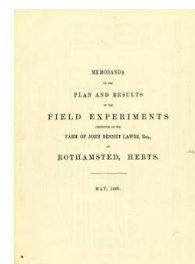


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Experiments on Barley; Hoos Field

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EXPERIMENTS ON THE GROWTH OF **BARLEY** YEAR AFTER YEAR ON THE SAME LAND, WITHOUT MANURE, AND WITH DIFFERENT KINDS OF MANURE, HOOS FIELD.

Previous Cropping—1847, Swedish Turnips, with Dung and Superphosphate of Lime, the Roots carted off; 1848, Barley; 1849, Clover; 1850, Wheat; 1851, Barley manured with Ammonia-salts. First Experimental Barley Crop in 1852. Barley every year since; and, unless stated to the contrary in the foot-notes, the same Manure has been applied year after year to the same Plot.

(Area under experiment, about 4½ acres.)

PLOTS.	Manures, per acre ; eighteenth Season—1869.	PRODUCE PER ACRE:					
		Average per Annum, over 17 Years, 1852-1868.			Seventeenth Season, 1868.		
		Dressed Corn.		Total Straw.	Dressed Corn.		Total Straw.
		Quantity.	Weight per Bushel.	Quantity.	Quantity.	Weight per Bushel.	
1 O.	Unmanured continuously	Bushels.	lbs.	cwts.	Bushels.	lbs.	cwts.
2 O.	Superphosphate of Lime (1)	20½	52½	12½	10½	54½	11½
3 O.	Mixed Alkalies (2)	26½	53	14	18½	55½	9½
4 O.	Ditto	23½	52½	12½	14½	55½	8½
1 A.	200 lbs. Ammonia-salts (3)	28½	53	14½	17½	55½	10
2 A.	ditto	32½	51½	18½	20½	53½	12½
3 A.	and "Superphosphate of Lime"	47½	53	28	37½	54½	19½
4 A.	and "Superphosphate of Lime" ; and "Mixed Alkalies"	35½	52½	20½	25½	54½	15
1 AA.	"Superphosphate of Lime" ; and	46½	53½	23½	34½	55½	16
2 AA.	and "Superphosphate of Lime"	37½	51½	22	27	53½	14½
3 AA.	and "Superphosphate of Lime" ; and "Mixed Alkalies"	49½	52½	30½	44	56½	21½
4 AA.	and "Superphosphate of Lime" ; and "Mixed Alkalies" ; and ditto	38	52	24½	27½	55½	16½
1 AAS.	275 lbs. Nitrate of Soda ..	50½	52½	33	45½	56	25½
2 AAS.	and "Superphosphate of Lime" ; and	38½	51½	23	29½	54½	17
3 AAS.	and "Superphosphate of Lime" ; and "Mixed Alkalies" ; and	49½	52½	31	45	56½	22
4 AAS.	and "Superphosphate of Lime" ; and "Mixed Alkalies" ; and 400 lbs. Silicate of Soda (4)	40½	52½	25½	36½	56½	22
1 C.	1000 lbs. Rape-cake ..	50½	53	33½	46½	56½	26½
2 C.	ditto	45½	53½	27½	37	56½	19½
3 C.	and "Superphosphate of Lime" ; and	47½	53½	28½	35½	56½	18½
4 C.	and "Superphosphate of Lime" ; and "Mixed Alkalies" ; and	49½	53½	27½	35½	55½	18½
1 N.	275 lbs. Nitrate of Soda ..	47½	53	29½	36½	55½	21
2 N.	ditto	37½ (11)	52½ (11)	23 (11)	25½	53½	19
3 N.	and "Superphosphate of Lime" ; and	41½	52½ (11)	26½ (11)	25½	53½	17½
4 N.	and "Superphosphate of Lime" ; and 200 lbs. "Ammonia-salts"	23½ (12)	53 (12)	12½ (12)	15	56½	8½
5 O.	200 lbs. Sulphate of Potass ..	44½ (13)	53½ (13)	28 (13)	36½	57½	20½
6 M.	100 lbs. each, Sulph. Soda and Sulph. Magnesia ; and	22½ (14)	53 (14)	12½ (14)	14½	54	11
7	Unmanured continuously	23	52½	12½	15½	53½	10½
1	Ashes (burnt soil, turf, and weeds)	22½	52½	12½	16	53½	11
2	Farm-yard dung (14 tons every year)	48	54	28½	48½	57	24½

remaining halves ; and, for the sake of comparison with the latter, the average produce is given for the whole period of 17 years, 1852-1868.

(1) 200 lbs. Bone-ash, 150 lbs. Sulphuric acid (sp. gr. 1.7).

(2) 200 lbs. Sulphate of Potass, 100 lbs. Sulphate of Soda, and 100 lbs. Sulphate of Magnesia (for the first six years, 300 lbs., and 100 lbs., respectively).

(3) Equal parts Sulphate and Muriate of Ammonia of Commerce.

(4) First 6 years 1852-7, 400 lbs. Ammonia-salts per annum; next 10 years 1858-67, 200 lbs Ammonia-salts per annum; Nitrate of Soda commenced in 1868. 275 lbs. Nitrate of Soda is reckoned to contain the same amount of Nitrogen as 200 lbs. "Ammonia-salts."

(5) The application of Silicates did not commence until 1864; in 1864-5-6 and 7, 200 lbs. Silicate of Soda and 200 lbs. Silicate of Lime were applied per acre, but in 1868, and since, 400 lbs. Silicate of Soda, and no Silicate of Lime; the plots ("AAS") comprise, respectively one half of the original "AA" plots, and, excepting the addition of the Silicates, have been, and are, in other respects, manured in the same way as the