking (0.34), while full-time family labour sources were mainly concerned with the role of management (0.72). Full-time family labour sources contributed (proportionally) their highest amount between September and January (~65%), while part-time family labour sources contributed their highest amount between February and April (~14%) on large farms. Meanwhile the contribution of full-time hired labour sources remained relatively constant throughout the year on large farms.

Discussion and Conclusions

A progression from medium to large farms was associated with a replacement of full-time family sources with full-time hired sources. Medium farms were dependent on the part-time assistance of members of the farm household, while large farms required the full-time hired labour sources, their supply of family labour being unable to meet the labour demands associated with increased scale. The contributions of part-time family was mainly utilised during peak labour periods and its presence prevented extreme increases in the length of the working day for the principal farm operator. It was largely associated with the task of calf care, to which part-time family labour sources contributed a greater proportion of labour than any other task. A similar trend was observed by Nettle (1998) on Australian farms. Family labour does exhibit the advantage of being flexible however, part-time hired labour sources may need to be actively directed towards the spring-time labour peaks in an environment of increased enterprise scale.

Educational Importance

The type of information produced in this study is crucial to extension personnel since it allows them to assist their farmer clients in strategic decision-making. Additionally, it allows extension personnel to engage in two important initiatives in association with the farmer, (i) to identify labour deficiencies on the farm and thus establish the type of labour resource needed and the time frame for
which they are required, and (ii) where additional labour are required, training of the main operator in management skills may be considered advisable, as this can be critical to the overall running of the farm business.

**Keywords:** Labour resources, dairy farms, strategic decision-making

**References**
