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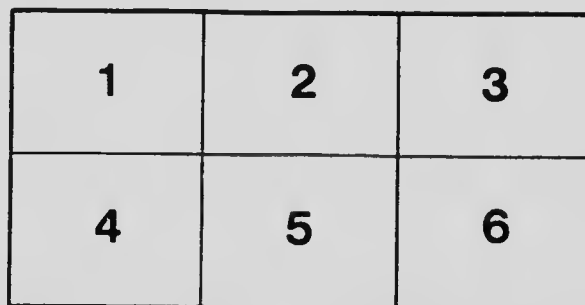
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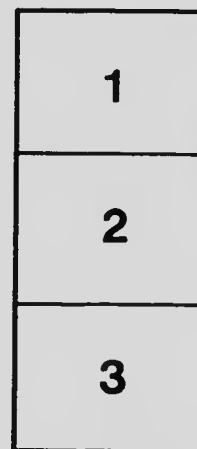
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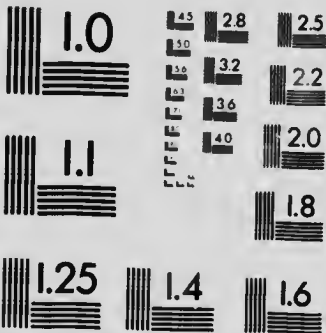
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DEPARTMENT OF AGRICULTURE
CENTRAL EXPERIMENTAL FARM
OTTAWA, CANADA

RESULTS OBTAINED IN 1904

FROM

TRIAL PLOTS OF
GRAIN, FODDER CORN, FIELD ROOTS
AND
POTATOES

BY

WILLIAM SAUNDERS, LL.D.
Director of Experimental Farms.

AND

CHAS. E. SAUNDERS, Ph. D.
Experimentalist.

BULLETIN No. 48

DECEMBER, 1904.

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MINISTER OF AGRICULTURE



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To the Honourable
The Minister of Agriculture.

SIR,—I herewith submit for your approval Bulletin No. 18 of the Experimental Farm series, which has been prepared by the Experimentalist, Dr. C. E. Saunders and myself. There are presented in this publication the results of a large number of experiments, which have been conducted at all the experimental farms of your Department during the season of 1904, with spring wheat, macaroni wheat, canner and spelt, oats, barley, pease, Indian corn, turnips, mangels, carrots, sugar beets and potatoes, in plots of uniform size, and with the crops grown under uniform conditions. The average results are also given of the tests for a series of years of those varieties which have been long under trial.

These test plots are conducted with the object of gaining information as to the relative productiveness of the different sorts and their earliness in ripening. The returns show much variation in the weight of the crops grown and point to the importance of care in the choice of varieties of seed for sowing. It is hoped that these results giving the experience gained under some of the most important climatic variations found in the country, will prove useful to farmers in every part of Canada.

I have the honour to be,
Your obedient servant,

WM. SAUNDERS,
Director of Experimental Farms.

OTTAWA, December 27, 1904.



RESULTS OBTAINED

FROM TRIAL PLOTS OF

GRAIN, FODDER CORN, FIELD ROOTS AND POTATOES

BY WILLIAM SAUNDERS, LL.D., FR.S.C., F.L.S., F.C.S., *etc.*
Director of Experimental Farms.

AND CHAS. E. SAUNDERS, B.A., Ph.D., Experimentalist.

During the past ten years experiments have been conducted on uniform trial plots at each of the Dominion Experimental Farms for the purpose of gaining information as to the most productive and earliest ripening varieties of grain, fodder corn, field roots and potatoes. In arranging for the plots the same varieties have been sown at each of the farms, the seed being supplied at the outset from a common stock. In each case seed has been sown early, and, as a rule, all the different sorts of the same crop have been sown on the same day or at most within two or three days so as to give to all an even start. The land chosen each year for these plots has been as nearly uniform in character as could be found and before sowing has been brought into a good condition of tilth. In this bulletin which is the tenth of the series, considerable changes have been made in the manner of presenting the results of the experiments. Although in the previous issues attention has been called to the fact that the figures obtained in any one season are of much less significance than those which express the average of the returns for a series of years, nevertheless it has been felt that this important fact has not always received due consideration. It has therefore been decided to arrange the matter in such a form as to bring into prominence the average results and to relegate the figures obtained in the current year to an altogether subordinate place. In this way it is believed that the usefulness of the bulletin will be materially increased. Another change has also been considered necessary. Experience has shown that the results obtained from growing different varieties for a series of years on one farm and under uniform conditions

ANNUAL CROP BULLETIN.

cannot be safely compared together unless exactly the same years are used in computing all the averages. This is due of course to the variability of the seasons. A period of five years has therefore been adopted as the standard, and the varieties are placed in the tables in the order of their average yield for the last five years. Those which have only been grown for shorter periods are placed in a separate group. While a five-year period is undoubtedly rather short, it was considered undesirable to lengthen it, since by so doing all recently introduced varieties would have been kept too long from taking their place in the tables with the older sorts.

During the past season very dry weather prevailed in the Maritime Provinces during June and the greater part of July which considerably reduced the grain crops. The straw was short, but rains late in July brought the grain up to a fairly plump condition. The weather later in the season was favourable for roots. Better conditions for crop growing prevailed in Quebec and Ontario, but rust on the grain was general. Rust also was prevalent in some parts of Manitoba on wheat and oats, but in other respects the conditions were favourable. Pease gave a remarkably large return and the crop of roots was unusually heavy, while potatoes gave an enormous yield. At Indian Head all the cereal crops were good, but roots yielded less than usual; carrots gave a very small crop. At Agassiz, B. C., the crops were fairly satisfactory excepting roots which gave a small return.

The following lists include only those varieties which are being grown on all the Dominion Experimental Farms.

It frequently happens that a variety of grain is grown for one or two years at the Central Farm before being sent out to be tested at the branch farms. In all such cases, in order to secure uniformity in the tables in this bulletin, the yields at the Central Farm are only recorded for those years in which the varieties were grown on all the farms.

In computing the average for these tables the same five years have been used in each case, except in a few instances where the omission or failure of one of the plots made a blank in the records for that year. These instances are marked with a cross † and the true position in the tables of the varieties so marked is on this account to be regarded as somewhat uncertain.

* Cross-bred varieties produced on the Experimental Farms are marked with an asterisk.

SPRING WHEAT

Thirty-six varieties of spring wheat (exclusive of the macaroni wheats) have been grown on the uniform test plots at all the Dominion Experimental Farms during the past season. The size of the plots was one-fortieth of an acre at Ottawa, Ont., Nappan, N. S. and Agassiz, B. C.; while at Brandon, Man., and Indian Head, N. W. T., the plots were one-twentieth of an acre. The seed was sown at the rate of one and one-half bushels per acre. The dates of sowing were as follows:—At Ottawa., April 27 and May 2; Nappan, May 12; Brandon, May 4; Indian Head, April 29; and at Agassiz, April 25.

In Canada the bushel of wheat is 60 lbs.

SPRING WHEAT—Continued.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.					Bu. Lbs.	Days.			Bu. Lbs.
1	Preston	35	33	115	29 20	15	Hungarian	33	14	147	21 2
2	Red Fife	35	9	119	30 57	16	Pringle's Champlain	34	5	146	25 17
3	Advance	34	54	115	30 41	17	Percy	32	25	145	26 29
4	Monarch	34	44	119	30 34	18	Colorado	32	39	146	24 5
5	White Fife	34	39	119	29 44	19	Plumper	32	24	145	23 31
6	Huron	34	37	117	25 57	20	Dawn	32	17	144	25 25
7	White Russian	34	39	120	30 14	21	Herrison Bearded	32	15	148	23 57
8	Rio Grande	34	8	118	23 55	22	Wellman	32	13	148	23 2
9	Wellman's Fife	34	2	119	28 10	23	Byron	32	4	144	28 45
10	Clyde *	33	56	117	27 24	24	Crawford	31	37	143	26 44
11	Laurel *	33	54	120	27 20	25	Countess	31	25	145	27 43
12	Admiral *	33	50	117	23 54	26	Early Riga	29	28	109	21 37
13	Stanley *	33	31	116	27 25	27	Fraser	29	39	141	22 34
14	Red Fern *	33	26	118	26 5						
	Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1904.			
	Pow's Fife—Main 143 (4 years)	33	55	130	30 2	Hastings * (4 years)	22	34	145	25 30	
	Benton * (4 years)	33	26	116	30 19	Australian No. 1904 years	31	34	120	28 24	
	Chester * (4 years)	32	59	116	29 35	Australian No. 1904 years	31	4	138	28 30	
	McKenby's Fife—Main 181 (4 years)	32	36	120	25 19	Haynes Blue Stem—Main 169 (4 years)	30	34	121	25 36	
	Minnesota No. 193 (4 years)	32	27	120	27 22						

The average crop of the thirty-six varieties of spring wheat tested on all the Experimental Farms in 1904 was 28 bus. 2 lbs. per acre.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.					Bu. Lbs.	Days.			Bu. Lbs.
1	Preston *	31	24	107	21 20	15	Hungarian	27	22	140	14 ..
2	Huron *	30	20	110	42 20	16	Monarch	27	18	144	18 40
3	Herrison Bearded	29	41	110	24 ..	17	Wellman's Fife	27	18	143	14 20
4	Pringle's Champlain	29	16	108	19 ..	18	Wellman's Fife	26	22	140	26 20
5	Advance *	29	..	109	24 49	19	Colorado	26	41	107	10 40
6	White Fife	28	34	112	48 ..	20	Rio Grande	26	34	112	16 20
7	Red Fern	28	26	110	22 16	21	Crawford	26	29	104	20 20
8	Clyde *	28	14	110	21 ..	22	Percy *	26	20	107	18 ..
9	Red Fife	28	6	113	15 ..	23	Dawn	25	12	107	18 20
10	Plumper *	28	..	106	23 ..	24	Countess *	24	48	106	19 40
11	Byron *	27	54	107	27 20	25	Stanley *	24	..	107	16 40
12	White Russian	27	54	113	17 ..	26	Fraser *	23	56	101	16 40
13	Admiral *	27	42	110	25 ..	27	Early Riga *	29	52	101	17 ..
14	Laurel *	27	34	112	21 20						

SPRING WHEAT—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.—Con.

Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield for 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield for 1904.	
	Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.
Hastings * (4 years).....	28	52	107	25	20		Chester * (4 years).....	25	17	108	24	40	
McKendry's Fife (Minn. 181) (4 years).....	23	15	112	16	40		Haynes' Blue Stem = Minn 169 (4 years).....	24	15	114	12	40	
Benton (4 years) *.....	28	10	110	23	40		Power's Fife = Minn. 149 (4 years).....	24	..	113	16	20	
Australian No. 19 (4 years).....	27	2	113	16	40		Australian No. 9 (4 years)	19	2	109	11	20	
Minnesota No. 163 (4 years).....	26	15	113	15	40								

The average crop of the thirty-six varieties of spring wheat tested on the Central Experimental Farm in 1904 was 19 bus. 8 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.		
1	Rio Grande.....	37	20	113	27	..	15	Admiral *.....	33	20	114	26	40		
2	White Fife.....	35	16	116	27	20	16	Red Fern.....	33	20	113	22	40		
3	Red Fife.....	35	28	114	28	..	17	Plumper *.....	32	44	113	24	20		
4	Laurel *.....	35	16	116	22	20	18	Crawford *.....	32	24	113	24	..		
5	Byron *.....	35	12	113	23	40	19	Pringle's Champlain.....	32	8	112	22	..		
6	Advance *.....	35	8	112	21	40	20	Huron *.....	32	4	113	24	..		
7	White Russian.....	34	56	115	26	..	21	Weldon *.....	32	..	115	20	40		
8	Clyde *.....	34	48	111	21	20	22	Harrison Bearded.....	31	52	114	25	20		
9	Hungarian.....	34	40	113	21	20	23	Dawn *.....	31	12	113	21	40		
10	Preston *.....	34	40	113	26	..	24	Percy *.....	31	8	113	18	20		
11	Wellman's Fife.....	34	32	116	25	20	25	Stanley *.....	30	44	114	20	20		
12	Colorado.....	34	24	112	21	40	26	Countess *.....	28	40	114	23	20		
13	Early Riga *.....	33	48	108	24	20	27	Fraser *.....	24	40	113	20	..		
14	Monarch.....	33	48	115	24	20									

Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield in 1904.	
	Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.
Chester * (4 years).....	32	35	115	23	..		Benton * (1 years).....	29	..	116	25	20	
Power's Fife (4 years).....	30	10	117	22	40		Australian No. 9 (4 years).....	28	20	119	26	20	
McKendry's Fife (4 years).....	29	30	118	20	..		Haynes' Blue Stem (4 years).....	26	25	118	21	40	
Hastings * (4 years).....	29	10	116	21	..		Australian No. 19 (1 years).....	24	5	119	21	..	
Minnesota No. 163 (4 years).....	29	10	118	20	..								

The average crop of the thirty-six varieties of spring wheat tested on the Experimental Farm at Nappan in 1904 was 23 bus. 31 lbs. per acre.

SPRING WHEAT—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.				
		Bu. Lbs.	Days.				Bu. Lbs.	Days.		Bu. Lbs.			
1	Monarch	31	4	119	33	40	15	Fraser *	30	20	110	31	..
2	Dawn *	34	..	113	29	..	16	Countess *	30	18	117	25	20
3	White Fife	33	32	120	31	20	17	Preston *	30	16	115	33	..
4	Advance *	33	30	114	31	..	18	Pringle's Champlain	30	10	115	31	20
5	Red Fife	33	26	120	36	40	19	Hungarian	29	44	117	29	20
6	White Russian	33	16	120	26	40	20	Percy *	29	42	112	26	20
7	Admiral *	33	8	117	29	40	21	Rio Grande	29	38	117	19	40
8	Laurel *	32	36	120	25	20	22	Weldon *	29	32	117	24	20
9	Huron *	32	28	115	31	20	23	Red Fern	28	50	116	23	20
10	Wellman's Fife	32	18	118	26	20	24	Herisson Bearded	28	50	115	22	20
11	Clyde *	31	52	117	26	..	25	Early Riga *	28	40	108	28	..
12	Crawford *	31	48	114	36	..	26	Plumper *	28	28	116	23	20
13	Stanley *	31	32	116	26	20	27	Colorado *	27	8	115	22	..
14	Byron *	30	24	114	27	40							

Varieties tested for less than five years.		Average yield for less than five years.		Average days maturing.		Yield in 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Average days maturing.		Yield in 1904.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.
Australian No. 9 (4 years)		32	45	117	36	40		Haynes' Blue Stem (4 years)		27	15	120	27	..	
Benton * (4 years)		32	..	114	31	20		Australian No. 19 (4 years)		26	..	121	36	..	
Fowler's Fife (4 years)		31	52	120	35	..		Hastings * (4 years)		25	55	116	27	..	
Chester * (4 years)		30	10	117	34	..		McKendry's Fife (4 years)		22	7	119	16	20	
Minnesota No. 163 (4 years)		27	40	110	25	40									

The average crop of the thirty-six varieties of spring wheat tested on the Experimental Farm at Brandon in 1904 was 28 bus. 32 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.				
		Bu. Lbs.	Days.				Bu. Lbs.	Days.		Bu. Lbs.			
1	Preston *	44	26	125	39	40	15	White Russian	39	52	129	48	50
2	Stanley *	43	51	121	42	25	16	Admiral *	39	48	123	38	10
3	Huron *	43	21	123	36	5	17	Clyde *	39	34	124	41	50
4	Red Fern	42	19	128	38	45	18	Colorado	39	22	125	31	5
5	Monarch	42	36	127	50	20	19	White Fife	39	1	128	38	40
6	Percy *	42	23	124	41	5	20	Herisson Bearded	38	27	129	28	55
7	Weldon *	42	12	126	49	20	21	Dawn *	38	21	121	31	25
8	Rio Grande	41	55	129	32	45	22	Laurel *	38	6	130	42	50
9	Wellman's Fife	41	52	129	42	50	23	Plumper *	36	32	122	27	50
10	Red Fife	41	31	129	43	5	24	Fraser *	35	42	118	27	35
11	Pringle's Champlain	41	5	127	31	25	25	Crawford *	35	35	119	30	..
12	Advance *	40	57	123	49	45	26	Early Riga *	34	55	116	35	45
13	Hungarian	40	33	127	29	50	27	Byron *	34	25	119	27	40
14	Countess *	40	19	121	40	5							

SPRING WHEAT—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1904.	
	Bu. Lbs.	Days.			Bu. Lbs.	Days.		Bu. Lbs.
Power's Fife (4 years)....	44	27	129	48	40	41	10	
McKendry's Fife (4 years)....	42	9	150	45	30	32	30	
Australian No. 19 (4 years).....	41	51	129	44	20	42	15	
Minnesota No. 163 (4 years).....	41	30	130	45	20	41	40	
				Chester * (4 years).....	39	11	124	41
				Hastings * (4 years).....	38	52	124	32
				Benton * (4 years).....	38	26	123	42
				Australian No. 9 (4 years).....	38	5	127	41
				Haynes' Blue Stem (4 years).....	37	59	131	40

The average crop of the thirty-six varieties of spring wheat tested on the Experimental Farm at Indian Head in 1904 was 38 bush. 42 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.				
		Bu. Lbs.	Days.				Bu. Lbs.	Days.					
1	Stanley *	37	26	118	31	20	15	Percy *	35	3	118	28	40
2	Red Fife.....	37	15	120	32	..	16	Huron.....	34	50	122	26	..
3	Preston *	36	59	116	26	40	17	Wellman's Fife.....	34	10	121	32	..
4	Colorado.....	36	34	119	23	..	18	Early Riga *.....	34	3	112	18	..
5	White Russian.....	36	34	122	32	40	19	Hungarian.....	33	44	119	25	40
6	Laurel.....	36	..	121	27	20	20	Fraser *.....	33	37	114	17	20
7	Pumper *.....	35	59	118	24	20	21	Crawford *.....	33	36	114	23	20
8	Monarch.....	35	54	120	25	50	22	Red Fern.....	33	15	121	22	50
9	White Fife.....	35	53	119	33	20	23	Pringle's Chau plain.....	32	48	120	22	40
10	Advance *.....	35	53	114	22	20	24	Dawn.....	32	38	117	20	40
11	Cumtess *.....	35	31	117	27	40	25	Byron *.....	32	25	115	27	..
12	Rio Grande.....	35	15	121	23	40	26	Honissen Bearded.....	32	21	121	22	..
13	Clyde.....	35	14	119	26	50	27	Weldon *.....	30	30	121	26	30
14	Admiral *.....	35	16	120	30	..							

Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1904.	
	Bu. Lbs.	Days.			Bu. Lbs.	Days.		
McKendry's Fife (4 years)....	40	57	122	27	20	18	40	
Benton * (4 years).....	39	32	119	29	..	25	20	
Power's Fife (4 years)....	39	7	121	27	30	27	30	
Australian N. 19 (4 years)....	38	39	117	21	..	27	10	
Minnesota No. 163 (4 years).....	37	40	121	30	10	23	20	
				Hastings * (4 years).....	37	39	114	18
				Chester * (4 years).....	37	20	117	25
				Australian No. 9 (4 years).....	37	10	119	27
				Haynes' Blue Stem (4 years).....	36	57	121	28

The average crop of the thirty-six varieties of spring wheat tested on the Experimental Farm at Agassiz in 1904 was 26 bus. 2 lbs. per acre.

SPRING WHEAT—Continued.

NOTE ON THE MILLING VALUE OF CERTAIN VARIETIES OF WHEAT.

The following varieties of spring wheat which have proved very productive at one or more of the experimental farms do not give flour of the best quality for bread making and should not, therefore, be grown for ordinary milling purposes :—

Rio Grande.
Herisson Bearded.
Colorado.

MACARONI WHEAT.

It has been thought best to publish the results of the tests of varieties of macaroni wheat in a separate table, rather than in conjunction with the ordinary sorts of spring wheat. While it is possible to make good flour from some kinds of macaroni wheat, such flour is generally unpopular. Furthermore the peculiar character of the kernels necessitates the use of somewhat different methods in the milling of these kinds of wheat. They are naturally, therefore, looked upon with dis-favour by millers.

Farmers who grow any of these varieties should exercise great care to prevent them from becoming mixed with the standard sorts used for flour making.

Four varieties of macaroni wheat have been grown on the uniform test plots during the past season. The plots were of the same size as those sown with ordinary spring wheat and the seed was used at the rate of one and three-quarter bushels per acre. The dates of sowing were as follows:—At Ottawa, Ont., May 2; Nappan, N. S., May 12; Brandon, Man., May 4; Indian Head, N. W. T., April 29; and at Agassiz, B. C., April 25th.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing.		Average yield for 1904.	Varieties tested for less than five years.	Average days maturing.		Average yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	
1	Roumanian.....	39	10	121	34	26	Yellow Gharinovka (1 yr).....	116	31	45
2	Goose.....	37	32	119	35	25	Mal mouhi (1 year).....	116	39	2

The average crop of the four varieties of macaroni wheat tested on all the Experimental Farms in 1904 was 32 bus. 54 lbs. per acre.

MACARONI WHEAT--Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number	Varieties tested for five years.	Average yield for five years.		Average days maturing.		Yield for 1904	Varieties tested for less than five years.			Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.		Bu. Lbs.
1	Roumanian.....	32	33	113		39 40	Yellow Gharnovka (1 yr)	105		31 20
2	Goose	27	41	111		35 20	Mahmoudi (1 year).....	105		26 ..

The average crop of the four varieties of macaroni wheat tested on the Central Experimental Farm in 1904 was 33 bus. 5 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM AT NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing.		Yield for 1904.	Varieties tested for less than five years.			Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.		Bu. Lbs.
1	Roumanian.....	34	24	113		12 20	Yellow Gharnovka (1 yr)	104		14 ..
2	Goose	30	40	116		16 ..	Mahmoudi (1 year).....	104		8 ..

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Nappan in 1904 was 12 bus. 50 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM AT BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing.		Yield for 1904.	Varieties tested for less than five years.			Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.		Bu. Lbs.
1	Goose ..	47	29	121		53 29	Yellow Gharnovka (1 yr)	128		45 ..
2	Roumanian	45	16	121		45 20	Mahmoudi (1 year).....	128		44 40

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Brandon in 1904 was 47 bus. 5 lbs. per acre.

MACARONI WHEAT—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM AT INDIAN HEAD, N. W. T.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Varieties tested for less than five years.	Average yield for 1904.		Days maturing.	Yield for 1904.		
		Bu. Lbs.	Days.			Bu. Lbs.	Days.				
1	Roumanian.	45	30	47	50	Mahmoudi (1 year).....	..	..	127	43	30
2	Goose.	45	7	43	5	Yellow Gharnovka (1yr)	..	..	129	41	45

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Indian Head in 1904 was 44 bushels 2 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM AT AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Varieties tested for less than five years.	Average yield for 1904.		Days maturing.	Yield for 1904.		
		Bu. Lbs.	Days.			Bu. Lbs.	Days.				
1	Roumanian.	38	—	26	—	Mahmoudi (1 year).....	..	..	114	28	..
2	Goose.	36	50	29	20	Yellow Gharnovka (1yr)	..	..	116	26	40

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Agassiz in 1904 was 27 bushels 30 lbs. per acre.

EMMER AND SPELTZ.

Two varieties of emmer and two of speltz were sown in the uniform test plots this season. In previous years only Common Emmer (incorrectly called 'Speltz') was grown; so that for purposes of comparison the only figures available are those of the present season. The varieties are therefore arranged in the tables in the order of their yield for this year.

The plots were of the same size as those of spring wheat. The dates of sowing were as follows:—At Ottawa, Ont., May 3; Nappan, N.S., May 12; Brandon, Man., May 4; Indian Head, N.W.T., May 14; and at Agassiz, B.C., April 25.

The yield is expressed in pounds per acre, the grain being, of course, weighed with the husk adhering

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	—	Average yield for 1904.	Average days maturing.	Number.	—	Average Yield for 1904.	Average Days maturing.
		Lbs.				Lbs.	
1	Common Emmer	2448	113	3	Red Speltz.....	1868	118
2	Red Emmer.....	1980	118	4	White Speltz.....	1362	117

EMMER AND SPELT—Continued

YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1	Red Emmer.....	2760	108	3	Common Emmer.....	2040	101
2	Red Spelt.....	2240	109	4	White Spelt.....	1749	104

YIELD ON THE EXPERIMENTAL FARM AT NAPLAN, N.S.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1	Red Spelt.....	1460	110	3	Common Emmer.....	1040	102
2	White Spelt.....	1120	110	4	Red Emmer.....	1000	110

YIELD ON THE EXPERIMENTAL FARM AT BRANDON, MAN.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1	Common Emmer.....	4140	128	3	Red Spelt.....	2000	131
2	Red Emmer.....	2780	133	4	White Spelt.....	1210	129

YIELD ON THE EXPERIMENTAL FARM AT INDIAN HEAD, N.W.T.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1	Common Emmer.....	3100	118	3	Red Emmer.....	1520	121
2	Red Spelt.....	1720	123	4	White Spelt.....	1120	123

YIELD ON THE EXPERIMENTAL FARM AT AGASSIZ, B.C.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1	Common Emmer.....	1920	117	3	Red Spelt.....	1680	119
2	Red Emmer.....	1840	117	4	White Spelt.....	1590	117

OATS.

During the season of 1904, forty-two varieties of oats have been under trial. The size of the plots on which they were grown was the same as in the case of spring wheat. The seed was generally sown at the rate of two bushels per acre, and the dates of sowing were as follows.—At Ottawa, Ont., May 6; Nappan, N. S. May 13; Brandon, Man., May 5; Indian Head, N. W. T., May 7; and at Agassiz, B. C.—April 16.

In Canada the bushel of oats is 34 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.		
1	Banner.....	84	3	109	89	18	13	Bavarian.....	77	21	110	73	26
2	Abundance.....	82	2	110	82	7	14	Golden Giant.....	77	19	114	79	4
3	Lincoln.....	81	28	110	84	3	15	American Beauty.....	77	17	109	75	11
4	Holstein Prolific.....	81	9	109	74	33	16	Siberian.....	77	12	112	73	16
5	Danish Island.....	81	6	111	79	8	17	Golden Tartarian.....	77	6	115	72	20
6	Wide Awake.....	80	24	110	81	9	18	White Giant.....	77	2	110	82	10
7	Golden Beauty.....	79	21	111	82	5	19	Black Beauty.....	76	19	109	68	22
8	Buckbee's Illinois.....	78	25	111	72	32	20	Thou-and-Dollar.....	76	14	108	75	27
9	Early Golden Prolific.....	78	13	110	76	28	21	Mononite.....	75	31	109	67	19
10	Columbus.....	78	10	110	78	23	22	Joanette.....	73	29	112	67	26
11	Improved American.....	78	8	110	76	11	23	Improved Igowo.....	73	3	109	59	7
12	American Triumph.....	77	33	111	80	14							
	Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield for 1901.		Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield for 1901.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.
	Irish Victor (4 years).....	76	16	111	81	21		Milford White* (2 years).....	79	12	112	76	4
	Sensation (4 years).....	76	1	109	68	29		Olive Black* (2 years).....	77	3	115	69	18
	Goldfinder (4 years).....	75	15	114	74	24		Milford Black* (2 years).....	75	31	113	76	3
	Waverley (4 years).....	74	28	110	73	17		Swedish Select (2 years).....	76	27	111	66	5
	Pioneer (4 years).....	71	33	109	79	16		Kendal Black* (2 years).....	76	23	114	74	6
	Tartar King (4 years).....	71	0	108	65	23		Pense Black* (2 years).....	75	33	115	75	12
	Scotch Potato (4 years).....	68	2	112	74	12		Olive White* (2 years).....	73	25	113	68	6
	Twentieth Century (3 years).....	85	2	112	80	30		Pense White* (2 years).....	73	12	113	67	22
	Kendal White* (2 years).....	82	24	112	78	18		Stam King (1 year).....	—	—	109	61	18
	Golden Fleece (2 years).....	82	16	112	80	10							

The average crop of the forty-two varieties of oats tested on all the Experimental Farms in 1904 was 74 bus. 31 lbs. per acre.

OATS—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.	Days.	
1	White Giant.....	69	2	108	71	6	13	Improved American.....	62	8	168	53	18
2	Menonite.....	68	2	107	79	14	14	American Beauty.....	61	14	195	65	10
3	Holstein Prolific.....	67	19	108	73	18	15	Buckbee's Illinois.....	61	19	197	94	4
4	Lincoln.....	67	10	107	94	8	16	Danish Island.....	59	2	108	57	2
5	Banner.....	66	32	107	69	14	17	Joanette.....	58	22	111	41	6
6	Columbus.....	66	10	108	..	..	18	Thousand Dollar.....	58	16	106	70	0
7	American Triumph.....	65	22	109	80	20	19	Early Golden Prolific.....	58	8	107	72	12
8	Wide Awake.....	64	30	108	89	14	20	Bavarian.....	57	..	110	..	..
9	Golden Beauty.....	64	4	108	71	6	21	Improved Ligowo.....	6	24	196	42	12
10	Abundance.....	63	26	108	71	6	22	Siberian.....	3	39	110	31	6
14	Golden Giant.....	63	6	111	67	2	23	Golden Tartarian.....	53	2	113	31	20
12	Black Beauty.....	63	2	107	53	18							
Varieties tested for less than five years.		Average yield for less than five years.		Average days maturing.		Yield in 1904.	Varieties tested for less than five years.		Average yield for less than five years.		Average days maturing.		Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.	
Sensation (4 years).....		68	33	108	77	2	Swedish Select † (2 yrs.).....		70	10	111	..	..
Irish Victor (4 years).....		62	2	109	70	..	Kendal White * (2 yrs.).....		68	28	109	70	20
Pioneer (4 years).....		55	5	108	76	16	Kendal Black * (2 yrs.).....		65	..	109	72	12
Goldfinder (4 years).....		54	24	110	54	4	Golden Fleece † (2 yrs.).....		64	12	111	..	..
Tartar King (4 years).....		48	23	105	45	10	Milford Black † (2 yrs.).....		60	30	109	70	20
Waverley (4 years).....		47	4	109	25	10	Olive White * (2 yrs.).....		57	2	109	53	18
Scotch Potato (4 years).....		46	33	111	58	28	Pense White * (2 yrs.).....		55	10	108	45	16
Twentieth Century (3 years).....		79	7	110	90	18	Pense Black * (2 yrs.).....		55	10	109	69	14
Milford White * (2 years).....		72	12	107	85	10	Olive Black * (2 yrs.).....		54	4	112	47	2
							Storm King (1 yr.).....		..	..	105	20	40

The average crop of the forty-two varieties of oats tested on the Central Experimental Farm in 1904 was 62 bush, 31 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.	Days.	
1	Lincoln.....	81	14	111	61	6	13	Wide Awake.....	76	..	109	61	6
2	Siberian.....	80	32	110	69	14	14	Improved Ligowo.....	75	17	108	56	16
3	Thousand Dollar.....	78	32	108	57	2	15	Golden Beauty.....	74	28	110	63	18
4	Danish Island.....	78	20	110	53	16	16	Improved American.....	74	29	110	69	..
5	Joanette.....	78	12	105	56	16	17	Abundance.....	74	12	108	58	28
6	Holstein Prolific.....	78	8	109	61	26	18	Golden Giant.....	74	8	114	69	20
7	Bavarian.....	78	20	109	56	16	19	American Beauty.....	73	30	109	56	16
8	Early Golden Prolific.....	77	30	109	55	10	20	Menonite.....	73	22	111	45	30
9	Banner.....	77	18	107	64	4	21	Buckbee's Illinois.....	71	18	110	49	14
10	White Giant.....	76	32	113	60	..	22	Columbus.....	68	24	111	65	30
11	Black Beauty.....	76	32	103	51	26	23	American Triumph.....	65	12	113	44	24
12	Golden Tartarian.....	76	8	117	63	18							

OATS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.—Cont.

Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.	Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.	Yield for 1904.		
	Bu. Lbs.	Days.				Bu. Lbs.	Days.			Bu. Lbs.	Days.
Sensation (4 years)....	79	14	108	60	Golden Fleece (2 yrs.)...	75	10	107	68	8	
Goldfinder (4 years)....	77	12	114	61	6	Olive Black * (2 yrs.)....	63	8	107	48	8
Pioneer (4 years).....	74	14	108	78	28	Milford Black * (2 yrs.)...	67	22	106	55	10
Waverley (4 years)....	70	5	106	60	20	Kendal White * (2 yrs.)...	65	10	106	49	14
Tartar King (4 years)...	69	24	106	50	20	Pense Black * (2 yrs.)...	65	10	107	49	14
Scotch Potato (4 years)...	66	26	111	34	4	Kendal White * (2 yrs.)...	64	4	106	52	32
Irish Victor (4 years)...	65	20	109	62	12	Milford White * (2 yrs.)...	60	..	106	45	30
Twentieth Century (3 years).....	82	28	109	59	14	Pense White * (2 yrs.)...	58	28	107	48	8
Swedish Select (2 years)...	80	..	106	72	32	Olive White * (2 yrs.)...	58	8	107	47	24
						Storm King (1 yr.)....	..	..	99	59	29

The average crop of the forty-two varieties of oats tested on the Experimental Farm at Nappan in 1904 was 57 bus. 1 lb. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.			
		Bu. Lbs.	Days.					Bu. Lbs.	Days.		
1	Buckbee's Illinois....	101	2	108	121	26	13	H. L. vein Prolific....	92	24	100
2	Wife Awake.....	99	16	106	125	36	14	Columbus.....	92	8	117
3	Abundance.....	98	26	106	130	26	15	G. Ellen Giant.....	91	..	116
4	Siberian.....	96	28	106	127	22	16	Golden Tartarian....	90	20	111
5	Danish Island.....	96	26	106	132	12	17	White Giant.....	90	10	105
6	Banner.....	96	10	105	131	6	18	Bavarian.....	90	10	105
7	Lincoln.....	96	4	106	127	22	19	Thousand Dollar....	86	18	104
8	Early Golden Prolific.	95	29	106	127	2	20	Meinhardt.....	85	30	102
9	American Triumph....	95	..	106	125	10	21	Jeannette.....	81	..	100
10	Golden Beauty.....	94	28	106	132	32	22	Black Beauty.....	80	14	107
11	Improved American....	94	..	104	134	4	23	Improved Lidgovo ‡	76	..	103
12	American Beauty....	93	10	105	117	22					

Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.	Yield in 1904.	Varieties tested for less than five years.	Average yield for less than five years.			
	Bu. Lbs.	Days.				Bu. Lbs.	Days.		
Waverley (4 years)....	92	25	106	122	32	Kendal White * (2 years)...	100	..	110
Irish Victor (4 years)...	91	18	105	112	32	Olive White * (2 years)...	98	18	114
Goldfinder (4 years)....	80	22	110	111	26	Olive Black * (2 years)...	95	30	114
Scotch Potato (4 years)...	79	14	107	119	14	Pense Black * (2 years)...	95	20	114
Sensation (4 years)....	78	33	105	79	14	Milford Black * (2 years)...	95	15	114
Tartar King (4 years)...	76	13	104	105	39	Kendal Black * (2 years)...	93	18	114
Pioneer (4 years).....	75	5	106	197	2	Milford White * (2 years)...	91	16	113
Twentieth Century (2 years)....	106	1	108	107	22	Pense White * (2 years)...	90	20	113
Golden Fleece (2 years)...	102	2	106	120	..	Swedish Select ‡ (2 years)...	74	4	105
						Storm King (1 year)....	..	..	113

‡ A considerable part of the crop was destroyed by birds.

The average crop of the forty-two varieties of oats tested on the Experimental Farm at Brandon in 1904 was 110 bushels 33 lbs. per acre.

OATS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N. W. T.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	Banner.....	114	28	123 28	13	Lincoln.....	96	30	75 25
2	Abundance.....	108	8	93 23	14	Golden Tartarian.....	96	..	101 26
3	Danish Island.....	104	22	98 28	15	Early Golden Prolific.....	95	22	78 28
4	Golden Beauty.....	103	31	93 3	16	Golden Giant.....	95	4	94 28
5	Wide Awake.....	101	29	109 75 5	17	Buckbee's Illinois.....	94	7	109 71 6
6	Improved American.....	101	5	76 1	18	Black Beauty.....	92	32	75 30
7	Holstein Prolific.....	100	25	110 78 13	19	Menomite.....	92	18	71 26
8	American Beauty.....	100	1	86 11	20	Siberian.....	92	7	82 13
9	American Triumph.....	100	..	95 30	21	Joanette.....	91	18	79 14
10	Bayarian.....	99	28	111 83 18	22	Improved Lagowo.....	91	3	80 15
11	Columbus.....	99	5	112 94 19	23	White Giant.....	86	31	97 2
12	Thousand Dollar.....	97	17	73 3					

Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1901.	Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1901.
	Bu. Lbs.	Days.			Bu. Lbs.	Days.	
Goldfinch (1 year).....	101	16	97 22	Milford White * (2 years).....	105	..	90 20
Irish Star (1 year).....	97	7	102 17	Pense Black * (2 years).....	103	27	92 21
Way (1 year).....	95	24	112 101 21	Swedish Select (2 years).....	103	23	80 30
Sensation (1 year).....	90	24	110 80 5	Golden Fleece (2 years).....	101	18	82 7
Pioneer (4 years).....	88	20	112 98 18	Pense White * (2 years).....	101	6	87 2
Tartar King (1 year).....	87	33	110 69 ..	Kendal Black (2 years).....	100	20	84 4
Scotch Potato (1 year).....	81	28	113 87 22	Twentieth Century (2 years).....	100	..	89 14
Kendal White * (2 years).....	112	32	119 98 28	Olive White * (2 years).....	89	20	69 26
Milford Black * (2 years).....	108	1	122 101 13	Storm King (1 year).....	..	..	93 19
Olive Black * (2 years).....	105	20	123 89 32				

The average crop of the forty-two varieties of oats tested on the Experimental Farm at Indian Head in 1904 was 87 bush, 23 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	Golden Tartarian.....	69	32	52 12	13	Golden Giant.....	64	11	52 22
2	Black Beauty.....	69	16	55 28	14	American Triumph.....	63	20	55 20
3	Lincoln.....	67	12	57 22	15	Bayarian.....	63	2	56 6
4	Holstein Prolific.....	67	4	69 20	16	Siberian.....	62	30	55 50
5	Danish Island.....	66	30	51 16	17	Wide Awake.....	61	14	54 24
6	Improved Lagowo.....	65	..	58 18	18	Thousand Dollar.....	60	20	61 6
7	Buckbee's Illinois.....	65	8	58 8	19	Golden Beauty.....	60	15	50 ..
8	Abundance.....	65	4	56 26	20	Menomite.....	59	15	50 25
9	White Giant.....	65	2	61 16	21	Improved American.....	59	8	57 32
10	Columbus.....	65	2	50 10	22	American Beauty.....	58	32	50 30
11	Banner.....	64	28	59 4	23	Joanette.....	58	18	54 4
12	Early Golden Prolific.....	64	12	50 20					

OATS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.—Cont.

Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield for 1904.
	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.	
Tar ar King (4 years)...	62	8	116	57	22	Milford White* (2 years)...	67	32	117	53	18
Waverley (4 years)...	68	15	116	57	2	Kendal White* (2 years)...	66	16	118	59	24
Pioneer (4 years)...	66	21	114	56	16	Olive White* (2 years)...	65	19	117	56	16
Irish Victor (4 years)...	66	6	118	59	10	Olive Black* (2 years)...	61	11	118	58	28
Goldfinder (4 years)...	63	...	119	48	28	Pense White* (2 years)...	60	30	116	55	16
Scotch Potato (4 years)...	62	12	119	51	26	Kendal Black* (2 years)...	60	5	119	56	26
Sensation (4 years)...	62	4	116	47	22	Pense Black* (2 years)...	59	32	121	59	14
Twentieth Century (3 years)...	57	8	116	54	14	Swedish Select (2 years)...	55	32	115	52	27
Golden Fleece (2 years)...	69	4	110	67	2	Milford Black* (2 years)...	62	17	116	49	24
						Storm King (1 year)....	...	...	114	52	32

The average crop of the forty-two varieties of oats tested on the Experimental Farm at Agassiz in 1904 was 55 bus. 14 lbs. per acre.

SIX ROWED BARLEY.

During the season of 1904, twenty varieties of six-rowed barley have been under test. The plots were of the same size at those sown with spring wheat. The seed was used in the proportion of two bushels to the acre; and the dates of sowing were as follows:—At Ottawa, Ont, May 5; Nappan, N.S., May, 21; Brandon, Man., May 17; Indian Head, N. W. T. May 14; and at Agassiz B. C. April 23.

In Canada the bushel of barley is 48 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.		Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.		Average yield for five years.		Average days maturing for five years.		Yield in 1904.
	Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.			
1 Mensury	54	41	96	50	46	11	Oderblanch	54	2	95	47	45	17	45	
2 Odessa	54	19	95	52	38	12	Summit	50	47	93	50	30	16	30	
3 Common	52	9	95	50	8	13	Mansfield	50	14	98	42	35	42	35	
4 Yale	51	42	99	53	30	14	Empire*	50	8	98	51	24	51	24	
5 Claude	51	38	98	53	32	15	Argyle*	49	26	97	50	32	50	32	
6 Trooper	51	33	98	47	45	16	Rennie's Improved	49	3	95	47	5	47	5	
7 Nugent	51	30	99	50	40	17	Baxter	48	57	95	50	29	50	29	
8 Bronze*	51	29	99	54	6	18	Albert*	48	22	96	43	4	43	4	
9 Royal*	51	15	96	46	44	19	Garfield*	47	26	98	48	9	48	9	
10 Stella*	51	8	99	55	14	20	Champion (beardless)	41	18	93	35	17	35	17	

The average crop of the twenty varieties of six-rowed barley tested on all the Experimental Farms in 1904 was 49 bus. 22 lbs. per acre.

SIX ROWED BARLEY—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	Stella *	51	10	58	11	Royal *	42	44	34
2	Odessa.	49	38	43	12	Albert *	42	10	36
3	Mensury.	48	41	42	13	Oderbruch.	42	6	36
4	Nugent *	47	10	50	14	Argyle *	41	30	43
5	Yale *	46	14	45	15	Rennie's Improved.	41	18	40
6	Summit *	44	46	43	16	Claude *	41	2	43
7	Common	44	42	43	17	Empire *	39	46	41
8	Garfield *	43	30	40	18	Baxter *	38	30	46
9	Trooper *	43	22	27	19	Champion †	34	44	22
10	Brome †	43	18	37	20	Mansfield †	33	40	17

The average crop of the twenty varieties of six-rowed barley tested on the Central Experimental Farm in 1904 was 39 bus. 34 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	Common	57	24	43	11	Stella *	49	32	45
2	Mensury.	55	8	49	12	Nugent *	49	8	41
3	Oderbruch	53	40	45	13	Rennie's Improved.	48	16	45
4	Trooper *	53	32	50	14	Brome *	48	6	44
5	Odessa	53	24	43	15	Mansfield *	48	..	37
6	Royal *	53	..	49	16	Garfield *	48	..	42
7	Baxter *	51	32	39	17	Champion.	46	16	35
8	Yale *	51	24	47	18	Argyle *	46	8	35
9	Albert *	50	40	40	19	Summit *	44	24	44
10	Empire *	49	40	45	20	Claude *	44	8	41

The average crop of the twenty varieties of six-rowed barley tested on the Experimental Farm at Nappan in 1904 was 43 bus. 22 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1904.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	Mansfield *	58	18	52	11	Odessa	51	14	57
2	Yale *	58	13	62	12	Stella *	50	40	53
3	Summit *	56	14	52	13	Oderbruch.	50	24	41
4	Claude *	54	13	55	14	Common	50	24	42
5	Argyle *	54	4	54	15	Baxter	49	42	53
6	Mensury.	53	44	47	16	Royal *	49	30	46
7	Brome *	53	36	66	17	Albert *	49	23	46
8	Empire *	53	20	58	18	Rennie's Improved.	48	24	43
9	Nugent *	53	14	47	19	Garfield *	47	12	52
10	Trooper *	53	8	54	20	Champion	34	..	21

The average crop of the twenty varieties of six-rowed barley tested on the Experimental Farm at Brandon in 1904 was 50 bus. 20 lbs. per acre.

SIX ROWED BARLEY—*Continued.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.				
1	Claude*	66	44	99	66	32	11	Common	57	29	96	64	28
2	Odessa	65	36	97	62	24	12	Nugent*	57	16	103	67	24
3	Summit*	60	24	101	61	42	13	Stella*	56	7	89	65	20
4	Mansfield*	60	17	97	57	..	14	Argyle*	55	14	97	61	28
5	Royal*	60	8	97	58	36	15	Yale*	54	38	109	64	8
6	Trooper*	59	32	97	57	..	16	Oderbruch	54	33	95	57	19
7	Mensury	59	26	97	53	26	17	Garfield*	54	7	100	53	41
8	Empire*	58	44	100	57	4	18	Baxter	52	27	96	59	13
9	Brome*	58	3	100	60	49	19	Albert*	49	16	97	53	36
10	Rennie's Improved	57	31	96	62	9	20	Champion	43	15	93	41	7

The average crop of the twenty varieties of six-rowed barley tested on the Experimental Farm at Indian Head in 1904 was 59 bus. 22 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield for 1904.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.				
1	Mensury	57	..	105	62	24	11	Argyle*	49	46	107	55	..
2	Brome*	54	38	108	57	24	12	Baxter	49	12	103	54	28
3	Oderbruch	51	4	103	58	6	13	Rennie's Improved	49	24	106	45	..
4	Claude*	52	30	107	60	49	14	Empire*	48	36	107	53	20
5	Nugent*	51	4	108	47	24	15	Summit*	48	30	109	50	40
6	Royal*	50	42	105	46	12	16	Yale*	48	24	110	48	26
7	Mansfield*	50	41	108	48	36	17	Trooper*	48	23	111	50	50
8	Odessa	50	34	103	57	14	18	Champion	48	16	101	53	6
9	Common	50	33	106	56	12	19	Stella*	48	..	112	53	26
10	Albert*	50	24	107	63	36	20	Garfield*	44	33	107	51	12

The average crop of the twenty varieties of six-rowed barley tested on the Experimental Farm at Agassiz in 1904 was 53 bus. 41 lbs. per acre.

TWO ROWED BARLEY.

Fifteen varieties of two-rowed barley were tested, during the season of 1904, on all the Experimental Farms. The plots were of the same size as those of spring wheat. The seed was used at the rate of two bushels per acre; and the dates of sowing were as follows:—At Ottawa, Ont., May 4; Nappan, N.S., May 24; Brandon, Man., June 6; Indian Head, N.W.T., May 14; and at Agassiz, B.C., April 23.

In Canada the bushel of barley is 48 lbs.

TWO ROWED BARLEY—Continued.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.		
1	French Chevalier.....	51	14	104	48	32	7	Logan *.....	45	25	100	45	45
2	Danish Chevalier.....	50	8	101	52	..	8	Harvey.....	45	16	100	43	47
3	Canadian Thorpe.....	49	11	102	46	38	9	Clifford *.....	44	41	99	44	12
4	Beaver *.....	48	26	101	45	29	10	Newton.....	44	33	103	36	10
5	Dunham *.....	46	23	100	42	15	11	Jarvis *.....	44	13	98	42	23
6	Sidney *.....	46	3	99	44	40	12	Fulton *.....	42	45	100	45	5
	Varieties tested for less than five years.	Average yield for less than five years.						Varieties tested for less than five years.	Average yield for less than five years.				
	Standwell (4 years).....	51	40	105	51	13		Gordon * (4 years).....	46	3	99	45	7
	Invincible (4 years).....	47	4	103	49	2							

The average crop of the fifteen varieties of two rowed barley tested on all the Experimental Farms in 1904 was 45 bus. 21 lbs. per acre.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.		
1	French Chevalier.....	53	38	99	44	8	7	Newton.....	40	8	100	33	36
2	Canadian Thorpe.....	51	18	99	44	8	8	Sidney *.....	38	40	98	30	29
3	Danish Chevalier.....	46	28	100	32	41	9	Logan *.....	38	38	101	20	..
4	Beaver *.....	45	18	96	31	32	10	Fulton *.....	38	30	99	32	41
5	Jarvis *.....	41	42	96	35	49	11	Dunham *.....	37	19	100	15	..
6	Clifford *.....	41	25	98	32	24	12	Harvey *.....	36	26	101	29	28
	Varieties tested for less than five years.	Average yield for less than five years.						Varieties tested for less than five years.	Average yield for less than five years.				
	Gordon * (4 years).....	42	36	98	39	28		Invincible (4 years).....	39	33	101	36	32
	Standwell (4 years).....	42	16	100	41	32							

The average crop of the fifteen varieties of two rowed barley tested on the Central Experimental Farm in 1904 was 33 bus. 19 lbs. per acre.

TWO ROWED BARLEY—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N. S.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Danish Chevalier.....	57 ..	97	57 24	7	Logan *.....	41 ..	97	41 32
2	Beaver *.....	53 32	95	42 24	8	Sidney *.....	49 26	97	32 24
3	French Chevalier.....	52 8	97	45 40	9	Clifford *.....	40 2	96	35 19
4	Newton.....	46 32	97	26 32	10	Harvey *.....	40 ..	97	36 32
5	Canadian Thorpe.....	45 24	99	22 24	11	Fulton *.....	36 4	98	32 4
6	Dunham *.....	41 32	97	44 8	12	Jarvis *.....	31 4	96	21 32
Varieties tested for less than five years.		Average yield for less than five years.			Varieties tested for less than five years.		Average yield for less than five years.		
Standwell (4 years).....		43 6	99	27 24	Gordon (4 years) *.....		36 22	97	21 32
Invincible (4 years).....		49 28	98	31 24					

The average crop of the fifteen varieties of two-rowed barley tested on the Experimental Farm at Nappan in 1904 was 34 bushels 31 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Dunham *.....	53 2	94	56 32	7	Sidney *.....	44 16	91	55 40
2	Logan *.....	49 28	95	52 24	8	Beaver *.....	42 36	95	52 24
3	Harvey *.....	49 23	93	55 40	9	French Chevalier.....	42 30	98	42 41
4	Fulton *.....	47 44	92	59 28	10	Canadian Thorpe.....	40 24	97	55 20
5	Jarvis *.....	47 26	90	55 40	11	Newton.....	39 30	98	30 20
6	Clifford *.....	46 24	92	58 36	12	Danish Chevalier.....	37 44	99	53 36
Varieties tested for less than five years.		Average yield for less than five years.			Varieties tested for less than five years.		Average yield for less than five years.		
Gordon * (3 years).....		45 30	94	63 26	Invincible (3 years).....		41 39	94	63 36
Standwell (3 years).....		42 1	96	63 36					

The average crop of the fifteen varieties of two-rowed barley tested on the Experimental Farm at Brandon in 1904 was 54 bushels 36 lbs. per acre.

TWO ROWED BARLEY—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Danish Chevalier	66 26	110	59 8	7	Harvey *	52 35	97	49 23
2	French Chevalier	59 18	110	58 16	8	Logan *	51 13	98	47 29
3	Sidney *	59 9	97	48 46	9	Fulton *	59 35	98	50 45
4	Canadian Thorpe	57 6	104	55 40	10	Beaver *	59 9	106	50 45
5	Jarvis *	53 37	98	46 27	11	Newton	49 22	108	40 ..
6	Clifford *	53 ..	98	48 46	12	Dunham *	48 33	99	46 27
	Varieties tested for less than five years.	Average yield for less than five years.				Varieties tested for less than five years.	Average yield for less than five years.		
	Standwell (4 years)	67 44	109	67 9		Gordon * (4 years)	53 5	98	49 23
	Invisible (4 years)	64 25	108	67 4					

The average crop of the fifteen varieties of two-rowed barley tested on the Experimental Farm at Indian Head in 1904 was 52 bus. 23 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield in 1901.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Canadian Thorpe	51 42	113	56 2	7	Sidney *	47 22	114	56 22
2	Dunham *	51 38	111	49 8	8	Newton	47 18	111	10
3	Beaver *	59 36	112	50 20	9	Jarvis *	47 4	109	24
4	Danish Chevalier	48 36	113	56 32	10	Logan *	47 ..	110	14
5	French Chevalier	48 26	114	52 4	11	Clifford *	43 10	109	1
6	Harvey *	47 42	110	48 16	12	Fulton *	41 14	112	
	Varieties tested for less than five years.	Average yield for less than five years.				Varieties tested for less than five years.	Average yield for less than five years.		
	Standwell (4 years)	54 12	115	56 12		Invisible	48 38	113	45 13
	Gordon * (4 years)	52 20	119	51 12					

The average crop of the fifteen varieties of two-rowed barley tested on the Experimental Farm at Agassiz in 1901 was 52 bus. 30 lbs. per acre.

PEASE.

Thirty-one varieties of pease have been under trial at all the Experimental Farms during the past season. The plots were of the same size as those sown with spring wheat. The quantity of seed used per acre varied from two to three bushels, depending on the size of the pea. The dates of sowing were as follows:—At Ottawa, Ont., May 4; Nappan, N.S., May 28; Brandon, Man., May 11; Indian Head, N.W.T., May 16; and at Agassiz, B.C., April 14.

In Canada the bushel of pease is 60 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.		
		Bu.	Lbs.					Bu.	Lbs.			Bu.	Lbs.
1	Crown.....	58	34	115	41	20	17	White Wonder.....	36	15	113	39	46
2	Early Britain.....	38	28	114	42	4	18	Prussian Blue.....	36	42	115	43	4
3	Pride.....	38	24	116	43	28	19	Nelson*.....	36	37	114	41	48
4	Arthur.....	38	16	114	44	12	20	Mimmy.....	36	33	117	42	..
5	Macour*.....	38	19	129	42	42	21	German White.....	36	27	114	42	14
6	Agnes*.....	37	44	116	43	58	22	Pearl*.....	36	23	120	41	44
7	Archer*.....	37	43	119	45	32	23	Wisconsin Blue.....	36	23	118	41	4
8	Mackay*.....	37	40	118	47	26	24	White Marrowfat.....	36	15	119	44	24
9	Prince*.....	37	36	117	47	12	25	Gregory*.....	36	14	118	41	24
10	Pictou*.....	37	31	115	47	54	26	Victoria*.....	36	6	121	43	52
11	Daniel O'Rourke.....	37	31	113	46	..	27	Chancellor.....	36	4	113	38	48
12	King*.....	37	22	117	46	2	28	Kent*.....	35	34	120	41	16
13	English Grey.....	37	21	117	40	54	29	Duke*.....	35	27	118	40	14
14	Golden Vine.....	37	6	115	45	14	30	Prince Albert.....	35	17	118	41	20
15	Paragon*.....	36	58	116	41	42	31	Black-eyed Marrowfat.....	35	6	117	49	48
16	Carleton*.....	36	58	118	44	38							

The average crop of the thirty-one varieties of pease tested on all the Experimental Farms in 1904 was 43 bush. 2 lbs per acre.

PEASE—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.		
1	Golden Vine	36	44	111	42	20	17	Early Britain	30	40	112	27	20		
2	Prince	33	48	113	42	..	18	White Wonder	30	36	107	37	40		
3	Kent	33	44	113	36	40	19	Pride	30	24	111	26	..		
4	Paragon	33	12	107	21	40	20	Archer	30	12	115	41	20		
5	Prussian Blue	33	12	110	38	20	21	Crown	30	12	111	26	..		
6	Mackay	32	20	111	45	40	22	Mummy	30	12	114	29	40		
7	English Grey	32	12	112	29	20	23	Wisconsin Blue	29	56	113	35	20		
8	Victoria	32	4	116	45	..	24	White Marrowfat	29	28	112	33	20		
9	Chancellor	32	..	106	30	..	25	Paul	29	16	113	23	..		
10	Nelson	31	52	108	38	40	26	Gregory	29	4	112	34	..		
11	Daniel O'Rourke	31	44	108	34	..	27	Agnes	29	..	111	37	20		
12	King	31	32	113	39	40	28	Black-eyed Marrowfat	28	32	114	31	..		
13	Arthur	31	24	109	29	40	29	Macoun	27	24	114	32	..		
14	Picton	31	20	112	41	..	30	German White	26	52	109	34	40		
15	Prince Albert	31	16	113	41	20	31	Carleton	26	36	113	22	..		
16	Duke	30	52	112	25	..									

The average crop of the thirty-one varieties of pease tested on the Central Experimental Farm in 1904 was 33 bus. 54 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.		
1	Agnes	35	12	112	34	..	17	English Grey	28	..	113	21	20		
2	Archer	34	56	112	33	20	18	White Marrowfat	27	44	112	28	..		
3	Crown	33	28	110	27	20	19	Duke	26	56	112	26	40		
4	Arthur	33	12	110	24	..	20	German White	26	56	110	26	..		
5	Nelson	32	32	109	33	20	21	Paul	26	40	115	24	10		
6	Macoun	31	4	114	31	20	22	Picton	26	28	110	29	20		
7	Pride	30	40	111	30	40	23	Kent	26	8	114	22	40		
8	Carleton	30	..	113	36	..	24	Golden Vine	26	8	109	31	20		
9	Prince Albert	29	36	112	36	40	25	King	26	..	110	32	..		
10	Chancellor	29	28	108	26	40	26	Early Britain	26	..	108	20	40		
11	Mackay	29	20	114	28	..	27	Wisconsin Blue	25	44	112	24	..		
12	Gregory	29	12	114	28	40	28	Prince	25	28	110	29	20		
13	Victoria	28	56	117	30	40	29	Prussian Blue	24	24	109	19	20		
14	Mummy	28	48	111	22	40	30	Paragon	22	56	110	29	..		
15	Daniel O'Rourke	28	32	110	23	20	31	White Wonder	22	32	108	12	40		
16	Black-eyed Marrowfat	28	..	113	25	20									

The average crop of the thirty one varieties of pease tested on the Experimental Farm at Nappan in 1904 was 27 bush. 5 lbs. per acre.

PEASE—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu.	Lbs.	Days.	Bu.				Lbs.	Bu.	Lbs.	Days.		Bu.	Lbs.
1	Macoun *	52	52	127	79	40	17	German White ..	44	42	120	50	20
2	Victoria *	50	14	128	71	40	18	Pride ..	41	24	122	64	20
3	King *	49	48	124	75	..	19	White Marrowfat ..	41	..	130	68	20
4	Pearl *	48	42	129	73	20	20	English Grey ..	43	46	127	60	..
5	Archer *	48	12	125	64	..	21	Prince Albert ..	43	20	126	60	40
6	Wisconsin Blue ..	48	12	121	57	20	22	Prussian Blue ..	43	6	119	58	..
7	Mackay *	48	..	124	85	..	23	Daniel O'Rourke ..	42	50	121	67	..
8	Golden Vine ..	47	26	119	66	20	24	Kent *	42	40	127	61	20
9	Early Britain ..	47	26	118	71	..	25	Prince ..	42	28	127	63	20
10	Mummy ..	47	22	124	73	..	26	Gregory *	42	20	124	70	..
11	Picton ..	47	20	121	77	10	27	Nelson *	41	46	116	67	40
12	Carleton *	46	52	123	73	50	28	Agnes *	41	30	120	56	..
13	White Wonder ..	46	10	116	55	40	29	Duke *	41	22	124	58	..
14	Crown ..	45	4	117	57	20	30	Black-eyed Marrowfat	39	38	118	52	..
15	Arthur ..	44	58	117	77	..	31	Chancellor ..	39	38	113	51	20
16	Paragon *	44	54	120	73	20							

The average crop of the thirty-one varieties of pease tested on the Experimental Farm at Brandon in 1904 was 65 bus. 27 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu.	Lbs.	Days.	Bu.				Lbs.	Bu.	Lbs.	Days.		Bu.	Lbs.
1	Paragon *	49	8	118	61	20	17	Arthur *	43	54	118	61	40
2	Daniel O'Rourke ..	48	35	109	67	..	18	Black-eyed Marrowfat	43	38	117	63	40
3	Crown ..	47	46	113	62	40	19	Archer *	42	54	118	61	40
4	Prussian Blue ..	47	42	115	67	..	20	Wisconsin Blue ..	42	54	118	54	..
5	Pride ..	47	30	114	63	20	21	Macoun *	42	42	120	81	40
6	Picton *	47	18	115	68	20	22	Pearl *	41	34	117	58	20
7	Prince ..	47	18	114	66	..	23	Mackay *	40	26	119	45	40
8	Early Britain ..	46	50	113	55	40	24	Golden Vine ..	40	26	113	58	..
9	Carleton *	46	14	118	59	..	25	Nelson *	40	10	117	48	40
10	English Grey ..	45	22	113	58	20	26	Mummy ..	40	..	112	50	40
11	White Wonder ..	45	14	109	62	20	27	Duke *	..	18	119	54	..
12	Gregory *	45	6	118	40	..	28	Kent *	..	2	117	55	..
13	German White ..	45	6	113	61	40	29	White Marrowfat ..	38	..	116	37	40
14	Agnes *	45	2	114	65	20	30	Prince Albert ..	36	38	116	37	40
15	Chancellor ..	44	46	112	59	20	31	Victoria *	34	18	119	35	20
16	King *	43	58	117	51	20							

The average crop of the thirty-one varieties of pease tested on the Experimental Farm at Indian Head in 1904 was 55 bus. 48 lbs. per acre.

PEASE—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	White Marrowfat	42	125	37 20	17	Daniel O'Rourke	35 54	117	38 40
2	Early Britain	41 24	119	35 40	18	Black-eyed Marrowfat	35 44	123	32
3	White Wonder	39 18	123	30 30	19	Pearl	35 43	125	29 20
4	Pride	39 2	122	33	20	Prince Albert	35 36	123	30 20
5	Prince	39	122	35 20	21	King	35 34	123	32 10
6	German White	38 33	120	38 30	22	Gregory	35 30	122	34 20
7	Mackay	38 14	123	32 50	23	Picton	35 10	124	28
8	Duke	38 14	126	37 30	24	Wisconsin Blue	35 10	124	34 40
9	Agnes	37 56	123	27 10	25	Carleton	35 6	123	32 20
10	Arthur	37 50	121	28 40	26	Prussian Blue	35 4	122	32 40
11	English Grey	37 24	121	35 30	27	Victoria	35	125	36 40
12	Maconn	36 48	124	38 50	28	Golden Vine	34 42	123	28 10
13	Nelson	36 44	120	30 40	29	Paragon	34 40	125	32 30
14	Kent	36 28	125	40	30	Chancellor	34 30	125	26 40
15	Crown	36 22	122	33 20	31	Archer	32 22	126	27 20
16	Mummy	36 12	124	34					

The average crop of the thirty-one varieties of pease tested on the Experimental Farm at Agassiz in 1904 was 33 bushels 3 lbs. per acre.

INDIAN CORN.

The number of varieties of Indian corn tested in 1904 was nineteen. These were sown in rows about three feet apart, and the plants thinned out to six or eight inches apart in the rows. The dates of sowing were as follows:—At Ottawa, Ont., June 7; Nappan, N.S., June 1; Brandon, Man., May 26; Indian Head, N.W.T., May 21; and at Agassiz, B.C., May 20.

The crop in each case was cut green and put into the silo for the winter feeding of stock. The dates of cutting were:—At Ottawa, Ont., Sept. 16; Nappan, N.S., Sept. 28; Brandon, Man., Sept. 23; Indian Head, N.W.T., Sept. 13; and at Agassiz, B.C., Oct. 8 to 11.

The yield per acre has been calculated in each case from the weight obtained from two rows each 66 feet long.

In Canada the ton is 2000 lbs.

INDIAN CORN—Continued.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.		Average yield for five years.		Average yield for 1904.		Number.	Varieties tested for five years.		Average yield for five years.		Average yield for 1904.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Superior Fodder.....	19	1020	18	1903	10	Early Butler.....	17	1671	14	1912		
2	Salzer's All Gold.....	19	515	20	20	11	Angel of Midnight.....	17	887	16	1488		
3	Giant Prolific Ensilage	19	98	18	1948	12	North Dakota White.....	16	1906	14	1084		
4	Early Mastodon.....	19	1617	13	972	13	White Cap Yellow Dent	16	1861	17	782		
5	Red Cob Ensilage.....	18	1536	17	1979	11	Cloud's Early Yellow.....	16	1315	14	146		
6	Pride of the North.....	18	736	15	1983	15	Longfellow.....	15	1259	14	1174		
7	Mammoth Cuban.....	18	501	15	668	16	Selected Leaming.....	16	316	9	1633		
8	Champion White Pearl	18	485	15	1194	17	Evergreen Sugar.....	15	570	11	1160		
9	Compton's Early.....	17	1785	17	54								
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Average yield for 1904.			
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.		
Eureka (3 years).....		18	1805	16	1990	King Philip (3 years).....		16	1950	15	1192		

The average crop of the nineteen varieties of Indian corn tested on all the Experimental Farms in 1904 was 15 tons 1585 lbs. per acre.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1901.		Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1901.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Giant Prolific Ensilage	23	299	24	1500	10	Champion White Pearl	19	1809	16	1330		
2	Superior Fodder.....	22	1832	25	609	11	Compton's Early.....	19	1039	16	835		
3	Salzer's All Gold.....	22	726	23	420	12	Cloud's Early Yellow	19	588	17	980		
4	Early Mastodon.....	22	363	18	520	13	Selected Leaming.....	19	412	12	750		
5	Early Butler.....	21	1164	19	940	14	North Dakota White.....	18	762	17	1530		
6	Red Cob Ensilage.....	21	944	21	1780	15	Longfellow.....	17	1530	15	1240		
7	Mammoth Cuban.....	20	1558	18	1730	16	Evergreen Sugar.....	17	1204	15	1240		
8	White Cap Yellow Dent	20	1164	21	1780	17	Angel of Midnight.....	16	1850	14	1590		
9	Pride of the North.....	20	542	18	850								
Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1901.		Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1901.			
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.		
Eureka (3 years).....		21	657	26	140	King Philip (3 years)....		3	1913	17	320		

The average crop of the nineteen varieties of Indian corn tested on the Central Experimental Farm in 1904 was 19 tons 109 lbs. per acre.

INDIAN CORN—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Superior Fodder	19	764	17	100	10	Mammoth Cuban	17	1926	11	1430
2	Giant Prolific Ensilage	19	698	15	800	11	Selected Learning	17	1024	10	850
3	Red Cob Ensilage	19	2	17	870	12	Early Yellow	17	860	12	1850
4	Early Mastodon	18	0	13	950	13	White Cap Yellow Dent	17	696	14	930
5	Salzer's All Gold	18	370	20	700	14	Angel of Midnight	17	220	14	1480
6	Pride of the North	18	610	17	329	15	Evergreen Sugar	16	1880	15	860
7	Early Butler	18	586	14	490	16	Compton's Early	16	1594	13	1500
8	Longfellow	18	232	15	1668	17	North Dakota White	15	1900	11	1650
9	Champion White Pearl	18	14	12	750						
	Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1904.			Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1904.	
	Eureka (3 years)	19	756	15	1350		King Philip	16	1257	15	1900

The average crop of the nineteen varieties of Indian corn tested on the Experimental Farm at Nappan in 1904 was 14 tons 1468 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Champion White Pearl	19	1186	21	768	10	Longfellow	17	795	18	432
2	Superior Fodder	19	940	22	1408	11	Angel of Midnight	17	716	17	1112
3	North Dakota White	19	482	17	1610	12	Early Butler	17	285	16	1000
4	Giant Prolific Ensilage	18	678	25	160	13	Pride of the North	16	1783	17	1610
5	Salzer's All Gold	18	362	21	240	14	White Cap Yellow Dent	16	1216	21	810
6	Early Mastodon	18	371	16	1000	15	Cloud's Early Yellow	15	1830	18	960
7	Compton's Early	18	98	16	1792	16	Selected Learning	15	1316	13	661
8	Red Cob Ensilage	17	1534	23	200	17	Evergreen Sugar	14	679	11	410
9	Mammoth Cuban	17	1297	19	1600						
	Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1904.			Varieties tested for less than five years.	Average yield for less than five years.		Yield for 1904.	
	Eureka (3 years)	20	209	15	560		King Philip (3 years)	18	784	20	920

The average crop of the nineteen varieties of Indian corn tested on the Experimental Farm at Brandon in 1904 was 18 tons 1641 lbs. per acre.

INDIAN CORN—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1904.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Angel of Midnight	18	1374	22	270	10	Early Butler	14	640	11	830		
2	Salzer's All Gold	16	1396	18	1400	11	Superior Fodder	11	292	11	1,700		
3	Compton's Early	16	41	18	300	12	Mammoth Cob	13	1880	10	20		
4	North Dakota White	15	750	18	300	13	White Cap Yellow Dent	13	1773	15	800		
5	Giant Prolific Ensilage	15	621	13	1280	14	Evergreen Sugar	13	941	10	300		
6	Longfellow	15	241	12	1410	15	Red Cob Ensilage	14	792	13	1500		
7	Pride of the North	15	323	14	1760	16	Cloud's Early Yellow	13	415	9	700		
8	Champion White Pearl	14	1641	15	1130	17	Selected Leaning	12	1362	3	600		
9	Early Mastodon	14	1238	9	700								
Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.			
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.		
King Philip (3 years)		14	1497	19	500	Eureka (3 years)		13	1141	13	1500		

The average crop of the nineteen varieties of Indian corn tested on the Experimental Farm at Indian Head in 1904 was 13 tons 1508 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1904.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Red Cob Ensilage	22	110	13	1500	19	Early Butler	17	1681	13	400		
2	Superior Fodder	21	1324	18	88	11	Cloud's Early Yellow	17	880	12	240		
3	Pride of the North	21	524	11	1430	12	Angel of Midnight	17	276	14	490		
4	Mammoth Cob	20	1842	16	500	13	White Cap Yellow Dent	16	516	10	1560		
5	Early Mastodon	20	810	9	1630	11	North Dakota White	15	1636	7	300		
6	Salzer's All Gold	20	722	16	1410	15	Selected Leaning	15	1438	9	1800		
7	Giant Prolific Ensilage	19	192	13	1500	16	Longfellow	11	1458	10	1120		
8	Compton's Early	19	152	19	1840	17	Evergreen Sugar	14	160	5	670		
9	Champion White Pearl	18	1774	11	1510								
Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.			
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.		
Eureka (3 years)		16	1953	14	600	King Philip (3 years)		16	633	10	20		

The average crop of the nineteen varieties of Indian corn tested on the Experimental Farm at Agassiz in 1904 was 12 tons 1199 lbs. per acre.

TURNIPS.

Twenty varieties were tested in 1904, sown in drills, or on the flat, 2½ feet apart. As in previous years, two sowings were made at each farm, the second sowing being about two weeks later than the first. The dates of sowing were as follows:—At Ottawa, Ont., May 17 and 31; Nappan, N.S., May 30 and June 13; Brandon, Man., May 10 and 23; Indian Head, N.W.T., May 15 and 27; and at Agassiz, B.C., May 13 and 27.

The dates of pulling were as follows:—At Ottawa, Oct. 14; Nappan, Oct. 24; Brandon, Oct. 6; Indian Head, Oct. 18; and at Agassiz, Oct. 24.

The varieties are arranged in the following lists in the order of their average yield from the first sowing, for five years.

In Canada the ton is 2000 lbs.

AVERAGE YIELD AT ALL THE EXPERIMENTAL FARMS

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Average yield for 1904.		Average yield for 1904.	
		1st Sowing.		2nd Sowing.		1st Sowing.		2nd Sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede	32	106	27	51	33	147	27	867
2	Hartley's Bronze	31	666	25	371	29	1910	24	1778
3	Manmoth Clyde	30	1843	25	945	29	782	24	996
4	Carter's Elephant	30	1764	22	1036	32	806	26	693
5	Hall's Westbury	30	1643	25	196	29	1250	25	40
6	Magnum Bonum	30	1267	25	1023	33	1230	27	1784
7	Imperial Swede	30	794	26	84	30	1631	25	1317
8	Drummond Purple Top	30	624	23	1032	31	1150	25	188
9	Hilwood's Bronze Top	30	417	23	1674	32	1390	25	33
10	Elephant's Master	30	307	23	1342	31	260	26	224
11	Kugarcow	29	756	23	1493	31	422	24	1645
12	Skatings	29	1629	25	37	30	616	17	1294
13	Juniper	29	1246	24	921	32	1715	24	1698
14	Bauchohn Selected	29	573	24	1733	29	1688	26	539
15	East Lothian	29	2	24	1069	29	1132	25	1553
16	Selected Purple Top	28	1910	24	371	28	1924	24	1181
17	Sutton's Champion		131	26	1137	29	1616	27	1698
	Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Average yield for 1904.		Average yield for 1904.	
		1st Sowing.		2nd Sowing.		1st Sowing.		2nd Sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Empress Swede (1 year)	32	99	27	316	30	582	26	1561
	Good Luck (3 years)	33	1817	27	138	34	357	26	1439
	New Century (3 years)	30	1399	24	1334	27	415	24	977

TURNIPS—Continued.

The average yield of the seventeen varieties of turnips on all the farms for five years was 30 tons 297 lbs. per acre from the first sowing and 24 tons 1399 lbs. per acre from the second sowing, an average gain of 5 tons 898 lbs. per acre from early sowing.

The average yield of the twenty varieties on all the farms in 1904 was 30 tons 1854 lbs. per acre from the first sowing and 25 tons 1731 lbs. per acre from the second sowing, an average gain of 5 tons 123 lbs. per acre from early sowing.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st Sowing.		2nd Sowing.		1st Sowing.		2nd Sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Magnum Bonum	37	1281	26	371	42	150	17	1310
2	Drummond Purple Top	17	1121	25	1810	35	372	18	1125
3	Kangaroo	37	1042	21	966	40	850	17	980
4	Junco	57	191	22	1635	36	1312	18	1207
5	Carbo's Elephant	36	1375	22	1108	31	225	20	260
6	Hall's Westbury	36	187	21	31	49	272	20	1827
7	Imperial Swede	35	1577	25	371	39	45	19	32
8	Halewood's Bronze Top	35	1527	33	233	37	1817	19	1765
9	Mammoth City	35	1236	24	1269	36	1672	16	1990
10	Elephant's Master	35	1115	22	1903	33	1155	18	135
11	East Lothian	34	541	24	972	31	295	16	360
12	Skirving	33	189	23	398	32	1016	18	630
13	Perfection Swede	33	1287	25	341	35	785	17	1887
14	Selected Purple Top	33	656	26	1319	31	367	18	217
15	Rangholm Selected	32	1439	25	371	24	1830	18	1207
16	Sutton's Champion	32	1374	26	1025	30	1860	21	15
17	Hartley's Bronze	31	1175	21	798	37	152	20	1910
	Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
		1st Sowing.		2nd Sowing.		1st Sowing.		2nd Sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Emperor Swede (4 yrs)	30	599	27	161	36	930	18	1
	Good Luck (3 yrs)	43	75	25	1617	34	135	19	1022
	New Century (3 yrs)	41	500	21	459	30	885	17	1370

The average yield of the seventeen varieties of turnips on the Central Experimental Farm for five years was 35 tons 296 lbs. per acre from the first sowing and 24 tons 1160 lbs. per acre from the second sowing. An average gain of 10 tons 1136 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 35 tons 1255 lbs. per acre from the first sowing and 18 tons 1657 lbs. per acre from the second sowing. An average gain of 16 tons 1598 lbs. per acre from early sowing.

TURNIPS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years 1st sowing.		Average yield for five years 2nd sowing.		Yield for 1904 1st sowing.		Yield for 1904 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede.....	42	212	34	1731	40	37	31	1300
2	Carter's Elephant.....	41	1424	29	136	38	1750	32	350
3	Kangaroo.....	40	1675	30	1580	37	155	33	1980
4	Imperial Swede.....	40	1048	31	75	31	1300	31	700
5	Hartley's Bronze.....	40	203	30	687	31	652	31	475
6	Halkwood's Bronze Top.....	39	1290	31	1538	35	455	33	.....
7	Elephant's Master.....	39	1062	31	686	31	1855	33	495
8	Mannmoth Clyde.....	39	903	31	971	35	1775	33	825
9	Magnum Bonum.....	39	771	32	957	36	1425	31	145
10	Selected Purple Top.....	38	1616	31	1117	37	1735	30	1875
11	Drummond Purple Top.....	38	1616	31	271	37	250	31	1855
12	Hall's Westbury.....	38	1319	32	812	35	950	33	1650
13	Bangholm Selected.....	38	857	29	1398	32	1175	28	255
14	Jumbo.....	37	1801	31	1796	39	375	35	785
15	Skirvings.....	37	1702	29	245	33	1980	24	925
16	Sutton's Champion.....	36	1641	33	66	35	785	33	1155
17	East Lothian.....	35	1613	29	47	30	1545	29	575
Varieties tested for less than five years.		Average yield for less than five years 1st sowing.		Average yield for less than five years 2nd sowing.		Yield for 1904 1st sowing.		Yield for 1904 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Emperor Swede (1 yrs).....		38	1509	33	1031	37	1900	35	950
Good Luck (3 yrs).....		43	130	36	1700	38	1880	35	125
New Century (3 yrs).....		38	285	33	212	31	205	31	1520

The average yield of the seventeen varieties of turnips on the Experimental Farm at Nappan for five years was 39 tons 390 lbs. per acre from the first sowing and 31 tons 482 lbs. per acre from the second sowing. An average gain of 7 tons 1908 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 35 tons 1877 lbs. per acre from the first sowing and 32 tons 1397 lbs. per acre from the second sowing, an average gain of 3 tons 500 lbs. per acre from early sowing.

TURNIPS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1 Magnum Bonum.....	26	1434	17	901	34	610	25	1180
2 Hartley's Bronze.....	26	150	18	498	29	80	21	240
3 Skyrings.....	24	1474	18	643	26	800	22	880
4 Hall's Westbury.....	24	1368	18	1095	31	301	23	200
5 Kangaroo.....	21	682	15	1416	29	80	19	1600
6 Sutton's Champion.....	23	1167	16	50	26	1322	21	768
7 Perfection Swede.....	23	1256	18	696	29	1136	21	1560
8 Jumbo.....	23	233	17	424	37	1240	25	1180
9 Carter's Elephant.....	22	1830	13	1826	28	760	21	768
10 Bangholm Selected.....	22	1725	17	690	30	720	22	880
11 East Lothian.....	22	1566	15	1680	29	1460	21	768
12 Imperial Swede.....	22	1335	18	590	28	750	23	200
13 Man-of-the-Clyde.....	22	1302	17	1376	26	1328	23	1520
14 Elephant's Master.....	22	1197	11	459	26	800	19	1600
15 Drummond Purple Top.....	22	1091	14	1726	28	760	21	1560
16 Halewood's Bronze Top.....	21	1243	16	314	26	1328	19	280
17 Selected Purple Top.....	21	874	16	155	28	750	22	648

Varieties tested for less than five years.	Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Empire Swede (4 yrs).....	23	860	16	76	27	1176	19	1600
Good Luck (3 yrs).....	33		20	392	43	1120	23	1520
New Century (3 yrs).....	27	736	18	1400	28	1322	23	1520

The average yield of the seventeen varieties of turnips on the Experimental Farm at Brandon for five years was 23 tons 957 lbs. per acre from the first sowing and 16 tons 1442 lbs. per acre from the second sowing, an average gain of 6 tons 1515 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 29 tons 1717 lbs. per acre from the first sowing and 22 tons 352 lbs. per acre from the second sowing, an average gain of 7 tons 1365 lbs. per acre from early sowing.

TURNIPS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede.....	24	1508	24	1128	25	1338	31	228
2	Hartley's Bronze.....	23	..	22	809	23	..	26	1036
3	Hull's Westbury.....	22	1495	20	594	25	1904	25	1621
4	Halewood's Bronze Top.....	22	1212	17	1826	25	1480	20	418
5	Selected Purple Top.....	21	1863	19	1391	21	287	23	6
6	Skirvings.....	21	1567	22	1453	28	854	30	814
7	Drummond Purple Top.....	21	954	17	351	29	268	29	1541
8	Mammoth Clyde.....	21	18	18	940	23	1944	25	1763
9	Sutton's Champion.....	20	1633	21	801	22	1964	26	1743
10	Imperial Swede.....	20	196	23	1592	26	1036	29	834
11	Bangholm Selected.....	19	1789	19	1146	23	813	26	753
12	Carter's Elephant.....	19	891	16	1524	20	1438	26	1884
13	Magnum Bonum.....	19	511	20	1818	26	187	30	1916
14	East Lothian.....	19	464	19	73	21	570	22	1510
15	Jumbo.....	19	396	16	1732	26	611	24	227
16	Elephant's Master.....	18	952	18	375	24	1541	23	217
17	Kangaroo.....	17	430	18	1806	22	1964	27	1177

Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Emperor Swede (4 yrs).....	22	762	22	914	26	1036	23	430
New Century (3 yrs).....	19	1149	20	1603	26	1318	30	248
Good Luck (3 yrs).....	19	897	22	27	26	46	30	1521

The average yield of the seventeen varieties of turnips on the Experimental Farm at Indian Head for five years was 20 tons 1492 lbs. per acre from the first sowing and 19 tons 1862 lbs. per acre from the second sowing, an average gain of 1630 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 24 tons 1735 lbs. per acre from the first sowing and 27 tons 500 lbs. per acre from the second sowing, an average loss of 2 tons 765 lbs. per acre from early sowing.

TURNIPS—*Concluded.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years 1st sowing.		Average yield for five years 2nd sowing.		Yield for 1904 1st sowing.		Yield for 1904 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede	36	177	32	856	31	1110	31	1360
2	Mammoth Clyde	35	1698	25	630	23	1190	22	880
3	Elephant's Master	34	1267	31	737	38	1559	36	640
4	Carter's Elephant	33	1298	22	427	40	685	31	295
5	East Lothian	32	1798	31	1939	34	1940	40	520
6	Imperial Swede	32	1791	31	1784	25	1315	25	820
7	Hatley's Bronze	32	1714	32	154	22	220	21	1236
8	Bangholm Selected	32	1054	32	757	37	909	31	1360
9	Hall's Westbury	31	1811	30	478	25	20	21	900
10	Halwood's Bronze Top	31	1935	30	1941	39	870	32	1670
11	Drummond Purple Top	31	337	28	1255	28	190	23	860
12	Skirvings	31	16	31	1148	39	396	38	1229
13	Jumbo	30	1347	28	998	24	1085	20	799
14	Magnum Bonum	30	189	30	1950	28	1750	31	40
15	Kangaroo	29	920	28	1552	26	470	25	490
16	Selected Purple Top	29	762	28	848	25	1480	23	1190
17	Sutton's Champion	27	1661	30	1292	22	830	31	1360
	Varieties tested for less than five years.	Average yield for less than five years 1st sowing.		Average yield for less than five years 2nd sowing.		Yield for 1904 1st sowing.		Yield for 1904 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Emperor Swede (1 yrs)	36	822	26	1546	22	1870	31	1535
	Good Luck (3 yrs)	30	1985	30	555	26	395	24	1065
	New Century (3 yrs)	27	1825	29	963	19	115	14	1620

The average yield of the seventeen varieties of turnips on the Experimental Farm at Agassiz for five years was 32 tons 35 lbs. per acre from the first sowing and 30 tons 895 lbs. per acre from the second sowing, an average gain of 1 ton 1140 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 28 tons 1699 lbs. per acre from the first sowing and 28 tons 384 lbs. per acre from the second sowing, an average gain of 1315 lbs. per acre from early sowing.

MANGELS.

Sixteen varieties of mangels have been under test during 1903. All were sown in drills or on the flat in rows 2½ feet apart. Two sowings were made at each farm, the second sowing being about two weeks later than the first. The dates of sowing were as follows:—At Ottawa, Ont., May 17 and 31; Nappan, N.S., May 30 and June 13; Brandon, Man., May 7 and 21; Indian Head, N.W.T., May 19 and 27; and at Agassiz, B.C., April 25 and May 9.

MANGELS—Continued.

The dates of pulling were as follows:—At Ottawa, Oct. 14; Nappan, Oct. 12; Brandon, Sept. 24; Indian Head, Oct. 3; and at Agassiz, Oct. 22.

The varieties are arranged in the following lists in the order of their average yield, from the first sowing, for five years.

In Canada the ton is 2000 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Average yield for 1904.		Average yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Long Red	31	651	25	319	26	14	19	968
2	Mammoth Yellow Intermediate	31	294	25	658	26	341	23	751
3	Giant Yellow Intermediate	30	1474	23	1493	25	1831	21	38
4	Lion Yellow Intermediate	30	456	25	904	26	1693	22	1169
5	Half Long Sugar white	29	1491	21	1641	27	1474	23	224
6	Yellow Intermediate	29	987	21	215	30	599	22	1068
7	Giant Yellow Globe	28	778	24	322	24	1840	22	487
8	Prize Mammoth Long Red	28	614	23	1460	24	72	20	152
9	Gate Post	28	351	23	1870	22	984	20	811
10	Selected Mammoth Long Red	27	1974	24	1348	22	1028	18	277
11	Half Long Sugar Rosy	27	1093	22	119	21	1296	18	104
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for less than five years.		Average yield for 1904.		Average yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Prize Winner Yellow Globe + 4 yrs)	29	1685	24	1532	28	469	21	1783
	Triumph Yellow Globe (4 yrs)	28	1282	23	1257	25	1676	20	1006
	Leviathan Long Red (4 yrs)	26	819	25	458	23	1495	20	533
	Selected Yellow Globe + 3 yrs)	29	1734	24	98	22	987	21	1357
	Giant Sugar Mangel + 3 yrs)	27	1917	22	1772	25	232	20	1476

The average yield of the eleven varieties of mangels on all the farms for five years was 29 tons 742 lbs. per acre from the first sowing and 21 tons 577 lbs. per acre from the second sowing. An average gain of 5 tons 165 lbs. per acre from early sowing.

The average yield of the sixteen varieties on all the farms in 1904 was 25 tons 877 lbs. per acre from the first sowing and 21 ton 188 lbs. per acre from the second sowing. An average gain of 4 tons 689 lbs. per acre from early sowing.

MANGELS—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Long Red	43	97	28	521	34	1639	17	897
2	Mammoth Yellow Intermediate	41	1638	27	1497	34	722	17	1649
3	Yellow Intermediate	39	61	27	1908	32	1257	16	1967
4	Half Long Sugar White	38	1170	25	341	36	1597	18	1785
5	Lion Yellow Intermediate	38	322	24	377	30	637	17	1319
6	Prize Mammoth Long Red	38	345	25	1645	37	167	17	815
7	Giant Yellow Intermediate	36	1986	22	22	32	1175	16	1495
8	Gate Post	36	1986	27	1308	24	1065	16	679
9	Giant Yellow Globe	35	653	23	102	27	285	13	1394
10	Half Long Sugar Best	35	533	21	1774	23	1512	14	937
11	Selected Mammoth Long Red	33	1782	25	1381	29	80	16	749
	Varieties tested for less than five years.	Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Triumph Yellow Globe (4 yrs)	39	292	24	242	31	49	16	422
	Prize Winner Yellow Globe (4 yrs)	38	299	25	549	30	142	15	1762
	Leviathan Long Red (4 yrs)	33	1175	23	1334	29	1482	14	1452
	Selected Yellow Globe (3 yrs)	34	869	19	1187	24	1665	14	1287
	Giant Sugar Mangel (3 yrs)	33	1485	29	1855	28	1490	15	1180

The average yield of the eleven varieties of mangels on the Central Experimental Farm for five years was 37 tons 1888 lbs. per acre from the 1st sowing and 25 tons 1763 lbs. per acre from the second sowing, an average gain of 12 tons 125 lbs. per acre from early sowing.

The average yield of the sixteen varieties in 1904 was 30 tons 1277 lbs. per acre from the first sowing and 16 tons 582 lbs. per acre from the second sowing, an average gain of 14 tons 695 lbs. per acre from early sowing.

MANGELS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Hion Yellow Intermediate.....	42	318	35	1676	33	660	31	535
2	Mammoth Yellow Intermediate.....	11	1190	34	1729	35	435	30	1390
3	Giant Yellow Intermediate.....	40	256	32	1112	31	495	27	285
4	Yellow Intermediate.....	39	111	31	965	40	1015	31	1525
5	Giant Yellow Globe.....	36	1656	32	119	22	1870	22	550
6	Gate Post.....	35	851	29	797	20	425	25	1480
7	Prize Mammoth Long Red.....	35	59	29	1499	21	1395	24	1005
8	Mammoth Long Red.....	34	1234	29	1732	19	1600	18	630
9	Half Long Sugar White.....	33	1947	29	686	26	395	25	490
10	Half Long Sugar Rosy.....	33	1782	28	1123	25	1810	24	510
11	Selected Mammoth Long R. L.....	33	1719	30	456	20	1985	20	590
	Varieties tested for less than five years.	Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Prize Winner Yellow Globe (4 yrs).....	37	250	29	204	.....	15	.....	855
	Leviathan Long Red (4 yrs).....	32	389	29	781	25	400	21	900
	Triumph Yellow Globe (4 yrs).....	30	1960	29	985	19	280	19	610
	Selected Yellow Globe (3 yrs).....	38	560	31	651	22	1540	21	735
	Giant Sugar Mangel (3 yrs).....	33	1100	27	1172	28	1690	24	530

The average yield of the eleven varieties of mangels on the Experimental Farm at Nappan for five years was 36 tons 1953 lbs. per acre from the first sowing, and 31 tons 485 lbs. per acre from the second sowing, an average gain of 5 tons 1468 lbs. per acre from early sowing.

The average yield of the varieties grown in 1904 was 26 tons 833 lbs. per acre from the first sowing and 23 tons 1913 lbs. per acre from the second sowing, an average gain of 2 tons 920 lbs. per acre from early sowing.

MANGELS—*Continued.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years		Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1901.	
			1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1 Half Long Sugar White	27	1546	25	213	35	1744	31	40		
2 Mammoth Long Red	27	1176	22	88	31	1696	27	129		
3 Selected Mammoth Long Red	25	1323	23	415	31	394	29	1928		
4 Mammoth Yellow Intermediate	24	448	20	1382	39	1392	31	563		
5 Gate Post	23	728	22	888	37	712	29	872		
6 Yellow Intermediate	23	338	20	245	31	1624	38	32		
7 Prize Mammoth Long Red	23	253	21	82	28	45	39	192		
8 Giant Yellow Intermediate	22	1557	18	1963	31	40	31	391		
9 Half Long Sugar Rosy	22	1381	19	659	26	80	28	769		
10 Giant Yellow Globe	21	1190	23	992	25	169	25	1280		
11 Lion Yellow Intermediate	21	768	18	1277	27	648	21	1104		

Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1901.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Triumph Yellow Globe (4 yrs)	26	1196	22	682	31	568	28	769
Levithan Long Red (4 yrs)	24	76	29	1148	31	49	28	456
Prize Winner Yellow Globe (4 yrs)	23	966	25	333	31	1360	30	1512
Selected Yellow Globe (3 yrs)	22	1848	27	1568	24	1896	26	699
Giant Sugar Mangel (3 yrs)	22	264	20	1712	29	89	27	648

The average yield of the eleven varieties of mangels on the Experimental Farm at Brandon for five years was 23 tons 1909 lbs. per acre from the first sowing and 21 tons 745 lbs. per acre from the second sowing. An average gain of 2 tons 1164 lbs. per acre from early sowing.

The average yield of the sixteen varieties in 1904 was 30 tons 1710 lbs. per acre from the first sowing and 30 tons 951 lbs. per acre from the second sowing. An average gain of 759 lbs. from early sowing.

MANGELS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N. W. T.

Number.	Varieties tested for five years.	Average yield for five years, 1st sowing.		Average yield for five years, 2nd sowing.		Yield for 1904, 1st sowing.		Yield for 1904, 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Giant Yellow Intermediate	22	1963	18	1627	19	1176	18	317
2	Lion Yellow Intermediate	21	1651	19	1136	..	..	25	914
3	Prize Mammoth Long Red	21	1056	19	1441	18	206	17	1498
4	Gate Post	21	802	17	1103	16	528	23	247
5	Giant Yellow Globe	21	394	21	131	18	1903	26	1743
6	Mammoth Yellow Intermediate	21	377	18	702	17	650	23	1237
7	Selected Mammoth Long Red	20	1298	20	1877	19	327	16	953
8	Half Long Sugar White	20	1063	19	1043	21	..	26	1743
9	Half Long Sugar Rosy	19	1722	15	1856	18	1054	14	1134
10	Mammoth Long Red	19	1115	19	1448	16	1094	17	1781
11	Yellow Intermediate	19	1041	19	895	19	186	16	1094
	Varieties tested for less than five years.	Average yield for less than five years, 1st sowing.		Average yield for less than five years, 2nd sowing.		Yield for 1904, 1st sowing.		Yield for 1904, 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Prize Winner Yellow Globe (1 yrs)	23	608	21	243	23	1237	27	1581
	Triumph Yellow Globe (4 yrs)	22	520	21	1670	23	388	27	1581
	Leviathan Long Red (4 yrs)	20	209	19	1730	18	1478	23	1944
	Selected Yellow Globe † (3 yrs)	21	1140	17	1626	..	..	23	674
	Giant Sugar Mangel † (3 yrs)	18	660	18	1242	..	..	22	1823

The average yield of the eleven varieties of mangels on the Experimental Farm at Indian Head for five years was 20 tons 1862 lbs. per acre from the first sowing and 19 tons 324 lbs. per acre from the second sowing, an average gain of 1 ton 1538 lbs. per acre from early sowing.

The average yield of the varieties grown in 1904 was 19 tons 479 lbs. per acre from the first sowing and 22 tons 143 lbs. per acre from the second sowing, an average loss of 2 tons 1664 lbs. per acre from early sowing.

MANGELS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Long Red.	31	1631	26	6	27	648	16	1264
2	Giant Yellow Intermediate.	30	1293	26	742	13	268	11	1760
3	Half Long Sugar White.	27	1728	24	1874	19	16	13	1969
4	Lion Yellow Intermediate.	27	989	24	53	16	826	13	1984
5	Giant Yellow Globe.	26	1997	20	1795	30	984	16	473
6	Mammoth Yellow Intermediate.	26	1546	25	68	17	1904	13	928
7	Yellow Intermediate.	26	1365	21	1364	27	912	9	490
8	Half Long Sugar Rosy.	26	49	24	1192	10	1272	8	1460
9	Selected Mammoth Long Red.	25	1748	23	690	12	1344	7	1576
10	Glate Post.	23	1384	22	1043	14	248	7	784
11	Prize Mammoth Long Red.	23	1359	22	632	15	96	14	248
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Prize Winner Yellow Globe (4 years).	27	1094	23	343	18	1356	19	1294
	Triumph Yellow Globe (4 years).	25	401	20	792	24	1104	10	1638
	Leviathan Long Red (4 years).	22	245	22	995	13	1384	12	1872
	Selected Yellow Globe (3 years).	32	262	25	1458	18	696	13	4
	Giant Sugar Mangel (3 years).	32	75	26	877	21	249	13	1192

The average yield of the eleven varieties of mangels on the Experimental Farm at Agassiz for five years was 27 tons 96 lbs. per acre from the first sowing and 23 tons 1569 lbs. per acre from the second sowing, an average gain of 3 tons 527 lbs. per acre from early sowing.

The average yield of the sixteen varieties grown in 1904 was 18 tons 1619 lbs. per acre from the first sowing and 12 tons 1353 lbs. per acre from the second sowing, an average gain of 6 tons 266 lbs. per acre from early sowing.

CARROTS.

Ten different sorts of carrots were tested during 1904, all being sown in drills or on the flat in rows two feet apart. Two sowings were made in each case, the second sowing being about two weeks later than the first. The dates of sowing were as follows:—At Ottawa, Ont. May 17 and 31; Nappan, N.S. May 30 and June 13; Brandon, Man., May 7 and 21; Indian Head, N.W.T., May 19 and May 27; and at Agassiz, B.C. April 25 and May 9.

CARROTS *Continued.*

The dates of pulling were as follows: At Ottawa, Oct. 14; Nappan, Oct. 25; Brandon, Sept. 27; Indian Head, Oct. 20; and at Agassiz, Oct. 21.

The varieties are arranged in the following lists in the order of their average yield, from the first sowing, for five years.

In Canada the ton is 2,000 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years, (omitting Indian Head for 1901)		Average yield for five years, (omitting Indian Head for 1901)		Average yield for 1901 (omitting Indian Head)		Average yield for 1901, (omitting Indian Head)	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Giant White Vosges.....	23	1846	19	814	23	1717	18	80
2	New White Intermediate.....	23	722	18	1831	23	523	17	1681
3	Ontario Champion.....	22	1791	18	814	22	1886	16	681
4	Mammoth White Intermediate.....	22	1692	19	1198	22	222	19	...
5	Improved Short White.....	22	826	19	338	20	780	13	602
6	White Belgian.....	20	132	16	1781	20	1200	15	1194
7	Long Yellow Stump Rooted.....	19	577	16	1265	22	314	19	60
8	Half Long Chantenay.....	18	875	15	1533	18	1219	16	230
9	Carter's Orange Giant.....	18	148	15	1339	22	735	13	231
10	Early Gem.....	16	1836	15	911	17	1594	17	1200

The average yield of the ten varieties of carrots on all the Experimental Farms for five years (omitting Indian Head for 1901) was 20 tons 1663 lbs. per acre from the first sowing and 17 tons 1196 lbs. per acre from the second sowing, an average gain of 3 tons 467 lbs. per acre from early sowing.

The average yield of the ten varieties for 1901 (omitting Indian Head) was 21 tons 646 lbs. per acre from the first sowing and 17 tons 1229 lbs. per acre from the second sowing, an average gain of 3 tons 1417 lbs. per acre from early sowing.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years, 1st sowing.		Average yield for five years, 2nd sowing.		Yield for 1901, 1st sowing.		Yield for 1901, 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	New White Intermediate.....	32	1521	26	220	24	592	18	1785
2	Mammoth White Intermediate.....	32	1307	27	1638	23	200	19	1900
3	Giant White Vosges.....	31	1525	25	292	24	1995	21	570
4	Improved, Short White.....	29	1928	23	1136	22	1560	20	1415
5	Ontario Champion.....	29	1493	24	147	22	850	16	1165
6	Half Long Chantenay.....	26	1925	20	332	18	1956	13	1225
7	Long Yellow Stump Rooted.....	26	870	21	966	19	1930	16	1330
8	Carter's Orange Giant.....	24	1615	19	676	19	1022	17	1805
9	White Belgian.....	23	695	20	920	17	815	14	710
10	Early Gem.....	21	471	19	973	18	309	17	1805

CARROTS - *Continued.*

The average yield of the ten varieties of carrots on the Central Experimental Farm for five years was 27 tons 1902 lbs. per acre from the first sowing and 23 tons 137 lbs. per acre from the second sowing, an average gain of 4 tons 1765 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 was 21 tons 520 lbs. per acre from the first sowing and 17 tons 1541 lbs. per acre from the second sowing, an average gain of 3 tons 979 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1 Giant White Vosges	24	798	13	1257	18	1950	16	310
2 Mammoth White Intermediate	24	609	19	335	21	2890	18	1620
3 Ontario Champion	23	827	18	1620	18	690	18	950
4 New White Intermediate	22	1963	19	1666	18	1380	17	1147
5 Improved Short White	21	1593	17	1679	16	1700	14	710
6 Long Yellow Stump Rooted	20	986	17	1663	19	1775	18	1690
7 White Belgian	20	788	16	371	20	240	18	1445
8 Half Long Chantenay	18	1029	17	617	18	495	17	1079
9 Early Gem	17	1667	16	637	17	1375	16	1199
10 Carter's Orange Giant	17	23	16	880	20	1610	19	1195

The average yield of the ten varieties of carrots on the Experimental Farm at Nappan for five years was 21 tons 208 lbs. per acre from the first sowing and 17 tons 1542 lbs. per acre from the second sowing, an average gain of 3 tons 666 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 was 19 tons 230 lbs. per acre from the first sowing and 17 tons 1457 lbs. per acre from the second sowing, an average gain of 1 ton 773 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, FRANKFORD, N.Y.

Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1 New White Intermediate	22	1468	13	994	18	2490	14	847
2 Ontario Champion	22	179	13	1360	16	2720	18	84
3 Improved Short White	18	1576	14	994	16	440	20	2681
4 White Belgian	18	1006	13	24	16	71	17	25
5 Giant White Vosges	18	80	17	202	20	30	17	800
6 Long Yellow Stump Rooted	17	1192	15	1796	16	680	20	125
7 Mammoth White Intermediate	16	708	15	1576	20	280	14	1720
8 Carter's Orange Giant	15	1061	13	1610	21	1360	25	1640
9 Half Long Chantenay	14	1766	14	894	28	760	24	1720
10 Early Gem	12	1124	13	1708	22	880	20	1980

CARROTS—*Concluded.*

The average yield of the ten varieties of carrots on the Experimental Farm at Agassiz for five years was 25 tons 16 lbs. per acre from the first sowing and 23 tons 103 lbs. per acre from the second sowing, an average gain of 1 ton 1913 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 was 13 tons 612 lbs. per acre from the first sowing and 11 tons 1611 lbs. per acre from the second sowing, an average gain of 1 ton 1001 lbs. per acre from early sowing.

SUGAR BEETS.

Eight varieties of sugar beets have been tested during 1904, sown in drills or on the flat in rows two feet apart. Two sowings were made at each farm, the second sowing being about two weeks later than the first. The dates of sowing were:—At Ottawa, Ont., May 17 and 31; Nappan, N.S., May 30 and June 13; Brandon, Man., May 7 and 21; and at Indian Head, N.W.T., May 19 and 27.

The dates of pulling were as follows:—At Ottawa, Oct. 14; Nappan, Oct. 12; Brandon, Sept. 24; and at Indian Head, Oct. 6.

The yield per acre in each instance has been calculated from the weight of roots gathered from two rows each 66 feet long.

Though all the varieties included in these tests are commonly classed as sugar beets it should be noted that the only sorts recommended for use in the manufacture of beet sugar are Wanzleben, Vilmorin's Improved, and French Very Rich.

In Canada the ton is 2000 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years (omitting Agassiz for 1904)		Average yield for five years (omitting Agassiz for 1904)		Average yield for 1904 (omitting Agassiz)		Average yield for 1904 (omitting Agassiz)	
		1st sowing.	2nd sowing.	1st sowing.	2nd sowing.	1st sowing.	2nd sowing.	1st sowing.	2nd sowing.
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Danish Red Top	21	1813	21	1982	21	111	19	163
2	Danish Improved	24	1288	21	486	21	60	18	1147
3	Red Top Sugar	21	846	21	1766	21	399	22	1115
4	Improved Imperial	23	1052	21	451	20	1104	19	574
5	Wanzleben	21	794	18	392	18	1888	15	1508
6	Vilmorin's Improved	19	1218	17	735	16	1637	13	1181
	Varieties tested for less than five years.	Average yield for less than five years (omitting Agassiz for 1904)		Average yield for less than five years (omitting Agassiz for 1904)		Average yield for 1904 (omitting Agassiz)		Average yield for 1904 (omitting Agassiz)	
		1st sowing.	2nd sowing.	1st sowing.	2nd sowing.	1st sowing.	2nd sowing.	1st sowing.	2nd sowing.
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Royal Giant (4 yrs)	25	1227	22	1395	24	1231	21	1673
	French Very Rich (3 yrs)	18	549	16	35	16	425	12	1192

SUGAR BEETS—Continued.

The average yield of the six varieties of sugar beets on all the Experimental Farms for five years (omitting Agassiz in 1904) was 23 tons 168 lbs. per acre from the first sowing and 20 tons 652 lbs. per acre from the second sowing, an average gain of 2 tons 1516 lbs. per acre from early sowing.

The average yield of the eight varieties for 1904 (omitting Agassiz) was 20 tons 843 lbs. per acre from the first sowing and 17 tons 1860 lbs. per acre from the second sowing, an average gain of 2 tons 983 lbs. per acre from early sowing.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years 1st sowing.		Average yield for five years 2nd sowing.		Yield for 1904 1st sowing.		Yield for 1904 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Red Top Sugar	31	947	21	669	32	762	18	465
2	Danish Improved.....	29	834	29	1514	27	532	15	1680
3	Danis' Red Top.....	30	175	21	1725	26	229	14	380
4	Improved Imperial.....	29	1878	21	1741	23	1272	15	277
5	Wanzleben	26	1542	18	448	21	982	15	1432
6	Vilmorin's Improved.....	23	249	14	1667	19	1847	12	585
	Varieties tested for less than five years.	Average yield for less than five years 1st sowing.		Average yield for less than five years 2nd sowing.		Yield for 1904 1st sowing.		Yield for 1904 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Royal Giant (4 yrs).....	30	1957	23	35	31	40	18	135
	French Very Rich (3 yrs)	21	982	15	1405	17	1062	11	110

The average yield of the six varieties of sugar beets on the Central Experimental Farm for five years was 28 tons 1287 lbs. per acre from the first sowing and 19 tons 1627 lbs. per acre from the second sowing, an average gain of 8 tons 1660 lbs. per acre from early sowing.

The average yield of the eight varieties for 1904 was 24 tons 1840 lbs. per acre from the first sowing and 15 tons 133 lbs. per acre from the second sowing, an average gain of 9 tons 1707 lbs. per acre from early sowing.

SUGAR BEETS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Red Top Sugar	27	1275	25	457	26	140	27	1440
2	Danish Red Top	26	1757	24	510	20	95	20	755
3	Improved Imperial	26	666	22	220	23	355	21	75
4	Danish Improved	24	1949	22	946	20	1910	19	775
5	Wanzleben	24	213	20	821	22	880	18	1455
6	Vilmorin's Improved	22	914	19	841	18	795	16	1330
	Varieties tested for less than five years.	Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Royal Giant (4 yrs)	31	782	27	1935	24	1830	20	425
	French Very Rich (3 yrs)	19	1160	16	175	14	1295	12	1575

The average yield of the six varieties of sugar beets on the Experimental Farm at Nappan for five years was 25 tons 796 lbs. per acre from the first sowing and 22 tons 632 lbs. per acre from the second sowing, an average gain of 3 tons 164 lbs. per acre from early sowing.

The average yield of the eight varieties in 1904 was 21 tons 651 lbs. per acre from the first sowing and 19 tons 1229 lbs. per acre from the second sowing, an average gain of 1 ton 1422 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Danish Improved	24	272	19	1851	23	500	20	656
2	Red Top Sugar	23	1216	21	1956	24	48	25	1480
3	Danish Red Top	23	741	22	1052	23	992	23	464
4	Wanzleben	21	1969	17	518	22	880	18	1488
5	Improved Imperial	19	240	21	233	21	504	24	840
6	Vilmorin's Improved	16	1660	15	743	17	1904	16	298

SUGAR BEETS—*Continued.*AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.—*Con.*

Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Royal Giant (4 years).....	18	168	19	1906	25	688	25	1744
French Very Rich (3 years).....	14	1040	12	1320	21	240	14	1010

The average yield of the six varieties of sugar beets on the Experimental Farm at Brandon for five years was 21 tons 1016 lbs. per acre from the first sowing and 19 tons 1402 lbs. per acre from the second sowing, an average gain of 1 ton 1614 lbs. per acre from early sowing.

The average yield of the eight varieties in 1904 was 22 tons 682 lbs. per acre from the first sowing and 21 tons 210 lbs. per acre from the second sowing, an average gain of 1 ton 412 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Improved Imperial.....	17	6610	17	732	14	286	16	1094
2	Danish Red Top.....	17	1970	16	1976	11	1134	18	1054
3	Danish Improved.....	17	722	18	1961	12	1598	18	1478
4	Red Top Sugar.....	17	388	17	958	14	286	18	1196
5	Wanzleben.....	14	483	14	1169	9	810	9	1658
6	Vilmorin's Improved.....	14	93	15	536	10	1921	9	1800

Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Royal Giant (4 years).....	20	1824	19	426	17	367	23	388
French Very Rich (3 years).....	13	106	11	234	11	1194	12	43

The average yield of the six varieties of sugar beets on the Experimental Farm at Indian Head for five years was 16 tons 728 lbs. per acre from the first sowing and 16 tons 1556 lbs. per acre from the second sowing, an average loss of 828 lbs. per acre from early sowing.

The average yield of the eight varieties in 1904 was 13 tons 200 lbs. per acre from the first sowing and 15 tons 1839 lbs. per acre from the second sowing, an average loss of 2 tons 1639 lbs. per acre from early sowing.

SUGAR BEETS *—Concluded.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.

Number.	Varieties tested for four years.	Average yield for four years.		Average yield for four years.		Number.	Varieties tested for four years.	Average yield for four years.		Average yield for four years.	
		1st sowing.	2nd sowing.	1st sowing.	2nd sowing.			1st sowing.	2nd sowing.	1st sowing.	2nd sowing.
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Danish Red Top.....	26	1322	21	645	4	Red Top Sugar.....	22	404	23	791
2	Danish Improved.....	26	566	24	157	5	Vilmerin's Improved...	21	1175	21	1890
3	Improved Imperial ...	24	867	23	1270	6	Wanzleben.....	19	1765	20	1565
Varieties tested for less than four years.		Average yield for less than four years.		Average yield for less than four years.		Varieties tested for less than four years.		Average yield for less than four years.		Average yield for less than four years.	
		1st sowing.		2nd sowing.				1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Royal Giant (3 years)....		26	1105	23	585	French Very Rich (2 years)		22	1457	21	840

The average yield of the six varieties of sugar beets on the Experimental Farm at Agassiz for four years was 23 tons 1016 lbs. per acre from the first sowing and 23 tons 43 lbs. per acre from the second sowing, an average gain of 973 lbs. per acre from early sowing.

The sugar beets failed at Agassiz in 1904.

POTATOES.

Forty-one varieties of potatoes have been under test during 1904. The potatoes were cut into pieces with two or three eyes in each, and these pieces were planted in rows $2\frac{1}{2}$ feet apart, the sets being placed a foot apart in the rows. The dates of planting and digging were as follows:—At Ottawa, Ont., planted May 27, dug Oct. 6 and 7; at Nappan, N.S., planted May 31, dug Sept. 1 and 3; at Brandon, Man., planted May 4, dug Sept. 26; at Indian Head, N.W.T., planted May 20, dug Sept. 29; and at Agassiz, B.C., planted May 12, dug Sept. 20 and 21.

In Canada the bushel of potatoes is 60 lbs.

POTATOES—Continued.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for 1901.		Number.	Varieties tested for five years.	Average yield for five years.		Average yield for 1901.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Rose No. 9.	421	21	430	19	17	Country Gentleman.	387	48	408	32
2	Late Puritan.	417	10	462	26	18	Irish Cobbler.	386	49	360	10
3	Carman No. 1.	416	17	447	11	19	Empire State.	384	46	397	2
4	Uncle Sam.	414	49	434	43	20	Cambridge Russet.	377	55	312	37
5	Burnaby Mammoth.	410	57	365	52	21	General Gordon.	377	52	406	7
6	Seedling No. 7.	403	38	373	7	22	Everett.	377	45	364	41
7	Dreer's Standard.	401	30	418	14	23	Vick's Extra Early.	377	43	385	9
8	Holborn Abundance.	398	51	408	28	24	Swiss Snowflake.	376	0	355	58
9	American Wonder.	398	14	369	49	25	Reeves' Rose.	374	40	384	7
10	State of Maine.	397	55	402	27	26	Penn Manor.	370	58	393	22
11	American Giant.	396	55	401	34	27	Maule's Thoroughbred.	361	13	337	58
12	Money Maker.	395	6	394	9	28	Carman No. 3.	360	47	333	49
13	I. X. L.	393	10	387	38	29	Bovee.	357	8	287	22
14	Rochester Rose.	392	36	398	3	30	Early White Prize.	352	19	268	24
15	Delaware.	389	17	365	30	31	Early Rose.	350	54	320	54
16	Clay Rose.	388	41	379	52						
	Varieties tested for less than five years.	Average yield for less than five years.		Average yield for 1901.			Varieties tested for less than five years.	Average yield for less than five years.		Average yield for 1901.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
	Enormous (4 years)	420	1	408	19		Early Andes (1 years)	285	28	258	43
	Sabean's Elephant (4 years)	405	8	431	42		Prolific Rose (3 years)	356	25	420	47
	Canadian Beauty (1 years)	401	13	394	2		Pearce (2 years)	409	32	409	23
	Early St. George (4 years)	358	53	348	5		Early Envoy (2 years)	302	57	302	52
	Rawdon Rose (1 years)	347	4	338	30		Pingree (2 years)	275	1	308	26

The average crop of the forty-one varieties of potatoes on all the Experimental Farms for 1904 was 374 bus. 18 lbs. per acre.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1901.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Late Puritan.	185	19	315	12	17	Swiss Snowflake.	399	31	334	21
2	Money Maker.	182	41	418	..	18	Everett.	392	2	387	12
3	Burnaby Mammoth.	169	29	462	..	19	American Wonder.	387	38	398	..
4	Carman No. 1.	159	48	435	36	20	Penn Manor.	382	48	374	..
5	Dreer's Standard.	158	55	356	24	21	Country Gentleman.	378	21	246	24
6	I. X. L.	133	50	365	12	22	Delaware.	368	17	277	12
7	Clay Rose.	132	58	391	36	23	Empire State.	362	7	350	48
8	Irish Cobbler.	132	5	246	24	24	General Gordon.	352	..	290	24
9	American Giant.	118	..	431	12	25	Cambridge Russet.	347	36	206	48
10	Uncle Sam.	113	36	312	24	26	Early Rose.	345	24	343	12
11	Vick's Extra Early.	112	17	378	24	27	Carman No. 3.	341	58	261	..
12	Rochester Rose.	109	12	374	..	28	Maule's Thoroughbred.	341	5	233	12
13	Rose No. 9.	106	31	382	48	29	Seedling No. 7.	333	46	215	36
14	Holborn Abundance.	106	7	435	36	30	Early White Prize.	301	50	250	48
15	State of Maine.	104	48	299	12	31	Bovee.	280	43	180	24
16	Reeves' Rose.	101	17	304	48						

POTATOES—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Canadian Beauty (4 yrs.)	429	..	365	12	Early Andes (4 yrs.)	201	51	123	12
Sabean's Elephant (4 yrs)	424	36	365	12	Prolific Rose (3 yrs)	217	48	272	18
Enormous (4 yrs)	393	48	308	..	Pearce (2 yrs)	354	12	374	..
Rawdon Rose (4 yrs)	360	15	334	24	Early Envoy (2 yrs)	265	6	246	24
Early St. George (4 yrs)	309	6	215	36	Pingree (2 yrs)	163	54	290	24

The average crop of the forty-one varieties of potatoes on the Central Experimental Farm in 1904 was 322 bus. 3 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Vick's Extra Early	440	26	495	..	17	Penn Manor	348	55	352	..
2	Clay Rose	433	50	385	..	18	Boyer	344	5	354	12
3	Seedling No. 7	426	48	343	12	19	Maul's Thoroughbred	344	5	367	24
4	Rose No. 9	425	29	400	24	20	Uncle Sam	344	5	363	..
5	Everett	416	17	396	..	21	Money Maker	343	24	331	..
6	Rochester Rose	406	34	409	12	22	Empire State	341	53	363	..
7	Irish Cobbler	401	58	439	..	23	Carman No. 3	340	7	242	..
8	Holborn Abundance	395	34	297	..	24	State of Maine	334	50	398	12
9	Burnaby Mammoth	381	29	345	24	25	American Giant	331	19	319	..
10	Late Puritan	364	19	323	24	26	General Gordon	329	36	396	..
11	Carman No. 1	360	22	462	..	27	Early White Prize	328	41	341	..
12	Droer's Standard	358	36	354	24	28	Country Gentleman	317	41	418	..
13	Delaware	356	24	413	36	29	American Wonder	309	19	253	..
14	I. X. L.	354	38	385	..	30	Reeves' Rose	298	48	312	24
15	Cambridge Russet	351	7	334	24	31	Early Rose	275	53	299	12
16	Swiss Snowflake	349	22	314	36						

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Enormous (4 years)	426	15	352	..	Early Andes (1 years)	275	51	321	12
Canadian Beauty (4 years)	387	12	332	12	Prolific Rose, (3 years)	297	..	369	36
Sabean's Elephant (4 years)	330	..	308	..	Pearce (2 years)	514	48	424	36
Early St. George (4 years)	326	51	301	36	Early Envoy (2 years)	379	30	352	..
Rawdon Rose (4 years)	311	33	336	36	Pingree (2 years)	349	48	374	..

The average crop of the forty one varieties of potatoes on the Experimental Farm at Nappan in 1904 was 360 bus. 16 lbs. per acre.

POTATOES—Continued.

AVERAGE YIELD AT THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1904.	
	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.
1	Late Puritan	463	50	847	..	..	17	Carman No. 1	407	..	517	..	..
2	State of Maine	439	18	542	40	..	18	Country Gentleman	406	16	550	..	..
3	Delaware	438	..	487	40	..	19	American Giant	403	20	553	40	..
4	Money Maker	435	24	634	20	..	20	Carman No. 3	402	36	531	40	..
5	Seedling No. 7	434	40	528	..	..	21	Reeve's Rose	398	56	407	..	..
6	American Wonder	431	40	546	20	..	22	Holborn Abundance	396	..	524	20	..
7	Cambridge Russet	412	56	500	40	..	23	Penn Manor	398	52	420	..	..
8	Maule's Thoroughbred	437	4	568	20	..	24	Early White Prize	368	8	264	..	..
9	Uncle Sam	433	24	550	..	..	25	Swiss Snowflake	363	..	462	..	..
10	Rose No. 9	434	56	501	..	..	26	Clay Rose	360	4	458	20	..
14	Empire State	430	28	546	20	..	27	Everett	357	52	366	40	..
12	L. X. L.	424	36	495	..	..	28	Early Rose	322	18	282	20	..
13	Irish Cobbler	423	8	530	..	..	29	Bovee	316	48	332	..	..
14	Dreer's Standard	422	56	648	..	..	30	Rochester Rose	316	4	465	40	..
15	Burnaby Mammoth	415	28	355	40	..	31	Vick's Extra Early	308	44	326	20	..
16	General Gordon	418	..	528	..	..					

Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1904.	
Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.
Enormous (4 years)	526	10	495	..	..	Early Andes (4 years)	297	55	330	..	..
Sabean's Elephant (4 years)	475	45	605	..	..	Prolific Rose (3 years)	503	33	656	20	..
Canadian Beauty (4 years)	456	30	557	20	..	Pearce (2 years)	458	20	509	40	..
Rawdon Rose (4 years)	372	10	315	20	..	Early Envoy (2 years)	293	20	315	20	..
Early St. George (4 years)	348	20	230	..	..	Pingree (2 years)	227	10	341	..	..

The average crop of the forty-one varieties of potatoes on the Experimental Farm at Brandon in 1904 was 481 bus, 16 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.		Average yield for five years.		Yield for 1904.	
	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.
1	Carman No. 1	504	38	314	36	..	17	Seedling No. 7	422	36	330	..	..
2	American Giant	494	51	391	36	..	18	L. X. L.	418	1	239	48	..
3	American Wonder	483	44	345	24	..	19	Dreer's Standard	413	42	352	..	..
4	Uncle Sam	471	27	420	12	..	20	Everett	400	40	312	24	..
5	Country Gentleman	460	20	371	48	..	21	Irish Cobbler	397	50	305	48	..
6	General Gordon	456	25	393	48	..	22	Reeve's Rose	396	24	374	..	..
7	State of Maine	453	18	369	36	..	23	Vick's Extra Early	380	31	321	12	..
8	Delaware	447	14	323	24	..	24	Swiss Snowflake	380	18	259	36	..
9	Penn Manor	446	39	435	36	..	25	Maule's Thoroughbred	366	10	281	36	..
10	Burnaby Mammoth	444	27	315	24	..	26	Money Maker	364	18	371	48	..
11	Rose No. 9	443	12	314	36	..	27	Cambridge Russet	364	12	226	36	..
12	Empire State	441	50	275	..	..	28	Clay Rose	353	15	237	36	..
13	Rochester Rose	437	49	305	48	..	29	Bovee	354	5	244	24	..
14	Late Puritan	433	2	494	48	..	30	Early White Prize	340	16	279	24	..
15	Holborn Abundance	429	48	327	48	..	31	Early Rose	322	14	288	12	..
16	Carman No. 3	427	48	313	12	..							

POTATOES—*Concluded.*AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.—*Con.*

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Sabeau's Elephant (4 yrs.)	304	33	409	12	Rawdon Rose (4 yrs.)	214	15	226	36
Canadian Beauty (4 yrs.)	393	4	257	24	Prolific Rose (3 yrs.)	389	33	374	..
Early St. George (4 yrs.)	365	12	631	24	Pingree (2 yrs.)	359	2	360	48
Enormous (4 yrs.)	341	23	314	36	Early Envoy (2 yrs.)	350	14	374	..
Early Andes (4 yrs.)	301	27	228	48	Pearce (2 yrs.)	340	20	323	24

The average crop of the forty-one varieties of potatoes on the Experimental Farm at Indian Head in 1904 was 331 bus. 50 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Uncle Sam	421	33	528	..	17	Late Paritan	339	19	393	48
2	Rose No. 9	399	51	492	48	18	Early Rose	338	40	391	36
3	Rochester Rose	393	23	435	36	19	American Giant	337	5	312	24
4	Swiss Snowflake	387	49	409	12	20	State of Maine	336	49	402	36
5	Cambridge Russet	383	43	435	36	21	I. X. L.	334	44	453	12
6	Seedling No. 7	380	23	418	48	22	General Gordon	333	18	422	24
7	Reeves' Rose	377	58	422	24	23	Empire State	332	34	440	..
8	Country Gentleman	376	12	456	30	24	Money Maker	329	45	215	36
9	Holborn Abundance	366	47	457	36	25	Everett	321	56	307	8
10	Clay Rose	363	20	426	48	26	Delaware	316	11	325	36
11	American Wonder	355	48	396	20	27	Maule's Thoroughbred	314	43	237	36
12	Dreer's Standard	353	19	378	24	28	Penn Manor	307	34	376	12
13	Carman No. 1	349	38	356	44	29	Carman No. 3	288	25	288	12
14	Vick's Extra Early	346	38	404	48	30	Irish Cobbler	278	53	270	36
15	Bovee	342	57	305	48	31	Early White Prize	272	38	206	48
16	Burnaby Mammoth	339	54	320	52						

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Early St. George (4 years)	419	40	299	12	Early Andes (4 years)	330	25	290	24
Enormous (4 years)	412	30	572	..	Prolific Rose (3 years)	374	10	431	12
Sabeau's Elephant (4 years)	400	25	471	8	Pearce (2 years)	380	2	415	16
Rawdon Rose (4 years)	397	6	479	36	Early Envoy (2 years)	226	36	226	36
Canadian Beauty (4 years)	340	19	308	..	Pingree (1 year)	176	..	176	..

The average crop of the forty-one varieties of potatoes on the Experimental Farm at Agassiz in 1904 was 376 bus. 40 lbs. per acre.

SUMMARY.

The results obtained from the uniform trial plots as given in this bulletin show that there are marked differences in the relative productiveness of varieties even when grown side by side under similar conditions. The results of the average crops obtained for five years indicate also that the tendency to productiveness is in many instances persistent, manifesting itself under varying conditions of soil and climate to a remarkable degree. The establishment of such facts points to the importance of farmers choosing for seed those varieties which give the heaviest crops, so that farming in Canada may thus be made more profitable.

In this bulletin the arrangement of the matter has been modified so as to present in a more prominent way the average figures of a test of five years, the results of the current year occupying a more subordinate position. The plan adopted in this issue shows at a glance the relative position, in regard to productiveness, of all the varieties which have been under trial for five years.

During the past year the number of varieties under test has been further reduced by dropping some of those which have failed to come up to the high standard required. This reduction in the number tested will serve to give greater prominence to those varieties of the highest excellence.

ANNUAL DISTRIBUTION OF SAMPLES OF SEED GRAIN.

Provision has been made in connection with the annual distribution of samples for the improvement of seed to have available considerable quantities of the very best and most productive sorts, so that every farmer in Canada who applies in good season (before March 1) may obtain a sample of such sort as he may desire; but only one sort can be sent to each applicant. These samples are sent free by mail, in cotton bags, the spring wheat and barley in quantities of 5 lbs. each and oats in bags containing 4 lbs. each, enough in each case to sow one-twentieth of an acre. Instructions accompany each sample. In many instances the 5-lb. samples of wheat and barley have, when properly cared for, produced, by the end of the third season, from 100 to 200 bushels of grain, while in the case of oats such quantities have been available by the end of the second season, showing that with proper attention any farmer, under this liberal provision, may soon provide himself with the best and most productive strains of seed in sufficient quantities to sow a large area, at no cost to himself beyond his own labour.

That the farmers of this country avail themselves of this liberal arrangement is evident from the fact that the number of samples now supplied to individual applicants amounts to from 35,000 to 40,000 each year, and the demand is increasing. A steady improvement is taking place in the quality of the cereals produced in this country as well as a large increase in the output, results which are believed to be in large measure due to the more general cultivation of improved and more productive sorts brought about by these annual distributions.

