

# LINCOLN COLLEGE

(CANTERBURY AGRICULTURAL COLLEGE)

SCHOOL OF AGRICULTURE  
UNIVERSITY OF NEW ZEALAND



## *Land Utilisation on Ashley Dene Farm*

*Appendix to 1937-1946 Survey  
with details of 1946-1948 Seasons*

*R. H. Bevin*

Senior Lecturer in Agriculture

**TO ACCOMPANY TECHNICAL PUBLICATION**

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## CONCLUDING NOTES

This appendix to the report on our Ashley Dene farm 1937-1946 is added to bring the survey up to date and complete the ten year period of the work done.

The condition of the farm at the end of the tenth year is shown on the table of land utilisation. The whole area is in good pasture, sub. clover dominant on the cemetery and main blocks, white clover dominant on the Homestead Block.

The stock carrying for the last two seasons would appear to have reached the maximum on the present quality of the pastures. The work envisaged in the future lies in the modification, by species additions, of the sub-clover stands: To this end the value of lucerne, cocksfoot and phalaris will be studied. The periodic surface cultivation of the sub. clover paddocks in autumn to stimulate autumn and early winter growth appears to be worthy of further testing: and there may be possibilities in the use of Italian, Western Wolths or short rotation Ryegrass in providing heavy yielding temporary pastures of rye and sub. for special purposes.

The 1948 season has provided a severe test for the light land. The autumn and winter rainfall was below normal, while from mid-September to mid-November low rainfall and high winds from the north-west severely checked the pasture growth. With the high temperatures—up to 79° and 82° on occasion—the thin gravels of the main block suffered severely. However, the stock continued to thrive and the lambs have fattened well—sufficiently to be drafted as soon as the works opened in December.

From the survey the figures which are of real significance are:—

Stock carried	April 1, 1937	865 ewes	
"	April 1, 1948	1871 ewes	434 ewe hoggets
Lambs dropped	1937-38	970	
"	1947-48	2484	
Wool clip	1937-38	7601 lbs.	
"	1947-48	21,344 lbs.	

This three-fold increase in production has been achieved under what may be regarded as a reasonable farming policy. The methods which we have finally adopted as being most suitable to the country can be applied by the average farmer on such land.

Our work at Ashley Dene demonstrates clearly the possibilities which our light land offers for the production of meat and wool. The extent of such country in Canterbury renders it imperative that we should do everything possible to encourage its development if the primary productive capacity of the province is to be expanded.

We know by what methods this development can be brought about and it is in the application of those methods by the light land farmers themselves that the full value of our Ashley Dene work will be realised.

R. H. BEVIN, 30/11/48.

## ASHLEY DENE

### SUMMARY OF CROPPING, TOPDRESSING, ETC., FOR YEAR 1946-47. (See p. 19)\*

Paddock	Area Acres	Crop	Paddock	Area Acres	Treatment
8	34	Wheat.	4	10	10 cwt. Lime per acre
8A	32	Harvested for Ryegrass seed.	8A	32	1 cwt. Super 20 " " " "
9	30	Wheat and Oats.	11 (Part)	8	20 " " " "
11 (Part)	8	Newly sown Lucerne Marlb. strain.	13	41	1 cwt. Super
11 (Part)	7	Lucerne harvested for seed (Medicago glutinosa).	14	52	1 " "
16 (Part)	20	Sub. Clover harvested for seed.	15	50	1 " "
17	42	White Clover harvested for seed.	17	42	1 " " 20 cwt. Lime per acre
17A	39	New Grass and Sub. Clover	22	32	1 " "
20	24	Rape followed by greenfeed.			
20A	21	Sub. Clover seed harvested.			
21	39	Turnips and Bitter Blue Lupins.			
22	32	Fallow for Wheat.			
328			267		

#### Summary 1946-47:

Cropping—cultivation (including small seeds.	328 acres
Topdressing of pasture.	267 "
Sub. dominant pasture.	316 "
Phalaris and Sub. pastures.	30 "
Rye/White pastures.	60 "
Fair pasture (was Lucerne).	46 "
Lucerne (including M. Glutinosa).	47 "

Stock: 1824 ewes  
406 ewe hoggets

\*Reference to pages in original publication.

#### NOTES:—

Paddocks 8 and 9: In wheat and oats; 58 acres wheat, 6 acres oats. Wheat yield No. 8: 45 bus./ac.; No. 9: 42 bus./ac.; Oat yield No. 9: 90 bus./ac. No. 8 left in stubble owing to difficulties in cultivating north end where undercurrent was bad. No. 9 ploughed and fallowed for turnips.

Paddock 8A: Windrowed for light crop of ryegrass. Then mowed for hay. Yield 7 bus. ryegrass. Hay 800 bales.

Paddock 9A: Recovered satisfactorily from grass grub attack.

Paddock 16: (20 acres) Saved for sub. seed. Mowed, baled and stacked (1050 bales).

Paddock 20A: Saved for sub. seed. Mowed, baled and stacked (1600 bales).

Paddock 17A: Strip at south end sown with (a) phalaris, (b) African veldt grass.

Special Note: In paddock 20A sub. clover re-established with turnip crop. It was spelled for three weeks after turnips had been eaten off, was grazed until early October and then closed up for seed.

Pastures: All swards in excellent condition.

Lucerne: Newly established stands in very good order.

## ASHLEY DENE

### SUMMARY OF CROPPING, TOPDRESSING, ETC.. FOR YEAR 1947-48. (See p. 19).

Paddock	Area Acres	Crop	Paddock	Area Acres	Treatment
22	32	Wheat—followed by greenfeed.	2	11	10 cwt. Lime per acre
11	7	Lucerne harvested for seed (Medicago glutinosa).	3	15	10 " " " "
20	24	New pasture Phalaris tuberosa and Medicago glutinosa	5	20	1 cwt. Super 10 " " " "
21	39	Rape and Lupins followed by Wheat.	8	34	1 " " 20 " " " "
8	34	Stubble followed by Greenfeed.	12	35	1 " " 20 " " " "
9	30	Stubble followed by Turnips and Lupins	17	42	1 " " " "
7	12	Ploughed for Oats and Lupins	17A	39	1 " " 20 " " " "
			20A	21	1 " " 20 " " " "
178			217		

#### Summary 1947-48:

Cropping—cultivation.	178 acres
Topdressing of pasture.	217 "
Sub. dominant pasture.	358 "
Phalaris and Sub. pastures.	30 "
Phalaris and Sub. and Lucerne pastures.	24 "
Rye/White pastures.	60 "
Fair pastures (was Lucerne).	46 "
Lucerne (including M. glutinosa).	47 "

Stock: 1871 ewes  
434 ewe hoggets

#### NOTES:—

**Paddock 22** in wheat; wheat yield 34 bushels/acre. This wheat was followed by greenfeed oats with the intention of following and sowing to grass in February, 1949. So prolific was the regeneration of sub. clover in the oats that in late March  $\frac{1}{2}$  bushel of ryegrass was sown in order to enable the paddock to carry on in the spring as pasture when the oats have been fed off.

**Paddock 20** newly sown in Phalaris tuberosa and Medicago glutinosa. This is the first of the special lucerne paddocks to be sown with grazing lucerne which, it is hoped may prove useful as a special purpose lamb fattening pasture in January-February in cases where the rape and lupin crop fails. The regeneration of sub. clover in this paddock is very good.

Pasture short as a result of drought conditions, but despite the dry autumn the sub. which struck early in the season carried on with little mortality—evidence of the building up in fertility of the surface soil.

**Paddock 11:** Grazing lucerne saved for seed again.

**LAND UTILISATION AT END OF PERIOD UNDER  
REVIEW, 1st APRIL, 1948**

**Cropping and Cultivation:**

Turnips and Lupins . . . . .	30 acres	(No. 9)
Greenfeed (oats and grass) . . . . .	66 „	(Nos. 22 and 8)
Rape and Lupins followed by wheat . . . . .	39 „	(No. 21)
Ploughed for oats and lupins . . . . .	12 „	(No. 7)

147 „

**Pastures:**

Good sub. dominant pastures . . . . .	358 „	(Nos. 12, 13, 14, 15, 16, 17, 19, 20A)
Phalaris pasture with clover . . . . .	30 „	(No. 9A)
Ryegrass pastures with sub. . . . .	71 „	(No. 8A, 17A)
Good rye/white pasture . . . . .	60 „	(Nos. 1, 2, 3, 4, 5)
Newly sown Phalaris, sub. and grazing lucerne . . . . .	34 „	(No. 20)
Fair pasture (was in lucerne . . . . .	24 „	(Nos. 6 and 7A)

577 „

**Lucerne:**

Marlborough lucerne . . . . .	40 „	(Nos. 10 and pt. 11)
Grazing lucerne (M. glutinosa . . . . .	7 „	( Pt. No. 11)

47 „

**Other:**

Experimental plots . . . . .	87 „	(No. 18)
Plantation, etc. . . . .	20 „	

107 „

**Total** 878 „

## DETAILS OF FLOCK MANAGEMENT AND RECONCILIATION OF FLOCK NUMBERS 1946-48. (See p. 31).

1946-47:

Ewe flock 1st April, 1946	1680	ewes and 408 ewe lambs
Losses to 1st April, 1947	45	78
Ewes sold to 1st April, 1947	160	
Transfer to killers to 1st April 1947	61	
Ewes bought	78	
Balance	1492	330

Flock numbers 1st April, 1947: 1822 ewes and 405 ewe hoggets.

\* Note: Losses of E. hoggets was due to worrying by dogs.

1947-48:

Ewe flock 1st April, 1947	1822	ewes and 405 ewe lambs
Losses 1st April, 1948	55	15
Ewes sold to 1st April, 1948	239	
Ewes transferred to killers	47	
Balance	1481	390
Flock numbers 1st April, 1948	1871 ewes	434 ewe hoggets

### EWE FLOCK SUMMARY

Year	Ewe Flock	Deaths	% of Flock	Ewe Hoggets	Deaths	% of Flock
1946-47	1,680	45	2.6%	408	78	*20.0%
1947-48	1,822	55	3.0%	405	15	3.8%

\* Note: Losses of E. hoggets was due to worrying by dogs.

### THE WOOL CLIP. (See p. 32).

Year	Number Shorn	Total Clip lbs.	Value £	Area Acres	Yield per Acre lbs.	Return per Acre
*1946-47	2,369	20,734	1,680	800	25.9	42/-
*1947-48	2,490	21,344	2,419	800	26.7	60/6

\*Includes lambs shorn.





## ASHLEY DENE BALANCE SHEET as at 31st March, 1947.

LIABILITIES			ASSETS		
	£	£		£	£
Capital 1st April, 1946 . . . . .	10480		Land and Buildings . . . . .		8175
Add new plant and machinery . . . . .	238		Implements . . . . .	535	
	<u>10718</u>	10718	Additions . . . . .	238	
Surplus 1st April, 1946 . . . . .	1206		Replacements . . . . .	200	
Plus surplus 1947 . . . . .	2432			<u>973</u>	
	<u>3638</u>		Less depreciation . . . . .	150	
					823
			Sheep . . . . .		2800
			Harvested crops . . . . .		360
			Cash at Bank . . . . .		2198
		<u>£14356</u>			<u>£14356</u>

## ASHLEY DENE BALANCE SHEET as at 31st March, 1948.

LIABILITIES			ASSETS		
	£	£		£	£
Capital 1st April, 1947 . . . . .	10718		Land and Buildings . . . . .	8175	
Add new machinery . . . . .	217		Less depreciation . . . . .	45	
	<u>10935</u>	10935			8130
Surplus 1st April, 1947 . . . . .	3638		Implements and additions (Imp)	823	
Add surplus 1947-48 . . . . .	2845		(Add) . . . . .	217	
	<u>6483</u>			<u>1040</u>	
			Less depreciation . . . . .	138	
					902
			Sheep . . . . .		2881
			Cash at Bank . . . . .		5505
		<u>£17,418</u>			<u>£17418</u>

## ASHLEY DENE FARM TRADING ACCOUNT 1946-47

	£		£
Stock at 1st April	2600	<b>Sales:</b>	
Wages	700	Lambs	1915
<b>Cropping and Cultivation</b>		Ewes	70
Tractor Expenses	120	Wool	1680
Lime and Super	250	Wheat	730
Seeds	160	Oats	40
Topdressing	40	Hay and Chaff	55
Harvesting	450	Barley	—
Chaff Cutting	7	Grass Seed	50
General Charges	60	White Clover	290
Chaff Purchases	—	Stock 31st March	2800
<b>Sheep</b>		Harvested crops on hand	360
Shearing, etc.	105		
Purchases	80		
Hire of Rams	110		
Repairs and Maintenance	85		
Depreciation	195		
Rates	40		
Insurance	20		
Balance carried forward	2968		
	7990		7990
Interest 5% on Capital	536	Balance brought forward	2968
Surplus	2432		
	£2968		£2968

## ASHLEY DENE FARM TRADING ACCOUNT 1947-48

	£		£
Stock at 1st April	2800	<b>Sales:</b>	
Wages	825	Lambs	2094
<b>Cropping and Cultivation—</b>		Ewes and Lambs	624
Tractor Expenses	123	Ewes	24
Lime and Super	349	Wool	2419
Seeds	86	Wheat	456
Topdressing	33	Stock 31st March	2881
Harvesting	158		
General Charges	43		
Chaff Purchases	21		
<b>Sheep</b>			
Shearing and crutching expenses	149		
Hire of Rams	108		
Repairs and Maintenance	162		
Depreciation	183		
Rates	46		
Insurance	20		
Balance carried forward	3392		
	£8498		£8498
Interest 5% on Capital	547	Balance brought forward	3392
Surplus	2845		
	£3392		£3392