

Discussion groups - Labour efficiency and practices

**Pat Clarke,
Teagasc**

Introduction

In advance of milk quota abolition a number of discussion groups wanted to look at farm labour efficiency and farm practices that impact on workload. The expectation was that production was forecast to increase by 50% (Food harvest 2020) and these groups wanted to be better prepared for the increase in herd size associated with this expansion.

Twelve discussion groups were initially selected as a pilot project. A questionnaire was completed by each member and feedback was given to the groups. Their feedback refined the questionnaire for further use with groups.

Completing this questionnaire allowed each farmer to:

- (a) Quantify the labour input for their own farm.
- (b) Quantify the average labour input for their discussion group.
- (c) Identify the most labour efficient farms and highlight the components and practices of these labour efficient farms.

After completion of the questionnaire, each facilitator received an individual report for every farmer that participated. The report included an analysis of labour usage plus components that contribute to labour efficiency. Each farmer could benchmark themselves against their group and the top 5% of efficient farms.

Reports were used as group support material for group meetings on labour efficiency or as support material for each visit to a host farmer.

Average herd size was 106 cows for the 75 groups which completed the questionnaire; this is greater than the National Farm Survey herd average of 65 cows.

Acceptable Working Week

All farmers were asked what was an acceptable number of hours to work per week? The average response was 58 hours (ranging from 39 to 80). The actual hours

worked was calculated and was estimated at 63 hours per week. This difference (5 hrs) was the starting point for discussions on labour efficiency.

Acceptable working week	58
Actual working week	<u>63</u>
	-5

Most Labour Efficient Farms

Two criteria were used to select labour efficient farms. Firstly, they were rated on hours of work per cow. The total hours worked did not include contractor hours. This showed that some farms that were very efficient (hours/cow), but had an unsustainable working week (hours/week) for the farmer themselves. A second criterion was then used – any farmer with working week above the average acceptable working week (58 hours) was excluded from the top 5%

Some of the key differences between the average farms and the top 5% included:

	All farms	Top 5%
Hours of work per cow	47	25
Actual hours per week worked by farmer	63	57
Acceptable working week (hrs) as stated by farmer	58	55
Difference (hrs/week)	-5	-2
Average finish time through the year	7:02 PM	6:01 PM
Start of evening milking	5:13 PM	4:20 PM
Interval between milking (hr:mins)	09:54	08:57
Date first calves go to grass	10-Apr	22-Mar
Feeding calves once a day	28%	58%
Serious assists as % cows calved	9%	6%
Slurry work contracted	36%	50%
Fertiliser spreading contracted	11%	23%
Heifers rearing contracted out	5%	18%
Length of breeding season (weeks)	15.5	13.8
How many weeks of AI are used	9.9	8.9
Percentage with teaser bull	33%	44%
Are heifers synchronised	32%	51%
What is the length of winter for cows (wks)	14	12
How many groups of stock are grazing in July/Aug	4.7	6.3
Farms where paddocks are topped once or never	57%	82%
Roadway surface described as above average	46%	64%
Farms milking cows throughout winter	38%	24%
Herd screened for diseases bulk milk samples (yes/no)	70%	91%
Is there a handling facility on every land parcel	62%	84%

Some labour efficient tips/practices emerging from the groups

System

- Dairy enterprise only - a single farm enterprise simplifies overall operation. Consider contract rearing of replacements.
- Seasonal milk production - will reduce overall labour requirement compared to winter /spring calving. The herd is treated as one – one calving season, one feeding system, etc.
- Compact spring calving - allows for a closed period in winter in December / January. Compact calving will increase labour requirement in February / March /April, but this can be planned and paid for by the increased milk produced off-grass (more profit).
- Avoid complex systems - e.g. where alternative feeds is fed, such as cereal crops / maize and mixtures of straights. These systems require extra machinery to mix and feed, increasing costs and increasing labour requirement. Calve the herd to match grass availability in Spring.

Calving

- Compact calving – Focuses the work in a short period when everyone prepared for calving.
- Prevention of calving problems – use preventative practices e.g. correct calving body condition, adequate feeding, batching cows, dry cow minerals, etc to prevent problem and downer cows
- Freshly calved cows – keep in separate group from milking herd, near the parlour and milk once a day
- Easy calving sires - will reduce the number of assists during calving.
- Night feeding of silage - feeding cows in late evening after a restricted period of no silage results in more calvings by day.
- Night calving – have cows in good fit condition, organise night help for large herds. Calving camera can reduces time spent travelling to/from house and calving facility.
- Group calving – reduces feeding time and observation time
- Outdoor calving – reduces need for bedding
- Two year old calving – less groups of replacement stock to manage/feed

Calf Rearing

- Group feeding - feed calves in group pens. Individual pens (even for a few days) require more individual calf attention.
- Calf movements – get calves settled in their pen quickly, minimise moving calves from pen to pen
- Outdoor rearing - rearing calves outdoors with shelter will reduce the labour input for bedding.
- Milk transfer - pumping systems for milk transfer from dairy to calf house and within a calf house will reduce manual labour and reduce feeding time.
- Calf feeder on quad – easy movement of milk from parlour to calf house and calf rearing paddock.
- Mechanical cleaning of calf house - doorways with access for a loader to allow for quick and easy cleaning.
- Adequate facilities - new shed and bigger feeders required as number of calves reared increases.
- OAD feeding – feed calves once a day after three weeks of age.
- Beef calves – sell early and focus on dairy stock.

Milking

- Number of milking units - milking process time takes up approx. 33% of the working day, having sufficient units will go a long way to reducing your daily labour input. Target 7/8 rows of cows for one person operations.
- Early evening milking – Earlier evening milking forces better time management. Target 4.00 pm start of evening milking. No effect of 18/6 hour versus 12/12 hour milking interval with herds averaging < 6000kg herds.
- Once day milking - OAD milking can be used as a management tool at any stage during the lactation to reduce labour. It is particularly useful in early lactation during the peak calving period.
- Drafting facilities - either manual or electronic (operated from pit) will mean the milker need not leave the pit during milking to hold cows.
- Collecting yard - slatted yards or good channels in the collecting yard and high volume wash pumps will speed up.
- ACRs - will allow one person to manage a large number of units without concerns of over-milking.
- Backing gates – eliminates need to leave parlour to get cows into pit

- Automatic machine washing - will help reduce the labour input for machine cleaning.

Grassland

- Improved roads - a good farm roadway is essential with a smooth surface to allow easy movement on cows to the parlour. A clean roadway will reduce the preparation time of udders for milking.
- Less topping – better grassland management minimises need for topping
- Paddock map – allows better communication and planning between farmer and family/employee/contractor.
- Three grazings per paddock - Grass can be allocated every 24 / 36 hrs during summer, avoiding the need for wires and 12 allocations.
- Paddock access - extra entry gates/gaps will allow more access and facilitate a longer grazing season.
- Early spring grazing - cleaner cows reducing preparation time and possible infections.
- Later autumn grazing - Likewise grazing cows later in the Autumn will reduce the labour input with cubicle cleaning and slurry spreading.
- Short of grass (autumn/spring) – consider leaving half the cows indoors and half outdoors rather than letting a out for three hours grazing and then re-housing.
- Quad bike - used for herding/fetching cows.
- Tunnels – eliminates need for second person when crossing public roads

Breeding

- Heat detection aids – minimizes observation time for detecting cows in heat
- Teaser bull – useful after the first 3 weeks of the breeding season
- Auto heat detection - minimizes observation time or detecting cows in heat
- AI technician – some large herds are reverting back to technicians to save time spent inseminating
- OAD AI – one drafting time only.
- Synchronise heifers – heat detection and insemination can be confined to 10 days following synchronization

Animal health

- Handling unit - Good handling facilities for cows for AI, vaccinations, herd testing, hoof care is vital.

- Outfarms - Handling unit on all land parcels
- Disease prevention – Animal health programme and screening will minimise health issues
- Bulk milk screening – the more labour efficient herds are practicing bulk milk screening as an early signal for prevention of animal health issues