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## Yields of the Field Experiments 1901



Full Table of Content

## **Potatoes**; Hoos Field

### **Rothamsted Research**

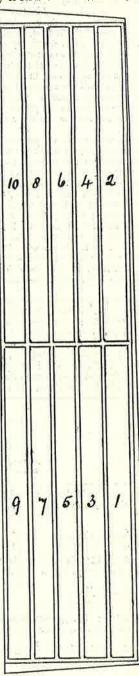
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(86)

PLAN OF THE PLOTS IN HOOS FIELD,
ON WHICH EXPERIMENTS HAVE BEEN MADE
ON POTATOES,

WITHOUT MANURE, AND WITH VARIOUS MANURES.
26 years, 1876-1901.

[For a brief summary of results and conclusions, see opposite page.]



Total area of ploughed land about  $2\frac{1}{10}$  acre. Area of each plot  $\frac{1}{6}$  acre.

The double lines indicate division paths between plot and plot.

[For details of the manuring and produce, see pp. 88–109.]

(87)

## RESULTS OF EXPERIMENTS MADE IN HOOS FIELD, ON THE GROWTH OF POTATOES.

These experiments were commenced in 1876, so that 1901 is the 26th year of their continuance. The descriptions grown were "Rock," 4 years, "Champion," 11 years, "Sutton's Abundance," 5 years, "Bruce," 1 year, and "White Beauty of Hebron," 1897, and since. The question was not as to the comparative merits of different descriptions, and different sorts were selected on the supposition that in growing the crop year after year change was desirable, especially with a view to the avoidance or lessening of disease. The special object was to ascertain the manurial requirements of the crop, and the comparative characters and composition that provide the nature, and the supposition that in growing the crop year after year change was desirable, especially with a view to the avoidance or lessening of disease. The special object was to ascertain the manurial requirements of the crop, and the comparative characters and composition the reach of the 10 conditions the crop more or less declined over the later compared with the earlier years. The average produce per acre of total tubers over the 20 years was—without manure, only 1 ton, 11½ cwt.; with ammonium-salts alone, 1 ton, 13½ cwt.; with ultrate of soda alone, 2 tons, 8 cwt.; with superphosphate lone, 3 tons, 22 cwt.; with mixed mineral manure, including potash, 3 tons, 62 cwt. Thus, purely nitrogenous manure, sileded less than purely mineral manure, including potash, 3 tons, 62 cwt. Thus, purely nitrogenous manure yielded less than purely mineral manures, including potash, 2 cwt. and more native than 1 to 10 cwt. The compared the compared to 10 cwt. The compared to 10 cwt. The cwt. The compared to 10 cwt. The cwt. The

duction of the non-nitrogenous substances—starch, sugar, and cellulose—that our direct nitrogenous manures are chiefly used.

It is well known that season has much to do with the development of the potato disease; and there was on the average much more disease in the wetter seasons. As regards the influence of manure, the proportion of diseased tubers was the least where there was no supply of nitrogen; that is, where there was the least luxuriance, the most restricted growth, and where the ripening was early developed. On the other hand, with liberal supply of nitrogen, and luxuriant growth, there was the greatest proportion of diseased tubers; these being the conditions in which the juice is relatively rich in nitrogenous and mineral matters. Indeed, when the unsuitable weather comes, those tubers suffer the most which have the richest juice, that is, the least fixity of composition. It was found that there was always a higher, and sometimes a much higher, percentage of nitrogen in the dry substance of the diseased than in that of the sound tubers, indicating a loss of non-nitrogenous constituents. In many cases the still white, and also the separated discoloured portion of the diseased tubers, were analysed. Whilst the juice of the white portion contained approximately the normal amount of nitrogen, that of the discoloured portion contained very much less. On the other hand, the washed "Marc" of the white portion contained very little nitrogen, whilst that of the discoloured portion contained very much more. The distribution of the mineral matter to a great extent followed that of the nitrogen. The juice had obviously suffered exhaustion of much of both its nitrogen and its mineral matter in the development of the fungus. Further, there was more sugar (partly cane and partly glucose) in the diseased potatoes, which probably contributed to the development of the fungus. Apparently the first material change in the development of the fungus is the destruction of starch and the formation of sugar. There is also

however, a less proportion of the nitrogen supplied than any other farm crop.

For particulars of the manuring and produce, and to some extent of the composition of the differently grown

# EXPERIMENTS ON POTATOES.—HOOS FIELD; commencing 1876.

Below are given the particulars of the Manures and Produce of each of the first 5 Seasons, 1876-1880; also the average Produce of those first 5 Seasons. For continuation, 1881 and since, see pp. 92-3, 96-7, 100-1, 104-5, and 108-9.

The Land had been under experiments with Wheat, differently manured, from 1856 to 1874; and was fallowed in 1875.

received the same quantity of Ammonium-salts alone every year for the Wheat, as but as Nitrate of Soda, instead of Ammonium-salts. Plots 7 and 8 received the same Plots 1, 2, 3, and 4 had been unmanured for the Wheat. Plots 5 and 6 had amount of complex mineral manure, and Ammonium-salts, for the Wheat, as Plot 7 Plot 5 now receives for potatoes: Plot 6 now receiving the same amount of nitrogen,

(Area under experiment, 2 acres.)

plant to plant in the rows. In 1880, the description was the "Champion" manures, and the same amount of nitrogen, but as Nitrate of Soda instead of Ammonium-salts. Plots 9 and 10 received the same complex mineral manures alone phate only. (3) Description of Potatoes, in 1876, 1877, 1878, and 1879, the "Rock" (White); and in those years the rows were 25 inches apart; with 12 inches from now receives for potatoes; and Plot 8 now receives the same complex mineral for the Wheat as Plot 10 now receives for potatoes; Plot 9 now receives superphos-(White); and the rows were 25 inches apart, with 14 inches from plant to plant in the rows.

	Tone	endor.		Withered, not weighed, each lot spread on its own Plot and ploughed in.
ACRE.		ToraL.		7097 7097
PRODUCE PER ACRE.	rs.	Small. Diseased.		Cowers, Tons, cwts, Tons, Cowers, Tons, Cower, C
PR	Tubers.	Small.		Tons, cw (%) C (%)
		Good.	Oct. 30-31	Cons. cwts. 7 3 Cwts. 7 3 1854.4 4 1455.4 5 121 5 122 6 1755.6 7 22 7 22 7 22 7 22 7 22 7 22 7 22 7 2
	MANURES PER AGRE PER ANNUM.		First Season, 1876. Potatoes planted, June 10-13; Crop taken up, Oct. 30-31.	Farmyard Manure (14 tons), and 34 cwts. Superphosphate (')  Farmyard Manure (14 tons), and 34 cwts. Superphosphate (')  Farmyard Manure (14 tons), 35 cwts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts (2)  550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts 35 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 35 cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 35 cwts. Superphosphate,  55 cwts. Superphosphate,  57 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia
1 ,0	PLOTS.			(a) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d

Second Season, 1877. Potatoes planted, April 27-25; Crop taken up, Oct. 3-10.
   Unmanured   Langer   Langer

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	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Į,	Withered, not weighed, cach lot spread on its own Plot and ploughed ploughed		Withered, not weighed, each of spread on its own Plot and plongbed plongbed		In each year the Tops were spread on the respective Plots. For particulars see above.
	2 2 7 8 8 4 8 8 8 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		164 101 101 101 101 101 101 101 101 101 10		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2 4 4 1 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
the Flots.	2 8 8 9 0 0 0 0 8 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28-30.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
spread on un	0.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		4 4 6 2 4 4 2 4 2 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 2 4 2 2 2 4 2	Sept.	10 10 10 10 10 10 10 10 10 10 10 10 10 1		2 F. 20 P. L. 20 Q. L
ana	111 668 0 0 1681 0 0 1681 0 0 1681 0 0 1681 0 0 1681 0 0 1681 0 0 0 1881 0 0 0 0 0 0 0 0 0 0 0 0 0	3-16.	1113 1134 114 116 1174 1174 1184 1184 1184 1174 1174 1174	other Plots,	141 0 634 0 64 0 81 0 81 0 1114 0 153 0 9 0 74 0		18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Tops weigned,	01410001017100	Oct. 1	• 118008100	9th;		0.	H to 4 10 H to 10 10 10 to to
J HLKD SEASON, 1878. Foratoes planted, April 29. Crop taken up, Sept. 18-21; Top	Farmyard Manure (14 tons)  Farmyard Manure (14 tons), and 3½ ovts. Superphosphate (1)  Farmyard Manure (14 tons), 3½ ovts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts (2)  550 lbs. Nitrate of Soda  400 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ ovts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ ovts. Superphosphate  3½ ovts. Superphosphate  3½ ovts. Superphosphate Soda, 3½ ovts. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	FOURTH SEASON, 1879. Potatoes planted, May 2; Crop taken up,	Unmanured Farmyard Manure (14 tons), and 3, cwts. Superphosphate (1) Farmyard Manure (14 tons), and 3, cwts. Superphosphate (2) Farmyard Manure (14 tons), 32 cwts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts (2) 400 lbs. Nitrate of Soda  400 lbs. Nitrate of Soda  400 lbs. Superphosphate  550 lbs. Nitrate of Soda, 100 lbs. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 35 cwts. Superphosphate  34 cwts. Superphosphate  55 cwts. Superphosphate  56 cwts. Superphosphate  57 cwts. Superphosphate  58 cwts. Superphosphate  59 cwts. Superphosphate  50 lbs. Sulphate Magnesia	FIFTH SEASON, 1880. Potatoes planted, April 13; Crop taken up, Plots 5 and 6, Sept.	Tarmyard Manure (14 tons)  Farmyard Manure (14 tons), and 3½ cwts. Superphosphate (7)  Farmyard Manure (14 tons), 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts (7)  550 lbs. Nitrate of Sola  400 lbs. Ammonium-salts, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate  350 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	AVERAGE OF 5 SEASONS, 1876, '77, '78, '79, and 1880.	Furmyard Manure (14 tons) and 3½ cwts. Superphosphate (1)  Furmyard Manure (14 tons), and 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  Formyard Manure (14 tons), 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  3½ cwts. Superphosphate  3½ cwts. Superphosphate Soda, 100 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia
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ON POTATOES.—HOUS FIELD—continued.—SUMMARY OF THE COMPOSITION OF THE "GOOD" TUBERS, in each of the first 5 Seasons, of the discoloured For the composition in 1881 and since, see pp. 94-5, 98-9, 102-3, and 106-7. that little nitrogen, whilst 1876-1880; also the average composition over those first 5 Seasons. EXPERIMENTS

the samples, the results being calculated upon the fresh weights as finally taken for analysis. the results obtained relating to the composition of the tubers themselves, the dry matter, the sugar, the nitrogen, and the ash, in the expressed juice have in many cases been determined; in some cases the amount of the nitrogen existing as albuminoids has been determined; and in some cases the amount of the nitrogen existing as albuminoids has been determined; and in some complete analyses of the nation of his juice have been made. It may be remarked, that by far the larger proportion of both the mineral matter, and the nitrogen, is found to exist in the by far the larger proportion of both the mineral matter, and the nitrogen, is found to exist in the by far the night of cases, the small potatoes have been submitted to the same methods of analysis as In the majority of cases, the small potatoes have been submitted to the small while, and also to the separated discoloured portions of the diseased potatoes contained approximately the normal amount of nitrogen, that of the of the diseased portion contained very much less. On the other hand, the washed, or exhausted Besides have abstract of the analytical results obtained, illustrating the influence of different manures, different sensons, on the composition of Potatoes, is given below. The spatest the tubers is also given. In the tubers the dry matter, nitrogen, and ash termined, and in some cases complete analyses of the ash have been made. Be suits obtained relating to the composition of the tubers themselves, the dry manner of the tubers themselves, the dry manner and the tubers themselves. been determined; and in some cases complete analyses the results obtained relating to the composition of of different dis

probably also contributed to the development of the fungus.

The results given in the Table relate to the "good" potatoes only. In interpreting the figures it must be borne in mind that in each year, the seel was planted on all the plots at the same time, and that all the crops were taken up at the same time; and as there was several times as much produce in some cases as in others; it is obvious that the crops would not each be at its best, and all in the same condition of maturity, when taken up. Then, again, the analyses were not performed immediately after taking up the crops, but some time afterwards, in weighed samples which had been kept in a cool place for some weeks or months; and in the following only preliminary statement of results, no correction is made for any change from the original weight of the many. in the much an of both its nitrogen and its mineral matter, in the development of the fungus. There was a increased amount of sugar found in the diseased potatoes, the result of diseased action, and much more. The distribution of the mineral matter was much is entrogen. It was obvious that the juice had suffered exhaustion of same order as that of the nitrogen. white portion, portion contained very the Jo " marc

Very

contained

discolon	discoloured portion contained very much less, on		0	omposition	of the "Goo	Composition of the "Good" Tubers.		
	MINA STOR DER ANNIM	Specific Gravity		Mineral Matter (Ash).	tter (Ash).	Nitrogen.	gen.	
PLOTS.	(For Produce, see pp. 88–9.)	of the Tubers.	Dry Matter	In Fresh Tubers.	In Dry Matter.	In Fresh Tubers.	In Dry Matter.	( 0
	FIRST SEASON, 1876.							
			Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	,
T	Transformance of the second se	1.097	93.4	96-0	4-11	0.229	0.95	
100	Uninstituted Parity (14 tons)	1.097	23.5	1.00	4.27	0.191	0.81	
N GO	Farmy and Manure (14 tons), and 3½ cwts. Superphosphate (1)	1.085	21.2	0.83	3.95	0.295	1.39	
<del>ن</del> د	Farmyard Manure (14 tons), 3½ cwts. Superphosphate, and 350 lbs. Alturate of booms	1.087	22.1	0.81	3.67	0.332	0c. I	
+ 1¢	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1:091	25.0	0.79	3-28	0.327	1.49	
9 9	Serve Beach 100 the Sulph Soda, 100 lbs.	1.090	20-9	86.0	4.71	0.266	1.27	
	Sulph. Fousi	1.088	21.9	86.0	4.46	0.292	1.33	
- 0	Sulph. Fotash, 100 lbs. Sulph. South, 100 lbs.	1.103	23.5	1:10	4.72	0.199	0.84	
၀၀ (	31 cwts. Superphosphate 300 lbs. Sulphate Potash, 160 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.102	22.9	1:06	4.64	0.171	0.74	
10	of cwis, superprise prosperior of the second Season, 1877.							
		1.119	33.0	1.05	3.17	0.305	0.91	
	Transformational in the case of the case o	1.109	26.5	1.06	4.00	0.212	08.0	
⊣ c	Tourseased Manning (14 tons)	1.103	26.0	1.11	4.26	0.207	08.0	
୩ ଚ	Formsord Manure (14 tons), and 3½ cwts. Superphosphate (1)	1.112	27.2	1.06	3-90	0.301	1.11	
0 4		1.107	22.0	29-0	3.07	0.281	1.28	
Ηıc	400 lbs. Ammonium-salts (2)	1.116	25.9	0.74	2.85	0.301	1.16	
<b>9</b> 9	550 lbs Nitrate of Soda	1.103	28-4	1.23	4.33	0.270	c6.0	
9 6	400 lbs Ammonium-salts, 32 cwts. Superphos., 300 lbs. Sulph. Fonshi, 100 lbs. Sulph. Sollah. Sulph. Mar.	1.112	27.3	1.16	4.26	0.268	86.0	
- O	550 lbs. Nitrate of Sada, 3l cwts. Superplos., 300 lbs. Suiph. Fotash, 100 lbs. Suiph. Sound,	1.109	26.5	1.18	4.44	0.203	97.0	
000	31 cwts. Superphosphate 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.109	8.92	1.21	4.52	0.508	87.0	
DT.	54 CW 65. Cultor procedures							

	0.88 0.86 0.86 1.23 11.25 0.95 0.94 0.68		1.00 0.93 0.91 1.04 1.10 1.20 1.05 1.14 0.93	9	1.33 1.04 1.44 1.51 1.51 1.26 1.19 0.91		1.05 0.92 0.88 1.24 1.33 1.33 1.10 1.10 0.83 0.83	-
	0000000		-004444000					
	0.228 0.209 0.205 0.310 0.326 0.326 0.228 0.228 0.165		0.242 0.220 0.218 0.254 0.254 0.272 0.272 0.273 0.211		0.382 0.287 0.275 0.357 0.415 0.327 0.327 0.327 0.247		0.285 0.221 0.221 0.226 0.326 0.335 0.266 0.276 0.276 0.207	
	2.26 4.4.4.35 2.4.4.35 2.64.4.12 4.4.4.41 4.4.41 4.4.41		2. 4 4 4 2. 3. 3. 3. 4 4 4 4 4 4 4 4 1. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.		8 2 2 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		8:31 9:31	
	0.85 1.02 1.03 0.97 0.67 1.08 1.08 1.14		0.96 0.99 0.91 0.91 0.76 0.76 0.95 1.10 1.10		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.89 1.08 0.93 0.77 0.77 1.04 1.11	
	26.0 24.4 23.8 21.9 22.5 23.5 24.1 24.1		22335 22335 22335 23335 23335 23335 2335 2335 2335 2335 235 23		22222222222222222222222222222222222222		277.2 255.1 24.0 24.0 24.4 25.4 25.0 25.0 25.0	(and water).
	1.107 1.100 1.090 1.099 1.105 1.093 1.097 1.097		1.103 1.103 1.099 1.102 1.103 1.104 1.099 1.099		1.123 1.114 1.117 1.102 1.114 1.114 1.118 1.114		1.110 1.108 1.101 1.096 1.102 1.103 1.103 1.104	i, sp. gr. 1·7 (
Third Season, 1878.	Farmyard Manure (14 tons), and 3½ cwts. Superphosphate (1)  Farmyard Manure (14 tons), and 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts (2) 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate  3½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	Fourth Season, 1879.	Unmanured Farmyard Manure (14 tons), and 3½ owts. Superphosphate (1) Farmyard Manure (14 tons), and 3½ owts. Superphosphate, and 550 lbs. Nitrate of Soda Farmyard Manure (14 tons), 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda 550 lbs. Ammonium-solts, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	FIRTH SEASON, 1880.	Farmyard Manure (14 tons), and 3½ cwts. Superphosphate (*) Farmyard Manure (14 tons), and 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  Farmyard Manure (14 tons), 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts (*) 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 35 cwts. Superphosphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia.	AVERAGE OF 5 SEASONS, 1876 '77, '78, '79, and 1880.	Farmyard Manure (14 tons) Farmyard Manure (14 tons), and 3½ owts. Superphosphate (¹) Farmyard Manure (14 tons), 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda 400 lbs. Ammonium-salts (²) 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 5½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia	(1) "Superphosphate of Line"—in all cases made from 200 lbs. Bone-ash, 150 lbs. Sulphuric acid, sp. gr. 1·7 (and water) (2) "Anmonium-salts"—in each case equal parts Sulphate and Muriate Ammonia of Commerce.
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92

## EXPERIMENTS ON POTATOES.—HOOS FIELD—continued.

Below are given the particulars of the Manures and Produce of the Sixth, Seventh, Eighth, Ninth, and Tenth Seasons, 1881, 1882, 1883, 1884, and 1885. For the Manures and Produce of the 5 preceding years, see pp. 88-9, and of succeeding years, 1886 and since, see pp. 96-7, 100-1, 104-5, and 103-9.

The Land had been under experiments with Wheat, differently manured, from

but as Nitrate of Soda, instead of Ammonium-salts. Plots 7 and 8 received the Plots 1, 2, 3, and 4 had been unmanured for the Wheat. Plots 5 and 6 had received the same quantity of Ammonium-salts alone every year for the Wheat, as Plot 5 now receives for potatoes: Plot 6 now receiving the same amount of nitrogen, 1856 to 1874; and was fallowed in 1875.

(Area under experiment, 2 acres.)

Soda instead of Ammonium-salts. Plots 9 and 10 received the same complex mineral manures alone for the Wheat as Plot 10 now receives for potatoes; Plot 9 now receives super-"Rock" (White); and in those years the rows were 25 inches apart, with 12 same amount of complex mineral manure, and Ammonium-satts, for the Wheat, as phosphate only. Description of Potatoes, in 1876, 1877, 1878, and 1879, the inches from plant to plant in the rows. In 1881, 1882, 1883, 1884, and 1885, the description was the "Champion" (White); and the rows were 25 inches apart, Plot 7 now receives for potatoes; and Plot 8 now receives the same complex mineral manures, and the same amount of nitrogen, but as Nitrate of with 14 inches from plant to plant in the rows.

		i	j.)	, H +5
	Toms			Withered, not weighed each lot spread on its own Plot and ploughed in.
ACRE.		TOTAL.		Tons. cwts.  2 043  8 0 0  8 191  9 1194  9 1194  10 16  10 0  10 10  5 1113
Produce per Acre.	ķ			Toos. cwts.  100 1124411041041041041041041041041041041041041
Pro	Tubers	Small. Diseased.	į.	Tons. cwts. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		Good.	er 5, 6 and	Ons. cwts. 7 1444 6 174 1444 6 1444 6 1444 6 1444 6 1444 6 1444 6 1944 10 10 10 10 10 10 10 10 10 10 10 10 10
	MANURES PER AGRE PER ANNUM.		Sixtil Season, 1881. Potatoes planted, March 31; Crop taken up, October 5, 6 and 7.	Unmanured, in 1876, and each year since  Farmyard Manure (14 tons), and 3½ cvts. Superphosphate (¹)  Farmyard Manure (14 tons), and 3½ cvts. Superphosphate (¹)  Farmyard Manure (14 tons), 3½ cvts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Anmonium-salts, 3½ cvts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cvts. Superphos,, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cvts. Superphosphate  550 lbs. Nitrate of Soda, 3½ cvts. Superphosphate  550 lbs. Nitrate of Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cvts. Superphosphate  550 lbs. Nitrate of Soda, 100 lbs. Sulph. Mag.
	PLOTS.			100410010000

Unmanured, in 1876, and each year since  Unmanured, in 1876, and each year since  Unmanured in 1882. Previously Farmyard Manure (14 tons).  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (4)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (7)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (7)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (8)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (9)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (9)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (9)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (9)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (9)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (9)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (9)  Farmyard Manure (14 tons), and 3½ covts. Superphosphate (14 tons), and 100 lbs. Sulph. Mag. (15 to 15

Withered, not weighed, each lot spread on its own Plot and ploughed		Withered, not weighed, each lot spread on its own Plot ploughed in.	Withered, not weighed, each lot spread on its own Plot and ploughed in.	Withered, not weighed, each lot spread on its own Plot and ploughed in.
21.0 0.0 13.0 14.4 14.12 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	18:34	6 1113 184 114 114 1193 1193 1193 1193 1193 1193	173 123 153 103 1124 1124 1124 1124 1125 1125 1125 1125	1948 774 174 100 105 105 1174 1174 1174 1174 1174 1174 1174 117
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240 4 227 L			September 0 163 0 163 0 163 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1448 3 1184 4 1135 2 2 3 3 3 5 7 0 0 5 7 0 0 5 9 0 0 5 9 0 0 5 0
Unmanured, in 1876, and each year since Unmanured in 1882, and since. Previously Farmyard Manure (14 tons).  Farmyard Manure (14 tons) alone 1883. In 1882, and previously, 3½ cwts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda also  400 lbs. Ammonium salts (*)  550 lbs. Nitrate of Soda  400 lbs. Superphose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. Soluth. Soda, 100 lbs. Sulph. Mag. Stoner, Superphose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. Stoner, Superphose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	3 cwts. Superphosphute, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia. 4 9 NINTH SEASON, 1884. Potatoes planted, March 21. Crop taken up. Sentember	osphate	md in)  Mag. Mag. Mag.	4 tons).  West. Superphosphate also (1) previously, 3½ cwts. Superphosphate, an schild in 100 lbs. Sulph. Soda, 100 lbs. Sulph. sh, 100 lbs. Sulph. Soda, 100 lbs. Sulph. hate Soda, and 100 lbs. Sulph.
- c1 c0 4 10 c0 1- co c	10	- ac 4 7 9 L 8 2 0	- xx 4 rx 9 L x 6 0	198 4 70 9 L 8 C C

EXPERIMENTS ON POTATOES. HOOS FIELD -continued. Summary of the Composition of the "Good" Tubers, in the Sixth, Seventh, Eighth, Ninth, and Tenth Seasons, 1881, 1882, 1883, 1884, and 1885. For the particulars of the composition in the first 5 years, 1876-1880, see pp. 90-1, and for those in succeeding years, 1886 and since, see pp. 98-9, 102-3, and 106-7

An abstract of the analytical results obtained, illustrating the influence of different manures, and of different seasons, on the composition of Potatoes, is given below. The specific gravity of the tubers is also given. In the tubers the dry matter, nitrogen, and ash have been determined; and in some cases complete analyses of the ash have been made. Besides the results obtained relating to the composition of the tubers themselves, the dry matter, the sugar, the nitrogen, and the ash, in the expressed joice have in many cases been determined; in some cases the amount of the nitrogen existing as albuminoids has been determined; and in some cases analyses of the ash of the juice have been made. It may be remarked, that by far the larger proportion of both the mineral matter, and the nitrogen, is found to exist in the juice; and of the nitrogen in the juice, as a rule, not much more than half exists as albuminoids. In many cases, the small potatoes have been submitted to the same methods of analysis as the good potatoes. And in some cases, similar methods of examination have been applied to the still white, and also to the separated discoloured portions of the discoloured potatoes contained approximately the normal amount of nitrogen, that of the discoloured portion contained very much less. On the

other hand, the washed, or exhausted "mare" of the white portion, contained very little nitrogen, whilst that of the discoloured portion contained very much more. The distribution of the mineral matter was much in the same order as that of the nitrogen. It was obvious that the juice had suffered exhausthou of much of both its nitrogen and its mineral matter, in the development of the fungus. There was an increased amount of sagar found in the diseased potatoes, the result of diseased action, and it probably also contributed to the development of the fungus. In interpreting the figures if must be borne in mind that in each year, the seed was planted on all the plots at the same time,

The results given in the Table relate to the "good" potatoes only. In interpreting the figures it must be borne in mind that in each year, the seed was planted on all the plots at the same time, and that all the crops were taken up at the same time; and as there was several times as much produce in some cases as in others, it is obvious that the crops would not each be at its best, and all in the same condition of maturity when taken up. Then, again, the analyses were not performed immediately after taking up the crops, but sometime afterwards, in weighed samples which had been kept in a cool place for some weeks or months; and in the following only preliminary statement of results, no correction is made for any change from the original weight of the samples, the results being calculated upon the fresh weights as finally taken for analysis.

1   Unmanured, in 1876, and each year since   Sinth Season, 1881.   Pions   Sinth Season, 1882.   Pions Season, 1882.   Pions Season, 1883.   Pions Season, 1883		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5	0	Omposition	Composition of the "Good" Tubers.	ood " Tuber	S.
Unmanured, in 1876, and each year since Farmyard Manure (14 tons). Farmyard Manure (14 tons), and 3½ cwts. Superplosphate (1) Farmyard Manure (14 tons), 3½ cwts. Superplosphate (2) Farmyard Manure (14 tons), 3½ cwts. Superplosphate, and 550 lbs. Nitrate of Soda 400 lbs. Ammonium-salts, 5½ cwts. Superploss, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superploss, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superplosphate (14 tons), 8½ cwts. Superplosphate (1) Farmyard Manure (14 tons), 3½ cwts. Superplosphate, 100 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superploss, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 55 cwts. Superplosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	PLOTS.	ACRE, FER ANNUM.	Specific		Mineral M	Mineral Matter (Ash).		Nitrogen.
Unmanured, in 1876, and each year since  Farmyard Manure (14 tons)  Farmyard Manure (14 tons), 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate Potash, 100 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.  Sevts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  Nimanured, in 1876, and each year since  Unmanured, in 1876, and each year since  Unmanured (14 tons), 3½ cwts. Superphosphate (?)  Farmyard Manure (14 tons), 3½ cwts. Superphosphate (?)  Farmyard Manure (14 tons), 3½ cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda  400 lbs. Ammonium salts (?)  550 lbs. Nitrate of Soda  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulphate Magnesia  550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate  550 lbs. Nitrate of Soda, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, 100 lbs. Sulphate		(16. 67–67)	of the Tubers.	Dry Matter.	In Fresh Tubers.	In Dry Matter.	In Fresh Tubers.	In Dry Matter.
Unmanured, in 1876, and each year since Farmyard Manure (14 tons), and 3½ cwts. Superphosphate (1) Farmyard Manure (14 tons), and 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda 400 lbs. Ammonium-salts (2) 550 lbs. Nitrate of Soda 3½ cwts. Superphose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate 550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate Potash, 100 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia  1		Sixth Season, 1881.						
Farmyard Manure (14 tons), and 3½ owts. Superphosphate (1)  Farmyard Manure (14 tons), 3½ cwts. Superphosphate (1)  Farmyard Manure (14 tons), 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate  Severa Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  Umanured, in 1876, and each year since  Umanured, in 1876, and each year since  Umanured in 1882. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons), 3½ cwts. Superphosphate (1)  Farmyard Manure (14 tons), 3½ cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulphate Magnesia.  53 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	пс		1.125	Per cent.	Per cent. 0.86	Per cent. 2.82	Per cent. 0.389	Per cent,
Farmyan Manure (14 1001s), 3½ cwts. Superphosphate (7)  Farmyan Manure (14 1001s), 3½ cwts. Superphosphate, and 550 lbs. Nitrate of Soda  400 lbs. Ammonium-salts (*)  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate Potash, 100 lbs. Sulph. Esason, 1882.  Umanured, in 1876, and each year since  Umanured, in 1876, and each year since  Umanured (14 tons), 3½ cwts. Superphosphate (1)  Farmyard Manure (14 tons), 3½ cwts. Superphosphate.  10 lbs. Nitrate of Soda also  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate Potash, 100 lbs. Sulph. Soda, and 100 lbs. Sulphate Magnesia.	4 60	: : : : : : : : : : : : : : : : : : : :	1.116	29.1	66.0	3.41	0.294	1.01
400 lbs. Nitrate of Soda 4 cwts. Superplose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 32 cwts. Superplose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 32 cwts. Superplose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 35 cwts. Superplosephate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Unmanured, in 1876, and each year since Unmanured in 1882. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons), 32 cwts. Superplosephate. (1) Farmyard Manure (14 tons), 33 cwts. Superplosephate. In 1881, and previously, 550 lbs. Nitrate of Soda also.  400 lbs. Ammonium salts (2) 550 lbs. Nitrate of Soda, 33 cwts. Superplose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 33 cwts. Superplose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 33 cwts. Superplosephate Soda, and 100 lbs. Sulphate Magnesia.	2 4	11. N. 1	1.113	28.1	1.07	3.81	0.295	1.05
550 lbs. Nitrate of Soda, 3½ cwts. Superplos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superplos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superplosphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Sevts. Superplosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Sevts. Superplosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda also.  Tampard Manure (14 tons), 3½ cwts. Superplosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also.  550 lbs. Nitrate of Soda, 3½ cwts. Superplos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superplosphate. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superplosphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	H LC	S. og cwis. Superpuospinate, and coo los. Mitrate of Soda	1.107	56.0	0.91	3.51	0.359	1.39
400 lbs. Nitrate of Soda, 3½ cwts. Superplos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superplos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Severa Superphosphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Severa Superphosphate. 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda also.  Thannoulle Ammonium salts (2) 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 53 cwts. Superphosphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	9 00		1.115	27.9	0.84	3.03	0.375	1.35
Several Superphosphate. Superphoses. Superphoses. Suppl. 100 lbs. Sulph. Mag. 34 cwts. Superphose, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 35 cwts. Superphosphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Several Superphosphate. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Several Superphosphate. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Unmanured, in 1876, and each year since  Unmanured in 1882. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons), 34 cwts. Superphosphate. (1)  Farmyard Manure (14 tons), 35 cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also.  550 lbs. Nitrate of Soda.  540 lbs. Ammonium sults, 34 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 35 cwts. Superphosphate.  550 lbs. Nitrate of Soda, 34 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 35 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	) [·	Sulph Detach 100 11. St. 1-1 C. 1	1.114	28.0	92.0	2.70	0.379	1.36
Severs. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Severs. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Umanured, in 1876, and each year since Umanured in 1882. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons), and 3½ cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also.  140 lbs. Ammonium salts (**) 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 53 cwts. Superphosphate. 53 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	-	Sulph Beeck 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.110	26.7	1.06	3.97	908.0	1-15
Severs. Superphysphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Severs Superphysphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Season, 1882. Unmanured, in 1876, and each year since Unmanured in 1882. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons), 32 cwts. Superphosphate. (1) Farmyard Manure (14 tons), 33 cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also. 550 lbs. Nitrate of Soda 460 lbs. Ammonium selts, 32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 32 cwts. Superphosphate. 33 cwts. Superphosphate. Soulphate Potash, 100 lbs. Sulphate Magnesia.		Superpuss. 500 tos. Sulph. Fotash, 100 tos. Sulph. Boda, 100 tos. Sulph. Mag.	1.107	25.3	86.0	3.89	0.341	1.35
Unmanured, in 1876, and each year since Unmanured in 1882. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons), 32 cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 53 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	100	100 11 - 6-1 - 1 - 6 - 1 - 1 - 1 - 1 - 1 -	1.123	29.0	1.14	3.92	0.242	0.83
Unmanured, in 1876, and each year since Unmanured, in 1876, and each year since Unmanured in 1882. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons), and 3½ cwts. Superphosphate (1) Farmyard Manure (14 tons), and 3½ cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also. 550 lbs. Nitrate of Soda 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 53 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia		100 10s. Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.122	28.3	1.17	4.13	0.225	08-0
Unmanured, in 1876, and each year since Unmanured, in 1876, and each year since Unmanured in 1882. Previously Farmyard Manure (14 tons) Upmanured in 1882. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons), 32 cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also. 550 lbs. Nitrate of Soda 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 32 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia								
Chimanure III 1932. Trevously Farmyard manure (14 tons) Farmyard Manure (14 tons), and 3½ cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also. 1550 lbs. Nitrate of Soda. 1550 lbs. Superphos. 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	<b>-</b> c		1-127	29.5	0.83	2.85	0.296	1.00
Farmy and Manue (14 tons), 3½ cwts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also. 440 lbs. Ammonium salts (2) and solven the solven that the solven the solven that the solven the solven that the solven that the solven that the solven the solven that the solven	1 0		I-131	30.3	0.91	3.01	0.260	98-0
440 lbs. Ammonium saits (*) 53 owts. Superphosphate. In 1881, and previously, 550 lbs. Nitrate of Soda also 550 lbs. Nitrate of Soda also 550 lbs. Nitrate of Soda also 550 lbs. Nitrate of Soda, 32 owts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 53 owts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 53 owts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	0 4		1-122	28.7	0.97	3.39	0.261	16.0
550 lbs. Nitrate of Soda. 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate. 3½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	H IC	e. In 1881, and previously, 550 lbs. Nitrate of Soda also	1.116	56.6	0.93	3.48	0.313	1.18
400 lbs. Ammonium sults, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	0 00		1.119	27.9	0.77	2.78	0.372	1.34
550 lbs. Nitrate of Soda, 3½ cwts. Superpluss., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superpluss., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superplusphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	, h	6.1.1 D. 1.1. 10011 2.1.2	1.119	27.9	62-0	2.82	0.408	1.46
34 cwts. Superphosphate. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	- ox	Sulph. Fotash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.120	27.5	96-0	3.49	0.305	1:11
32 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia		Surph. Fotash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1-123	28.5	86.0	3.46	0.336	1.19
o los. Sulphate Soda, and 100 lbs. Sulphate Magnesia ]	-	10 lb. C. late 6.3 3 100 11 C	1.128	29.3	1.03	3.53	0.509	0-71
		of tos. Sulphate Soda, and 100 lbs. Sulphate Magnesia 1	1.125	29.1	1.08	3.71	0.229	62.0

N		00	6.00	00.0	01.6	010:0	10.0
က	::	1.128	56.6 26.6	0.95	3.56	0.289	1.09
41	osphate, and in 1881, and)	1.109	26.2	0.93	3.53	0.320	1.22
2		1-117	8-92	0.75	2.81	0.368	1.37
9 L		1.118	8 92	0.71	2.64	0.393	1.47
- 00	Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.113	26.2	96.0	3.67	0.282	1.08
	oush, 100 10s. Sulph. Soda, 100 10s. Sulph. Mag.	1.111	7 07	1.09	9.40	808.0	1.97
2	300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.122	27.2	1.02	3.86	0.197	0.73
	NINTH SEASON, 1884.						
		-117	27.0	0.75	2.78	0.360	1.33
40		1.115	56.9	08.0	5.99	0.361	1.34
•		1.102	54.6	0.91	3.69	0.330	1.59
4	previously, 52 cwis. Superphosphate, and in 1881, an	660.	23.8	0.92	3.88	0.382	1.61
2	400 lbs. Ammonium-salts (2)	-107	8.56	0.67	9.58	0.456	1.77
9		.105	25.2	0.66	5.61	0.443	1.7
<u>-</u>	. Potash, 100 lbs. Sulph. Soda,	660.	24.3	0.95	3.89	0.387	1.59
00 0	Potash, 100 lbs. Sulph. Soda, 100 lbs	860	23.8	68.0	3.72	0.440	1.85
J. C		.117	.9.97	1.01	3.78	0.260	0.98
	Sulphate Sc	8	8.97	1.07	3.98	0.238	0.88
	Tenth Season, 1885.		100000000000000000000000000000000000000				
H 0	Unmanured, in 1876, and each year since	.123	28.7	0.85	2.85	0.330	1.36
1 00	Farmyard Manure (14 tons) alone 1883 and since: previously 33 cwts. Smernhara also (1)	.124 .114	27.9	88.0 0	2 .5 2 .63 2 .63	0.388	1.39
4	and in)	911.1	0.00	0.07	9.6	7000	H I
1	<u></u>	ern	6 07	100	10.6	0.410	90.1
9	550 lbs. Nitrate of Soda	.115	27.5	0.83	3.01	0.474	1.73
-	400 lbs. Armonium-sails, 32 cwts. Smernhos. 300 lbs. Suith Potest, 100 lbs. Suith, Soda 100 lbs. Suith, Soda 100 lbs.	911.	4.72	47.0	2.50	0.482	1.76
00	5501bs. Nitrate of Soda, 3½ cwts. Superphes, 300 1bs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag-	.116	27-7	0.93	3.37	0.408	1.53
6	34 cwts. Superphosphate	.127	28.6	1.02	3.56	0.340	1.19
اد	Sulphate Soda, and 100 lbs. Sulphate Magnesia	119	27.6	1.10	3.97	0.299	1.08
1	AVERAGE OF 5 SEASONS, 1881, '82, '83, '84, and 1885.						
-1 67		.123	28.8	0.81	2.81	0.349	1.21
<b>63</b>	Farmyard Manure (14 tons) alone 1883 and since; previously 34 cwts. Superphosphate also (1).	-114	26.9	0.97	3.62	0.326	1.11
4	Harmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda also	1.109	25.9	0.93	3.60	0.358	1.39
Ď.	Amnonium-salts (*)	1.115	27.2	22 0	2.84	0.409	1.51
9		.115	27.1	0.73	2.69	0.421	1.56
<u>-</u>	Sulph, Ma	1.111	26.3	86.0	3.72	0.338	1.29
00 0	Sulph. Soda, 100 lbs.	1.111	26.5	0.95	3.66	0.377	1.45
0	34 cwts. Superpliesphate, 300 lbs. Suphate Potash, 100 lbs. Supprate Soda, and 100 lbs. Suphate Magnesia	124	28·1 27·8	$\frac{1.04}{1.09}$	3.71 3.93	$0.252 \\ 0.238$	06-0

its own Plot

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Sulph. Soda, 100 lbs. Sulph. Mag. Sulph. Soda, 100 lbs. Sulph. Mag.

and previously, 550 lbs. Nitrate of Soda also
Sulphate Ammonia (3)
Nitrate of Soda.
Sulph. Ammonia, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Ma Sulperphosphate of Soda, 3½ cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Ma Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia

(Farmyard Manure (1881, and previous 450 lbs. Sulphate Ar 550 lbs. Nitrate of St 450 lbs. Sulph. Amm 550 lbs. Nitrate of St 3½ cwts. Superphospi 3½ cwts. Superphospi 3½ cwts. Superphospi

200 8444 no

spread on each lot

## EXPERIMENTS ON POTATOES.—HOOS FIELD—continued.

Below are given the particulars of the Manures and Produce, of the Eleventh, and 1890. For the Manures, description of Potatoes grown, and the Produce, in the 10 welfth, Thirteenth, Fourteenth, and Fifteenth Seasons, 1886, 1887, 1888, 1889, preceding years, see pp. 88-9, and 92-3, and in succeeding years, pp. 100-1, 104-5, and 108-9.

The arrangement of the plots is precisely the same as for the 10 preceding potato

(Area under experiment, 2 acres.)

ing that for the crop of 1887 Sulphate Ammonia was applied instead of equal parts of Sulphate and Muriate Ammonia, as in former years and since (see foot-note crops. The manures are the same as for the crops of 1883, 1884 and 1885, except-No. 2). Description of Potato, "The Champion" (White). Rows 25 inches apart; 14 inches from plant to plant in the rows.

Tubers.  Good. Small. Diseased. Total.  Tons. cwts. Tons. cwts. Tons. cwts.  1 17 2 15 0 3 0 1 2 16 3 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Cood.   Small.   Tuber 30, and October 1 a.   Tons. cwts.   Cood.   Small.   Cood.   Small.   Cood.   Small.   Cood.   Small.   Cood.   Cood
Cood.   Small.   Diseased.   Total.	Good.   Small.   Diseased.   Total.
Good.   Small.   Diseased.   TOTAL.	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Tons. cwts.   Tons. cwts.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Cototo Monda prototo	I claudes planted, maich 27.

1982, and previously, 3½ certs. Superphesphate also (*)   1982, and previously, 3½ certs. Superphesphate and in (*)   23   3   0   24   0   6   2   114	9	Unmanured in 1876, and each year since	2	-11.				- (		i
Permy and Martine (14 to 20) and 18 to 18 to 18 to 19 to 1			2.13	00	27.		*-		1	
Start Ammonium-state of South Structe of South also   19   19   19   19   19   19   19   1	10.4	Farmyard Manure (14 tons) alone 1883 and since; previously 33 cwts. Superphosphate also (1).		0,	21		-		_	g,
10   18 Ammonium of Solds, 21 over Supplies (2010) in Supplie Solds, 100 in Supplie So	21 12	(1881) and previously, 550 lbs. Nitrate of Soda also		0	 ⇔		-		-	t t
250 Des Nittate of Softh, 35 over Superplose, 300 Des Suiph, Schai, 100 Des Suiph, Soft, 100 Des Suiph, Nage 2 54 0 24 0 14 1 129 1 139		400 lbs. Ammonium-salts (2)	0 193	0	22		 	1 2½	-	Д.
5   500 ks. Nutter of Social, 25 were. Superplose, 300 ins. Suiph. Forsah, 100 line. Suiph. Social, 100 line. Suiph. So		400 lbs. Anmonium-salts, 33 cwts. Sunernhos, 300 lbs Sulth, Portes, 100 lbs. Callet, S. 100 lbs.		0	(Z)				_	lot
10 Sie ven Superphenspunse in St. Sanghade Petach, 100 lbs. Sulpinet Soda, and 100 lbs. Sulpinet Magnesia 1 112 0 11 0 12 0 11 151 1133 in.  11 Ultramunotic in 1875, and state and Petach, 100 lbs. Sulpinet Soda, and 100 lbs. Sulpine Sulpine Solar Superphenspunse in 1825, and state of Soda Sulpinet Petach, 100 lbs. Sulpinet Solar So	100	550 lbs. Nitrate of Soda, 3g owts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs.		0 0	40100		_			T
Unmanured in 1875, and even year, store, Percivately Permiser, March 295 and 226. Crop place in 1875, and even year, store Permiser, and store, Permiser,	-[	3g cwts. Superpliesphate, 304 lbs. Sulphate Potash, 100 lbs. Sulphate Sods. and 100 lbs. Sulphate		00	# <b>-</b>		_		i	
Unmanured in 1829, and each ver stience	1	Ason, 1889. Potatoes planted, March 28 and 29. Grop taken un.	ntember 1	6-18	123		144	108	700	İ
Formand Manner (14 tons) lone 1885 and since; previously 23 certs Superphosphate also ()   194   0   2   0   0   1   13   0   0   0   0   0   0   0   0   0		Unmanured in 1876, and each year since	0 132	0	23		1	161		
Ferrivariand Manner (incremaly, 550 Pearls and previously, 35 cwts. Superphosphate, and in 1 15 19 0 25 0 77 1 1199   Multiered, 400 Des. Milate of Soda also   1882, and previously, 550 cwts. Superphosphate, and in Multiple Soda, and previously, 550 cwts. Superphosphate, and previously, 550 cwts. Superphosphate, and previously, 550 cwts. Superphosphate, 300 Des. Sulph. Petash, 100 Des. Sulph. Seda, 100 Des. Sulph		Farmyard Manure (11 1925, and since, Treviously Farmyard Manure (14 tons)		0	23		20 000-0	13	-	
1881, and perycolasty, 550 Bb. Nitrate of Soda also   1981, and perycolasty, 550 Bb. Nitrate of Soda also   1981, and perycolasty, 550 Bb. Nitrate of Soda also   1981, and perycolasty, 550 Bb. Nitrate of Soda   1981, and perycolasty, 550 Bb. Nitrate of Soda   1981, and perycolasty, 550 Bb. Nitrate of Soda   1982, and perycolasty, 550 Bb. Nitrate of Soda   1982, and perycolasty, 550 Bb. Nitrate of Soda also   1982, and pericolasty, 550 Bb. Nitrate of Soda also   1982, and pericolasty, 550 Bb. Nitrate of Soda also   1982, and pericolasty, 550 Bb. Nitrate of Soda also   1982, and pericolasty, 550 Bb. Nitrate of Soda also   1982, and pericolasty, 550 Bb. Nitrate of Soda also   1982, and pericolasty, 550 Bb. Nitrate of Soda also   1982, and pe		(Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously 34 cwts. Superphoto and		0	က		-00	193	not weigh	r)
1	72	1881, and previously, 550 lbs. Nitrate of Soda also		0	65				each lot	f
400 Next Superphosphate of Solal, 38 overs. Superphose, 300 Use Sulph, Potash, 100 Use, Sulph, Sola, 100 Use, Sulph, Mog. 3		550 lbs. Nitrate of Soda	1 14	0	23		034	43	spread on	
10   25   24   25   25   25   25   25   25	4	400 lbs. Animonium-solts, 34 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda. 100 lbs.	. 6 86	<b>-</b>	27 C		-tea-	12	and and	10
Unmanued in 1876, and each year street   February Magnesia   2 15   0 12   0 13   1 185   1		30 total Survey of Sola, 32 owts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs.		0	4 01		ka rek	1113	i ploughed	F-1
Unmanured in 1876, and each year struct.   Charges planted April 3. Crop taken up, September 9-11.		10 33 cwts. Superpliciplings 300 lbs Superpliciples		0	67		N	181	in.	
Unmanued in 1896, and since. Previously Farmyard Manue (14 tons)	,	1800 Detection Detection of the local principle of the local princip		0	100-00	0	- 5	53	1	(
2 Unmanured in 1882, and since. Perviously Farmyard Manure (14 tons)  4 (Fringward Manure (14 tons) alone 1883 and since; previously 35 overs. Superphosphate also (1)  5 400 Bs. Mirate of Soda, also and previously, 35 overs. Superphosphate, and in	1	planted, April o.		-111						
Farmyard Manure (14 tons) alone 1883 and since.   Treationsly 3\text{3} cwits. Superphosphate also (7)				<b>D</b> C	9 1-					97
1881, and previously, 556 [bs. Nitrate of Soda also   1982, and previously, 556 [bs. Nitrate of Soda also   1982, and previously, 556 [bs. Nitrate of Soda also   1982, and by the soda   1982, and contains a strain series   1983, and contains a strain series   1984, an		previously 32 cwts. Superphosphate also (1)		0	- 8 - 4 - 4		41		Withered	
5 400 lbs. Ammonium-salts (*)  5 400 lbs. Ammonium-salts (*)  5 500 lbs. Niirate of Soda  5 600 lbs. Almonium-salts (*)  5 60 lbs. Niirate of Soda  5 600 lbs. Niirate of Soda  5 600 lbs. Sulph. Mag.  5 14 0 64 0 64 0 64 0 64 0 64 0 64 0 64 0		11 1002, and previously, 32 cwts. Superphosphate, and		0	80		_		hor weight	ੁ) ਰੂੰ
10   18 Ammonium-salts 3 cvts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   5   13   0   6   0   0   6   0   0   0   0   0			ľ	- ú	103					-
550 lbs. Nitrate of Soda, 3½ cwts. Superplaces, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 5 134 0 64 0 74 6 74 0 84 0 84 0 84 0 84 0 84 0 84 0 84 0		5 July 198, All Talke of Sooda 5 July 198 A municipal and 198 A mu			684				-	ot
10 3½ cwts. Superphosphate  11 Unmanured in 1876, and each year since  12 Unmanured in 1876, and each year since  13 Tearnyard Manure (14 tons) alone 1883 and since. Previously Farmyard Manure (14 tons) alone 1883 and since. Previously 3½ cwts. Superphosphate also (1)  14 Tearnyard Manure (14 tons) alone 1883 and since. Previously 3½ cwts. Superphosphate also (1)  15 Tearnyard Manure (14 tons) alone 1883 and since. The 1882, and previously 3½ cwts. Superphosphate also (1)  16 Tearnyard Manure (14 tons) alone 1883 and since. The 1882, and previously 3½ cwts. Superphosphate also (1)  18 Tearnyard Manure (14 tons) alone 1883 and since. The 1882, and previously 3½ cwts. Superphosphate also (1)  18 Tearnyard Manure (14 tons) alone 1883 and since. The 1882, and previously 3½ cwts. Superphosphate also (1)  18 Tearnyard Manure (14 tons) alone 1883 and since. The 1882, and previously 3½ cwts. Superphosphate of Soda also  18 Tearnyard Manure (14 tons) alone 1883 and since. The 1882, and previously 3½ cwts. Superphosphate of Soda also  18 Tearnyard Manure (14 tons) alone 1883 and since made from high percentage mineral phosphates (1) also the Sulphate Ammonia and Murate Ammonia of Commerce.	1000	S 550 lbs. Nitrate of Sods, 32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph.			64.					
Unmanured in 1876, and each year since   Porash, 100 lbs. Sulphate Roda, and 100 lbs. Sulphate Magnesia   2 164   0 04   3 10 04   3 10 10		9 32 owts. Superpliesphate			44 8		_	ľ	_	_
Unmanured in 1876, and each year since   Averace of 5 Seasons, 1886, '87, '88, '89, and 1890.   1   1   1   1   1   1   1   1   1		3 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100			6 4 14 14			·	_	
Unmanured in 1882, and each year since.   Previously Farmyard Manure (14 tons)   1 16\frac{3}{8}	-	AVERAGE OF 5 SKASONS, 1886, 187, '88, '89,				L	1	1		1
Farmyard Manure (14 ton.) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate also (*).    181	100	2 Unmanured in 1882, and since Proximaly Downson M.		0	88		-			ı
(Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in)  3 12½ 0 4¼ 0 4¼ 4 1  400 lbs. Ammonium-salts (2)  550 lbs. Nitrate of Soda also  400 lbs. Ammonium-salts (2)  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. (2)  3 15¼ 0 4¼ 0 1½  4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100	3 Farmyard Manure (14 ton.) alone 1883 and since: mercinaly at rarie one	1 168	0	00°					
400 lbs. Ammonium-salts (**)  50 lbs. Nitrate of Soda also  400 lbs. Ammonium-salts (**)  500 lbs. Nitrate of Soda.  1 4\frac{3}{2} 0 4\frac{4}{2} 0 0\frac{3}{2} 1 9\frac{4}{2} 4 1  500 lbs. Nitrate of Soda.  1 4\frac{3}{2} 0 4\frac{4}{2} 0 0\frac{3}{2} 1 9\frac{4}{2} 4  500 lbs. Nitrate of Soda.  400 lbs. Ammonium-salts.  1 11\frac{4}{2} 0 6\frac{4}{2} 0 0\frac{3}{2} 1 16  500 lbs. Nitrate of Soda.  2 11\frac{4}{2} 0 6\frac{3}{2} 0 1  500 lbs. Nitrate of Soda.  3 15\frac{4}{2} 0 3\frac{4}{2} 0 1  1 17\frac{4}{2} 0 3\frac{4}{2} 0 1  1 17\frac{4}{2} 0 3\frac{4}{2} 0 1  2 3\frac{4}{2} 0 1  3 17\frac{4}{2} 0 3\frac{4}{2} 0 1  4 1\frac{4}{2} 0 3\frac{4}{2} 0 1  5 17\frac{4}{2} 0 3\frac{4}{2} 0 1  5 17\frac{4}{2} \frac{4}{2} 0 1  5 17\frac{4}{2} \frac{4}{2} \fr		In 1882, and previously, 32 cwts, Superplocarbete and	5 04	0	14				Withered	٠,
1 4\frac{1}{2}		bs. Nitrate of Soda also	$\frac{3}{2}$	0	44		44		not weighe	ď,
400 lbs. Ammonium-salts. 3½ cwts. Superphos. 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3 15½ 0 3 15 4 4 34 4 34 32 cwts. Superphosphate of Soda, 3½ cwts. Superphosphate of Soda, 3½ cwts. Superphosphate and Sulphate Fotash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia 2 3½ 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			1 43		84		-	93		
250 Ubs. Nitrate of Soda, 3½ cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 175 0 34 0 34 0 44 4 94 34 34 cwts. Superphosphate 200 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia 2 34 0 34 0 1 2 74 2 14 3 2 34 0 34 0 1 2 34 10 1 3 3 3 4 5 3 3 4 5 3 3 4 5 3 3 4 5 3 3 4 5 3 3 4 5 3 3 4 5 3		liph. Potash, 100 lbs Sulph Soda 100 lbs	1114		60 0 8)4:83		_			ot
23 cws. Superplusquate 200 lbs. Sulphate Potsah, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia. 2 33 0 34 0 1 2 1 4 1 2 1 4 1 2 1 1 1 1 1 1 1 1 1 1		550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs.	0 134 4 14		34 034				_	
and Containing 37 per cent., or more, of soluble phosphate.  (1) "Superphosphate of Lime," 1486, and 1887, made from 200 lbs. Bone-ash, 150 lbs. Sulphurio acid, sp. gr. 1.7 (and water); 1888, and since, made from high percentage mineral phosphates, (2) "Amonomia see equal parts Sulphate and Muriate Ammonia of Commerce.  (3) 450 lbs. Sulphate Ammonia is estimated a coverage mineral phosphates, (3) 450 lbs. Sulphate Ammonia is estimated a coverage made from high percentage mineral phosphates, (3) 450 lbs. Sulphate Ammonia is estimated a coverage.	1	32 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Sods and 100 lbs. Sulphate			* en 5				/ prougated	
(2) "Anmonium-sils"—in each case equal parts Supparts Sup	Y .	(1) "Superphosphate of Lime," 1486 and 1887, made from 200 lbs. Bone-ash, 150 lbs. Sulphuric acid, sp. gr. 1-7 (and water): 1888, and	d since made	a from	igh nor	T Contact		*4		1
		(2) "Ammonium-salts"—in each case equal parts Sulphate and Muriate Ammonia of Commerce.  (3) 450 lbs. Sulphate Ammonia is estimated to come and many account of the companies of			1			deund r	'sana	

For particulars of the composition in the first 10 years, 1876-1885, see Twelfth, EXPERIMENTS ON POTATOES, -HOUS FIELD -continuea. -STAMARY OF THE COMPOSITION OF THE "GOOD" TUBERS, in the Eleventh, pp. 90-1, and 94-5, and for those in succeeding years, 1891 and since, see pp. 102-3, and 106-7. Thirteenth, Fourteenth, and Fifteenth Seasons, 1886, 1887, 1888, 1889, and 1890.

An abstract of the analytical results obtained, illustrating the influence of different manures, and of different seasons, on the composition of Potatoes, is given below. The specific gravity of the tubers is also given. In the tubers the dry matter, nitrogen, and ash have been determined; and in some cases complete analyses of the ash have been made. Besides the results obtained relating to the composition of the tubers themselves, the dry matter, the sugar, the nitrogen, and the ash, in the expressed juice have in many cases been determined; and in some cases the amount of the sh nitrogen existing as albuminoids has been remarked, that by far the larger proportion of both the mineral matter, and the nitrogen, is found to exist in the juice; and of the nitrogen in the juice, as a rule, not much more than half exists as albuminoids. In many cases, the small potatoes have been submitted to the same And in some cases, similar methods of examination methods of analysis as the good potatoes. And in some cases, similar methods of examination have been applied to the still white, and also to the separated discoloured portions of the diseased potatoes. With regard to these latter results, it may be observed, that whilst the juice of the white portion of the diseasel potatoes contained approximately the normal amount of anyonen, that of the discoloured portion contained very much less. On the other hand, the nitrogen, that of the discoloured nortion contained very much less.

The of the discoloured portion contained very much more. The distribution of the mineral matter and was much in the same order as that of the nitrogen. It was obvious that the juice had been was much in the same order as that of both its nitrogen and its mineral matter; in the development of saces the fungus. There was an increased amount of sugar found in the diseased optatoes, the result of diseased action, and it probably also contributed to the d-velopment of the fungus.

The results given in the Table relate to the "good" potatoes only. In interpreting the figures it must be borne in mind that in each year, the seed was planted on all the plots at the same time, and that all the crops were taken up at the same times as much produce in some cases as in others, it is obvious that the crops would not each analyses were not performed immediately after taking up the crops, but sometime afterwards, the missing conjupting only preliminary statement of results, no correction is made for any change from the taken for analysis.

				Composition of the "Good" Tubers.	of the "Go	od " Tuber	,
D. Out	MANURES PER ACRE, PER ANNUM.	Specific Gravity		Mineral Ma	Mineral Matter (Ash).		Nitrogen.
r LOIS.	(For Produce, see pp. 96-7.)	of the Tubers.	Dry Matter.	In Fresh Tubers.	In Dry Matter.	In Fresh Tubers.	In Dry Matter.
	Eleventh Season, 1886.					,	
	The state of the s	701.1	Per cent.	Per cent.	Per cent.	Per cent. 0.403	Per cent.
т с	:	1.195	1-66	0.87	3.00	0.450	1.44
N 60	Uninature in 1005, and since, recovery, teamper in the fact of the	1.112	26.7	86.0	3.69	0.385	1.44
) 4	(Farmyard Munure (14 tons) alone 1883 and since. In 1882, and previously 34 cwts. Superphosphate, and in	1.115	7.92	0.93	3.47	0.423	1.59
1 14	rare	811.1	7.82	0.75	2.62	0.468	1.63
ુ હ	22	611.1	28.6	22-0	2.68	0.468	1.64
) [·	400 by Ammonium-safe 3 owie Surembos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.111	27.4	1.01	3.67	0.401	1.46
- O		1.116	28.2	86.0	3.48	0.395	1.40
00	Smernhosniate	1.123	28-4	0-97	3.41	0.328	1.16
0	Superposphate, 300 lbs. Sulphate Poiash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.122	28.5	1.08	3.79	0.299	1.02
	Twelfth Season, 1887.			127			
-	Thursaning in 1876 and each year since	1.121	28-0	0.83	2.97	0.434	1.55
10	Thursday 1899 and since Previously Fernward Manne (14 tons)	1.121	28.5	18.0	3-07	0.424	1.50
9 00	reviously 34 cwts. Superphosphate also (1)	1.106	25.1	1.00	3:98	0.396	1.58
) (4		1.107	25.2	0.97	3.85	0.374	1.48
	( 1881 and previously, 550 lbs. Nitrate of Soda also	1	100	000	G. G.	0.478	1 77
ũ	450 lbs. Sulphate Ammonia (*)	eii.i	5.1.3	07.0	200	0.75.0	1.74
9	550 lbs. Nitrate of Soda	1.115	27.4	22.0	2.80	0.400	20.1
7	450 lbs. Sulph. Ammonia, 33 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.106	26.3	7.12	4-23	0.4.3	CC. T
00	550 lbs. Nitrate of Soda, 34 ewts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.108	25.5	66-0	95.50	0.431	69.T
6	34 cwts, Superphosphate	1.118	9.72	80.1	30.0	0.370	1.34
10	34 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	1111	5.97	71.1	4.21	ecc.n	CC 1

10   10   10   10   10   10   10   10							47.
10   20   20   20   20   20   20   20	34 cwts. Superphosphate also (1)	1.105	25.3	1.03	4.09	0.330	1.54
ba. Sulph. Mag. 1-110 26-8 0.78 2-92 0.440 bb. Sulph. Mag. 1-116 25-5 1-00 3-93 bb. Sulph. Mag. 1-116 25-5 1-00 3-93 bb. Sulph. Mag. 1-112 26-8 1-111 4-14 0.313 cosphate, and in 1-120 28-1 1-05 3-98 0.360 bb. Sulph. Mag. 1-112 26-1 0.99 3-74 0.394 bb. Sulph. Mag. 1-112 26-1 0.99 3-74 0.360 bb. Sulph. Mag. 1-112 26-1 0.99 3-74 0.360 bb. Sulph. Mag. 1-112 26-1 0.99 3-74 0.360 bb. Sulph. Mag. 1-112 28-1 0.81 2-84 0.430 bb. Sulph. Mag. 1-112 28-1 0.81 2-89 0.360 bb. Sulph. Mag. 1-112 28-1 0.391 3-78 0.360 bb. Sulph. Mag. 1-112 28-1 0.391 3-78 0.369 bb. Sulph. Mag. 1-112 28-1 0.391 3-78 0.369 bb. Sulph. Mag. 1-112 28-1 0.391 3-78 0.369 bb. Sulph. Mag. 1-112 28-1 0.37 3-39 0.369 bb. Sulph. Mag. 1-112 28-1 0.37 3-39 0.369 bb. Sulph. Mag. 1-112 28-6 0.39 3-70 0.375 bb. Sulph. Mag. 1-111 26-3 1-01 3-85 0.436 bb. Sulph. Mag. 1-111 26-3 1-01 3-87 0.385 bb. Sulph. Mag. 1-111 26-3 1-01 3-87 0.385 bb. Sulph. Mag. 1-111 4-06 0.383 bb. Sulph. Mag. 1-111 4-06 0.393 bb. Sulph. Mag. 1-111 4-06 0.393 bb. Sulph. Mag. 1-111 4	and previously, 32 owts. Superphosphate, and	1 104	25.4	1.04	4.10	0.362	1.43
11   25   10   25   10   25   10   25   10   25   25   25   25   25   25   25   2	0.00 lus, Altrake 01 500th 3150	1.110	26.8	82.0	2.92	0.440	1.64
## cvrts. Superploce, 300 Hg. Sulph. Potach, 100 Hg. Sulphate Magnesia.   1112   25°5 5   100   379   0°321		1.114	56.6	0.83	3.13	0.431	1.63
State   Principal Points, 100 lbs. Sulphate Solds, 1889,   1111   287   1111   287   1111   414   0.813	Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.106	25.5	1.00	3.90	0.340	1.33
## 1119 Sulphate Potash, 100 the Sulphate Soda, and 100 the Sulphate Magnesia.   1112   26.8	I Otash, 100 103. Suph. Soda, 100 103. Sulph. Atag.	1.116	0.27	1.09	4.0%	0.391	1.19
each pear since  each pear since  since, Perionaly Farmyard Manure (14 tons)  11119 27.9 (1.05 2.94 0.834)  11119 27.9 (1.05 2.94 0.834)  1111 27.0 (1.05 2.94 0.834)  1112 27.1 (1.05 2.94 0.834)  1113 27.2 (1.05 2.94 0.834)  1114 28.5 and since perionally 35 owts. Superphosphate, and in, 1.114 28.5 (1.05 2.94 0.834)  1112 28.1 (1.05 2.94 0.939)  1113 28.1 (1.05 2.94 0.939)  1114 28.5 (1.05 2.94 0.939)  1115 28.1 (1.05 2.94 0.939)  1116 27.7 (1.05 2.94 0.939)  1117 28.1 (1.05 2.94 0.939)  1118 28.1 (1.05 2.94 0.939)  1119 28.1 (1.05 2.94 0.939)  1111 28.2 (1.05 2.94 0.939)  1111 28.2 (1.05 2.94 0.939)  1112 28.1 (1.05 2.94 0.939)  1113 28.2 (1.05 2.94 0.939)  1114 28.1 (1.05 2.94 0.939)  1115 28.1 (1.05 2.94 0.939)  1116 27.5 (1.05 2.939)  1117 28.1 (1.05 2.94 0.939)  1118 28.1 (1.05 2.94 0.939)  1118 28.1 (1.05 2.94 0.939)  1118 28.1 (1.06 2.939)  1118 28.1 (1.06 2.939)  1118 28.1 (1.06 2.939)  1118 28.1 (1.06 2.939)  1118 28.1 (1.06 2.939)  1118 28.1 (1.06 2.939)  1118 28.1 (1.06 2.939)  1118 28.1 (1.06 2.939)  1118 28.2 (1.06 2.939)  1118 28.2 (1.06 2.939)  1119 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.2 (1.06 2.939)  1111 28.3	Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.112	8.92	1.11	4.14	0.313	1.17
since. Previously Farmyard Manner (14 tons).  1119 27.9 (9.81 2.94 0.423 state) with Superphosphate also (7) (1.109 26.0 1.05 4.05 0.394 state) and also (8.83 and since. In 1882, and previously 35 owts. Superphosphate, and in 1.114 26.5 (1.05 3.98 0.387 0.018. Sulph. Rosas, 100 lbs. Sulph. Rosas, 100 lbs. Sulph. Rosas, 100 lbs. Sulph. Rosas, 1112 27.7 (1.05 3.98 0.387 0.384 devers. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Rosas, 1112 27.7 (1.05 3.98 0.387 0.384 devers. Superphos., 300 lbs. Sulph. Rosas, 100 lbs. Sulph. Rosas, 1890.  1.112 28.9 (1.114 26.5 0.393 1.114 26.5 0.394 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115 26.9 0.395 1.115	FOURTEENTH						
1.10   1.00   1.05	***************************************	1.119	28.4	0.81	2.84	0.423	1.49
1.126   1.05	34 cwts. Superphosphate also (1)	1.109	26.0	1.05	4.05	0.391	1.50
1120   28-1   0.84   3.00   0.832	and previously, 33 cwts. Superphosphate, and	1.114	26.5	$1^{\circ}05$	3.98	0.387	1.46
1.121   27.7   0.76   2.74   0.455     3. st. superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1.112   26.5   1.05   3.84   0.384     3. st. superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1.115   26.9   1.10   4.08   0.381     3. st. sulphate Potash, 100 lbs. Sulphate Magnesia   1.115   26.9   1.10   4.08   0.381     3. st. sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.115   26.9   1.10   4.08   0.381     3. st. sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.115   26.9   1.10   4.08   0.381     3. st. sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.115   26.9   1.00   3.75   0.289     3. st. sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.115   28.2   1.115   28.2     3. st. sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.121   28.2   1.13   4.00   0.245     3. st. sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.121   28.2   1.13   4.00   0.245     3. st. sulphate Potash, 100 lbs. Sulphate Alexanor   1.121   28.2   1.13   4.00   0.245     3. st. sulphate Potash, 100 lbs. Sulphate Alexanor   1.121   28.2   1.13   4.00   0.245     3. st. sulphate Potash, 100 lbs. Sulphate Alexanor   1.121   28.2   1.13   4.00   0.245     3. st. sulphate Potash, 100 lbs. Sulphate Alexanor   1.121   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.00   0.245     3. st. sulphate Alexanor   1.122   28.2   1.13   4.0		1.190	1.00	0.84	3.00	0.309	1.40
33   34   35   37   38   37   38   38   38   38   38		1.121	27.72	92.0	2.74	0 405	1.46
## over Superplote, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1:114 26:5 0.99 3 77 0.882  ### of the sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia 1:115 26:9 1:10 4:08 0.303  ### of the sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia 1:115 26:9 1:10 4:08 0.303  ### of the sulphate Potash, 100 lbs. Sulphate also (*) 1:117 26:8 1:00 0.82 2.75 0.293  ### of the sulphate of Soda also 1882, and previously, 3½ cwts. Superphosphate, and in	Sulph. Soda, 100 lbs	1.112	26.1	66.0	3.78	0.364	1 40
State   Supplate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.   1.115   26.9   1.10   4.08   0.303     Hefferenth Season, 1890.   1.125   28.9   0.81   2.80   0.381     Since Previously Furnyard Manure (14 tons)   1.125   28.9   0.81   2.80   0.383     Since Previously Furnyard Manure (14 tons)   1.115   28.9   0.81   2.80   0.383     Since Previously Furnyard Manure (14 tons)   1.115   28.9   0.81   2.84   0.284     Since In 1883 and since, previously 3½ cwts. Superphosphate also (1)   1.116   27.5   1.06   3.84   0.284     Since In 1883 and since, previously 3½ cwts. Superphosphate also (1)   1.116   27.5   1.06   3.84   0.284     Since In 1883 and since, previously Remyard Manure (14 tons)   1.115   28.4   0.82   2.78   0.245     Since In 1883 and since   1.1882, and 100 lbs. Sulphate Magnesia.   1.121   28.7   1.01   2.86   0.405     Since Previously Farryard Manure (14 tons)   1.121   28.4   0.81   2.86   0.405     Since Previously Farryard Manure (14 tons)   1.111   26.3   1.01   28.8   0.79   0.345     Since In 1883 and since. In 1882, and previously 3½ cwts. Superphosphate also (1)   1.111   28.8   1.01   3.85   0.436     Since In 1883 and since. In 1882, and previously 3½ cwts. Superphosphate, and in   1.111   28.8   0.79   2.85   0.436     Since In 1883 and since. In 1882, and previously 3½ cwts. Superphosphate, and in   1.111   28.8   1.01   3.87   0.385     Since In 1882, and previously 3½ cwts. Superphosphate, and in   1.111   28.8   1.01   3.87   0.385     Since In 1882, and previously 3½ cwts. Superphosphate, and in   1.111   28.8   1.01   3.87   0.385     Since In 1882, and previously 3½ cwts. Superphosphate, and in   1.111   28.8   1.011   3.87   0.385     Since In 1882, and previously 3½ cwts. Superphosphate, and in   1.111   2.011   3.87   0.385     Since In 1882, and previously 3½ cwts. Superphosphate, and in   1.111   3.885   1.011   3.87   0.385     Since In 1882, and In 1882   1.011   3.87   0.385     Si	Sulph. Soda, 100 lbs.	1.114	26.5	0.99	3 74	0.387	1.4
since. Previously Farmyard Manure (14 tons)  since Previously Farmyard Manure (14 tons)  since Previously Farmyard Manure (14 tons)  since Previously Farmyard Manure (14 tons)  1.112 28.9 0.81 2.89 0.381  1.112 28.7 1.06 3.75 0.389  1.113 28.7 1.06 3.84 0.284  1.114 28.8 0.81 2.89 0.405  1.115 28.8 0.81 2.84 0.405  1.116 27.5 1.06 3.84 0.284  1.118 28.8 0.81 2.84 0.405  1.119 2.8.4 0.82 2.78 0.348  3.3 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1.112 28.7 1.01 3.73 0.245  1.110 28.8 0.98 3.59 0.348  1.111 28.8 1.113 28.8 0.388  1.112 28.8 0.81 2.86 0.348  1.112 28.8 0.81 2.86 0.348  1.112 28.8 0.81 2.86 0.348  1.113 28.8 0.81 2.86 0.348  1.114 28.8 0.98 3.91 0.318  1.115 28.8 0.81 1.01 0.818  1.115 28.8 0.81 1.01 0.818  1.116 27.9 0.98 3.85 0.438  1.117 28.8 0.88 0.88 0.88 0.88 0.88 0.88 0.88	Sulphate Soda, and 100 lbs. Sulphate	1.118	27.5 26.9	1.00	8. 4 8. 83 8. 83	0.303	1.31
since. Previously Farmyard Manure (14 tons).  1-125 28.9 0.81 2.80 0.381  1-125 30.0 0.82 2.75 0.380  1-125 30.0 0.82 2.75 0.380  1-125 30.0 0.82 2.75 0.380  1-125 30.0 0.82 2.75 0.380  1-125 30.0 0.82 2.75 0.380  1-125 30.0 0.82 2.75 0.283  1-126 27.5 1.06 3.84 0.283  1-127 3 0.81 2.84 0.430  1-128 28.5 0.81 2.88 0.430  1-138 28.5 0.81 2.88 0.430  1-138 28.5 0.81 2.88 0.430  1-139 28.4 0.82 2.88 0.430  1-130 2.5 0.97 3.78 0.383  300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia.  1-121 28.7 1.01 3.73 0.298  300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  1-121 28.4 0.82 2.88 0.430  1-122 28.7 1.01 3.73  1-123 28.7 1.01 3.73  1-124 28.8 0.430  1-125 28.9 0.97  1-127 28.9 0.97  1-127 28.9 0.97  1-128 28.9 0.97  1-129 28.9 0.97  1-121 28.9 0.98  1-121 28.9 0.98  1-122 28.9 0.98  1-123 28.9 0.98  1-123 28.9 0.98  1-124 28.9 0.98  1-125 28.9 0.98  1-127 28.9 0.98  1-128 28.9 0.98  1-129 28.9 0.98  1-121 28.9 0.98  1-121 28.9 0.98  1-121 28.9 0.98  1-122 28.9 0.98  1-123 28.9 0.98  1-123 28.9 0.98  1-124 28.9 0.98  1-125 28.9 0.98  1-127 28.9 0.98  1-128 28.9 0.98  1-129 28.9 0.98  1-121 28.9 0.98  1-121 28.9 0.98  1-121 28.9 0.98  1-121 28.9 0.98  1-122 28.9 0.98  1-133 4.00  1-134 3.91 0.371  1-135 28.9 0.98  1-136 0.98  1-137 28.9 0.98  1-138 3.90	FIFTEENTH SEASON, 1890.						
1117   26.8   1.00   2.84   0.284		1.125	28.9	0.81	2.80	0.381	1.32
1.116   27.5   1.06   3.84   0.284     3.50   1bs. Nitrate of Soda also   1.1882, and previously, 3½ cwts. Superphosphate, and in levinoses, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1.122   28.4   0.81   2.84   0.455     3.50   2.50   2.50   2.50   2.50   2.50   2.50   2.50     3.50   2.50   2.50   2.50   2.50   2.50   2.50   2.50     3.50   3.50   3.50   2.50   2.50   2.50   3.50   0.245     3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50   3.50     3.50   3.	y 3½ cwts. Superphosphate also (')	1:117	8.92	1.00	3.75	0.293	1.09
1:118   28.5   0.81   2.84   0.405     1:119   28.4   0.82   2.88   0.430     28.4   0.82   2.88   0.430     32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1:122   28.7   1:01   3:53   0:245     32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulphate Magnesia   1:121   28.4   0:81   3:53   0:245     300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1:121   28.4   0:81   3:53   0:245     300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1:121   28.4   0:81   2:86   0:400     3 cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1:107   26:2   1:01   3:85   0:436     3 cwts. Superphos,, 300 lbs. Sulph. Potash, 100 lbs. Sulphate Magnesia   1:116   27:8   1:01   3:87   0:377     3 cwts. Superphos,, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1:116   27:8   1:01   3:76   0:378     3 cwts. Superphos,, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1:116   27:8   1:01   4:06   0:303     3 cwts. Superphos, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1:116   27:8   1:01   4:06   0:303     3 cwts. Superphos, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia   1:116   27:8   1:01   4:06   0:303     3 cwts. Superphos, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia   1:116   27:8   1:014   4:06   0:303     3 cwts. Superphos, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1:116   27:8   1:014   4:06   0:303     3 cwts. Superphos, 300 lbs. Sulphate Potash, 300 lbs. Sulphate Magnesia   3:00 lbs. Sulphate Potash, 3:00 lbs. Sulphate Magnesia   3:00 lbs. Sulphate Potash, 3:00 lbs. Sulphate Magnesia   3:00 lbs. Sulphate Potash, 3:00 lbs. Sulphate Magnesia   3:00 lbs. Sulphate Magnesia   3:00 lbs. Sulphate Potash, 3:00 lbs. Sulphate Magnesia   3:00 lbs. Sulphate Magnesia   3:00 lbs. Sulphate Magnesia   3:00 lbs. Sulphate Sulphate Sulphate Sulphate Magnesia   3:00 lbs. Sulphate Sulphate Sulphate Sulphate Sul	2, and previously, 3½ cwts. Superphosphate, and	1.116	27.5	1.06	3.84	0.284	1.03
1.119   28.4   0.82   2.88   0.430     3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1.100   25.6   0.97   3.78   0.89     3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulphate Magnesia   1.122   28.7   1.01   3.53   0.245     3.00 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.121   28.4   0.81   4.00   0.245     3.00 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia   1.121   28.4   0.81   2.86   0.406     3.00 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia   1.111   26.3   1.01   3.85   0.436     3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulphate Magnesia   1.112   26.6   1.01   3.87   0.377     3½ cwts. Superphos., 300 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia   1.116   27.8   1.04   3.74   0.337     3½ cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.116   27.8   1.04   3.74   0.303     3.00 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia   1.116   27.8   1.04   4.06   0.303     3.11	(2) (2)	1.118	28.5	0.81	2.84	0.405	1.42
32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  32 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  32 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  32 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  32 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  32 cwts. Superphos., 300 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia.  32 cwts. Superphos., 300 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia.  32 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  33 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  34 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  35 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  36 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  37 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  38 cwts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  39 cwts. Superphos., 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia.  39 cwts. Superphos., 300 lbs. Sulphate Magnesia.  30 cwts. Superphos.		1:119	28.4	0.82	2.88	0.430	1.51
300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  310 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia.  311 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia.	h. Fotash, 100 lbs. Sulph. Soda, 100 lbs. . Potash. 100 lbs. Sulph. Soda, 100 lbs.	1.100 1.115	27.3	76.0 0.98	20.00	0.348	4.5
300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.   1.121   28.4   1.13   4.00   0.245    AVERAGE OF 5 Sersons, 1886, '87, '88', '89', and 1c90.   1.121   28.4   0.81   2.96   0.303    since. Previously Farmyard Manure (14 tons)   1.112   28.4   0.81   2.96   0.393    since. Previously Farmyard Manure (14 tons)   1.112   28.4   0.81   2.96   0.393    since. Previously Farmyard Manure (14 tons)   1.112   28.4   0.81   2.96   0.393    since. Previously Farmyard Manure (14 tons)   1.112   28.4   0.85   2.96   0.393    since. Previously Farmyard Manure (14 tons)   1.110   26.9   1.01   3.91   0.371    since. Previously Farmyard Manure (14 tons)   1.110   26.9   1.01   3.95   0.466    since. Previously Farmyard Manure (14 tons)   1.110   26.9   1.01   3.95   0.466    since. Previously Farmyard Manure (14 tons)   1.111   26.3   1.01   3.95   0.466    since. Previously Farmyard Manure (14 tons)   1.111   26.3   1.01   3.95   0.466    since. Previously Farmyard Manure (14 tons)   1.111   26.3   1.01   3.95   0.466    since. Previously Farmyard Manure (14 tons)   1.111   26.3   1.01   3.95   0.466    since. Previously Farmyard Manure (14 tons)   1.111   26.3   1.01   3.95   0.466    since. Previously Farmyard Manure (14 tons)   1.111   26.3   1.01   3.95   0.436    since. Previously Farmyard Manure (14 tons)   1.00 lbs. Sulph. Mag.   1.117   26.2   1.01   3.97   0.436    since. Previously Farmyard Manure Potash, 100 lbs. Sulphate Manuresia.   1.119   27.8   1.04   3.74   0.303    since. Previously Farmyard Manure Potash, 100 lbs. Sulphate Manuresia.   1.119   27.8   1.04   4.06   0.303    since. Previously Farmyard Manure Potash, 100 lbs. Sulphate Manuresia.   1.116   27.9    since. Previously Farmyard Manure Potash, 100 lbs. Sulphate Manuresia.   1.116   27.9    since. Previously Farmyard Manure Potash, 100 lbs. Sulphate Manuresia.   1.116   27.9    since. Previously Farmyard Manure Potash, 100 lbs. Sulphate Manuresia.   1.116   27.9    since. Previously Farmyard Manure Potash, 100 lbs.	· · · · · · · · · · · · · · · · · · ·	1.122	28.7	1.01	3.53	0.298	1.04
since. Previously Farmyard Manure (14 tons)  since. Previously Farmyard Manure (14 tons)  ins) alone 1883 and since; previously 3½ cwts. Superphosphate also (7)  ins) alone 1883 and since; previously 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins) alone ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins) alone ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, and ins) alone ins)  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, 300 lbs. Sulphate Sulphate Magnesia.  ins) alone 1883 and since; previously, 3½ cwts. Superphosphate, 300 lbs. Sulphate Sulphate Magnesia.  ins) alone 27.8 alone 2.86 alone 2.86 alone 2.87 alone 2.88 alone 2.8	Sulphate Soda, and 100 lbs. Sulphate Magnesia Age of 5 Seasons, 1886, '87, 88', '89, and	1-121	28.2	1.13	4.00	0.245	0.87
since. Treviously Farmyard Manure (14 tons)  ssince. Treviously Farmyard Manure (14 tons)  ssince. Treviously Farmyard Manure (14 tons)  ssince of Sold also  1-112		1.121		0.81	2.86	0.100	1.41
10. 10. 10. 10. 10. 10. 10. 10. 10. 10.		1.122	9.98	cs c	96.2 3.91	0.373	1.37
(*) Solve Los. Nutrate of Soda also (*) Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1-116 27-9 0-79 2-85 0-436 (*) 34 ewts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1-112 26-6 0-98 3-70 0-377 (*) 35 ewts. Superphos., 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia. 1-119 27-8 1-04 3-74 0-335 (*) 360 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia. 1-116 27-9 0-79 2-85 0-436 (*) 361 361 362 (*) 362 362 362 (*) 362 362 (*) 362 362 362 (*) 362 362 362 (*) 362 362 362 362 (*) 362 362 362 362 (*) 362 362 362 362 362 362 362 362 362 362	losphate, and	1.111	8.98	1.01	. 60	0.366	1.40
1.118 27.8 0.79 2.85 0.439 3.2 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1.107 26.2 1.01 3.87 0.377 3.2 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1.112 26.6 0.98 3.70 0.378 1.119 27.8 1.04 3.74 0.335 3.00 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia. 1.116 27.8 1.11 4.06 0.303		1.116	6.72	0.79	2.85	0.436	1.57
Sulph. Soda, 100 lbs. Sulph. Mag. 1:107 26:2 1:01 3:87 0:377 Sulph. Soda, 100 lbs. Sulph. Mag. 1:112 26:6 0:98 3:70 0:378 1:119 27:8 1:04 3:74 0:355 and 100 lbs. Sulphate Magnesia. 1:116 27:3 1:11 4:06 0:303		1.118	27.8	0.79	2.85	0.439	1.58
Suph. Soda, 100 lbs. Sulph. Mag. 1-112 26-6 0.98 3-70 0.378 and 100 lbs. Sulphate Marnesia. 1-116 27-8 1-04 3.74 0.335	Sulph. Soda, 100 lbs	1.107	26.5	1.01	3.87	0.377	1.44
Sulphate Soda, and 100 lbs. Sulphate Magnesia 1.116 27.3 1.11 4.06 0:303 1	Sulph. Soda, 100 lbs	1.112	26.6	0.08	3.70	0.378	1.42
	Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.118	27.3	1.11	4.06	0.303	R: -1 -1 -1
descharations of I to		since. Previously Farmyard Man.  10. Alone 1883 and since. In 1882  10. Bas and since. In 1882  10. Bas and since. In 1883  10. Bas and since. In 1883  10. Bas Superphos., 300 lbs. Sulph  10. Bas Superphos., 300 lbs. Sulph  10. Bas Sulphate Potash, 100 lbs.  10. Bas and since. In 188  10. Bas and since. In 188  10. Bas and since. In 188  10. Bas Superphos., 300 lbs. Sulph  10. Bas and since. In 188  10. Bas Superphos., 300 lbs. Sulph  10. Bas Sulphate Potash, 100 lbs.  10. Bas Sulphate Potash, 100 lbs.  10. Bas and since. In 1882  10. Bas and since. In 1882  10. Bas and since. In 1882  10. Bas Superphos., 300 lbs. Sulph  10. Bas and since. In 1882  10. Bas Superphos., 300 lbs. Sulph  10. Bas Superphos., 300 lbs. Sulph  10. Bas Sulphate Potash, 100 lbs.  10. Bas Sulphate Potash, 100 lbs.  10. Bas Sulphate Potash, 100 lbs.  10. Bas Band since Bas Sulph  10. Bas Band since Bas Bas Sulph  10. Bas Band since Bas	6, and each year since  2, and since, Previously Farmyard Manure (14 tons)  (14 tons) alone 1883 and since; previously 3½ overs. Superphosphate, and in)  (14 tons) alone 1883 and since; previously 3½ overs. Superphosphate, and in)  (14 tons) alone 1883 and since; previously 3½ overs. Superphosphate, and in)  (14 tons) alone 1883 and since; previously, 3½ overs. Superphosphate, Sulph. Mag.  (15 Soda, 3½ overs. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  (16 Phiate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  (17 tons) alone 1883 and since; previously 3½ overs. Superphosphate also (7)  (18 tons) alone 1883 and since; previously 3½ overs. Superphosphate, and in)  (18 tons) alone 1883 and since; previously 3½ overs. Superphosphate, and in)  (19 tons) alone 1883 and since; previously 3½ overs. Superphosphate, and in)  (19 tons) alone 1883 and since; previously, 3½ overs. Superphosphate, and in)  (19 tons) alone 1883 and since; previously, 3½ overs. Superphosphate, and in)  (19 tons) alone 1883 and since; previously, 3½ overs. Superphosphate, and in)  (19 tons) alone 1883 and since; previously, 3½ overs. Superphosphate, and in)  (10 tons) alone 1883 and since ineviously, 3½ overs. Superphosphate, and in)  (10 tons) alone 1883 and since ineviously, 3½ overs. Superphosphate, and in)  (10 tons) alone 1883 and since ineviously, 3½ overs. Superphosphate, and in)  (10 tons) alone 1883 and since ineviously, 3½ overs. Superphosphate, and in)  (11 tons) alone 1883 and since, in 1882, and previously, 3½ overs. Superphos, 300 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia.  (11 tons) alone 1883 and since, in 1882, and previously, 3½ overs. Superphos, 300 lbs. Sulphate, 300 l	6, and each year since  Tayle 1119  Tayle 28.4  (14 tons)  (15	b, and each year since - Previously Farnyard Manne (14 tons) - Land since - Previously Farnyard Manne (14 tons) - Land since - Previously Farnyard Manne (14 tons) - Land since - Previously Farnyard Manne (14 tons) - Land since - Reviously Farnyard Manne (14 tons) - Land since - Reviously Farnyard Manne (14 tons) - Land each year since - Previously Farnyard Manne (14 tons) - Land each year since - Previously Farnyard Manne (14 tons) - Land each year since - Previously Farnyard Manne (14 tons) - Land each year since - Reviously Farnyard Manne (14 tons) - Land each year since - Reviously Farnyard Manne (14 tons) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year since - Lu 1882, and previously, 3g ewts. Superphosphate, and in) - Land each year s	1-119   28-4   0-81   28-5	1119   28.4   0.81   2.84   0.81   2.84   0.81   2.84   0.85   1.05   2.94   0.85   0.85   2.94   0.85   0.85   0.85   2.94   0.85   0.85   0.85   2.94   0.85   0.85   0.85   0.85   0.85   2.94   0.85

each lon

## EXPERIMENTS ON POTATOES.—HOOS FIELD—continued.

Below are given the particulars of the Manures and Produce, for the Sixteenth, 1894, and 1895. For the Manures, description of Potatoes grown, and the Produce, Seventeenth, Eighteenth, Nineteenth, and Twentieth Seasons, 1891, 1892, 1893, The arrangement of the plots is precisely the same as for the 15 preceding potato of the 15 preceding years, see pp. 88-9, 92-3, and 96-7, and of the succeeding years, pp. 104-5, and 108-9.

Rows 25 inches apart; 14 inches from crops. The manures are the same as for the crops of 1883, and since. of Potato, "Sutton's Abundance" (White). plant to plant in the rows.

Description

In the spring of 1894 permanent division paths were laid out between and plot.

(Area under experiment, 2 acres.)

E	Tops.		Withered, 1 weighed, ear lot spread its own Pl	0		
ACRE.	TOTAL.	Tons. cwts. 0 14	1 10¢ 6 8 8 1 33	න ව ව දැන්න පුදුද්	22 14.3	
PRODUCE PER ACRE. ubers.	Diseased.		0 10 <del>3</del> 0 13 0 0 <u>3</u>	0000 140 420	0 14 0 and 8	
PRODI Tubers.	Small.	30. ons. cwts. T	0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0000	October 7	
	Good.	te ber 28–30. Tons. cwts.   Tons. cwts.   Tons. cwts.   0 13   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2 124 mber 29	,
PLOTS.  MANURES PER ACRE PER ANNUM.		Unmanured in 1876, and each year since Tous. cwts. Tous.	Farm, and Manure (14 tons) alone 1883 and since, previously 3½ cwts. Superphosphate also (1)  (Farm, and Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda also  Applies Armononium-salts (7)	7 400 lbs. Ammonium-salts, 3½ owts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 8½ owts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Ma. S. Owts. Sulph. Soda, 100 lbs. Sulph. Ma.	10 32 cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia. 2 124 0 14 0 14 0 14 Sevente Sev	

000 0 000000 STATE OF STA 000 0 000000 Nitrate of Soda, 3½ cwts. Superphos., 300 Ibs. Sulph. Potash, 100 Ibs. Sulph. Soda, 100 Ibs. Sulph. Mag. Superphosphate
Superphosphate
Superphosphate, 300 Ibs. Sulphate Potash, 100 Ibs. Sulphate Soda, and 100 Ibs. Sulphate cwts. Farmyard Manure (14 tons) alone 1883 and since; previously and previously, 550 lbs. Nitrate of Soda also alone 1883 and since. 0 lbs. 10 lbs. 0 lbs. 0 lbs. cwts. 

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	Withered, not weighed, each lot spread on its own Plot and ploughed and ploughed in.	Withered, not weighed, each lits own Plot and ploughed in.  Withered, not weighed, each lot spread on its own Plot and ploughed in.  Withered, not weighed, each lot spread on its own Plot and ploughed in.  Withered, not weighed, each lot spread on its own Plot and ploughed in.	
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Unmanured in 1876, and each year since	Unmanured in 18-2, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate also (')  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Sodu also  550 lbs. Ammonium-salts (2)  550 lbs. Nitrate of Soda, 3½ cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate  550 lbs. Nitrate of Soda, 3½ cwts. Superplios, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate  3½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	Umanured in 1882, and since. Perfously Farmyard Manure (14 tons)    Farmyard Manure (14 tons) alone 1883 and since: previously 3g owts. Superphosphate, and in)    Farmyard Manure (14 tons) alone 1883 and since. previously 3g owts. Superphosphate, and in)    Farmyard Manure (14 tons) alone 1883 and since. In 1892, and previously, 3g owts. Superphosphate, and in)    Sol. Ins. Manonium-salts (7)    Sol. Ins. Mirate of Solda   Sold Ins. Mirate of Solda also   Sold Ins. Mirate of Solda   Sold Ins. Mirate of Solda   Sold Ins. Mirate of Solda   West Superphosphate, 300 lbs. Sulphate Potsch, 100 lbs. Sulph. Sold. 100 lbs. Sulph. Mag.   74	C.) Administration of Commerce.
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-Summary of the Composition of the "Good" Tubers in the Sixteenth, Seventeenth, Bighteenth, Nineteenth, and Twentieth Seasons, 1891, 1892, 1893, 1894, and 1895. For particulars of the composition in the first 15 years, 1876-1890, EXPERIMENTS ON POTATOES.—HOOS FIELD—continued.

see pp. 90-1, 94-5, and 98-9, and for those in succeeding seasons, see pp. 106-7

The distribution of the mineral matter was much in the same order as that of the nitrogen. It was obvious that the juice had suffered exhaustion of much of both its nitrogen and its mineral matter, in the development of the fungus. There was an increased amount of sugar found in the diseased potatoes, the result of diseased action, and it probably also concontained very little nitrogen, whilst that of the discoloured portion contained more. An abstract of the analytical results obtained, illustrating the influence of different manures, and of different seasons, on the composition of Potatoes, is given below. The specific gravity of the tubers is also given. In the tubers the dry matter, nitrogen, and made. Besides the results obtained relating to the composition of the tubers themselves, have been determined; and in some cases complete analyses of the ash have been the dry matter, the sugar, the nitrogen, and the ash, in the expressed juice have in many

analyses were not performed immediately after taking up the crops, but some time afterwards, in weighed samples which had been kept in a cool place for some weeks or months; and in the following only preliminary statement of results, no correction is made for any change from the original weight of the samples, the results being calculated upon the fresh weights The results given in the Table relate to the "good" potatoes only. In interpreting the figures it must be borne in mind that in each year, the seed was planted on all the plots at the same time, and that all the crops were taken up at the same time; and as there was several times as much produce in some cases as in others, it is obvious that the crops would not each be at its best, and all in the same condition of maturity when taken up. Then, again, the tributed to the development of the fungus.

The results given in the Table relate to the "good" potatoes only. cases been determined; in some cases the amount of the nitrogen existing as albuminoids has been determined; and in some, complete analyses of the ash of the juice have been made. It may be remarked, that by far the larger proportion of both the mineral matter, and the nitrogen, is found to exist in the juice; and of the nitrogen in the juice, as a rule, not much more than half exists as albuminoids. In many cases, the small potatoes have been submitted to the same methods of analysis as the good potatoes. And in some cases, similar

subm meth colou obser appro much	submitted to the same methods of analysis as the good potatoes. And in some cases, similar methods of analysis as the good potatoes. And in some cases, similar methods of examination have been applied to the signatured dispersated dispersated dispersated dispersated dispersated potatoes. With regard to these latter results, it may be observed, that whilst the juice of the white portion of the discased potatoes contained approximately the normal amount of nitrogen, that of the discoloured portion contained very much less. On the other hand, the washed or exhausted "marc" of the white portion,	immediatel had been k ary statem the sampl	y after tal cept in a ent of res les, the re	king up the cool place f ults, no co sults being	crops, but or some wee rrection is calculated t	some time aks or mont made for a	time afterwards, months; and in for any change he fresh weights	ts in se
			0	omposition	Composition of the "Good" Tubers	od " Tubers		1
PLOTS.	MANURES PER	Specific Gravity		Mineral Ma	Mineral Matter (Ash).	Nitr	Nitrogen.	Ť.
	(For Produce, see pp. 100-1.)	of the Tubers.	Dry Matter.	In Fresh Tubers.	In Dry Matter.	In Fresh Tubers.	In Dry Matter.	.
	SIXTEENTH SEASON, 1891.							1
1	Unmanured in 1876, and each year since	1.107	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	1.
ଷ	Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)	1.111	56.6	0.80	3.05	0.356	1.34	
3	previously 3½ cwts. Superphosphate also (1)	1.097	22.6	1.01	4.46	0.311	1.38	
41	1881, and previously, 550 lbs. Nitrate of Soda also	1.099	23.4	0.95	4.08	0.286	1.22	
ro c	400 lbs. Ammoniuu-salts (*)	1.095	25.7	08.0	3.10	0.434	1.69	
1 0	and the Nitrate of Soda	1-102	24.5	0.73	2.96	0.417	1.70	
- oc	To us, Ammonium-saits, 54 owts, Superplote, 300 lbs, Suiph, Forest, 100 lbs, Suiph, Soda, 100 lbs, Suiph, Mag.	1.092	22.7	0.95	4.15	0.365	1.61	
J.		1 080	23.0	86.0 0	60.4	0.345	1.50	
2	34 cwts. Superplussphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.100	26.2 25.4	1.14	4.48	0.252	0.99	
	SEVENTHE SEASON, 1892.							1
- 6	Ummanured in 1889, and cach year since	1.104	25.9	0.83	3.52	0.382	1.48	1
4 63	Farmyard Manure (14 tons) alone 1883 and since: previously 33 cwts. Superphospate also (1)	101.10	23.8 23.8	1.05	2.837	0.361	1.36	
4	n 1882, and previously, 3½ cwts. Superpl	1.100	23.5	1.05	4.47	0.352	1.49	
IC)	400 lbs. Anmonium-salis (2)	1.103	25.2	0.84	9.33	0.419	1.66	
မှာ (	550 lbs. Nitrate of Soda	1.101	25.0	0.71	2.84	0.437	1.75	
~ 00	550 lbs. Nitrate of Sods. 3s cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Sods, 100 lbs. Sulph. Mag.	1.096	23.2	0.93	4.02	0 346	1.49	
6 01	34 cwts. Superphosphate 35 cwts. Superphosphate 300 lbs. Sulphate Potash. 100 lbs Sulphate Soda, and 100 lbs Sulphate Normesia		26.6	0.95	3.58	0.301	1.13	
		211	0 07	T 000	07 I	007 0	00 0	

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## EXPERIMENTS ON POTATOES.—HOOS FIELD—continued.

Below are given the particulars of the Manures and Produce, for the Twentyand the Produce, of the 20 prec-ding years, see pp. 88-9, 92-3, 96-7, and 100-1, first, Twenty-second, Twenty-third, Twenty-fourth, and Twenty-fifth Seasons. 1896, 1897, 1898, 1899 and 1900. For the Manures, description of Potatoes grown, and of the succeeding years, pp. 108-9.

The arrangement of the plots is precisely the same as for the 20 preceding potato crops.

The manures are the same as for the crops of 1883, and since; excepting that for the tion of Potato, in 1896, "Bruce" (White); in 1897, and since, "Beauty of Hebron, (White). Rows 25 inches apart; 14 inches from plant to plant in the rows. In the spring of 1894 permanent division paths were laid out between crops of 1897, and since, Basic Slag has been used instead of Superphosphate. Descripplot and plot.

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Tubers   T			Tops.		Withered, not weighed, each lot spread on its own Plot and ploughed in.		Withered, not weighed, each lot spread on its own Plot and ploughed in.
Therman and in 1876, and each year since.  Unmanured in 1876, and each year since.  Therman and Manure (14 tons)  Therman and	R ACRE.		TOTAL.				
Therman and in 1876, and each year since.  Unmanured in 1876, and each year since.  Therman and Manure (14 tons)  Therman and	ODUCE PE	ers.	Diseased.		Tons. cwis.  0 043-0  1 124-1  1 143-0  0 23-0  0 145-0  0 145-0  0 33-0  0 33-0  0 33-0		00 0 0000 00 0 00000
TWENTY-FIRST SEASON, 1896. Potatoes planted, April 10. Crop taken up Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Framyard Manure (14 tons) alone 1883 and since. Previously 3½ cwts. Superphosphate also (7).  Framyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate also (7).  Framyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, 350 lbs. Nitrate of Soda also  400 lbs. Ammonium-salts, 3½ cwts. Superphos. 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate, 300 lbs. Sulph. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 3½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and dece. Previously Furmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda, and since. Previously Furmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sul	Pı	Tub	Small.	-30.		13–15.	3 100 0 10
TWENTY-FIRST SEASON, 1896. Potatoes planted, April 10. Crop taken up Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Framyard Manure (14 tons) alone 1883 and since. Previously 3½ cwts. Superphosphate also (7).  Framyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate and in 1881, and previously, 550 las. Nitrate of Soda also  10 lbs. Ammonium-salts, 3½ cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 3½ cwts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  Unmanured in 1876, and each year since.  Unmanured in 1875, and each year since.  Unmanured in 1875, and each year since.  Parmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda, 100 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Sulph. Sulph. Soda, 100 lbs. Sulph. Sulph. Sulph. Sulph. Sulph. Sulph. Sulph. Sulph. Sul			Good.	October 23		eptember	
S = = = = = = = = = = = = = = = = = = =				Season, 1896. Potatoes planted, April 10.	since. Previously Farmus) alone 1883 and since 50 lbs. Nitrate of Soda a (*).  **Age over Superphos**, 300 lbs. Superphos**, 300 lbs. Superphos**, 300 lbs. Superphos**, 300 lbs. Sulphate Potasi	SEASON, 1897. Potatoes planted, April 8.	h year since.  26. Previously Farmyard Manure (14 tons)  alone 1883 and since; previously 3½ cwts. Superphosphate also (*).  alone 1883 and since. In 1882, and previously, 3½ cwts. Superph.  Bas. Nitrate of Soda also  Olbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs.  Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs.  Sulphato Potash, 100 lbs. Sulph. Soda, 100 lbs.

	Withered, not weighed, each lot spread on its own Plot and ploughed in.		Withered, not	weighed, each lot spread on its own Plot and ploughed			Withered, not	weighed, each lot spread on its own Plot	and ploughed in.		Withered, not	iot spread on its own Plot and ploughed in.		
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Crop taken up, September 9-13.		82				14	htterken meles	mha	150 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_		ф <del>-т-т-т</del>	S	
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Crop	phosphate also (¹). 3½ cwts. Superphosphate, and in. Sulph. Soda, 100 lbs. Sulph. Mag.	nesia		· · · · · · · · · · · · · · · · · · ·		ken	::	\$ 18	Sulph. Mag. Sulph. Mag.	1900.	.: e, and	ph. M.	:: :: :: :: :: :: :: :: :: :: :: :: ::	ģ
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l and	so (¹) uperpl	da, and 100 lbs. Sulphate Ma. Poratoes planted, March 28.	so (?)	100	tte Ma	%	so (-) perph	:::	100 1	te Ma	o (t)	 100 I	e Mag	Jo sla
arch 2	wts. S	Sulphe I, Mar	:: nate al	Sods	Sulphe	April	nate al	:::	Soda, Soda,	ulphate	ate als	Soda,	ulphates,	Ammo
ed, M	phospha, 3½ cw.	0 lbs.	ohospl 3½ ev	Sulph	lbs.	anted,	phosph 3½ cw	:::	Sulph.	1886, '97,	phosph	Sulph.	Ibs. S	Muriate
plant	Super Super Tiously	and 10	Supersionally	: : 00 Ibs.	nd 10	Potatoes planted, April	Super Super iously,	:::	0 lbs.	ons, 1	Superp	.: 00 lbs.	d 100	rte and
Potatoes planted, March 21 and 22.	Unmanured in 1876, and each year since Unmanured in 1882, and since. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate also (¹).  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda also 550 lbs. Nitrate of Soda 650 lbs. Nitrate of Soda 650 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. TWENTY-FOURTH SEASON, 1899. Porators plante	Unmanured in 1876, and each year since. Unmanured in 1882, and since. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate also (1) Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and	1081, and previously, 550 lbs. Nitrate of Soda also 400 lbs. Ammonium-salts (*) 550 lbs. Nitrate of Soda 400 lbs. Ramonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Sola 400 lbs. Region Solar 200 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.	400 lbs. Basic Slag. 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	Potat	Unmanur.d in 1882, and since. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, Saperphosphate, 160, 100, 100, 100, 100, 100, 100, 100	: : :	400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sul 400 lbs. Basic Slag	AVERAGE OF 5 NEASONS,	Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons).  Farmyard Minure (14 tons) alone 1883 and since; previously 3½ cwts. Superphosphate also (1)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, 1881, and previously, 550, 1bs. Nitrate of Soda also	450 los, Animonium-sats (*) 550 lbs. Nitrate of Soda 400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Prirate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Prirate Slog.	400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.	edins s
	nure (1 sly 3½ 82, an    	Iphate Potash, 100 lbs. Sulphate S. Twenty-fourth Season, 1899.	inre (1 sly 33 82, an		hate S	900.	sly 34 2, and	:::	n. Pota Pota	OF 5	ure (1 dy 3½ 2, and	h. Pot	nte Sa	al part
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TWENTY-THIRD SEASON, 1898	Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyar Fermyard Manure (14 tons) alone 1883 and since; previously, 550 lbs. Nitrate of Soda also 400 lbs. Ammonium-salts(**)  550 lbs. Nitrate of Soda 400 lbs. Basic Slag, 300 lbs. 550 lbs. Nitrate of Soda, 400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. 550 lbs. Die, Signas Slag, 300 lbs.	H SEA	rmyar ice; pi	1981, and previously, 550 lbs. Nitrate of Soda also 00 lbs. Ammonium-salts (*) 100 lbs. Nitrate of Soda 100 lbs. Basic Slag, 300 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Olbs. Nitrate of Sola 400 lbs. Basic Slag, 300 lbs.	00 lbs	SEAS	res; p	ogia i	00 lbs.	AVE	rmyar ce; pr nce.	.: 00 lbs	ths. Sulphate Potash, 100 lbs. Sulph	n each
IRD S	saly Fand sind sind solf Sod	tash, FOURT	Unmanured in 1876, and each year since Unmanured in 1882, and since. Previously Farmya Farmyard Manure (14 tons) alone 1883 and since; I Farmyard Manure (14 tons) alone 1883 and since.	Slag,	tash, i	FIFTH	usly Fe		Slag, 3 ag, 30	asn, 1	Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyari Farmyard Manure (14 tons) alone 1883 and since; pr Farmyard Manure (14 tons) alone 1883 and since.  1881, and previously, 550 lbs. Nitrate of Soda also	Slag, 3	ash, 1	9
HI-XI	Unmanured in 1876, and each year since.  Formyard Manure (14 tons) alone 1883 and Formyard Manure (14 tons) alone 1883 and 1881, and previously, 550 lbs. Nitrate of \$100 lbs. Ammonium-salts(*)  1881, and previously, 550 lbs. Nitrate of \$250 lbs. Nitrate of \$80 lbs. Ammonium-salts, 400 lbs. Basic Slagson lbs. Nitrate of Soda  1881, and previously.	ate Po	reviou 1883 a 1883	trate	ite Po	Unmanured in 1876, and each year since	1883 a		Basic Sl	re For	Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously  Ramyard Minure (14 tons) alone 1883 and  Ramyard Manure (14 tons) alone 1883 and  1881, and previously, 550 lbs. Nitrate of 8	Basic S	te Pot	S dinti
TWEN	ce. P alone alone ba. Ni co. 10a.	Sulph Tw1	h year glone alone	bs. Ni 0 lbs. : : 0	Sulphe	Tw.	alone	14 : :	lbs. B	ambus	l year se. Pr slone J slone bs. Nit	ibs. B	Superp	
	nd eac nd sin tons) tons) 1, 550 l lts(?) a, 400 a, 400	o Iba.	nd eac nd sin tons)	Its (*)	lbs.	id eac	tons)	ts (3)	its, 400	108, 5	d sinc tons) a tons) 550 I	ts, 400	Ibs. S	
	882. a 882. a re (14 re (14 re (14 rously um-sa of Sod um-sa of Sod cof Sod	ag, 30	876, an 882, an re (14 re (14	um-sa um-sa of Sodo um-sa	ag, 30	376. at	882, and re (14 re (14	um-sal	of Sode	18, 50t	82, an 82, an e (14 re (14 lously,	f Soda um-sal f Soda	8,300	
	Unmanured in 1876, and Unmanured in 1882, and Farmyard Manure (14 1881, and previously, 4500 lbs. Animonium-salt 550 lbs. Nitrate of Soda 400 lbs. Animonium-salt 550 lbs. Nitrate of Soda 400 lbs. Animonium-salt 650 lbs. Nitrate of Soda, 650 lbs. Nitrat	sic Si	d in 1 Manu Manu	400 lbs. Ammonium-salf 550 lbs. Nitrate of Soda 400 lbs. Nitrate of Soda 400 lbs. Ammonium-salf 550 lbs Nitrate of Sola	sic Sl	d in 18	Mann Manu	400 lbs. Ammonium-salts (*) 550 lbs. Nitrate of Soda	trate c	SIC DIS	d in 18 I in 18 Wenur Manur Previ	550 lbs. Nitrate of Soda 400 lbs. Ammonium-salt 550 lbs. Nitrate of Soda, 600 lbs. Nitrate of Soda,	nic Sla	
	nanure nanure nyard 81, an 81, an 1bs. An 1bs. Ni bs. An	lbs. Bg	anure ayard nyard	bs. And bs. An	bs. Bs	anure	anur.	bs. Ar	bs. Ar	98. 158	anure anure nyard nyard SI, and	bs. And	S S	
	Fear Fear 400 550 400 550	400 1	Farn	400 lbs. 550 lbs. 400 lbs. 550 lbs.	4001	Umm	Farn Farn	400 lbs. 550 lbs.	400 400 100 100 100 100 100 100 100 100	400 1	Farm Farm Farm	400 lbs. 400 lbs. 550 lbs. 550 lbs.	400 11	
	_	01	<b>- 63</b> 55 - 41	1C O F OC	607	1	6169 4	6 5	~ ∞ œ ç	AT A	- 01 to 4 1	9 - 80	10	
		1 1	×.			100				100			:A	2

EXPERIMENTS ON POTATOES.—HOOS FIELD—continued.—Summary of the Composition of the "Good" Tubers in the Twenty-first, Twenty For particulars of the composition in the first 90-1, 94-5, 98-9, and 102-3. second, Twenty-third, Twenty-fourth, and Twenty-fifth Scasons, 1896, 1897, 1898, 1899, and 1900. 20 years, 1876-1895. see pp.

nitrogen. It was obvious that the juice had suffered exhaustion of much of both its nitrogen and its mineral matter, in the development of the fungus. There was an increased amount of sugar found in the diseased potatoes, the result of diseased action, and it probably also conmore. The distribution of the mineral matter was much in the same order as that of the contained very little nitrogen, whilst that of the discoloured portion contained An abstract of the analytical results obtained, illustrating the influence of different manners, and of different seasons, on the composition of Potatoes, is given below. The appecific gravity of the tubers is also given. In the tubers the dry matter, nitrogen, and ash have been determined; and in some cases complete analyses of the sak have been made. Besides the results obtained relating to the composition of the tubers themselves, the dry matter, the sugar, the nitrogen, and the ash, in the expressed juice have in many cases been determined; in some cases the amount of the nitrogen existing as albuminoids has been determined; and in some, complete analyses of the ash of the juice have been

-	-	_		the following only preliminary statement of results, no correction is made for any change from the original weight of the samples, the results being calculated upon the fresh weights	as finally taken for analysis.
the dry matter, the sugar, the nitrogen, and the ash, in the expressed juice have in many cases been determined; in some cases the amount of the nitrogen existing as albuminoids	has been 'determined; and in some, complete analyses of the ash of the juice have been made. It may be remarked, that by far the larger proportion of both the mineral matter,	and the nitrogen, is found to exist in the juice; and of the nitrogen in the juice, as a rule, not much more than half exists as albuminated. In many cases, the small potatoes have been	ubmitted to the same methods of analysis as the good potatres. And in some cases, similar methods of examination have been applied to the still white, and also to the separated dis-	colouzed portions of the diseased potatoes. With regard to these latter results, it may be observed, that whilst the juice of the white portion of the diseased potatoes contained	approximately the normal amount of nitrogen, that of the discoloured portion contained very much less. On the other hand, the wasned or exhausted "marc" of the white portion,

PLOTS.  (For Produce, see pp. 104-5.)  (Formyard Manure (14 tons) alone 1883 and since. Previously 3¢ evts. Superphosphate also (')  (Formyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda also (Soda and since)  (Formyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 39 evts. Superphosphate, 300 lbs. Superphos, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. Soft lbs. Nitrate of Soda, 3½ evts. Superphosphate, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia  (Formyard Manure (14 tons) alone 1883 and since. Previously Ramyard Manure (14 tons)  (Formyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda also  (Formyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda also  (Formyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 54 evts. Superphosphate also (')  (Formyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda, 400 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slage  (Formyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 35 evts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda, 400 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slage				D	omposition	of the "Go	Composition of the "Good" Tubers.	E Bre
Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyard Farmyard Manure (14 tons) alone 1883 and since.  1881, and previously, 550 lbs. Nitrate of Soda also 400 lbs. Ammonium-satts. 32 cwts. Superphos., 300 lbs. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. 550 lbs. Nitrate of Soda, 32 cwts. Superphos., 300 lbs. 550 lbs. Nitrate of Soda, 32 cwts. Superphospirate  Unmanured in 1876, and each year since Unmanured in 1876, and each year since Unmanured in 1882, and since. Previously Farmyar Farmyard Manure (14 tons) alone 1883 and since: If Farmyard Manure (14 tons) alone 1883 and since: If Farmyard Manure (14 tons) alone 1883 and since: 550 lbs. Nitrate of Soda also 400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. 400 lbs. Basic Slag, 300 lbs. 400 lbs. Basic Slag.		MANURES PER ACRE, PER ANNUM.	Specific Gravity		Mineral Ma	Mineral Matter (Ash).	Nitrogen.	gen.
by S.	PLOTS.	(For Produce, see pp. 104-5.)	of the Tubers.	Dry Matter.	In Fresh Tubers.	In Dry Matter.	In Fresh Tubers.	In Dry Matter.
best o bar. 1 . S. S								
ber o bar 1 ses	-		1.109	Per cent.	Per cent.	Per cent.	Per cent. 0 · 380	Per cent.
o	20	Farmv	1.109	25.5	92.0	2.96	0.376	1.47
o	က	124	1.096	22.0	66.0	4.49	0.339	1.54
Se se . L . Se se	4		1.090	21.6	86.0	4.53	0.322	1.49
So So Did o	10	( 1961, and previously, 300 tos. Nicase of Social and	1.102	24.8	0.74	2.99	0.405	1.63
So S	9 00		1.085	23.2	0.78	3.36	0 416	1.79
. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	-	lbs. Sulph. Potash, 100 lbs.	1.092	22.0	66.0	4.51	0.372	1.69
De para de la	00	550 lbs. Nitrate of Soda, 34 cwts. Superphos., 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.095	21.2	96.0	4.46	0.356	1.65
Tid o	6		1.109	25.8	0.91	3.53	0.326	1.38
pid o	10	300 1	1.107	23.3	1.08	4.62	0.312	1.34
plu o		TWENTY-SECOND SEASON, 1897.						
by	1	;	1.100	23.7	0.74	3.13	0.344	1.45
p	2	:	1.109	25.7	92.0	2.95	0.381	1.48
8	က	Farmyard Manure (14 tons) alone 1883 and since: previously 34 cwts. Superphosphate also (1)	1.101	23.4	0.97	4.14	0.369	1.58
	4	(Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 32 cwts. Superphosphate, and in)	1.098	23.5	1.00	4.26	0.385	1.64
	10	DB, Militate of Sodia a	1.102	24.6	0.75	3.05	0.451	1.83
. s.	, ec		1.103	24.5	0.73	2.96	0-475	1.94
· .	7	400 lbs. Ammonium-salts, 400 lbs. Basic Slag. 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	1.094	23.0	96.0	4.19	0.423	1.84
	00	8	1.098	23.0	0.95	4.12	0.441	1.91
第三 種は 1 年 1 日 1 日 1 日 1 日 1 日 1 日 1 日 1 日 1 日	6		1.112	56.5	68.0	3.37	0.325	1.23
10 400 lbs. Basic Slag. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. St	10	400 lbs. Basic Slag. 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	1.108	25.2	1.06	4.21	0.294	1.17

Furmyard Manure (14 to [1851] and previously, 5 400 lbs. Ammonium-salis, 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 lls. Saise Slag. 300 lls. Basic Slag. 300 lls. Basic Slag. 300 lls. Basic Slag. 300 lls. Basic Slag. 300 lls. Ammonium-salis, 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 ll lls. Ammonium-salis, 550 lbs. Nitrate of Soda, 400 lbs. Ammonium-salis, 550 lbs. Nitrate of Soda, 400 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 lls. Sais Slag. 300 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 lbs. Ammonium-salis, 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 lbs. Basic Slag. 3	Furnyard Manure (14 tons) alone 1883 and sine: previously 34 owts. Superphosphate also (7)	22 22 22 22 22 22 22 22 22 22 22 22 22			1.56
1881, and perciously, 520 [ba. Nittate of Soda, also   100 [ba. Nittate of Soda, 400 [ba. Sinja, Pocash, 100 [ba. Sinja, Soda, 100 [ba. Sinja, Mag. 1049   22.0   0.78   2.78   0.488     200 [ba. Nittate of Soda, 400 [ba. Sinja, Pocash, 100 [ba. Sinja, Soda, 100 [ba. Sinja, Mag. 1049   22.0   0.78   2.78   0.78     200 [ba. Nittate of Soda, 400 [ba. Sinja, Pocash, 100 [ba. Sinja, Soda, 100 [ba. Sinja, Mag. 1049   22.0   0.78   2.78   0.78     200 [ba. Nittate of Soda, 400 [ba. Sinja, Focash, 100 [ba. Sinja, Soda, 100 [ba. Sinja, Mag. 1049   22.0   0.78   2.74   0.78     200 [ba. Nittate of Soda, 400 [ba. Sinja, Pocash, 100 [ba. Sinja, Soda, 100 [ba. Sinja, Mag. 1100   22.0   0.78   2.74   0.78     200 [ba. Nittate of Soda, 400 [ba. Sinja, Pocash, 100 [ba. Sinja, Boca, 100 [ba. Sinja, Mag. 1100   22.0   0.78   2.74   0.78     200 [ba. Nittate of Soda, 400 [ba. Sinja, Pocash, 100 [ba. Sinja, Boca, 100 [ba. Sinja, Mag. 1100   22.0   0.78   2.74   0.78     200 [ba. Nittate of Soda, 400 [ba. Sinja, Pocash, 100 [ba. Sinja, Boca, 100 [ba. Sinja, Mag. 1100   22.0   0.77   0.78     200 [ba. Nittate of Soda, 200 [ba. Sinja, Pocash, 100 [ba. Sinja, Boca, 200	1881, and previously, 550 [bs. Nitrate of Soda also 1981, and previously, 550 [bs. Nitrate of Soda also 1981, and previously, 550 [bs. Nitrate of Soda also 1981, and previously, 550 [bs. Nitrate of Soda also 1981, and previously, 550 [bs. Basic Slag, 300 [bs. Sulph. Pokash, 100 [bs. Sulph. Soda, 100 [bs. Sulph. Soda, 100 [bs. Sulph. Mag. 150 [bs. Basic Slag, 300 [bs. Basic Slag, 300 [bs. Sulphate Potash, 100 [bs. Sulphate Magnesia 1981, and serie Slag, 300 [bs. Sulphate Potash, 100 [bs. Sulphate Sulphate Magnesia 1981, and previously Salphate Potash, 100 [bs. Sulphate Sulphate Magnesia 1981, and previously Salphate Potash, 100 [bs. Sulphate Sulphate Magnesia 1981, and previously Salphate Potash, 100 [bs. Sulphate Sulphate Magnesia 1982, and since. Previously Farmyard Manure (14 tons) 1983, and since Previously Farmyard Manure (14 tons) 1983, and previously Salphate Magnesia 1984, and previously Salphate Magnesia 1985, and previously Salphate Magnesia 1986, and previously Salphate Magnesia 1988, and since salphate Magnesia 1988, and since previously Salphate Magnesia 1989, and previously Salphate Magnesia 1989, and since previously Salphate Magnesia 1980, and since previously Salphate Magnesia 1981, and previously Salphate Potash, 100 [bs. Sulphate Magnesia Salphate Magnesia Salphate Magnesia Salphate Magn	22.2 22.3 22.5 22.5 22.5		-	1.44
100   100	9 400 lbs. Nitrate of Soda 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1400 lbs. Nitrate of Soda 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1400 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1400 lbs. Raic Slag, 300 lbs. Sulphere Potash, 100 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1800 lbs. Nitrate of Soda also reviewed Manne (14 tons) alone 1883 and since: previously 3½ wars. Superphosphate also (1) lbs. Manne (14 tons) alone 1883 and since: previously 3½ wars. Superphosphate also (1) lbs. Nitrate of Soda also lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1850 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Sulph. Mag. 670 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulphate Magnesia and since previously 3½ was Superphosphate also (7) lbs. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, 100 lbs. Sulphate Potash, 100 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, 200 lbs. Sulphate Potash, 100 lbs. Sulphate Soda,	22.5.2 22.5.3 24.0 24.0	19	-	1.71
## April 18. A monocime and faste   Forest and   ## April 18. Suph. Scale, 100 its. Suph. Mag.   1.095   22.5   0.785   4.286   0.386   4.085   4.00   18. Suph. Potash, 100 its. Suph. Scale, 100 i	400 lbs. Ruitate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potssh, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  400 lbs. Basic Slag, 300 lbs. Sulphate Potssh, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Twenty-rought Salabate Magnesia.  Twenty-rought Magnesia.  Twent	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	=	-	1.79
400   Its Braise Sing   400   Its Sulphus Forland, 100   Its Sulphus Socia, 100   Its Sulphus	Umanured in 1876, and each year since  Unmanured in 1876, and each year since  Unmanured in 1876, and each year since  Ummanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ ovts. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1883 and since. previously 5½ ovts. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1883 and since. previously 5½ ovts. Superphosphate also (7)  1881, and previously, 5:00 lbs. Nitrate of Soda also  1891, and previously, 5:00 lbs. Nitrate of Soda, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag-  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulphate Magnesia  Winmanured in 1876, and each year since  Ummanured in 1876, and each year since  Winmanured in 1876, and each year since  Unmanured in 1876, and each year since  Winmanured in 1876, and each year since  Unmanured in 1878, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since. previously 3½ ovts. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1883 and since. previously 3½ ovts. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1883 and since. previously 3½ ovts. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ ovts. Superphosphate, and in 400 lbs. Mirate of Soda also  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulphate Magnesia  400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia  AVERAGE OF SEASONS, 1896, '97, '98, '99, and 1900.  Umanured in 1876, and each year since.  Farmyard Manure (14 tons) alone 1883 and since. previously 3½ ovts. Superphosphate, and in)  Farmyard Manure (14 tons) alone 1883 and since. previously 3½ ovts. Superphosphate, and in)  Farmyard Manure (14 tons) alone 1883 and since. previously 3½ ovts. Superphosphate, and in)  Farmyard Manure (14 tons) alone 1883 and since. previously 3½ ovts. Superphosphate, and in)  Farmyard Ma	22.5 24.0		_	1.92
Householder   State	Unmanured in 1876, and each year since  Unmanured in 1876, and each year since  Unmanured in 1876, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1838 and since in previously 3½ ewts. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1838 and since. In 1882, and previously, 3½ ewts. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1838 and since in 1882, and previously, 3½ ewts. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1838 and since in 1882, and previously, 3½ ewts. Superphosphate, and in 1851, and previously, 5.00 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 500 lbs. Nitrate of Soda, and slore. Previously Farmyard Manure (14 tons) alone 1883 and since. Previously Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ ewts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 500 lbs. Nitrate of Soda, alone 1883 and since. In 1882, and previously, 3½ ewts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda, alon 1883 and since. In 1882, and fare, Sulph. Soda, 100 lbs. Sulph. Soda,	0.42		-	1.79
Unmanured in 1876, and each year since   Purkinty Frunçad Manure (14 kms)   Purkinty-Pourers Sasson, 1889,   Purkinty and Manure (14 kms) alone 1883 and since   Pervicasity 35 overs. Superphosphates aloc (15 kms) alone 1883 and since   Pervicasity 35 overs. Superphosphates aloc (15 kms) alone 1883 and since   Pervicasity 35 overs. Superphosphates and in   1.065   22+3   0.744   2.96   0.788   4.56   0.888	Unmanured in 1876, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously 53 evits. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 34 evits. Superphosphate also (7)  1881, and previously, 550 lbs. Nitrate of Soda also  600 lbs. Manure (14 tons) alone 1883 and since. In 1882, and previously, 34 evits. Superphosphate and in 1850 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulph. Soda, and ince. Previously Farmyard Manure (14 tons) alone 1883 and since. Previously 34 evits. Superphosphate also (7)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 35 evits. Superphosphate, and in 1891 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Sola, 100 lbs. Sulph. Soda, 100 lbs. S	73.0	-	-	1.35
Unmanured in 1802, and stone Perviously Farmyard Manure (14 tons)   1005   221   0.74   2.96   0.892	Farmyard Manured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manured in 1882, and since. Previously Farmyard Manure (14 tons) alone 1883 and since: previously \$\frac{3}{2}\$ owts. Superphosphate also (1) 1881, and previously, 550 lbs. Nitrate of Soda also  400 lbs. Ammonium-saits (4)  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Sulph. Soda, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Sulph. Soda, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. Farm, and Manured in 1882, and since. Previously Farmyard Manure (14 tons) alone 1883 and since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons) alone 1883 and since.  I Sol lbs. Ammonium-salts (40) lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda. 400 lbs. Basic Slag, 300 lbs. Sulph Potash, 100 lbs. Sulph Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda. 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph Soda, 100 lbs. Sulph Manured in 1876, and since. Previously Farmyard Manure (14 tons) alone 1883 and since.  Unmanured in 1876, and such year since.  Unmanured in 1876, and such year since.  Unmanured in 1878, and since. Previously Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda also  On lbs. Ammonium salts (7)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3g ewts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda. 400 lbs. Basic Slag, 300 lbs. S			-	
Francyard Manuer (14 tons) alone 1883 and since.   Paviously 35 orts. Superphosphate, and in   1.100   24:1   1.004   4:50   0:883     Warnyard Manuer (14 tons) alone 1883 and since.   In 1882, and previously 35 orts. Superphosphate, and in   1.100   24:2   1.004   4:50   0:883     10	Farmyard Manure (14 tons) alone 1883 and since: previously 3½ owts. Superphosphate also (7) [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 5:01 Bas. Nitrate of Soda also (90 Bas. Manure (14 tons) alone 1883 and since. In 1882, and previously, 3; owts. Superphosphate, and in 1500 Bas. Mitrate of Soda, 400 Bas. Basic Slag, 300 Ibs. Sulph. Potash, 100 Ibs. Sulph. Soda, 100 Ibs. Sulph. Mag. 400 Ibs. Basic Slag, 300 Ibs. Sulph. Solah, 100 Ibs. Sulph. Soda, 100 Ibs. Sulph. Mag. 400 Ibs. Basic Slag, 300 Ibs. Sulphate Soda, and 100 Ibs. Sulphate Magnesia.  Will manured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ ovts. Superphosphate also (1)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ ovts. Superphosphate and in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  AVERAGE OF SULPH. Solah, Mag. 400 Ibs. Basic Slag, 300 Ibs. Sulph. Potash, 100 Ibs. Sulph. Soda, 100 Ibs. Sulph. Mag. 400 Ibs. Basic Slag, 300 Ibs. Sulphate Sola, and 100 Ibs. Sulphate Magnesia.  Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  AVERAGE OF SEASONS, 1896, '37, '38, '39, and 1900 Ibs. Sulphate Magnesia.  Apple Basic Slag, 300 Ibs. Sulphate Potash, 100 Ibs. Sulphate Sola, and 100 Ibs. Sulphate Magnesia.  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ ovts. Superphosphate, and in 1876, and each year since.  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ ovts. Superphosphate, and in 1881, and previously. 550 Ibs. Nitrate of Soda.  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ ovts. Superphosphate, and in 1876, and each year since.  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ ovts. Superphosphate, and in 1876, and each year since.  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ ovts. Superphosphate, and in 1876, and since Ibs. Manure (14 tons) alone	23.8	71	-	1.47
100   100	(1881, and previously, 350 lbs. Nitrate of Soda also 400 lbs. Ammonium-salts (*) 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Soda, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 400 lbs. Mirate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 400 lbs. Basic Slag 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag- 400 lbs. Basic Slag, 300 lbs. Nitrate of Soda also 600 lbs. Manuer (14 tons) alone 1883 and since. Previously 73 evts. Superphosphate, and in) 600 lbs. Ammonium-salts, 600 lbs. Nitrate of Soda also 600 lbs. Ammonium-salts, 600 lbs. Salt, 600 lbs. Salth. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Soda, 100 lbs. Salth. Mag- 600 lbs. Ammonium-salts, 600 lbs. Salth. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Soda, 100 lbs. Salth. Magnesia, 100 lbs. Salth. Soda, 100 lbs. Salth. Soda, 100 lbs. Sulph. Soda, 100 lbs. Salth. Soda, 100 lbs. S	25 . I	_	_	1.56
1057   23.7   0.77   3.27   0.414	Annonnium-sails (*)  500 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Ammonium-sails, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  Farm, and Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ owts. Superphosphate, and in)  Farm, and Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ owts. Superphosphate, and in)  Farm, and Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ owts. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulphate Sola, and 100 lbs. Sulphate Manure (14 tons) alone 1883 and since.  Unmanured in 1876, and each year since.  Unmanured in 1878, and since. Previously Farmyard Manure (14 tons)  AVERAGE OF 5 SLAGA, 200 lbs. Sulphate Potash, 100 lbs. Sulphate Sola, and 100 lbs. Sulphate Manure (14 tons) alone 1883 and since. In 1882, and since in 1883, and since in 1882, and since in 1	24.0		_	1.57
4.00   18. Ammonium-saits, 400   18. Basie Sing, 300   18. Sulph. Potash, 100   18. Sulph. Soda, 100   18. Sulph. Mag.   1.105   24.2   1.05   4.34   0.406   4.34   0.406   1.001   1.001   1.001   1.001   1.002   1.100   1.002   1.100   1.002   1.100   1.002   1.100   1.002   1.100   1.002   1.100   1.002   1.100   1.100   1.002   1.100   1.002   1.100   1.002   1.100	400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Twenty-fifth Sulphate Magnesia.  The magnesia in 1876, and each year since. The rivously farmy and Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda also  Soda Ammonium-salts 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Sola, and 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Sola, and 100 lbs. Sulphate Magnesia.  Ummanured in 1876, and each year since.  Twenty-and Manure (14 tons) alone 1883 and since: previously, 3½ cwts. Superphosphate, and in)  Rarmyard Manure (14 tons) alone 1883 and since: previously, 3½ cwts. Superphosphate, and in)  Rarmyard Manure (14 tons) alone 1883 and since: previously, 3½ cwts. Superphosphate, and in)  Rarmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 550 lbs. Nitrate of Soda also  1881, and previously, 550 lbs. Nitrate of Soda also  250 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sada, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Basic Slag, 200 lbs. Nitra			-	1.75
200   18   11   11   11   12   12   13   14   15   15   15   15   15   15   15	930 Des. Nutrate of Soda, 400 Des. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  Unmanured in 1876, and each year since  Unmanured in 1876, and each year since  Unmanured in 1876, and each year since  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate also (1)  1881, and previously, 550 lbs. Nitrate of Soda also  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulph. Sola, and 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Sola, and 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Sola, and 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, and since. Previously Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in) Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 350 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Ammonium salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Soda, 100 lbs. Sulph. So			_	1.77
The Paris Cale of the Paris	## The Figure 100 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia    The Farm, and Manured in 1876, and each year since   The Farm, and Manured in 1882, and since   The Farm, and Manured in 1883, and since   The Farm, and Manured in 1883, and since   The Farm, and Manured in 1883, and since   The Sola also   The Farm, and Manured in 1883, and since   The Sola   The Farm, and Manured in 1883, and since   The Sola   The Farm, and Manured in 1883, and since   The Sola   The Farm, and Manured in 1884, and each year since   The Farm, and manured in 1876, and each year since   The Farm, and 100 lbs. Sulph. Sola, 100 lbs. Sulph. Magnesia   The Farm, and Manured in 1882, and since   The Farm, and Manured in 1882, and since   The The Farm, and Manured in 1882, and since   The	-		_	1.69
Twenty-pirch Sales   Twenty-	Unmanured in 1876, and each year since  Unmanured in 1876, and each year since  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farm, and Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate also (7)  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: previously, 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: previously, 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 3½ cwts. Superphosphate, and in)  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 350 lbs. Nitrate of Soda  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 350 lbs. Nitrate of Soda  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 350 lbs. Nitrate of Soda  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 350 lbs. Nitrate of Soda  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 350 lbs. Nitrate of Soda  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 350 lbs. Nitrate of Soda  [Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 350 lbs. Nitrate of Soda, 100 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.			_	1.37
Umanured in 1876, and each year since  Umanured in 1876, and each year since  Umanured in 1882, and since In 1882, and previously 8 years. Supprhosphate also (')  Umanured in 1882, and since In	Unmanured in 1876, and each year since  Unmanured in 1876, and each year since  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farm, ard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in)  Farm, and Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in)  400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia  AVERAGE OF 5 SEASONS, 1896, '97, '98, '99, and 1900.  Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in)  1881, and previously, 550 lbs. Nitrate of Soda also  550 lbs. Nitrate of Soda.  400 lbs. Ammonium-salts (7)  550 lbs. Nitrate of Soda.  400 lbs. Ammonium-salts (15)  550 lbs. Nitrate of Soda.  400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda.  400 lbs. Nitrate of Soda.  400 lbs. Nitrate of Soda.		-	-	61.1
Farm, and Manure (14 tons) alone 1883 and since: previously \$\frac{3}{2}\$ owts Superphosphate and in Farm, and Manure (14 tons) alone 1883 and since: previously, \$\frac{3}{2}\$ owts Superphosphate, and in Farm, and Manure (14 tons) alone 1883 and since. In 1882, and previously, \$\frac{3}{2}\$ owts Superphosphate, and in Farm, and Manure (14 tons) alone 1883 and since previously, \$\frac{3}{2}\$ owts Superphosphate, and in Farm, \$\frac{1}{2}\$ owts Superphosphate, \$\frac{1}{2}\$ owts	Farm, and Manure (14 tons) al. ne 1883 and since: previously 3½ cwts. Superphosphate also (1) [Farm, and Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1881, and previously, 550 lbs. Nitrate of Soda also  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Fotash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Fotash, 100 lbs. Sulphate Magnesia Average of Seasons, 1875, and each year since.  Unmanured in 1875, and each year since.  Unmanured in 1875, and each year since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in) franyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda also  550 lbs. Ammonium-salts (2)  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.			0.370	1.69
1088   300 lbs. Nitrate of Soda also   10 lbs. Sulph. Potash   10 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1.091   22.9   0.80   3.57   0.404     1090   22.2   0.80   3.57   0.404     1090   22.3   0.80   3.57   0.404     1090   22.3   0.80   3.57   0.404     1090   22.3   0.80   3.57   0.404     1090   22.3   0.80   3.57   0.404     1090   22.3   0.80   3.57   0.404     1090   22.3   0.80   3.57   0.404     1090   22.4   0.70   3.44   0.435     1090   22.4   0.70   3.47   0.328     1090   1.00   22.4   0.70   3.20     1090   22.4   0.80   3.57   0.347     1090   1.00   22.4   0.74   3.73   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.74   3.75   0.347     1090   22.4   0.75   3.75   0.347     1090   22.4   0.75   3.75   0.347     1090   22.4   0.75   3.75   0.347     1090   22.4   0.75   3.75   0.347     1090   22.4   0.75   3.75   0.347     1090   22.4   0.75   3.75   0.347     1090   22.4   0.75   3.75   0.345     1090   22.4   0.75   3.75   0.345     1090   22.4   0.95   4.35   0.355     1090   22.4   0.95   4.35   0.355     1090   22.4   0.95   4.45     1090   22.4   0.95   4.35   0.355     1090   22.4   0.95   4.35   0.355     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95   4.45     1090   22.4   0.95     1090   22.4   0.95     1090   22.4   0.95     1090   22.4   0.95     1090   22.4	(1881, and previously, 550 lbs. Nitrate of Soda also  400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulphate Souls, and 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Marine in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since: previously, 3½ cwts. Superphosphate also (1).  (Farmyard Manure (14 tons) alone 1883 and since: In 1882, and previously, 3½ cwts. Superphosphate, and in)  1400 lbs. Ammonium salts (7).  550 lbs. Nitrate of Soda.  400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.			0.384	1.63
## 1090 B.S. Nitrate of Soda.    1.090 B.S. Nitrate of Soda.   1.091 B.S. Sulph. Basic Slag. 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1.091 23.0 0.79 3.44 0.435 0.500 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia 1.008 20.5 0.98 0.98 0.98 4.70 0.325 0.00 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia 1.100 22.4 1.05 4.70 0.328 0.384 0.387 0.331 0.347 0.340 lbs. Basic Slag. 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia 1.100 22.4 1.05 4.70 0.358 0.388	Average in 1876, and each year since.  Umanured in 1876, and each year since.  Tranyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda.  Tranyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda.  The Ammonium safts (1) and each year since.  Tranyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda also  To lbs. Ammonium safts (2) and since also since also be solar by the since and previously, 34 cwts. Superphosphate, and in 1881, and previously. 550 lbs. Nitrate of Soda also  To lbs. Ammonium safts (3) alone 1883 and since also be solar by the solar by			0.361	1.78
400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1.089 20.6 1.089 20.6 1.008 20.6 1.009 20.6 1.008 20.6 1.008 20.6 1.008 20.6 1.008 20.6 1.008 20.6 1.009 20	400 lbs. Ammonium-saits, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 150 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 150 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Sola, and 100 lbs. Sulphate Magnesia Average of Seasons, 1896, '97, '98, '99, and 1900. Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate also (1). Salamyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 550 lbs. Nitrate of Soda also  550 lbs. Ammonium salts (2). Salamyard Manure of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 1550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 1550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 1550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag. 1550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sul			0.404	1.81
100   100	1 O' 10s. Nutrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Sola, and 100 lbs. Sulphate Magnesia AVERAGE OF 5 SEASONS, 1896, '97, '98, '99, and 1900.    AVERAGE OF 5 SEASONS, 1896, '97, '98, '99, and 1900.     Farmyard Manure (14 tons) alone 1883 and since: previously 34 cwts. Superphosphate also (4).     Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 55 lbs. Nitrate of Soda also     Sol Dbs. Ammonium salts (7)     Sol Dbs. Nitrate of Soda     Sol Dbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.     Sol Dbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.		_	0.435	1.89
400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Sola, and 100 lbs. Sulphate Magnesia   1.098   22.4   1.05   4.70   0.328     Unmanured in 1876, and each year since.   Average of 5 Seasons, 1896, '97, '98, '99, and 1900.   1.095   22.4   1.05   4.70   0.358     Unmanured in 1882, and since.   Previously Farmyard Manure (14 tons) alone 1883 and since.   Previously Farmyard Manure (14 tons) alone 1883 and since.   In 1882, and previously 3½ cwts. Superphosphate, and in 1.097   22.4   0.98   4.39   0.363     Rarmyard Manure (14 tons) alone 1883 and since.   In 1882, and previously 3½ cwts. Superphosphate, and in 1.097   22.4   0.98   4.39   0.365     1.097   22.3   1.00   4.51   0.365     22.0   22.3   1.00   22.4   0.98   4.45     22.0   22.4   0.98   4.45     22.1   22.2   1.097   22.3     22.2   22.3   22.4   0.385     22.3   22.4   0.385     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98   4.45     22.4   0.98	490 lbs. Basic Slag., 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia.  AVERAGE OF 5 SEASONS, 1896, 97, '98, '99, and 1900.  Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons) alone 1883 and since: previously 34 cwts. Superphosphate also (4).  (Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 32 cwts. Superphosphate, and in) 400 lbs. Ammonium salts (7).  550 lbs. Nitrate of Soda.  400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.			0.375	1.83
Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1882, and since.  Permyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) alone 1883 and since.  In 1882, and previously Farmyard Manure (14 tons) and 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  In 1997  Each of 1882, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  In 1995  Each of 1882, 300 lbs. Sulphate Soda, and 100 lbs. Sulph. Magnesia  In 1995  Each of 1882, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  In 1995  Each of 1882, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  In 1995  Each of 1882, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  In 1995  Each of 1882, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  Each of 1882, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia  Each of 1882, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate Soda	Unmanured in 1876, and each year since.  Unmanured in 1876, and each year since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons) Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superplosphate also (1).  (Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in) 1881, and previously, 550 lbs. Nitrate of Soda also  400 lbs. Ammonium salts (2)  400 lbs. Ammonium salts (4)  400 lbs. Ammonium-salts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.		-	0.328	1.53
1.098   23.4   0.74   3.16   0.358     Farmyard Manured in 1882, and since. Previously Farmyard Manure (14 tons) alone 1883 and since. Previously Farmyard Manure (14 tons) alone 1883 and since. Previously 3½ cwts. Superphosphate also (1).    Farmyard Manure (14 tons) alone 1883 and since. Previously 3½ cwts. Superphosphate, and in 1.097   22.4   0.98   4.39   0.363     Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1.097   22.4   0.98   4.39   0.365     Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1.097   22.4   0.98   4.35   0.365     Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1.097   22.4   0.98   4.45   0.365     Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1.097   22.4   0.98   4.45   0.365     Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 1.097   22.4   0.98   4.45   0.405     Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1.097   22.4   0.99   4.44   0.395     Farmyard Manure (14 tons) alone 1883 and since. In 100 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.   1.094   22.4   0.99   4.44   0.395     Farmyard Manure (14 tons) and 100 lbs. Sulph. Mag.   1.065   22.9   1.07   4.46   0.305     Farmyard Manure (14 tons) and since. In 1882, and si	Unmanured in 1882, and each year since.  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since: previously 34 cwts. Superphosphate also (1).  (Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 34 cwts. Superphosphate, and in) 1881, and previously, 550 lbs. Nitrate of Soda also  400 lbs. Ammonium salts (*)  550 lbs. Nitrate of Soda  400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.				
Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate, and in previously, 3½ cw	Farmyard Manure (14 tons) alone 1883 and since: previously 3½ cwts. Superphosphate also (¹).  (Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate, and in) [1884, and previously, 550 lbs. Nitrate of Soda also 400 lbs. Ammonium salts (²) 550 lbs. Nitrate of Soda 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.	_	-	0.358	1.53
1881, and previously, 550 lbs. Nitrate of Soda also   1.097   22.3   1.00   4.51   0.365   400 lbs. Ammonium salts (400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Boda, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.105   23.9   1.07   4.46   0.395   3.49   0.335   3.40   0.305   3.40   0.305   3.40   0.305   3.40   0.305   3.40   0.305	(1881, and previously, 550 lbs. Nitrate of Soda also 400 lbs. Ammonium salts (*) 550 lbs. Nitrate of Soda 400 lbs. Ammonium-salts 400 lbs. Basic Slag. 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 400 lbs. Basic Slag. 300 lbs. Sulph. Potash, 100 lbs. Sulph. Mag.		_	0.377	1.52
400 lbs. Ammonium salts (*) 550 lbs. Nitrate of Soda 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia	400 lbs. Ammonium salts (*) 550 lbs. Nitrate of Soda. 400 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	-	_	0.365	1.64
1097 23.9 0.76 3.19 0.446 550 lbs. Nitrate of Solas, 100 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 1.094 22.4 0.99 4.44 0.395 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Magnesia 1.105 23.9 1.07 4.46 0.305 1.007 23.9 1.07 4.46 0.305 1.007 23.9 1.07 4.46 0.305 1.007 23.9 1.07 23.9 1.07 4.46 0.305 1.007 23.9 1.007 23.0 1.	400 lbs. Ammonium-safts, 400 lbs. Basic Slag, 300 lbs. Sulph. Potesh, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potesh, 100 lbs. Sulph. Sulph. Mag.	_		0.416	# O T
550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia	550 lbs. Nitrate of Soda, 400 lbs. Basic Slag. 300 lbs. Sulph. Porest, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag.	20		0.446	9.1
400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Sulphate Magnesia   1.105   23.9   1.07   4.46   0.305	And the residence of the control of	8	-	0 395 0 405	1.76
23.9   1.07   4.46   0.305	400 lbs. Basic Slag, 300 lbs. Sulphate Potash, 100 lbs. Sulphate Soda, and 100 lbs. Salphate 100 lbs.			0.339	1.37
Competition of Line. The from high named and the competition of the co	high remembers. Suipling magnesia	73.8		0 302	1.28

of Superphosows 25 inches		Tops.			T.	
that for the crops of 1897, and since, Basic Slag has been used instead of Superphosphate. Description of Potato, "Beauty of Hebron" (White). Rows 25 inches apart; 14 inches from plat to plant in the rows.  In the spring of 1894 permanent division paths were laid out between plot and plot.	PRODUCE PER ACER.	Tubers. Small. Diseased. TOTAL.		Tons. cwts. Tons. cwts. Tons. cwts.		
.—HOOS FIELD—continued. that for the crops of 1897, and since, Basic Slag happate. Description of Potato, "Beauty of Hebrapate; 14 inches from plut to plant in the rows. In the spring of 1894 permanent division plot and plot.		Good. F	Crop taken up,	Tons, cwts.		
<u>v</u> 2 <u>o</u> 4		Per Annun.	Potatoes planted, April 23.	Unmanured in 1876, and each year since  Farmyard Manure (14 tons)  Farmyard		
Below are given the particulars of the Manures for the Twenty-sixth Season, 1901. For the Manures, description of Potatoes grown, and the Produce, of the 25 preceding years, see pp. 88-9, 92-3, 96-7, 100-1, and 104-5. The arrangement of the plots is precisely the same as for the 25 preceding potato crops. The manures are the same as for the crops of 1883, and since; excepting	3:	MANURES PER ACRE	TWENTY-SIXTH SEASON, 1901.	Unmanured in 1876, and each year since  Unmanured in 1882, and since. Previously Farmyard Manure (14 tons)  Farmyard Manure (14 tons) alone 1883 and since. In 1882, and previously, 3½ cwts. Superphosphate also (1)  Farmyard Manure (14 tons) alone 1883 and since.  1881, and previously. 550 lbs. Nitrate of Soda also 400 lbs. Ammonium-sults (*)  550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. 550 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. 650 lbs. Nitrate of Soda, 400 lbs. Basic Slag, 300 lbs. Sulph. Potash, 100 lbs. Sulph. Soda, 100 lbs. Basic Slag, 300 lbs. Sulphate Soda, and 100 lbs. Sulphate M.		
ow are given the partice For the Manures, desceeding years, see pp. 89- e arrangement of the 140		ris .				
Beld 1901. 25 pre The crops.		PLOTE		1088 4 59 601		1288 4 70 40 70 80 80 90 1

