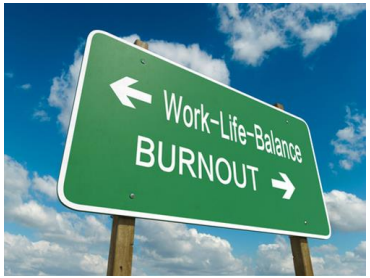

Getting to grips with labour challenges on dairy farms

National Dairy Conference | 29/11/23

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Presentation outline

- Global workforce issues
- Skills required
- Effect of labour efficiency on labour demand
- Work organisation
- Profitability and technical performance

Farm workforce issues in a global context

Total numbers of people working in agriculture → 30% reduction in agri's share of total employment in industrialised countries

Farm expansion increases demand for *non-family* workforce → Assistant/farm hands; Assistant/managers different issues

Global skills shortage → Global competition for mid-range and higher level skills (labour mobility) (OECD, 2013)

Two countries – different approaches

The People in Dairy Programme

- **1**: Labour availability
- **2:** Labour efficiency
- **3**: People management skills
- **4**: Training
- **5** : Progression/ Succession
- **6**: Promotion

(OECD, 2023)

Workforce issues in other Irish sectors

- Ireland is heavily dependent on foreign trade and influenced by global markets
- Difficulty of filling roles:
  - High employment rates
  - Rising wages
  - More active recruitment
- Likely to be a consistent challenge in the coming years

(OECD, 2023)

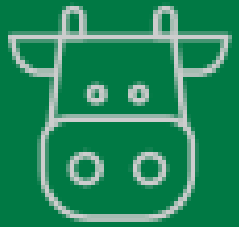
Farming requires >120 skills

Adapted from: National Centre for Dairy Education Australia, 'Dairy Farm Skills Framework'

Business

People

Animal



Production

Compliance

Machinery

Labour efficiency

Herd size: < 150 cows

- Average: 23.8 h/cow/ year
- Max: 38.9 h/cow/ year
- Min: 13 h/cow/year

(Deming et al., 2018)

Effect of labour efficiency on labour demand

	Max	Average
	38.9 h/ cow/ year	
150 cows	5,835 h/ year	

(Deming et al., 2018)

5 Strategies to improve labour efficiency

Farm system

Practices & technologies

Work organisation

Facilities

Outsourcing

Work organisation

Efficient/ productive

Maximising output from inputted labour without negatively affecting work quality

- h/ cow
- Farmer work h/ day

Flexible

Balance between work and personal life – **TIME OFF**

- Farmer length of working day
- No of days off

Standardised

Sequence and structure of tasks to ensure productive work

- Fewer tasks completed
- Early/ consistent finish time

Photo credit: NDC

(Hogan et al., 2023)

teagasc
Agriculture and Food Development Authority

Work organisation on 2 farms in March

- **Shorter working day**
- **Shorter working week**
- **Completed fewer tasks per day**

(Hogan et al., 2023)

Differences between farms: Milking

System	• 87% v 56% 6 week calving rate
Facilities	• 22 units v 6 units - 4 rows v 13 rows • ACR's v none • Dumpline v none • Cow entry and exits gates operated from anywhere in the pit
Practices	• Less time cleaning parlour (tractor v handscraping 5 min v 20mins) • Upgrading parlour during march (farmer B)

Differences between farms: Cow care

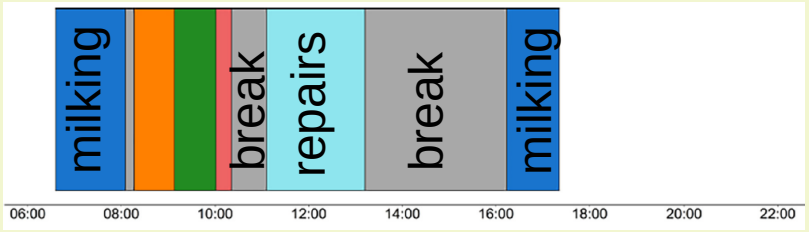
Facilities	• All cows housed in the same shed v 3 sheds • Shorter distances between calving shed and milking parlour • Shorter distances between feeding area and silages pits • 1 feed face v 3 – both had adequate space / cow
Practices	• No scraping of passages v some

Differences between farms: Calf care

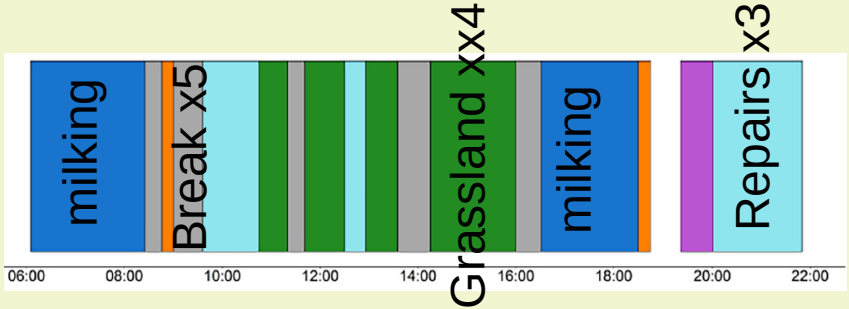
Facilities	• Calves all in 1 shed v 2 sheds • Pens cleaned mechanically v manually
Practices	• Calves registered using apps v online • Calves sold at 3 wks v 6wks

Work organisation on 2 farms in May

(A)



(B)



Administration/Business | Breaks | Calf Care | Cow Care | Feeding

Grassland Management | Heifer Care | Milking | Other Enterprises | Repairs & Maintenance

(Hogan et al., 2023)

Differences between farms: Breeding

Practices	• Shorter breeding season (10 wk v 13 wk) • Shorter AI period (4 wks v 9 wks) • Synchronised heifers (yes v no)

Differences between farms: The person

Values, culture & knowledge

Self-reflection & self-awareness

Learnable skill

Course/ discussion group

Trusted others

Farm performance indicators among the most and least labour efficient farms (n = 72) (Feb – June)

	Top 25% of labour efficient farms	Bottom 25% of labour efficient farms
Hours / cow	11.3	28.7
6 week calving rate (%)	86	78
EBI (Economic Breeding Index)	146	127
Kg Milk solids per cow	233	239
Gross margin/ ha (€) (n = 45)	2,918	2,208
Net profit/ hectare (€) (n = 45)	1,768	1,241

Summary

- Increased competition
- Reducing hours/ cow is important – attractiveness and demand
- Positive impact of good work organisation
- Positive effect on profitability

Thank you! Any questions?

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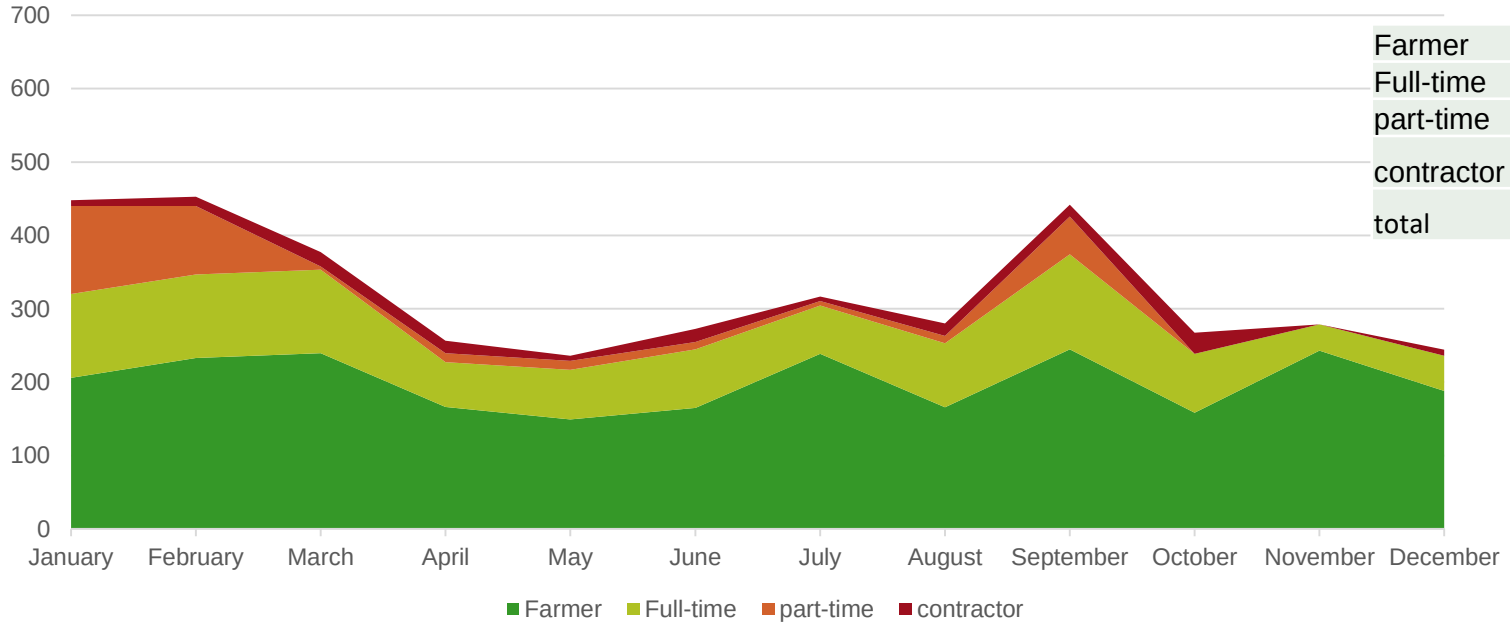
www.teagasc.ie/animals/dairy/labour/

Case study- farm with 163 cows



Farmer	2396.891
Full-time	997.6
part-time	318.3333
contractor	159
total	3872

23.8

Effect of labour efficiency on labour demand

- 150 cows x 38.1 h/cow/year (Deming et al., 2018) = 5,715 h/year
- Farmer working week (2wks hols + 1d/wk) = 55h x 43wk
  = 2365 h/yr
- 5,715h – 2365h = 3,350h
- Employee 1 (4wks hols + BH) 48h x 46 weeks = 2,208 h/yr
- Employee 2 (4wks hols + BH) 25h x 46 weeks = 1,142 h/yr
- **150 cows requires owner + 2 employee**
- **Cost = €50, 250**

Effect of labour efficiency on labour demand

- 150 cows x 23 h/cow/year (Deming et al., 2018) = 3,450 h/year - 2,265 h/yr
- Farmer working week = 2,365 h/yr
- 3,450h – 2,365h = **1,085h**

150 cows operating at 23 h/cow/year requires owner + 1 part-time employee

- **Potential saving of €33,975/yr**

Total labor (h/yr)	3,015
Farmer (h/yr)	2,234 (±128)
Hired (h/yr)	245 (±147)[a]
Contractors (h/yr)	207 (±128)
Family (h/yr)	330 (±187)
Efficiency (h/cow per yr)	25.1 (±1.5)[a]
Milking task	
Farmer (h/cow per yr)	7.9 (±0.4)[a]
Hired staff (h/cow per yr)	0.6 (±0.4)[a]