AN INITIAL STUDY OF THE USE MADE BY SUCKLER BEEF FARMERS OF AGRICULTURAL CONTRACTORS IN THE REPUBLIC OF IRELAND

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Abstract

Research work on agricultural contractors appears not to have kept pace with other research areas within the field of farm management. Contracting relieves farmers of the burdens associated with direct employment and with short seasonal tasks. Contractors offer farmers flexibility with specialized skills, knowledge and equipment. Time sheet data were collected from 115 spring calving suckler beef farms (75% full time, 25% part-time) over a 12 month period. Agricultural contractors were used by 97% of respondents for an average of 6.7 tasks per farm per annum on a very wide range of tasks. Seasonality of contractor use provided peaks in June-July and in September. Common services were forage conservation fertilizer and slurry spreading, feeding cleaning and harvesting for those with other enterprises. Contractors provided labour-only services or a full range of mechanistic and management services to farmers. Labour-only contractors were frequently farmers themselves or were sourced from corporate organizations.

Keywords: farm contractors, suckler beef farmers, farm tasks

Introduction

Research work on agricultural contractors appears not to have kept pace with other related research areas in farm management when the available literature is examined. The use of agricultural contractors by farmers is a well-established practice. However the continuing growth of the Irish economy together with changes in the CAP over recent years has given rise to very fundamental changes in the constituent components of the Irish agricultural sector. One of these changes is the farm-derived income levels that

are earned by the farm household (Phelan, 2005). This author observed that the contribution to farm-derived income declined from 70% in 1973 to 41% in 2000 of farm household income. The off-farm earned income had been earned principally by the spouse and the farmer. Between 1991 and 2002 and with the continuing growth in the Irish economy, the number of spouses, family members, farmers and farm workers employed in agriculture continued to decline thereby making less time available for undertaking farm tasks (Department of Agriculture and Food, 2004). The number of full-time farms in the Republic of Ireland has been declining steadily between 1991 and 2003 (Department of Agriculture and Food, 2006) and this trend is continuing. The number of viable farms has been estimated to number about 20000 by 2010 (a decline of 53% from 1998). Part-time farmers were estimated to increase by 36% in the same period to 60,000 (Agri Food 2010 Report, DAFRD). This latter group is likely to require increased usage of agricultural contracting services (Ryan and McNamara, 2000) to continue their farm operations.

The reliance of farmers upon contractors' contribution to farm work in the Republic of Ireland is evidenced from studies completed by Ruane and Phelan (2001) and Ryan and McNamara (2000). Research in the UK Midlands and in North Wales suggested that almost 70% of farmers used agricultural contractors for at least one major task (Ball, 1987). Custance (1987) reported an equivalent value of 83% in the UK and Ruane and Phelan (2001) reported 96% in South Tipperary in the Republic of Ireland. Ball (1987) cited the implications of increased use of farm contractors. These included the switching of work to an external source and this meant that farmers surrendered a degree of "in-house" flexibility re-inforcing their dependence on outside services. Farmers and their managers now faced different administrative and training needs as they sought to monitor the contractors work instead of carrying out the actual work themselves. This shifted farm labour from local to non-local areas in search of farm contractors and the local rural economy, consequently, would change in structure.

As part of a study of labour use on beef suckler (cow-calf) farms (Leahy 2003), the use made of agricultural contractors was examined by the farmers in this study. The objectives were 1) to quantify the use of agricultural contractors on selected Irish suckler beef farms, and 2) to identify the main tasks that contractors completed on these farms.

Methodology

Data were collected from 115 predominantly spring calving suckler farmers distributed evenly across the east and west of the Republic of Ireland in the period March 2002 to February 2003. The farmers were predominantly members of suckler beef discussion groups working with Teagasc (The Irish Agriculture and Food Development Authority). Approximately 0.25 (30) of farmers were part-time, while the remaining 0.75 (85) farmed full-time. Each farmer was randomly assigned to 1 of 4 groups for data collection. Each group was allocated a week each month during which they recorded time spent undertaking predefined tasks on the farm using the timesheet method (Abeyasekera and Lawson-McDowall, 2001**),** adjusted in layout appropriate to the seasonal tasks. Each individual timesheet incorporated a total of 27 farm tasks organised under 7 task category headings. The timesheet was accompanied by a full set of task definitions. Each farmer and farm worker documented type and duration of all tasks for 3 consecutive days per month over the12-month period.

The task category heading "Feeding" incorporated the feeding of silage, and concentrates to suckler stock (Task 1). The "Cleaning" task category described cleaning yards and houses, cleaning around the silage pit, and preparing the silage base (Task 2). The task category "Animal Husbandry" was used to describe such tasks as calving and monitoring cows close to calving, stock checking, moving stock, weaning, castration, heat observation and artificial insemination, and veterinary tasks (Task 3). "Farm

Maintenance" incorporated tasks such as farm building and land maintenance, and farm machinery maintenance (Task 4). "Grassland Management" was the task category used to describe tasks such as fertiliser and lime spreading, slurry and farmyard manure spreading, strip fencing, grass measurement, reseeding, pasture topping, silage making and hay making (Task 5). "Farm Management" described office tasks and stock trading (e.g. buying and selling animals etc.) tasks (Task 6). Finally, the task category "Other Enterprises" was used to describe tasks associated with other (non-suckler) farm enterprises such as sheep farming, and cereal farming (tasks other than suckling) (Task 7).
Each farmer recorded all activities undertaken by an agricultural contractor on their farm for each month of the year within the structure of tasks completed. Uni-variate analysis was carried out on data using S.P.S.S. version 8.0.

Results

The results of the contractor activity survey showed that 97% of farmers used agricultural contractors (Table 1) illustrating a relatively high dependency on contractors for the farm tasks. Contractors were required across all farm sizes, with smaller farms slightly more dependent on contractors than were the larger farms. This maybe attributable, in part, to larger farms having suitable machinery available to them. The incidence of use of contractor was recorded across all farm systems; however the suckler beef farms that had an arable enterprise in operation were slightly less dependent on the use of contractors. This may be attributed to some of the respondents who were also contractors themselves. These respondents had the necessary farm equipment available to them and consequently had no need to seek out other contractors for these tasks.

When the data in Table 1 for all the farms in the study were examined further using Chi-Square analysis, it was found that contractor-use on farms increased with the number of farm enterprises (Chi-square 16.684; d.f. =6, significance= .011). The analysis showed that suckler only farms had a reduced demand for contractor services. Farmers with one additional farm enterprise had an increased demand for contractor services. However, those with more than two farm enterprises had a reduced demand and this may be due to being larger farmers with greater capitalization and a consequently reduced requirement for contractor services.

Table 1: Instances of use of agricultural contractors on all suckler beef farms During a 12 month period by farm size and farm type (n=115)

Farm Size Farm Type	<40 ha	40-60 ha	60-80 ha	+80 ha	No. using contractors	% of Total
Sucklers	17 (17)[1]	12 (13)	6 (7)	3 (3)	38 (40)	95
Suckler/ Sheep	12 (12)	9 (9)	10 (10)	8 (8)	39 (39)	100
Suckler/ Dairy	1 (1)	3 (3)	0 (0)	1 (1)	5 (5)	100
Suckler/ Arable	1 (1)	2 (2)	3 (3)	7 (8)	13 (14)	92
Suckler/ Sheep/ Arable – mixed	0 (0)	1 (1)	5 (5)	11 (11)	17 (17)	100
No. Using Contractors	31	27	24	30	112	97
Total	31	28	25	31	115	
% of Total	100	96	96	97	97	

[1] The number in brackets represents to total number of farmers in each category (covers this and similar data in tables 2 and 3)

Table 2 related suckler farm type and farm size to the incidence of contract work over the 12-month recording period, for the 85 full-time suckler beef farmers who were involved in the labour study. Agricultural contractor activity was recorded on 96% of the 85 full-time farms. The highest use (100%) of contractors was made by suckler beef farmers who had sheep as another enterprise on farm, suckler beef farmers who had dairy as another enterprise on farm, and suckler beef farmers who had a mix of other enterprises on the farm used contractors services to a lesser extent. However, it is clear that contractor use was high across all farm size categories on full-time farms.

Table 2: Instances of use of agricultural contractors on full-time suckler beef farms during a 12 month period by farm size and farm type (n=85)

Farm Type	< 40 ha	40– 60 ha	60-80 ha	>80 ha	No. Using Contractors	% of total
Suckler	4 (4)	7 (8)	3 (4)	3 (3)	17 (19)	89
Suckler/ Sheep	10 (10)	7 (7)	10 (10)	7 (7)	34 (34)	100
Suckler/ Dairy	1 (1)	3 (3)	0 (0)	1 (1)	5 (5)	100
Suckler/ Arable	1 (1)	2 (2)	1 (1)	7 (8)	11 (12)	92
Suckler/ Sheep/ Arable – Mixed	0 (0)	1 (1)	4 (4)	10 (10)	15 (15)	100
No. Using Contractors	16	20	18	28	82	96
Total	16	21	19	29	85	

Table 3 summarized the results with 30 part-time farmers in the study. There was agricultural contractor activity (100%) with all part-time farmers. The majority of part-time farmers were suckler beef farmers only, or suckler beef farmers with an additional sheep enterprise on farm. There were no part-time suckler beef farmers within the sample, who had a dairy enterprise in operation on the farm. The part-time farmers employed agricultural contractors as a flexible farm labour source.

The use of agricultural contractors on suckler beef farm over the 12 months recording period by farm type and by task, is shown in Table 4. Of the 115 respondents, 112 (97%) were found to be using a contractor for at least one farm task during the farming year. A total of 755 tasks were documented over the 12 months of the study, an average of 6.7 tasks/farm. The farmer with a suckling only enterprise used the agricultural contractor for an average of 5.7 tasks per farm per annum.

Table 3: Instances of use of agricultural contractors on part-time suckler beef farms during a 12 month period by farm size and farm type (n=30)

Farm Type	<40 ha	40-60 ha	60-80 ha	+80 ha	No. using contractors	% of total
Suckler	13 (13)	5 (5)	3 (3)	0 (0)	21 (21)	100
Suckler/Sheep	2 (2)	2 (2)	0 (0)	1 (1)	5 (5)	100
Suckler/Dairy	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	- -
Suckler/Arable	0 (0)	0 (0)	2 (2)	0 (0)	2 (2)	100
Suckler/Sheep/ Arable – Mixed n=1	0 (0)	0 (0)	1 (1)	1 (1)	2 (2)	100
No. Using Contractors	15	7	6	2	30	100
Total	15	7	6	2	30	
% of Total	100	100	100	100	100	

The suckler beef farmer, who has sheep as another enterprise, used the agricultural contractors for an average of 6.4 tasks per farm per annum. The suckler beef farmer with dairy and arable enterprises used the agricultural contractor for 6.0 and 7.2 tasks per farm per annum respectively. Suckler farmers with a mix of other enterprises used the agricultural contractor for an average of 9.6 tasks per farm per annum. Some of these tasks may have been performed by individual farm-based workers in traditional agricultural labour systems.

These contractors carry out tasks such as hedgecutting, silage making, land and building maintenance, cleaning sheds and feeding stock. Some of these tasks may be identified with roles carried out by family or farm employees previously.

Table 4: Suckler farm type and the use of agricultural contractor by contract task (n=115)

Farm Type	Tasks[1] 1,2 and 4	Task 3	Task 5[2]	Task 6	Task 7	Total	Mean Tasks/ farm
Suckler	58	14	142	0	4	218	5.7
Suckler/ Sheep	70	10	131	39	0	250	6.4
Suckler/ Dairy	4	1	24	1	0	30	6.0
Suckler/ Arable	10	7	42	33	1	93	7.2
Suckler/ Sheep/ Arable - Mixed	38	7	66	52	1	164	9.6
Total	180	39	405	125	6	755	6.7
%of Total	24	5	54	17	<1	100	

[1] Tasks 1, 2 and 4 are combined as being structurally compatible as routine-type farm tasks.
[2] Task 5 had the highest contractor involvement and the data are provided for all the activities within the task grouping.

Annual Contractor Use

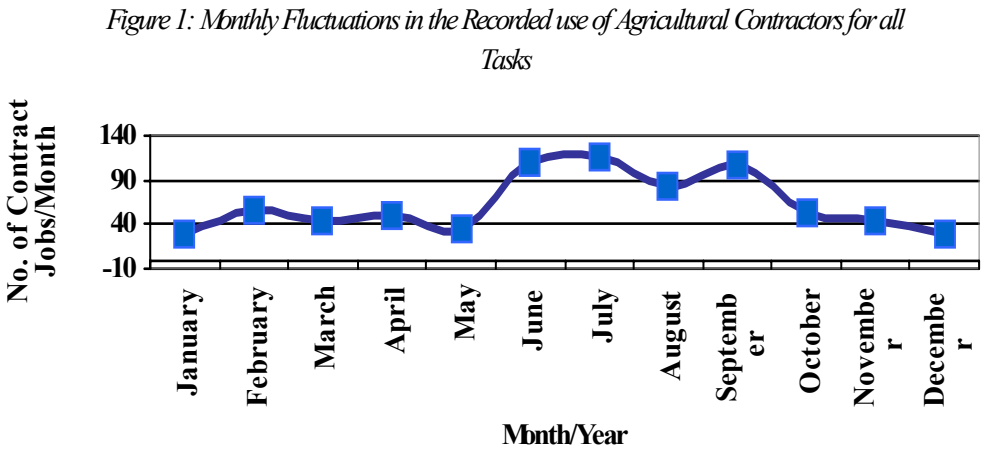
The use of contractors on suckler farms varied over the course of the farming year, with a greater requirement for contractors over the summer period, when suckler farmers are busy with grassland tasks (Leahy et al., 2003). Figure 1 shows the monthly fluctuations in contractor use on beef suckler farms for all tasks.

As the type of contract work varied greatly across farm type, farms involved with arable activity, and those farms with a wide variety of enterprises were the bigger users of contractors (7.2 and 9.6 tasks per farm per annum respectively) (Table 4). Task 5 accounted for 405 recorded activities of agricultural contractors' across all farms. There were 185 involved in fertilizer and manure spreading, 190 involved in forage conservation and 30 involved in reseeding. Almost 24% of all agricultural contractor activities involved land and building maintenance.

Figure 1 shows that contractor activity was less in January, February, March and April. The number of tasks were 28, 56, 45 and 50 respectively (or 0.24, 0.48, 0.39 and 0.43 tasks per month per farm respectively). In January and February the main contractor tasks were feeding, cleaning, land and building maintenance, and slurry, farmyard manure and fertilizer. In March and April the tasks involved feeding, cleaning, land and building maintenance and slurry, farmyard manure and fertiliser spreading. In contrast contractor activity was high in May, June, July and August, the number of tasks were 35, 110, 117 and 82 (or 0.30, 0.96, 1.01 and 0.71 tasks per farm per month) respectively. In May the tasks were feeding, cleaning, land and building maintenance, silage harvesting, and slurry, farmyard manure spreading and fertiliser spreading tasks. In June and July the tasks were cleaning, land and building maintenance, silage and hay harvesting tasks, slurry, farmyard manure and fertiliser spreading as well as the tasks associated with other farm enterprises e.g. sheep shearing. In August the main tasks included

cleaning, land and building maintenance, slurry, fertilizer and farmyard manure spreading. The number of contractor tasks (tasks per farm) in September (106, 0.92), October (52, 0.45) November (44, 0.38) and December (30, 0.38) declined from September to December. Common tasks carried out in these months included cleaning, land and building maintenance, slurry, fertilizer and farmyard manure spreading. In September additional tasks associated with other enterprises were the harvesting cereals, silage and hay harvesting. Labour-only contractors were used by 21% of the farmers, mainly over the Spring-Summer periods and the majority of these contractors were farmers themselves, Contract labour was supplied from corporate sources (FRS Network) by 36% of those using labour-only contractors.

Figure 1: Monthly Fluctuations in the Recorded use of Agricultural Contractors for all Tasks



Discussion

Information on the use of the agricultural contractors appears not to have kept pace with their growing importance as an alternative agricultural labour source (Errington and Bennett, 1994). However, in the current study the scale of use of agricultural contactors by beef suckler farmers was quantified. Approximately 97% of the suckler farmers employed an agricultural contractor at some time during the farming year, a similar figure to that reported by Ruane and Phelan (2001), in their study of farms in South Tipperary, in the Republic of Ireland.

Ryan and McNamara (2000) observed that over 80% of contractors surveyed reported that they had major problems with labour availability for their contracting business. The high usage of farm contractors in this research demonstrates the increasingly important role for contractors and the dependency of farmers on contracting services. This has also been observed in studies by Errington and Gasson (1996) and Ryan and McNamara (2000).The fact that almost all suckler beef farmers, whether they be full or part-time, have a requirement for an agricultural contractor at some time during the year highlights the importance of developing working conditions whereby the contractor is an integral part of the rural community and has the capacity to provide a comprehensive service to the many suckler beef farmers. The results showed how the number of tasks carried out by agricultural contractors varied with time of year and with farm activity. Contractors experienced peak demands for their services from beef suckler farmers from June to September associated in particular with forage conservation (silage making) fertiliser and slurry spreading, and with other enterprises on the farms. This peak demand for contractors in the summer

period was 0.90 tasks/farm/month and contrasts sharply with the winter period (November to February) when contractor activity was lowest at 0.37 tasks/farm/month. Forage conservation makes up a high proportion of the tasks in the summer time. The duration of winter tasks however are also less. The difference in demand for contractor services between winter and summer places considerable pressure on contractors to maintain a viable labour-team on a yearly basis. The maintenance of such a team is even more difficult as there are many other employment opportunities in the current economic climate. There was also demand for contractor services throughout the full year. Contractors were most popularly hired for forage conservation, spreading slurry and farmyard manure and these are tasks that require substantial labour and machinery investment. Ball (1987) noted that it was usually more economical for the farmer to hire-in such a service than to make their own substantial capital investment in machinery (Ball, 1987). However, contractors were most popularly hired for forage conservation, spreading slurry and farmyard manure, as these tasks require substantial labour and machinery investment. Ball 1987 noted that it was usually more economical for the farmer to hire in such a service than to make a substantial capital investment (Ball, 1987). It is expected with the increase in the number of part-time farmers that demands for contractors in the future will increase as 100% of part-time farmers in the study used contractors.

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