

Labour input associated with grassland management on Irish dairy farms

B. O'Brien¹, K. O'Donovan^{1,2}, J. Kinsella², D. Ruane² and D. Gleeson¹

¹Teagasc, Dairy Production Department, Moorepark Research Centre, Fermoy, Co. Cork, Ireland

Email: bobrien@moorepark.teagasc.ie, ²Department of Agribusiness, Extension and Rural Development, University College Dublin, Ireland

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Introduction The issues of labour and work organisation (working hours, working conditions) must be seriously addressed on Irish dairy farms if dairy farming is to have a viable future. The objective of this study was to quantify the annual labour input per cow on Irish dairy farms, with a specific focus on the task of grassland management, and to establish monthly patterns of labour utilisation over a two-year period for a range of herd sizes.

Materials and methods Labour input was recorded for 29 dairy farm tasks during the period February 2000 to January 2002. The study incorporated 98 and 73 spring calving herds in years 1 and 2, respectively. Herds were categorised according to cow number as small (< 50 cows), medium (50-80 cows) and large (> 80 cows). All farm operators recorded the duration of the different farm tasks conducted throughout the day. Records were made on consecutive 3 or 5-day periods on one occasion per month, using both timesheets and data loggers.

Results Grassland management accounted for approximately 12 % of total dairy labour input. Total annual dairy labour input to all dairy tasks, and the task of grassland management, on farms of three different herd-size groups, expressed on a per cow basis, is presented in Table 1. Both of these parameters decreased ($P<0.001$) with increasing herd-size group. Average monthly grassland labour input per cow was at a maximum in June at 1.14 h, 0.82 h and 0.52 h and at a minimum in February at 0.17 h, 0.12 h and 0.08 h on small, medium and large farms, respectively (Figure 1). Relationships between a number of factors and grassland labour input per cow were tested for significance. Using a multivariate model, an R^2 of 0.49 was measured for herd-size group, frequency of allocation of fresh grass and the use of back fencing, with significant ($p<0.05$) positive, positive and negative correlations, respectively, with respect to grassland labour input per cow per year.

Table 1 Annual total dairy labour input per cow for all dairy tasks and the task of grassland management

	Herd-size group			s.e.m.	Sig.
	Small (n=51)	Medium (n=78)	Large (n=42)		
Total dairy labour input (h/cow/year)	49.7 ^a	42.2 ^b	29.4 ^c	1.64	***
Dairy labour input to grassland management (h/cow/year)	6.3 ^a	5.1 ^b	3.2 ^c	0.31	***

n=number of farms

^{abc} means on the same line without a common superscript are significantly different

*** = $p<0.001$

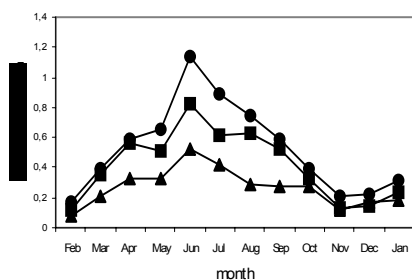


Figure 1 Average labour input per cow per month (h) over 12 months associated with grassland management, showing small (●), medium (■) and large (▲) herd-size groups

References

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