

# Marginal Milk Costs

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**Are you making money from milk or  
milk from money?**

# Northland Agricultural Research Farm Dargaville





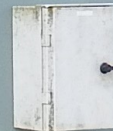
**Each farm has 27.5 ha and up to 90 high BW cows**







It starts here...  
**18377**



It starts here...  
**18378**



# Trial Structure

- **Pasture Only Farm**
  - 2.7cows/ha, no supplement
- **PKE Only Farm**
  - 3.1cows/ha, limited supplement
  - PKE fed within FEI limits
- **PKE Plus Farm**
  - 3.1cows/ha, unlimited supplement
  - PKE fed first until FEI limiting, then DDG, SBH or silage



# Results – 3 year averages

	Kg MS/ha	kgMS/c	Supplement Purch kgDM/c
Pasture Only	916	342	
PKE Only	1209	389	837
PKE Plus	1328	426	1253

# Supplement Purchased

**\$ landed**

**PKE**                      \$380/t

**DDGS**                    \$638/t

**Baleage**                \$90/b

**SoyaBeanH**            \$458/t

# Results – 3 year averages

	Kg MS/ha	Supplemt Purch kgDM/c	Milk Response gMS/kgDM
Pasture Only	916		
PKE Only	1209	837	113



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Milk response  
decreases as  
supplement input  
increases

# Repro Results – 3 year averages

	6 week in-calf rate	Empty Rate
Pasture Only	75%	8%
PKE Only	71%	10%
PKE Plus	73%	7%

Supplement feeding had no impact on mating performance



# Profit Results – 3 year averages

	Kg MS/ha
Pasture Only	916
PKE Only	1209
PKE Plus	1328

Financial analysis accounts  
for all costs associated  
with each farm system  
including labour and  
machinery hours

# Profit Results – 3 year averages

	Kg MS/ha	Operating Profit \$/ha (@ \$9.50)
Pasture Only	916	\$2,737
PKE Only	1209	\$3,339
PKE Plus	1328	\$3,360

# Profit Results – 3 year averages

	Kg MS/ha	Operating Profit \$/ha (@ \$9.50)	Operating Profit \$/ha (@ \$9.00)
Pasture Only	916	\$2,737	\$2,279
PKE Only	1209	\$3,339	\$2,735
PKE Plus	1328	\$3,360	\$2,696



# Beware of using average FWE

	Fm Working Exp \$/kgMS	Marginal cost of extra milk
Pasture Only	\$6.70	
PKE Only	\$6.85	\$7.69
PKE Plus	\$7.02	\$9.35

# Beware of using average FWE

	Fm Working Exp \$/kgMS	Marginal cost of extra milk
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PKE Only	\$6.85	\$7.69
PKE Plus	\$7.02	\$9.35

**Other farm costs rose by \$0.95 for every \$1 spent on supplement**

# Profit is more sensitive to milk response than supplement price

Milk Response gMS/kgDM	50	75	100	125
Profit \$/ha	\$1,801	\$2,421	\$3,042	\$3,662

\$620/ha for every  
 25g/kgDM extra  
 milk response



## Profit is more sensitive to milk response than supplement price

Milk Response gMS/kgDM	50	75	100	125
Profit \$/ha	\$1,801	\$2,421	\$3,042	\$3,662

\$620/ha for every  
25g/kgDM extra  
milk response

PKE Price \$/t	\$500	\$400	\$300	\$200
Profit \$/ha	\$3,066	\$3,340	\$3,614	\$3,887

\$274/ha for every  
\$100/t PKE price

**Profit is more sensitive to milk response than supplement price – focus accordingly**

\$620/ha for every 25g/kgDM extra milk response

\$274/ha for every \$100/t PKE price

**Which do you spend  
more time monitoring?**

# Key to Good Milk Responses

- Minimise supplement wastage
- Monitor pasture residuals to minimise pasture wastage
  - Be prepared to pull supplement out when residuals rise
  - No effect on repro if cows are fully fed
- Use residuals rather than production levels to drive supplement decisions
- Beware of in-shed feeding systems

# Summary

- Cost of extra milk from supplement can be high
- Other farm costs rise by \$0.85-\$1.05 per \$1 spent on supplement – labour/machinery/milking costs
- Responses decreased with increasing supplement fed
- Profit more sensitive to milk response than price
  - Focus accordingly





# Drought Management

- Make as much quality grass silage as we can
- Ration out supplement as long as possible
- Use residuals to drive supplement use
- Silage is precious! Do not feed silage to anything other than milking cows

# Drought Management

- Purchase feed to keep good cows milking as long as possible
- OAD if low BCS but need to feed well
- Cull poorer producers
- Dry off lighter cows and use PKE to fatten