# EXPANSION OF A DAIRY UNIT IN NORTHLAND 

## KELLOGGS NEW ZEALAND

## RURAL LEADERSHIP PROGRAMME

COURSE X 1

ROGER TAYLOR
NOVEMBER 1992

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## SUMMARY

The project involves a comparison of land purchase options for expansion of a Northland Dairy Unit.

## OPTIONS COMPARED:

## 1. Base Position:

90 hectare dairy farm milking 200 cows.
Replacements grazed off.
Stocking rate 2.22 cows per hectare
150 kg milkfat per cow
333 kg per hectare.

- Debt free position


## 2. Expansion of Dairy Unit by Purchase of Adjacent $\mathbf{6 0}$ Hectares:

Now a 150 hectare farm - 2.1 cows per hectare replacements grazed off
315 cows - 149 kg per cow

$$
\text { - } \quad 313 \mathrm{~kg} \text { per hectare }
$$

| Land Purchase Price | 250,000 |
| :--- | ---: |
| Development Costs | 194,500 |
| Purchase Additional Stock | $\underline{88,000}$ |
| New Borrowing | $\$ 532,500$ |
| Loan Establishment $1 \%$ | $\underline{\$ 537,825}$ |
| New Loan | $\mathbf{\$ 5 3 8 , 0 0 0}$ |

## 3. Purchase of $\mathbf{9 0}$ Hectares Dry Stock Unit as a Run-Off:

90 hectare dairy farm +90 hectare run-off.
a) Increase home farm stocking rate: 234 cows -2.6 cows per hectare

Winter grazing and supplements avail at run-off - 150 kg per cow

- 390 kg per hectare
b) Graze replacements on run-off.
c) Run 40 nurse cows and sell dairy beef as weaners on Autumn market.

| Land Purchase price | 250,000 |
| :--- | ---: |
| Development Costs | 97,976 |
| Extra Stock | 51,800 |
| Vehicle | 10,000 |
|  | 409,776 |
| Loan Establishment $1 \%$ |  |
|  | $\$ 413,873$ |
| New Loan | $\$ 414,000$ |

## PROPERTY REPORT - BASE FARM TOTAL AREA: 90 HECTARES

## Type of Farm:

This property is currently farmed as a dairy unit with replacement stock grazed off the property.

## PHYSICAL FEATURES:

## Shape:

The enclosed farm plan displays the shape and dimensions of this property. The block enjoys a long road frontage plus a good internal race system which provides easy workability. The title search showed that it has 10 titles of various sizes.

## Contour:

15 hectares alluvial clay flats.
62 hectares easy rolling to undulating.
13 hectares easy hill.
There is very little of this farm which would not be worked by a wheel tractor.

## Aspect:

Being of a rolling contour the property has a rather open aspect yet reasonably well sheltered from the prevailing winds.

## Rainfall:

1400-1500 mm per annum.
The last two seasons rainfall has been $1100-1200 \mathrm{~mm}$. The good balance of soil type and contour of this unit minimises the effect of the Summer drought.

## Soil:

40 hectares Waiotira clay loam.
30 hectares Waikare silty loam.
20 hectares Kara silt loam.
The majority of these soils are of low to medium inherent fertility, responsive to phosphate and lime applications.

Loosely termed gum clays, these soil are Winter wet, pug readily and have limitations to their carrying capacity. To this end it is noted that a wintering barn complex is established on the home property.

Overall the property has a good range of soil type not withstanding the wintering problem.

## Pastures:

The effective area of this property is assessed at 85 hectares which are very good mixed rye grass and clover swards.

The fertiliser application history is of 625 kg per hectare of $30 \%$ potassic super with a ton of lime every third year.

| PH | Phosphorous | Potassium | Sulphur | Calcium | Magnesium |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (P) | (K) | (S) |  |  |
| 5.9 | 23 | 11 | 6 | 15 | 25 |

These soil test levels indicate that present application rates are adequate for production of 350 kg MF per hectare.

## Pastures:

The effective area of this property is assessed at 85 hectares.
Within that area there is 75 hectares of very good mixed rye grass and clover swards, approximately 5 hectares of good pasture with moderate rushes and 5 hectares of wetter areas with generally poorer pasture quality.

Pastures have above average fertiliser application history with 70 tonnes of phosphatic fertiliser per annum over recent years. This application rate is 875 kg per hectare and the overall good standard of pastures would indicate a more than satisfactory level of fertility has been achieved.

## Stock and Production:

Stock number has levelled off at 2.5 cows per hectare and $25 \%$ of herd replacement with 2 year cows.

The herd has a BI of 130 with a $98 \%$ reliability.
Factory returns the last 3 seasons are a follows:
1989/90 $31501 \mathrm{~kg} / \mathrm{MF}$ - 201 cows.
1990/91 $28895 \mathrm{~kg} / \mathrm{MF}-198$ cows.
1991/92 $29650 \mathrm{~kg} / \mathrm{MF}-200$ cows.
50 replacements are reared each year with the calves utilising on an average $15 \mathrm{~kg} / \mathrm{MF}$ per calf. Budget levels of 30000 kilo M.F. is not unrealistic.

## Fencing and Subdivision:

The property is fenced on all half share boundaries along its road frontages and subdivided into 40 paddocks. Internal fencing includes a mixture of permanent 7 wire fencing and some single wire electric fencing. With due regard to the policy currently adopted it is considered the existing fencing is adequate.

## Water Supply:

Water is pumped from a stream that runs along the western boundary of the property and is reticulated through a pipe and trough system with water being available in all paddocks.

## Buildings:

## 1/ Main Building:

This a Keith Hay home shifted to the property about 1964. It is of a boomerang shape, sound construction and pleasant design. When shifted to the site additions were carried out with a basement area of 30 m 2 and an attached carport of 39 m 2 . The living area of the house 160 m 2 or 1724 sqft .

Constructed of mainly brick veneer exterior walls, concrete foundation, timber floor, galvanised corrugated steel roof, gibraltar board and pinex tile ceiling linings, the dwelling provides 4 bedrooms, a separate dining room, kitchen, laundry, bathroom and toilet.

## 2/ Dwelling No.2:

This is the original Lands and Survey settlement house for this property built in the 1950's. The living area of 107 m 2 or 1150 sqft .

Constructed of fibroplank concrete block foundation, timber floor, galvanised corrugated steel roof, mainly hardboard linings, this dwelling provided three bedrooms, lounge kitchen/dining room, bathroom and toilet.

The laundry, garage and workshop are located next to the No. 2 dwelling with a covered walkway between.

The construction is timber frame with concrete floor, galvanised corrugated roof and fibrolite walls. The area of 83 m 2 or 890 sqft .

## 3/ Cowshed:

This building has been altered from the original walk-through to the present 16 aside Herringbone. The milkroom and tankstand is situated to the side of the Herringbone, with a milk tank of 5200 litres under cover. The milking machinery are Alfa-Laval that is 15 years old with a jetter cleaning system. The concrete yard has the capacity of holding 190 cows.

## 4/ Implement Shed:

Adjacent to the cowshed, this building is constructed of concrete foundation and floor, tantalised pole and timber frame and a galvanised corrugated sheet roof. An area of 167 m 2 or 1800 sqft with power reticulated workshop facilities installed.

## 5/ Calf House:

Adjoining the cowshed and is constructed on concrete piles foundation, construction ply exterior walls, galvanised corrugated steel roof and timber grating floor.

An area of 55.7 m 2 or 600 sqft provides sufficient area for 60 calves to be reared. An automatic milk feeder is installed in the shed, connected directly to the cowshed.

## 6/ Wintering Barns:

The wintering barns complex provides cover for 196 cows plus 3000 bales of hay storage. Constructed of galvanised corrugated steel walls and roof, timber framing and timber stalls. All manure drains into the effluent pools.


## BASE FARM - STOCK UNITS

## 1st December 1992:

200 cows @ 8 units per animal 1600
50 calves @ 3 units per animal 150

## 1st June 1992:

160 cows @ 8 units per animal 1280
50 rising 2 year olds @ 7 units per animal 350
1630

Stock Units Per Hectare To Winter:
90 hectares $=1630$ units $=18$

| CATTLE RECOINCILIATION |  | Eirths | Purch's | \$/Head | Value \$\$ | Sales | \$/Head Value SS |  | Deaths | Closing |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock Class | Opening |  |  |  |  |  |  |  |  |  |
| MA Cows | 150 | 4, 4 |  |  |  | 45 | 445 | 20,025 |  | 2 | 152 |  |
| Rayr Heifers | 50 | +13 4 |  |  |  |  |  |  | 1 | 50 |  |
| R1yr Heifers | 50 | W析 |  |  |  |  |  |  |  | 50 |  |
| Heifer Calves | T20]4u | 90 |  |  |  | 40 | 65 | 2.600 |  | W, 6 |  |
| Bull Caives | W1031 | 90 |  |  |  | 90 | 100 | 9,000 |  | 16+4 |  |
| R1 YrEulis \& Stee:s |  | +4,4 |  |  |  |  |  |  |  |  | Check |
| F2 ribulls \& Sieers |  | H/4 | 2 | 800 | 1.600 | 2 | 600 | 1,200 |  |  | Ealance |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Totals | 250 | 180 | 2 |  |  |  | 47210 | - 32825 |  |  | Ckay |
| Totals | 250 | 180 | 2 | 800 | 1.600 | 177 | 1.210 | 32.825 | 3 | 252 | Ckay |





| Cash Flow Analysis |  |
| :---: | :---: |
|  |  |
| Opering Balance |  |
| csing Balance | \$4 |
| inimum Balance | -\$13 |
| imum Balance | \$47.891 |
| verage Balance | $\$ 10$ |


| Budget Analysis | Totals | \$/Kg MF | \% of G.I. |
| :---: | :---: | :---: | :---: |
| (6ati Excl) |  |  |  |
| Gross Income G.I. 200,845 |  | \$6.69 | 100\% |
|  |  | $\frac{1}{534} 4$ | 94\% |
| Farm Working | 102.800 |  | 51\% |
| Debt Servicing | -164 | 90.67 |  |
| Other Expenses | 8.100 | \$0.27 |  |
| Tax\& ACC | 20,000 | 90.67 | 10 |
| Drawings \& L. Ins 25,000 |  | \$0.83 | 12\% |
|  |  | merny | Ther |
| Total Expenses | 155,536 | \$5.18 | 77\% |
|  |  | Warata |  |
| Budget Surplus | 45.309 | \$1.51 | 23\% |
|  |  | 144 4 w | H1] |
| Payout Used | Advance | \$4.80 | to June |
|  | Final | \$0.80 | Jul-Sept |
|  | Total | \$5.60 |  |
|  |  |  | W1-434 |
| Production this year (kg milkfat) |  |  | 30,000 |
| Praduction last year (kg milkfat) |  |  | 29.650 |
|  |  |  |  |

## BASE FARM BUDGET - 1992/93

## FINANCIAL YEAR 1ST JUNE TO 31ST MAY

## 90 hectares

200 cows
30000 kg
50 replacements
2.22 cows/hectare
$333 \mathrm{~kg} /$ hectare
No full time labour.

## Income:

Final M.F. 29650 kg @ .80c \$ 23720.00
Advance M.F. $30000 \mathrm{~kg} @ \$ 4.20$ \$126 000.00
Increase in advance M.F. February @ .60c \$ 18000.00

Cull Cows 45 @ \$445.00 \$ 20025.00

1. Bobby Calves 40 @ $\$ 65.00 \$ 2600.00$
2. Bobby Calves (Local sales) 90 @ $\$ 100.00 \$ 9000.00$

2 Bulls @ \$600.00 \$ 1200.00
Interest \$ 164.00
Rebates \$ 300.00

GST \$ 25106.00
$\$ \underline{25951.00}$
SURPLUS
\$ 45309.00

Note: 1. = See Monthly Cash Flow Budget Sheet - Page 8.

## Expenses:

| Wages - | Casual - December | $\$ 1000.00$ |
| :--- | :--- | :--- |
| Animal Health | $\$ 6000.00$ |  |
| Herd Improvement - | Artificial Breeding, <br>  <br>  <br> HerdTesting <br> Weighting replacements | $\$ 6650.00$ |
| Shed Expenses - | Detergents, rubberware, etc | $\$ 4100.00$ |
| Electricity | $\$ 3500.00$ |  |
| Hay and Silage - | 2000 bales | $\$ 4000.00$ |

1. Meal -
2. Grazing -
3. Fertiliser -
4. Lime -
5. Urea -
6.5 ton calves after weaning, calves below target weight
\$ 3800.00
50 yearlings @ \$6.00 per week \$ 15600.00
625 kg per hectare
56 ton $30 \%$ @ \$325.00 \$ 18200.00
625 kg per hectare
56 ton @ \$40.00
\$ 2240.00
80 kg per hectare
7.5 ton @ \$523.00
\$ 3990.00
Freight
Grassing -
100 kg
\$ 500.00
6. Weeds -
7. Pests -
8. Car

24D 40 litres @ \$10.5
Blackberry \$200.00
\$ 620.00
Cricket Bait, wheat and melothan
\$ 600.00
4. Tractor and Machinery
4. Bike
5. Water Supply -
5. Buildings -
5. Metal
5. Fencing
5. Drainage
6. Accountant
6. Adviser
6. Phone
6. Legal
6. Bank Charges
6. General -

Farm Insurance
Rates
Stock Purchases -
Capital Purchases -
GST on Purchases
Drawings
$\$ 2000.00$
$\$ 3500.00$
$\$ 1000.00$
Repairs \& Maintenance \$ 1500.00
Repairs \& Maintenance \$ 2000.00
\$ 4000.00
\$ 2500.00
\$ 6000.00
\$ 2000.00
\$ 1000.00
\$ 1000.00
\$NIL
\$ 200.00
Stamps, paper, radio, F.F, R.D. $\$ 700.00$
\$ 2000.00
\$ 2400.00
\$ 1600.00
2 Bulls @ \$800.00
\$ 5500.00
UFO Mower
\$ 1000.00
\$ 13713.00
Life Insurance
\$ 20000.00
Tax \& ACC
\$ 5000.00
GST Paid
\$ 20000.00
\$ 11393.00
$\$ 180642.00$
Note: 1. 2. 3. 4. 5. 6. $=$ See Monthly Cash Flow Budget - Page 9.

## DAIRY UNIT EXPANSION

## PROPOSED PURCHASE BLOCK - 60 HECTARES

## Situation:

The property is across the main road from the present main dairy unit. (Refer to plan).

## Type of Farm:

This property is farmed as a runoff to a beef farm. The stocking policy has been of set stocking of 2 to $2 \frac{1}{2}$ year old steer until they are in condition to sell.

## PHYSICAL FEATURES:

## Shape:

The title search showed that it is in 5 titles. One with 25 hectares and the other 4 in 16.25 hectare blocks.

These 4 have road access with the larger 25 hectares at the back of the property.

## Contour:

The contour is described as mainly easy to flat. There is no area that could not be worked with a wheel tractor.

## Rainfall:

1400-1500 mm per annum.
The last two seasons rainfall has been 1100-1200 mill.

## Soil Type:

70 hectares of Waiotira clay loam.
20 hectares of Waikare silty loam.
These soils are the same as the home farm with similar limitation on their carrying capacity.

## Pastures:

The effective area of the property is assessed at 59 hectares. There is 40 hectares of rye and clover swords with a proportion of rushes throughout and approximately 10 hectares wetter areas of a generally lower pasture quality.

The block has not had regular fertiliser application with no lime being applied for the last 5 years.

| PH | Phosphorous | Potassium | Sulphur | Calcium | Magnesium |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(\mathrm{P})$ | $(\mathrm{K})$ | $(\mathrm{S})$ |  |  |
| 5.5 | 16 | 6 | 4 | 7 | 12 |

These soil tests taken 1 month ago show that a capital dressing of 475 kg of $15 \%$ per hectare is required with the annual dressing of 625 kg of $30 \%$ per hectare in the first year. The 60 hectares will also require 2500 kg per hectare of lime.

This annual dressing of 625 kg of $30 \%$ should maintain pasture standard at a more than adequate level to achieve the production target expected.

The only weeds that need control are thistle that will be sprayed on a annual basis.

## Stock and Production:

With the purchase of this property the milking cow numbers will rise from the present 200 to 315 mixed aged cows. The cows per hectare will drop from the present 2.22 to 2.1 per hectare. The kilogram per hectare will also drop from 333 kg to 313 kg per hectare.

Replacements will still be grazed off the farm from 1st July to 30th June. There will be increases in the numbers of heifers reared from 50 to 70 head.

With the purchase of the 60 hectares, production will increase from the 3 year average of 30015 kg M.F. to the budgeted figure of 47000 kg M.F.

I consider this target to be realistic and feasible with the capital that would be spent on bringing the property up to standard.

## Farming and Subdivision:

The property is fenced on all half share boundaries with post and batten eight wire fences. The internal subdivision is only single wire electric with no races. The 60 hectares is cut into 10 paddocks of different sizes which could not be used for the dairy unit in its present form.

## Water Supply:

Each paddock has dam access, 2 paddocks have a trough that is fed from a dam. The water is below standard for a dairy unit.

## Buildings:

There are no buildings on this property.

$$
4
$$

## DAIRY UNIT EXPANSION - STOCK UNITS

## Replacements Grazed Off

1st December 1993:
315 cows @ 8 units per animal 2520
70 calves @ 3 units per animal $\underline{210}$
2730

## 1st June 1994:

255 cows @ 8 units per animal 2040
70 rising 2 year olds @ 7 units per animal 490
2530

Stock Units Per Hectare To Winter:
150 hectare
$=2530$ units
$=16.86$

| CATTLE RECONCILIATION |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock Ciass | Opening | Births | Purch's | \$/Head | Value 59 | Sales | \$/Head | Value $5 \$$ | Deaths | Olosing |  |
| MA Coms | 265 | , 4 |  |  |  | 45 | 445 | 20.025 | 4 | 265 |  |
| R2vr Heifers | 50 | W ${ }^{\text {a }}$ |  |  |  |  |  |  | 1 | 50 |  |
| Hlyr Heifers | 50 | W6344 |  |  |  |  |  |  |  | 70 |  |
| Heifer Calves | W, \% 4 , | 142 |  |  |  | 72 | 65 | 4,680 |  | W, W.4.4 |  |
| Buil Calves |  | 143 |  |  |  | 143 | 100 | 14.300 |  |  |  |
| R1 Yr Bulls \& Steers |  | 4 |  |  |  |  |  |  |  |  | Cheok |
| R2 rr Bulis \& Steers |  | W ${ }^{2}+4$ | 6 | 800 | 4.800 | 6 | 600 | 3.600 |  |  | Balance |
| Cther Cattle |  | 4 $\times$ M |  |  |  |  |  |  |  |  |  |
| Cuad 1 - | $\pi$ | 2fataver | Himum | \%14 |  | 51040 | Tilunim |  | CTMu | Tur | - |
| Totals | 365 | 285 | 6 | 800 | 4.800 | 266 | 1.210 | 42,605 | 5 | 385 | Okay |




| $\stackrel{1}{9}$ | Budget Prapared For: |
| :---: | :---: |
|  | RG TAYLOR |
|  | Address RD 2 PAPAROA |
|  | With:Chris Glassey, FarmWise Consultant 12 Butler Flace Whangarei Phone 09-4350662 |
|  | Proposal <br> To Borrow 1) \$ <br> 2) <br> For: PURCHASE AND DEVELOPMENT OF ADJA.CENT 60 HA FOR DAIRYING |


| Cash Flow Analysis |  |
| :--- | ---: |
|  |  |
| Opening Balance |  |
| Closing Balance | $\$ 16.415$ |
| Minimum Balance | $-\$ 54.562$ |
| Maximum Balance | $\$ 27.510$ |
| Average Balance | $-\$ 13.978$ |


| Budget Analysis | Totals | \$/kg MF | \% of G. 1. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Gross Income G.l. 292.225 |  | $\$ 6.22$ | 100\% |
|  |  |  |  |
| Farm Working | 153.551 | \$327 | 53 |
| Debt Servicing | 71.459 | \$1.52 | $24 \%$ |
| Other Expenses | 5.800 | \$0.12 | 2\% |
| Tax 8, ACC | 20.000 | \$0.43 | \% |
| Drawings \& L. Ins | 25.000 | \$0.53 | 9 |
|  |  |  |  |
| Total Expenses | 275,810 | \$5.87 | 94\% |
|  |  |  |  |
| Budget Surplus | 16.415 | \$0.35 | 6\% |
|  |  |  |  |
| Payout Used | Advance | \$4.80 | to June |
|  | Final | $\$ 0.80$ | Jul-Sept |
|  | Total | \$5.60 |  |
|  |  |  |  |
| Production this year (kg milkfat) |  |  | 47.000 |
| Production last year (kg milkfat) |  |  | 29,650 |
|  | $\cdots$ | Wa |  |

## BUDGET FOR DAIRY UNIT EXPANSION 1992/93

## FINANCIAL YEAR 1ST JUNE TO 31ST MAY

90 hectares +60 hectares $=150$ hectares.
315 cows.
50 replacement.
2.10 cows per hectare.

47000 kg M.F.
Employ 1 married person.

## Income:

Final M.F. $29650 \mathrm{~kg} @ .80 \mathrm{c}$ \$ 23720.00
Advance M.F. $47000 \mathrm{~kg} @ 4.20 \$ 197400.00$
Increase in M.F. (February) @ .60c \$ 28200.00

Cull Cows 45 @ \$445.00 \$ 20025.00

1. Bobby Calves 72 @ $\$ 65.00 \$ 4680.00$
2. Bobby Calves (Local Sale) $143 @ \$ 100.00 \$ 14300.00$
Bulls 6 @ \$600.00 \$ 3600.00

Rebates \$ 300.00
Interest \$NIL
GST Received $\$ 36528.00$
$\$ 328753.00$
SURPLUS $\quad \$ 16415.00$

Note: 1. = See Monthly Cash Flow Budget Sheet - Page 16.

## Expenses:

Wages - 1 labour unit and casual at December \$28000.00
Animal Health
Herd Improvement - Artificial Breeding
HerdTesting
Weighting replacements \$ 9975.00
Cowshed - Detergents, rubberware, Repairs \& Maintenance \$ 2000.00
Electricity
Hay -
3000 bales of hay
\$ 5250.00

1. Meal -
2. Grazing -

10 ton calves after weaning +
calves below target weight
\$ 5700.00
2. Fertiliser -
2.

50 yearlings @ \$6 per week \$ 15600.00
90 hectares 625 kg per hectare
56 ton 30\% @ \$325.00
\$ 18200.00
60 hectares 625 kg per hectare
37.5 ton $15 \%$ @ $\$ 315.00$
\$ 11812.00
2. Lime -

90 hectares
\$NIL
2.
2. Urea -
3. Weeds -

60 hectares 2500 kg per hectare
150 ton @ \$40.00
\$ 6000.00
150 hectares 80 kg per hectare
12 ton @ \$532.00
3. Pests -

24D 60 litres @ \$10.5
\$ 6384.00
Cricket Bait - wheat - melathon
\$ 630.00
Freight
Grassing
4. Car
4. Tractor machinery, extra work, fencing and water supply
\$ 2000.00
4. Trike -
5. Water Supply -
5. Metal Fencing -
5. Drainage
6. Accountant
6. Adviser
6. Phone
6. Legal
6. General -

Farm Insurance
Rates
Mortgage -
Bank Over Draft -
1 new labour unit
\$ 7000.00
Repairs \& Maintenance
\$ 2000.00
Repairs \& Maintenance (not new block) \$ 4500.00
\$NIL
\$ 3000.00
\$ 1000.00
\$ 1000.00
\$NIL
\$ 700.00
\$ 2300.00
\$ 3600.00
\$ 69377.00
Stock Purchases -
$\$ 538000$ @ 10\% for 15 years
\$ 2082.00
Capital Purchase
\$ 4800.00
GST on Purchases
\$ 1000.00
Drawings
\$ 16419.00
Life Insurance
\$ 20000.00
Tax and ACC
\$ 5000.00
GST Paid
\$ 20000.00
$\$ 20109.00$
\$3/2338.00

Note: 1. 2. 3. 4. 5. 6. = See Monthly Cash Flow Budget - Page 17.

## DAIRY UNIT EXPANSION

## Capital Costs:

Land -60 hectares @ 4166 per hectare
Cows -
91/92 Season:
Cows milked ..... 200
Cows culled ..... $-30$
170
Losses$-5$
To Winter ..... 165
In calve rising 2 year olds ..... 50 ..... 215
92/93 Season:
Required to milk ..... 315
Losses during calving ..... $-10$325
Cows on hand ..... $\underline{215}$
Cows required ..... 110$\$ 250,000$
250,000

110 cows with Breeding Index 126 + due to calve from 27th July. In calve to Livestock Improvement Sires @ \$800 $\$ 88,000$

## DEVELOPMENT COSTS:

## New Cowshed:

35 aside Herringbone

| Building \$1535 per set of cups | $\$ 53725$ | See back <br> pages for <br> prices. |
| :--- | :--- | :--- |
| Milking Plant \$1470 per set of cups | $\$ 51450$ | $\$ 2500$ |

Note: Electric power on site
Tanker track will be reused

## Calf House Alteration:

To house 70 calves from its present size of 50 calves.
$\$ 2500$

## Capital Fertiliser:

60 hectare block
475 kg /hectare $15 \%$ super
28.5 ton @ \$315
\$ 8977

## Race Metal:

1200 meters of new race
a cubic meter of metal to a meter in length
1200 cubic meters of metal @ \$13
Grader 10 hours @ $\$ 75=\$ 750$
\$ 16350

## Culverts \& Drain:

Culverts 10 @ 5.46 meters wide $10 \times 6$ pipes $=60$ @ $375 \times 910 @ \$ 38=\$ 2280$
Digger - 25 hours @ $\$ 75$ per hour $=\$ 1875$

## Water Supply:

$$
1 \text { tank } 22730 \text { litres }+ \text { carriage } 40 \text { kilos } 2380
$$

32 troughs 727 litres @ \$160 5120
3320 mil ballcocks and floats @ \$23.05 760.65
3320 mil male bends @ \$5.08 191.40
125 mil check valve 23.75
225 mil male straight coupling @ \$4.20 8.40
3225 mil to 20 mil reducer @ $\$ 5.25168 .00$

Main Line From Pump:
2900 meters - 40 mil @ 1.34 per meter 3886
1000 meters - 25 mil @ 0.89890
100 meters - $20 \mathrm{mil} @ 0.7777$
1840 mil to 25 mil reducing tees @ $\$ 19.85357 .30$
140 mil to 25 mil reducer to tank 19.95
Chain digger - 14 hours @ $\$ 60.00 \xrightarrow{840.00}$
$\$ 14722.45$
Metal around troughs \$ $\mathbf{3 5 7 2}$

## Fencing:

3 Wire Electric:

| 84 strainers No. $2 \times 2.7$ meters @ $\$ 24.70$ | 2074.80 |
| :--- | ---: |
| 84 slays No. 22.4 meters @ 8.17 | 686.28 |
| 2000 No. $21 / 4$ round posts @ 3.65 | 7300.00 |
| Wire: total length 32000 meters x 3 wires $=96000$ meters |  |
| $=648$ meters per coil $=148$ coils @ $\$ 56$ per coil | 8288.00 |
| Insulation 260 end @ 40 each | 104.00 |
| 6000 post insulators @ .29 each | 1740.00 |
| Cable: 400 meters | 300.00 |
| Connection: $110 @ .74$ each | 81.40 |

## PROPOSED PURCHASE - 90 HECTARE RUN-OFF

## Type of Farm:

This property is farmed in conjunction with a beef farm situated 6 km away. This unit if purchased will be utilised mainly as a runoff to the dairy unit with younger cattle being the main animals.

## Contour:

This farm is described as being mainly easy to strongly rolling with some steeper hill sidings. The majority of the farm could be top dressed by ground spreader, however the balance would have to be sown by air. An airstrip is located on a neighbouring property, facing the farm in question.

## Aspect:

Approximately $60 \%$ of this property has a north and north easterly aspect with approximately $40 \%$ south and south easterly aspect. The farm is moderately well sheltered from the prevailing south westerly wind by the contour and aspect.

## Rainfall:

1200 to 1500 mm per annum, not particularly well dispersed with a summer dry spell normal.

## Soils:

49 hectares approximately of Tanoa clay loam, a medium fertility grey brown clay on a yellow brown clay subsoil. This soil is derived from sandstone and has an almost identical classification to that of Waiotira clay loam.

41 hectares approximately of Aponga clay, a medium to low fertility grey clay on a grey flecked brown clay subsoil.

Overall the property can be regarded as having a reasonable balance of soil, capable of good production with top dressing.

## Pastures:

The effective area of this property is assessed as being 85 hectares comprising above average pastures for a runoff property with surrounds of mainly rye grass and clover.

The annual top dressing for this property has been a maximum of 375 kg per hectare of phosphate fertiliser every second or third year. The lime application has been 2500 kg per hectare every four years or so.

| PH | Phosphorus | Potassium | Sulphur | Calcium | Magnesium |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | P | K | (S) |  |  |
| 5.5 | 18 | 5 | 4 | 7 | 11 |

Soil tests taken 1 month ago shows that a capital dressing of 2500 kg per hectare of lime would be needed and an annual budgeted dressing of 500 kg of $15 \%$ per hectare each year would be adequate to improve this property.

With the exception of very small and scattered areas of blackberry the property can be regarded as being free of noxious weeds.

## Stock and Production:

This property is farmed in conjunction with a beef farm with 2 year and older cattle. Accurate stocking figures are not available for this unit with the policy of set stocking of cattle and selling them on a higher per kilo return of meat rather than grass on hand.

With the purchase of this property it is proposed to graze all replacement dairy stock and 40 nurse cows each with two calves. The stocking rate will vary depending on the time of year.

Winter: $\quad 70$ rising 1 year dairy replacement.
70 rising 2 year in calve dairy replacement.
40 nurse cows.
Plus extra cows from dairy unit.
Spring: $\quad 70$ rising 1 year dairy replacement.
70 rising 2 year dairy replacement.
40 nurse cows.
80 beef calves.
The Autumn stock management is to sell all beef calves and empty nurse cows.
The grass is built up for extra cows to come on from the dairy herd for wintering.
The Spring surplus is made into hay to be sent back to the dairy unit for use in the wintering barns.

## Fencing and Subdivision:

The block is fenced on its half share boundaries and subdivided into 12 main paddocks.
Fences need repairs to bring them up to standard for younger cattle. It has been budgeted that all fences will have an electric wire put on them to assist with stock management.

## Water Supply:

The present system is run down and inadequate for younger cattle. It is budgeted that a trough is put in each paddock and the main line renewed. The existing pump would be adequate for the new system.

## Cattle Yards:

These are adequate for what is required but repairs will be needed to bring them up to standard.

## House:

This is a Keith Hay home shifted to the property about 1954. It has a fibroplank exterior walls, concrete foundation, timber floor, galvanised corrugated steel roof, gibraltar board and pinex tile ceiling linings.

The floor area of 106 m 2 ( 1150 sqft ) with 3 bedrooms, lounge, dining - kitchen, laundry, bathroom and toilet.

A carport is on the south side of the house, the dwelling appeared to be in sound structural condition, generally well maintained.

This house will not be rented out as the money required for rent would not cover repairs and maintenance.

## Buildings:

A 4 bay hay barn constructed of galvanised steel walls and roof over a steel frame, metal floor, providing storage for approximately 1500 bales of hay. The floor area of this building is 75 m 2 ( 800 sqft ).


## RUN-OFF PURCHASE - STOCK UNITS

1st December 1992:
Dairy unit 234 cows @ 8 units per animal ..... 1872
Run-off 40 cows @ 8 units per animal ..... 320
90 beef calves @ 3 units per animal ..... 270
70 dairy replacement calves @ 3 units per animal ..... 210
70 rising 2 yr old dairy replacements @ 5 stock units per animal ..... $\underline{350}$
1st June 1992:
Dairy unit 174 cows @ 8 units per animal ..... 1392
Run-off $\quad 40$ cows @ 8 units per animal ..... 320
70 rising 2 yr old dairy replacements @ 7 units per animal ..... 490
70 rising 1 yr old dairy replacements @ 4 units per animal ..... 280

Stock Units Per Hectare To Winter:

| Dairy Unit 90 hectares | $=1392=15.4$ |
| :--- | :--- |
| Run-Off 90 hectares | $=1090=12$ |
| Total $\mathbf{1 8 0}$ hectares | $=\mathbf{2 4 8 2}$ |




| Cash Flow Arialysis |  |
| :---: | :---: |
|  |  |
| Opening Balance |  |
| Closing Balance | \$25.880 |
| Minimum Balance | -\$53.101 |
| Maximum Balance | \$33.278 |
| Average Balance | - 813.672 |


| Budget Analysis | Totals | S/Kg MF | \% of G.I. |
| :---: | :---: | :---: | :---: |
| MSMEx) |  |  |  |
|  | 256.871 | \$7.32 | 100\% |
|  |  |  |  |
| Farm Working | 125.260 | \$3.57 | 49 |
| Debt Servicing | 55.531 | 51.58 | 2?\% |
| Other Expenses | 4.800 | 50.14 | - $2 \%$ |
| Tax \& ACC | 20,400 | 50.58 | 8\% |
| Drawings \& L. Ins | 25.000 | \$0.71 | $10 \%$ |
|  <br> Total Expenses | W6 |  |  |
|  | 230.991 | \$6.58 | 90 |
| Thematwaw |  |  |  |
| Budget Surplus | 25,880 | \$0.74 | 10\% |
|  |  |  | 1 |
| Payout Used | Advance | \$4.80 | to June |
|  | Final | 90.80 | Jul-Sept |
|  | Total | \$5.60 |  |
|  |  |  |  |
| Production this year (kg milkfat) |  |  | 35,100 |
| Production last year (kg milkfat) |  |  | 29,650 |
| 落4 |  |  |  |

BUDGET FOR RUN-OFF PURCHASE - 1992/93
FINANCIAL YEAR 1ST JUNE TO 31ST MAY
90 hectare Dairy Unit plus 90 hectare run-off.
Dairy Unit 234 milking cows
2.6 cow/hectare 35100 kg $390 \mathrm{~kg} /$ hectare

Employ single person.

## Income:

Final M.F. 29650 kg @ .80c \$ 23720.00
Advance M.F. $35100 \mathrm{~kg} @ \$ 4.20$ \$127 420.00
Increase in advance M.F. February @ .60c \$ 21060.00

Cull Cows 45 @ \$445.00 \$ 20025.00

1. Bobby Calves 33 @ $\$ 65.00 \$ 2145.00$
2. Bobby Calves (Local sale) 54 @ $\$ 80.00 \$ 4320.00$

35 Friesian Bull Calves @ \$420.00 \$ 14700.00
35 Hereford Steer Calves @ \$400.00 \$ 14000.00
20 Hereford Heifer Calves @ \$299.00 \$ 4980.00
4 Bulls @ \$800.00 \$ 3200.00
Rebates \$ 300.00
Interest \$ NIL
GST Received \$32 109.00
$\$ 288980.00$

SURPLUS
\$ 25880.00

Note: 1. = See Monthly Cash Flow Budget Sheet - Page 29.

## Expenses:

Wages - 1 single person $\$ 18000.00$
Animal Health
Herd Improvement -

Cowshed -
Electrical
Hay -
Meal -

1. Fertiliser -
2. 
3. Lime -
4. 
5. Urea -
6. Weeds -
7. Pests -

Freight - Grassing
2. Car -
2. Truck
2. Tractor and Machinery

Petrol and Repairs \& Maintenance $\quad \begin{aligned} & \$ 2000.00 \\ & \$ 2000.00\end{aligned}$
2. Bike -
3. Water Supply -
3. Building R \& M -
3. Metal and Fencing
3. Drainage
4. Phone
4. Legal
4. Accountant
4. Advisor
4. General -

Farm Insurance
Rates
Mortgage
Bank Overdraft
Stock Purchase -
GST on Purchase
Personal Drawings
Life Insurance
1 single Person
Dairy unit
$\begin{array}{ll}\text { Petrol and Repairs \& Maintenance } & \$ 2000.00 \\ & \$ 2000.00\end{array}$
Artificial Breeding
HerdTesting
Weighting replacements \$7780.00
Detergents, rubberware, R \& M \$ 4100.00
2000 bales @ \$2.50
6.5 ton calves after weaning + calves below target weight
\$ 3800.00
Dairy unit $625 \mathrm{~kg} /$ hectare
56 ton 30\% @ \$325.00
\$ 18200.00
Runoff - $500 \mathrm{~kg} /$ hectare
45 ton $15 \%$ \$318.00
\$ 14310.00
Dairy unit $625 \mathrm{~kg} /$ hectare
56 ton @ \$40.00
\$ 2240.00
Runoff-2500 kg/hectare
on 30 hectare 75 ton @ \$ $\$ 30.00000 .00$
$80 \mathrm{~kg} /$ hectare 7.5 ton @ \$532.00 \$ 3990.00
Dairy 24D 40 litres @ 10.5
Blackberry \$200.00
\$ 620.00
Runoff 24D 40 litres @ 10.5
Blackberry \$300.00 \$ 720.00
Cricket bait - wheat - melathon $\$ 900.00$

Dairy unit
\$ 3500.00
\$ 2000.00
\$ 1500.00
\$ 2000.00
\$ 6500.00
\$NIL
\$ 1000.00
\$NIL
\$ 3500.00
\$ 1000.00
Stamps, paper, radio, F.F, R.D. \$ 700.00
\$ 2500.00
\$ 3400.00
\$ 53386.00
@ 12\% \$53 101.00 in October \$ 2145.00
4 Bulls @ \$1 200.00 \$ 4800.00
\$ 14132.00
\$ 20000.00
Tax and ACC
\$ 5000.00
GST Paid
\$ 20400.00
\$ 17977.00
$\$ 263100.00$
Note: 1. 2. 3. 4. 5. = See Monthly Cash Flow Budget - Page 30.

## RUN-OFF PURCHASE - CAPITAL COSTS

## Land:

90 hectare @ \$1 136.00 per hectare
Cows:
91/92 Season
Cows milked 200
Cows culled $-30$ 170
Losses
-5 165
In calve rising 2 year olds 50 $\underline{215}$

92/93 Season
Required to milk 234
Losses during calving $+12$

Cows on hand 246
$-\underline{215}$
Cows required 31

31 cows with BI 126+ due to calve from 27th July. In calve to Livestock Improvement sires.

$$
@ \$ 800.00
$$

40 nurse cows in calve to beef bulls due to calve from 27th July.
$\$ 250000.00$
$\underline{\underline{250,000.00}}$

Development Costs: (See back pages for prices)

| Fencing | 500 posts No2 $1 / 4$ round @ $\$ 3.65$ | $\$$ | 1825.00 |
| :--- | :--- | :---: | :---: |
| 1000 battens @ .85 | $\$$ | 850.00 |  |
| 20 strainers No2 x 2.7 meters @ $\$ 24.70$ | $\$$ | 494.00 |  |
| 20 stays No2 x 2.4 meters @ $\$ 8.17$ | $\$$ | 163.40 |  |
| 30 coil $121 / 2$ gauge wire @ $\$ 56.00$ each | $\$$ | 1680.00 |  |
| 1 box post staples | $\$$ | 90.00 |  |
| 1 box batten staples | $\$$ | 86.00 |  |
| 5 pipe gates @ $\$ 78.00$ | $\$$ | 390.00 |  |
| 10 hinges @ $\$ 8.35$ | $\$$ | 83.50 |  |
| 1 electric fence unit + earth pegs | $\$$ | 731.00 |  |
| Post insulation 900 @ .29 | $\$$ | 261.00 |  |
| End insulation $65 @ .40$ | $\$$ | 26.00 |  |
| Cable 150 meters | $\$$ | 112.50 |  |
|  | Jointers $50 @ .74$ | $\$$ | 37.00 |
|  | $\$$ | $\mathbf{6 8 2 9 . 4 0}$ |  |


| Yards | 400 meters of metal for yards @ $\$ 13.00$ | $\$$ | 5200.00 |
| :--- | :--- | :--- | :---: |
| 100 meters $150 \times 50$ rails @ $\$ 5.70$ | $\$$ | 570.00 |  |
| 3 yards poles 3 meters long @ $\$ 26.00$ | $\$$ | 78.00 |  |
| 50 meters $150 \times 27$ gates @ $\$ 2.10$ | $\$$ | 105.00 |  |
| 6 hinges @ $\$ 8.20$ | $\$$ | 49.20 |  |
| 50 bolts $150 \times 10 @ \$ 2.40$ | $\$$ | 120.00 |  |
| 1 bag cement | $\$$ | 25.00 |  |
|  | $\$ \mathbf{6 1 4 7 . 2 0}$ |  |  |


| Roads | 1000 meters of metal for roads @ \$13.00 Grader 8 hours @ $\$ 75.00$ | $\begin{aligned} & \$ 1300.00 \\ & \$ \quad 600.00 \\ & \$ \quad 1900.00 \end{aligned}$ |
| :---: | :---: | :---: |
| Drains | Digger 5 hours @ \$75.00 | \$ 375.00 |
| Dam | Digger 2 hours @ \$75.00 | \$ 150.00 |
| Water | 13 trough 727 litres @ \$160.00 | \$ 2080.00 |
| Supply | 1320 mill ballcock and floats @ \$23.05 | \$ 299.65 |
|  | 1320 mill male bends @ \$5.08 | \$ 66.04 |
|  | 1325 mill to 20 mill reduces @ \$5.25 | \$ 68.25 |
|  | 1500 meters of 25 mill pipe @ 0.89 per meter | \$ 1335.00 |
|  | 100 meter of 20 mill pipe @ 0.77 per meter | \$ 77.00 |
|  | Chain Digger 8 hours @ \$70.00 | \$ 480.00 |
|  |  | \$ 4405.94 |


| Capital | 90 hectares runoff |  |
| :---: | :---: | :---: |
| Fertiliser | $500 \mathrm{~kg} /$ hectare $15 \%$ super 45 tons @ \$318.00 | \$ 14310.00 |
| Capital | $2.500 \mathrm{~kg} / \mathrm{hectare}$ |  |
| Lime | 225 ton @ \$40.00 | \$ 9000.00 |
| Cowshed | Alteration 16 cups to 24 cups |  |
|  | Building and yard | \$ 16000.00 |
|  | New milking machine | \$ 35280.00 |
|  |  | \$ 51280.00 |

NOTE: Will use the same effluent pool, tanker track, and concrete yard.

Calf House To house 70 calves from its
Alteration present size of 50 calves
$\$ 2500.00$
97976.00

Vehicle $\quad$ Small 4 wheel drive truck to travel between farms.
$\$ 10000.00$

## Net Return From 40 Nurse Cows in Kilos of Fat:

10 cows with 3 calves - 30 cows with 2 calves
These are the average net prices received to last 3 years:
35 Friesian bull calves @ \$420 ..... 14700
35 Hereford steer calves @ \$400 ..... 14000
20 Hereford heifer calves @ \$299 ..... 4980
33680
Return from 40 nurse cows ..... 33680
Return from each nurse cow ..... 842
Less $\$ 100$ for each calve with 2.25 calves on each cow ..... 225
Net return from each cow: ..... \$ 617
@ \$5.60 PER KILO MILK FAT ..... 110 KILOS PER COW
@ \$4.60 PER KILO MILK FAT ..... 137 KILOS PER COW

## The budgeting exercise for Year 1 and Year 2:

Shows the following:
(Assumptions used $\$ 5.60$ per kg milkfat $\$ 4.80$ advance +.80 final).

| YEAR 1 (Deferred Payment on 29,650 kg only) |  |  |  |
| :--- | :--- | :---: | :---: |
| Base Position: | $\underline{\text { Dairy Expansion }}$ | Run-Off |  |
| Gross Income per hectare | $\$ 2231$ | $\$ 1948$ | $\$ 1427$ |
| Farm Working Expenses per hectare | $\$ 1140$ | $\$ 1024$ | $\$ 696$ |
| Nett Farm Surplus per hectare | $\$ 1091$ | $\$ 924$ | $\$ 731$ |
|  |  | $6 \%$ | $10 \%$ |
| Budget Surplus as \% of Gross Income | $23 \%$ | $24 \%$ | $22 \%$ |
| Debt Servicing as \% of Gross Income | 0 |  |  |


| YEAR 2 (Deferred Payment on Year 1 Production) |  |  |  |
| :--- | :---: | :---: | :---: |
| Base Position: | Dairy Expansion <br> 29650 kg | $\underline{\text { Run-Off }}$ <br> 47000 kg | 35100 kg |
| Gross Income per hectare | $\$ 2231$ | $\$ 2041$ | $\$ 1451$ |
| Farm Working Expenses per hectare | $\$ 1140$ | $\$ 1024$ | $\$ 696$ |
| Nett Farm Surplus per hectare | $\$ 1091$ | $\$ 1017$ | $\$ 755$ |
| Budget Surplus as \% of Gross Income | $23 \%$ | $10 \%$ | $12 \%$ |
| Debt Servicing as \% of Gross Income | 0 |  | $21 \%$ |

## PURCHASING THE RUN-OFF over EXPANDING THE DIARY UNIT

## Provides the following Advantages and Disadvantages:



Some of the advantage could be attributed to having to pay more per hectare for adjacent dairy land than for buying a run-off.
$\$ 4166$ per hectare compared with $\$ 2777$ per hectare
Clearly the success of the run-off purchase will depend on:
1: Obtaining suitable land at a cheaper price than neighbouring dairy land.
2: Keeping the costs of development down.
3: Relativity of Beef Prices to Dairy Prices.
Currently high prices for dairy stock would be working in favour of run-off purchase as well.

## WHAT LAND PRICE SHOULD BE PAID - Effect of Milkfat Payout

## Neighbouring Land For Dairying:

Assumptions used:
1: $\quad \$ 800$ per cow purchased.
2: Budgeted surplus at $10.5 \%$ of Gross Income.
3: Expansion of $17,000 \mathrm{~kg}$ milkfat.

| YEAR 2 BUDGETS USED |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Milkfat Payout <br> $\$ 4.50$ | Milkfat Payout <br> $\$ 5.00$ | Milkfat Payout <br> $\$ 5.60$ | Milkfat Payout <br> $\$ 6.00$ |
| Maximum debt level to <br> produce $10 \%$ surplus. | $\$ 186,000$ | $\$ 353,000$ | $\$ 538,000$ | $\$ 685,000$ |
| Price per hectare of bare <br> land. | $\$ 142$ | $\$ 2642$ | $\$ 4166$ | $\$ 8,175$ |
| Development costs per <br> hectare. <br> (\$194,500 - 60 hectare) | $\$ 3242$ | $\$ 3242$ | $\$ 3242$ | $\$ 3242$ |
| Total costs per hectare <br> purchased. |  | $\$ 5884$ | $\$ 7408$ | $\$ 11,417$ |
| Price per kg milkfat: | 0.00 | $\$ 9.32$ | $\$ 14.70$ | $\$ 28.85$ |
| Land purchase | $\$ 11.44$ | $\$ 11.44$ | $\$ 11.44$ | $\$ 11.44$ |
| Development | $\$ 11.44$ | $\$ 20.76$ | $\$ 26.15$ | $\$ 40.29$ |
| TOTAL |  |  |  |  |

## CONCLUSIONS:

Assuming a "Stable" price for milkfat at $\$ 5.60$ per kg then it would appear that the price per hectare for extra land to be purchased should be no greater than $\$ 4,170$ per hectare for dairy expansion and $\$ 2,800$ per hectare for the run-off.

These prices would carry a higher risk factor if milkfat payout were to drop to $\$ 5.00$ per kilogram on expansion of the dairy unit.

Budgeted debt servicing would increase to more than $25 \%$ of Gross Income at $\$ 5.00$ per kg payout levels.

The exercise illustrates the high cost of land purchase for dairy farming relative to the returns even at the current improved payout levels.

This indicates that before any expansion is considered the base unit should ideally be debt free, with reserve building up.

When looking at each option and making the decision to expand, one has to access the availability of land and the prospect of a rise in milkfat and beef prices.

Currently today land prices are on the rise, with beef prices falling and dairy prices easing back from a predicted high.

This would indicate a time for building reserves and waiting for a suitable climate before making the move to expand.

FROM $\qquad$

FOR THE ATTENTION OF $R$ Toy ben $\qquad$

THANK YOU FOR YOUR ENQUIRY FOR WHICH WE HAVE PLEASURE IN SUBMITTING THE FOLLOWING QUOTATION:


# ADRIAN REDDV CONCRETE LTD 

PIPE PRICE LIST
Plumbers and Drainlayers Supplies:

```
PO BOX 17 KAIWAKA - PHONE - (09) 431 2211
MATAKANA CONCRETE BRANCH - PHONE (09) 422 7268
```

1 July 1991 . All previous price lists are cancelled. This price list is subject to alteration without notıce. All prices quoted are ex-factory.

GST INCL.
PIPES: RUBBER RING JOINT PIPES - RCDRJ Class S \& X

| INSIDE | LENGTH | KGS PER | PRICE PER | PRICE PER | RUBBER |
| :--- | :--- | :---: | :--- | :---: | :--- |
| DIAMETER | PER PIPE | METRE | METRE | PIPE | RINGS |
| $225 \mathrm{~mm}-9^{\prime \prime}$ | 2 Metres | 54 | $\$ 22.45$ | $\$ 44.90$ | $\$ 4.11$ |
| $300 \mathrm{~mm}-12^{\prime \prime}$ | 2 Metres | 80 | $\$ 34.20$ | $\$ 68.40$ | $\$ 7.13$ |
| $375 \mathrm{~mm}-15^{\prime \prime}$ | 2 Metres | 120 | $\$ 50.25$ | $\$ 100.50$ | $\$ 8.78$ |
| $450 \mathrm{~mm}-18^{\prime \prime}$ | 2 Metres | 155 | $\$ 65.20$ | $\$ 130.40$ | $\$ 10.42$ |
| $500 \mathrm{~mm}-20^{\prime \prime}$ | 2 Metres | 190 | $\$ 78.00$ | $\$ 156.00$ | $\$ 12.35$ |
| $600 \mathrm{~mm}-24^{\prime \prime}$ | 2 Metres | 210 | $\$ 94.05$ | $\$ 188.10$ | $\$ 14.82$ |
| 900 mm |  | 2 Metves | 566 | $\$ 200.00$ | $\$ 400.00$ |

PIPES: ROTOPRESS VEE JOINTED

INSIDE LENGTH
DIAMETER
150 mm - $6^{\prime \prime}$
225 mm - $9^{\prime \prime}$
$300 \mathrm{~mm}-12^{\prime \prime}$
$375 \mathrm{~mm}-15^{\prime \prime}$
450 mm - $18^{\prime \prime}$
$600 \mathrm{~mm}-24^{\prime \prime}$

$1.2 \mathrm{M}-4^{\circ} \quad 1.2 \mathrm{M}-4^{\circ}$
$1.2 \mathrm{M}-4^{\circ} \quad 1.800$
$1.8 \mathrm{M}-6^{\text {. }}$
650
1.500
1.800

PRICE PER
PIPE
\$15.00
$\$ 19.00$
$\$ 27.00$
$\$ 38.00$
$\$ 50.00$
$\$ 72.00$

| KGS PER |  |
| :---: | :---: |
| PIPE | PRICE PER |
| 36 | PIPE |
| 56 | $\$ 15.00$ |
| 76 | $\$ 19.00$ |
| 108 | $\$ 27.00$ |
| 153 | $\$ 38.00$ |
| 305 | $\$ 50.00$ |
|  | $\$ 72.00$ |

$\$ 155.00$
$\$ 290.00$
$\$ 460.00$

CHANNEL PIPES: $\frac{\text { Picmedac }}{6^{\prime \prime 2} \times 760 \mathrm{~mm}-\frac{\text { Lengh }}{2^{\prime} 6^{\prime \prime}}}$

$$
\begin{aligned}
& \$ 10.00 \text { each } \\
& \$ 12.00 \text { each }
\end{aligned}
$$

The KGS listed above are approximate only.

```
    ADRIAN REDDY CONCRETE LTD
P O BOK i7 KAIWAKA PHONE (09)431 2211 MATAKANA CONCRETE BRANCH PHONE (09) 422 7268
``` Plumbers and Drainlayers Supplies:

\section*{TROUGH PRICE LIST \\ 1st March 1992}

All previous lists are cancelled. This price list is subject to alteration without notice. All prices quoted are ex factory.
TROUGHS:

LITRES GALLONS
7
35

70
\(265 \quad 45\) sh/ct \(\$ 90.00\)
\begin{tabular}{lll}
310 & 55 & \(\$ 100.00\) \\
364 & 80 sh/ct & \(\$ 110.00\)
\end{tabular}
\begin{tabular}{lll}
364 & \(80 \mathrm{Sh} / \mathrm{Ct}\) & \(\$ 110.00\) \\
455 & 100 sh & \(\$ 120.00\)
\end{tabular}
\begin{tabular}{lll}
45 Br & 100 ct & \(\$ 120.00\) \\
546 & 120 ct & \(\$ 140.00\)
\end{tabular}
\begin{tabular}{lll}
727 & \(160 \mathrm{Sh} / \mathrm{Ct}\) & \(\$ 160.00\) \\
727 & 160 Ct & \(\$ 160.00\)
\end{tabular}
\(910 \quad 200 \mathrm{sh} / \mathrm{ct}\)
\(\$ 180.00\)
\begin{tabular}{rll}
910 & 200 Ct & \(\$ 180.00\) \\
1136 & 250 ct & \(\$ 200.00\)
\end{tabular}
\(1364300 \mathrm{Ct} \quad \$ 230.00\)
\(1364 \quad 300 \mathrm{sh} \quad \$ 270.00\)
\(1818 \quad 400 \mathrm{ct} \quad \$ 290.00\)
2273 * 500 sh/ct \(\$ 390.00\)
2370 * 600 ct \$420.00
\begin{tabular}{lll}
3195 & \(* 700 \mathrm{Ct}\) & \(\$ 450.00\) \\
3650 & 800 Ct & \(\$ 480.00\)
\end{tabular}
oblong Troughs:
PRICE
\(\$ 120.00\)
\(\$ 160.00\)
\(\$ 35.00\)
\(\$ 55.00\)
\begin{tabular}{|c|c|}
\hline & APPRROX. OUTSIDE DIA. \\
\hline & 400mm-1'3 1/2" \\
\hline & \(500 \mathrm{~mm}-1{ }^{\prime \prime} 8\) ' \\
\hline & 670mm-2'2 1/2" \\
\hline & \(930 \mathrm{~mm}-3^{\prime} 01 / 2^{\prime \prime}\) \\
\hline & \(1090 \mathrm{~mm}-3^{\prime} 7^{\prime \prime}\) \\
\hline & 1090mm-3'7" \\
\hline & 1370mm-4'6" \\
\hline & \(1200 \mathrm{~mm}-4^{\prime} 0^{\prime \prime}\) \\
\hline & 1200mm-4, \({ }^{\prime \prime}\) \\
\hline & 1510mm-4'11 1/2" \\
\hline & 1370mm-4'6" \\
\hline & 1760mm-5'10" \\
\hline & 1510mm-4'11 1/2" \\
\hline & 1760mm-5'10" \\
\hline & 1900mm-6'3' \\
\hline & 2170mm-7'1 1/2" \\
\hline & 2170mm-7'1 1/2* \\
\hline & 2745mm-9'00' \\
\hline & 2745mm-9'00' \\
\hline & 2745mm-9,00" \\
\hline & 2745mm-9'00" \\
\hline
\end{tabular}
\begin{tabular}{ll} 
DEPTH & WIDTH \\
\(600 \mathrm{~mm}-24^{\prime \prime}\) & \(700 M M-271 / 2^{\prime \prime}\) \\
\(450 \mathrm{~mm}-18^{\prime \prime}\) & \(700 M M-271 / 2^{\prime \prime}\) \\
& \(255 m m-9{ }^{\prime \prime}\) \\
& \(300 m m-12^{\prime \prime}\)
\end{tabular}

APPROX. APPROX. OUTSIDE DEPTH WEIGHT
\(300 \mathrm{~mm}-12^{\prime \prime} \quad 60 \mathrm{~kg}\)
300mm-12" 100 kg
\(460 \mathrm{~mm}-18^{\prime \prime} \quad 200 \mathrm{~kg}\)
\(330 \mathrm{~mm}-13 \mathrm{1} / 2^{\prime \prime} 225 \mathrm{~kg}\)
510mm-20" 250 kg
\(430 \mathrm{~mm}-17^{\prime \prime} \quad 400 \mathrm{Kg}\)
\(520 \mathrm{~mm}-201 / 2^{\prime \prime} 400 \mathrm{~kg}\)
\(615 \mathrm{~mm}-24^{\prime \prime} \quad 420 \mathrm{~kg}\)
\(510 \mathrm{~mm}-20^{\prime \prime} \quad 450 \mathrm{~kg}\)
610mm-24" 450 kg
\(510 \mathrm{~mm}-20 \mathrm{~K} \quad 810 \mathrm{~kg}\)
610mm-24" \(\quad 810 \mathrm{~kg}\)
610mm-24". 860 kg
610mm-24" 1120 kg
520mm-20 1/2" 1270 kg
\(625 \mathrm{~mm}-24 \mathrm{1} / 2^{\prime \prime} 1520 \mathrm{~kg}\)
\(525 \mathrm{~mm}-21^{\prime \prime} \quad 1420 \mathrm{~kg}\)
600mm-24" 1520 kg
\(675 \mathrm{~mm}-26 \mathrm{1} / 2^{\prime \prime} 1670 \mathrm{~kg}\)
\(750 \mathrm{~mm}-291 / 2^{\prime \prime} 1830 \mathrm{~kg}\)
LENGTH WEIGHT
1830mm-8, 350 kg
\(2870 \mathrm{~mm}-9^{\prime} 8^{\prime \prime} \quad 450 \mathrm{~kg}\)
900mm-3,
\(1800 \mathrm{~mm}-6^{\text { }}\)
* TROUGHS WILL BE MADE WHEN ORDERED

Irough Cartage: Quotations available on full truck loads. Should customers wish to use our specialised equipment for placing troughs in position on their farm, an extra charge of \(\$ 60.00\) per hour will be made from farm gate. THIS SERVICE MUST BE PRE-ARRANGED WITH OFFICE STAFF.

ALL ERODUCTS ARE GUARANTEED-
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    ADRIAN REDDX CONCRETE LID
    SPECIAL WITH TROUGHS
BALLCOCKS AND POLYTHENE PIPE
PLUMBERS AND DRAINLAYERS SUPDIIFC
P O Box 17 KAIWAKA. Phone (09) 431 2211
MATAKANA Concrete Branch Phone (09) 422 7268
| May 1991. Allprices quoted are ex factory.
All previous price lists are cancelled. This price
list is subject to alteration without notice.
Apex Full Flow Ballcocks (made of acetyl) with cord
Brass Full Flow Ballcocks with cord HMC 20.05
Brass Hi Low Ballcocks with cord
Phifmac style plastic Full Flow with cord

FLOATS

```
100mm (4) 2.45
1.50mm (6) 3.00
```

20 mm Trough Bends Hansen (plastic)
20 mm Trough Bends Stainless steel
20 mm Cast Bends 8.80

POLYTHENE PIPE
Per 100 metres
Cut length per metre NZ S7601

```
15mm Standard
20mm Standard
    7 7
    .89
25 mm Standard
32 mm Standard
```



```
40 mm Standard
vo mm Standard
```


.53
1.00

130 164.43
223.83
1.60
88.04
114.19 138.98
1.89

| spec. al | 45.60 |
| ---: | ---: |
| 77 | 88.04 |
| .89 | 114.19 |
| .05 | 138.98 |
| 1.34 | 164.43 |
|  | 223.83 |

2.57

## TANKS

Plumbers and Drainlayers Supplies:
PO BOX 17 KAIWAKA - Phone (09) 4312211
MATAKANA CONCRETE BRANCH - PHONE (0.9) 4227268
1 July 1989. All previous price lists are cancelled. This price list is subject to alteration without notice. All prices quoted are exfactory.

GST INCL.
PRECAST CONCRETE TANKS:

| LITRES | GALLONS | PRICE | WEIGHT | HEI | GHT | DIAM | METER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2,730 | 600 | \$1000.00 | 9 cwt | $4^{\prime} 00^{\prime \prime}$ | - 1.2 M | $6^{\prime} 00{ }^{\prime \prime}$ | 1.8M |
| 3,600 | 800 | \$1100.00 | 15 cwt | $4^{\prime} 06^{\prime \prime}$ | - 1.3 M | $6^{\prime} 00^{\prime \prime}$ | 1.8M |
| 4,500 | 1000 | \$1200.00 | 1 ton | $6^{\prime} 00^{\prime \prime}$ | - 1.8 M | $6^{\prime} 00^{\prime \prime}$ | 1.8M |
| 6,750. | 1500 | \$1400.00 | 2 ton | $5^{\prime} 00^{\prime \prime}$ | - 1.5 M | 8'03" | 2.5M |
| 9,000 | 2000 | \$1650.00 | $21 / 2$ ton | $7^{\prime} 00^{\prime \prime}$ | - 2.1 M | 8'03" | - 2.5 M |
| 13,640 | 3000 | \$1850.00 | $31 / 2$ ton | $8^{\prime} 00^{\prime \prime}$ | - 2.4 M | 9'03" | 2.8 M |
| 18,190 | 4000 | \$2100.00 | 5 ton | $7^{\prime} 00^{\prime \prime}$ | - 2.1 M | $11^{\prime} 04^{\prime \prime}$ | - 3.4 M |
| 22,730 | 5000 high | \$2200.00 | $61 / 2$ ton | $9^{\prime} 00^{\prime \prime}$ | - 2.7 M | $11^{\prime} 04^{\prime \prime}$ | 3.4 M |
| 22,730 | 5000 low | \$2200.00 | $61 / 2$ ton | $8^{\prime} 00^{\prime \prime}$ | - 2.4 M | 12'01" | - 3.7 M |
| 27,280 | 6000 | \$2400.00 | P1/2 ton | $9^{\prime} 04^{\prime \prime}$ | - 2.8 M | 12'01" | 3.7 M |
| Other sizes made to order |  |  |  | Pier |  | \$85.00 |  |
|  |  |  |  |  | Flat Top | \$85.00 |  |

## Delivery Charges:

$\$ 4.50$ per Km one way. MINIMUM delivery Charge: $\$ 85.00$
Installation Charges: Come into effect AFTER $1 / 2$ HOUR ON SITE.
SITE WORK AND INSTALLATION CHARGE RATE IS $\$ 60.00$ PER HOUR, which covers ONE MAN AND TRUCK. Approximate time on level site is $1 / 2$ hour. A LEVEL SITE FOR TANK AND ACCESSIBLE BY OUR TRUCK IS REQUIRED FOR SITING TANK. Any hire of vehicle or work required to be done by us to enable tank to be sited is PURCHASERS COST.

Extra Man: (If required) $\$ 26.00$ per hour total time.
Tank Fittings: All tanks are made with a 40 mm galvanised socket and plug fitted.

Extra Fittings: (To be paid for with tank).
Brass Outlet and Gatevalve fitted to your requirement. All sizes are available. Please state size wanted, otherwise $32 \mathrm{~mm}\left(1 / 4^{\prime \prime}\right)$ fittings will be used. (Most commonly used size).

Overflow ( $3^{\prime \prime}$ ) 80 mm PVC $\$ 4.50$
Shifting Tanks: $\$ 60,00$ per hour plus travelling © $\$ 4.50$ per Km .
Hiab Hire: $\$ 60.00$ per hour plus travelling @ $\$ 4.50$ per Km .

ALL PRODUCTS ARE GUARANTEED.

## NDEIAN REDDY CONCRETE MID

EXTRAS
1 July 1989
GST INCLUDED

Buried Tanks
N.B. Ordinary tanks can be buried to 1.2 Metres

Tanks buried to top of walls:- Extra coat of plaster and extra layer of reinforcing needed.

Price: $\$ 300.00$
Completely buried tanks:- Extra coat of plaster and double reinforcing in walls and top with pier.

Price: \$464.00
Pier in tank with flat area on top for header tank.price: $\$ 110.00$
Troughs for header tank is price of trough plus $50 \%$ for top with manhole plus trough sockets.

Site Built Tanks
Extra $\$ 420.00$ up to 25 Km from our yard.

Painted Tanks
Any other colour than white: $\$ 60.00$ extra


NOTES: Overflow 80 mm \$ 4.50

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27th April 1992
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Mr R Taylo:
R.D 1
PAPAROA

Dear Roge:

Thank you for the opporidnity to submit a Quotation for the supply and installation of a 40 unit swing over Westfalia separator milking plant. Westfalia Separator has many options to offer in plant design and componentry.

For this proposal I have stayed with a conventional design with the receiver mounted in the centre of the plant.

## Major components are

Alflex
Large
10 kw
Main airline
Pulsator " "
Regulator
Pulsators
Milk Filter
Plate Coolers
Dairy Heater
Jettors
Clusters
Rubberware
Milk transfer system

240 Vac pump
Muffler

```
3 \text { phase motor}
90m P.V.C
50m P.V.C
Vacurex 5000Ltr Per Min
vacupuls Constant 4 x l pulsation
double 6 x 24
M800 x 2
300Ltr x 2
Vari Flo Nipple type
4 0 ~ s e t s ~ 4 ~ x ~ l ~ c l a w s
shed lot Westfalia rubberware
westfalia end unit which includes receiver
22Ltr Sanitary trap complete with safety
shut off valve and washing sprinkler
l.lkw Centrifical milk pump-operated
on float switch and level controller.
```

| Milk Lines | 3" milk lines $5 / 8$ welded nozzles |
| :---: | :---: |
| droppers | 40 sets 4 x l droppers complete with |
|  | links and hooks |
| Brackets \& Clamps | all brackets and clamps-pipe ect to |
|  | complete installation |
| Unions | All unions of milk contact to be s/s |
|  | from milk lines through to plate coolers |
| Jettor Tub | 500 Ltr |
| 5hp Davies | washdown pump to be used for yard, cow |
|  | and Vat washing |
| Dynaflo XF171 | to be used for Water reticulation through |
| $\bigcirc$ | plate coolers |
| 50 Mtr | 40 mm washdown hose plus two hose nozzles |
|  | and fittings for yard washing |
| Installed price wo | be |
|  | \$58800.00 + G.S.T |
| Note | No allowance has been made for electrical connections. |
| This Quote is vali be subject to any | r a period of 60days after which would e increases. |
| Yours faithfully |  |
| - - - |  |
| W.B. Jackson |  |
| SALES DIRECTOR |  |
| WALLACE MILKERS LT |  |

