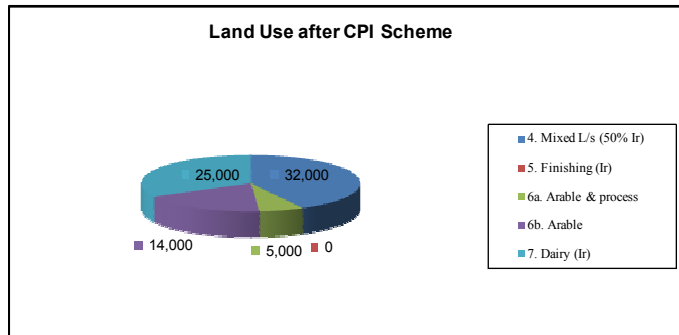
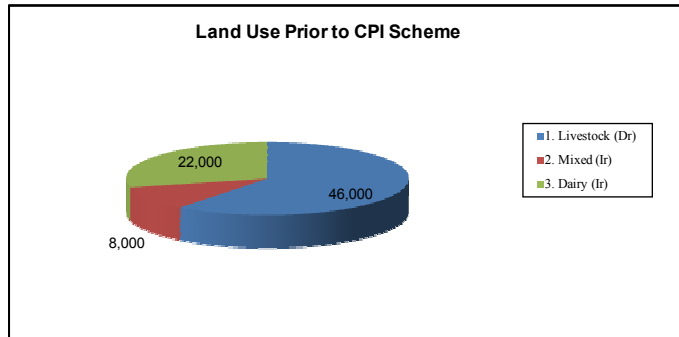


1 Central Plains Irrigation Land Use (no dam storage)

Land Use	Pre C.P.I. Area	%	Land Use	Post C.P.I. Area	%
1. Livestock (Dr)	46,000	61%	4. Mixed L/s (50% Ir)	32,000	42%
2. Mixed (Ir)	8,000	11%	5. Finishing (Ir)	0	0%
3. Dairy (Ir)	22,000	29%	6a. Arable & process	5,000	7%
			6b. Arable	14,000	18%
			7. Dairy (Ir)	25,000	33%
Total	76,000	100%	Total	76,000	100%



Notes:
 30,000ha now spray irrigated will go to Scheme plus Spray
 Assumes that irrigated farms pre scheme are fully irrigated.
 Fully irrigated farms substitute CPW because it is cheaper, won't need storage.
 Therefore: same total volume of water but re-distributed among farms.
 Resulting political issue of Ecan reducing annual volume of ground water consents where CPW water applied.
 Of 30,000ha originally irrigated 60% will be freed up by CPW.
 40% will be used to improve reliability.
 If half used for environmental flow and half transferred then 30% x 30,000ha = 9,000ha new water available.

2 Central Plains Irrigation Farm Financial Analysis (Revised 26 Aug 09)

2.1 Prior to Commissioning C.P.I.

Farm Type		1. Livestock (Dr)		2. Mixed (Ir)				3. Dairy (Ir)		Total eff farm area	
Area		per ha	46,000	per ha	8,000	per ha		per ha	22,000	per ha	76,000
			\$K		\$K		\$K		\$K		\$K
SHEEP		510.4	23,477	1,005.0	8,040		0		0	414.7	31,517
WOOL		86.4	3,976	96.7	774		0		0	62.5	4,750
CATTLE		0.0	0	0.0	0		0	381.0	8,382	110.3	8,382
MILK		0.0	0	0.0	0		0	7,315.0	160,930	2,117.5	160,930
DEER		0.0	0	0.0	0		0		0	0.0	0
VELVET		0.0	0	0.0	0		0		0	0.0	0
GRAIN AND PULSE PRODUCE			0		0		0		0	0.0	0
Previous Yr Sales		0.0	0	0.0	0		0		0	0.0	0
Current Yr Sales		205.6	9,459	935.4	7,483		0		0	222.9	16,943
Unsold At Year End			0		0		0		0	0.0	0
SMALL SEED PRODUCE			0		0		0		0	0.0	0
Previous Yr Sales		0.0	0	0.0	0		0		0	0.0	0
Current Yr Sales		0.0	0	668.7	5,350		0		0	70.4	5,350
Unsold At Year End			0		0		0		0	0.0	0
MISCELLANEOUS INCOME		28.7	1,321	161.4	1,291		0		0	34.4	2,612
										0.0	0
STOCK PURCHASES										0.0	0
	Sheep	-9.2	-425	-279.2	-2,234		0		0	-35.0	-2,658
	Cattle	0.0	0	0.0	0		0	-38.0	-836	-11.0	-836
	Deer	0.0	0	0.0	0		0		0	0.0	0
	Other	0.0	0	0.0	0		0		0	0.0	0
CASH FARM INCOME		821.9	37,809	2,588.0	20,704	0.0	0	7,658.0	168,476	2,986.7	226,989

Change in value of stock on hand		0		0		0		0	0.0	0
Change in value of produce on hand	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
GROSS FARM INCOME	822	37,809	2,588	20,704	0	0	7,658	168,476	2,987	226,989
WAGES	200.2	9,211	248.8	1,990		0	1,064.5	23,419	455.5	34,620
ANIMAL HEALTH	24.0	1,102	27.2	217		0	350.0	7,700	118.7	9,020
STOCKFEED PURCHASED	13.8	637	3.1	25		0	1,553.3	34,172	458.3	34,833
OTHER STOCK EXPENSES	7.3	336	7.3	58		0	201.3	4,428	63.4	4,822
FEED CONSERVATION	40.2	1,849	0.0	0		0	268.0	5,896	101.9	7,745
CONTRACTING	0.0	0	8.7	70		0	11.0	242	4.1	312
CARTAGE	15.7	723	49.8	398		0	24.6	540	21.9	1,662
FERTILISER & LIME	100.6	4,627	284.8	2,278		0	768.0	16,896	313.2	23,801
SEEDS & TREATMENT	33.9	1,559	107.9	863		0	28.0	616	40.0	3,038
SACKS & SEED DRESSING	0.0	0	66.7	533		0	0.0	0	7.0	533
WEED & PEST CONTROL	74.7	3,438	141.0	1,128		0	26.7	586	67.8	5,153
REPAIRS & MAINTENANCE	44.9	2,064	80.8	646		0	322.5	7,095	129.0	9,805
VEHICLE EXPENSES	49.7	2,288	109.0	872		0	152.5	3,355	85.7	6,515
ELECTRICITY	5.1	236	261.5	2,092		0	580.0	12,760	198.5	15,088
OTHER WORKING EXPS	0.0	0	0.0	0		0	0.0	0	0.0	0
ADMINISTRATION	23.1	1,062	38.5	308		0	129.9	2,858	55.6	4,227
STANDING CHARGES	37.2	1,710	49.5	396		0	70.0	1,540	48.0	3,647
CASH FARM WORKING EXPENSES	671	30,843	1,485	11,876	0	0	5,550	122,102	2,169	164,822
Depreciation	51.3	2,360	159.0	1,272		0	113.0	2,486	80.5	6,118
Earnings Before Interest and Tax:	\$100	\$4,606	\$944	\$7,556	\$0	\$0	\$1,995	\$43,888	\$737	\$56,049

2.2 Post Commissioning C.P.I.

Farm Type		4. Mixed L/s (50% I		6a. Arable & proces		6b. Arable		7. Dairy (Ir)		Total eff farm area	
Area		per ha	32,000	per ha	5,000	per ha	14,000	per ha	25,000	per ha	76,000
			\$K		\$K		\$K		\$K		\$K
SHEEP		686.2	21,959	1,399.6	6,998	2,007.0	28,098	0.0	0	750.7	57,055
WOOL		94.3	3,019	34.7	173	34.7	485	0.0	0	48.4	3,677
CATTLE		0.0	0	0.0	0	0.0	0	404.8	10,121	133.2	10,121
MILK		0.0	0	0.0	0	0.0	0	8,869.4	221,735	2,917.6	221,735
DEER		0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
VELVET		0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
GRAIN AND PULSE PRODUCE			0		0		0		0	0.0	0
Previous Yr Sales		0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Current Yr Sales		604.0	19,328	3,785.0	18,925	1,770.0	24,780	0.0	0	829.4	63,033
Unsold At Year End			0		0		0		0	0.0	0
SMALL SEED PRODUCE			0		0		0		0	0.0	0
Previous Yr Sales		0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Current Yr Sales		0.0	0	1,310.0	6,550	1,310.0	18,340	0.0	0	327.5	24,890
Unsold At Year End			0		0		0		0	0.0	0
MISCELLANEOUS INCOME		643.8	20,602	0.0	0	0.0	0	0.0	0	271.1	20,602
					0		0		0		
STOCK PURCHASES					0		0		0		
	Sheep	-9.2	-295	-975.6	-4,878	-1,365.6	-19,119	0.0	0	-319.6	-24,292
	Cattle	0.0	0	0.0	0	0.0	0	-37.5	-938	-12.3	-938
	Deer	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
	Other	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
					0		0		0		
CASH FARM INCOME		2,019.2	64,613	5,553.6	27,768	3,756.0	52,584	9,236.7	230,918	4,945.8	375,883
Change in value of stock on hand			0		0		0		0	0.0	0
Change in value of produce on hand		0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
GROSS FARM INCOME		2,019	64,613	5,554	27,768	3,756	52,584	9,237	230,918	4,946	375,883
					0		0		0		
WAGES		186.4	5,964	271.8	1,359	286.2	4,006	1,064.5	26,612	499.2	37,942
ANIMAL HEALTH		27.4	876	15.4	77	15.4	215	375.0	9,375	138.7	10,544

STOCKFEED PURCHASED	3.1	98	3.1	15	3.1	43	2,023.7	50,593	667.8	50,749
OTHER STOCK EXPENSES	7.3	234	2.6	13	2.6	36	201.3	5,031	69.9	5,314
FEED CONSERVATION	34.3	1,096	0.0	0	0.0	0	224.3	5,606	88.2	6,702
CONTRACTING	0.0	0	210.8	1,054	15.0	210	11.0	275	20.3	1,539
CARTAGE	39.6	1,267	283.4	1,417	137.1	1,920	26.1	652	69.2	5,256
FERTILISER & LIME	204.4	6,539	816.3	4,081	445.4	6,236	768.0	19,200	474.4	36,056
SEEDS & TREATMENT	44.3	1,416	398.3	1,992	163.3	2,287	28.0	700	84.1	6,395
SACKS & SEED DRESSING	0.0	0	130.1	651	130.1	1,822	0.0	0	32.5	2,472
WEED & PEST CONTROL	82.0	2,625	386.7	1,933	267.5	3,745	26.7	666	118.0	8,969
REPAIRS & MAINTENANCE	60.3	1,928	133.3	667	128.2	1,795	322.5	8,063	163.8	12,452
VEHICLE EXPENSES	53.8	1,723	139.1	696	130.1	1,822	152.5	3,813	106.0	8,053
ELECTRICITY	105.1	3,364	333.3	1,667	210.3	2,944	405.0	10,125	238.1	18,099
OTHER WORKING EXPS	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
ADMINISTRATION	38.5	1,231	51.3	256	51.3	718	138.4	3,459	74.5	5,665
STANDING CHARGES	87.0	2,784	121.2	606	121.2	1,697	133.0	3,325	110.7	8,412
Additional opex on bore irrigated land	0.0	0		0	0.0	0		0		0
				0		0		0		
CASH FARM WORKING EXPENSES	973	31,146	3,297	16,483	2,107	29,495	5,900	147,495	2,956	224,619
				0		0		0		
Depreciation	79.5	2,544	210.3	1,052	210.3	2,944	113.0	2,825	123.2	9,364
Earnings Before Interest and Tax:	\$966	\$30,923	\$2,047	\$10,233	\$1,439	\$20,146	\$3,224	\$80,598	\$1,867	\$141,900

Notes: Irrigation electricity cost estimate: 40% pumped x \$500/ha = \$200/ha
 (CPW plus ground water) 60% CPW water x \$200/ha = \$120/ha Total \$320/ha
 CPW annual costs \$3.8m over 60,000ha = \$63.00 /ha

3.1 Existing Investment

per hectare

3.1.1 Livestock (dryland) 1.

	400 ha farm			
Land @	\$17,250 /ha =		\$6,900,000	\$17,250
Plant and equipment	\$500		\$200,000	\$500
Livestock	2650 su@	\$90	\$238,500	\$596
Working capital			<u>\$117,000</u>	<u>\$293</u>
Total investment			\$7,455,500	\$18,639
Investment per hectare			\$18,639	
Total area:	46,000 ha		\$857,382,500	

3.1.2 Mixed livestock & crop (irrigated) 2.

	400 ha farm			
Land @	\$22,000 /ha =		\$8,800,000	\$22,000
On-farm irrigation development	\$3,500		\$1,400,000	\$3,500
Plant & equipment	\$550		\$220,000	\$550
Livestock	2650 su@	\$90	\$238,500	\$596
Working capital			<u>\$309,000</u>	<u>\$773</u>
Total investment			\$10,967,500	\$27,419
Investment per hectare			\$27,419	
Total area:	8,000 ha		\$219,350,000	

3.1.3 Dairy 3.

	250 ha farm			
Land @	\$22,000 /ha =		\$5,500,000	\$22,000
On-farm	\$3,900		\$975,000	\$3,900
Associated devpt	\$550		\$137,500	\$550
Dairy specific	\$6,880		\$1,720,000	\$6,880
Plant & equipment	\$640		\$160,000	\$640
Livestock	875 cows @	\$1,500	\$1,312,500	
Livestock	215 Heifers @	\$600	\$129,000	\$5,766
Fonterra shares	1330	\$4.55	\$1,512,875	\$6,052
Working capital			<u>\$166,000</u>	<u>\$664</u>
Total investment			\$11,612,875	\$46,452
Investment per hectare			\$46,452	
Total area:	22,000 ha		\$1,021,933,000	

TOTAL CAPITAL INVESTMENT (\$m) **\$2,099 m**
76,000 ha total **\$27,614**

3.2 Post CPI Investment

3.2.1 Mixed Livestock (Part Irrigated) 4.

400 ha farm 50% irrigated

Land @	\$19,625 /ha =		\$7,850,000	\$19,625
Off farm irrigation	\$2,867	200 ha	\$573,400	\$1,434
On farm irrigation	\$3,000	200 ha	\$600,000	\$1,500
On farm water storage	\$3,000	200 ha	\$600,000	\$1,500
Associated - irrigation	\$550	200 ha	\$110,000	\$275
Associated - non irrigation	\$400	200 ha	\$80,000	\$200
Plant & equipment	\$500		\$200,000	\$500
Livestock Sheep	2650 sheep @	\$90	\$238,500	\$596
Working capital			<u>\$310,000</u>	<u>\$775</u>
Total investment			\$10,561,900	\$26,405
Investment per hectare			\$26,405	
Total additional area	32,000 ha		\$844,952,000	

3.2.2 Arable & Process Crop 6a (Run of River plus wells)

400 ha farm

Land @	\$24,500 /ha =		\$9,800,000	\$24,500
Off farm irrigation	\$2,867		\$1,146,800	\$2,867
On farm irrigation	\$4,000		\$1,600,000	\$4,000
On farm water storage			\$0	\$0
Associated development	\$550		\$220,000	\$550
Plant & equipment	\$1,500		\$600,000	\$1,500
Working capital			<u>\$680,000</u>	<u>\$1,700</u>
Total investment			\$14,046,800	\$35,117
Investment per hectare			\$35,117	
Total additional area	5,000 ha		\$175,585,000	

3.2.3 Arable 6b (Run of River only)

400 ha farm

Land @	\$24,500 /ha =		\$9,800,000	\$24,500
Off farm irrigation	\$2,866		\$1,146,400	\$2,866
On farm irrigation	\$3,500		\$1,400,000	\$3,500

On farm water storage	\$3,000	\$1,200,000	\$3,000
Associated development	\$550	\$220,000	\$550
Plant & equipment	\$1,500	\$600,000	\$1,500
Working capital		<u>\$680,000</u>	<u>\$1,700</u>
Total investment		\$15,046,400	\$37,616
Investment per hectare		\$37,616	
Total additional area	14,000 ha	\$526,624,000	

3.2.4 Dairy 7

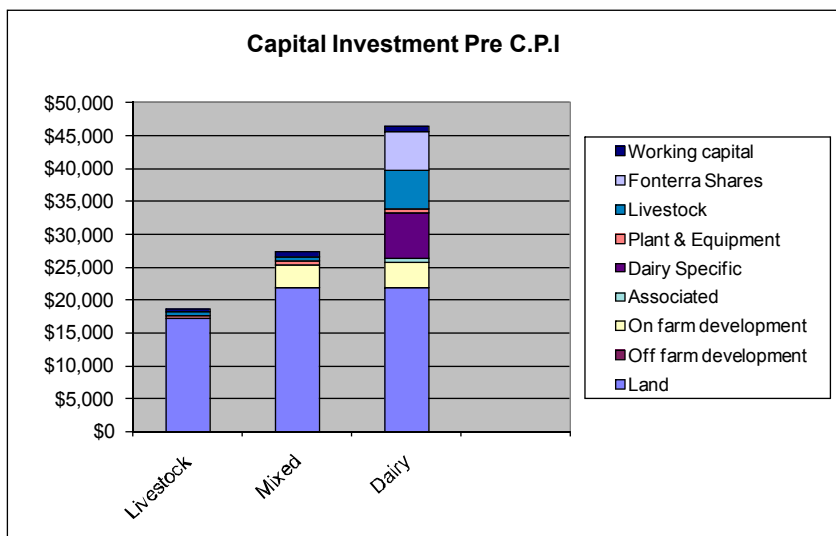
	250 ha farm			
Land @	\$22,000 /ha =		\$5,500,000	\$22,000
Off-farm (CPW)	\$2,866		\$716,500	\$2,866
On-farm	\$3,900 incl stock water		\$975,000	\$3,900
On-farm water storage	\$360 3000ha/25000ha x \$300		\$90,000	\$360
Associated devpt	\$650		\$162,500	\$650
Dairy specific				
Dairy shed 60 bale rotary		\$1,200,000		
Calf sheds		\$50,000		
Tracks		\$100,000		
Waste water		\$100,000		
Third house		\$270,000	\$1,720,000	\$6,880
Plant & equipment	\$640		\$160,000	\$640
Livestock	938 cows @ \$1,500	\$1,407,000		
Livestock	235 Heifers @ \$600	\$141,000	\$1,548,000	\$6,192
Fonterra shares	1612	\$4.55	\$1,833,650	\$7,335
Working capital			<u>\$166,000</u>	<u>\$664</u>
Total investment			\$12,871,650	\$51,487
Investment per hectare			\$51,487	
Total area:	25,000 ha		\$1,287,165,000	

TOTAL CAPITAL INVESTMENT (\$m)		\$2,834 m	
	76,000 ha total		\$37,294

4. SUMMARY OF CAPITAL INVESTMENT

4.1 PRE C.P.I. Capital Investment per Hectare				
Farm number	1	2	3	Total
Area (ha)	46,000	8,000	22,000	76,000
Farm Class	Livestock	Mixed	Dairy	\$m
Land	\$17,250	\$22,000	\$22,000	\$1,454
Off farm development				\$0
On farm development		\$3,500	\$3,900	\$114
Associated			\$550	\$12
Dairy Specific			\$6,880	\$151
Plant & Equipment	\$500	\$550	\$640	\$41
Livestock	\$596	\$596	\$5,766	\$159
Fonterra Shares			\$6,052	\$133
Working capital	\$293	\$773	\$664	\$34
Total per hectare	\$18,639	\$27,419	\$46,452	
Total Investment (\$m)	\$857.38	\$219.35	\$1,021.93	\$2,099
Total/ha (excl Land)	\$1,389	\$5,419	\$24,452	
Tot Inv (\$m excl Land)	\$63.88	\$43.35	\$537.93	\$645.17

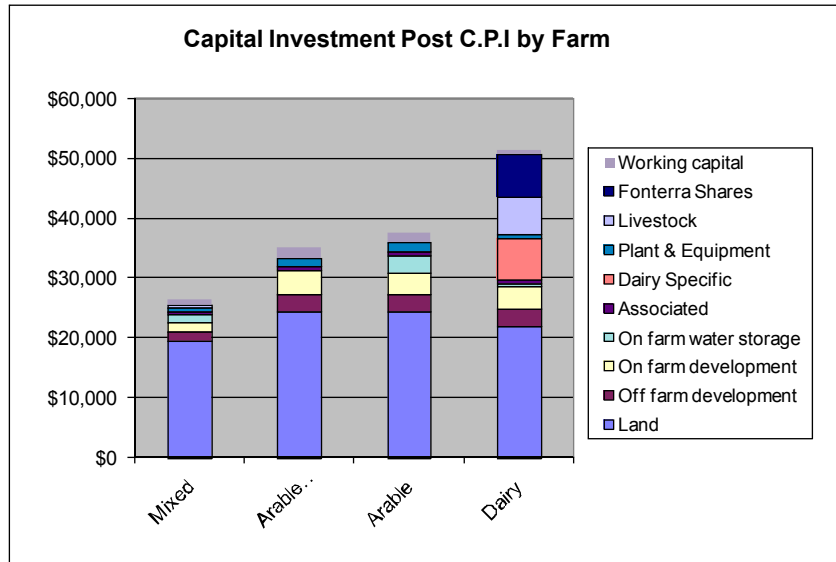
Dairy L&B + shares
\$39,382/ha
\$29.61 /kgMS



4.2 POST C.P.I. Capital Investment per Hectare by Farm					
Farm number	4	6a	6b	7	Total
Area (ha)	32,000	5,000	14,000	25,000	76,000

Farm Class	Mixed	Arable & Pr.	Arable	Dairy	\$m
Land	\$19,625	\$24,500	\$24,500	\$22,000	\$1,644
Off farm development	\$1,434	\$2,867	\$2,866	\$2,866	\$172
On farm development	\$1,500	\$4,000	\$3,500	\$3,900	\$215
On farm water storage	\$1,500	\$0	\$3,000	\$360	\$99
Associated	\$475	\$550	\$550	\$650	\$42
Dairy Specific				\$6,880	\$172
Plant & Equipment	\$500	\$1,500	\$1,500	\$640	\$61
Livestock	\$596			\$6,192	\$174
Fonterra Shares				\$7,335	\$183
Working capital	\$775	\$1,700	\$1,700	\$664	\$74
Total per hectare:	\$26,405	\$35,117	\$37,616	\$51,487	
Total Investment (\$m)	\$844.95	\$175.59	\$526.62	\$1,287.17	\$2,803
Total/ha (excl Land)	\$6,780	\$10,617	\$13,116	\$29,487	
Tot Inv (\$m excl Land)	\$216.95	\$53.09	\$183.62	\$737.17	\$1,191

Dairy L&B plus shares
 \$43,991 /ha
 \$27.27 /kgMS



5 RETURN ON CAPITAL CALCULATION (Revised 26 August 2005)

$$\text{Return on marginal capital} = \frac{\text{Post CPI EBIT} - \text{Pre CPI EBIT}}{\text{Post CPI Capital} - \text{Pre CPI Capital}} \quad (\text{excluding land})$$

5 Return on Marginal Capital: Entire Central Plains Irrigation Scheme:

$$= \frac{\$141,899,698 - \$56,049,416}{\$1,190,826,000 - \$645,165,500}$$

ROC = 15.7%

5 Return on Capital to Convert Dryland Stock (1) to CPI Mixed (4)

$$= \frac{\$966 - \$100}{\$6,780 - \$1,389}$$

ROC = 16.1%

5 Return on Capital to Convert Dryland Stock (1) to CPI Arable & Process (6a)

$$= \frac{\$2,047 - \$100}{\$10,617 - \$1,389}$$

ROC = 21.1%

5 Return on Capital to Convert Dryland Stock (1) to Intensive Arable (6b)

$$= \frac{\$2,047 - \$100}{\$13,116 - \$1,389}$$

ROC = 16.6%

6 Return on Capital To Convert Dryland Stock (1) to CPI Dairying (7):

$$= \frac{\$3,224 - \$100}{\$29,487 - \$1,389}$$

ROC = 11.1%

6 Return on Capital To Dairy Farm Incorporated in CPI:

$$= \frac{\$3,224 - \$1,995}{\$29,487 - \$24,452}$$

ROC = 24.4%

6 Return on Capital by Farm Type (Includes land value):

Land Use	Pre C.P.I. Ar	ROC	Land Use	Post CPI Ar	ROC
1. Livestock (Dr)	46,000	0.5%	4. Mixed L/s (50	32,000	3.7%
2. Mixed (Ir)	8,000	3.4%	5. Finishing (Ir)		
3. Dairy (Ir)	22,000	4.3%	6a. Arable & pro	5,000	5.8%
			6b. Arable	14,000	3.8%
			7. Dairy (Ir)	25,000	6.3%
Total	76,000		Total	76,000	

6. Summary of Farm Areas by Farm Class (No reservoir)

Pre CPI		Post CPI: RoR only		Post CPI: RoR + Wells	
1. Dryland stock	46,000				
2. Mixed 100% Irrigated	8,000				
3. Dairy 100% irrigated	22,000				
		4. Mixed 50% irrigated	32,000		
		5. Finishing irrigated	0		
		6b. Arable irrigated	14,000	6a. Arable irrigated	5,000
				7. Dairy irrigated	25,000
			46,000		30,000
	76,000				76,000

Notes:

4. Mixed = 50% irrigated and 15% arable area plus 85% pasture.

6. Arable Rotation: Grass Seed to Peas to Potatoes to Wheat to W/C to Wheat to Grass seed.

6a. Arable Rotation: GS to Winfred (grazed) to Peas to Wheat to White clover to Wheat to Grass Seed