Appendices

Appendix 1

Interview Schedule

Date:_____

Property: _____ Location _____

Personal Details:

Name of Operator: (If undesirous of anonymity)_____

Age:

21-30 ☐ 31-40 ☐ 41-50 ☐ Over 50 ☐

Marital Status:_____

Family Size: _____

Education _____

Household Details:

Family Member	Age Grouping	Occupation
1		
2		
3		
4		
5		
6		

<10 (**1**), 10-15 (**2**), 16-25 (**3**), >25 (**4**)

Farm Data and General Records

Historical Account of Property (Brief):

_____

_____

_____

_____

_____

Resource Ownership:

Land Ownership:
Fully Owned_____ Partly owned _____
Rented _____ Sharecropped _____

Equipment:
Owned_____ Leased _____

General Information and Physical Characteristics of Farm:

Name of Property _____

Registered Owner(s) _____

Partnership details, if relevant _____

Postal Address _____

Nearest Town _____

Shire/Municipality _____

Department of Agriculture Classification / Region _____

Farm Size (Area) _____ ha

Topography _____

Soil Type(s) _____

_____

Cropped Area _____ ha

Area under Natural Pasture_____ ha

Area under Improved Pasture _____ ha

Area under Irrigation _____ ha

Other (Orchard, wooded, etc..) _____ ha

Total Arable Area _____ ha

Marshland _____ ha

Other _____ ha

Total Non-Arable Area _____ ha

Of Total Area of Farm:

Owned by operator _____ ha

Leased by operator _____ ha

Leased from operator _____ ha

Other relevant information:

_____

_____

Farm Enterprises:

Favoured crops (Winter) _____

(Summer) _____

Last two rotations 1) _____

Reason for choice: _____

2) _____

Reason for choice: _____

Livestock:

1) _____ Reason _____
2) _____ Reason _____
3) _____ Reason _____
4) _____ Reason _____
5) _____ Reason _____

Major Production Constraints:

Land _____

Labour _____

Equipment _____

Quotas _____

Rotation _____

Contracts _____

Managerial _____

Machinery _____

Other _____

What do you estimate the walk-in, walk-out value of your farm to be presently ? _____

Valuation breakdown:

Equipment/Machinery _____ Livestock _____

Land _____ Buildings _____

Other Structures _____

SECTION TWO

COSTS AND RETURNS

Income Records(1994 production)

	Activity	Quantity	Unit	Value (1994$)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
	Subtotal			

Miscellaneous Income:

	Source	Value, $
1		
2		
3		
4		
5		
	Subtotal	

Total Farm Income = $

Costs

Maintenance:

Equipment $ _____

Buildings $ _____

Vehicles $ _____

Sundry Supplies/Services $ _____

Permanent Labour Wages $ _____

Perm labour Perks $ _____

Overheads:

Administration	$ _____
Accounting	$ _____
Rents	$ _____
Rates	$ _____
Telephone	$ _____
Power	$ _____
Taxes	$ _____
Other	$ _____
Interest Payments	$ _____
Lease Charges	$ _____

Expenditure:

Land/Improvements	$ _____
Plant/Machinery	$ _____
Vehicles	$ _____
Livestock (Pedigree)	$ _____
Loan Repayments	$ _____
Subtotal	$ _____

Enterprise/Activity Allocated Variable Costs:

		Enterprise/Activity								
	Item	1	2	3	4	5	6	7	8	***Total***
1	Chemicals									
2	Fertilisers									
3	Contract Services									
4	Seed									
5	Water charges									
	Veterinary Costs									
6	Lice control									
7	Drench									
8	Vaccinations									
9	Other									
10	Feed									
11	Agistment									
12	Casual Labour									
13	Tractor Hours									
13	Freight Costs									
14	Marketing Costs									
15	Fuel and Lubrication									
16	Insurance									
17	Packaging/Grading									
	Maintenance:									
18	Equipment									
19	Vehicles									
20	Sundry Supplies									
21	Crutching									
22	Shearing									
23	Cartage/Transport									
24	Storage									
25	Seed Cleaning									
	Total Costs									
									SubTotal	

TOTAL FARM COSTS = $

YIELD DATA

Crops:

Activity	tonnes/hectare		
	This Year	Last Year	Expected (Next Year)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Livestock:

Activity	*Unit*	*Last Year*	*This Year*	*Expected (Next Year)*
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Labour Usage:
I

Month	Farm Operations	
	Crops	Livestock
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

Commodity Sales:

	Commodity	Time/Period of Sale	Purchaser
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Price Trends:

	Price, $/unit			
Commodity	-2	-1	Current	Unit
Crops:				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Livestock:				
1				
2				
3				
4				
5				
6				
7				
8				

SECTION THREE

PHYSICAL INPUTS AND OUTPUTS

Land / Land Improvements _____

_____

_____

Planned Improvements/changes/purchases _____

_____

_____

_____

Inventory:

Structures	Date Erected	Original Cost	Value at / /94
Farm House			
Employee's House			
Other Quarters/sheds eg. Shearer's, etc...			
1			
2			
3			
4			
Workshop/Machinery Shed			
Hayshed			
Grain Shed			
Silos:			
1			
2			
3			
4			
Livestock Yarding:			
1			
2			
3			
4			
5			

Fencing:			
1			
2			
3			
4			
Dip(s) and Spray Races			
Water and Irrigation			
Other Equipment/Structures:			
1			
2			
3			
Total Improvements			

Inventory of Farm Machinery, Plant and Equipment

Machinery & Equipment	Year of Acquisition	New/Used	Purchase Price
Motor Vehicles:			
1			
2			
3			
4			
5			
Trailers			
Welding Unit			
Engines:			
1			
2			
3			
4			
Other Plant and Equipment			
Total			

Machinery/Equipment Use:

Machine/Eqt	Type of Work	Paddock	Hours Used	Fuel Consumption	Comments
1					
2					
3					
4					
5					

Crop and Pasture Operations:

	Paddock / Enterprise name/number					
	1	2	3	4	5	6
Area:						
Total						
Arable						
Current Use						
Planned Use						
Pre-seeding Chemicals:						
1.						
2.						
Spray Date						
Application Rate						
Seeding:						
Date Sown						
Sowing Rate						
Fertiliser Applica.						
Fertiliser Type						
Post-Seeding Chemicals:						
Weeds						
1						
Rate						
2						
Rate						
Date Sprayed						
Pests						
1						
Rate						
2						
Rate						
Date Sprayed						
Harvest:						
Date						
Crop						
Yield						
Previous yield						
Wool cut						

Inventory of Livestock

	Livestock Activity							
	1	2	3	4	5	6	7	8
Opening Stock								
Purchase								
Natural Increase								
Transfers In								
Total								
Transfers Out								
Sales:								
cfa cows @								
cfa bulls @								
cfa ewes @								
cfa rams @								
heifers @								
weaners @								
steers @								
Deaths								
Mortality Rate (Calves,%)								
Mortality Rate (Adult,%)								
Mortality Rate (Lambs,%)								
Mortality Rate (Adult,%)								
Rations:								
Forage oats								
Other Grain								
Closing Stock								
Total								
Lambing/Weaning Rate								
Calving/Weaning Rate								
Comments:								

Quantities of home-grown and purchased feeds used in individual livestock enterprises

Feed Type	Source (H/B)	Livestock Enterprise					
		1	2	3	4	5	6
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

SECTION FOUR

Other Information

Reasons for choice of crops in current rotation:

Crop _____ Reason _____
Crop _____ Reason _____
Crop _____ Reason _____
Crop _____ Reason _____
Crop _____ Reason _____
Crop _____ Reason _____

Perceptions of what the future holds for favoured enterprises (price, yields, weather variation, etc.)

Crop _____ Future _____
Crop _____ Future _____
Crop _____ Future _____
Crop _____ Future _____
Livestock _____ Future _____
Livestock _____ Future _____

On what basis do you sow/prepare land for sowing? _____
_____

Opinion of new technologies and experimental research at various research stations and universities.

_____
_____
_____
_____

Source(s) of production and management information. _____
_____
_____

Yield and Price Expectations

	Yields			*Prices*		
Commodity	*Lowest*	*Most Likely*	*Highest*	*Lowest*	*Most Likely*	*Highest*

Perceptions

Based on your experiences as a farmer, what are the major risks you believe you face?

_____

_____

Thoughts about farming (tick as appropriate):

- way of life _____
- make living _____
- business _____
- other _____

How long in farming _____

Over this time, what's the lowest total annual income earned? _____

The highest ? _____

Linola:

Why did you take up growing Linola? _____

_____

Source(s) of informations about Linola _____

_____

_____

On-Farm Performance:

Yield _____ Price _____
Yield _____ Price _____
Yied _____ Price _____

Which of these attitudes do you believe best describes your attitude to risk?

1. Normal 2. Slightly Risk Averse 3. Moderately Risk Averse
4. Extremely Risk Averse 5. Paranoid About Risk

Appendix 2

Interval Preference Measurement for Select Victorian Farmers

In operating your farm business, the decisions you make concerning enterprise combination and capital investment are influenced by your attitude to risky alternatives. The set of questions below are designed to elicit your attitude to risk. Consider the annual farm income distributions given below and indicate your preferences in the spaces provided for that purpose under each distribution. Each distribution may be considered as a range of possible outcomes under various management options. The six income levels given under each distribution are considered to be equally likely to occur in the coming production year (akin to the chance of getting a given number on a six-number die).

Your responses (preferences) are only an indication of your own attitude towards risky options within the unique decision making environment in which you operate. As a consequence, *there are no right or wrong answers.*

Income Distributions

Section One

A.

Compare the pair of distributions below and indicate your preference in the space provided - either (1) or (2).

(1)	*(2)*
4050	**4000**
4450	**4050**
4900	**4150**
4950	**5000**
5050	**5700**
5450	**6100**

Preference:

(1) _____

(2) _____

If you prefer distribution (1) go to question B. If you prefer distribution (2) go to question C.

(Please, turn over)

B.

Compare the pair of distributions below and indicate your preference in the space provided - either (3) or (4).

(3)	*(4)*
4400	**4350**
4850	**4550**
4900	**4650**
4900	**4950**
5050	**5550**
5150	**5600**

Preference:

(3) _____

(4) _____

If you prefer distribution (3) go to question D. If you prefer distribution (4) go to question E.

C.

Compare the pair of distributions below and indicate your preference in the space provided - either (5) or (6).

(5)	*(6)*
4550	**4000**
4600	**4550**
5150	**4850**
5300	**5400**
5350	**5450**
5450	**6100**

Preference:

(5) _____

(6) _____

If you prefer distribution (5) go to question F. If you prefer distribution (6) go to question G.

D.

Compare the pair of distributions below and indicate your preference in the space provided - either (7) or (8).

(7)	*(8)*
4550	**4450**
4750	**5000**
4850	**5000**
5250	**5400**
5300	**5650**
5900	**6100**

Preference:

(7) _____

(8) _____

Please, go on to Section Two (*page 21*)

E.

Compare the pair of distributions below and indicate your preference in the space provided - either (9) or (10).

(9)	*(10)*
4350	**4550**
4550	**4700**
4650	**4800**
4950	**5050**
5550	**5100**
5600	**5200**

Preference:

(9) _____

(10) _____

Please, go on to Section Two (*page 21*)

F.

Compare the pair of distributions below and indicate your preference in the space provided - either (11) or (12).

(11)	*(12)*
4550	**4250**
4700	**4300**
4800	**4600**
5050	**5300**
5100	**5400**
5200	**5600**

Preference:

(11) _____

(12) _____

Please, go on to Section Two (*page 21*)

G.

Compare the pair of distributions below and indicate your preference in the space provided - either (13) or (14).

(13)	*(14)*
4350	**4000**
4550	**4050**
4650	**4150**
4950	**5000**
5550	**5700**
5600	**6100**

Preference:

(13) _____

(14) _____

Please, go on to Section Two (*page 21*)

Section Two

A.

Compare the pair of distributions below and indicate your preference in the space provided - either (1) or (2).

(1)	*(2)*
13400	**13250**
13850	**13300**
13900	**13600**
13900	**14300**
14050	**14400**
14150	**14600**

Preference:

(1) _____

(2) _____

If you prefer distribution (1) go to question B. If you prefer distribution (2) go to question C.

B.

Compare the pair of distributions below and indicate your preference in the space provided - either (3) or (4).

(3)	*(4)*
13550	**13000**
13700	**13550**
13800	**13850**
14050	**14400**
14100	**14450**
14200	**15100**

Preference:

(3) _____

(4) _____

If you prefer distribution (3) go to question D. If you prefer distribution (4) go to question E.

(Please, turn over)

C.

Compare the pair of distributions below and indicate your preference in the space provided - either (5) or (6).

(5)	*(6)*
13550	**13050**
13700	**13950**
13800	**14000**
14050	**14050**
14100	**14150**
14200	**14200**

Preference:

(5) _____

(6) _____

If you prefer distribution (5) go to question F. If you prefer distribution (6) go to question G.

D.

Compare the pair of distributions below and indicate your preference in the space provided - either (7) or (8).

(7)	*(8)*
13700	**13450**
13750	**14000**
13900	**14000**
14450	**14400**
14450	**14650**
14600	**15100**

Preference:

(7) _____

(8) _____

Please, go on to Section Three (*page 24*)

E.

Compare the pair of distributions below and indicate your preference in the space provided - either (9) or (10).

(9)	*(10)*
13350	**13000**
13450	**13050**
13550	**13150**
13700	**14000**
14150	**14700**
14300	**15100**

Preference:

(9) _____

(10) _____

Please, go on to Section Three (*page 24*)

F.

Compare the pair of distributions below and indicate your preference in the space provided - either (11) or (12).

(11)	*(12)*
13550	**13250**
13700	**13300**
13800	**13600**
14050	**14300**
14100	**14400**
14200	**14600**

Preference:

(11) _____

(12) _____

Please, go on to Section Three (*page 24*)

G.

Compare the pair of distributions below and indicate your preference in the space provided - either (13) or (14).

(13)	*(14)*
13700	**13250**
13750	**13900**
13900	**14100**
14450	**14150**
14450	**14250**
14600	**15050**

Preference:

(13) _____

(14) _____

Please, go on to Section Three

Section Three

A.

Compare the pair of distributions below and indicate your preference in the space provided - either (1) or (2).

(1)	*(2)*
22000	**22650**
22550	**22850**
22850	**22850**
23400	**23100**
23450	**23250**
24100	**23500**

Preference:

(1) _____

(2) _____

If you prefer distribution (1) go to question B. If you prefer distribution (2) go to question C.

(Please, turn over)

B.

Compare the pair of distributions below and indicate your preference in the space provided - either (3) or (4).

(3)	*(4)*
22400	**22250**
22850	**22600**
22900	**22650**
22900	**23050**
23050	**23150**
23150	**24000**

Preference:

(3) _____

(4) _____

If you prefer distribution (3) go to question D. If you prefer distribution (4) go to question E.

C.

Compare the pair of distributions below and indicate your preference in the space provided - either (5) or (6).

(5)	*(6)*
22550	**22050**
22700	**22950**
22800	**23000**
23050	**23050**
23100	**23150**
23200	**23200**

Preference:

(5) _____

(6) _____

If you prefer distribution (5) go to question F. If you prefer distribution (6) go to question G.

D.

Compare the pair of distributions below and indicate your preference in the space provided - either (7) or (8).

(7)	*(8)*
22350	**22000**
22450	**22550**
22550	**22850**
22700	**23400**
23150	**23450**
23300	**24100**

Preference:

(7) _____

(8) _____

Please, go on to Section Four (*page 28*)

E.

Compare the pair of distributions below and indicate your preference in the space provided - either (9) or (10).

(9)	*(10)*
22000	**22050**
22050	**22400**
22150	**22750**
23000	**23000**
23700	**23100**
24100	**23150**

Preference:

(9) _____

(10) _____

Please, go on to Section Four (*page 28*)

F.

Compare the pair of distributions below and indicate your preference in the space provided - either (11) or (12).

(11)	*(12)*
22550	**22250**
22700	**22300**
22800	**22600**
23050	**23300**
23100	**23400**
23200	**23600**

Preference:

(11) _____

(12) _____

Please, go on to Section Four (*page 28*)

G.

Compare the pair of distributions below and indicate your preference in the space provided - either (13) or (14).

(13)	*(14)*
22350	**22000**
22550	**22050**
22650	**22150**
22950	**23000**
23550	**23700**
23600	**24100**

Preference:

(13) _____

(14) _____

Please, go on to Section Four (*page 28*)

Section Four

A.

Compare the pair of distributions below and indicate your preference in the space provided - either (1) or (2).

(1)	*(2)*
31400	**31250**
31850	**31300**
31900	**31600**
31900	**32300**
32050	**32400**
32150	**32600**

Preference:

(1) _____

(2) _____

If you prefer distribution (1) go to question B. If you prefer distribution (2) go to question C.

B.

Compare the pair of distributions below and indicate your preference in the space provided - either (3) or (4).

(3)	*(4)*
31550	**31000**
31700	**31550**
31800	**31850**
32050	**32400**
32100	**32450**
32200	**33100**

Preference:

(3) _____

(4) _____

If you prefer distribution (3) go to question D. If you prefer distribution (4) go to question E.

(Please, turn over)

C.

Compare the pair of distributions below and indicate your preference in the space provided - either (5) or (6).

(5)	*(6)*
31550	**31050**
31700	**31950**
31800	**32000**
32050	**32050**
32100	**32150**
32200	**32200**

Preference:

(5) _____

(6) _____

If you prefer distribution (5) go to question F. If you prefer distribution (6) go to question G.

D.

Compare the pair of distributions below and indicate your preference in the space provided - either (7) or (8).

(7)	*(8)*
31700	**31450**
31750	**32000**
31900	**32000**
32450	**32400**
32450	**32650**
32600	**33100**

Preference:

(7) _____

(8) _____

End of Questionnaire

Thank you for your cooperation.

E.

Compare the pair of distributions below and indicate your preference in the space provided - either (9) or (10).

(9)	*(10)*
31350	**31000**
31450	**31050**
31550	**31150**
31700	**32000**
32150	**32700**
32300	**33100**

Preference:

(9) _____

(10) _____

End of Questionnaire

Thank you for your cooperation.

F.

Compare the pair of distributions below and indicate your preference in the space provided - either (11) or (12).

(11)	*(12)*
31550	**31250**
31700	**31300**
31800	**31600**
32050	**32300**
32100	**32400**
32200	**32600**

Preference:

(11) _____

(12) _____

End of Questionnaire

Thank you for your cooperation.

G.

Compare the pair of distributions below and indicate your preference in the space provided - either (13) or (14).

(13)	*(14)*
31700	**31250**
31750	**31900**
31900	**32100**
32450	**32150**
32450	**32250**
32600	**33050**

Preference:

(13) _____

(14) _____

End of Questionnaire

Thank you for your cooperation.

Appendix 3

Table A3.1 : Historical crop yields, t/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	1.88	1.71	3.13	1.18	1.76	1.67
1971	1.94	1.76	1.86	1.34	1.33	1.27
1972	1.29	1.17	1.34	0.77	1.07	1.02
1973	1.18	1.07	2.55	1.28	1.72	1.63
1974	1.83	1.66	2.20	1.31	1.58	1.51
1975	1.47	1.34	1.71	1.29	1.25	1.20
1976	1.49	1.35	1.94	1.10	1.16	1.11
1977	1.18	1.07	2.04	0.86	1.21	1.16
1978	2.24	2.04	3.34	1.42	1.97	1.88
1979	2.23	2.03	1.67	1.52	1.00	0.95
1980	1.77	1.61	0.90	1.38	1.25	1.19
1981	1.87	1.70	1.42	1.46	0.99	0.92
1982	0.30	0.27	0.89	0.27	0.52	0.48
1983	2.57	2.34	1.75	1.96	0.91	0.85
1984	2.00	1.82	1.68	1.55	1.51	1.40
1985	1.88	1.71	2.58	1.74	1.90	1.77
1986	2.50	2.27	3.00	2.42	1.34	1.25
1987	2.25	2.05	1.79	1.85	1.20	1.12
1988	2.75	2.50	1.85	2.43	1.83	1.70
1989	2.64	2.40	2.65	1.94	1.18	1.10
1990	2.15	1.95	2.86	1.95	1.38	1.63
1991	2.00	1.82	3.00	1.80	1.35	1.45
1992	2.55	2.32	2.96	2.35	1.88	2.12
1993	2.53	2.30	2.58	2.51	2.15	1.57
1994	2.33	2.12	2.40	2.01	2.05	1.45
Mean	**1.95**	**1.78**	**2.16**	**1.59**	**1.42**	**1.34**
Std deviation	**0.57**	**0.52**	**0.69**	**0.55**	**0.40**	**0.37**

Table A3.1 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Field peas	Lupins
1970	1.55	1.03	0.78	0.69	1.27	0.55
1971	1.18	1.02	0.63	0.55	1.50	0.49
1972	0.95	0.74	0.38	0.33	1.05	0.42
1973	1.52	0.94	0.63	0.55	1.54	0.77
1974	1.40	0.98	0.72	0.63	1.36	0.67
1975	1.12	1.16	0.97	0.85	1.46	0.75
1976	1.03	1.08	1.08	0.95	1.01	0.39
1977	1.08	0.92	0.55	0.48	1.25	0.41
1978	1.75	1.30	0.97	0.85	1.28	0.82
1979	0.88	1.26	1.08	0.95	1.20	0.74
1980	1.11	1.03	0.73	0.64	1.37	0.80
1981	0.86	1.16	0.93	0.82	1.10	0.84
1982	0.45	0.46	0.32	0.28	0.73	0.77
1983	0.79	1.65	1.25	1.10	1.78	0.98
1984	1.30	1.95	1.34	1.18	1.31	1.03
1985	1.65	2.78	1.60	1.41	1.30	1.26
1986	1.16	3.40	1.58	1.39	1.89	1.37
1987	1.04	2.20	1.46	1.28	1.69	0.93
1988	1.58	2.35	1.61	1.42	1.55	1.06
1989	1.02	3.10	1.88	1.65	1.36	1.14
1990	1.52	2.96	1.53	1.35	1.47	0.91
1991	1.35	2.92	1.00	0.88	0.98	1.12
1992	1.97	3.15	1.89	1.66	1.33	1.49
1993	1.46	2.07	1.69	1.49	1.14	1.13
1994	1.35	2.65	1.51	1.33	1.46	1.32
Mean	**1.24**	**1.77**	**1.12**	**0.99**	**1.34**	**0.89**
Std deviation	**0.34**	**0.91**	**0.47**	**0.41**	**0.26**	**0.31**

Table A3.2 : Historical crop prices, $/t

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	40.28	47.53	51.26	42.77	88.00	114.33
1971	42.40	50.03	51.79	42.33	94.00	101.38
1972	43.51	51.34	57.44	55.68	99.00	97.68
1973	71.10	83.90	70.66	66.03	154.00	213.77
1974	83.40	98.41	75.99	69.21	222.00	226.12
1975	99.32	117.20	84.57	77.59	155.00	170.06
1976	105.40	124.37	88.26	81.84	182.00	205.67
1977	111.16	131.17	90.96	83.12	191.00	179.32
1978	116.61	137.60	90.27	76.71	205.00	197.83
1979	127.30	150.21	101.83	97.21	223.00	216.82
1980	154.50	182.31	126.00	141.28	259.00	290.20
1981	159.20	187.85	110.90	111.29	230.00	271.67
1982	176.67	208.47	121.24	158.14	243.00	295.92
1983	174.65	206.09	137.86	122.86	293.00	310.20
1984	201.24	237.47	133.32	110.20	308.00	314.00
1985	198.24	233.92	121.17	109.47	280.00	285.00
1986	171.29	202.13	111.23	106.41	241.00	246.00
1987	175.66	207.28	130.79	116.29	265.00	295.00
1988	182.29	215.10	147.44	143.75	380.00	338.00
1989	200.32	236.37	155.60	151.67	300.00	390.00
1990	162.94	192.35	125.50	123.60	293.71	279.83
1991	218.62	257.98	148.20	131.90	330.26	354.57
1992	206.51	243.68	132.80	130.30	315.23	338.30
1993	167.00	197.06	135.30	133.20	280.00	285.29
1994	177.88	209.91	140.75	135.52	350.01	333.42
Mean	**142.70**	**168.39**	**109.64**	**104.73**	**239.25**	**254.02**
Std deviation	**54.84**	**64.71**	**31.48**	**33.82**	**79.12**	**79.76**

Table A3.2 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Field peas	Lupins
1970	131.48	32.12	88.00	101.20	119.18	120.54
1971	116.59	36.70	94.00	108.10	118.57	120.22
1972	112.33	56.12	99.00	113.85	136.94	130.00
1973	245.84	57.19	154.00	177.10	151.19	137.59
1974	260.04	56.12	222.00	255.30	155.57	139.92
1975	195.57	60.98	155.00	178.25	167.10	146.06
1976	236.52	69.91	182.00	209.30	172.95	149.17
1977	206.22	70.34	191.00	219.65	174.71	150.11
1978	227.51	60.10	205.00	235.75	165.89	145.41
1979	249.35	72.71	223.00	256.45	194.10	160.43
1980	333.73	132.32	259.00	297.85	254.76	192.73
1981	312.42	97.84	230.00	264.50	213.48	170.75
1982	340.31	151.08	243.00	279.45	277.96	205.08
1983	356.73	88.86	293.00	336.95	229.41	179.23
1984	361.10	88.64	308.00	354.20	119.18	169.95
1985	327.75	93.13	280.00	322.00	118.57	155.60
1986	282.90	93.27	241.00	277.15	136.94	168.20
1987	339.25	99.54	265.00	304.75	151.19	176.20
1988	388.70	114.99	380.00	437.00	155.57	198.80
1989	448.50	107.44	300.00	345.00	167.10	173.50
1990	321.81	99.72	293.72	337.77	172.95	165.00
1991	407.75	117.56	380.20	437.22	174.71	178.00
1992	389.04	104.09	333.30	383.29	165.89	197.00
1993	328.08	104.44	345.52	397.35	194.10	203.00
1994	383.44	108.21	302.10	347.41	254.76	216.20
Mean	**292.12**	**86.94**	**242.67**	**279.07**	**173.71**	**165.95**
Std deviation	**91.73**	**29.14**	**83.14**	**95.62**	**43.85**	**26.72**

Table A3.3 : Historical livestock enterprise gross margins, $/hd

Year	Broilers $/'000 birds	Merino $/ewe	First cross lambs $/ewe	Merino wether - bought-in $/head	Merino wether - bred $/ewe
1970	215.30	37.65	29.07	26.04	35.65
1971	217.46	47.15	36.40	32.61	44.64
1972	219.63	49.61	38.31	34.31	46.98
1973	239.18	70.01	54.06	48.42	66.30
1974	241.57	95.35	73.62	65.94	90.29
1975	243.99	46.09	35.59	31.88	43.64
1976	246.42	35.54	27.44	24.58	33.65
1977	248.89	33.78	26.08	23.36	31.98
1978	251.38	25.33	19.56	17.52	23.99
1979	253.89	71.42	55.15	49.40	67.63
1980	256.43	71.77	55.42	49.64	67.97
1981	258.99	46.09	35.59	31.88	43.64
1982	261.59	36.24	27.98	25.06	12.98
1983	264.20	2.46	1.90	1.70	2.33
1984	302.00	38.70	29.88	26.77	36.65
1985	312.00	29.20	22.55	20.20	27.65
1986	335.00	13.02	10.05	9.00	13.98
1987	356.00	19.00	14.67	13.14	17.99
1988	349.00	54.40	41.88	33.07	33.32
1989	367.00	50.45	40.50	32.11	29.99
1990	380.01	38.50	27.50	19.88	37.32
1991	392.00	18.64	13.15	7.39	22.67
1992	395.00	21.11	16.30	14.60	19.99
1993	415.00	15.87	20.08	9.33	12.56
1994	420.00	35.92	28.93	19.67	24.34
Mean	**297.68**	**40.13**	**31.27**	**26.70**	**35.53**
Std deviation	**67.63**	**21.31**	**16.25**	**15.07**	**20.48**

Appendix 4

Table A4.1 : Case farm one - Subjectively corrected crop yields, t/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	2.54	2.06	2.63	1.78	2.15	2.08
1971	2.55	2.07	1.91	1.88	1.60	1.56
1972	1.78	1.37	1.60	1.30	1.26	1.24
1973	1.60	1.21	2.26	1.72	2.04	1.99
1974	2.28	1.83	2.05	1.70	1.85	1.82
1975	1.83	1.42	1.76	1.63	1.42	1.42
1976	1.80	1.39	1.88	1.40	1.29	1.30
1977	1.41	1.03	1.92	1.13	1.34	1.35
1978	2.55	2.07	2.63	1.60	2.25	2.23
1979	2.49	2.02	1.69	1.64	1.04	1.06
1980	1.92	1.50	1.24	1.46	1.33	1.34
1981	1.99	1.56	1.52	1.48	0.99	0.99
1982	0.17	0.00	1.21	0.32	0.39	0.43
1983	2.67	2.19	1.67	1.85	0.85	0.88
1984	1.99	1.56	1.62	1.41	1.57	1.55
1985	1.80	1.39	2.11	1.54	2.04	2.00
1986	2.45	1.98	2.33	2.12	1.33	1.34
1987	2.12	1.69	1.64	1.54	1.14	1.16
1988	2.63	2.14	1.66	2.03	1.89	1.87
1989	2.46	1.99	2.09	1.52	1.07	1.11
1990	1.86	1.44	2.20	1.48	1.30	1.76
1991	1.64	1.25	2.26	1.29	1.25	1.52
1992	2.21	1.76	2.22	1.75	1.88	2.35
1993	2.14	1.70	2.00	1.85	2.19	1.65
1994	1.87	1.45	1.88	1.33	2.05	1.48
Mean	**2.03**	**1.60**	**1.92**	**1.55**	**1.50**	**1.50**
Std deviation	**0.53**	**0.48**	**0.37**	**0.35**	**0.48**	**0.45**

Table A4.1 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Field peas	Lupins
1970	1.88	1.64	2.15	1.99	1.30	2.06
1971	1.43	1.54	1.81	1.66	1.66	1.78
1972	1.14	1.23	1.31	1.17	0.94	1.47
1973	1.81	1.31	1.64	1.49	1.71	2.40
1974	1.65	1.26	1.71	1.56	1.42	2.00
1975	1.31	1.32	2.05	1.88	1.57	2.13
1976	1.19	1.17	2.15	1.98	0.85	0.97
1977	1.23	0.95	1.17	1.04	1.22	0.93
1978	2.02	1.19	1.80	1.64	1.27	2.03
1979	0.97	1.07	1.90	1.74	1.13	1.69
1980	1.24	0.79	1.22	1.09	1.40	1.76
1981	0.92	0.81	1.48	1.34	0.96	1.78
1982	0.42	0.15	0.37	0.27	0.37	1.47
1983	0.82	1.05	1.85	1.69	2.03	1.98
1984	1.41	1.22	1.91	1.76	1.28	2.02
1985	1.82	1.83	2.27	2.10	1.26	2.60
1986	1.22	2.26	2.15	1.98	2.19	2.81
1987	1.07	1.18	1.86	1.70	1.87	1.42
1988	1.70	1.22	2.03	1.88	1.64	1.70
1989	1.02	1.76	2.40	2.22	1.33	1.83
1990	1.61	1.56	1.73	1.59	1.50	1.05
1991	1.39	1.44	0.75	0.64	0.71	1.57
1992	2.12	1.55	2.17	1.99	1.26	2.55
1993	1.50	0.56	1.75	1.60	0.95	1.39
1994	1.36	0.96	1.36	1.23	1.46	1.84
Mean	**1.37**	**1.24**	**1.72**	**1.57**	**1.33**	**1.81**
Std deviation	**0.40**	**0.43**	**0.48**	**0.46**	**0.41**	**0.48**

Table A4.2 : Case farm one - Subjectively corrected crop prices, $/t

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	123.68	128.67	129.25	106.36	306.87	322.02
1971	118.74	123.38	124.10	100.18	304.47	303.40
1972	112.69	116.92	126.77	113.72	301.42	292.51
1973	135.54	141.33	140.99	122.96	331.13	381.65
1974	141.70	147.91	143.17	121.96	369.38	384.15
1975	151.81	158.72	150.31	128.39	319.12	329.54
1976	151.19	158.05	149.98	128.91	330.49	351.47
1977	150.22	157.01	148.14	125.19	330.05	321.66
1978	148.90	155.61	141.13	110.48	332.90	329.31
1979	153.31	160.31	152.82	134.24	338.36	337.36
1980	175.73	184.27	183.76	191.70	355.63	390.83
1981	173.60	181.99	154.75	143.26	330.28	367.56
1982	185.41	194.61	164.57	204.70	332.47	380.00
1983	175.94	184.50	183.98	148.70	358.91	384.12
1984	197.70	207.75	171.09	125.05	362.41	379.49
1985	187.17	196.49	146.59	118.46	337.72	347.47
1986	150.50	157.32	125.45	108.53	305.82	307.10
1987	148.02	154.66	149.35	117.10	315.22	340.21
1988	147.99	154.63	168.80	150.82	384.27	368.31
1989	160.41	167.89	175.31	156.59	325.50	403.93
1990	112.36	116.64	123.40	110.90	315.04	304.13
1991	165.86	173.73	152.09	117.22	332.66	358.73
1992	145.39	151.84	122.62	109.38	316.48	337.34
1993	95.02	98.03	120.48	107.97	287.05	285.27
1994	99.63	102.97	122.84	105.74	326.61	317.66
Mean	**148.34**	**155.01**	**146.87**	**128.34**	**330.01**	**345.01**
Std deviation	**26.97**	**28.81**	**19.65**	**25.86**	**22.73**	**33.72**

Table A4.2 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Field peas	Lupins
1970	326.23	85.65	313.66	296.29	178.04	178.04
1971	306.98	86.68	310.78	293.54	176.38	176.38
1972	295.71	97.27	307.22	290.14	187.22	187.22
1973	387.89	96.04	337.49	319.02	195.33	195.33
1974	390.48	93.44	376.56	356.30	196.96	196.96
1975	334.00	94.65	324.28	306.42	203.29	203.29
1976	356.68	98.49	335.61	317.23	205.89	205.89
1977	325.85	96.85	334.76	316.42	205.79	205.79
1978	333.77	88.34	337.29	318.83	198.73	198.73
1979	342.10	94.54	342.52	323.83	216.04	216.04
1980	397.39	131.01	359.94	340.45	254.68	254.68
1981	373.32	106.89	333.38	315.10	226.28	226.28
1982	386.19	139.25	335.23	316.87	267.44	267.44
1983	390.45	97.27	362.12	342.53	234.24	234.24
1984	385.66	95.21	365.33	345.59	187.04	187.04
1985	352.54	96.19	339.44	320.89	174.19	174.19
1986	310.79	94.36	306.11	289.09	183.12	183.12
1987	345.04	96.48	315.41	297.96	188.33	188.33
1988	374.10	104.51	386.28	365.58	205.34	205.34
1989	410.93	97.74	325.21	307.31	183.64	183.64
1990	307.73	90.85	314.01	296.62	175.53	175.53
1991	364.19	100.42	365.59	345.83	184.77	184.77
1992	342.07	89.83	326.91	308.93	198.88	198.88
1993	288.22	88.14	328.24	310.20	202.47	202.47
1994	321.72	88.65	291.92	275.54	211.89	211.89
Mean	**350.00**	**97.95**	**335.01**	**316.66**	**201.66**	**201.66**
Std deviation	**34.87**	**12.37**	**23.55**	**22.47**	**23.66**	**23.66**

Table A4.3 : Case farm one - Subjectively corrected livestock enterprise gross margins, $/hd

Year	Broilers $/'000 birds	Merino $/ewe	First cross lambs $/ewe	Merino wether - bought-in $/head	Merino wether - bred $/ewe
1970	405.13	33.52	26.79	2.69	25.62
1971	397.09	35.86	29.22	3.28	27.19
1972	389.06	36.69	30.07	3.50	27.77
1973	401.98	41.37	34.95	4.67	30.90
1974	394.21	47.12	40.95	6.11	34.72
1975	386.49	36.82	30.15	3.57	27.97
1976	378.77	34.84	28.06	3.10	26.70
1977	371.10	34.76	27.95	3.09	26.69
1978	363.46	33.23	26.34	2.73	25.72
1979	355.84	43.45	37.02	5.27	32.48
1980	348.26	43.82	37.39	5.37	32.76
1981	340.71	38.59	31.89	4.09	29.35
1982	333.17	36.76	29.96	3.65	25.00
1983	325.69	29.79	22.64	1.94	23.63
1984	360.59	37.88	31.10	3.96	29.00
1985	362.00	36.13	29.25	3.54	27.88
1986	379.07	32.94	25.89	2.76	26.07
1987	393.73	34.53	27.53	3.17	26.90
1988	374.65	42.44	35.76	4.79	29.43
1989	385.70	41.89	35.65	4.80	29.16
1990	390.72	39.61	32.15	3.95	30.49
1991	394.53	35.63	28.25	3.07	28.52
1992	387.50	36.46	29.46	3.72	28.35
1993	400.96	35.62	30.85	3.40	27.47
1994	396.34	40.24	33.73	4.28	29.47
Mean	**376.67**	**37.60**	**30.92**	**3.78**	**28.37**
Std deviation	**22.48**	**4.04**	**4.23**	**0.97**	**2.55**

Appendix 5

Table A5.1 : Case farm two - Subjectively corrected crop yields, t/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	1.81	1.61	2.05	1.68	0.94	1.09
1971	1.83	1.61	1.28	1.81	0.71	0.80
1972	1.27	1.09	0.96	1.06	0.57	0.61
1973	1.14	0.97	1.66	1.60	0.89	1.04
1974	1.63	1.43	1.44	1.57	0.82	0.95
1975	1.31	1.13	1.14	1.48	0.64	0.72
1976	1.29	1.10	1.26	1.19	0.58	0.64
1977	1.00	0.83	1.30	0.84	0.60	0.67
1978	1.82	1.62	2.05	1.44	0.98	1.18
1979	1.78	1.57	1.05	1.50	0.48	0.50
1980	1.37	1.19	0.58	1.26	0.60	0.67
1981	1.42	1.23	0.88	1.29	0.46	0.47
1982	0.12	0.00	0.55	0.00	0.21	0.14
1983	1.91	1.70	1.04	1.76	0.40	0.40
1984	1.42	1.23	0.99	1.20	0.70	0.79
1985	1.29	1.11	1.50	1.37	0.89	1.05
1986	1.75	1.54	1.73	2.12	0.60	0.67
1987	1.51	1.32	1.01	1.37	0.52	0.57
1988	1.88	1.67	1.03	2.00	0.83	0.98
1989	1.76	1.55	1.48	1.34	0.49	0.54
1990	1.33	1.14	1.59	1.29	0.59	0.91
1991	1.17	1.00	1.66	1.04	0.56	0.77
1992	1.58	1.38	1.62	1.64	0.83	1.25
1993	1.53	1.33	1.38	1.76	0.96	0.84
1994	1.33	1.15	1.26	1.10	0.90	0.75
Mean	**1.45**	**1.26**	**1.30**	**1.38**	**0.67**	**0.76**
Std deviation	**0.38**	**0.36**	**0.39**	**0.45**	**0.20**	**0.26**

Table A5.1 (cont'd)

Year	Linseed2	Sunflower	Canola1	Canola2	Field peas
1970	0.91	1.10	1.63	1.53	0.95
1971	0.65	0.88	1.35	1.24	1.20
1972	0.49	0.78	0.93	0.83	0.69
1973	0.87	0.83	1.21	1.11	1.24
1974	0.78	0.77	1.26	1.16	1.03
1975	0.58	0.67	1.54	1.43	1.14
1976	0.51	0.76	1.63	1.52	0.63
1977	0.54	0.68	0.81	0.72	0.90
1978	1.00	0.72	1.33	1.23	0.93
1979	0.39	0.74	1.42	1.32	0.83
1980	0.54	0.67	0.86	0.77	1.02
1981	0.36	0.54	1.07	0.98	0.71
1982	0.07	0.52	0.14	0.07	0.29
1983	0.30	0.66	1.38	1.27	1.47
1984	0.65	0.99	1.43	1.33	0.93
1985	0.88	0.64	1.73	1.62	0.92
1986	0.54	0.61	1.63	1.52	1.58
1987	0.45	1.31	1.39	1.28	1.35
1988	0.81	1.10	1.53	1.43	1.19
1989	0.42	1.07	1.84	1.72	0.97
1990	0.76	0.80	1.28	1.18	1.09
1991	0.63	1.11	0.46	0.38	0.53
1992	1.05	0.59	1.64	1.53	0.92
1993	0.69	0.60	1.29	1.20	0.70
1994	0.61	0.61	0.97	0.88	1.06
Mean	**0.62**	**0.79**	**1.27**	**1.17**	**0.97**
Std deviation	**0.23**	**0.21**	**0.40**	**0.39**	**0.29**

Table A5.2 : Case farm two - Subjectively corrected crop prices, $/t

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	116.69	121.34	94.84	90.78	326.85	308.01
1971	113.69	117.59	89.82	86.78	324.45	295.59
1972	110.02	113.02	92.42	95.54	321.39	288.33
1973	123.89	130.31	106.27	101.52	351.12	347.75
1974	127.63	134.97	108.39	100.87	389.38	349.43
1975	133.77	142.63	115.35	105.03	339.11	313.02
1976	133.39	142.15	115.03	105.37	350.48	327.64
1977	132.80	141.42	113.24	102.96	350.04	307.76
1978	132.00	140.43	106.41	93.44	352.89	312.87
1979	134.68	143.76	117.79	108.81	358.35	318.23
1980	148.29	160.73	147.93	145.99	375.63	353.88
1981	146.99	159.11	119.67	114.66	350.27	338.36
1982	154.16	168.05	129.24	154.40	352.46	346.66
1983	148.42	160.89	148.15	118.17	378.91	349.40
1984	161.62	177.36	135.59	102.87	382.41	346.32
1985	155.23	169.38	111.72	98.61	357.71	324.97
1986	132.97	141.64	91.14	92.18	325.80	298.06
1987	131.46	139.75	114.42	97.73	335.20	320.13
1988	131.45	139.73	133.36	119.54	404.28	338.87
1989	138.98	149.12	139.70	123.27	345.48	362.61
1990	109.82	112.82	89.14	93.72	335.02	296.08
1991	142.29	153.26	117.09	97.80	352.66	332.48
1992	129.87	137.76	88.38	92.73	336.46	318.22
1993	99.30	99.63	86.30	91.82	307.02	283.50
1994	102.10	103.13	88.60	90.38	346.59	305.10
Mean	**131.66**	**140.00**	**112.00**	**105.00**	**350.00**	**323.33**
Std deviation	**16.37**	**20.41**	**19.14**	**16.73**	**22.74**	**22.48**

Table A5.2 (cont'd)

Year	Linseed2	Sunflower	Canola1	Canola2	Field peas
1970	318.01	337.45	245.03	231.45	157.39
1971	305.61	318.48	242.78	229.30	153.48
1972	298.34	350.29	240.00	226.64	161.76
1973	357.74	416.56	263.64	249.25	167.40
1974	359.41	394.87	294.14	278.43	166.69
1975	323.02	374.09	253.32	239.39	170.58
1976	337.63	452.14	262.17	247.85	170.82
1977	317.77	396.90	261.50	247.21	168.43
1978	322.87	404.23	263.48	249.10	159.24
1979	328.24	407.93	267.57	253.01	173.85
1980	363.87	398.94	281.17	266.02	209.31
1981	348.35	388.13	260.42	246.18	179.26
1982	356.65	397.27	261.87	247.57	217.18
1983	359.39	468.07	282.87	267.65	182.45
1984	356.31	422.81	285.37	270.04	157.39
1985	334.97	367.57	265.16	250.71	153.48
1986	308.07	362.20	239.13	225.82	161.76
1987	330.13	352.30	246.39	232.76	167.40
1988	348.86	404.97	301.73	285.69	166.69
1989	372.59	403.23	254.04	240.08	170.58
1990	306.09	359.79	245.31	231.72	170.82
1991	342.47	399.43	285.58	270.23	168.43
1992	328.22	384.27	255.38	241.35	159.24
1993	293.52	346.96	256.41	242.34	173.85
1994	315.11	357.89	228.05	215.21	209.31
Mean	**333.33**	**386.67**	**261.70**	**247.40**	**171.87**
Std deviation	**22.47**	**34.71**	**18.39**	**17.59**	**16.80**

Table A5.3 : Case farm two - Subjectively corrected livestock enterprise gross margins, $/hd

Year	Merino $/ewe	First cross lambs $/ewe	Merino wether - bought-in $/head	Merino wether - bred $/ewe
1970	25.51	19.51	2.08	21.67
1971	27.18	21.04	3.19	24.77
1972	27.77	21.57	3.60	25.91
1973	31.12	24.65	5.79	32.04
1974	35.23	28.42	8.47	39.55
1975	27.86	21.62	3.73	26.29
1976	26.45	20.31	2.84	23.81
1977	26.39	20.24	2.83	23.77
1978	25.30	19.23	2.15	21.87
1979	32.60	25.94	6.90	35.16
1980	32.87	26.18	7.09	35.71
1981	29.13	22.72	4.70	29.01
1982	27.82	21.51	3.88	20.45
1983	22.83	16.91	0.69	17.78
1984	28.62	22.22	4.45	28.32
1985	27.37	21.06	3.67	26.13
1986	25.09	18.95	2.22	22.56
1987	26.22	19.98	2.98	24.19
1988	31.88	25.15	6.01	29.15
1989	31.48	25.08	6.03	28.63
1990	29.86	22.88	4.43	31.24
1991	27.01	20.43	2.80	27.38
1992	27.60	21.19	4.00	27.05
1993	27.01	22.07	3.40	25.32
1994	30.30	23.87	5.05	29.24
Mean	**28.42**	**22.11**	**4.12**	**27.08**
Std deviation	**2.89**	**2.66**	**1.81**	**5.01**

Appendix 6

Table A6.1 : Case farm three - Subjectively corrected crop yields, t/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	2.18	1.99	2.62	2.19	1.37	1.29
1971	2.20	2.00	.74	2.31	1.06	0.98
1972	1.52	1.25	.37	1.59	0.87	0.78
1973	1.37	1.09	2.18	2.11	1.31	1.23
1974	1.96	1.74	1.92	2.09	1.21	1.13
1975	1.57	1.31	1.57	2.00	0.97	0.89
1976	1.54	1.28	1.71	1.72	0.89	0.82
1977	1.20	0.90	1.76	1.38	0.92	0.85
1978	2.19	2.00	2.63	1.96	1.43	1.38
1979	2.14	1.94	1.48	2.01	0.75	0.67
1980	1.65	1.40	0.93	1.79	0.91	0.85
1981	1.70	1.46	1.27	1.82	0.72	0.64
1982	0.12	0.00	0.89	0.39	0.39	0.30
1983	2.30	2.12	1.46	2.26	0.65	0.57
1984	1.70	1.46	1.40	1.73	1.05	0.97
1985	1.54	1.28	1.99	1.89	1.31	1.24
1986	2.10	1.90	2.26	2.60	0.91	0.84
1987	1.82	1.59	1.42	1.89	0.80	0.74
1988	2.26	2.08	1.44	2.49	1.23	1.16
1989	2.11	1.91	1.97	1.86	0.77	0.71
1990	1.59	1.33	2.10	1.81	0.90	1.10
1991	1.40	1.13	2.17	1.58	0.87	0.95
1992	1.90	1.68	2.13	2.14	1.22	1.45
1993	1.84	1.60	1.85	2.26	1.40	1.03
1994	1.60	1.34	1.72	1.63	1.32	0.93
Mean	**1.74**	**1.50**	**1.76**	**1.90**	**1.01**	**0.94**
Std deviation	**0.46**	**0.51**	**0.45**	**0.43**	**0.27**	**0.27**

Table A6.1 (cont'd)

Year	Linseed2	Canola1	Canola2	Field peas	Lupins
1970	1.12	1.93	1.58	0.91	1.98
1971	0.83	1.61	1.31	1.22	1.73
1972	0.64	1.13	0.92	0.60	1.45
1973	1.08	1.45	1.18	1.27	2.28
1974	0.97	1.51	1.23	1.02	1.92
1975	0.75	1.84	1.49	1.15	2.04
1976	0.67	1.93	1.57	0.53	1.00
1977	0.70	1.00	0.82	0.85	0.96
1978	1.22	1.59	1.30	0.89	1.95
1979	0.53	1.69	1.38	0.77	1.64
1980	0.70	1.04	0.86	1.00	1.71
1981	0.50	1.29	1.06	0.63	1.72
1982	0.17	0.22	0.20	0.12	1.44
1983	0.43	1.64	1.34	1.54	1.90
1984	0.82	1.71	1.39	0.90	1.94
1985	1.08	2.05	1.67	0.88	2.45
1986	0.69	1.93	1.57	1.67	2.65
1987	0.59	1.66	1.34	1.40	1.40
1988	1.01	1.82	1.49	1.20	1.65
1989	0.56	2.17	1.76	0.94	1.77
1990	0.94	1.53	1.25	1.08	1.07
1991	0.80	0.59	0.50	0.41	1.53
1992	1.28	1.95	1.58	0.88	2.41
1993	0.87	1.55	1.26	0.62	1.37
1994	0.78	1.17	0.96	1.05	1.78
Mean	**0.79**	**1.52**	**1.24**	**0.94**	**1.75**
Std deviation	**0.26**	**0.46**	**0.37**	**0.35**	**0.43**

Table A6.2 : Case farm three - Subjectively corrected crop prices, $/t

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	119.45	120.51	99.40	120.39	300.33	302.09
1971	115.66	115.69	93.86	112.22	297.59	283.30
1972	111.02	109.80	96.73	130.12	294.10	272.31
1973	128.55	132.06	112.01	142.34	328.05	362.24
1974	133.28	138.07	114.35	141.01	371.75	364.77
1975	141.04	147.93	122.02	149.52	314.33	309.67
1976	140.57	147.31	121.67	150.21	327.31	331.80
1977	139.82	146.37	119.70	145.29	326.82	301.72
1978	138.81	145.09	112.16	125.83	330.07	309.44
1979	142.19	149.38	124.72	157.25	336.31	317.57
1980	159.40	171.23	157.98	233.22	356.04	371.51
1981	157.77	169.15	126.79	169.18	327.08	348.03
1982	166.83	180.66	137.36	250.41	329.58	360.58
1983	159.57	171.44	158.22	176.37	359.79	364.74
1984	176.27	192.65	144.37	145.10	363.79	360.07
1985	168.18	182.37	118.02	136.38	335.58	327.76
1986	140.04	146.65	95.31	123.26	299.13	287.03
1987	138.13	144.22	121.00	134.59	309.87	320.44
1988	138.11	144.19	141.90	179.16	388.77	348.79
1989	147.64	156.29	148.90	186.80	321.61	384.73
1990	110.77	109.54	93.10	126.39	309.66	284.04
1991	151.83	161.61	123.94	134.74	329.80	339.12
1992	136.11	141.65	92.27	124.38	311.31	317.54
1993	97.45	92.56	89.97	122.52	277.69	265.01
1994	101.00	97.07	92.50	119.57	322.88	297.69
Mean	**138.38**	**144.54**	**118.33**	**149.45**	**326.77**	**325.28**
Std deviation	**20.70**	**26.28**	**21.12**	**34.19**	**25.97**	**34.02**

Table A6.2 (cont'd)

Year	Linseed2	Canola1	Canola2	Field peas	Lupins
1970	323.34	327.30	344.62	171.87	163.70
1971	302.75	323.79	340.50	166.62	161.65
1972	290.70	319.45	335.42	177.74	175.05
1973	389.26	356.31	378.63	185.30	185.09
1974	392.03	403.87	434.38	184.35	187.10
1975	331.64	340.23	359.78	189.57	194.94
1976	355.89	354.02	375.94	189.89	198.15
1977	322.94	352.98	374.73	186.68	198.03
1978	331.40	356.06	378.34	174.35	189.30
1979	340.30	362.44	385.81	193.95	210.71
1980	399.41	383.64	410.67	241.53	258.51
1981	373.68	351.30	372.76	201.21	223.37
1982	387.44	353.56	375.41	252.09	274.29
1983	391.99	386.29	413.78	205.50	233.23
1984	386.87	390.20	418.36	171.87	174.83
1985	351.47	358.68	381.41	166.62	158.93
1986	306.83	318.11	333.85	177.74	169.98
1987	343.44	329.43	347.12	185.30	176.43
1988	374.51	415.70	448.26	184.35	197.48
1989	413.89	341.35	361.10	189.57	170.63
1990	303.56	327.73	345.12	189.89	160.59
1991	363.92	390.51	418.72	186.68	172.03
1992	340.27	343.43	363.53	174.35	189.48
1993	282.70	345.05	365.43	193.95	193.93
1994	318.52	300.83	313.59	241.53	205.57
Mean	**348.75**	**353.29**	**375.09**	**191.30**	**192.92**
Std deviation	**37.28**	**28.67**	**33.61**	**22.54**	**29.27**

Table A6.3 : Case farm three - Subjectively corrected livestock enterprise gross margins, $/hd

Year	Merino $/ewe	First cross lambs $/ewe	Merino wether - bought-in $/hd	Merino wether - bred $/ewe
1970	18.41	20.70	18.32	25.92
1971	20.00	23.16	19.87	28.48
1972	20.56	24.02	20.44	29.42
1973	23.74	28.96	23.52	34.49
1974	27.64	35.03	27.28	40.69
1975	20.65	24.10	20.64	29.74
1976	19.31	21.99	19.39	27.69
1977	19.25	21.88	19.37	27.65
1978	18.22	20.25	18.42	26.09
1979	25.15	31.05	25.08	37.06
1980	25.40	31.42	25.35	37.52
1981	21.85	25.86	22.00	31.99
1982	20.61	23.91	20.85	24.91
1983	15.88	16.51	16.36	22.70
1984	21.37	25.06	21.65	31.41
1985	20.18	23.19	20.55	29.60
1986	18.02	19.79	18.52	26.66
1987	19.10	21.45	19.58	28.00
1988	24.46	29.78	23.83	32.10
1989	24.09	29.66	23.86	31.67
1990	22.54	26.12	21.62	33.83
1991	19.84	22.18	19.33	30.64
1992	20.41	23.40	21.01	30.37
1993	19.84	24.81	20.17	28.94
1994	22.97	27.72	22.49	32.17
Mean	**21.18**	**24.88**	**21.18**	**30.39**
Std deviation	**2.74**	**4.28**	**2.54**	**4.14**

Appendix 7

Table A7.1 : Case farm four - Subjectively corrected crop yields, t/ha

Year	Barley1	Barley2	Triticale	Linola	Linseed1
1970	3.71	3.34	2.50	1.23	1.80
1971	3.91	3.53	1.69	0.90	1.32
1972	2.68	2.41	1.36	0.69	1.02
1973	3.58	3.22	2.09	1.17	1.72
1974	3.53	3.18	1.86	1.05	1.56
1975	3.38	3.05	1.54	0.79	1.19
1976	2.90	2.61	1.67	0.71	1.07
1977	2.32	2.08	1.71	0.74	1.12
1978	3.31	2.98	2.50	1.30	1.94
1979	3.40	3.06	1.45	0.56	0.85
1980	3.02	2.72	0.96	0.74	1.11
1981	3.07	2.76	1.26	0.53	0.79
1982	0.61	0.54	0.92	0.17	0.26
1983	3.84	3.46	1.44	0.45	0.68
1984	2.92	2.63	1.38	0.88	1.31
1985	3.19	2.87	1.92	1.16	1.73
1986	4.42	3.98	2.17	0.74	1.11
1987	3.19	2.87	1.40	0.62	0.95
1988	4.22	3.81	1.42	1.08	1.61
1989	3.15	2.83	1.90	0.58	0.90
1990	3.06	2.75	2.02	0.72	1.50
1991	2.65	2.39	2.09	0.69	1.28
1992	3.63	3.27	2.05	1.07	2.05
1993	3.84	3.46	1.80	1.26	1.40
1994	2.74	2.47	1.67	1.17	1.24
Mean	**3.21**	**2.89**	**1.71**	**0.84**	**1.26**
Std deviation	**0.74**	**0.67**	**0.41**	**0.29**	**0.42**

Table A7.1 (cont'd)

Year	Linseed2	Canola1	Canola2	Field peas	Canary seed
1970	1.35	2.15	1.74	1.32	0.82
1971	0.98	1.80	1.42	1.69	0.87
1972	0.74	1.27	0.96	0.95	0.62
1973	1.29	1.62	1.27	1.74	0.84
1974	1.16	1.69	1.33	1.44	0.72
1975	0.88	2.04	1.64	1.60	0.62
1976	0.78	2 15	1.74	0.86	0.55
1977	0.82	1 13	0.84	1.24	0.53
1978	1.47	1 78	1.41	1.28	0.52
1979	0.60	1 89	1.50	1.15	0.48
1980	0.82	1.18	0.88	1.42	0.32
1981	0.56	1.45	1.12	0.97	0.37
1982	0.15	0.29	0.10	0.36	0.00
1983	0.47	1.83	1.46	2.07	0.59
1984	0.97	1.90	1.52	1.30	0.68
1985	1.30	2.27	1.85	1.27	0.60
1986	0.81	2.15	1.73	2.23	0.63
1987	0.68	1.85	1.46	1.90	0.74
1988	1.20	2.03	1.63	1.66	0.85
1989	0.64	2.41	1.96	1.35	0.88
1990	1.12	1.71	1.35	1.52	0.72
1991	0.95	0.69	0.45	0.71	0.45
1992	1.55	2.17	1.74	1.28	0.48
1993	1.04	1.73	1.37	0.96	0.72
1994	0.92	1.32	1.01	1.48	0.83
Mean	**0.93**	**1.70**	**1.34**	**1.35**	**0.61**
Std deviation	**0.33**	**0.50**	**0.44**	**0.42**	**0.23**

Table A7.2 : Case farm one - Subjectively corrected crop prices, $/t

Year	Barley1	Barley2	Triticale	Linola	Linseed1
1970	113.40	119.64	88.55	283.63	312.22
1971	106.88	112.76	83.10	280.36	290.22
1972	121.16	127.82	85.92	276.21	277.35
1973	130.91	138.11	100.98	316.61	382.66
1974	129.85	136.99	103.28	368.59	385.63
1975	136.63	144.14	110.84	300.28	321.10
1976	137.19	144.73	110.49	315.73	347.01
1977	133.26	140.59	108.55	315.14	311.79
1978	117.74	124.22	101.12	319.00	320.83
1979	142.80	150.65	113.50	326.43	330.35
1980	203.39	214.58	146.25	349.90	393.52
1981	152.32	160.69	115.54	315.45	366.02
1982	217.10	229.04	125.94	318.42	380.72
1983	158.05	166.75	146.49	354.37	385.59
1984	133.11	140.43	132.84	359.13	380.12
1985	126.16	133.09	106.90	325.56	342.28
1986	115.69	122.05	84.53	282.20	294.59
1987	124.73	131.59	109.83	294.98	333.71
1988	160.28	169.09	130.41	388.84	366.91
1989	166.37	175.52	137.30	308.94	409.00
1990	118.19	124.69	82.36	294.73	291.08
1991	124.85	131.71	112.73	318.69	355.59
1992	116.58	122.99	81.54	296.68	330.32
1993	115.10	121.43	79.27	256.68	268.80
1994	112.75	118.94	81.77	310.45	307.07
Mean	**136.58**	**144.09**	**107.20**	**315.08**	**339.38**
Std deviation	**27.27**	**28.77**	**20.80**	**30.90**	**39.84**

Table A7.2 (cont'd)

Year	Linseed2	Canola1	Canola2	Field peas	Canary seed
1970	316.65	296.06	300.25	194.56	481.37
1971	294.72	291.25	294.92	188.03	473.14
1972	281.89	285.31	288.34	201.85	463.13
1973	386.89	335.84	344.33	211.26	492.78
1974	389.84	401.05	416.59	210.08	481.20
1975	325.50	313.79	319.91	216.57	513.24
1976	351.34	332.70	340.86	216.96	525.19
1977	316.23	331.28	339.28	212.98	564.53
1978	325.24	335.50	343.96	197.64	569.62
1979	334.73	344.24	353.65	222.02	533.62
1980	397.71	373.31	385.86	281.19	528.44
1981	370.29	328.97	336.73	231.05	562.89
1982	384.95	332.07	340.16	294.32	582.26
1983	389.80	376.95	389.89	236.38	566.60
1984	384.35	382.30	395.83	194.56	602.38
1985	346.63	339.09	347.95	188.03	584.94
1986	299.07	283.46	286.30	201.85	524.46
1987	338.08	298.98	303.49	211.26	520.31
1988	371.18	417.27	434.58	210.08	520.20
1989	413.13	315.33	321.62	216.57	540.60
1990	295.58	296.65	300.91	216.96	461.35
1991	359.89	382.74	396.30	212.98	549.45
1992	334.70	318.18	324.77	197.64	515.65
1993	273.36	320.40	327.23	222.02	432.52
1994	311.52	259.77	260.04	281.19	440.12
Mean	**343.73**	**331.70**	**339.75**	**218.72**	**521.20**
Std deviation	**39.72**	**39.31**	**43.56**	**28.03**	**46.37**

Table A7.3 : Case farm one - Subjectively corrected livestock enterprise gross margins, $/hd

Year	Merino $/ewe	First cross lambs $/ewe	Merino wether - bought-in $/hd	Merino wether - bred $/ewe
1970	22.02	37.06	4.06	15.80
1971	23.49	41.23	4.81	16.89
1972	24.01	42.68	5.08	17.30
1973	26.97	51.05	6.57	19.46
1974	30.60	61.33	8.39	22.12
1975	24.10	42.81	5.18	17.43
1976	22.85	39.24	4.57	16.55
1977	22.80	39.06	4.56	16.54
1978	21.83	36.29	4.10	15.87
1979	28.28	54.59	7.33	20.56
1980	28.52	55.22	7.46	20.76
1981	25.21	45.80	5.84	18.39
1982	24.06	42.50	5.28	15.37
1983	19.66	29.95	3.11	14.42
1984	24.77	44.44	5.67	18.15
1985	23.66	41.28	5.14	17.37
1986	21.65	35.52	4.15	16.11
1987	22.65	38.33	4.67	16.69
1988	27.65	52.44	6.72	18.44
1989	27.30	52.24	6.74	18.26
1990	25.86	46.24	5.65	19.18
1991	23.35	39.56	4.54	17.82
1992	23.87	41.64	5.36	17.70
1993	23.34	44.03	4.95	17.09
1994	26.25	48.95	6.07	18.47
Mean	**24.59**	**44.14**	**5.44**	**17.71**
Std deviation	**2.55**	**7.25**	**1.23**	**1.77**

Table A7.3 (cont'd)

Year	Fattemers - winter $/hd	Fatteners - summer $/hd	Beef weaners $/cow	Yearlings steers $/hd	Cross-bred vealers - straight-bred cows $/cow	Cross-bred vealers - cross-bred cows $/cow
1970	28.28	48.79	172.84	209.10	233.94	288.43
1971	30.87	51.93	178.89	214.88	245.67	300.95
1972	31.84	53.11	181.23	217.03	250.23	305.79
1973	36.93	59.28	193.06	228.44	273.08	330.21
1974	43.14	66.82	207.49	242.40	300.96	359.99
1975	32.27	53.60	182.46	217.83	252.77	308.43
1976	30.26	51.15	177.90	213.26	244.05	299.07
1977	30.27	51.15	178.00	213.22	244.30	299.31
1978	28.74	49.29	174.57	209.74	237.73	292.26
1979	39.71	62.61	199.99	234.42	286.78	344.68
1980	40.20	63.20	201.20	235.47	289.19	347.23
1981	34.73	56.54	188.64	223.08	265.04	321.37
1982	32.88	54.29	184.46	218.87	257.03	312.78
1983	25.56	45.37	167.54	202.30	224.63	278.10
1984	34.27	55.95	186.62	221.89	263.63	319.78
1985	32.50	53.80	182.92	217.86	255.99	311.58
1986	29.21	49.78	175.89	210.37	241.53	296.08
1987	33.93	55.52	181.23	218.60	248.15	302.84
1988	34.69	56.45	182.64	220.36	250.79	305.33
1989	34.70	57.00	183.56	220.95	252.86	307.63
1990	32.68	54.43	184.21	218.05	257.06	312.72
1991	32.17	53.73	186.33	228.24	254.51	314.83
1992	33.52	54.98	186.76	219.80	262.05	317.85
1993	32.64	53.90	184.33	217.77	258.35	313.87
1994	34.02	55.57	187.46	220.83	264.70	320.63
Mean	**33.20**	**54.73**	**184.41**	**219.79**	**256.60**	**312.47**
Std deviation	**3.87**	**4.71**	**8.91**	**8.85**	**17.27**	**18.49**

Appendix 8

Table A8.1 : Case farm five - Subjectively corrected yields, t/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	1.85	1.63	3.08	2.07	0.89	1.45
1971	1.87	1.64	2.04	2.20	0.67	1.13
1972	1.13	1.04	1.60	1.43	0.53	0.93
1973	0.97	0.91	2.55	1.99	0.84	1.39
1974	1.61	1.43	2.25	1.96	0.77	1.29
1975	1.18	1.09	1.84	1.87	0.60	1.04
1976	1.16	1.06	2.00	1.57	0.55	0.96
1977	0.78	0.76	2.06	1.20	0.56	0.99
1978	1.86	1.65	3.08	1.82	0.93	1.55
1979	1.80	1.60	1.73	1.88	0.45	0.81
1980	1.27	1.16	1.09	1.64	0.56	0.99
1981	1.33	1.21	1.48	1.67	0.43	0.77
1982	0.00	0.00	1.04	0.14	0.19	0.42
1983	1.98	1.74	1.71	2.15	0.37	0.70
1984	1.33	1.21	1 63	1.58	0.66	1.12
1985	1.15	1.06	2 33	1.74	0.84	1.40
1986	1.77	1.56	2 65	2.51	0.56	0.99
1987	1.45	1.31	1 66	1.74	0.49	0.88
1988	1.94	1.70	1 69	2.39	0.79	1.32
1989	1.78	1.57	2 31	1.72	0.46	0.85
1990	1.21	1.10	2 46	1.67	0.55	1.25
1991	1.00	0.94	2 55	1.41	0.53	1.10
1992	1.54	1.38	2 50	2.02	0.78	1.62
1993	1.47	1.32	2 17	2.15	0.91	1.18
1994	1.21	1.11	2 01	1.47	0.85	1.08
Mean	**1.37**	**1.24**	**2.06**	**1.76**	**0.63**	**1.09**
Std deviation	**0.50**	**0.41**	**0.53**	**0.46**	**0.19**	**0.28**

Table A8.1 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Field peas	Ryegrass seed
1970	1.19	2.12	2.29	2.01	1.34	0.83
1971	0.94	2.02	1.95	1.73	1.59	0.78
1972	0.78	1.66	1.45	1.33	1.09	0.74
1973	1.15	1.76	1.78	1.60	1.62	0.69
1974	1.07	1.70	1.85	1.65	1.42	0.72
1975	0.88	1.77	2.19	1.92	1.53	0.76
1976	0.81	1.60	2.29	2.00	1.03	0.81
1977	0.84	1.36	1.31	1.22	1.29	0.72
1978	1.27	1.62	1.94	1.72	1.32	0.74
1979	0.69	1.49	2.04	1.80	1.23	0.79
1980	0.84	1.18	1.36	1.27	1.41	0.66
1981	0.66	1.21	1.62	1.47	1.11	0.62
1982	0.39	0.46	0.51	0.59	0.70	0.05
1983	0.61	1.47	1.99	1.76	1.84	0.61
1984	0.93	1.66	2.05	1.82	1.32	0.52
1985	1.16	2.34	2.41	2.10	1.31	0.59
1986	0.83	2.82	2.29	2.00	1.95	0.45
1987	0.74	1.61	2.00	1.77	1.73	0.60
1988	1.09	1.65	2.17	1.91	1.57	0.67
1989	0.72	2.26	2.54	2.19	1.36	0.76
1990	1.04	2.03	1.87	1.67	1.47	0.83
1991	0.92	1.90	0.89	0.90	0.94	0.76
1992	1.32	2.02	2.31	2.01	1.31	0.84
1993	0.98	0.92	1.89	1.68	1.10	0.89
1994	0.90	1.37	1.50	1.38	1.45	0.82
Mean	**0.91**	**1.68**	**1.86**	**1.66**	**1.36**	**0.69**
Std deviation	**0.22**	**0.48**	**0.48**	**0.38**	**0.28**	**0.17**

Table A8.2 : Case farm five - Subjectively corrected prices, $/t

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	107.41	119.90	105.15	127.08	303.71	295.91
1971	103.92	115.06	99.43	121.03	301.48	273.93
1972	99.66	109.15	102.39	134.28	298.65	261.07
1973	115.76	131.48	118.17	143.33	326.23	366.30
1974	120.11	137.50	120.58	142.34	361.73	369.26
1975	127.24	147.39	128.50	148.64	315.08	304.78
1976	126.80	146.77	128.14	149.15	325.63	330.68
1977	126.11	145.82	126.10	145.51	325.23	295.48
1978	125.19	144.54	118.32	131.11	327.87	304.52
1979	128.29	148.84	131.29	154.36	332.94	314.02
1980	144.10	170.75	165.61	210.60	348.97	377.15
1981	142.60	168.67	133.43	163.20	325.44	349.67
1982	150.92	180.21	144.33	223.33	327.47	364.36
1983	144.25	170.96	165.86	168.52	352.02	369.23
1984	159.58	192.23	151.56	145.37	355.27	363.76
1985	152.16	181.92	124.37	138.92	332.35	325.95
1986	126.32	146.11	100.93	129.20	302.74	278.29
1987	124.56	143.67	127.44	137.59	311.46	317.38
1988	124.54	143.64	149.02	170.59	375.56	350.56
1989	133.30	155.77	156.24	176.24	321.00	392.62
1990	99.43	108.90	98.65	131.52	311.29	274.79
1991	137.14	161.11	130.48	137.70	327.65	339.25
1992	122.71	141.09	97.79	130.03	312.63	314.00
1993	87.21	91.88	95.41	128.66	285.31	252.52
1994	90.46	96.39	98.03	126.47	322.03	290.76
Mean	**124.79**	**143.99**	**124.69**	**148.59**	**325.19**	**323.05**
Std deviation	**19.01**	**26.35**	**21.80**	**25.31**	**21.10**	**39.81**

Table A8.2 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Field peas	Ryegrass seed
1970	306.50	109.32	362.52	366.28	177.04	1036.88
1971	282.37	111.02	359.32	362.69	171.42	1003.00
1972	268.25	128.48	355.37	358.25	183.33	897.62
1973	383.77	126.45	388.98	395.97	191.43	747.56
1974	387.02	122.14	432.36	444.64	190.41	675.70
1975	316.24	124.14	374.32	379.51	196.00	813.84
1976	344.66	130.46	386.89	393.63	196.35	878.26
1977	306.03	127.74	385.95	392.56	192.91	817.57
1978	315.95	113.69	388.76	395.72	179.70	881.98
1979	326.39	123.92	394.57	402.24	200.70	928.53
1980	395.68	184.10	413.91	423.94	251.68	921.45
1981	365.51	144.29	384.42	390.85	208.48	887.57
1982	381.64	197.69	386.48	393.16	262.99	898.37
1983	386.98	128.42	416.33	426.65	213.07	935.53
1984	380.98	125.01	419.89	430.65	177.04	937.84
1985	339.48	126.61	391.15	398.40	171.42	930.76
1986	287.16	123.59	354.14	356.88	183.33	950.50
1987	330.07	127.08	364.46	368.46	191.43	925.55
1988	366.49	140.33	443.15	456.75	190.41	853.24
1989	412.65	129.14	375.34	380.67	196.00	839.91
1990	283.31	117.76	362.92	366.72	196.35	922.20
1991	354.07	133.56	420.18	430.97	192.91	906.19
1992	326.35	116.93	377.24	382.79	179.70	908.05
1993	258.87	113.27	378.71	384.45	200.70	784.80
1994	300.85	114.10	338.38	339.19	251.68	867.09
Mean	**336.29**	**129.57**	**386.23**	**392.88**	**197.86**	**886.00**
Std deviation	**43.70**	**20.39**	**26.15**	**29.34**	**24.15**	**76.93**

Table A8.3 : Case farm five - Subjectively corrected livestock enterprise gross margins, $/hd

Year	Merino $/ewe	First cross lambs $/ewe	Merino wether - bought-in $/hd	Merino wether - bred $/ewe
1970	22.60	11.88	1.85	18.63
1971	24.03	12.56	2.15	19.86
1972	24.54	12.79	2.26	20.32
1973	27.42	14.16	2.85	22.75
1974	30.95	15.83	3.58	25.73
1975	24.62	12.81	2.29	20.47
1976	23.41	12.23	2.05	19.48
1977	23.35	12.20	2.05	19.47
1978	22.42	11.75	1.87	18.71
1979	28.69	14.73	3.15	23.99
1980	28.92	14.83	3.20	24.21
1981	25.71	13.30	2.56	21.55
1982	24.59	12.76	2.34	18.15
1983	20.30	10.72	1.47	17.08
1984	25.27	13.08	2.49	21.27
1985	24.20	12.56	2.28	20.40
1986	22.24	11.63	1.89	18.99
1987	23.21	12.08	2.09	19.63
1988	28.07	14.38	2.91	21.60
1989	27.73	14.35	2.92	21.40
1990	26.33	13.37	2.49	22.43
1991	23.89	12.29	2.04	20.90
1992	24.40	12.62	2.37	20.77
1993	23.89	13.01	2.21	20.08
1994	26.72	13.81	2.65	21.64
Mean	**25.10**	**13.03**	**2.40**	**20.78**
Std deviation	**2.48**	**1.18**	**0.49**	**1.99**

Table A8.3 (cont'd)

Year	Fattemers - winter	Fatteners - summer	Beef weaners	Yearlings steers	Cross-bred vealers - straight-bred cows	Cross-bred vealers - cross-bred cows
	$/hd	$/hd	$/cow	$/hd	$/cow	$/cow
1970	10.50	27.58	186.46	222.76	294.21	342.94
1971	12.00	30.13	190.51	228.41	312.99	371.48
1972	12.56	31.09	192.07	230.50	320.28	382.52
1973	15.51	36.11	199.98	241.64	356.88	438.17
1974	19.10	42.24	209.64	255.27	401.51	506.07
1975	12.81	31.49	192.90	231.29	324.36	388.52
1976	11.65	29.50	189.85	226.82	310.40	367.20
1977	11.65	29.50	189.92	226.79	310.80	367.74
1978	10.77	27.98	187.62	223.38	300.28	351.66
1979	17.12	38.82	204.62	247.48	378.81	471.18
1980	17.40	39.30	205.43	248.51	382.66	476.97
1981	14.23	33.88	197.03	236.41	344.00	418.03
1982	13.17	32.05	194.23	232.30	331.18	398.45
1983	8.93	24.80	182.92	216.12	279.30	319.39
1984	13.97	33.41	195.68	235.25	341.75	414.41
1985	12.95	31.65	193.20	231.31	329.51	395.71
1986	11.04	28.39	188.50	224.01	306.36	360.39
1987	13.77	33.05	192.07	232.03	316.96	375.79
1988	14.21	33.81	193.02	233.76	321.18	381.45
1989	14.22	34.26	193.63	234.33	324.50	386.72
1990	13.05	32.16	194.07	231.50	331.22	398.32
1991	12.75	31.59	195.49	241.45	327.15	403.11
1992	13.54	32.61	195.77	233.21	339.21	410.01
1993	13.03	31.74	194.15	231.23	333.29	400.93
1994	13.83	33.09	196.24	234.21	343.46	416.35
Mean	**13.35**	**32.41**	**194.20**	**233.20**	**330.49**	**397.74**
Std deviation	**2.24**	**3.83**	**5.96**	**8.64**	**27.65**	**42.15**

Appendix 9

Table A9.1 : Listing of activities in programming models

Activity	*Description*	*Unit*
Wht1Ear	Wheat sown early (May/June) after oilseed	ha
Wht1Lat	Wheat sown late (July/August) after oilseed	ha
Wht2Ear	Wheat sown early (May/June) after Wht1Ear	ha
Wht2Lat	Wheat sown late (July/August) after Wht1Lat	ha
Tritic	Triticale sown May/June	ha
Barley	Barley sown May/June	ha
Bar1Ear	Barley sown early (May/June) after oilseed	ha
Bar1Lat	Barley sown late (July/August) after oilseed	ha
Bar2Ear	Barley sown early (May/June) after Bar1Ear	ha
Bar2Lat	Barley sown late (July/August) after Bar1Lat	ha
GrazOat	Grazing oats sown May	ha
GrainOat	Grain oat sown April/May	ha
CanSeed	Canary seed sown September/October	ha
RyGrSeed	Ryegrass seed sown August/September	ha
Linola	Linola sown August/September	ha
Linsed1	Linseed sown early in May/June	ha
Linsed2	Linseed sown late in August/September	ha
Canola1	Canola sown early in April/May	ha
Canola2	Canola sown late in August/September	ha
SunFlow	Sunflower sown October/November	ha
Fldpea	Field peas sown in July/August	ha
Lupins	Lupins sown in April/May	ha
Turnips	Turnip (fodder crop) sown October/November	ha
GrClov1	Clover crop grazed in autumn	ha
GrClov2	Clover crop grazed in winter	ha
HayClov1	Clover crop baled for hay in spring	ha
HayClov2	Clover crop baled for hay in summer	ha
GrLucn1	Lucerne crop grazed in autumn	ha
GrLucn2	Lucerne crop grazed in winter	ha
HayLucn1	Lucerne crop baled for hay in spring	ha
HayLucn2	Lucerne crop baled for hay in summer	ha
Natpas	Annually top-dressed natural pasture	ha
Merino	Raise self-replacing merino ewes	hd (ewe)
FstCrs	Raise first-cross lambs using 5-year old merino ewes	hd (ewe)
Wether1	Raise bought-in merino or comeback wethers for domestic market	hd (wether)
Wether2	Raise bought-in merino or comeback wethers for export market	hd (wether)
Wether3	Raise bought-in merino wethers from self-replacing ewe flock	hd (ewe)
Broiler	Raise contract broilers	bird ($x10^3$)
BfWean	Raise weaner steer cattle from self-replacing cow herd	hd (cow)
BfYear	Raise yearling steer cattle from self-replacing cow herd	hd (cow)
BfVeal1	Raise vealers from straight-bred self-replacing cow herd	hd (cow)

TableA9.1 (cont'd)

Activity	*Description*	*Unit*
BfVeal2	Raise vealers from cross bred self-replacing cow herd	hd (cow)
BfFatWin	Fatten store or bought-in weaners in winter	hd (steer)
BfFatSum	Fatten store or bought-in weaners in summer	hd (steer)
SprSmFt1	Spring to summer transfer of good feed	LSM
SmAutFt1	Summer to autumn transfer of good feed	LSM
AutWnFt1	Autumn to winter transfer of good feed	LSM
SprSmFt2	Spring to summer transfer of total feed	LSM
SmAutFt2	Summer to autumn transfer of total feed	LSM
AutWnFt2	Autumn to winter transfer of total feed	LSM
Agistmt	Pasture agistment -out	ha
FdHySum	Feed hay to stock in summer	t
FdHyAut	Feed hay to stock in autumn	t
SelHay	Sell hay from HayClov activities	t
BySpSpr	Buy supplementary feed (hay) in spring	t
BySpAut	Buy supplementary feed (hay) in autumn	t
BySpWin	Buy supplementary feed (hay) in winter	t
BalHOff	Bale hay off-farm	hr
BalCtStr	Bale/cart straw	t
FdStrSum	Feed baled straw in summer	t
FdStrAut	Feed baled straw in autumn	t
SelStrw	Sell baled straw	t
BuyStrw	Buy in supplementary straw	t
BuyBar	Buy-in barley for supplementary stock feeding	t
BuyOats	Buy-in oats for supplementary stock feeding	t
HireqW	Hire-out equipment in winter	hr
HireqS	Hire-out equipment in summer	hr
Employ1	Employment of labour in April-May	person-hr
Employ2	Employment of labour in June	person-hr
Employ3	Employment of labour, July/August	person-hr
Employ4	Employment of labour, September/October	person-hr
Employ5	Employment of labour, November	person-hr
Employ6	Employment of labour, early December	person-hr
Employ7	Employment of labour, late December/early January	person-hr
Employ8	Employment of labour, late January/early February	person-hr
Employ9	Employment of labour in late February/March	person-hr
CsSta1	Cash counting (utility) activity -state1	$
CsSta2	Cash counting (utility) activity -state2	$
CsSta3	Cash counting (utility) activity -state3	$
CsSta4	Cash counting (utility) activity -state4	$
CsSta5	Cash counting (utility) activity -state5	$
CsSta6	Cash counting (utility) activity -state6	$
CsSta7	Cash counting (utility) activity -state7	$
CsSta8	Cash counting (utility) activity -state8	$
CsSta9	Cash counting (utility) activity -state9	$
CsSta10	Cash counting (utility) activity -state10	$
CsSta11	Cash counting (utility) activity -state11	$
CsSta12	Cash counting (utility) activity -state12	$

Table A9.1 (cont'd)

Activity	*Description*	*Unit*
CsSta13	Cash counting (utility) activity -state13	$
CsSta14	Cash counting (utility) activity -state14	$
CsSta15	Cash counting (utility) activity -state15	$
CsSta16	Cash counting (utility) activity -state16	$
CsSta17	Cash counting (utility) activity -state17	$
CsSta18	Cash counting (utility) activity -state18	$
CsSta19	Cash counting (utility) activity -state19	$
CsSta20	Cash counting (utility) activity -state20	$
CsSta21	Cash counting (utility) activity -state21	$
CsSta22	Cash counting (utility) activity -state22	$
CsSta23	Cash counting (utility) activity -state23	$
CsSta24	Cash counting (utility) activity -state24	$
CsSta25	Cash counting (utility) activity -state25	$
Borr1	Borrow funds in cash period1 (March - May)	$
Borr2	Borrow funds in cash period2 (June - November)	$
LvCap	Capital for investment in livestock at 9% interest	$

Table A9.2 : Listing of constraints in programming models

Constraint	*Description*	*Unit*
ArabL	Arable land	ha
Graze1	Improved pasture	ha
Graze2	Natural pasture	ha
LimAgist	Agistment limit	ha
LimCer	Limit on cereals	ha
Maxwht1	Maximum early wheat level	ha
MaxWht2	Maximum late wheat level	ha
MaxBar1	Maximum early barley level	ha
MaxBar2	Maximum late barley level	ha
MaxTrit	Maximum triticale level	ha
LimOils	Maximum oilseed level	ha
LimCan	Maximum Canola level	ha
LimLeg	Maximum legumes	ha
LimBroil	Broiler limit	ha
GSprFeed	Supply of good feed in spring	ha
GSumFeed	Supply of good feed in summer	LSM
GAutFeed	Supply of good feed in autumn	LSM
GWinFeed	Supply of good feed in winter	LSM
TSprFeed	Total feed supply in spring	LSM
TSumFeed	Total feed supply in summer	LSM
TAutFeed	Total feed supply in autumn	LSM
TWinFeed	Total feed supply in winter	LSM
HayTie	Haytie row	LSM
HayOff	Bale hay off-farm	hr
BaledStr	Bale/cart straw	t
UnbldStr	Loose straw stubble in paddock	LSM
MaxMEwe	Operator imposed limit on merino ewes	hd (ewe)
MaxCow	Operator imposed limit on breeding cows	hd (cow)
TracHr	Available tractor hours	tractor-hr
EqHireW	Equipment hire in winter	hr
EqHireS	Equipment hire in summer	hr
Labour1	Available labour in April/May	person-hr
Labour2	Available labour in June	person-hr
Labour3	Available labour in July/August	person-hr
Labour4	Available labour in September/October	person-hr
Labour5	Available labour in November	person-hr
Labour6	Available labour in early December	person-hr
Labour7	Available labour in late December/early January	person-hr
Labour8	Available labour in late January/early February	person-hr
Labour9	Available labour in late February/March	person-hr
MaxCas1	Maximum allowable allocation of casual labour in labour period1	person-hr
MaxCas2	Maximum allowable allocation of casual labour in labour period2	person-hr
Maxcas3	Maximum allowable allocation of casual labour in labour period3	person-hr

Table A9.2 (cont'd)

Constraint	*Description*	*Unit*
MaxCas4	Maximum allowable allocation of casual labour in labour period4	person-hr
MaxCas5	Maximum allowable allocation of casual labour in labour period5	person-hr
MaxCas6	Maximum allowable allocation of casual labour in labour period6	person-hr
MaxCas7	Maximum allowable allocation of casual labour in labour period7	person-hr
MaxCas8	Maximum allowable allocation of casual labour in labour period8	person-hr
MaxCas9	Maximum allowable allocation of casual labour in labour period9	person-hr
Cash1	Cash balance at 1 June (March to May)	$
Cash2	Cash balance at 1 December (June to November)	$
Cash3S1	Cash balance at 1 March (December to February) state1	$
Cash3S2	Cash balance at 1 March (December to February) state2	$
Cash3S3	Cash balance at 1 March (December to February) state3	$
Cash3S4	Cash balance at 1 March (December to February) state4	$
Cash3S5	Cash balance at 1 March (December to February) state5	$
Cash3S6	Cash balance at 1 March (December to February) state6	$
Cash3S7	Cash balance at 1 March (December to February) state7	$
Cash3S8	Cash balance at 1 March (December to February) state8	$
Cash3S9	Cash balance at 1 March (December to February) state9	$
Cash3S10	Cash balance at 1 March (December to February) state10	$
Cash3S11	Cash balance at 1 March (December to February) state11	$
Cash3S12	Cash balance at 1 March (December to February) state12	$
Cash3S13	Cash balance at 1 March (December to February) state13	$
Cash3S14	Cash balance at 1 March (December to February) state14	$
Cash3S15	Cash balance at 1 March (December to February) state15	$
Cash3S16	Cash balance at 1 March (December to February) state16	$
Cash3S17	Cash balance at 1 March (December to February) state17	$
Cash3S18	Cash balance at 1 March (December to February) state18	$
Cash3S19	Cash balance at 1 March (December to February) state19	$
Cash3S20	Cash balance at 1 March (December to February) state20	$
Cash3S21	Cash balance at 1 March (December to February) state21	$
Cash3S22	Cash balance at 1 March (December to February) state22	$
Cash3S23	Cash balance at 1 March (December to February) state23	$
Cash3S24	Cash balance at 1 March (December to February) state24	$
Cash3S25	Cash balance at 1 March (December to February) state25	$
LimCap1	Operator limit on borrowing in cash period1	$
LimCap2	Operator limit on borrowing in cash period2	$
LivCap	Average annual investment in livestock	$
TLINOF	Turn Linola activity off (1) and on (0)	$

Appendix 10

Table A10.1 : Main performance indicators for case farm one

Crop yields[1]*:*	*t/ha*
Wheat	2.50
Barley	1.25
Triticale	1.94
Linola	1.40
Linseed	1.75
Clover (baled hay)	5.40
Wool yield:	*kg/head*
Merino ewes	3.5
Merino rams	7.2
Merino lambs	2.0
First cross ewes	2.4
Merino wethers	3.0
Border Leicester/Dorset Horn rams	4.7
First cross lambs	1.5
	%
Lambing percentage (merino)	85
Lambing percentage (cross-breds)	114

[1] Five-year average (1990/91 to 1994/95) except for Linola which is a three-year (1992/93-1994/95) average.

Table A10.2 : Main performance indicators for case farm two

Crop yields[1]*:*	*t/ha*
Wheat	2.94
Barley	1.21
Sunflower	1.50
Oats	1.82
Linola	0.46
Linseed	1.22
Clover (baled hay)	4.75
Wool yield:	*kg/head*
Merino ewes	3.3
Merino rams	7.0
Merino lambs	2.0
Merino wethers	3.0
First cross ewes	2.2
Border Leicester/Dorset Horn rams	4.2
First cross lambs	1.5
	%
Lambing percentage (merino)	90
Lambing percentage (cross-breds)	112

[1] Five-year average (1990/91 to 1994/95) except for Linola which is a two-year (1993/94-1994/95) average.

Table A10.3 : Main performance indicators for case farm three

Crop yields[1]*:*	*t/ha*
Wheat	2.50
Barley	2.25
Triticale	2.50
Canola	1.65
Linola	1.45
Linseed	1.40
Lupins	2.25
Field peas	1.15
Clover (baled hay)	5.15
Wool yield:	*kg/head*
Wethers (comeback)	6.5
	%
Lambing percentage (merino)	91

[1] Five-year average (1990/91 to 1994/95) except for Linola which is a two-year (1993/94-1994/95) average.

Table A10.4 : Main performance indicators for case farm four

Crop yields[1]*:*	*t/ha*
Barley	3.85
Turnips	2.22
Canola	1.83
Linola	0.75
Linseed	1.35
Canary Seed	0.45
Wool yield:	*kg/head*
Merino ewes	4.50
Merino rams	7.50
Merino lambs	1.75
First cross ewes	3.30
Border Leicester/Dorset Horn rams	4.85
First cross lambs	1.55
	%
Lambing percentage (merino)	94
Lambing percentage (cross-breds)	125
Calving percentage (%)	95

[1] Five-year average (1990/91 to 1994/95) except for Linola which is a three-year (1991/92-1993/94) average.

Table A10.5 : Main performance indicators for case farm five

Crop yields[1]*:*	*t/ha*
Triticale	2.97
Barley	2.00
Linola	0.55
Linseed	0.75
Oats (Forage)	1.58
Clover (baled hay)	4.70
Lucerne	4.45
Wool yield:	*kg/head*
Merino ewes	3.5
Merino rams	6.2
Merino lambs	1.8
Merino wether	3.0
First cross ewes	2.5
Border Leicester/Dorset Horn rams	4.7
First cross lambs	1.5
	%
Lambing percentage (merino)	96
Lambing percentage (cross-breds)	118
Calving percentage	85

[1] Five-year average (1990/91 to 1994/95) except for Linola which is a two-year (1992/93-1993/94) average.

Appendix 11

Table A11.1 : Case farm one - Crop activity budgets

1. Wheat1

Revenue

Yield = 2.03 t/ha
Price = $148.34 /t
Gross revenue = 2.03 * 148.34
= *$301.13*

Variable costs

Item	Cost $/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	8.19
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	17.05
Equipment & plant repair and maintenance	5.71
Harvest (contract)	42.43
Chemicals:	36.37
Fertiliser:	44.42
Levies	0.97
Cartage: 2.03t/ha @ $1.29 /t	2.61
Insurance (.74%)	2.24
Sundry costs	5.23
Total variable cost	$194.90/ha
	Gross margin = $106.23/ha

2. Wheat2

Revenue

Yield = 1.60 t/ha
Price = $155.01 /t
Gross revenue = 1.60 * 155.01
= *$ 248.02*

Variable costs

Item	Cost $/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	7.28
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	15.17
Equipment & plant repair and maintenance	5.08
Harvest (contract)	37.73
Chemicals:	30.34
Fertiliser:	38.63
Levies	0.97
Cartage: 1.60t/ha @ $1.29 /t	2.06
Insurance (0.74%)	1.85
Sundry costs	4.54
Total variable cost	$173.33/ha
	Gross margin = $74.69 /ha

3. *Wheat3*

Revenue

Yield = 1.83 t/ha
Price = $148.34 /t
Gross revenue = 1.83 * 148.34
= *$271.46*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	8.19
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	17.05
Equipment & plant repair and maintenance	5.71
Harvest (contract)	42.43
Chemicals:	36.37
Fertiliser:	44.42
Levies	0..88
Cartage: 1.83t/ha @ $1.29 /t	2.36
Insurance (.74%)	2.01
Sundry costs	5.23
Total variable cost	$194.25/ha

Gross margin = $77.21 /ha

4. *Wheat4*

Revenue

Yield = 1.44 t/ha
Price = $155.01 /t
Gross revenue = 1.44 * 155.01
= *$ 223.21*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	7.28
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	15.17
Equipment & plant repair and maintenance	5.08
Harvest (contract)	37.73
Chemicals:	30.34
Fertiliser:	38.63
Levies	0.69
Cartage: 1.44t/ha @ $1.29 /t	1.86
Insurance (0.74%)	1.65
Sundry costs	4.54
Total variable cost	$172.65/ha

Gross margin = $49.88 /ha

5. *Barley*

Revenue

Yield = 1.55 t/ha
Price = $128.34 /t
Gross revenue = 1.55 * 128.34
= *$198.93*

Variable costs

Item	Cost
	$/ha
Seed + Treatment: 80 kg/ha @ 0.188 $/kg	15.02
Land preparation	8.30
Cultivate and fertilise	3.98
Spray (2)	7.97
Sow	17.55
Equipment & plant repair and maintenance	5.81
Harvest (contract)	43.24
Chemicals:	23.19
Fertiliser:	22.20
Levies	1.58
Cartage 1.55 t/ha @ $1.29 /t	1.99
Insurance (0.74%)	1.47
Sundry costs	4.37
Total variable cost	$156.67/ha
	Gross margin = $42.26/ha

6. *Linseed1* (Sown May-June, harvested November)

Revenue

Yield = 1.50 t/ha
Price = 271.27 $/t
Gross revenue = 1.50 * 345.01
= $*517.51*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.93 /kg	32.55
Land preparation	5.72
Incorporate	2.52
Aerial spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	26.58
Fertiliser:	23.46
Levies	1.16
Seed cleaning/testing	52.03
Insurance (0.41%)	2.10
Cartage (contract) 1.5 t/ha @ $1.02 /t	1.54
Sundry expenses	1.42
Total variable cost	$210.00/ha
	Gross margin = $307.51/ha

7. *Linseed2* (Sown August, harvested February)

Revenue

Yield = 1.37 t/ha
Price = 350.00 $/t
Gross revenue = 1.37 * 350.00
= *$479.50*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.93 /kg	32.55
Land preparation	5.72
Incorporate	2.52
Aerial spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.11
Harvest (contract)	30.25
Chemicals:	20.36
Fertiliser:	19.57
Levies	1.16
Seed cleaning/testing	49.75
Insurance (.41%)	1.97
Cartage (contract) 1.37 t/ha @ $1.02 /t	1.40
Sundry expenses	1.32
Total variable cost	$196.67/ha
	Gross margin = $282.83/ha

8. *Canola1* (Sown May-June, harvested November)

Revenue

Yield = 1.72 t/ha
Price = $335.01 /t
Gross revenue = 1.72 * 335.01
= *$576.22*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate herbicide	3.36
Aerial spray (2)	16.29
Sow	14.63
Equipment & plant repair and maintenance	11.24
Harvest (contract plus windrowing)	64.08
Chemicals:	34.50
Fertiliser:	33.36
Levies	1.16
Insurance (.87%)	5.01
Cartage (contract) 1.72 t/ha @ $1.25 /t	2.15
Sundry expenses	6.36
Total variable cost	$218.37/ha
	Gross margin = $357.85/ha

9. *Canola2* (Sown August/September, harvested January/February)

Revenue

Yield = 1.57 t/ha
Price = 316.66 $/t
Gross revenue = 1.57 * 316.66
= *$497.16*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate herbicide	3.05
Aerial spray (2)	14.80
Sow	13.29
Equipment & plant repair and maintenance	10.21
Harvest (contract plus windrowing)	58.21
Chemicals:	30.74
Fertiliser:	29.46
Levies	1.16
Insurance (.87%)	4.33
Cartage (contract) 1.57 t/ha @ $1.25 /t	1.96
Sundry expenses	4.24
Total variable cost	$197.68/ha
	Gross margin = $299.48/ha

10. *Linola*

Revenue

Yield = 1.50 t/ha
Price =$257.8 /t
Gross revenue = 1.55 * 330.01
= $*511.52*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.91 /kg	31.90
Land preparation	5.72
Incorporate	2.52
Aerial spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	25.38
Fertiliser:	21.92
Levies	1.16
Seed cleaning/testing	52.03
Insurance (0.87%)	4.54
Cartage: 1.50 t/ha @ $1.02 /t	1.53
Sundry expenses	2.37
Total variable cost	$209.99/ha
	Gross margin == $301.53 /ha

11. Oats (Grain)

Revenue

Yield = 1.57 t/ha
Price = $105.95/t
Gross revenue = 1.57 * 105.95
= *$166.34*

Variable costs

Item	Cost
	$/ha
Seed: 80 kg/ha @ $0.21 /kg	16.85
Land preparation	5.75
Incorporate	2.78
Spray (2)	5.24
Sow	10.84
Equipment & plant repair and maintenance	3.65
Harvest (contract)	26.84
Chemicals:	13.56
Fertiliser:	18.26
Levies	1.10
Cartage: 1.57 t/ha @ $0.82 /t	1.29
Sundry expenses	1.19
Total variable cost	$107.35/ha
	Gross margin = $48.70/ha

12. Oats (Grazing)

Variable costs

Item	Cost
	$/ha
Seed: 90 kg/ha @ $0.35 /kg	31.50
Land preparation	3.84
Spray, grd	5.43
Sow	6.32
Equipment & plant repair and maintenance	3.18
Chemicals:	0.00
Fertiliser	11.11
Sundry expenses	1.95
Total variable cost	$63.33/ha

13. Triticale

Revenue

Yield = 1.75 t/ha
Price = $136.67 /t
Gross revenue = 1.75 * 136.67
= *$239.17*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ $0.183 /kg	18.35
Land preparation	7.09
Incorporate	3.92
Spray, grd (2)	8.21
Sow	13.33
Equipment and plant repair and maintenance	6.42
Harvest (contract)	39.01
Chemicals:	34.83
Fertiliser:	46.56
Levies	0.97
Insurance (0.67%)	1.59
Cartage: 1.75 t/ha @$0.96 /t	1.68
Sundry expenses	4.71
Total variable cost	$186.67/ha
	Gross margin =$52.50/ha

14. Field Peas

Revenue

Yield = 1.33 t/ha
Price = $220.00 /t
Gross revenue = 1.33 * 220.00
= *$292.60*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 110 kg/ha @ $0.285 /kg	31.43
Land preparation	11.52
Cultivate and fertilise	5.19
Spray, grd	2.67
Sow	9.66
Equipment and plant repair and maintenance	7.38
Harvest (contract)	26.88
Chemicals:	22.74
Fertiliser:	13.42
Levies	0.90
Insurance (.52%)	1.50
Cartage: 1.33 t/ha @ $0.81 /t	1.07
Sundry expenses	2.31
Total variable cost	$136.67/ha
	Gross margin = $155.93/ha

15. Lupins (Sown in May, harvested in November)

Revenue

Yield = 1.81t/ha
Price = $201.66 /t
Gross revenue = 1.81 * 201.66
= *$365.00*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 80 kg/ha @ $0.22 /kg	17.46
Land preparation	12.88
Cultivate and fertilise	4.24
Spray, grd	4.02
Sow	8.88
Equipment and plant repair and maintenance	6.83
Harvest (contract)	24.78
Chemicals:	16.99
Fertiliser (DAP):	18.23
Levies	0.90
Insurance (0.52%)	1.89
Cartage (1.81 t/ha @ $0.74/ t)	1.34
Sundry expenses	1.56
Total variable cost	$120.00/ha
	Gross margin = $245.00/ha

Table A11.2 : Case farm one - Livestock enterprise budgets

1. Merino breeding (1000 ewes)

Sheep:			
Lambing rate	96%		
Weaning rate	85%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
Ewe cull age	5 years		
Stock sales:		Unit price*	Total
Wether lambs	408	28.33	11558.6
Ewe hoggets	95	38.33	3641.4
Cast-for-age ewes	225	19.67	4425.8
Cast-for-age rams	8	17.33	138.6
Sub total			19764.4
Wool production:		kg/hd ($/kg)	
Ewes	980	4.90 (5.42)	26026.8
Ewe hoggets	313	3.05 (5.58)	5326.9
Rams	30	6.50 (4.17)	813.2
Sub total			32166.9
Total income			51931.3
Variable cost:			
Shearing	1373	3.54	4860.4
Crutching/mulesing	2120	1.24	2628.8
Parasite control	2303	1.08	2487.2
Veterinary(vaccines, etc...)	3546	0.19	673.7
Sundry expenses	1373	0.29	398.2
Bought-in rams	8	410.00	3280.0
Total variable cost			14328.3
Gross margin ($/1000 ewes)			37603.0
Gross margin/ewe ($/ewe)			37.60

* Net of selling costs

2. *First cross lambs (1000 ewes)*

Sheep:			
Lambing rate	114%		
Weaning rate	98%		
Adult mortality	4%		
Ram requirement	3%		
Ram cull rate	25%		
Ewe cull rate	18%		
Ewe cull age	9 years		
Stock sales:		Unit price*	Total
First cross wether lambs	559	27.00	15093.0
First cross ewe lambs	559	31.00	17329.0
Cast-for-age ewes	180	8.67	1560.6
Cast-for-age rams	8	18.67	149.4
Sub total			34132.0
Wool production:		kg/hd ($/kg)	
Ewes	980	2.18 (3.73)	7968.8
Rams	30	5.07 (3.13)	292.0
Sub total			8260.8
Total income			42392.8
Variable cost:			
Shearing	1040	3.54	3681.6
Crutching/mulesing	2300	1.24	2852.0
Parasite control	2270	1.08	2451.6
Veterinary(vaccines, etc...)	4576	0.19	869.4
Sundry expenses	1040	0.29	301.6
Bought-in rams	8	165.03	1320.2
Total variable cost			11476.4
Gross margin ($/1000 ewes)			30916.4
Gross margin/ewe ($/ewe)			30.92

* Net of selling costs

3. *Merino wethers (1000 wethers)*

Sheep:			
Mortality	4%		
Wether cull rate	17%		
Wether cull age	6 years		
Stock sales:		Unit price*	Total
Cast-for-age wether	163	4.63	754.7
Sub total			754.7
Wool production:		kg/hd ($/kg)	
wethers	960	3.93 (3.56)	13431.2
Sub total			13431.2
Total income			14185.9
Variable cost:			
Shearing	960	2.97	2851.2
Crutching/mulesing	1000	1.24	1240.0
Parasite control	1000	1.08	1080.0
Sundry expenses	960	0.29	278.4
Bought-in wethers	202	24.56	4961.1
Total variable cost			10410.7
Gross margin ($/1000 wethers)			3775.2
Gross margin/wether ($/wether)			3.78

* Net of selling costs

4. *Merino ewes plus wethers (1000 ewes)*

Sheep:			
Lambing rate	95%		
Weaning rate	85%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
wether cull age	5 years		
Ewe cull age	5 years		
Stock sales:		Unit price*	Total
Ewe hoggets	305	38.33	3641.4
Cast-for-age wether	82	4.63	379.66
Cast-for-age ewes	225	19.67	4425.8
Cast-for-age rams	8	17.33	138.6
Sub total			8585.5
Wool production:		kg/hd ($/kg)	
Ewes	980	4.90 (5.42)	26026.8
Ewe hoggets	102	3.05 (5.58)	1735.9
Wethers	408	3.93 (3.56)	5708.3
Rams	30	6.50 (4.17)	813.2
Sub total			34284.2
Total income			42869.7
Variable cost:			
Shearing	1520	3.54	5380.8
Crutching/mulesing	2020	1.24	2504.8
Parasite control	1990	1.08	2149.2
Veterinary(vaccines, etc...)	3920	0.19	744.8
Sundry expenses	1520	0.29	440.8
Bought-in rams	8	410.00	3280.0
Total variable cost			14500.4
Gross margin ($/1000 ewes)			28369.3
Gross margin/ewe ($/ewe)			28.37

* Net of selling costs

Appendix 12

Table A12.1 : Case farm two - Crop activity budgets

1. Wheat1

Revenue

Yield = 1.45 t/ha
Price = $131.66 /t
Gross revenue = 1.45 * 131.66
= *$190.91*

Variable costs

Item		Cost
		$/ha
Seed + treatment:	100 kg/ha @ 0.179 $/kg	17.93
Land preparation		8.19
Cultivate and fertilise		3.92
Spray (2)		7.83
Sow		17.05
Equipment & plant repair and maintenance		5.71
Harvest (contract)		42.43
Chemicals:		36.37
Fertiliser:		44.42
Levies		0.69
Cartage: 1.45t/ha @ $1.29 /t		1.87
Insurance (.74%)		1.41
Sundry costs		5.23
Total Variable cost		$193.50/ha

Gross margin = $-2.59 /ha

2. Wheat2

Revenue

Yield = 1.31 t/ha
Price = $140.0 /t
Gross Revenue = 1.31 * 140
= *$ 183.40*

Variable costs

Item		Cost
		$/ha
Seed + treatment:	100 kg/ha @ 0.179 $/kg	17.93
Land preparation		4.28
Cultivate and fertilise		3.92
Spray (2)		7.83
Sow		15.17
Equipment & plant repair and maintenance		4.38
Harvest (contract)		37.73
Chemicals:		30.34
Fertiliser:		38.63
Levies		0.63
Cartage: 1.31t/ha @ $1.29 /t		1.69
Insurance (0.74%)		1.36
Sundry costs		4.54
Total variable cost		$168.43/ha

Gross margin = $14.97 /ha

3. Wheat3

Revenue

Yield = 1.26 t/ha
Price = $131.66 /t
Gross Revenue = 1.26 * 131.66
= *$165.89*

Variable costs

Item		Cost
		$/ha
Seed + treatment:	100 kg/ha @ 0.179 $/kg	17.93
Land preparation		8.19
Cultivate and fertilise		3.92
Spray (2)		7.83
Sow		17.05
Equipment & plant repair and maintenance		5.71
Harvest (contract)		42.43
Chemicals:		36.37
Fertiliser:		44.42
Levies		0.60
Cartage: 1.26t/ha @ $1.29 /t		1.63
Insurance (.74%)		1.23
Sundry costs		5.23
Total variable cost		$192.54/ha
		Gross margin = $-26.65 /ha

4. Wheat4

Revenue

Yield = 1.13 t/ha
Price = $140.00 /t
Gross Revenue = 1.13 * 140.00
= *$ 158.20*

Variable costs

Item		Cost
		$/ha
Seed + treatment:	100 kg/ha @ 0.179 $/kg	17.93
Land preparation		4.28
Cultivate and fertilise		3.92
Spray (2)		7.83
Sow		15.17
Equipment & plant repair and maintenance		4.38
Harvest (contract)		37.73
Chemicals:		30.34
Fertiliser:		38.63
Levies		0.54
Cartage: 1.13t/ha @ $1.29 /t		1.46
Insurance (0.74%)		1.17
Sundry costs		4.54
Total variable cost		$167.92/ha
		Gross margin =$-9.72 /ha

5. *Barley*

Revenue

Yield = 1.38 t/ha
Price = $105.0 /t
Gross Revenue = 1.38 * 105.00
= *$144.90*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 80 kg/ha @ 0.21 $/kg	10.24
Land preparation	5.70
Spray (2)	5.43
Sow	8.53
Equipment & plant repair and maintenance	3.96
Harvest (contract)	29.43
Chemicals:	10.83
Fertiliser:	15.13
Levies	0.73
Cartage 1.38 t/ha @ $0.89 /t	1.23
Sundry costs	1.19
Total variable cost	$92.40/ha
	Gross margin = $52.50/ha

6. *Sunflower* (*Sown Sept, harvested May*)

Revenue

Yield = 0.79 t/ha
Price = $386.67/t
Gross Revenue from crop = 0.79 * 386.67
= *$305.47*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 3 kg/ha @ 4.33 $/kg	13.00
Land preparation	5.70
Incorporate	2.72
Aerial spray (	9.38
Sow	11.83
Equipment and plant repair and maintenance	3.96
Harvest (contract)	34.11
Chemicals:	25.71
Fertiliser:	21.64
Levies	0.98
Insurance (.87%)	2.66
Cartage (contract) 0.79 t/ha @ $0.98 /t	0.77
Sundry expenses	3.57
Total variable cost	$136.03/ha
	Gross margin = $169.44/ha

7. *Linseed1* (*Sown May-June, harvested November*)

Revenue

Yield = 0.76 t/ha
Price = 323.33 $/t
Gross revenue = 0.76 * 323.33
= *$245.73*

Variable costs

Item		Cost
		$/ha
Seed + treatment:	35 kg/ha @ $0.93 /kg	32.55
Land preparation		5.72
Incorporate		2.52
Aerial Spray (2)		13.02
Sow		11.97
Equipment & plant repair and maintenance		5.68
Harvest (contract)		30.25
Chemicals:		26.58
Fertiliser:		23.46
Levies		1.16
Seed cleaning/testing		26.36
Insurance (0.41%)		1.01
Cartage (contract) 0.76 t/ha @ $1.02 /t		0.78
Sundry expenses		1.42
Total variable cost		$182.48/ha
		Gross margin = $63.25/ha

8. *Linseed2* (*Sown August, harvested February*)

Revenue

Yield = 0.62 t/ha
Price = 333.33 $/t
Gross Revenue = 0.62 * 333.33
= *$206.66*

Variable costs

Item		Cost
		$/ha
Seed + treatment:	35 kg/ha @ $0.93 /kg	32.55
Land preparation		5.72
Incorporate		2.52
Aerial Spray (2)		13.02
Sow		11.97
Equipment & plant repair and maintenance		5.11
Harvest (contract)		30.25
Chemicals:		20.36
Fertiliser:		19.57
Levies		1.16
Seed cleaning/testing		21.51
Insurance (.41%)		0.85
Cartage (contract) 0.62 t/ha @ $1.02 /t		0.63
Sundry expenses		1.32
Total variable cost		$166.54/ha
		Gross margin = $40.12/ha

9. Canola1 (Sown May-June, harvested November)

Revenue

Yield = 1.27 t/ha
Price = $261.70 /t
Gross Revenue = 1.27 * 261.70
= *$332.36*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate Herbicide	3.36
Aerial Spray (2)	16.29
Sow	14.63
Equipment & plant repair and maintenance	11.24
Harvest (contract plus windrowing)	64.08
Chemicals:	34.50
Fertiliser:	33.36
Levies	1.16
Insurance (.87%)	2.89
Cartage (contract) 1.27 t/ha @ $1.25 /t	1.59
Sundry Expenses	6.36
Total variable cost	$215.69/ha
	Gross margin = $116.67/ha

10. Canola2 (*Sown August/September. harvested January/February*)

Revenue

Yield = 1.17 t/ha
Price = 247.40 $/t
Gross Revenue = 1.17 * 247.40
= *$289.46*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate Herbicide	3.05
Aerial Spray (2)	14.80
Sow	13.29
Equipment & plant repair and maintenance	10.21
Harvest (contract plus windrowing)	58.21
Chemicals:	30.74
Fertiliser:	29.46
Levies	1.16
Insurance (.87%)	2.52
Cartage (contract) 1.17 t/ha @ $1.25 /t	1.46
Sundry Expenses	4.24
Total variable cost	$195.37/ha
	Gross margin = $94.09/ha

11. Linola

Revenue

Yield = 0.67 t/ha
Price =$350.00 /t
Gross revenue = 0.67 * 350.00
= *$234.50*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.91 /kg	31.90
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	25.38
Fertiliser:	21.92
Levies	1.16
Seed cleaning/testing	23.24
Insurance (0.87%)	2.04
Cartage: 0.67 t/ha @ $1.02 /t	0.68
Sundry expenses	2.37
Total variable cost	$177.85/ha
	Gross margin = $56.65 /ha

12. Oats (Grazing)

Variable costs

Item	Cost
	$/ha
Seed: 90 kg/ha @ $0.35 /kg	31.50
Land preparation	3.54
Spray, grd	0.00
Sow	6.32
Equipment & plant repair and maintenance	2.48
Chemicals:	0.00
Fertiliser	9.95
Sundry expenses	1.95
Total variable cost	$55.74/ha

13. Oats (Grain)

Revenue

Yield = 1.22 t/ha
Price = $78.34 /t
Gross revenue =1.22 * 78.34
= $95.57

Variable costs

Item	Cost
	$/ha
Seed: 80 kg/ha @ $0.21 /kg	16.85
Land preparation	5.75
Incorporate	2.78
Spray (2)	5.24
Sow	10.84
Equipment & plant repair and maintenance	3.65
Harvest (contract)	26.84
Chemicals:	13.56
Fertiliser:	18.26
Levies	0.59
Cartage: 1.22 t/ha @ $0.82 /t	1.00
Sundry expenses	1.19
Total variable cost	$106.55/ha
	Gross margin = $-10.98/ha

14. Field Peas

Revenue

Yield = 0.97 t/ha
Price = $171.87 /t
Gross revenue = 0.97 * 171.87
= $166.71

Variable costs

Item	Cost
	$/ha
Seed + treatment: 110 kg/ha @ $0.285 /kg	31.43
Land preparation	11.52
Cultivate and fertilise	5.19
Spray, grd	2.67
Sow	9.66
Equipment and plant repair and maintenance	7.38
Harvest (contract)	26.88
Chemicals:	22.74
Fertiliser:	13.42
Levies	0.90
Insurance (.52%)	0.87
Cartage: 0.97 t/ha @ $0.81 /t	0.79
Sundry expenses	2.31
Total variable cost	$135.76/ha
	Gross margin = $30.95/ha

15. Lupins (Sown in May, harvested in November)

Revenue

Yield = 1.19t/ha
Price = $189.22 /t
Gross Revenue = 1.19 * 189.22
= *$225.17*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 80 kg/ha @ $0.22 /kg	17.46
Land preparation	12.88
Cultivate and fertilise	4.24
Spray, grd	4.02
Sow	8.88
Equipment and plant repair and maintenance	6.83
Harvest (contract)	24.78
Chemicals:	16.99
Fertiliser (DAP):	18.23
Levies	0.90
Insurance (0.52%)	1.17
Cartage (1.19 t/ha @ $0.74/ t)	0.88
Sundry expenses	1.56
Total variable cost	$118.82/ha
	Gross margin = $106.35/ha

16. Triticale

Revenue

Yield = 1.30 t/ha
Price = $112.00 /t
Gross revenue = 1.30 * 112.00
= *$145.60*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ $0.183 /kg	18.35
Land preparation	7.09
Incorporate	3.92
Spray, grd (2)	8.21
Sow	13.33
Equipment and plant repair and maintenance	6.42
Harvest (contract)	39.01
Chemicals:	34.83
Fertiliser:	46.56
Levies	0.97
Insurance (0.67%)	0.98
Cartage: 1.30 t/ha @$0.96 /t	1.23
Sundry expenses	4.71
Total variable cost	$185.61/ha
	Gross margin = $-40.01/ha

Table A12.1 : Case farm two - Livestock enterprise budgets

1. Merino breeding (1000 ewes)

Sheep:			
Lambing rate	90%		
Weaning rate	91%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
Ewe cull age	5 years		
Stock sales:		Unit price*	Total
Wether lambs	408	22.10	9016.8
Ewe hoggets	95	25.50	2422.5
Cast-for-age ewes	225	16.33	3674.3
Cast-for-age rams	8	13.52	108.2
Sub total			15221.8
Wool production:		kg/hd ($/kg)	
Ewes	980	4.83 (4.70)	22247.0
Ewe hoggets	313	3.28 (5.20)	5338.5
Rams	30	6.37 (4.17)	796.9
Sub total			28382.4
Total income			43604.2
Variable cost:			
Shearing	1373	3.54	4860.4
Crutching/mulesing	2120	1.24	2628.8
Parasite control	2303	1.08	2487.2
Veterinary(vaccines, etc...)	3546	0.19	673.7
Sundry expenses	1373	0.29	398.2
Bought-in rams	8	516.68	4133.4
Total variable cost			15181.7
Gross margin ($/1000 ewes)			28422.5
Gross margin/ewe ($/ewe)			28.42

* Net of selling costs

2. *First cross lambs (1000 ewes)*

Sheep:			
Lambing rate	112%		
Weaning rate	87%		
Adult mortality	4%		
Ram requirement	3%		
Ram cull rate	25%		
Ewe cull rate	18%		
Ewe cull age	9 years		
Stock sales:		Unit price*	Total
First cross wether lambs	485	21.10	10233.5
First cross ewe lambs	485	23.30	11300.5
Cast-for-age ewes	180	16.33	2399.4
Cast-for-age rams	8	13.52	108.2
Sub total			24041.6
Wool production:		kg/hd ($/kg)	
Ewes	980	2.13 (4.33)	9038.4
Rams	30	5.02 (2.57)	387.0
Sub total			9425.4
Total income			33467.0
Variable cost:			
Shearing	1040	3.54	3681.6
Crutching/mulesing	2300	1.24	2852.0
Parasite control	2270	1.08	2451.6
Veterinary(vaccines, etc...)	4280	0.19	813.2
Sundry expenses	1040	0.29	301.6
Bought-in rams	8	156.68	1253.4
Total variable cost			11353.4
Gross margin ($/1000 ewes)			22113.6
Gross margin/ewe ($/ewe)			22.11

* Net of selling costs

3. *Merino wethers (1000 wethers)*

Sheep:			
Mortality	4%		
Wether cull rate	17%		
Wether cull age	6 years		
Stock sales:		Unit price*	Total
Cast-for-age wether	163	12.83	2091.3
Sub total			2091.3
Wool production:		kg/hd ($/kg)	
wethers	960	3.53 (3.55)	12030.2
Sub total			12030.2
Total income			14121.5
Variable cost:			
Shearing	960	2.97	2851.2
Crutching/mulesing	1000	1.24	1240.0
Parasite control	1000	1.08	1080.0
Sundry expenses	960	0.29	278.4
Bought-in wethers	202	22.55	4555.1
Total variable cost			10004.7
Gross margin ($/1000 wethers)			4116.8
Gross margin/wether ($/wether)			4.12

* Net of selling costs

4. *Merino ewes plus wethers (1000 ewes)*

Sheep:			
Lambing rate	90%		
Weaning rate	91%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
wether cull age	5 years		
Ewe cull age	6 years		
Stock sales:		Unit price*	Total
Ewe hoggets	306	25.50	7803.0
Cast-for-age wether	82	12.83	1052.1
Cast-for-age ewes	225	16.33	3674.3
Cast-for-age rams	8	13.52	108.2
Sub total			12637.6
Wool production:		kg/hd ($/kg)	
Ewes	980	4.83 (4.70)	22247.0
Ewe hoggets	102	3.28 (5.20)	1739.7
Wethers	408	3.53 (3.55)	5112.9
Rams	30	6.37 (4.17)	796.9
Sub total			29896.5
Total income			42434.1
Variable cost:			
Shearing	1520	3.54	5380.8
Crutching/mulesing	2020	1.24	2504.8
Parasite control	1990	1.08	2149.2
Veterinary(vaccines, etc...)	3920	0.19	744.8
Sundry expenses	1520	0.29	440.8
Bought-in rams	8	516.68	4133.4
Total variable cost			15353.8
Gross margin ($/1000 ewes)			27080.3
Gross margin/ewe ($/ewe)			27.08

* Net of selling costs

Appendix 13

Table A13.1 : Case farm three - Crop activity budgets

1. Wheat1

Revenue

Yield = 1.74 t/ha
Price = $138.38 /t
Gross revenue = 1.74 * 138.38
= *$240.78*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	8.19
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	17.05
Equipment & plant repair and maintenance	5.71
Harvest (contract)	42.43
Chemicals:	36.37
Fertiliser:	44.42
Levies	0.84
Cartage: 1.74t/ha @ $1.29 /t	2.24
Insurance (.74%)	1.78
Sundry costs	5.23
Total variable cost	$193.94/ha
	Gross margin = $46.84 /ha

2. Wheat2

Revenue

Yield = 1.61 t/ha
Price = $144.54 /t
Gross revenue = 1.61 * 144.54
= *$ 232.71*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	7.28
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	15.17
Equipment & plant repair and maintenance	5.08
Harvest (contract)	37.73
Chemicals:	30.34
Fertiliser:	38.63
Levies	0.77
Cartage: 1.61t/ha @ $1.29 /t	2.08
Insurance (0.74%)	1.72
Sundry costs	4.54
Total variable cost	$173.02/ha
	Gross margin = $59.69 /ha

3. *Wheat3*

Revenue

Yield = 1.50 t/ha
Price = $138.38 /t
Gross revenue = 1.50 * 138.38
= *$207.57*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	8.19
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	17.05
Equipment & plant repair and maintenance	5.71
Harvest (contract)	42.43
Chemicals:	36.37
Fertiliser:	44.42
Levies	0.72
Cartage: 1.50t/ha @ $1.29 /t	1.94
Insurance (.74%)	1.54
Sundry costs	5.23
Total variable cost	$193.28/ha
	Gross margin = $14.29 /ha

4. *Wheat4*

Revenue

Yield = 1.39 t/ha
Price = $144.54 /t
Gross revenue = 1.39 * 144.54
= *$ 200.91*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	7.28
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	15.17
Equipment & plant repair and maintenance	5.08
Harvest (contract)	37.73
Chemicals:	30.34
Fertiliser:	38.63
Levies	0.67
Cartage: 1.39t/ha @ $1.29 /t	1.79
Insurance (0.74%)	1.49
Sundry costs	4.54
Total variable cost	$172.40/ha
	Gross margin = $28.51 /ha

5. *Barley*

Revenue

Yield = 1.90 t/ha
Price = $149.45 /t
Gross revenue = 1.90 * 149.45
= *$283.95*

Variable costs

Item	Cost $/ha
Seed + treatment: 80 kg/ha @ 0.188 $/kg	15.02
Land preparation	8.30
Cultivate and fertilise	3.98
Spray (2)	7.97
Sow	17.55
Equipment & plant repair and maintenance	5.81
Harvest (contract)	43.24
Chemicals:	23.19
Fertiliser:	22.20
Levies	1.10
Cartage 1.90 t/ha @ $1.29 /t	2.45
Insurance (0.74%)	2.10
Sundry costs	4.37
Total variable cost	$157.28/ha
	Gross margin = $126.67/ha

6. *Linseed1* (*Sown May-June, harvested November*)

Revenue

Yield = 0.94 t/ha
Price = 325.28 $/t
Gross revenue = 0.94* 325.28
= *$305.76*

Variable costs

Item	Cost $/ha
Seed + treatment: 35 kg/ha @ $0.93 /kg	32.55
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	26.58
Fertiliser:	23.46
Levies	1.16
Seed cleaning/testing	32.61
Insurance (0.41%)	1.25
Cartage (contract) 0.94 t/ha @ $1.02 /t	0.96
Sundry expenses	1.42
Total variable cost	$189.15/ha
	Gross margin = $116.61/ha

7. *Linseed2* (*Sown August, harvested February*)

Revenue

Yield = 0.79 t/ha
Price = 348.75 $/t
Gross revenue = 0.79 * 348.75
= *$275.51*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.93 /kg	32.55
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.11
Harvest (contract)	30.25
Chemicals:	20.36
Fertiliser:	19.57
Levies	1.16
Seed cleaning/testing	27.41
Insurance (.41%)	1.13
Cartage (contract) 0.79 t/ha @ $1.02 /t	0.81
Sundry expenses	1.32
Total variable cost	$172.90/ha
	Gross margin = = $102.61/ha

8. *Canola1* (*Sown May-June, harvested November*)

Revenue

Yield = 1.52 t/ha
Price = $353.29/t
Gross revenue = 1.52 * 353.29
= *$537.00*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate Herbicide	3.36
Aerial Spray (2)	16.29
Sow	14.63
Equipment & plant repair and maintenance	11.24
Harvest (contract plus windrowing)	64.08
Chemicals:	34.50
Fertiliser:	33.36
Levies	1.16
Insurance (.87%)	4.67
Cartage (contract) 1.52 t/ha @ $1.25 /t	1.90
Sundry Expenses	6.36
Total variable cost	$217.78/ha
	Gross margin = $319.22/ha

9. *Canola2* (*Sown August/September, harvested January/February*)

Revenue

Yield = 1.24 t/ha
Price = 375.09 $/t
Gross revenue = 1.24 * 375.09
= *$465.11*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate Herbicide	3.05
Aerial Spray (2)	14.80
Sow	13.29
Equipment & plant repair and maintenance	10.21
Harvest (contract plus windrowing)	58.21
Chemicals:	30.74
Fertiliser:	29.46
Levies	1.16
Insurance (.87%)	4.05
Cartage (contract) 1.24 t/ha @ $1.25 /t	1.55
Sundry Expenses	4.24
Total variable cost	$196.99/ha
	Gross margin = $268.12/ha

10. *Linola*

Revenue

Yield = 1.01 t/ha
Price =$326.77 /t
Gross revenue = 1.01 * 326.77
= *$330.04*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.91 /kg	31.90
Land preparation	5.72
Incorporate	2.52
Aerial spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	25.38
Fertiliser:	21.92
Levies	1.16
Seed cleaning/testing	35.00
Insurance (0.87%)	2.87
Cartage: 1.01 t/ha @ $1.02 /t	1.03
Sundry expenses	2.37
Total variable cost	$190.79/ha
	Gross margin = $139.25 /ha

11. Oats (grazing)

Variable costs

Item	Cost
	$/ha
Seed: 45 kg/ha @ $0.35 /kg	15.70
Land preparation	3.79
Spray, grd	5.43
Sow	6.24
Equipment & plant repair and maintenance	2.80
Chemicals:	14.63
Fertiliser	11.90
Sundry expenses	1.95
Total variable cost	$62.44/ha

12. Triticale

Revenue

Yield = 1.76 t/ha
Price = $118.33 /t
Gross revenue = 1.76 * 118.33
= *$208.26*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ $0.183 /kg	18.35
Land preparation	7.09
Incorporate	3.92
Spray, grd (2)	8.21
Sow	13.33
Equipment and plant repair and maintenance	6.42
Harvest (contract)	39.01
Chemicals:	34.83
Fertiliser:	46.56
Levies	0.85
Insurance (0.67%)	1.39
Cartage: 1.76 t/ha @$0.96 /t	1.69
Sundry expenses	4.71
Total variable cost	$186.36/ha
	Gross margin = $21.90/ha

13. Field Peas

Revenue

Yield = 0.94 t/ha
Price = $191.30 /t
Gross revenue = 0.94 * 191.30
= *$179.82*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 110 kg/ha @ $0.285 /kg	31.43
Land preparation	11.52
Cultivate and fertilise	5.19
Spray, grd	2.67
Sow	9.66
Equipment and plant repair and maintenance	7.38
Harvest (contract)	26.88
Chemicals:	22.74
Fertiliser:	13.42
Levies	0.65
Insurance (.52%)	0.94
Cartage: 0.94 t/ha @ $0.81 /t	0.76
Sundry expenses	2.31
Total variable cost	$135.55/ha
	Gross margin = $44.27/ha

14. Lupins (Sown in May, harvested in November)

Revenue

Yield = 1.75t/ha
Price = $192.92 /t
Gross revenue = 1.75 * 192.92
= *$337.61*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 80 kg/ha @ $0.22 /kg	17.46
Land preparation	12.88
Cultivate and fertilise	4.24
Spray, grd	4.02
Sow	8.88
Equipment and plant repair and maintenance	6.83
Harvest (contract)	24.78
Chemicals:	16.99
Fertiliser (DAP):	18.23
Levies	1.19
Insurance (0.52%)	1.76
Cartage (1.75 t/ha @ $0.74/ t)	1.30
Sundry expenses	1.56
Total variable cost	$120.12/ha
	Gross margin = $217.49/ha

15. Lucerne

Variable costs

Item	Cost
	$/ha
Seed: 10 kg/ha @ $1.57 /kg	15.67
Land preparation	7.05
Spray	0.00
Sow	8.83
Equipment & plant repair and maintenance	3.89
Chemicals:	11.52
Fertiliser (Top Dressing):	13.50
(Mowing, Raking, etc..)	0.00
Sundry expenses	3.87
Total variable cost	$64.33/ha

Table A13.2 : Case farm three - Livestock enterprise budgets

1. *Merino wethers (1000 wethers)*

Sheep:			
Mortality	4%		
Wether cull rate	17%		
Wether cull age	6 years		
Stock sales:		Unit price*	Total
Cast-for-age wether	163	3.29	536.3
Sub total			536.3
Wool production:		kg/hd ($/kg)	
wethers	960	6.41 (5.02)	30891.1
Sub total			30891.1
Total income			31427.4
Variable cost:			
Shearing	960	2.97	2851.2
Crutching/mulesing	1000	1.24	1240.0
Parasite control	1000	1.08	1080.0
Sundry expenses	960	0.29	278.4
Bought-in wethers	202	23.76	4799.5
Total variable cost			10249.1
Gross margin ($/1000 wethers)			21178.3
Gross margin/wether ($/wether)			21.18

* Net of selling costs

2. *Merino wethers - export (1000 wethers)*

Sheep:			
Mortality	4%		
Stock sales:		Unit price*	Total
Export wether	960	22.70	21792.0
Sub total			21792.0
Wool production:		kg/hd ($/kg)	
wethers	960	6.41 (5.02)	30891.1
Sub total			30891.1
Total income			52683.1
Variable cost:			
Shearing	960	2.97	2851.2
Crutching/mulesing	1000	1.24	1240.0
Parasite control	2000	1.08	2160.0
Sundry expenses	960	0.58	278.4
Bought-in lambs	1020	16.60	16932.0
Total variable cost			23461.6
Gross margin ($/1000 wethers)			29221.5
Gross margin/wether ($/wether)			29.22

* Net of selling costs

3. *Merino ewes plus wethers (1000 ewes)*

Sheep:			
Lambing rate	91%		
Weaning rate	89%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
wether cull age	5 years		
Ewe cull age	6 years		
Stock sales:		Unit price*	Total
Ewe hoggets	306	22.40	6854.4
Cast-for-age wether	82	3.29	269.8
Cast-for-age ewes	225	19.41	4367.3
Cast-for-age rams	8	16.16	129.3
Sub total			11620.8
Wool production:		kg/hd ($/kg)	
Ewes	980	4.36 (3.99)	17048.5
Ewe hoggets	102	3.35 (5.44)	1858.8
Wethers	408	6.41 (5.02)	13128.7
Rams	30	6.64 (4.25)	846.6
Sub total			32882.6
Total income			44503.4
Variable cost:			
Shearing	1520	3.54	5380.8
Crutching/mulesing	2020	1.24	2504.8
Parasite control	1990	1.08	2149.2
Veterinary(vaccines, etc...)	3920	0.19	744.8
Sundry expenses	1520	0.29	440.8
Bought-in rams	8	361.85	2894.8
Total variable cost			14115.2
Gross margin ($/1000 ewes)			30388.2
Gross margin/ewe ($/ewe)			30.39

* Net of selling costs

Appendix 14

Table A14.1 : Case farm four - Crop activity budgets

1. Barley1

Revenue

Yield = 3.21 t/ha
Price = $136.58 /t
Gross revenue = 3.21 * 136.58
= *$438.42*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 80 kg/ha @ 0.188 $/kg	15.02
Land preparation	8.30
Cultivate and fertilise	3.98
Spray (2)	7.97
Sow	17.55
Equipment & plant repair and maintenance	5.81
Harvest (contract)	43.24
Chemicals:	23.19
Fertiliser:	22.20
Levies	1.70
Cartage 3.21 t/ha @ $1.29 /t	4.14
Insurance (0.74%)	3.24
Sundry costs	4.37
Total variable cost	$160.71/ha
	Gross margin = *$277.71/ha*

2. Barley2

Revenue

Yield = 2.89 t/ha
Price = $136.58 /t
Gross revenue = 2.89 * 144.09
= *$416.42*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 80 kg/ha @ 0.188 $/kg	15.02
Land preparation	8.30
Cultivate and fertilise	3.98
Spray (2)	7.97
Sow	17.55
Equipment & plant repair and maintenance	5.81
Harvest (contract)	43.24
Chemicals:	23.19
Fertiliser:	22.20
Levies	1.53
Cartage 2.89 t/ha @ $1.29 /t	3.73
Insurance (0.74%)	3.08
Sundry costs	4.37
Total variable cost	$159.97/ha
	Gross margin = *$256.45/ha*

3. *Barley3*

Revenue

Yield = 2.41 t/ha
Price = $136.58 /t
Gross revenue = 2.41 * 136.58
= *$329.16*

Variable costs

Item	Cost
	$/ha
Seed + Treatment: 80 kg/ha @ 0.188 $/kg	15.02
Land preparation	8.30
Cultivate and fertilise	3.98
Spray (2)	7.97
Sow	17.55
Equipment & plant repair and maintenance	5.81
Harvest (contract)	43.24
Chemicals: 23.19	
Fertiliser:	22.20
Levies	1.28
Cartage 2.41 t/ha @ $1.29 /t	3.11
Insurance (0.74%)	2.44
Sundry costs	4.37
Total variable cost	$158.46/ha
	Gross margin = *$170.70/ha*

4. *Barley4*

Revenue

Yield =2.17 t/ha
Price = $144.09 /t
Gross revenue = 2.17 * 144.09
= *$312.68*

Variable costs

Item	Cost
	$/ha
Seed + Treatment: 80 kg/ha @ 0.188 $/kg	15.02
Land preparation	8.30
Cultivate and fertilise	3.98
Spray (2)	7.97
Sow	17.55
Equipment & plant repair and maintenance	5.81
Harvest (contract)	43.24
Chemicals:	23.19
Fertiliser:	22.20
Levies	1.15
Cartage 2.17 t/ha @ $1.29 /t	2.80
Insurance (0.74%)	2.31
Sundry costs	4.37
Total variable cost	$157.89/ha
	Gross margin = *$154.79/ha*

5. *Linseed1* (Sown May-June, Harvested November)

Revenue

Yield = 1.26 t/ha
Price = 339.38 $/t
Gross revenue = 1.26 * 339.38
= *$427.62*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.93 /kg	32.55
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant Repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	26.58
Fertiliser:	23.46
Levies	1.16
Seed cleaning/testing	42.29
Insurance (0.41%)	1.75
Cartage (contract) 1.26 t/ha @ $1.02 /t	1.29
Sundry expenses	1.42
Total variable cost	$199.66/ha
	Gross margin = $227.96/ha

6. *Linseed2* (Sown August, Harvested February)

Revenue

Yield = 0.93 t/ha
Price = 343.73 $/t
Gross revenue = 0.93 * 343.73
= *$319.67*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.93 /kg	32.55
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant Repair and maintenance	5.11
Harvest (contract)	30.25
Chemicals:	20.36
Fertiliser:	19.57
Levies	1.16
Seed cleaning/testing	31.21
Insurance (.41%)	1.97
Cartage (contract) 0.93 t/ha @ $1.02 /t	0.95
Sundry expenses	1.32
Total variable cost	$177.68/ha
	Gross margin = $141.99/ha

7. *Canola1* (*Sown May-June, Harvested November*)

Revenue

Yield = 1.70 t/ha
Price = $331.70 /t
Gross revenue = 1.70 * 331.70
= *$563.89*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate Herbicide	3.36
Aerial Spray (2)	16.29
Sow	14.63
Equipment & plant Repair and maintenance	11.24
Harvest (contract plus windrowing)	64.08
Chemicals:	34.50
Fertiliser:	33.36
Levies	1.16
Insurance (.87%)	4.91
Cartage (contract) 1.70 t/ha @ $1.25 /t	2.13
Sundry Expenses	6.36
Total variable cost	$218.25/ha
	Gross margin = $345.64/ha

8. *Canola2* (*Sown August/September, Harvested January/February*)

Revenue

Yield = 1.34 t/ha
Price = 339.75 $/t
Gross revenue = 1.34 * 339.75
= *$455.26*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate Herbicide	3.05
Aerial Spray (2)	14.80
Sow	13.29
Equipment & plant Repair and maintenance	10.21
Harvest (contract plus windrowing)	58.21
Chemicals:	30.74
Fertiliser:	29.46
Levies	1.16
Insurance (.87%)	3.96
Cartage (contract) 1.34 t/ha @ $1.25 /t	1.68
Sundry Expenses	4.24
Total variable cost	$197.03/ha
	Gross margin = $258.23/ha

9. Linola

Revenue

Yield = 0.84 t/ha
Price =$315.08 /t
Gross revenue = 0.84 * 315.08
= *$264.67*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.91 /kg	31.90
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant Repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	25.38
Fertiliser:	21.92
Levies	1.16
Seed cleaning/testing	28.19
Insurance (0.87%)	2.30
Cartage: 0.84 t/ha @ $1.02 /t	0.86
Sundry expenses	2.37
Total variable cost	$183.24/ha
	Gross margin = $81.43 /ha

10. Oats (Grazing)

Variable costs

Item	cost
	$/ha
Seed: 90 kg/ha @ $0.35 /kg	31.50
Land preparation	5.79
Spray,grd	5.43
Sow	7.55
Equipment & plant repair and maintenance	8.80
Chemicals:	0.00
Fertiliser	14.97
Sundry expenses	5.95
Total variable cost	$79.99/ha

11. Triticale

Revenue

Yield = 1.71 t/ha
Price = $107.20 /t
Gross revenue = 1.71 * 107.20
= *$183.31*

Variable costs

	$/ha
Seed + treatment: 100 kg/ha @ $0.183 /kg	18.35
Land preparation	7.09
Incorporate	3.92
Spray, grd (2)	8.21
Sow	13.33
Equipment and plant repair and maintenance	6.42
Harvest (contract)	39.01
Chemicals:	34.83
Fertiliser:	46.56
Levies	0.97
Insurance (0.67%)	1.23
Cartage: 1.71 t/ha @$0.96 /t	1.64
Sundry expenses	4.71
Total variable cost	$186.27/ha
	Gross margin = $-2.96/ha

12. Field Peas

Revenue

Yield = 1.35 t/ha
Price = $218.72 /t
Gross revenue = 1.35 * 218.72
= *$295.27*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 110 kg/ha @ $0.285 /kg	31.43
Land preparation	11.52
Cultivate and fertilise	5.19
Spray, grd	2.67
Sow	9.66
Equipment and plant repair and maintenance	7.38
Harvest (contract)	26.88
Chemicals:	22.74
Fertiliser:	13.42
Levies	0.90
Insurance (.52%)	0.78
Cartage: 1.35 t/ha @ $0.81 /t	1.09
Sundry expenses	2.31
Total variable cost	$135.97/ha
	Gross margin = $159.30/ha

13. Canary Seed

Revenue

Yield = 0.61 t/ha
Price = $521.20 /t
Gross revenue = 0.61 * 521.20
= *$317.93*

Variable costs

Item	Cost
	$/ha
Seed : 15 kg/ha @ $0.42 /kg	6.31
Land preparation	5.70
Cultivate and fertilise	8.07
Spray	5.35
Sow	11.83
Equipment and plant repair and maintenance	3.96
Harvest (contract)	29.43
Chemicals	19.20
Fertiliser	10.22
Cartage: .63 t/ha @ $2.52 /t	1.59
Insurance (0.68%)	1.75
Sundry expenses	8.62
Total variable cost	$112.03/ha
	Gross margin = $205.90/ha

14. Turnips

Variable costs

Item	Cost
	$/ha
Seed : 2.5 kg/ha @ $2.12 /kg	5.30
Land preparation	5.65
Sow	7.83
Equipment and plant repair and maintenance	2.46
Chemicals:	9.80
Fertiliser:	14.37
Total variable cost	$45.41/ha

15. *Lupins* *(Sown in May, Harvested in November)*

Revenue

Yield = 1.52t/ha
Price = $165.95 /t
Gross revenue = 1.52 * 165.95
= *$252.24*

Variable costs

Item	cost
	$/ha
Seed + treatment: 80 kg/ha @ $0.22 /kg	17.46
Land preparation	12.88
Cultivate and fertilise	4.24
Spray, grd	4.02
Sow	8.88
Equipment and plant repair and maintenance	6.83
Harvest (contract)	24.78
Chemicals:	16.99
Fertiliser (DAP):	18.23
Levies	0.90
Insurance (0.52%)	1.31
Cartage (1.52 t/ha @ $0.74/ t)	1.12
Sundry expenses	1.56
Total variable cost	$119.20/ha
	Gross margin = $133.04/h

Table A14.2 : Case farm four - Livestock enterprise budgets

1. Merino breeding (1000 ewes)

Sheep:			
Lambing rate	94%		
Weaning rate	89%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
Ewe cull age	5 years		
Stock sales:		Unit price*	Total
Wether lambs	419	31.25	13093.8
Ewe hoggets	95	24.42	2393.2
Cast-for-age ewes	225	19.45	4376.3
Cast-for-age rams	8	13.63	109.0
Sub total			19972.3
Wool production:		kg/hd ($/kg)	
Ewes	980	3.87 (2.46)	9329.8
Ewe hoggets	321	3.65 (6.15)	7205.6
Rams	30	6.26 (4.60)	863.9
Sub total			17399.3
Total income			37371.6
Variable cost:			
Shearing	1361	3.54	4817.9
Crutching/mulesing	2120	1.24	2628.8
Parasite control	2332	1.08	2518.6
Veterinary(vaccines, etc...)	3574	0.19	679.1
Sundry expenses	1361	0.29	394.7
Bought-in rams	8	217.30	1738.4
Total variable cost			12777.5
Gross margin ($/1000 ewes)			24594.1
Gross margin/ewe ($/ewe)			24.59

* Net of selling costs

2. *First cross lambs (1000 ewes)*

Sheep:			
Lambing rate	125%		
Weaning rate	97%		
Adult mortality	4%		
Ram requirement	3%		
Ram cull rate	25%		
Ewe cull rate	18%		
Ewe cull age	9 years		
Stock sales:		Unit price*	Total
First cross wether lambs	606	39.80	24118.8
First cross ewe lambs	606	41.00	24846.0
Cast-for-age ewes	180	19.45	3501.0
Cast-for-age rams	8	13.63	109.0
Sub total			52574.8
Wool production:		kg/hd ($/kg)	
Ewes	980	1.79 (1.59)	2789.2
Rams	30	5.15 (2.80)	432.6
Sub total			3221.8
Total income			55796.6
Variable cost:			
Shearing	1040	3.54	3681.6
Crutching/mulesing	2344	1.24	2906.6
Parasite control	2400	1.08	2592.0
Veterinary(vaccines, etc...)	4896	0.19	930.2
Sundry expenses	1040	0.29	301.6
Bought-in rams	8	155.23	1241.8
Total variable cost			11653.8
Gross margin ($/1000 ewes)			44142.8
Gross margin/ewe ($/ewe)			44.14

* Net of selling costs

3. *Merino wethers (1000 wethers)*

Sheep:			
Mortality	4%		
Wether cull rate	17%		
Wether cull age	6 years		
Stock sales:		Unit price*	Total
Cast-for-age wether	163	3.64	593.3
Sub total			593.3
Wool production:		kg/hd ($/kg)	
wethers	960	4.18 (3.91)	15690.0
Sub total			15690.0
Total income			16283.3
Variable cost:			
Shearing	960	2.97	2851.2
Crutching/mulesing	1000	1.24	1240.0
Parasite control	1000	1.08	1080.0
Sundry expenses	960	0.29	278.4
Bought-in wethers	202	26.70	5393.4
Total variable cost			10843.0
Gross margin ($/1000 wethers)			5440.3
Gross margin/wether ($/wether)			5.44

* Net of selling costs

4. Merino ewes plus wethers (1000 ewes)

Sheep:			
Lambing rate	94%		
Weaning rate	89%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
wether cull age	5 years		
Ewe cull age	6 years		
Stock sales:		Unit price*	Total
Ewe hoggets	314	24.42	7667.9
Cast-for-age wether	84	3.64	305.8
Cast-for-age ewes	225	19.45	4376.3
Cast-for-age rams	8	13.63	109.0
Sub total			12459.0
Wool production:		kg/hd ($/kg)	
Ewes	980	3.87 (2.46)	9329.8
Ewe hoggets	104	3.65 (6.15)	2334.5
Wethers	418	4.18 (3.91)	6831.7
Rams	30	6.26 (4.60)	863.9
Sub total			19359.9
Total income			31818.9
Variable cost:			
Shearing	1562	3.54	5529.5
Crutching/mulesing	2651	1.24	3287.2
Parasite control	2060	1.08	2224.8
Veterinary(vaccines, etc...)	4611	0.19	876.1
Sundry expenses	1562	0.29	453.0
Bought-in rams	8	217.30	1738.4
Total variable cost			14109.0
Gross margin ($/1000 ewes)			17709.9
Gross margin/ewe ($/ewe)			17.71

* Net of selling costs

5. *Beef cattle (weaner production, 100 cows)*

Income			
Calving rate	95%		
Weaning rate	84%		
Adult mortality	2%		
Bull requirement	3%		
Bull cull rate	25%		
Cow cull rate	12%		
Cow cull age	9 years		
Stock sales:		Unit price*	Total
Cast-for-age bull	1	839.62	839.6
Cast-for-age cow	12	441.71	5300.5
Weaner heifers	18	311.04	5598.7
Weaner steers	39	271.55	10590.5
Total income			22329.5
Variable cost:			
Parasite control	201	1.96	394.0
Antibiotic	100	1.24	124.0
Veterinary(vaccines, etc...)	101	0.41	41.4
Pregnancy testing	100	2.15	215.0
Growth promotants	39	3.76	146.6
Sundry expenses	201	2.81	564.8
Bought-in bull	1	2403.09	2403.1
Total variable cost			3888.9
Gross margin ($/100 cows)			18440.6
Gross margin/cow ($/cow)			184.41

* Net of selling costs

6. *Beef cattle (yearling production, 100 cows)*

Income			
Calving rate	95%		
Weaning rate	84%		
Adult mortality	2%		
Bull requirement	3%		
Bull cull rate	25%		
Cow cull rate	12%		
Cow cull age	9 years		
Stock sales:		Unit price*	Total
Cast-for-age bull	1	839.62	839.6
Cast-for-age cow	12	441.71	5300.5
Yearling heifers	18	406.75	7321.5
Yearling steers	39	321.03	12520.2
Total income			25981.8
Variable cost:			
Parasite control	201	1.96	394.0
Antibiotic	142	1.24	176.1
Veterinary(vaccines, etc...)	253	0.41	103.7
Pregnancy testing	100	2.15	215.0
Growth promotants	39	3.76	146.6
Bought-in bull	1	2403.09	2403.1
Sundry expenses	201	2.81	564.8
Total variable cost			4003.3
Gross margin ($/100 cows)			21978.5
Gross margin/cow ($/cow)			219.79

* Net of selling costs

7. *Beef cattle (cross-bred vealer production, 100 straight-bred cows)*

Income			
Calving rate	95%		
Weaning rate	84%		
Adult mortality	2%		
Bull requirement	3%		
Bull cull rate	25%		
Cow cull rate	12%		
Cow cull age	9 years		
Stock sales:		Unit price*	Total
Cast-for-age bull	1	839.62	839.6
Cast-for-age cow	12	441.71	5300.5
Vealers	80	292.84	23427.2
Total income			29567.3
Variable cost:			
Parasite control	100	1.96	196.0
Antibiotic	100	1.24	124.0
Veterinary(vaccines, etc...)	253	0.41	103.7
Pregnancy testing	100	2.15	215.0
Growth promotants	80	3.76	300.8
Bought-in bull	1	2403.09	2403.1
Sundry expenses	201	2.81	564.8
Total variable cost			3907.4
Gross margin ($/100 cows)			25659.9
Gross margin/cow ($/cow)			256.60

* Net of selling costs

8. *Beef cattle (Cross-bred vealer production, 100 cross-bred cows)*

Income			
Calving rate	98%		
Weaning rate	95%		
Adult mortality	2%		
Bull requirement	3%		
Bull cull rate	25%		
Cow cull rate	12%		
Cow cull age	9 years		
Stock sales:		Unit price*	Total
Cast-for-age bull	1	839.62	839.6
Cast-for-age cow	12	441.71	5300.5
Vealers	93	312.07	29022.5
Total income			35162.6
Variable cost:			
Parasite control	100	1.96	196.0
Antibiotic	100	1.24	124.0
Veterinary(vaccines, etc...)	243	0.41	99.6
Pregnancy testing	100	2.15	215.0
Growth promotants	93	3.76	349.7
Bought-in bull	1	2403.09	2403.1
Sundry expenses	196	2.81	528.3
Total variable cost			3915.7
Gross margin ($/100 cows)			31246.9
Gross margin/cow ($/cow)			312.47

* Net of selling costs

9. *Beef cattle (winter fatteners production, 100 steers)*

Income			
Mortality	2%		
Stock sales:		Unit price*	Total
Steers	98	337.41	33066.2
Total income			33066.2
Variable cost:			
Parasite control	100	1.96	196.0
Antibiotic	100	1.24	124.0
Growth promotants	100	3.76	376.0
Bought-in steers	100	287.69	28769.0
Sundry expenses	100	2.81	281.0
Total variable cost			29746.0
Gross margin ($/100 steers)			3320.2
Gross margin/cow ($/steer)			33.20

* Net of selling costs

10. *Beef cattle (summer fattener production)*

Income			
Mortality	2%		
Stock sales:		Unit price*	Total
Steers	98	357.38	35023.2
Total income			35023.2
Variable cost:			
Antibiotic	100	1.24	124.0
Growth promotants	100	3.76	376.0
Bought-in steers	100	287.69	28769.0
Sundry expenses	100	2.81	281.0
Total variable cost			29550.0
Gross margin ($/100 steers)			5473.2
Gross margin/steer ($/steer)			54.73

* Net of selling costs

Appendix 15

Table A15.1 : Case farm five - Crop activity budgets

1. Wheat1

Revenue

Yield = 1.37 t/ha
Price = $124.79 /t
Gross revenue =1.37 * 124.79
= *$170.96*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	8.19
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	17.05
Equipment & plant repair and maintenance	5.71
Harvest (contract)	42.43
Chemicals:	36.37
Fertiliser:	44.42
Levies	0.66
Cartage: 1.37t/ha @ $1.29 /t	1.77
Insurance (.74%)	1.27
Sundry costs	5.23
Total variable cost	$192.78/ha
	Gross margin = = $-21.82 /ha

2. Wheat2

Revenue

Yield = 1.24 t/ha
Price = $143.99 /t
Gross revenue = 1.24 * 143.99
= *$ 178.55*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	7.28
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	15.17
Equipment & plant repair and maintenance	5.08
Harvest (contract)	37.73
Chemicals:	30.34
Fertiliser:	38.63
Levies	0.59
Cartage: 1.23t/ha @ $1.29 /t	1.59
Insurance (0.74%)	1.31
Sundry costs	4.54
Total variable cost	$171.94/ha
	Gross margin = $6.61 /ha

3. *Wheat3*

Revenue

Yield = 1.07 t/ha
Price = $124.79 /t
Gross revenue = 1.07 * 124.79
= *$133.53*

Variable costs Item	Cost $/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	8.19
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	17.05
Equipment & plant repair and maintenance	5.71
Harvest (contract)	42.43
Chemicals:	36.37
Fertiliser:	44.42
Levies	0.51
Cartage: 1.07t/ha @ $1.29 /t	1.38
Insurance (.74%)	0.99
Sundry costs	5.23
Total variable cost	$191.96/ha
	Gross margin = $-58.43 /ha

4. *Wheat4*

Revenue

Yield = 0.96 t/ha
Price = $143.99 /t
Gross revenue = 0.96 * 143.99
= *$ 138.23*

Variable costs Item	Cost $/ha
Seed + treatment: 100 kg/ha @ 0.179 $/kg	17.93
Land preparation	7.28
Cultivate and fertilise	3.92
Spray (2)	7.83
Sow	15.17
Equipment & plant repair and maintenance	5.08
Harvest (contract)	37.73
Chemicals:	30.34
Fertiliser:	38.63
Levies	0.46
Cartage: 0.96t/ha @ $1.29 /t	1.24
Insurance (0.74%)	1.02
Sundry costs	4.54
Total variable cost	$171.17/ha
	Gross margin = $-32.94 /ha

5. *Barley*

Revenue

Yield = 1.66 t/ha
Price = $148.59 /t
Gross revenue = 1.66 * 148.59
= *$246.66*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 80 kg/ha @ 0.188 $/kg	15.02
Land preparation	8.30
Cultivate and fertilise	3.98
Spray (2)	7.97
Sow	17.55
Equipment & plant repair and maintenance	5.81
Harvest (contract)	43.24
Chemicals:	23.19
Fertiliser:	22.20
Levies	0.88
Cartage 1.66 t/ha @ $1.29 /t	2.14
Insurance (0.74%)	1.83
Sundry costs	4.37
Total variable cost	$156.48/ha
	Gross margin = $90.18/ha

6. *Linseed1* (*Sown May-June, harvested November*

Revenue

Yield = 1.09 t/ha
Price = 323.05 $/t
Gross revenue = 1.09 * 323.05
= *$352.12*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.93 /kg	32.55
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	26.58
Fertiliser:	23.46
Levies	1.16
Seed cleaning/testing	37.81
Insurance (0.41%)	1.44
Cartage (contract) 1.09 t/ha @ $1.02 /t	1.11
Sundry expenses	1.42
Total variable cost	$194.69/ha
	Gross margin = $157.43/ha

7. *Linseed2* *(Sown August, harvested February)*

Revenue

Yield = 0.91 t/ha
Price = $336.29 /t
Gross revenue = 0.91 * 336.29
= *$306.02*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.93 /kg	32.55
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.11
Harvest (contract)	30.25
Chemicals:	20.36
Fertiliser:	19.57
Levies	1.16
Seed cleaning/testing	31.57
Insurance (.41%)	1.25
Cartage (contract) 0.91 t/ha @ $1.02 /t	0.93
Sundry expenses	1.32
Total variable cost	$177.30/ha
	Gross margin = $128.72/ha

8. *Canola1* *(Sown May-June, harvested November)*

Revenue

Yield = 1.86 t/ha
Price = $386.23 /t
Gross revenue = 1.86 * 386.23
= *$718.39*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate herbicide	3.36
Aerial spray (2)	16.29
Sow	14.63
Equipment & plant repair and maintenance	11.24
Harvest (contract plus windrowing)	64.08
Chemicals:	34.50
Fertiliser:	33.36
Levies	1.16
Insurance (.87%)	6.25
Cartage (contract) 1.86 t/ha @ $1.25 /t	2.33
Sundry expenses	6.36
Total variable cost	$219.79/ha
	Gross margin $498.60/ha

9. *Canola2* (*Sown August/September, harvested January/February*)

Revenue

Yield = 1.66 t/ha
Price = 392.88 $/t
Gross revenue = 1.66 * 392.88
= *$652.18*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 6 kg/ha @ $3.19/kg	19.18
Land preparation	7.05
Incorporate Herbicide	3.05
Aerial Spray (2)	14.80
Sow	13.29
Equipment & plant repair and maintenance	10.21
Harvest (contract plus windrowing)	58.21
Chemicals:	30.74
Fertiliser:	29.46
Levies	1.16
Insurance (.87%)	5.67
Cartage (contract) 1.66 t/ha @ $1.25 /t	2.08
Sundry Expenses	4.24
Total variable cost	$199.14/ha
	Gross margin = $453.04/ha

10. *Linola*

Revenue

Yield = 0.63 t/ha
Price =$325.19 /t
Gross revenue = 0.63 * 325.19
= *$204.87*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 35 kg/ha @ $0.91 /kg	31.90
Land preparation	5.72
Incorporate	2.52
Aerial Spray (2)	13.02
Sow	11.97
Equipment & plant repair and maintenance	5.68
Harvest (contract)	30.25
Chemicals:	25.38
Fertiliser:	21.92
Levies	1.16
Seed cleaning/testing	21.85
Insurance (0.87%)	1.78
Cartage: 0.63 t/ha @ $1.02 /t	0.64
Sundry expenses	2.37
Total variable cost	$176.16/ha
	Gross margin = $28.71 /ha

11. Oats (Grain)

Revenue

Yield = 1.52 t/ha
Price = $128.57/t
Gross revenue = 1.52 * 128.57
= *$195.43*

Variable costs

Item	Cost
	$/ha
Seed: 80 kg/ha @ $0.21 /kg	16.85
Land preparation	5.75
Incorporate	2.78
Spray (2)	5.24
Sow	10.84
Equipment & plant repair and maintenance	3.65
Harvest (contract)	26.84
Chemicals:	13.56
Fertiliser:	18.26
Levies	0.73
Cartage: 1.52 t/ha @ $0.82 /t	1.25
Sundry expenses	1.19
Total variable cost	$106.94/ha
	Gross margin = $88.49/ha

12. Oats (Grazing)

Variable costs

Item	Cost
	$/ha
Seed: 90 kg/ha @ $0.35 /kg	31.50
Land preparation	3.22
Spray	5.43
Sow	6.32
Equipment & plant repair and maintenance	3.18
Chemicals:	0.00
Fertiliser	10.13
Sundry expenses	1.95
Total variable cost	$61.73/ha

13. Triticale

Revenue

Yield = 1.86 t/ha
Price = $121.69 /t
Gross revenue = 1.86 * 121.69
= *$226.34*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 100 kg/ha @ $0.183 /kg	18.35
Land preparation	7.09
Incorporate	3.92
Spray, grd (2)	8.21
Sow	13.33
Equipment and plant repair and maintenance	6.42
Harvest (contract)	39.01
Chemicals:	34.83
Fertiliser:	46.56
Levies	0.89
Insurance (.67%)	1.52
Cartage: 1.86 t/ha @$0.96 /t	1.79
Sundry expenses	4.71
Total variable cost	$186.63/ha
	Gross margin = $39.71/ha

14. Field Peas

Revenue

Yield = 1.06 t/ha
Price = $194.56 /t
Gross revenue = 1.06 * 194.56
= *$206.23*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 110 kg/ha @ $0.285 /kg	31.43
Land preparation	11.52
Cultivate and fertilise	5.19
Spray, grd	2.67
Sow	9.66
Equipment and plant repair and maintenance	7.38
Harvest (contract)	26.88
Chemicals:	22.74
Fertiliser:	13.42
Levies	0.90
Insurance (.52%)	1.07
Cartage: 1.06 t/ha @ $0.81 /t	0.86
Sundry expenses	2.31
Total variable cost	$136.03/ha
	Gross margin = $70.20/ha

15. Lupins (*Sown in May, harvested in November*)

Revenue

Yield = 0.89t/ha
Price = $165.95 /t
Gross revenue = 0.89 * 165.95
= *$147.70*

Variable costs

Item	Cost
	$/ha
Seed + treatment: 80 kg/ha @ $0.22 /kg	17.46
Land preparation	12.88
Cultivate and fertilise	4.24
Spray, grd	4.02
Sow	8.88
Equipment and plant repair and maintenance	6.83
Harvest (contract)	24.78
Chemicals:	16.99
Fertiliser (DAP):	18.23
Levies	0.90
Insurance (0.52%)	0.77
Cartage (0.89 t/ha @ $0.74/t)	0.66
Sundry expenses	1.56
Total variable cost	$118.20/ha
	Gross margin = $29.50/ha

16. Clover

Variable Costs

Item	Cost
	$/ha
Seed: 10 kg/ha @ $1.57 /kg	15.67
Land preparation	7.05
Spray	0.00
Sow	8.83
Equipment & plant repair and maintenance	3.89
Chemicals:	10.52
Fertiliser (top dressing):	15.60
Sundry expenses	3.87
Total variable cost	$65.43/ha

18. Turnips

Variable costs

Item	Cost
	$/ha
Seed : 2.5 kg/ha @ $2.12 /kg	5.30
Land preparation	8.35
Sow	7.83
Equipment and plant repair and maintenance	2.46
Chemicals:	0.00
Fertiliser:	14.37
Total variable cost	$38.31/ha

19. Ryegrass seed

Revenue

Yield = 0.69 t/ha
Price = $886.00 /t
Gross revenue = 0.69 * 886.00
= *$611.34*

Variable costs

Item		Cost
		$/ha
Seed + treatment	40 kg/ha @ $1.08 /kg	43.08
Land preparation		9.57
Cultivate and fertilise		6.52
Spray (2)		10.81
Sow		11.83
Equipment & plant repair and maintenance		5.71
Harvest (contract plus windrowing)		47.53
Chemicals:		54.77
Fertiliser:		43.70
Levies		2.25
Seed cleaning/testing		86.25
Cartage: 0.69t/ha @ $0.89/t		0.58
Insurance (0.68%)		4.16
Sundry expenses		23.78
Total variable cost		$350.54/ha
		Gross margin = $260.80/ha

Table A15.2 : Case farm four - Livestock enterprise budgets

1. Merino breeding (1000 ewes)

Sheep:			
Lambing rate	96%		
Weaning rate	85%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
Ewe cull age	5 years		
Stock sales:		$/hd*	Total
Wether lambs	408	22.34	9114.7
Ewe hoggets	95	19.90	1890.5
Cast-for-age ewes	225	19.59	4407.8
Cast-for-age rams	8	15.67	125.4
Sub total			15538.4
Wool production:		kg/hd ($/kg)	
Ewes	980	4.19 (3.88)	15932.1
Ewe hoggets	313	3.75 (5.82)	6831.2
Rams	30	6.60 (4.21)	833.6
Sub total			23596.9
Total income			39135.3
Variable cost:			
Shearing	1373	3.54	4860.4
Crutching/mulesing	2120	1.24	2628.8
Parasite control	2303	1.08	2487.2
Veterinary(vaccines, etc...)	3546	0.19	673.7
Sundry expenses	1373	0.29	398.2
Bought-in rams	8	372.97	2983.8
Total variable cost			14032.1
Gross margin ($/1000 ewes)			25103.2
Gross margin/ewe ($/ewe)			25.10

* Net of selling costs

2. *First Cross Lambs (1000 ewes)*

Sheep:			
Lambing rate	118%		
Weaning rate	98%		
Adult mortality	4%		
Ram requirement	3%		
Ram cull rate	25%		
Ewe cull rate	18%		
Ewe cull age	9 years		
Stock sales:		$/hd*	Total
First cross wether lambs	578	10.39	6005.4
First cross ewe lambs	578	18.50	10693.0
Cast-for-age ewes	180	19.59	3526.2
Cast-for-age rams	8	15.67	125.4
Sub total			20350.0
Wool production:		kg/hd ($/kg)	
Ewes	980	1.87 (2.31)	4233.3
Rams	30	5.06 (2.94)	446.3
Sub total			4679.6
Total income			25029.6
Variable cost:			
Shearing	1040	3.54	3681.6
Crutching/mulesing	2404	1.24	2981.0
Parasite control	2528	1.08	2730.2
Veterinary(vaccines, etc...)	4608	0.19	875.5
Sundry expenses	1040	0.29	301.6
Bought-in rams	8	172.80	1382.4
Total variable cost			11952.3
Gross margin ($/1000 ewes)			13077.3
Gross margin/ewe ($/ewe)			13.08

* Net of selling costs

3. *Merino wethers (1000 wethers)*

Sheep:			
Mortality	4%		
Wether cull rate	17%		
Wether cull age	6 years		
Stock sales:		Unit price*	Total
Cast-for-age wether	163	6.37	1038.3
Sub total			1038.3
Wool production:		kg/hd ($/kg)	
wethers	960	4.95 (2.40)	11404.8
Sub total			11404.8
Total income			12443.1
Variable cost:			
Shearing	960	2.97	2851.2
Crutching/mulesing	1000	1.24	1240.0
Parasite control	1000	1.08	1080.0
Sundry expenses	960	0.29	278.4
Bought-in wethers	202	22.76	4597.5
Total variable cost			10047.1
Gross margin ($/1000 wethers)			2396.0
Gross margin/wether ($/wether)			2.40

* Net of selling costs

4. *Merino ewes plus wethers (1000 ewes)*

Sheep:			
Lambing rate	96%		
Weaning rate	85%		
Adult mortality	2%		
Ram requirement	3%		
Ram cull rate	25%		
wether cull age	5 years		
Ewe cull age	6 years		
Stock sales:		$/hd*	Total
Ewe hoggets	306	19.90	6089.4
Cast-for-age wether	82	6.37	522.3
Cast-for-age ewes	225	19.59	4407.8
Cast-for-age rams	8	15.67	125.4
Sub total			11144.9
Wool production:		kg/hd ($/kg)	
Ewes	980	4.19 (3.88)	15932.1
Ewe hoggets	102	3.75 (5.82)	2226.2
Wethers	408	4.95 (2.40)	4847.0
Rams	30	6.60 (4.21)	833.6
Sub total			23838.9
Total income			34983.8
Variable cost:			
Shearing	1520	3.54	5380.8
Crutching/mulesing	2020	1.24	2504.8
Parasite control	1990	1.08	2149.2
Veterinary(vaccines, etc...)	3920	0.19	744.8
Sundry expenses	1520	0.29	440.8
Bought-in rams	8	372.97	2983.8
Total variable cost			14204.2
Gross margin ($/1000 ewes)			20779.6
Gross margin/ewe ($/ewe)			20.78

* Net of selling costs

5. *Beef Cattle (Weaner production, 100 cows)*

Income			
Calving rate	85%		
Weaning rate	90%		
Adult mortality	2%		
Bull requirement	3%		
Bull cull rate	25%		
Cow cull rate	12%		
Cow cull age	9 years		
Stock sales:		$/hd*	Total
Cast-for-age bull	1	615.20	615.2
Cast-for-age cow	12	388.43	4661.2
Weaner heifers	18	277.60	4996.8
Weaner steers	39	298.96	11659.4
Total income			21932.6
Variable cost:			
Parasite control	188	1.96	368.5
Antibiotic	100	1.24	124.0
Veterinary(vaccines, etc...)	88	0.41	36.1
Pregnancy testing	100	2.15	215.0
Growth promotants	39	3.76	146.6
Sundry expenses	188	2.81	528.3
Bought-in bull	1	1093.95	1093.9
Total variable cost			2512.5
Gross margin ($/100 cows)			19420.1
Gross margin/cow ($/cow)			194.20

* Net of selling costs

6. *Beef cattle (yearling production, 100 cows)*

Income			
Calving rate	85%		
Weaning rate	90%		
Adult mortality	2%		
Bull requirement	3%		
Bull cull rate	25%		
Cow cull rate	12%		
Cow cull age	9 years		
Stock sales:		$/hd*	Total
Cast-for-age bull	1	615.20	615.2
Cast-for-age cow	12	388.43	4661.2
Yearling heifers	18	418.27	7528.9
Yearling steers	39	336.83	13136.4
Total income			25941.7
Variable cost:			
Parasite control	188	1.96	368.5
Antibiotic	142	1.24	176.1
Veterinary(vaccines, etc...)	227	0.41	93.1
Pregnancy testing	100	2.15	215.0
Growth promotants	39	3.76	146.6
Bought-in bull	1	1093.95	1093.9
Sundry expenses	188	2.81	528.3
Total variable cost			2621.5
Gross margin ($/100 cows)			23320.2
Gross margin/cow ($/cow)			233.20

* Net of selling costs

7. *Beef cattle (cross-bred vealer production, 100 straight-bred cows)*

Income			
Calving rate	85%		
Weaning rate	90%		
Adult mortality	2%		
Bull requirement	3%		
Bull cull rate	25%		
Cow cull rate	12%		
Cow cull age	9 years		
Stock sales:		$/hd*	Total
Cast-for-age bull	1	615.20	615.2
Cast-for-age cow	12	388.43	4661.2
Vealers	85	356.97	30342.5
Total income			35618.9
Variable cost:			
Parasite control	100	1.96	196.0
Antibiotic	100	1.24	124.0
Veterinary(vaccines, etc...)	227	0.41	93.1
Pregnancy testing	100	2.15	215.0
Growth promotants	85	3.76	319.6
Bought-in bull	1	1093.95	1093.9
Sundry expenses	188	2.81	528.3
Total variable cost			2569.9
Gross Margin ($/100 cows)			33049.0
Gross Margin/cow ($/cow)			330.49

* Net of selling costs

8. *Beef cattle (cross-bred vealer production, 100 cross-bred cows)*

Income			
Calving rate	98%		
Weaning rate	95%		
Adult mortality	2%		
Bull requirement	3%		
Bull cull rate	25%		
Cow cull rate	12%		
Cow cull age	9 years		
Stock sales:		Unit price*	Total
Cast-for-age bull	1	615.20	615.2
Cast-for-age cow	12	388.43	4661.2
Vealers	93	398.97	37104.2
Total income			42380.6
Variable cost:			
Parasite control	100	1.96	196.0
Antibiotic	100	1.24	124.0
Veterinary(vaccines, etc...)	243	0.41	99.6
Pregnancy testing	100	2.15	215.0
Growth promotants	93	3.76	349.7
Bought-in bull	1	1093.95	1093.9
Sundry expenses	196	2.81	528.3
Total variable cost			2606.5
Gross Margin ($/100 cows)			39774.1
Gross Margin/cow ($/cow)			397.74

* Net of selling costs

9. *Beef cattle (winter fatteners production, 100 steers)*

Income			
Mortality	2%		
Stock sales:		Unit price*	Total
Steers	98	337.41	33066.2
Total income			33066.2
Variable cost:			
Parasite control	100	1.96	196.0
Antibiotic	100	1.24	124.0
Growth promotants	100	3.76	376.0
Bought-in steers	100	307.54	30754.0
Sundry expenses	100	2.81	281.0
Total variable cost			31731.0
Gross margin ($/100 steers)			1335.2
Gross margin/cow ($/steer)			13.35

* Net of selling costs

10. *Beef cattle (summer fattener production)*

Income			
Mortality	2%		
Stock sales:		Unit price*	Total
Steers	98	354.86	34776.3
Total income			34776.3
Variable cost:			
Antibiotic	100	1.24	124.0
Growth promotants	100	3.76	376.0
Bought-in steers	100	307.54	30754.0
Sundry expenses	100	2.81	281.0
Total variable cost			31535.0
Gross margin ($/100 steers)			3241.3
Gross margin/steer ($/steer)			32.41

* Net of selling costs

Appendix 16

Table A16.1 : Historical gross margins, $/ha

Year	Wheat1	Wheat2	Triticale	Barley	Sunflower	Linola	Linseed1
1970	229.08	345.12	299.15	99.43	322.98	497.84	508.44
1971	225.36	337.31	133.69	108.43	212.32	371.16	352.79
1972	111.02	213.07	76.48	63.06	247.04	283.50	261.34
1973	139.04	214.23	257.63	140.60	397.73	572.72	629.70
1974	265.90	336.64	216.46	142.09	356.04	664.07	586.73
1975	222.19	274.83	157.68	149.15	260.95	388.95	356.85
1976	220.71	267.44	183.53	124.81	430.46	395.60	367.46
1977	158.18	196.16	187.47	88.12	288.98	410.20	325.09
1978	344.69	397.21	345.74	136.54	310.64	660.73	557.14
1979	352.90	394.85	140.17	188.66	308.48	363.30	280.14
1980	309.84	324.60	59.25	255.75	263.51	493.36	432.42
1981	321.49	333.83	101.44	174.96	193.98	336.60	310.09
1982	0.59	-26.38	31.97	35.29	190.62	190.22	160.42
1983	457.01	475.61	183.33	233.96	366.99	373.16	283.34
1984	369.04	369.69	149.56	129.38	475.84	596.72	479.34
1985	301.21	315.32	232.47	132.31	226.06	642.63	543.84
1986	329.72	381.10	236.52	179.07	212.61	364.55	310.38
1987	261.81	320.16	123.58	110.92	472.01	332.62	313.32
1988	330.62	408.93	155.35	238.02	509.50	747.16	546.53
1989	319.90	402.14	282.47	167.01	488.37	319.38	390.07
1990	117.71	224.29	201.99	89.67	275.65	337.50	397.08
1991	199.34	256.96	276.53	72.53	480.22	365.66	439.73
1992	254.65	331.17	204.65	119.74	205.23	469.98	619.03
1993	128.57	237.24	152.13	132.95	156.85	427.75	332.83
1994	110.09	208.61	130.13	65.61	167.54	551.51	364.68
Mean	**243.23**	**301.60**	**180.77**	**135.12**	**312.82**	**446.28**	**405.95**
Std deviation	**104.93**	**101.01**	**76.80**	**55.43**	**111.91**	**138.61**	**123.68**

Table A16.1 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Canary Seed	Ryegrass seed	Field peas	Lupins
1970	511.71	123.77	460.00	411.15	-23.82	-98.53	153.51	105.82
1971	316.05	126.28	397.77	341.55	-17.46	-96.91	199.96	89.22
1972	236.10	134.16	293.31	248.93	-16.67	-81.71	113.67	89.86
1973	659.00	158.86	418.09	384.63	9.79	-70.18	245.96	166.00
1974	639.95	167.80	529.92	500.85	22.35	-60.04	201.13	144.36
1975	417.89	187.62	456.66	435.46	28.25	-34.97	234.56	165.17
1976	429.35	196.76	507.70	492.02	18.13	-13.42	120.39	87.07
1977	388.58	162.71	318.43	300.19	15.52	-16.12	176.07	84.04
1978	631.36	160.63	456.10	433.17	9.67	-5.87	164.83	151.23
1979	348.89	168.16	473.28	472.39	10.86	10.06	172.23	155.37
1980	544.80	260.34	334.05	375.02	18.92	4.49	289.10	222.06
1981	392.23	188.48	361.43	373.60	15.77	5.87	150.37	176.63
1982	243.16	162.97	106.72	151.42	-8.70	-113.94	92.37	212.98
1983	388.89	189.37	504.48	527.65	31.08	40.67	340.10	207.98
1984	594.79	197.67	544.32	554.20	29.18	42.03	182.33	131.33
1985	646.84	283.90	549.51	555.41	22.98	80.33	134.85	134.14
1986	374.05	326.13	436.78	439.79	24.15	62.60	251.27	167.66
1987	385.98	192.75	407.00	419.80	23.80	124.44	310.49	87.93
1988	648.56	234.96	610.74	654.83	37.71	168.92	261.00	135.55
1989	475.74	276.18	505.25	493.43	39.93	91.52	207.93	107.05
1990	442.46	207.90	384.01	329.44	16.49	515.19	201.81	49.58
1991	499.38	228.23	293.76	230.92	1.19	504.11	75.89	91.28
1992	660.29	183.30	499.50	449.82	-5.04	566.15	182.92	186.27
1993	348.58	51.55	425.10	364.64	6.07	728.61	116.32	107.63
1994	389.43	98.23	274.01	215.93	10.43	751.02	176.60	153.88
Mean	**464.56**	**186.75**	**421.92**	**407.05**	**12.82**	**124.17**	**190.23**	**136.40**
Std deviation	**132.21**	**60.16**	**110.10**	**117.98**	**16.90**	**263.38**	**66.92**	**45.74**

Table A16.2 : Case farm one: Subjectively corrected gross margins, $/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	98.99	98.39	116.97	19.62	438.55	466.60
1971	92.75	90.23	26.59	21.70	268.42	274.22
1972	-6.51	-3.97	7.05	-16.59	159.90	160.74
1973	15.08	1.24	136.13	49.96	458.68	551.20
1974	125.84	98.67	122.57	48.00	468.23	492.47
1975	84.10	51.81	91.51	52.40	241.52	257.68
1976	81.46	45.76	102.91	26.82	217.13	244.77
1977	23.03	-11.62	97.19	-9.84	232.72	222.82
1978	192.13	149.31	188.35	28.28	544.25	528.10
1979	197.96	148.97	79.48	74.77	146.64	144.38
1980	156.09	96.55	53.67	136.49	268.95	300.06
1981	165.73	103.92	59.19	65.08	124.42	151.85
1982	-144.52	-199.68	23.52	-82.90	-71.29	-54.05
1983	292.82	222.96	132.34	124.49	106.12	112.18
1984	209.88	137.88	100.00	26.28	371.60	369.37
1985	149.54	90.16	126.27	30.18	489.79	485.94
1986	179.55	136.95	101.95	73.39	208.53	210.12
1987	120.14	87.38	66.08	20.29	155.07	184.61
1988	187.17	158.34	98.99	144.16	519.78	471.35
1989	183.27	157.21	179.89	76.60	136.34	226.95
1990	0.04	4.17	78.25	2.60	193.28	335.17
1991	67.39	39.13	149.44	-11.00	194.53	333.76
1992	118.56	95.45	75.43	29.02	374.51	591.58
1993	2.75	7.30	43.82	38.45	409.08	270.29
1994	-11.95	-10.86	30.27	-19.72	450.69	270.67
Mean	**103.25**	**71.83**	**91.51**	**37.94**	**284.30**	**304.11**
Std deviation	**95.14**	**84.62**	**47.05**	**50.83**	**158.20**	**158.35**

Table A16.2 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Field peas	Lupins
1970	411.10	37.11	463.02	384.01	113.44	229.11
1971	233.04	31.44	354.15	279.73	184.30	182.64
1972	146.27	17.67	188.20	135.11	59.52	150.61
1973	500.72	20.85	338.51	273.03	239.32	346.90
1974	445.28	11.79	428.47	353.70	178.94	277.79
1975	237.79	18.11	446.14	375.98	223.04	318.75
1976	230.33	8.36	503.10	430.15	58.24	87.19
1977	216.01	-14.56	175.53	132.05	119.05	78.58
1978	477.76	-1.92	393.35	326.42	110.84	291.00
1979	133.65	-6.34	429.80	369.26	107.13	253.66
1980	296.35	-6.83	202.09	178.92	233.38	335.94
1981	150.00	-23.03	259.24	230.94	82.23	286.69
1982	-3.85	-91.52	-120.16	-104.38	-31.00	278.23
1983	115.00	-7.85	444.13	390.52	340.23	351.72
1984	352.19	2.70	482.22	419.47	122.16	267.41
1985	445.63	63.92	554.80	489.15	110.21	322.19
1986	169.65	106.65	446.30	386.92	313.95	390.77
1987	172.06	6.95	373.28	322.62	248.50	141.94
1988	428.29	20.66	559.70	502.77	184.12	229.50
1989	223.24	63.60	554.21	476.24	168.20	211.21
1990	299.29	39.98	330.40	261.03	201.73	63.56
1991	316.23	35.47	60.56	9.58	22.31	162.33
1992	523.77	32.79	496.34	408.80	117.39	392.39
1993	228.02	-49.64	361.50	285.39	80.04	158.45
1994	244.63	-14.57	185.73	129.31	255.86	265.25
Mean	**279.70**	**12.07**	**356.82**	**297.87**	**153.72**	**242.95**
Std deviation	**137.52**	**38.66**	**166.01**	**150.42**	**89.98**	**94.92**

Table A16.3 : Case farm two: Subjectively corrected gross margins, $/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	4.83	30.58	-9.18	53.62	120.72	161.19
1971	3.66	26.32	-81.63	59.45	46.13	61.85
1972	-61.95	-39.91	-101.11	4.89	-2.60	0.77
1973	-56.76	-39.83	-7.20	67.80	130.65	182.10
1974	12.90	26.11	-21.98	65.02	135.76	150.00
1975	-17.96	-7.52	-48.18	63.33	36.38	40.25
1976	-19.31	-11.51	-37.20	34.35	26.67	27.00
1977	-55.95	-50.14	-38.62	-3.46	34.36	23.81
1978	52.14	58.89	34.43	46.50	172.72	190.21
1979	53.77	57.61	-57.35	75.97	-2.21	-24.17
1980	18.90	18.95	-93.11	98.60	52.53	40.66
1981	25.66	24.06	-75.36	60.45	-11.11	-27.33
1982	-163.30	-174.04	-109.02	-88.35	-97.03	-140.08
1983	101.95	101.61	-25.98	118.95	-17.58	-56.39
1984	43.93	43.03	-47.47	34.47	99.63	82.19
1985	10.98	13.49	-16.18	44.48	151.99	158.97
1986	43.28	50.15	-29.50	102.48	27.76	24.46
1987	6.47	17.14	-66.77	39.45	1.92	-2.47
1988	48.94	65.24	-46.11	143.61	161.08	140.09
1989	39.91	61.56	21.33	70.63	-10.33	0.80
1990	-57.12	-33.97	-46.75	25.97	13.24	96.00
1991	-33.59	-17.68	4.87	6.93	12.74	72.40
1992	6.32	23.13	-47.59	56.53	91.89	224.15
1993	-45.51	-27.11	-71.36	67.26	107.43	66.76
1994	-59.48	-42.15	-80.94	4.88	125.91	55.27
Mean	**-3.89**	**6.96**	**-43.92**	**50.15**	**56.35**	**61.94**
Std deviation	**54.92**	**55.05**	**36.75**	**45.71**	**69.08**	**86.34**

Table A16.3 (cont'd)

Year	Linseed2	Sunflower	Canola1	Canola2	Field Peas
1970	116.61	211.66	278.38	228.11	48.72
1971	24.98	129.40	191.08	142.93	102.84
1972	-26.95	133.96	56.75	25.07	5.38
1973	141.61	215.06	136.86	102.47	117.03
1974	112.91	184.72	155.18	120.75	73.07
1975	21.89	124.57	208.58	174.34	92.54
1976	7.58	221.40	226.23	193.01	-12.63
1977	7.43	143.16	3.49	-12.41	14.46
1978	158.00	165.88	143.79	114.90	13.45
1979	-34.01	162.20	156.10	135.52	-0.26
1980	36.15	122.59	-10.37	-0.61	38.98
1981	-35.35	65.39	54.04	47.65	-17.51
1982	-134.35	52.57	-203.80	-171.07	-82.41
1983	-51.72	160.30	130.05	121.21	109.45
1984	72.78	278.64	150.60	134.82	17.84
1985	136.84	106.00	221.46	201.59	11.33
1986	5.12	100.03	193.25	170.60	111.31
1987	-15.10	343.61	131.08	116.63	66.76
1988	118.66	323.11	160.76	157.57	25.02
1989	-13.20	304.17	227.02	195.53	32.62
1990	60.38	152.74	102.00	66.68	45.77
1991	44.10	302.49	-97.52	-120.60	-46.63
1992	171.32	85.44	192.19	149.08	5.74
1993	28.35	66.55	106.68	67.85	-21.18
1994	20.08	65.38	26.35	-4.56	31.31
Mean	**38.96**	**168.84**	**117.61**	**94.28**	**31.32**
Std deviation	**74.85**	**86.24**	**109.55**	**98.31**	**50.79**

Table A16.4 : Case farm three: Subjectively corrected gross margins, $/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	48.61	73.26	50.37	93.01	210.19	207.11
1971	45.91	66.26	-38.20	91.84	117.11	97.82
1972	-35.90	-26.32	-59.79	42.41	55.74	32.70
1973	-24.56	-25.82	59.97	138.40	232.31	259.93
1974	64.80	69.58	43.54	134.10	252.33	226.33
1975	28.02	21.04	13.92	141.36	110.23	86.24
1976	26.30	15.18	26.88	103.52	101.60	81.09
1977	-20.44	-41.46	23.99	48.87	111.36	66.32
1978	117.01	118.22	110.63	97.44	287.04	240.50
1979	120.44	116.93	3.29	169.91	67.68	22.60
1980	80.41	60.46	-30.61	272.85	142.07	109.70
1981	88.89	68.16	-17.94	159.22	54.64	28.88
1982	-156.49	-233.65	-56.04	-51.84	-53.17	-89.26
1983	188.65	185.22	52.10	248.47	53.37	2.01
1984	117.03	96.84	21.42	100.04	204.74	150.52
1985	71.85	51.89	51.08	104.40	263.39	217.90
1986	106.07	105.63	26.52	163.28	97.04	62.06
1987	58.37	57.05	-9.41	93.43	67.00	46.20
1988	111.96	127.36	22.12	283.51	290.34	207.79
1989	103.33	123.56	106.82	186.13	53.39	70.59
1990	-30.28	-18.15	4.77	67.17	79.64	132.21
1991	9.93	5.69	73.04	50.13	83.74	131.83
1992	57.11	65.60	3.14	103.99	177.90	280.88
1993	-20.18	-11.18	-26.25	116.03	185.46	94.25
1994	-35.28	-30.42	-37.22	33.95	224.36	97.61
Mean	**44.86**	**41.64**	**16.93**	**119.66**	**138.78**	**114.55**
Std deviation	**72.87**	**82.55**	**45.97**	**75.68**	**88.96**	**90.90**

Table A16.4 (cont'd)

Year	Linseed2	Canola1	Canola2	Field peas	Lupins
1970	181.84	421.57	340.80	9.84	180.39
1971	68.84	312.28	242.10	62.87	143.76
1972	6.87	146.35	106.07	-25.91	126.65
1973	241.39	299.87	245.00	108.22	299.45
1974	206.89	395.15	335.00	64.61	244.01
1975	75.36	406.65	337.45	98.27	284.02
1976	66.26	466.03	393.64	-25.71	86.67
1977	55.64	134.91	109.13	14.82	79.47
1978	232.97	355.23	295.00	8.25	258.27
1979	12.40	392.97	337.70	5.83	236.82
1980	113.38	162.85	158.98	101.00	330.22
1981	18.91	229.56	202.21	-11.41	270.01
1982	-99.63	-163.67	-116.94	-102.06	282.93
1983	2.67	410.03	364.52	183.03	333.54
1984	153.99	449.19	393.64	19.76	230.58
1985	217.38	519.07	449.88	10.72	257.27
1986	47.45	403.32	337.84	159.17	324.46
1987	35.43	332.10	281.73	108.80	119.83
1988	206.28	531.51	481.87	57.63	206.54
1989	57.00	515.58	433.06	57.30	175.27
1990	108.71	288.99	226.16	81.16	50.30
1991	113.24	17.51	-1.97	-52.88	134.36
1992	254.01	457.61	370.30	15.14	344.01
1993	64.53	322.01	254.46	-10.92	142.53
1994	69.08	142.75	96.61	119.92	239.03
Mean	**100.44**	**317.98**	**266.97**	**42.30**	**215.22**
Std deviation	**90.34**	**168.36**	**144.90**	**67.44**	**86.55**

Table A16.5 : Case farm four: Subjectively corrected gross margins, $/ha

Year	Barley1	Barley2	Triticale	Linola	Linseed1
1970	247.63	206.47	-1.46	157.05	369.23
1971	248.54	207.56	-68.71	61.97	192.56
1972	157.25	125.62	-78.93	0.45	90.16
1973	302.99	256.97	28.52	180.07	459.15
1974	295.12	250.11	20.88	200.04	404.53
1975	301.01	255.62	-2.89	52.85	180.65
1976	239.25	200.29	5.41	42.38	170.79
1977	152.99	122.91	-1.26	51.87	148.24
1978	236.73	98.50	69.94	233.41	426.68
1979	334.96	287.14	-13.13	4.52	77.87
1980	464.90	404.29	-33.93	80.11	224.40
1981	314.70	268.76	-29.22	-8.85	85.34
1982	-21.04	-33.50	-58.88	-121.41	-107.25
1983	451.51	391.65	35.30	-15.34	47.99
1984	233.44	195.37	6.20	144.21	288.60
1985	245.25	205.85	22.66	206.24	392.27
1986	350.33	300.01	-7.05	35.41	135.73
1987	233.82	194.91	-24.75	5.83	114.85
1988	511.47	444.63	4.61	237.68	382.28
1989	358.59	307.07	74.47	-5.98	155.94
1990	196.59	161.28	-26.35	23.14	247.14
1991	166.02	133.72	41.32	26.92	253.57
1992	257.60	216.11	-30.01	124.90	487.04
1993	277.23	233.89	-54.10	130.56	185.88
1994	145.36	115.26	-64.18	172.70	191.50
Mean	**268.09**	**226.02**	**-7.42**	**80.83**	**224.21**
Std deviation	**112.11**	**100.97**	**0.41**	**92.59**	**146.58**

Table A16.5 (cont'd)

Year	Linseed2	Canola1	Canola2	Field peas	Canary seed
1970	240.75	424.57	322.61	108.99	269.24
1971	100.06	314.03	218.27	176.33	289.15
1972	23.40	148.97	76.19	57.43	170.57
1973	317.18	328.09	236.69	240.99	299.38
1974	273.52	462.32	355.29	179.55	236.09
1975	107.93	422.75	325.92	226.45	212.17
1976	96.43	496.23	394.33	59.24	177.26
1977	83.26	157.35	86.76	120.30	191.17
1978	304.05	384.52	287.85	107.41	187.23
1979	29.01	428.32	336.88	110.67	148.27
1980	154.72	203.59	146.75	258.72	62.05
1981	36.26	252.96	184.14	87.00	101.31
1982	-113.75	-146.36	-159.42	-25.41	-218.61
1983	15.01	466.14	376.06	355.45	229.26
1984	205.75	510.25	410.14	117.67	304.85
1985	284.95	555.03	452.63	103.76	247.10
1986	72.76	397.02	305.84	311.54	226.67
1987	57.72	338.51	254.87	250.64	275.41
1988	272.12	619.96	520.33	185.37	329.76
1989	83.81	533.33	429.33	170.76	359.47
1990	149.14	294.58	204.99	205.06	214.47
1991	155.79	50.44	-24.69	22.15	132.90
1992	331.50	477.00	364.93	113.93	129.92
1993	94.30	341.76	244.24	82.61	192.92
1994	100.46	132.93	60.54	282.32	247.47
Mean	**139.05**	**343.79**	**256.46**	**156.36**	**200.62**
Std deviation	**113.43**	**177.25**	**159.31**	**93.54**	**113.10**

Table A16.6 : Case farm two: Subjectively corrected gross margins, $/ha

Year	Wheat1	Wheat2	Triticale	Barley	Linola	Linseed1
1970	-8.47	29.64	107.26	92.85	85.41	239.42
1971	-10.14	24.01	-2.84	99.22	19.59	121.50
1972	-88.63	-50.02	-30.07	27.95	-23.41	53.26
1973	-86.15	-49.62	117.90	123.22	94.01	317.52
1974	-1.48	26.75	97.25	119.52	98.25	283.46
1975	-41.66	-12.11	60.07	120.63	10.89	122.02
1976	-43.56	-16.80	76.19	79.80	2.25	123.20
1977	-89.54	-62.16	72.75	24.48	9.04	98.94
1978	45.51	65.72	180.83	90.99	131.15	278.00
1979	46.74	64.70	46.76	144.79	-23.29	59.48
1980	-0.56	19.47	3.53	202.44	24.91	169.22
1981	8.05	25.65	20.35	125.60	-31.09	73.96
1982	-237.75	-216.39	-27.24	-116.16	-106.93	-45.28
1983	105.05	119.49	105.65	212.35	-36.98	54.37
1984	27.94	48.62	68.32	79.40	66.44	206.87
1985	-11.97	12.58	106.45	90.51	112.82	262.60
1986	34.51	55.64	77.62	167.79	3.40	86.96
1987	-10.65	16.73	31.20	80.40	-19.49	83.98
1988	43.35	73.04	69.30	245.94	120.51	262.82
1989	32.19	70.03	173.69	142.00	-30.38	130.02
1990	-82.65	-43.49	50.68	57.91	-9.52	156.13
1991	-62.42	-24.42	139.56	33.08	-10.08	178.19
1992	-9.42	23.58	48.76	100.77	59.90	319.91
1993	-68.34	-37.98	12.23	115.87	73.82	110.98
1994	-85.01	-53.32	-1.61	25.80	89.85	125.86
Mean	**-23.80**	**4.37**	**64.18**	**99.49**	**28.44**	**154.93**
Std deviation	**68.52**	**66.16**	**56.74**	**72.41**	**60.93**	**94.59**

Table A16.6 (cont'd)

Year	Linseed2	Grain oats	Canola1	Canola2	Field peas	Ryegrass seed
1970	182.15	108.17	615.56	532.36	89.37	477.30
1971	82.51	103.80	488.70	424.21	130.58	402.35
1972	28.42	96.81	298.27	274.13	66.30	289.22
1973	261.62	108.87	475.77	430.44	183.43	154.69
1974	233.75	98.03	582.58	533.20	147.38	136.67
1975	99.40	113.95	599.61	527.38	179.40	272.96
1976	101.89	105.26	666.12	588.49	75.84	366.23
1977	79.68	72.38	287.92	281.81	104.13	244.00
1978	226.07	83.57	537.32	481.65	89.93	308.80
1979	51.37	87.09	582.84	527.70	101.61	388.17
1980	157.39	121.27	329.87	340.51	213.44	276.62
1981	69.07	80.55	398.21	379.68	93.34	212.70
1982	-24.89	-0.61	-42.50	36.35	52.51	-286.64
1983	61.84	96.94	602.78	557.55	258.13	238.89
1984	185.68	110.96	643.76	588.56	99.86	168.90
1985	222.46	195.32	724.59	644.19	88.62	235.46
1986	65.82	246.80	596.08	521.63	218.13	117.53
1987	71.30	98.67	513.38	460.12	179.80	247.70
1988	224.84	118.80	737.76	682.98	134.47	271.00
1989	116.77	170.79	728.11	632.32	145.29	235.58
1990	114.00	120.57	462.90	408.22	164.57	372.31
1991	144.62	138.50	158.12	178.33	50.69	305.68
1992	248.92	122.65	655.22	565.09	96.98	375.11
1993	69.99	-7.48	499.54	441.47	90.03	323.36
1994	89.47	46.52	292.94	261.81	230.39	345.83
Mean	**126.57**	**105.53**	**497.42**	**452.01**	**131.37**	**259.22**
Std deviation	**77.49**	**51.94**	**190.46**	**155.41**	**58.23**	**143.81**