

Trends in Dairy Farm Costs and Inputs 2019-22

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Teagasc Dairy Knowledge Transfer

 **National Dairy Conference 2023**

Wednesday, 29 November
Lyrath Estate Hotel, Kilkenny

 Scan to register!



Background and Context

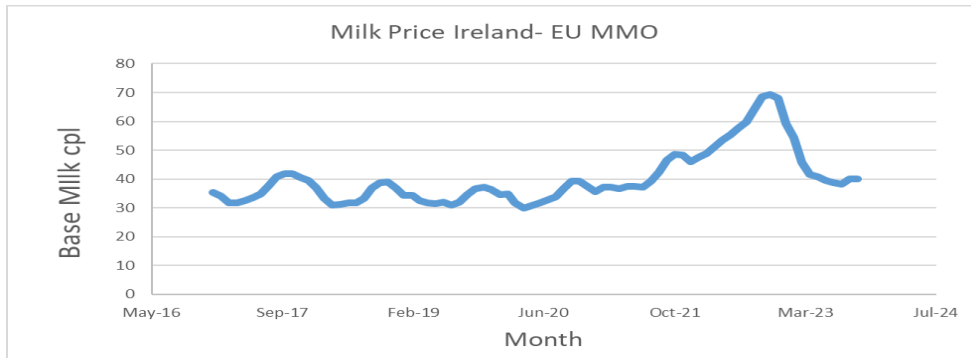
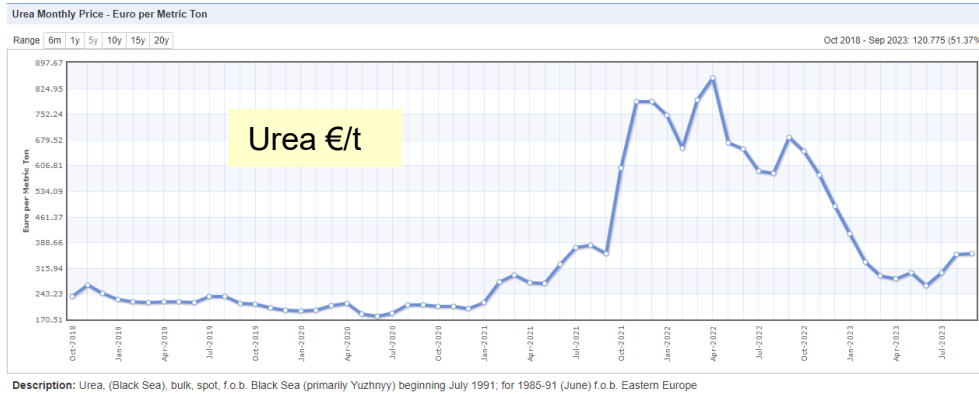
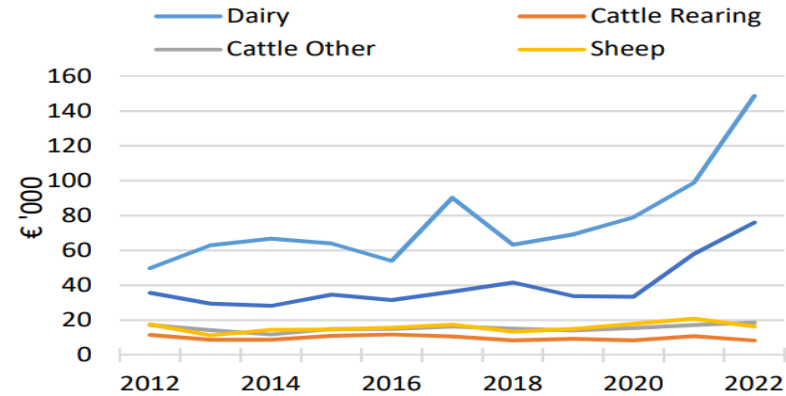


Fig 2: Trends in farm system average FFI 2012 - 2022



Source: Teagasc National Farm Survey

Key questions:

- Did increased milk prices drive changes to input usage?
- Did increased input prices affect input usage?
- Long-term implications for profit?

Selection of Sample Dairy Farms

- Objective: Examine change in costs, inputs and efficiency metrics for a group of specialist dairy farms
- Teagasc eProfit Monitor Database
- Financial and Physical data for at least 5years
- Specialist dairy farms >90% livestock units as dairy
- 2019 - 2022 data checked and verified
- **100 farms selected for final analysis**
- Larger scale and higher intensity than National Average
 - Labour costs and land lease charges excluded from common input costs
 - No inference to full national average cost per litre to be drawn

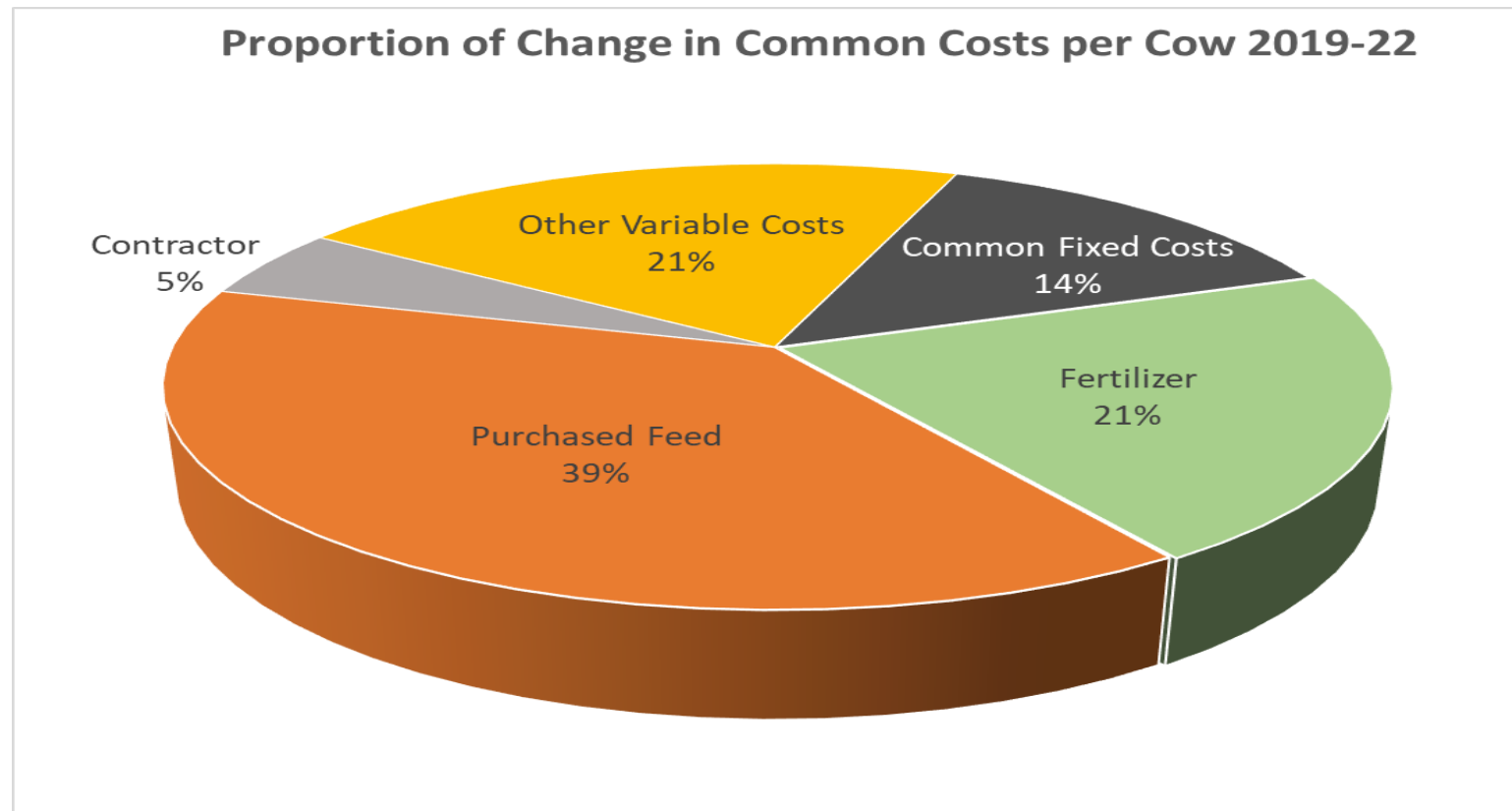


Change in Costs 2019-2022

	2019	2022	Difference
Cows	163	182	19
Farm Stocking Rate	2.42	2.46	0.04
Milking Stocking Rate	2.99	3.04	0.05
Milk solids per cow	497	511	14
Costs € per cow			
Fertilizer	177	294	117
Purchased Feed	312	527	215
Contractor	160	188	28
Other Variable Costs	263	381	118
Total Variable Costs	912	1390	478
Common Fixed Costs	465	541	76
Common Costs total	1377	1931	554
Margin per ha*	1639	3792	2153

*Before land, labour and capital repayment costs
Teagasc Presentation Footer

Analysis of Change in Costs

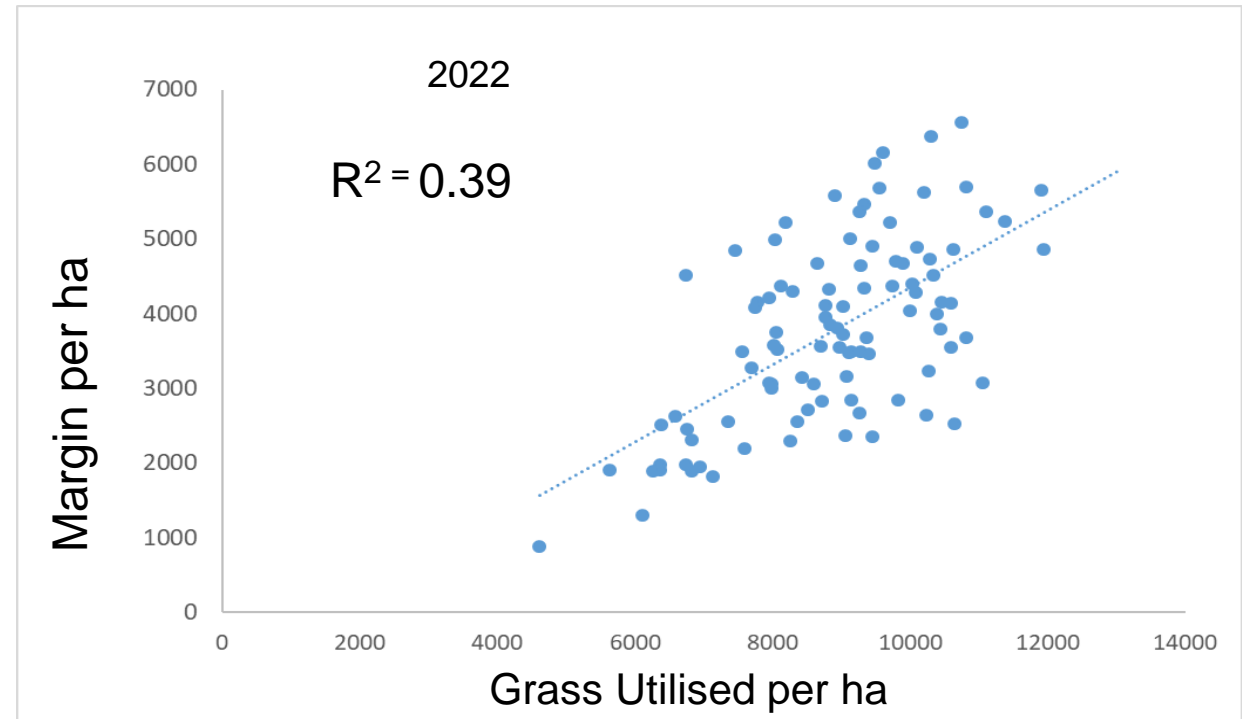
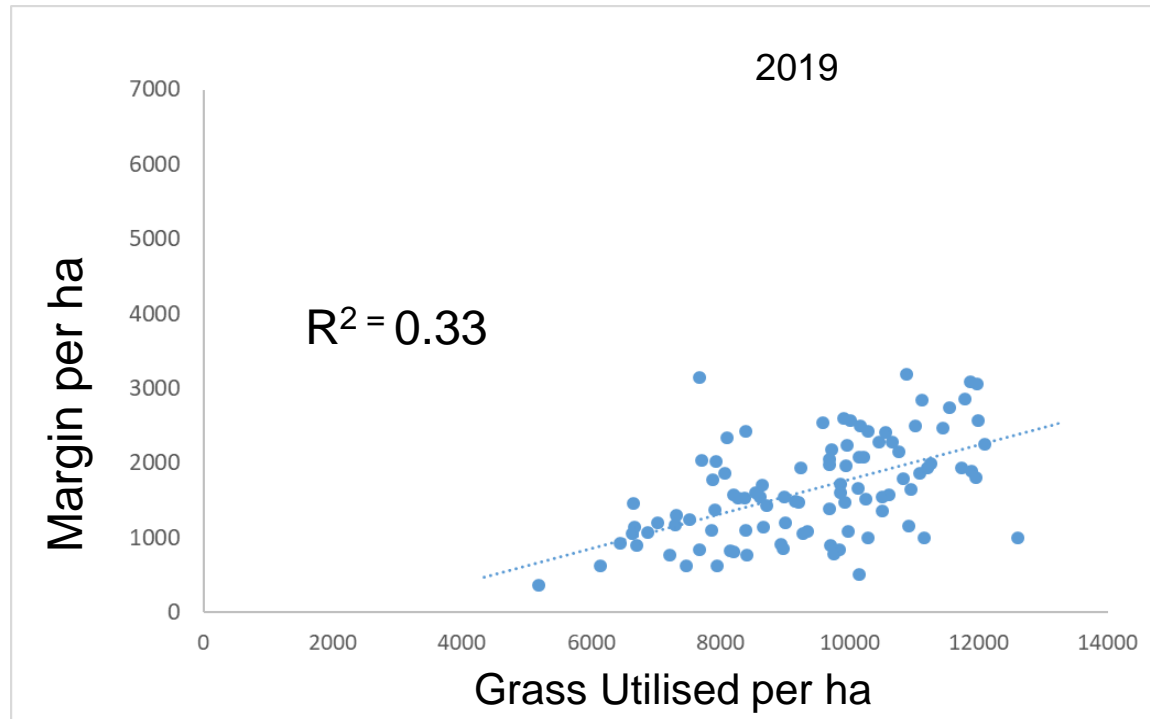


- Purchased Feed cost increase at almost twice rate of fertilizer
- Total Fertilizer cost change: **110%** due to tonnage price
- Total Feed cost change: **65%** due to tonnage price

Change in Feed Budget Metrics

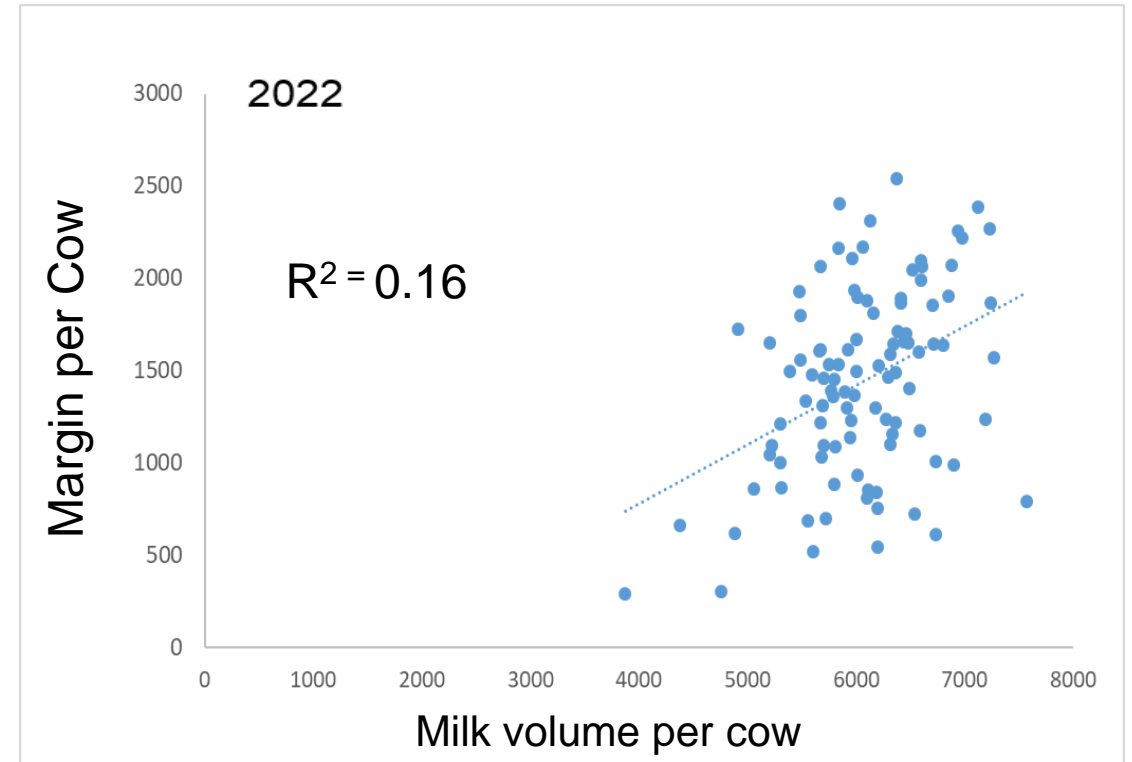
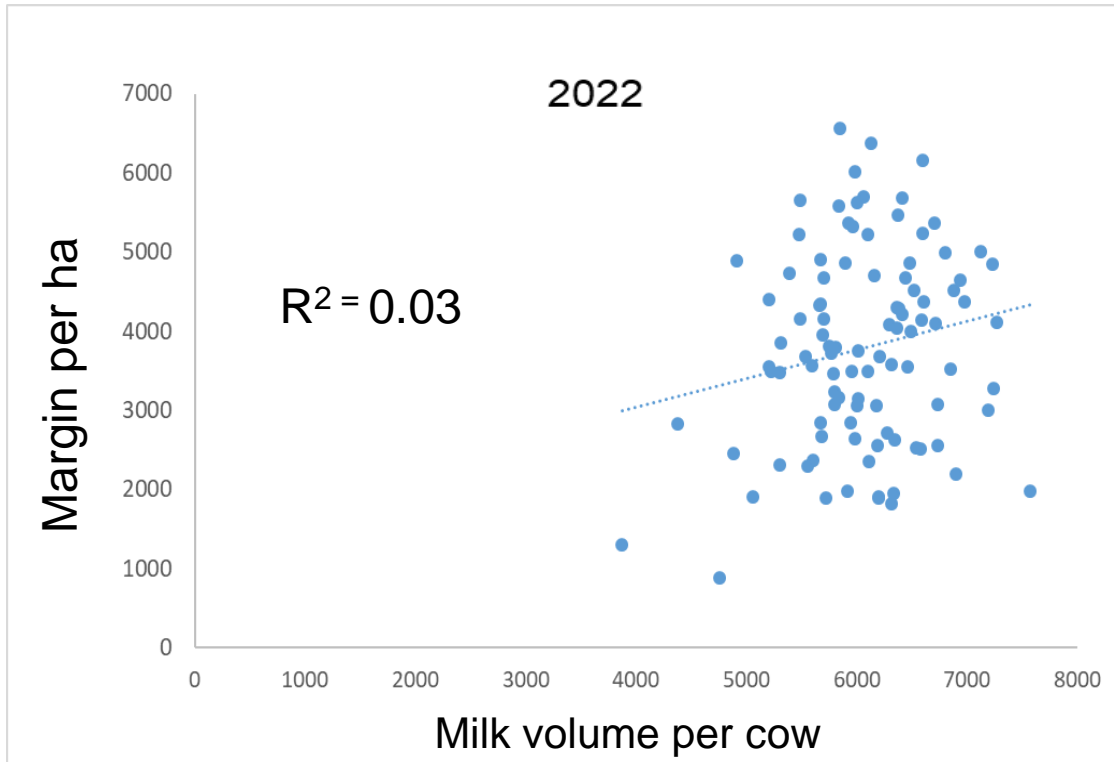
	2019	2022	Difference
Cows	163	182	19
Farm SR	2.42	2.46	0.04
Milking SR	2.99	3.04	0.05
Solids per cow	497	511	14
Milk litres per cow	5965	6060	95
Concentrate kg per Cow	1028	1299	271
Fertilizer N per ha	213	194	-19
Grass Utilised per ha	9.40	8.90	-0.50

Pasture Utilised v Margin per ha



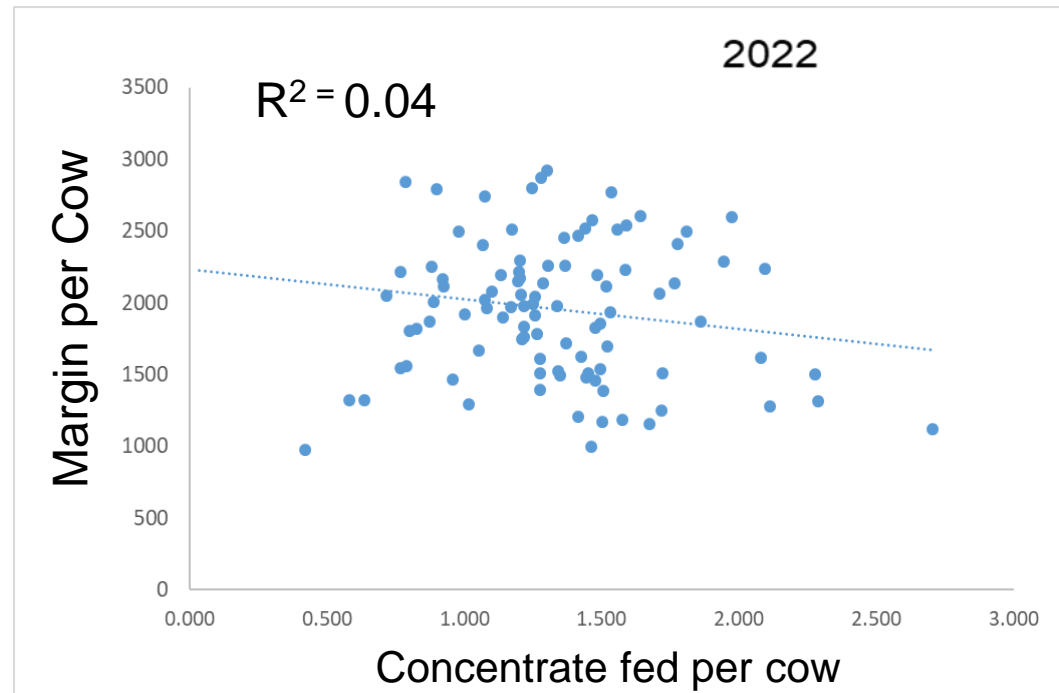
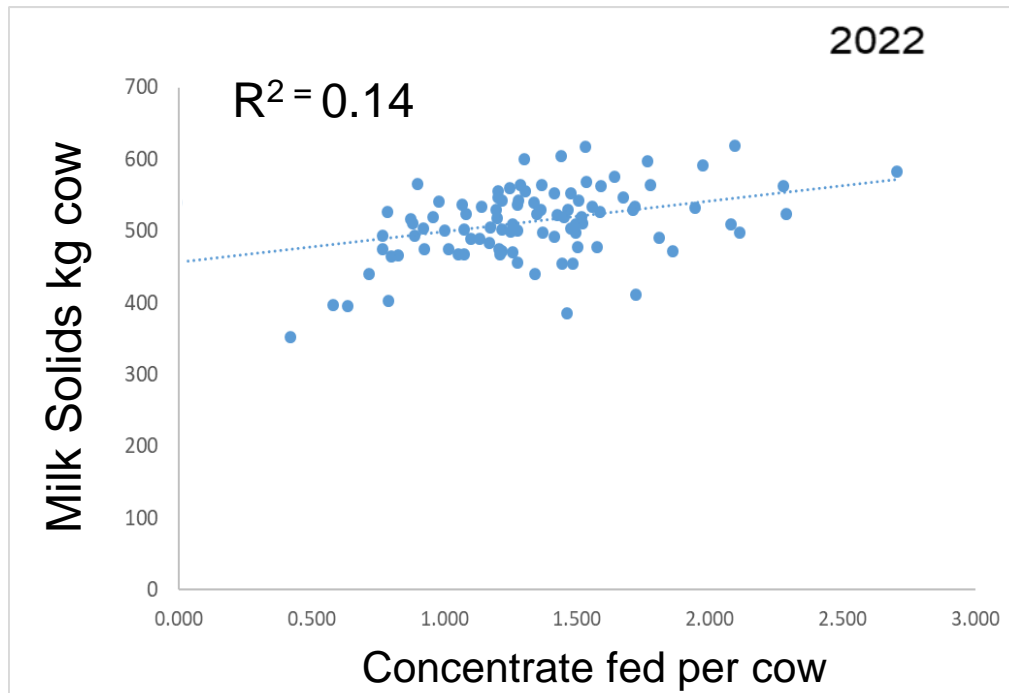
- Pasture utilised- strong positive relationship to margin per ha within year
- Consistent effect across years with very different price/cost bases

Output per Cow and Margin



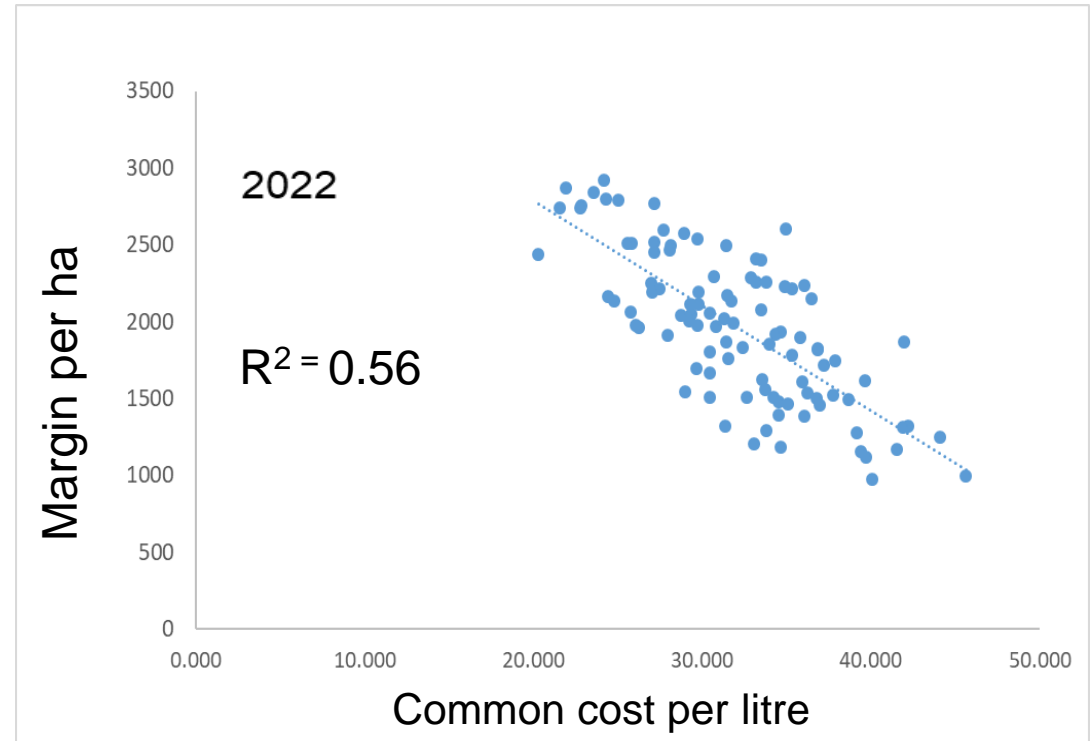
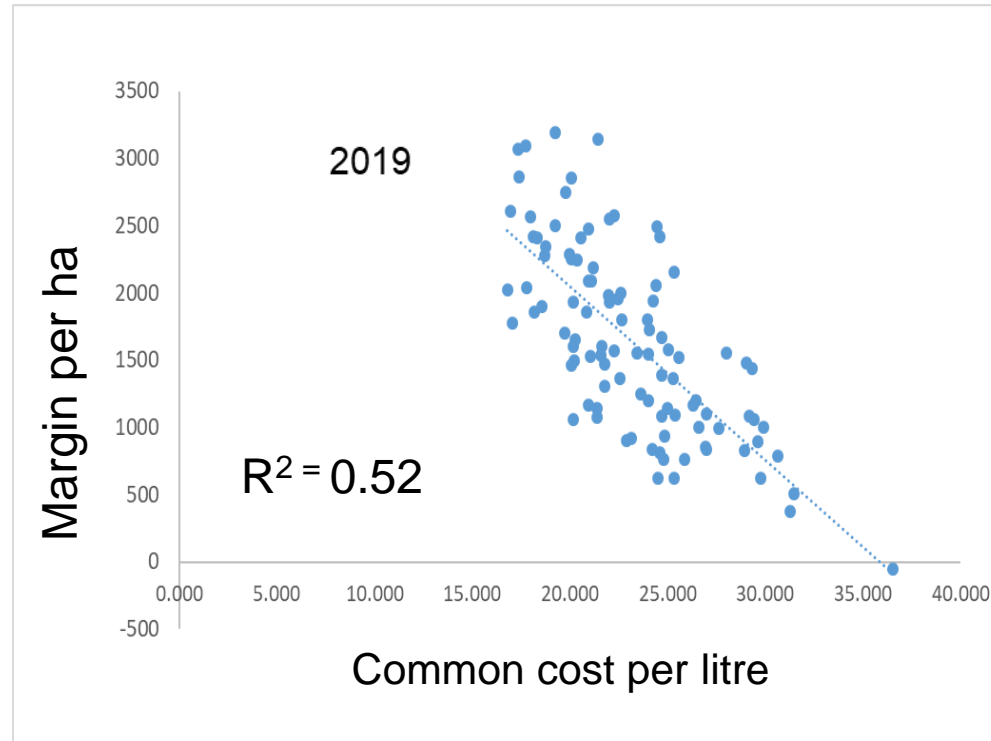
- Milk yield (or solids) had a weak relationship to margin per ha
- Moderate to weak relationship to margin per cow
- Similar across both years (no effect of price/cost variations)

Concentrate Rate v Solids and Margin



- Annual concentrate feed rate per cow:
 - Moderate to weak relationship with solids per cow
 - Did not relate to margin per cow or per ha
- Increased concentrate feeding rate in 2022 gave negligible milk response
 - Compensation for change in forage budget?

Cost per litre and Margin per ha



- Strong relationship between *cost per litre* and margin per ha
 - Discipline on cost control is not a 'low milk price year' activity
 - Changes in cost base scenario reflect **price x rate** effects
 - Processes drive cost per litre

Summary and Conclusions



- Study farms responded to high fertilizer price by reducing rate by 10%
- Increased concentrate price did not lead to a reduction in concentrate usage

- High fertilizer prices - substitution of one input for another (concentrate)
- Was high milk price a signal to feed extra concentrate for marginal response?
 - Average response was 0.35kg milk per kg additional concentrate
 - High milk price may have masked the lack of economic response to additional feeding

- Pasture Utilisation was a key driver of dairy farm profit per ha *within* year
 - However, pasture utilisation declined by 0.5t DM per ha across farms in 2022
 - Less focus on grass growth; increased feed supplement rate for little change in milk
 - Record profits in 2022 were driven by milk price increases, not by efficiency gains

- Cost per litre strongly linked to margin per ha across both years
 - Essential to maintain cost control focus independent of changes to milk price