

## Discussion groups - Labour efficiency and practices

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### 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, the results analysed and feedback given to the groups. This feedback resulted in further refinement of the questionnaire for use with other 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 when the group visited member's farms.

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 hours) was the starting point for discussions on labour efficiency.

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

## 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
<b>Difference (hrs/week)</b>	<b>- 5</b>	<b>- 2</b>
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
Percentage with teaser bull	33%	44%
Are heifers synchronised	32%	51%
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%
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 and spring calving. The herd is treated as one – one calving season, one feeding system, etc.
- Compact spring calving allows for a dry period in December / January. Compact calving will increase labour requirement in the February-April period 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 are fed, such as cereal crops, maize and mixtures of straights. These systems require extra machinery to mix and feed, increasing costs and labour requirement. Calve the herd to match grass availability in spring.

### **Calving**

- Compact calving focuses the work into a short period when everyone is 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 period of no access to silage results in more calvings by day.
- Night calving have cows in good fit condition, organise night help for large herds. Calving camera can reduce time spent travelling to/from house and calving facility.
- Group calving reduces feeding time and observation time.
- Outdoor calving reduces the need for bedding.
- Two year old calving results in having fewer groups of replacement stock to manage and 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 of calves with shelter will reduce the labour input for bedding and feeding.
- 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 – the actual milking process comprises approximately 33% of the working day, having sufficient units will go a long way to reducing your daily labour input. Target between 7 and 8 rows of cows for one person operations.
- Early evening milking – an 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 < 6,000kg/cow.
- Once day 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 eliminate the need to leave the parlour to get cows in.
- Automatic machine washing will help to reduce the labour input for machine cleaning.

### ***Grassland***

- Improved roads - a good farm roadway is essential with a smooth surface to allow easy movement of 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 all of the herd out for three hours grazing and then re-housing.
- Quad bike - used for herding/fetching cows.
- Tunnels – eliminate the need for a second person when crossing public roads.

### ***Breeding***

- Heat detection aids minimize the observation time required for detecting cows in heat.
- Teaser bull is useful after the first 3 weeks of the breeding season are completed.
- 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.
- Synchronize heifers – heat detection and insemination can be confined to a 10 day period with synchronization.

### ***Animal health***

- Handling unit - good handling facilities are vital for AI, vaccinations, herd testing, hoof care etc.
- Out farms – it's essential that there's a handling unit on all land parcels;
- Disease prevention – implementing an animal health programme will minimise health issues;
- Bulk milk screening – the more labour efficient herds are practising bulk milk screening as an early signal for monitoring and controlling animal health issues.