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Mr H. G. Miller's Report

H. G. Miller

H. G. Miller (1931) *Mr H. G. Miller's Report* ; Report For 1930, pp 104 - 108 - **DOI:**
<https://doi.org/10.23637/ERADOC-1-63>

The Woburn Farm

REPORT BY H. G. MILLER ON THE WOBURN FARM

(For dates, yields and other information, see Table on pp. 105-8.)

So far Woburn has been mainly an arable farm, but this is a highly unprofitable policy at present. Some of it is, therefore, being laid down to grass.

In March, 1930, 8 acres of Warren Field—consisting of a heavier soil and unlike the light soil of the rest of the farm—were sown down under barley with the following seeds mixtures, in duplicate, all except II being of indigenous strains.

	lb. per acre.				
	I.	II.	III.	IV.	V.
Italian rye grass ..	—	As I but	—	—	4
Perennial rye grass ..	10	commer-	24	—	14
Cocksfoot	8	cial	10	6	—
Timothy	3	strains.	9	4	—
Meadow fescue	—		—	10	—
Rough stalked meadow grass	2		—	2	4
Late flowering red clover ..	3		—	3	—
Alsike clover	1		—	1	—
Wild white clover	2		1	1	2

(Order from N. end of field—I, II, III, IV, V, II, I, V, IV, III.)

All mixtures looked very well by September, although the clover had failed in some places. The whole field was limed in the autumn at the rate of 2 tons burnt agricultural lime per acre.

Road Piece produced a surprisingly good crop of kale, and Great Hill a good crop of sugar beet. These are the poorest fields on the farm, and will be sown to grass, lucerne and lucerne grass mixtures in the spring of 1931.

The division of the farm will then be :	Acres
Classical experiments	28
Arable and modern experiments	25
Permanent grassland and lucerne	76
Buildings, etc.	2
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The arable land consists of Lansome Field, Warren Field (6 acres nearest farm), Butt Close and Butt Furlong. These last two are no longer separated by a hedge, and 3 acres of the latter round the sand pit, have been laid down to permanent grass for pig runs.

The light soil of Woburn must be continuously covered with crops ; any available land is sown with rye in the autumn, as at Rothamsted. The crops grown are given on pp. 105-108 ; there is no fixed rotation.

The principal stock are sheep (half-bred ewes) and large black pigs. Lambing in 1930 commenced on March 22nd, and the lambs, the last of which are now (June 1931) being fattened, have done very well.

The seven intensive grazing plots : Broad Mead (4), Honey Pot (1) and Great Hill Bottom (2), produced abundant keep throughout the year, with only two applications of nitrate of soda (see p. 108). This treatment is producing marked improvement in the herbage, and so far the clovers have not visibly suffered.

DATES OF SOWING AND HARVESTING, AND YIELD PER ACRE, 1930

Field.	Crop.	Variety.	Principal Cultivations and Dates.	Manuring cwt. per acre.	Sowing Dates.	Cutting Dates.	Carting Dates.	Yield per acre.
<i>I—Arable and Replicated Experiments—</i> Warren Field	Barley undersown	{ Plumage Archer	Feb. 25-26 tractor plough. Mar. 13-22 drag harrow 3 times, harrow and roll. Mar. 25-26 sow manures and grass seeds. 1 horse harrow	1 S/Amm. 3 Super 2 M/Pot.	Mar. 24	Aug. 12	Aug. 27	14 cwt.
	Forage	—	Sept. 25, 1929 sow forage mixtures and harrow. Mar. 14 graze with sheep. Mar. 26 sow manures and cross harrow. Part as hay and part left for harvest	1½ S/Amm. 3 Super 1 M/Pot.	Sept. 25, 1929	June 30 Aug. 7	July 10 Aug. 19	see p. 103
	Mangolds	{ Carton's { Lemon Globe	Mar. 29-31 three horse drag harrow. Bout up 27in. ridges. Apply dung	20 tons F. Y. M.	April 29	Oct. 23	Oct. 30 Nov. 4	25-30 tons
	Potatoes	Ally	April 10-11 apply artificial manures and set potatoes. April 28, split back ridges for mangolds. April 29 sow mangolds. June 11-12, single and top dress.	1 S/Amm. 3 Super 1½ M/Pot.	April 11	Oct. 1-15	Oct 13-16	10 tons
Butt Close	Winter Oats	Grey	Oct. 2, 1929 cross cultivate and harrow. Oct. 3-5 cross drill. Mar. 25-26 cross harrow	1 S/Amm. 2 Super 1 M/Pot. ½ S/Amm top dressing	Oct. 3-5	July 31	Aug. 20	12 cwt.
Butt Furlong	Barley undersown	{ Plumage { Archer	Plough Feb. 27-28. Mar. 6-7 harrow and drill. Mar. 19 sow grass seeds and harrow. Mar. 25-26, Cambridge roll	1½ S/Amm. 3 Super 1 M/Pot.	April 22	Aug. 17	Aug. 26	14 cwt.
Road Piece	Hay	—	Mar. 16 harrow and roll	2 S/Amm. 3 Super 1 M/Pot.	—	June 23	June 27	50 cwt.
	Kale	Marrow Stem	April 24-29 plough. May 5 harrow and roll. 1st sowing failed owing to fly. June 6 cultivate and roll. July 3 horse hoe. Aug. 15-16 horse hoe	1 S/Amm. 3 Super 1 M/Pot. 1 N/Soda (top dressing)	May 9- June 10	—	—	Estimated over 20 tons.

DATES OF SOWING AND HARVESTING, AND YIELD PER ACRE, 1930 (Contd.)

Field.	Crop.	Variety.	Principal Cultivations and Dates.	Manuring cwt. per acre.	Sowing Dates.	Cutting Dates.	Carting Dates.	Yield per acre.
Great Hill	Kale	{ Thousand Head	May 16 plough in rye after sheep. May 20 3 times harrow and roll. June 25 cultivate and roll. 1st sowing taken by fly. July 28 horse hoe. Aug. 16 horse hoe	1 S/Amm. 5 Super. 1 M/Pot. 1 N/Soda (top dressing)	May 22 July 3	—	—	—
	Rye	—	—	1 S/Amm. 3 Super. 1 M/Pot.	End Sept., 1929	Aug. 2	Aug. 20	—
Lansome Piece	Sugar Beet	Johnson's P.	Feb. 21-Mar. 10 plough. April 1-10 plough back. April 22 drag harrow and roll. June 2 singling. Continual hand hoeing	20 tons FYM 1 S/Amm. 4 Super. 1½ Potash Salts. 1 N/Soda (TD).	April 23 April 30 May 9	Oct. 17 Nov. 10	—	9½ tons.
	Potatoes	Ally	April 11-14 plough after rye grazed off, and harrow. April 13-30 3 times harrowed and cultivated, May 2-5 ridged. June 16-17 horse hoe. July 9-10, Aug. 14 hand hoe	—	May 5	Sept. 30-31	—	see pp. 152-3
Lansome Piece	Barley after Sugar Beet	{ Plumage Archer	Sept. 8-26, plough. Feb. 5 plough back and harrow. Mar. 13 drill and harrow	2 tons lime 1 S/Amm. 3 Super. 1 M/Pot.	Mar. 13	Aug. 12	Aug. 28	12 cwt.
	Wheat	—	Nov. 5-7 plough and harrow. Drill and harrow	—	Nov. 6	Aug. 9	—	—
	Sugar Beet	Johnson's P.	April 11-14 plough after rye grazed off, and harrow. April 13-30 3 times harrow and cultivate. May 1 harrow and roll. May 27-28 flat hoe. June 10, 11, 12 single and horse hoe	—	May 3	Oct. 8	—	see p. 154

DATES OF SOWING AND HARVESTING, AND YIELD PER ACRE, 1930 (Contd.)

Field.	Crop.	Variety.	Principal Cultivations and Dates.	Manuring cwt. per acre.	Sowing Dates.	Cutting Dates.	Carting Dates.	Yield per acre.
II. Classical and Rotation Experiments—Stackyard Field	Permanent Wheat	Little Joss	Feb. 26 plough in winter wheat ruined by birds, harrow and drill. April 10 roll. May 16 hand hoe	—	Mar. 3	Sept. 1	Sept. 12	see p. 98
	Permanent Barley	Plumage Archer	Oct. 12, 1929 tractor plough. Feb. 18-20, plough and harrow. Mar. 3 harrow and drill. April 10 roll. May 20 hand hoe	—	Mar. 3	Aug. 25	Sept. 11	see p. 99
	Wheat	Million III	Oct. 12-13, 1929, plough and harrow. Nov. 2 harrow and drill. April 10, Cambridge roll. May 29 flat hoe	—	Nov. 2	Aug. 25	Sept. 11	see p. 101
A (b)	Vetches	—	Oct. 12, 1929 plough. Mar. 21 plough. April 15 harrow and drill. July 12 plough and harrow. Aug. 1 drill and harrow	3 Super. 1 S/Pot.	April 15 Aug. 1	Eaten off with sheep July 8 and Sept. 25		
	Mustard	—	Oct. 12, 1929 plough. Mar. 21 plough. April 30 harrow, drill and harrow. July 12 plough and harrow. Aug. 1 drill and harrow	3 Super. 1 S/Pot.	April 30 Aug. 1			
Stackyard Field—Series B (a)	Barley undersown	Plumage Archer	Jan. 20-25 plough. Mar. 27 harrow. Mar. 28 drill and harrow. Undersown with clover	—	Mar. 28 April 22	Aug. 13	Aug. 29	see p. 150
	Barley	Plumage Archer	Cultivation same as (a)	—	Mar. 28	Aug. 13	—	see p. 150
	Sugar Beet	Johnson's P.	Jan. 20-25 plough. April 22 cultivate and harrow. May 1 drill, harrow and roll	—	May 1	Oct. 29	—	see p. 150
	Barley	Plumage Archer	Cultivation same as (a)	—	Mar. 28	Aug. 13	Aug. 29	see p. 150
	Potatoes	Ally	Jan. 20-25 plough. April 10 cultivate and ridge. Sow potatoes and split back. May 21 chain harrow, ridge and hand hoe	—	April 10	Oct. 1	—	see p. 150

DATES OF SOWING AND HARVESTING, AND YIELD PER ACRE, 1930 (Contd.)

Field.	Crop.	Variety.	Principal Cultivations and Dates.	Manuring, cwt. per acre.	Sowing Dates.	Cutting Dates.	Carting Dates.	Yield per acre.
Series B (cont.) (f)	Barley	Plumage Archer	Cultivation same as (a)	—	Mar. 28	Aug. 13	Aug. 29	see p. 150
Series C	Swedes	Purple Top	May 12-14 plough. May 28 harrow and drill manures. June 17 redrill and harrow. July 4 horse hoe	3 Super. 1 S/Pot.	May 29 June 17	Fed off with sheep Jan - Mar., 1931		
Series D	Barley under-sown with Clover Mustard	Plumage Archer	Feb. 4 plough after sheep. Mar 4 harrow and drill. May 1 roll	—	Mar. 4 Mar. 27 (clover) April 15 Aug. 2	Aug. 13	Aug. 28	see p. 100
{ Lansome Piece	Mustard	—	Nov. 5, 7, 8, 1929 plough. Mar. 20-21 plough back. April 14 3 times drag harrow. April 15 manure and sow vetches. April 30 sow mustard. May 1 roll. July 10 plough in both crops. Aug. 2 resow both crops. Oct. 7-11 plough in both crops.	3 Super. 1 S/Pot.				
III Grazing— { Broad Mead	Grazing	—	Chain harrow before each dressing of manure. Dressings commenced Feb. 22. Dressings at 7 day intervals. 2nd dressing commenced May 8. Plot 4 mown for hay after grazing till May 16	1 S/Amm. 1st dressing 1 N/Soda 2nd dressing	April 30 Aug. 2			
{ Honey Pot Great Hill Bottom Long Mead	Do. Do.	Do. Do.						