

Save-A-Buck

What are your options with
fertiliser for this year?

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Case study



- 600 cows, 250 ha, 50% irrigation
- Break-even milk price \$4.17
- Soil test results available
- Applies 0:7:13:8 at 300 kg/ha
- Plus Pasture Boosta and Single Super
- N applied at 133 kg N/ha/year
- Annual fertiliser expense \$176,000

Soil test versus target



	Dryland		Irrigated	
	<i>Result 1</i>	<i>Result 2</i>	<i>Result 3</i>	<i>Result 4</i>
Phosphorus (P) Olsen P test	33 (20)	20 (20)	22 (20)	34 (20)
Potassium (K) Cowell K test	354 (213)	312 (148)	130 (127)	168 (148)
Sulphur (S) MCP test	33.1 (20)	30 (20)	9.5 (20)	11 (20)
PBI	265	74	39	81
Soil Type	Clay Loam	Loam	Sand	Loam

Nutrient Budgeting



Paddock Details

Dryland

PBI: 265 Soil Texture: Clay Loam

Soil Test Results: P = 33, K = 354, S = 33.1

Exports and Losses

	Milk		Laneways		Fodder Sold		Soil Maintenance		
P	14	+	2	+	0	+	30	=	45
K	19	+	14	+	0	+	15	=	48
S	4	+	2	+	0	+	12	=	18

Total Nutrient Balance

	Tot. Fert. Applied		Nutrient in Purch. Feed		Nutrients Exported/ Lost		Nutrient Balance
P	58	+	11	-	45	=	+13
K	71	+	27	-	48	=	+50
S	68	+	9	-	18	=	+59



Nutrient budgets



	Dryland		Irrigated	
	<i>Result 1</i>	<i>Result 2</i>	<i>Result 3</i>	<i>Result 4</i>
P	+13	+17	+28	+25
K	+68	+68	+58	+36
S	+59	+59	-1	+51

Options



- 4 main options available:
 1. Maintain current fertiliser program
 2. Apply only maintenance fertiliser
 3. Apply maintenance fertiliser with extra N to grow and utilise more pasture
 4. Apply no P, K, S fertiliser for the year with extra N to grow and utilise more pasture

Option 1



- Current situation

Expenses minus non milk income	\$1,002,120
Production	240,000 kg MS

Breakeven milk price = \$4.17

Option 2



- Removing capital fertiliser costs from current fertiliser bill (\$176,000)

Expenses minus non milk income	\$1,002,120
Minus capital fertiliser costs	\$48,125
New expenses	\$953,995
Production	240,000 kg MS

Changed breakeven milk price = \$3.97

Option 3



- Applying extra 60 kg N/ha & maintenance P, K & S

Expenses minus non milk income	\$1,002,120
Minus capital fertiliser costs	\$48,125
Extra Urea	\$20,160
New expenses	\$974,155
Production (Response rate 8:1)	254,750 kg MS
(Response rate 16:1)	269,538 kg MS

Changed breakeven milk price:

Response rate 8:1 = \$3.82

Response rate 16:1 = \$3.61



Option 4



- Applying 253 kg N/ha and no P,K & S fertiliser

Expenses minus non milk income	\$1,002,120
Minus current fertiliser costs	\$176,000
Adding Urea costs	\$86,625
New expenses	\$912,745
Production (Response rate 8:1)	269,538 kg MS
(Response rate 16:1)	299,076 kg MS

Changed breakeven milk price:

Response rate 8:1 = \$3.38

Response rate 16:1 = \$3.05

Take Home Messages



- Utilise your pasture first
- Soil Test
- Complete a nutrient budget (re-examine once changes made)
- Mine P, K & S Levels if above optimum
- Keep applying N
- Lime
- Look at how you buy fertiliser

Conclusion



- Examine your options & look for other savings
 - Fertiliser not the only way to reduce costs
- Deal with what you can control forget about the rest

Do Something