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Report for 1934

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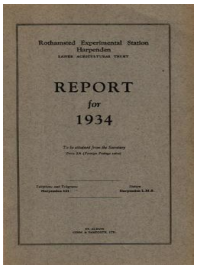

Woburn Experimental Station Farm Report for 1934

Rothamsted Research

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WOBURN EXPERIMENTAL FARM REPORT FOR 1933-34

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METEOROLOGICAL RECORDS.

	Rainfall.			*Temperature (Mean).*			
	Total Fall.	No. of Rainy Days.	Bright Sun-shine.	Max.	Min.	1 ft. in Ground.	Grass Min.
1933—	Ins.	No.	Hours.	°F.	°F.	°F.	°F.
Oct. ..	1.44	16	87.2	55.9	43.5	50.9	39.1
Nov...	1.52	17	48.7	46.1	36.5	43.5	32.5
Dec. ..	0.34	11	43.2	37.5	28.5	34.4	24.0
1934—							
Jan. ..	1.09	17	63.7	44.1	32.4	38.8	28.2
Feb. ..	0.38	8	84.0	43.5	30.2	37.4	25.1
Mar.	1.53	15	130.5	47.7	33.8	40.6	28.9
April..	1.37	18	135.4	54.0	39.4	47.7	35.2
May ..	0.48	6	218.1	62.8	42.8	57.1	38.3
June	1.28	11	186.5	68.9	49.0	64.2	44.0
July ..	1.29	6	261.3	75.8	52.4	69.3	46.7
Aug...	1.91	13	183.6	69.1	50.4	62.7	45.4
Sept...	2.05	13	169.1	67.9	49.7	58.6	44.1
Oct. ..	1.67	18	91.1	57.3	45.2	51.6	40.6
Nov...	1.94	13	43.0	47.0	37.9	43.1	33.9
Dec. ..	4.56	25	21.0	49.9	42.1	45.1	37.0
Total or mean for 1934 ..	19.56	163	1587.3	57.3	42.1	51.3	37.3

Notes.—A dry year, with very dry February and May, and unusually wet December. Arable Crops yielded well, especially sugar beet, but the hay crop was small.

CONTINUOUS GROWING OF WHEAT AND BARLEY

Stackyard Field, 58th Year (no manure since 1926). The plots were fallowed for cleaning. Hogweed (*Polygonum aviculare*) and Twitch (*Holcus mollis*) were removed in quantity.

ROTATION EXPERIMENTS

THE UNEXHAUSTED MANURIAL VALUE OF CAKE AND CORN (STACKYARD FIELD) 1934.

Series C. Swedes, following Wheat.

The yield, in tons per acre, were: Cake-fed: Roots 13.55, Tops 1.47. Corn-Fed: Roots 12.39, Tops 1.47.

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Series D. The swede crop of 1933 was fed off on both halves by sheep which received respectively cake and corn.

These foods supplied 75.6 lb. and 26.4 lb. nitrogen per acre respectively. Barley—" Plumage Archer "—was drilled in March. The yields per acre were :

Plot.	*Head Corn.*		*Tail Corn.*	*Straw, Chaff, etc.*
	Bushels.	Weight per Bushel. lb.	lb.	cwt.
1. After Cake-feeding	34.3	54.8	1.5	19.1
2. After Corn-feeding	32.5	55.0	2.0	16.8

Green Crop and Green-manuring Experiments

(*a*) *Stackyard Field* (*Series A*)

Upper Half—Green-Crop after Wheat. Tares and Mustard were sown in April, and fed off by sheep, which received cake supplying 7.6 lb. nitrogen per acre. Second green-crops were put in. They grew slowly and were ploughed-in in October.

Plot.	Green Matter. per acre. lb.	Dry Matter. per acre. lb.	Total Nitrogen per acre. lb.
Mustard (unlimed) ..	6088	1321	29.8
Mustard (limed)	4770	1070	22.9
Tares (unlimed)	7580	1449	50.7
Tares (limed)	7036	1340	49.1

Nitrogen contents : Mustard, 2.42% ; Tares, 3.24%.

Lower Half—Wheat after Green-crops

Two sowings of wheat (Red Standard) had to be given. The yields per acre were :

Plot.	*Head Corn.*		*Tail Corn.*	*Straw, Chaff, etc.*
	Bushels.	Weight per Bushel. lb.	lb.	cwt.
1. After Mustard fed off (unlimed) ..	11.0	61.8	15.0	10.7
2. After Mustard fed off (limed) ..	8.3	62.0	11.5	8.6
3. After Tares fed off (unlimed) ..	7.6	61.6	10.0	10.0
3. After Tares fed off (limed)	9.0	62.0	7.0	10.0

(*b*) *Lansome Field. Green Crops after Wheat.* Tares and mustard were sown in April. Second crops were sown in July and ploughed-in in October.

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Plot.	Green Matter per acre. lb.	Dry Matter. per acre. lb.	Total Nitrogen per acre. lb.
1. Mustard old series ..	7,990	1,465	37.6
2. Tares old series ..	17,605	2,790	97.1
3. Mustard new series ..	9,780	1,833	43.7
4. Tares new series ..	15,590	2,583	97.4
5. Control new series ..	4,970	807	19.1

Nitrogen Contents : Mustard, 2·53% ; Tares 3,57%.

Lucerne Inoculation—Lansome Field

The yields in tons per acre for 1934, the third year of this crop, were :

	Green.	Hay.	Nitrogen in Hay.
Inoculated	12.50	3.96	2.36%
Non-inoculated	12.94	4.07	2.21%

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