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Woburn Farm: Report

H. G. Miller

H. G. Miller (1932) *Woburn Farm: Report* ; Report For 1931, pp 100 - 106 - DOI:
<https://doi.org/10.23637/ERADOC-1-65>

the old, and the tares plot somewhat better than the mustard plot. The results are given in Table VI.

Table VI.—GREEN MANURING EXPERIMENT, Lansome Piece, 1931. WHEAT AFTER GREEN CROPS PLOUGHED IN.

Produce per acre.

Plot.	Head Corn.		Tail Corn. lb.	Straw, Chaff, etc. cwt.
	Bushels per acre.	Weight per Bushel. lb.		
1. Mustard plot : old series..	9.8	58.5	3	10.1
2. Tares plot : old series ..	14.1	56.5	4	16.2
3. Mustard plot : new series	13.0	56.2	15	14.6
4. Tares plot : new series ..	12.4	53.4	22	22.2
5. Control : new series (weeds only)	9.1	58.3	2	10.9

The yield of straw from the tares plots exceeds that from the mustard.

4.—PERMANENT PASTURE, MANURIAL EXPERIMENT. BROAD MEAD

The five plots in Broad Mead comprising this series were grazed in 1931, no further manurial application being given. All the plots improved considerably through the closer grazing of them with both cattle and sheep, but the finest and best grazed plot was, however, undoubtedly Plot 4 (limed), which again was characterised by the presence of many daisies ; these occur only sparsely on the other plots.

5.—FORAGE CROPS, LANSOME FIELD

Mixtures of wheat and beans did well together, and the crops stood up well, except that when tares were used along with wheat, they had the effect of throwing the wheat down.

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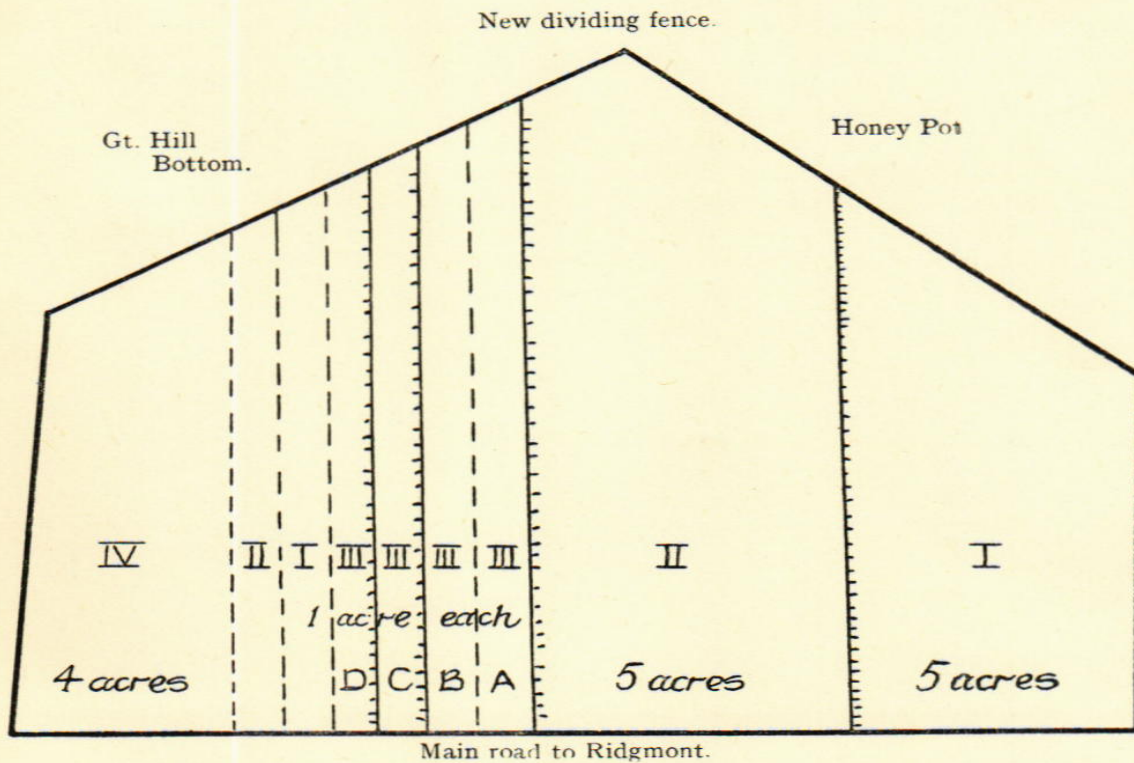
The sowing down of the poorest parts of the farm to grass, commenced the previous year, has now been completed. In April, 1931 Road Piece and Great Hill were sown down under barley. The wet season caused this to grow rankly, and in a few of the low-lying parts of the field it was badly lodged. The grain yields were considerably lower than the appearance of the crop had indicated, and delays arose through wet weather and the demands of the experimental plots.

The following mixtures were sown :

- No. 1. 25 lb. Provence Lucerne (per acre).
1 ,, Kentish Wild White Clover.
- No. 2. 25 ,, Provence Lucerne.
1 ,, Perennial Birdsfoot Trefoil.
1 ,, Wild Trefoil.

- No. 3.
 (A) 12½ lb. Provence Lucerne.
 15 „ Kentish Indigenous Perennial Ryegrass.
 1 „ Kentish Wild White Clover.
 (B) As (A), with Grimm Lucerne instead of Provence.
 (C) As (A), with cultivated Wild White Clover instead of Kentish.
 (D) As (B), with cultivated Wild White Clover instead of Kentish.
- No. 4. 7 lb. Provence Lucerne.
 12 „ Kentish Indigenous Perennial Ryegrass.
 5 „ English Grazing Cocksfoot.
 2 „ Kidney Vetch.
 1 „ Cultivated Wild White Clover.

The division between Road Piece and Great Hill has now been re-arranged by grubbing up the old boundary hedge, and erecting a fence at right angles to the Ridgmont Road, this fence dividing the whole 20 acres into two equal areas. The following diagram indicates the relative positions of the different mixtures :



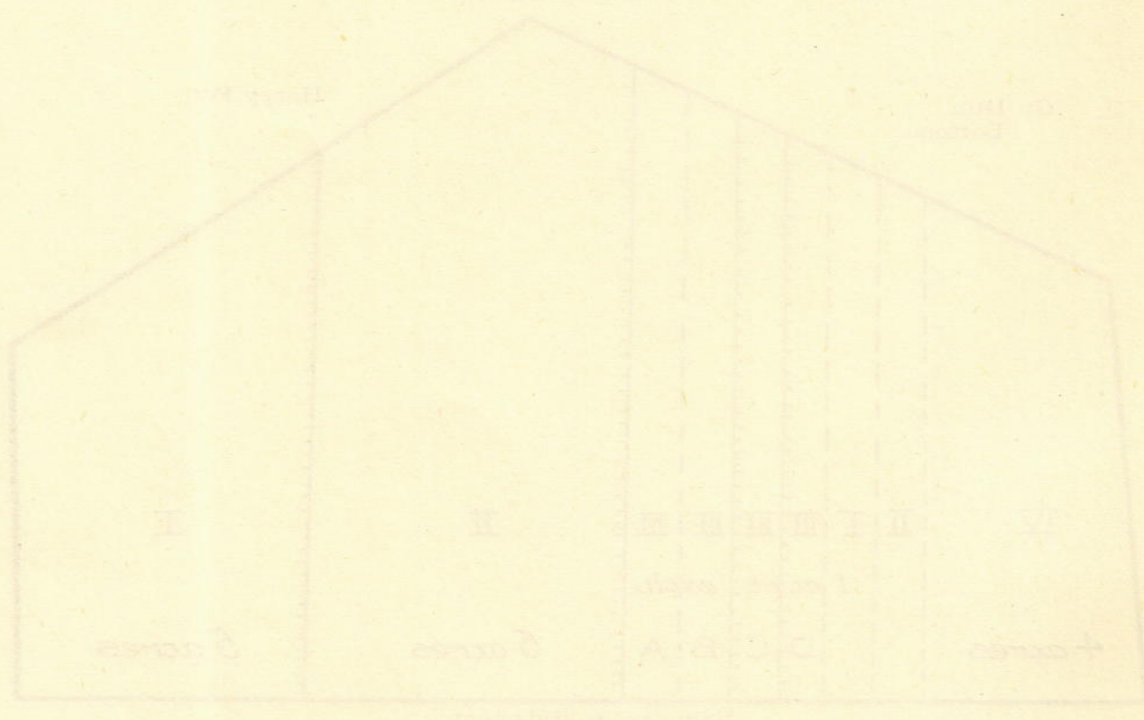
The shading indicates narrow, uninoculated strips, all the rest being inoculated. In the 5 acres of Mixture No. 1 were placed a few small plots of different varieties of lucerne, but the barley above them lodged, and near Honey Pot the young seeds were rather thin and were therefore patched in April, 1932, about 4 acres being done there and on one or two other portions of the field. The estate is now

laying water on to this new grass, to the portion of Road Piece sown down in 1928 and to the 3 acres of Butt Furlong sown in 1930.

The details of the cropping are given on pp. 103-6. Three acres of Brussels sprouts were grown in Butt Close in the hope that we might sell some as well as having the tops for the sheep, but prices were so low that the whole was fed to the animals.

As at Rothamsted, we found that spring oats did considerably better than winter oats in 1930-31; they were, however, sown early under favourable conditions of soil and fertility.

In the spring the Estate carried out their periodical repairs to the farm buildings, and took the opportunity of effecting several notable improvements, extending and improving the accommodation for pigs, putting more windows in the roofs and reconstructing the boundaries of the covered yards. All this has greatly improved the appearance and utility of the buildings.



DATES OF SOWING AND HARVESTING, AND YIELD PER ACRE, WOBURN, 1931

Field.	Crop.	Variety.	Principal Cultivations and Dates.	Manuring. cwt. per acre.	Sowing Dates.	Cutting Dates.	Carting Dates.	Yield per acre.
1.— <i>Arable and Replicated Experiments—</i> Warren Field	(1) Oats	Grey Winter	Oct. 15-17, 1930, plough and tractor cultivate.	5 I.C.I. No. 7	Oct. 20	Aug. 25	Sept. 20	13 cwt.
	(2) Oats	Gar-ton's Marvellous	Nov. 15, 1930, tractor plough. March 14 harrow.	5 I.C.I. No. 7	March 14	Sept. 1	Sept. 28	15 cwt.
Butt Close	(1) Brussel Sprouts	—	After rye, grazed & ploughed in. May 16-June 6, plough and roll. July 6, horse hoe. Hand hoe throughout summer.	2 N/Soda, 20 tons dung in spring (after 1 N/S top dressing on rye, Feb.)	July 1-4 (planted)	Used during winter		—
	(2) Kale	Thousand Head	After rye, grazed and plough in. July 1 plough and roll. July 9 harrow, roll, drill and harrow. Aug. 11 and Sept. 4 horse hoe.	Do.	July 9	Kept for spring use		—
Butt Furlong	(1) Sugar Beet	Kuhn	Feb. 21 sow 1 ton Carbonate of lime per acre. March 26 plough. March 31 harrowed and rolled. April 17 sowed and harrowed. April 23 harrowed. May 6 rolled. June 3-July 11 horse and hand hoed.	see p. 162	May 8	—	Nov. 4-18 (lifted)	see p. 163-5
	(2) Sugar Beet (Micro-plot Expt.)	Kuhn	Feb. 21 sow 1 ton Carbonate of lime per acre. March 26 plough. March 31 twice harrow and roll. May 6 horse rolled. May 7 and 8 hoed and rolled by hand. June 1 hand hoed.	see p. 160	May 9	—	Nov. 23 (lifted)	see p. 160-1
(3)	Seeds Hay	It. Ryegrass B. Red Clover	Feb. 21. Sow 1 ton carbonate of lime per acre.	5 I.C.I. No. 7	Mar. 19, 1930	June 13	June 22	2 tons

DATES OF SOWING AND HARVESTING, AND YIELD PER ACRE, WOBURN, 1931 (Continued)

Field.	Crop.	Variety.	Principal Cultivations and Dates.	Manuring, cwt. per acre.	Sowing Dates.	Cutting Dates.	Carting Dates.	Yield per acre.
Road Piece	Barley (undersown)	Plumage Archer	Feb. 26-March 13 spread lime. March 25-31 plough. April 10 harrow and drill. May 3 Cambridge roll. April 28-30 sow grass seeds.	2 Pot. Salt, 2 Super., 2 I.C.I. No. 7 2 tons burnt lime*	April 10	Aug. 18-22	Sept. 20-28	12 cwt.
Great Hill	Barley (undersown)	Plumage Archer	Feb. 11-14 plough in beet tops. March 25 Cambridge roll and harrow. May 2 roll. April 28-30 sow grass seeds.	2 Pot. Salt, 2 Super., 2 I.C.I. No. 7 2 tons burnt lime*	March 31	Aug. 28	Sept. 20-21	12 cwt.
Lansome Piece (1)	Forage Mixture	—	Oct. 11-13, 1930 plough. Oct. 17, 1930 drill and harrow. Jan. 9 resow and harrow.	5 I.C.I. No. 7	Oct. 17 and Jan. 9	June 28	July 17	42 cwt. (as hay)
(2)	Oats	Grey Winter	Oct. 11-15, 1930 plough. Oct. 22, 1930 drill and harrow. April 13-14 Cambridge roll.	5 I.C.I. No. 7	Oct. 22	Aug. 12	Sept. 10	Badly laid Used un-threshed
II. — Classical and Rotation Experiments — Stackyard Field	Permanent Wheat	Squarehead's Master	Sept. 17, plough. Oct. 2 harrow. March 19-20 Cambridge roll. May 20-June 2. Hand hoc. Dec. 22-29 plough. March 16 cultivate, March 18 harrow and roll. March 19-23 Cambridge roll. June 2-3 hand hoc.	see p. 93	Oct. 2	Aug. 20	Aug. 28 (threshed)	see p. 94
	Permanent Barley	Plumage, and Archer	Oct. 23 gather and burn twitch. Oct. 24, 1930 cultivate. March 12 plough. March 14-18 cultivate. April 1 double harrow and cultivate. May 7 drill and harrow. July 20-Aug. 13 eat off with 26 sheep receiving 1½ cwt. mixed cake (cotton and linseed). Aug. 13 and 14 plough and harrow. Oct. 9-12, 1930 eat off with sheep, receiving 1½ cwt. mixed cake.	see p. 96	March 18	Aug. 24	Aug. 31 (threshed)	see p. 95
Series A (a) (1)	Tares	Garton's Baltic		1 S/Pot. 3 Super.	May 7 (resow) Aug. 18	—	—	—

* Applied before 1930 Sugar Beet, but omitted from last Report.

DATES OF SOWING AND HARVESTING, AND YIELD PER ACRE, WOBURN, 1931 (Continued)

Field.	Crop.	Variety.	Principal Cultivations and Dates.	Manuring, cwt. per acre.	Sowing Dates.	Cutting Dates.	Carting Dates.	Yield per acre.
(2) Series A (b)	Mustard		Cultivations same as Tares.	1 S/Pot. 3 Super.	May 26 Aug. 18 Oct. 18, 1930	— Aug. 18	— Aug. 26 (threshed)	— see p. 99
	Wheat	Red Standard	After green crop fed off, Oct. 13-15, 1930 plough. Oct. 18, 1930 double harrow. March 19 Cambridge roll. June 4 cut out thistles. June 22-July 10 pull poppies.					
6 Course Rotation—	Vetches (after clover failure)	Garton's Baltic	Clover sown in barley 1930. April 1 clover ploughed in after severe pheasant damage. April 8 sow 16 lbs. Alsike. April 14 Cambridge roll. May 27 cross cultivate and roll (sow vetches). July 8 horse hoe. July 10 hand hoe.	see p. 138	May 27	Sept. 9	Sept. 9 (green)	see p. 139
	Sugar Beet	Kuhn	Dec. 22, 1930 plough. May 6 cross cultivate. May 7 sow manures flat roll, July 2 hand hoe. Aug. 10 hand hoe.	see p. 138	May 7	—	Oct. 29 31 (lifted)	see p. 139
	Barley	Plumage Archer	After sugar beet. Dec. 20, 1930 plough in tops. March 17 harrow. March 18 Cambridge roll. May 5 hand hoe. May 7 undersown with Alsike and roll.	see p. 138	March 18	Aug. 21	Aug. 29 (threshed)	see p. 139
	Wheat	Yeoman II	Sept. 20, 1930 plough. Oct. 15-16 1930 plough. May 9-12 hand hoe.	see p. 138	Oct. 18	Aug. 18	Aug. 28 (threshed)	see p. 138
	Forage	—	Oct. 15-16, 1930 plough. Oct. 18, 1930 harrow. May 9-12 hand hoe. June 22 one way plough. June 25 double harrow. July 7 Cambridge roll. Aug. 18-20 plough in mustard. Sept. 19 harrow.	see p. 138	Forage Mixt., Oct. 18. Mustard June 25. Rye Sept. 19	June 15	June 19	see p. 138
	Potatoes	Ally	April 1 plough. April 28 double harrow and ridge. June 4 harrow and ridge up.	see p. 138	May 1	—	Sept. 30 (lifted)	see p. 138

DATES OF SOWING AND HARVESTING, AND YIELD PER ACRE, WOBURN, 1931 (Continued)

Field.	Crop.	Variety.	Principal Cultivations and Dates.	Manuring, cwt. per acre.	Sowing Dates.	Cutting Dates.	Carting Dates.	Yield per acre.
Series C	Barley	Plumage Archer	After swedes fed off. March 6 plough half. March 16 harrow. March 31 plough other half. April 8 harrow. May 11 flat roll.	—	March 16 first half. April 8 second half. May 8 Alsike May 27-28	Aug. 25	Oct. 1	see p. 98
Series D	Vetches (after clover failure)	Garton's Baltic	Broad red clover sown March 27, 1930. Failed during winter. March 16-17 tractor plough. Alsike sown April 8, but came too slowly, so land was cultivated and harrowed and sown with vetches.	—	Oct. 17	Aug. 27-28	Sept. 29	see p. 98
Lansome Piece	Wheat (after green manuring)	Red Standard	Oct. 7-8 plough. Oct 17 harrow in.	—	Oct. 17	Aug. 12	Aug. 25	see p. 100
III. Grassland— Butt Furlong Warren Field	Grazing Grazing	—	—	2 I.C.I. No. 7 2 tons lime, 1 N/Soda, 2 M/Potash	—	—	—	—
Broad Mead (1) (2) (3) (4)	Grazing Grazing Grazing Grazing, then hay	—	Feb. 14 chain harrow and apply first dressing of N/Soda. Follow with remaining 6 sections at weekly intervals. Second application of N/Soda commenced June 10, and went on at weekly intervals, omitting Honey Pot.	1 N/Soda, 1st dressing 1 N/Soda, 2nd dressing	—	June 28 (plot 4)	July 23- 24	25 cwt.
Honey Pot (5) Gt. Hill Bottom (6) (7)	Grazing Grazing	—	—	—	—	—	—	—
Long Mead Mill Dam Close	Grazing Grazing	—	—	—	—	—	—	—