

**CIHM  
Microfiche  
Series  
(Monographs)**

**ICMH  
Collection de  
microfiches  
(monographies)**



**Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques**

**© 1997**



The copy filmed here has been reproduced thanks to the generosity of:

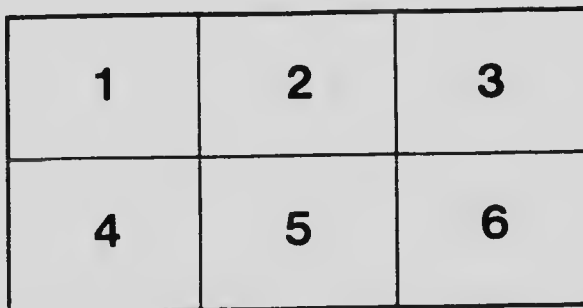
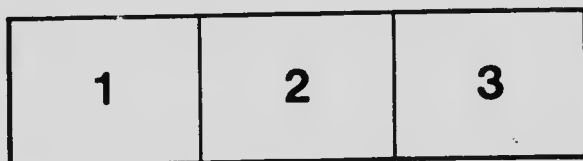
Library  
Agriculture Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol  $\rightarrow$  (meaning "CONTINUED"), or the symbol  $\nabla$  (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

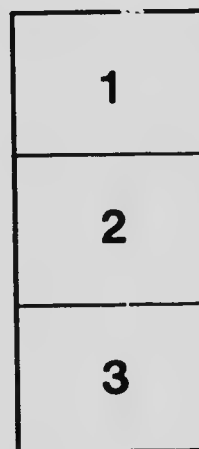
Bibliothèque  
Agriculture Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole  $\rightarrow$  signifie "A SUIVRE", le symbole  $\nabla$  signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.



# MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



2.8



5.0

5.6

3.2



6.3

3.6

7.1

4.0



8.0

9.0

10



APPLIED IMAGE Inc

1653 East Main Street  
Rochester, New York 14609 USA  
(716) 482 - 0300 - Phone  
(716) 288 - 5989 - Fax

1870  
1871  
1872  
1873  
1874  
1875  
1876  
1877  
1878  
1879  
1880  
1881  
1882  
1883  
1884  
1885  
1886  
1887  
1888  
1889  
1890  
1891  
1892  
1893  
1894  
1895  
1896  
1897  
1898  
1899  
1900

DEPARTMENT OF AGRICULTURE

---

CENTRAL EXPERIMENTAL FARM  
OTTAWA, CANADA

RESULTS OBTAINED IN 1905

FROM

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

BY

WILLIAM SAUNDERS, C.M.G., LL.D.  
*Director of Experimental Farms*

AND

CHAS. E. SAUNDERS, Ph. D.  
*Cerealist.*

---

BULLETIN No. 53

---

NOVEMBER, 1905.

PUBLISHED BY DIRECTION OF THE HON. SYDNEY A. FISHER,  
MINISTER OF AGRICULTURE

## TABLE OF CONTENTS

	PAGE.
Results of Experiments with Spring Wheat.....	6
“ “ “ Macaroni Wheat.....	9
“ “ “ Emmer and Spelt.....	11
“ “ “ Oats.....	13
“ “ “ Six-rowed Barley.....	17
“ “ “ Two-rowed Barley.....	20
“ “ “ Pease.....	22
“ “ “ Indian Corn.....	25
“ “ “ Turnips.....	29
“ “ “ Mangels.....	32
“ “ “ Carrots.....	36
“ “ “ Sugar Beets.....	38
“ “ “ Potatoes.....	41
Summary.....	/

To the Honourable  
The Minister of Agriculture.

Sir,—I beg to submit herewith, for your approval Bulletin No. 53 of the Experimental Farm series, which has been prepared by the Cerealist, 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 in your Department during the season of 1905, with spring wheat, macaroni wheat, emmer 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 fairly uniform conditions. The average results are also given of the tests for the past five 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 more 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, November 27, 1905.





## RESULTS OBTAINED

FROM TRIAL PLOTS OF

# GRAIN, FODDER CORN, FIELD ROOTS AND POTATOES

BY WILLIAM SAUNDERS, C.M.G., LL.D., F.R.S.C., F.L.S., &c

*Director of Experimental Farms*

AND CHAS. E. SAUNDERS, B.A., Ph.D., *Cerealist.*

During the past eleven 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 these 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 eleventh of the series, the results of the experiments are presented in the same form as that adopted last year, giving special prominence to the average yield of each variety for the past five years, as being the more trustworthy basis from which to draw conclusions, and relegating the figures obtained in the current year to a subordinate place.

The varieties are therefore placed in the tables in the order of their average yield 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 seems undesirable to lengthen it, since by so doing all recently introduced varieties would be kept too long from taking their place in the tables with the older sorts.

During 1905 the spring season at Nappan was cold and wet which delayed seeding, but the warm weather which followed was favourable for growth and good average yields of grain were obtained. Later in the year the weather was unusually dry which lessened the crop of roots. At Ottawa cereals of all sorts have yielded well, pease, Indian corn, field roots and potatoes have also for the most part given returns above the average. At Brandon the results of the harvest have been most gratifying, wheat, oats and barley have given very heavy yields and field roots and potatoes unusually large crops. At Indian Head the grain crops have also been remarkably heavy, while Indian corn, pease, field roots and potatoes have given excellent returns. At Agassiz, all sorts of grain have done well excepting wheat which has been severely injured by the wheat midge *Diplosis tritici* which destroyed the larger part of the crop. Indian corn, field roots and potatoes have all given crops above the average.

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 averages 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.

Twenty-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, Sask., the plots were each 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 24; at Nappan, May 13; Brandon, April 10 to 12; Indian Head, April 6; and at Agassiz, April 18.

In Canada the bushel of wheat is 60 lbs.

### SPRING WHEAT.

#### AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Average yield in 1905.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.			
1	Preston *	35	13	116	32	40	15	Dawn *	32	25	116	31	4
2	Advauce *	35	12	117	30	2	16	Percy *	32	15	116	28	12
3	Monarch	14		121	31	32	17	Chester *	32	15	117	29	36
4	White Fife	9		120	30	54	18	Pringle's Champlain	32	4	119	28	56
5	Red Fife	31	6	120	30		19	Minnesota No. 163	31	59	121	30	8
6	Wellman's Fife	33	34	121	32	26	20	Countess	31	51	117	27	26
7	White Russian	33	31	120	27		21	Red Fern	31	36	119	25	8
8	Stanley *	33	32	117	31	20	22	Herison Bearded	31	30	119	24	52
9	Huron *	33	25	117	30	6	23	Australian No. 9	30	52	119	30	14
10	Laurel *	33	24	121	32	8	24	Weldon *	30	49	119	23	58
11	Power's Fife—(Minn. 149)	32	54	121	28	46	25	Haynes' Blue Stem—(Minn. 169)	30	32	121	30	22
12	Clyde *	32	54	118	26	14	26	Early Riga *	29	56	111	23	36
13	Colorado	32	41	117	27	56							
14	McKendry's Fife—(Minn. 181)	32	31	121	31	18							

### SPRING WHEAT--Continued.

The average crop of the twenty-six varieties of spring wheat tested on all the Experimental Farms in 1905 was 29 bushels 5 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 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.			Bu. Lbs.	
1	Preston *	31	28	106	31	27	15	Laurel *	27	22	111	32	49
2	Herisson Bearded	30	24	109	29	"	16	Dawn *	27	8	"	34	20
3	Advance *	30	20	108	36	"	17	Minnesota 163	27	4	"	30	20
4	Pringle's Champlain	29	41	107	31	20	18	Colorado	26	16	"	31	"
5	Huron *	29	18	109	33	30	19	Countess *	26	12	105	29	"
6	McKendry's Fife (Minn. 181)	29	12	111	3	"	20	Percy *	26	4	"	28	40
7	Red Fern	28	31	109	33	20	21	Weldon *	25	36	109	26	20
8	White Fife	28	26	112	27	20	22	Haynes' Blue Stem (Minn. 169)	24	48	112	27	"
9	Red Fife	28	22	112	33	20	23	Power's Fife (Minn. 149)	24	32	112	26	40
10	Clyde *	28	11	110	30	40	24	Stanley *	24	20	106	32	20
11	White Russian	27	50	111	32	20	25	Early Riga *	22	48	100	35	"
12	Monarch	27	38	113	31	40	26	Australian No. 9	21	42	107	32	20
13	Wellman's Fife	27	30	112	35	20							
14	Chester *	27	22	106	37	40							

The average crop of the twenty-six varieties of spring wheat tested on the Central Experimental Farm at Ottawa in 1905 was 31 bushels 53 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 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.			Bu. Lbs.	
1	Preston *	33	44	112	31	"	16	McKendry's Fife (Minn. 181)	29	44	116	30	40
2	Advance *	33	26	112	28	"	17	Power's Fife (Minn. 149)	29	32	116	27	"
3	White Fife	33	24	116	27	40	18	Dawn *	29	28	113	25	20
4	Monarch	33	25	116	34	40	19	Red Fern	29	20	113	20	40
5	Red Fife	33	4	113	24	40	20	Huron *	28	52	113	18	"
6	Wellman's Fife	33	4	116	26	40	21	Weldon *	28	52	115	25	"
7	Clyde *	32	48	111	27	20	22	Herisson Bearded	27	52	114	13	20
8	Colorado	32	40	112	31	20	23	Australian No. 9	27	40	117	26	"
9	Laurel *	32	20	116	30	"	24	Percy *	27	40	114	20	"
10	White Russian	31	36	116	24	"	25	Minnesota No. 163	27	24	116	20	20
11	Pringle's Champlain	31	24	112	35	"	26	Haynes' Blue Stem (Minn. 169)	23	48	116	28	20
12	Early Riga *	31	"	109	14	"							
13	Stanley *	30	12	115	30	40							
14	Chester *	30	5	114	20	"							
15	Countess *	29	44	115	26	"							

The average crop of the twenty-six varieties of spring wheat tested on the Experimental Farm at Nappan in 1905 was 25 bushels 43 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.		Average days maturing for five years.	Yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.				
1	Advance*.....	36	8	119	46	40	15	Clyde*.....	31	32	121	34	20
2	White Fife.....	55	12	124	47	20	16	Percy*.....	31	30	118	43	20
3	Red Fife.....	34	48	124	45	20	17	Minnesota No. 163..	30	52	123	43	40
4	Australian No. 9.....	34	24	122	41	..	18	Haynes' Blue Stem (Minn. 169).....	30	44	124	44	40
5	Monarch.....	34	20	124	41	..	19	Herisson Bearded....	30	28	120	41	..
6	Power's Fife (Minn. 149).....	34	18	124	44	..	20	Pringle's Champlain..	30	18	119	41	40
7	Dawn*.....	33	44	119	41	40	21	Colorado.....	29	56	120	36	40
8	Huron*.....	33	24	119	47	..	22	Weldon*.....	29	32	123	36	..
9	Laurel*.....	33	20	123	47	40	23	Countess*.....	29	10	122	36	..
10	Wellman's Fife.....	33	16	123	45	..	24	Early Riga*.....	28	48	113	34	..
11	White Russian.....	33	8	124	39	..	25	Red Fern.....	28	30	120	33	20
12	Preston*.....	32	56	120	52	..	26	McKendry's Fife (Minn. 181).....	26	35	125	40	..
13	Stanley*.....	32	40	120	42	..							
14	Chester*.....	31	56	121	39	..							

The average crop of the twenty-six varieties of spring wheat tested on the Experimental Farm at Brandon, Man., in 1905 was 41 bushels 49 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.				
1	Preston*.....	45	18	127	37	40	14	Red Fife.....	41	7	131	37	40
2	Stanley*.....	45	15	126	40	20	15	Advance*.....	41	5	129	30	..
3	Huron*.....	45	5	122	43	40	16	White Fife.....	40	57	130	43	20
4	Percy*.....	44	7	126	41	40	17	Countess*.....	40	43	125	33	20
5	Power's Fife (Minn. 149).....	43	38	133	40	20	18	Colorado.....	40	18	129	31	..
6	Wellman's Fife.....	43	12	131	43	..	19	Laurel*.....	40	14	133	40	20
7	Monarch.....	42	44	130	35	..	20	Pringle's Champlain..	40	1	130	28	..
8	Minnesota No. 163.....	42	24	133	46	..	21	Clyde*.....	39	42	126	30	20
9	McKendry's Fife (Minn. 181).....	42	19	134	43	..	22	Haynes' Blue Stem (Minn. 169).....	39	7	134	43	40
10	White Russian.....	41	50	127	n. sown	..	23	Chester*.....	38	57	128	38	..
11	Weldon*.....	41	24	129	23	20	24	Australian No. 9.....	38	44	130	41	20
12	Red Fern.....	41	11	131	27	40	25	Herisson Bearded....	38	27	132	26	40
13	Dawn*.....	41	9	123	41	40	26	Early Riga*.....	34	51	126	20	..

The average crop of the twenty-six varieties of spring wheat tested on the Experimental Farm at Indian Head in 1905 was 36 bushels 17 lbs. per acre.

## SPRING WHEAT—Continued.

## 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 in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.			Bu. Lbs.	
1	Stanley*	35	14	119	11	20	14	Clyde*	32	16	119	8	30
2	McKendry's Fife (Minn. 181)	34	44	121	9	50	15	Early Riga	32	15	113	11	..
3	Colorado	34	11	118	9	40	16	Minnesota No. 163	32	12	122	10	20
4	Laurel*	33	46	120	10	..	17	Percy*	31	53	117	7	20
5	White Russian	33	27	121	12	40	18	Australian No. 9	31	50	119	10	30
6	Comtess*	33	25	117	12	50	19	Haynes' Blue Stem (Minn. 169)	31	12	121	8	10
7	Red Fife	33	9	120	9	..	20	Wellman's Fife	31	6	121	11	10
8	Monarch	33	4	120	15	20	21	Dawn*	30	36	117	12	20
9	Chester*	32	57	118	13	20	22	Red Fern	30	27	121	10	40
10	White Fife	32	47	119	8	50	23	Huron*	30	26	123	8	20
11	Preston*	32	39	115	5	20	24	Herisson Bearded	30	17	120	14	..
12	Advance*	32	31	115	9	30	25	Pringle's Champlain	28	52	120	5	40
13	Power's Fife (Minn. 149)	32	28	122	5	50	26	Weldon*	28	40	121	9	10

The average crop of the twenty-six varieties of spring wheat tested on the Experimental Farm at Agassiz in 1905 was 10 bushels 2 lbs. per acre, this very low yield being due to the ravages of the wheat midge.

## DURUM OR MACARONI WHEAT.

The results of the tests of varieties of macaroni wheat are published in a separate table, as these wheats possess qualities rather different from those of 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 disfavour 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., April 20; Nappan, N. S., May 13; Brandon, Man., April 10 to 12; Indian Head, Sask., April 6; and at Agassiz, B.C., April 18.

## AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing.	Average yield for 1905.	Varieties tested for less than five years.	Average yield for two years.		Average days maturing.	Average yield for 1905.		
		Bu. Lbs.	Days.				Bu. Lbs.	Days.			Bu. Lbs.	
1	Roumanian	37	55	121	33	32	Yellow Gharovka (2 yrs)	33	2	119	31	20
2	Goose	36	23	119	30	32	Mahmoudi (2 years)	29	3	120	28	4

The average crop of the four varieties of macaroni wheat tested on all the Experimental Farms in 1905 was 31 bushels 37 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 1905.	Varieties tested for less than five years.	Average yield for two years.	Average days maturing.	Yield for 1905.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Roumanian.....	34 34	113	40 20	Yellow Gharnovka (2 yrs)	31 10	105	37 ..
2	Goose.....	26 58	109	20 40	Mahmoudi (2 years).....	23 10	107	20 20

The average crop of the four varieties of macaroni wheat tested on the Central Experimental Farm in 1905 was 29 bushels 35 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 1905.	Varieties tested for less than five years.	Average yield for two years.	Average days maturing.	Yield for 1905.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Roumanian.....	29 4	115	22 ..	Yellow Gharnovka (2 yrs)	15 20	106	16 40
2	Goose.....	25 20	114	17 20	Mahmoudi (2 years).....	11 ..	106	14 ..

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Nappan in 1905 was 17 bushels 30 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 1905.	Varieties tested for less than five years.	Average yield for two years.	Average days maturing.	Yield for 1905.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Goose.....	47 4	126	49 ..	Yellow Gharnovka (2 yrs)	49 30	133	54 ..
2	Roumanian.....	44 24	125	50 ..	Mahmoudi (2 years).....	45 40	136	46 40

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Brandon in 1905 was 49 bushels 40 lbs. per acre.

MACARONI WHEAT—*Continued.*

## AVERAGE YIELD ON THE EXPERIMENTAL FARM AT INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1905.	Varieties tested for less than five years.	Average yield for two years.	Average days maturing.	Yield for 1905.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Goose.....	49 43	130	54 40	Mahmondi (2 years).....	47 25	135	51 20
2	Roumanian.....	47 58	131	46 40	Yellow Gharnovka (2 yrs)	46 52	136	52 ..

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Indian Head in 1905 was 51 bushels 10 lbs. per acre.

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

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1905.	Varieties tested for less than five years.	Average yield for two years.	Average days maturing.	Yield for 1905.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Roumanian .....	33 36	120	8 40	Mahmondi (2 years).....	19 20	117	12 ..
2	Goose.....	32 50	118	11 ..	Yellow Gharnovka (2 yrs)	18 ..	117	8 ..

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Agassiz in 1905 was 9 bushels 55 lbs. per acre. This very low yield was due to the prevalence of the wheat midge *Diplosis tritici* which destroyed a large proportion of the crop.

## EMMER AND SPÉLT.

Two varieties of emmer and two of spelt were sown in the uniform test plots this season. They are arranged in the tables in the order of their yield for two years.

The plots were of the same size as those of spring wheat. The dates of sowing were as follows:—At Ottawa, Ont., April 20; Nappan, N.S., May 13; Brandon, Man., April 10 to 12; Indian Head, Sask. April 8; and at Agassiz, B.C., April 18.

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



## EMMER AND SPELT—Continued.

## AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Average yield for 1905.	Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Average yield for 1905.
		Lbs.	Days.	Lbs.			Lbs.	Days.	Lbs.
1	Common Emmer.....	2,280	117	2,112	3	Red Emmer.....	1,992	121	2,004
2	Red Spelt.....	2,153	121	2,498	4	White Spelt.....	1,915	121	2,468

The average crop of the four varieties of emmer and spelt tested on all the Experimental Farms in 1905 was 2,270 lbs. per acre.

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

Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield for 1905.	Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield for 1905.
		Lbs.	Days.	Lbs.			Lbs.	Days.	Lbs.
1	Red Emmer.....	2,320	109	1,880	3	Common Emmer.....	2,050	102	2,060
2	White Spelt.....	2,070	108	2,400	4	Red Spelt.....	1,930	112	1,620

The average crop of the four varieties of emmer and spelt tested on the Central Experimental Farm in 1905 was 1,990 lbs. per acre.

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

Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield for 1905.	Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield for 1905.
		Lbs.	Days.	Lbs.			Lbs.	Days.	Lbs.
1	Red Spelt.....	1,920	111	2,440	3	Red Emmer.....	1,660	110	1,120
2	White Spelt.....	1,740	111	2,360	4	Common Emmer.....	960	105	880

The average crop of the four varieties of emmer and spelt tested on the Experimental Farm at Nappan in 1905 was 1,700 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM AT BRANDON, MAN.

Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield for 1905.	Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield for 1905.
		Lbs.	Days.	Lbs.			Lbs.	Days.	Lbs.
1	Common Emmer.....	3,490	132	2,840	3	Red Emmer.....	2,640	139	2,500
2	Red Spelt.....	2,750	135	3,500	4	White Spelt.....	1,760	135	2,280

The average crop of the four varieties of emmer and spelt tested on the Experimental Farm at Brandon in 1905 was 2,780 lbs. per acre.

## EMMER AND SPELT—Continued.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM AT INDIAN HEAD, SASK.

Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield in 1905.	Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield in 1905.
		Lbs.	Days.	Lbs.			Lbs.	Days.	Lbs.
1	Common Emmer.....	3,020	130	2,940	3	Red Emmer.....	2,280	132	3,040
2	Red Spelt.....	2,570	132	3,420	4	White Spelt.....	2,230	132	3,340

The average crop of the four varieties of emmer and spelt tested on the Experimental Farm at Indian Head in 1905 was 3,185 lbs. per acre.

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

Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield in 1905.	Number.	Varieties tested for two years.	Average yield for two years.	Average days maturing.	Yield in 1905.
		Lbs.	Days.	Lbs.			Lbs.	Days.	Lbs.
1	Common Emmer.....	1,880	117	1,800	3	Red Emmer.....	1,630	117	1,480
2	White Spelt.....	1,775	117	1,900	4	Red Spelt.....	1,595	117	1,510

The average crop of the four varieties of emmer and spelt tested on the Experimental Farm at Agassiz in 1905 was 1,697 lbs. per acre.

## OATS.

During the season of 1907, thirty-nine 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., April 26 and 27; Nappan, N. S., May 15; Brandon, Man., April 27 and 28; Indian Head, Sask., April 26; and at Agassiz, B. C., April 15.

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.	Average yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Average yield in 1905.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Banner.....	85 24	110	87 20	16	Early Golden Prolific.....	79 18	111	79 28
2	Abundance.....	84 22	110	88 28	17	Golden Giant.....	79 14	111	82 16
3	Lincoln.....	83 30	111	84 28	18	Goldfinder.....	79 ..	111	93 10
4	Danish Island.....	83 3	111	82 18	19	Thousand Dollar.....	78 13	111	78 22
5	Improved American.....	82 22	111	94 11	20	Buckbee's Illinois.....	78 10	111	79 2
6	Siberian.....	82 ..	112	93 18	21	American Beauty.....	77 28	110	79 22
7	Wide Awake.....	81 14	111	79 30	22	Waverley.....	77 13	111	87 22
8	Holstein Prolific.....	81 6	110	83 32	23	Black Beauty.....	76 27	109	81 32
9	White Giant.....	81 2	111	85 16	24	Irish Victor.....	76 22	110	78 16
10	Golden Beauty.....	80 30	111	85 6	25	Joanette.....	76 11	112	86 28
11	Golden Tartarian.....	80 20	115	86 30	26	Improved Ligowo.....	76 9	109	84 24
12	Columbus.....	80 2	111	79 30	27	Sensation.....	76 8	109	77 4
13	Mennonite.....	79 31	109	89 16	28	Pioneer.....	75 11	109	88 24
14	Bavarian.....	79 26	110	89 26	29	Tartar King.....	73 24	108	84 20
15	American Triumph.....	79 25	112	82 24	30	Scotch Potato.....	69 26	112	76 20

## OATS—Continued.

## AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS—Continued.

Varieties tested for less than five years.	Average yield for less than five yrs.		Average yield in 1905.		Varieties tested for less than five years.	Average yield for less than five years.		Average yield in 1905.	
	Bu. Lbs.	Days.	Bu. Lbs.	Days.		Bu. Lbs.	Days.	Bu. Lbs.	Days.
Twentieth Century (4 years).....	84	16	82	26	Swedish Select (3 years)...	77	33	110	80
Golden Fleece (3 years)...	85	3	90	12	Olive Black* (3 years)...	77	9	114	77
Kendal White* (3 years)...	83	13	84	26	Kerdal Black* (3 years)...	75	16	114	73
Milford White* (3 years)	78	13	76	16	Mihord Black* (3 years)...	73	23	113	67
					Storm King (2 years)....	69	8	108	76

The average crop of the thirty nine varieties of oats tested on all the Experimental Farms in 1905 was 83 bushels, 6 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 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1905.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.	Days.	
1	Banner.....	70	32	105	84	4	16	Black Beauty.....	61	18	105	68	28
2	Lincoln.....	70	32	105	73	18	17	Thousand Dollar....	60	32	104	70	20
3	White Giant.....	70	8	107	84	4	18	Buckbee's Illinois....	60	12	106	62	12
4	Mennonite.....	69	30	104	72	12	19	Early Golden Prolific.	60	12	106	71	26
5	American Triumph..	67	30	107	70	..	20	Golden Giant.....	59	30	110	52	12
6	Improved American..	67	22	107	77	22	21	Bavarian †.....	59	16	107	77	22
7	Columbus †.....	67	20	107	64	4	22	Pioneer.....	59	2	105	74	24
8	Golden Beauty.....	67	14	104	70	20	23	Goldfinder.....	58	4	108	71	26
9	Abundance.....	66	24	106	72	32	24	Improved Ligowo....	58	..	105	68	28
10	Wide Awake.....	66	20	106	67	2	25	Joanette.....	57	18	108	63	18
11	Sensation.....	65	26	106	52	32	26	Siberian.....	56	12	108	62	32
12	Holstein Prolific..	65	10	106	71	6	27	Golden Tartarian....	54	8	111	75	10
13	Irish Victor.....	63	6	106	67	22	28	Tartar King.....	52	4	103	65	30
14	Danish Island.....	62	16	106	75	10	29	Waverley.....	51	10	106	68	8
15	American Beauty...	61	22	103	69	14	30	Scotch Potato.....	51	..	108	67	2

Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield in 1905.	Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.		Yield in 1905.
	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.	
Twentieth Century (4 years).....	77	22	106	72	32	Kendal Black* (3 years)	65	30	105	67	22
Milford White* (3 years)	70	33	103	68	8	Golden Fleece † (3 years)	65	9	106	67	2
Swedish Select † (3 years)	69	7	105	67	2	Milford Black* (3 years)	61	6	104	61	26
Kendal White* (3 years)	66	29	104	62	32	Olive Black* (3 years)...	58	21	106	67	22
						Storm King (2 years)....	41	6	100	61	26

The average crop of the thirty-nine varieties of oats tested on the Central Experimental Farm in 1905 was 69 bushels 1 lb. per acre.

## OATS—Continued.

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.				
		Bu. Lbs.	Days.				Bu. Lbs.	Days.					
1	Siberian	83	10	82	12	16	Improved American	73	6	109	72	32	
2	Improved Ligowo	79	10	107	32	32	17	Holstein Prolific	72	32	108	65	10
3	Sensation	78	32	106	77	2	18	Abundance	72	16	107	58	28
4	Liricola	78	24	110	77	30	19	American Beauty	72	..	110	61	6
5	Thousand Dolla	78	..	108	80	..	20	Golden Giant	71	30	114	72	32
6	Banner	77	26	167	75	10	21	Waverley	71	14	108	76	16
7	White Giant	77	2	110	62	32	22	Early Golden Prolific	71	2	109	45	30
8	Mennonite	76	32	169	90	20	23	Golden Beauty	69	30	109	69	14
9	Joanette	76	24	105	83	18	24	Wide Awake	69	22	109	56	16
10	Bavarian	76	8	108	78	28	25	Columbus	68	28	110	62	32
11	Goldfinder	75	10	111	67	2	26	Buckbee's Illinois	67	18	110	70	20
12	Golden Tartarian	75	2	111	62	12	27	Tartar King	65	30	105	59	20
13	Pioneer	75	2	104	77	22	28	Irish Victor	63	26	107	56	16
14	Black Beauty	73	30	101	80	..	29	American Triumph	62	26	114	57	22
15	Danish Island	73	22	110	65	30	30	Scotch Potato	62	20	109	45	30

Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.				
Bu. Lbs.	Days.	Bu. Lbs.	Days.		Bu. Lbs.	Days.	Bu. Lbs.	Days.					
Twentieth Century (4 years)		83	90	107	85	30	Kendal White * (3 years)		65	..	106	64	14
Swedish Set (3 years)		78	1	104	74	4	Kendal Black * (3 years)		61	6	106	55	10
Golden Fleece (3 years)		71	33	106	65	10	Milford Black * (3 years)		60	27	105	47	2
Olive Black * (3 years)		68	28	107	70	..	Milford White * (3 years)		55	17	105	46	16
							Storm King (2 years)		54	4	99	57	22

The average crop of the thirty-nine varieties of oats tested on the Experimental Farm at Nappan in 1905, was 67 bushels, 25 lbs per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.				
		Bu. Lbs.	Days.				Bu. Lbs.	Days.					
1	Improved American	103	18	109	134	4	16	Golden Tartarian	96	..	114	117	22
2	Abundance	103	12	109	121	6	17	Irish Victor	95	28	109	112	32
3	Siberian	103	8	110	118	28	18	Columbus	95	6	108	103	18
4	Wide Awake	102	8	111	117	22	19	Bavarian	94	32	109	121	25
5	Buckbee's Illinois	101	26	111	111	26	20	American Beauty	93	18	108	110	..
6	Early Golden Prolific	101	1	109	112	32	21	Thousand Dollar	92	2	109	105	30
7	Golden Beauty	100	8	110	129	14	22	Mennonite	91	14	106	111	6
8	Danish Island	100	8	109	104	4	23	Goldfinder	91	..	113	132	12
9	Golden Giant	100	8	114	135	10	24	Joanette	88	10	112	107	2
10	Lincoln	99	10	109	108	28	25	Black Beauty	86	22	109	114	4
11	American Triumph	99	2	110	113	18	26	Scotch Potato	86	12	111	114	4
12	Banner	98	24	110	122	12	27	Pioneer	84	8	108	120	20
13	Waverley	97	29	110	118	8	28	Tartar King	84	6	107	115	10
14	Holstein Prolific	97	4	108	114	4	29	Sensation	82	32	108	98	28
15	White Giant	96	14	109	117	2	30	Improved Ligowo	78	26	107	97	22

## OATS—Continued.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.—Continued.

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.	Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.
	Bu. Lbs.	Days.			Bu. Lbs.	Days.	
Twentieth Century (4 yrs)	102	15	95	Milford White* (3 years)	91	6	90
Golden Fleece (3 years)	109	27	125	Milford Black* (3 years)	91	3	82
Kendal White* (3 years)	102	19	114	Swedish Select (3 years)	84	11	104
Olive Black* (3 years)	96	16	117	Storm King (2 years)	83	8	96
Kendal Black* (3 years)	93	11	118				

The average crop of the thirty-nine varieties of oats tested on the Experimental Farm at Brandon in 1905 was 111 bushels, 23 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.	
		Bu. Lbs.	Days.					Bu. Lbs.	Days.			
1	Banner	114	21	112	95	10	16 Early Golden Prolific	100	4	113	109	14
2	Abundance	108	..	112	95	30	17 Mennonite	99	16	111	106	16
3	Danish Island	107	8	111	104	24	18 Thousand Dollar	99	13	110	73	18
4	Golden Beauty	106	17	112	110	20	19 Improved Ligow	98	13	110	101	6
5	Improved American	105	1	112	105	10	20 Irish Victor	97	10	114	98	8
6	Goldfinder	104	24	117	117	22	21 Buckbee's Illinois	96	27	110	101	6
7	Golden Tartarian	103	26	116	111	6	22 Waverley	96	27	113	101	6
8	Wide Awake	103	25	111	99	14	23 Siberian	96	3	116	111	26
9	Columbus	103	17	114	110	20	24 Joannette	95	22	118	111	26
10	American Triumph	103	10	113	110	..	25 White Giant	94	3	111	104	24
11	Golden Giant	102	26	117	104	24	26 Pioneer	93	16	114	112	32
12	American Beauty	101	23	113	101	6	27 Tartar King	92	13	112	110	..
13	Holstein Prolific	101	23	111	101	26	28 Black Beauty	89	26	112	74	24
14	Lincoln	101	..	112	102	12	29 Scotch Potato	89	9	111	107	2
15	Bavarian	100	18	112	100	..	30 Sensation	88	31	111	82	12

Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.	Yield in 1905.	Varieties tested for less than five years.	Average yield for less than five years.		Average days maturing.	Yield in 1905.		
	Bu. Lbs.	Days.				Bu. Lbs.	Days.				
Twentieth Century (1 years)	103	18	116	110	20	Olive Black* (3 years)	101	12	123	92	12
Kendal White* (3 years)	111	19	119	108	28	Swedish Select (3 years)	100	23	117	94	24
Milford White* (3 years)	104	4	120	102	12	Milford Black* (3 years)	100	9	123	81	24
Golden Fleece (3 years)	101	14	123	101	6	Kendal Black* (3 years)	96	29	123	89	14
						Storm King (2 years)	96	16	115	99	14

The average crop of the thirty-nine varieties of oats tested on the Experimental Farm at Indian Head in 1905 was 101 bushels, 19 lbs. per acre.

## OATS—Continued.

## 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 in 1905.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1905.
1	Tartar King.....	74 1	115	89 6	16	Columbus.....	65 8	115	58 6
2	Golden Tartarian...	73 28	129	67 32	17	Buckbee's Illinois...	65 2	118	49 14
3	Abundance.....	73 22	117	95 10	18	Early Golden Prolific...	65 2	116	59 2
4	Black Beauty.....	72 4	114	72 2	19	Improved American...	64 30	117	82 22
5	Danish Island.....	71 30	119	62 22	20	Wide Awake.....	64 29	118	58 26
6	Siberian.....	71 ..	117	91 26	21	Pioneer.....	64 28	113	57 22
7	Waverley.....	69 20	116	74 4	22	Sensation.....	64 20	115	74 14
8	Lincoln.....	69 14	117	63 18	23	Joanette.....	63 16	116	68 8
9	Holstein Prolific....	68 28	116	67 12	24	Irish Victor.....	63 5	116	57 2
10	Bavarian.....	67 20	116	70 20	25	Golden Giant.....	62 19	119	47 2
11	White Giant.....	67 18	117	58 16	26	Mennonite.....	61 29	114	66 26
12	Improved Ligowo....	66 32	116	62 32	27	Thousand Dollar....	61 20	117	63 8
13	Banner.....	66 16	116	60 28	28	Golden Beauty.....	60 15	118	45 30
14	Goldfinder.....	65 32	118	77 22	29	American Beauty....	60 8	118	56 16
15	American Triumph....	65 24	117	62 12	30	Scotch Potato.....	59 22	118	48 28

Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1905.	Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1905.
Twentieth Century (4 years).....	55 7	114	49 4	Olive Black * (3 years) ..	61 2	115	60 18
Golden Fleece (3 years)...	77 2	116	92 32	Kendal Black * (3 years)...	60 3	116	59 32
Kendal White* (3 years)...	70 33	117	80 ..	Swedish Select (3 years)...	57 23	114	61 4
Milford White* (3 years)...	70 5	115	74 24	Milford Black * (3 years)...	55 3	114	60 8
				Storm King (2 years)....	61 6	111	69 14

The average crop of the thirty-nine varieties of oats tested on the Experimental Farm, at Agassiz, in 1905, was 65 bushels, 31 lbs. per acre.

## SIX-ROWED BARLEY.

During the season of 1905, eighteen varieties of six-rowed barley have been under test. The plots were of the same size as 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., April 26; Nappan, N.S., May 16; Brandon, Man., May 16 to 23; Indian Head, Sask., April 29; and at Agassiz, B.C., April 15.

In Canada the bushel of barley is 48 lbs.

## SIX-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.	Average yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Average yield in 1905.
		Bu. Lbs.	Days	Bu. Lbs.			Bu. Lbs.	Days	Bu. Lbs.
1	Mensury	56 38	97	63 22	10	Summit*	51 47	99	53 40
2	Odessa	54 37	96	55 12	11	Empire	51 11	98	50 16
3	Nugent*	54 2	100	59 36	12	Manfield*	50 44	98	54 46
4	Stella	53 2	100	59 22	13	Trooper*	50 38	98	50 28
5	Brome*	52 46	99	57 14	14	Royal*	50 37	97	49 36
6	Claude*	52 43	98	54 16	15	Albert*	50 22	97	50 12
7	Common	52 35	95	57 8	16	Argyle*	50 3	98	55 20
8	Yale	52 27	99	53 44	17	Rennie's Improved	49 4	95	54 22
9	Oberbrueh	52 5	96	56 8	18	Champion	49 38	93	49 12

The average crop of the eighteen varieties of six-rowed barley tested on all the Experimental Farms in 1905 was 54 bushels 28 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 1905.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1905.
		Bu. Lbs.	Days	Bu. Lbs.			Bu. Lbs.	Days	Bu. Lbs.
1	Stella*	53 26	94	55 20	10	Albert*	45 34	95	70 40
2	Odessa	52 2	93	66 12	11	Oberbrueh	45 14	95	68 16
3	Nugent*	51 34	96	72 24	12	Claude*	43 10	96	62 24
4	Mensury	51 8	93	71 12	13	Royal*	42 10	95	54 28
5	Trooper*	47 42	93	69 8	14	Argyle*	41 26	96	56 12
6	Yale*	47 42	95	49 28	15	Rennie's Improved	40 46	93	43 16
7	Brome*	47 24	95	61 12	16	Empire*	39 30	95	42 4
8	Summit*	46 42	93	63 36	17	Manfield*	34 12	96	46 32
9	Common	46 6	92	65 20	18	Champion	33 36	92	40 ..

The average crop of the eighteen varieties of six-rowed barley tested on the Central Experimental Farm in 1905 was 58 bushels 40 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 1905.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1905.
		Bu. Lbs.	Days	Bu. Lbs.			Bu. Lbs.	Days	Bu. Lbs.
1	Common	56 16	92	47 24	10	Brome*	48 16	97	49 8
2	Mensury	52 40	95	48 46	11	Yale*	47 24	97	33 16
3	Oberbrueh	52 8	92	34 8	12	Nugent	47 24	96	31 32
4	Empire*	50 40	95	44 32	13	Argyle*	45 32	93	37 24
5	Royal*	49 24	94	39 8	14	Rennie's Improved	44 36	92	34 28
6	Odessa	49 20	92	31 12	15	Claude*	44 28	93	34 42
7	Albert*	49 8	92	49 8	16	Summit*	41 12	98	38 26
8	Stella*	49 8	98	45 ..	17	Manfield*	44 8	96	30 40
9	Trooper*	49 4	93	34 28	18	Champion	43 40	91	38 16

The average crop of the eighteen varieties of six-rowed barley tested on the Experimental Farm at Nappan in 1905 was 38 bushels 33 lbs. per acre.

## SIX-ROWED BARLEY—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 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1905.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.
1	Mansfield*	61	34	91	77	24	10	Empire*	53	24	93	55	40		
2	Mansury	60	8	91	75	20	11	Albert*	52	30	90	66	12		
3	Yale*	59	16	93	63	36	12	Oderbruch	51	12	90	65	40		
4	Summit*	57	34	93	64	28	13	Trooper*	51	12	94	53	16		
5	Brome*	55	10	94	62	4	14	Rennie's Improved	50	..	89	66	32		
6	Claude*	55	4	93	58	16	15	Common	49	44	88	60	..		
7	Nugent*	55	2	93	60	20	16	Stella*	49	44	93	63	26		
8	Argyle*	55	..	92	67	4	17	Royal*	48	26	90	50	..		
9	Odessa	51	10	90	68	16	18	Champion	35	5	87	42	44		

The average crop of the eighteen varieties of six-rowed barley tested on the Experimental Farm at Brandon in 1905 was 62 bushels 16 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1905.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.
1	Claude*	67	44	161	71	8	10	Common	58	40	98	65	20		
2	Odessa	65	44	100	62	4	11	Brome*	58	31	102	61	12		
3	Nugent*	62	4	106	78	36	12	Trooper*	58	15	99	62	24		
4	Mansfield*	61	1	99	70	..	13	Yale*	57	34	102	73	16		
5	Mansury	60	46	99	69	8	14	Rennie's Impr. yd.	56	19	98	63	16		
6	Summit*	60	28	104	62	44	15	Oderbruch	55	21	97	62	24		
7	Stella*	60	23	102	82	44	16	Argyle*	54	28	100	62	4		
8	Royal*	60	16	99	66	40	17	Albert*	50	26	99	57	21		
9	Empire*	59	8	102	62	24	18	Champion	41	15	95	36	12		

The average crop of the eighteen varieties of six-rowed barley tested on the Experimental Farm at Indian Head in 1905 was 64 bushels, 41 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 in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1905.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.
1	Mansury	58	38	106	53	6	10	Royal*	53	12	105	44	8		
2	Oderbruch	56	20	104	50	..	11	Empire*	53	..	107	49	28		
3	Brome*	54	18	107	52	34	12	Common	52	20	105	47	24		
4	Albert*	51	..	107	52	24	13	Odessa	52	11	104	48	16		
5	Nugent*	53	44	109	55	20	14	Stella*	52	6	111	50	10		
6	Claude*	53	32	106	45	20	15	Summit*	50	24	109	39	8		
7	Argyle*	53	24	107	54	8	16	Yale*	50	20	109	49	28		
8	Mansfield*	53	20	108	46	32	17	Champion	49	46	102	45	10		
9	Rennie's Improved	53	16	104	49	8	18	Trooper*	47	20	111	33	16		

The average crop of the eighteen varieties of six-rowed barley tested on the Experimental Farm at Agassiz in 1905 was 53 bushels, 8 lbs. per acre.



## TWO ROWED BARLEY.

Fourteen varieties of two rowed barley were tested, during the season of 1905, 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., April 25; Nappan, N.S., May 16; Brandon, Man., May 16 to 23; Indian Head, Sask., April 27 and 29; and at Agassiz, B.C., April 15.

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.	Average yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Average yield in 1905.
		Bu. Lbs.	Days.	Bu. Lbs.				Days.	Bu. Lbs.	Days.	
1	French Chevalier	54	2	103	52 34	8	Harvey	46	3	100	48 15
2	Danish Chevalier	50	10	103	51 28	9	Logan	45	25	100	43
3	Standwell	50	1	104	49 24	10	Clifford	45	24	99	47
4	Canadian Thorpe	48	32	102	48	11	Sidney	45	23	99	43 12
5	Beaver	48	36	101	54 16	12	Newton	45	6	103	47 24
6	Invincible	48	6	103	51 32	13	Dunham	45	2	100	44 20
7	Gordon	46	32	100	47 36	14	Jarvis	44	46	99	46 42

The average crop of the fourteen varieties of two rowed barley tested on all the Experimental Farms in 1905 was 48 bushels, 3 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 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.
		Bu. Lbs.	Days.	Bu. Lbs.				Days.	Bu. Lbs.	Days.	
1	French Chevalier	51	22	98	60	8	Jarvis	41	2	95	46 12
2	Danish Chevalier	48	49	98	62 44	9	Invincible	40	36	100	45
3	Canadian Thorpe	48	10	99	42 24	10	Logan	40	6	99	50
4	Standwell	44	24	99	54 8	11	Sidney	38	2	97	42 24
5	Beaver	44	2	95	47 24	12	Newton	36	40	100	33 16
6	Gordon	42	22	97	41 12	13	Harvey	36	26	100	50
7	Clifford	42	8	97	53 16	14	Dunham	35	26	99	40 40

The average crop of the fourteen varieties of two rowed barley tested on the Central Experimental Farm in 1905 was 47 bushels 40 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.		Yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	Danish Chevalier	52 34	97	42 44	8	Harvey*	39 32	97	39 8
2	French Chevalier	50 4	97	44 28	9	Invincible	39 26	98	35 20
3	Beaver*	49 16	95	43 16	10	Standwell	39 24	99	25 ..
4	Newton	41 44	97	38 36	11	Sidney*	39 ..	97	35 ..
5	Canadian Thorpe	42 8	98	34 8	12	Clifford*	37 34	97	33 16
6	Logan*	40 49	97	38 16	13	Gordon*	36 16	97	35 40
7	Dunham*	39 36	97	34 28	14	Jarvis*	34 8	96	36 32

The average crop of the fourteen varieties of two-rowed barley tested on the Experimental Farm at Nappan in 1905 was 36 bushels, 45 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	Harvey*	52 12	93	53 16	8	Invincible	44 38	94	53 36
2	Gordon*	51 17	95	67 44	9	Sidney*	44 24	94	48 16
3	Dunham*	51 14	92	53 36	10	French Chevalier	43 22	96	62 4
4	Jarvis*	50 38	92	63 36	11	Canadian Thorpe	42 36	95	56 32
5	Logan*	49 16	94	52 44	12	Danish Chevalier	42 32	97	60 40
6	Clifford*	48 6	93	54 8	13	Beaver*	42 4	96	54 28
7	Standwell	46 19	96	59 28	14	Newton	39 26	96	53 16

The average crop of the fourteen varieties of two-rowed barley tested on the Experimental Farm at Brandon in 1905 was 57 bushels, 24 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
1	Standwell	66 34	110	62 4	8	Beaver*	54 5	107	75 ..
2	Invincible	66 26	109	74 28	9	Jarvis*	53 25	101	50 ..
3	Danish Chevalier	58 14	111	55 20	10	Clifford*	53 20	99	51 32
4	Sidney*	53 33	98	51 12	11	Harvey*	52 15	99	47 24
5	Canadian Thorpe	68 18	105	55 ..	12	Newton	52 10	110	57 4
6	French Chevalier	56 14	111	50 20	13	Logan*	50 47	101	47 44
7	Gordon*	55 19	100	64 28	14	Dunham*	45 29	102	41 32

The average crop of the fourteen varieties of two-rowed barley tested on the Experimental Farm at Indian Head in 1905 was 56 bushels, 1 lb. per acre.

## TWO-ROWED BARLEY—Continued.

## 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 in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1905.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.		
1	Canadian Thorpe.....	54	42	112		51	32	8	Sidney*.....	49	10	114		39	8
2	Beaver*.....	54	8	112		51	12	9	Invincible.....	48	43	113		49	28
3	Dunham*.....	53	..	112		36	12	10	Danish Chevalier.....	48	24	114		35	40
4	Standwell.....	52	36	114		46	32	11	Gordon*.....	47	37	110		29	8
5	Newton.....	52	4	111		55	..	12	Logan*.....	46	14	111		25	40
6	French Chevalier.....	50	44	115		46	22	13	Jarvis*.....	46	14	110		37	34
7	Harvey*.....	49	24	109		41	32	14	Clifford*.....	46	4	109		42	24

The average crop of the fourteen varieties of two-rowed barley tested on the Experimental Farm at Agassiz in 1905 was 42 bushels, 3 lb. per acre.

## PEASE.

Twenty-six 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., April, 28; Nappan, N.S., May 23; Brandon, Man., April 19 and 20; Indian Head, Sask., May 2; and at Agassiz, B.C., April 18.

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.		Average yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Average yield in 1905.	
		Bu. Lbs.	Days.	Bu. Lbs.	Days.	Bu. Lbs.	Days.			Bu. Lbs.	Days.	Bu. Lbs.	Days.		
1	Mackay*.....	41	2	120		42	50	14	Victoria*.....	38	31	122		38	..
2	English Grey.....	40	54	119		44	36	15	Archer.....	38	30	120		35	16
3	Early Britain.....	49	54	116		43	4	16	German White.....	38	30	116		40	8
4	Agnes*.....	40	12	117		40	23	17	Carlton*.....	38	26	120		37	32
5	Prince*.....	40	5	119		38	54	18	Pearl*.....	38	24	120		36	24
6	Golden Vine.....	39	57	116		44	8	19	Prussian Blue.....	38	19	115		36	20
7	Arthur*.....	39	52	115		37	19	20	Nelson*.....	38	12	115		37	..
8	Gregory*.....	39	49	119		43	52	21	Kent*.....	38	1	121		37	48
9	White Wonder.....	39	27	114		45	22	22	Prince Albert.....	37	54	119		36	58
10	Macoun*.....	39	23	120		35	8	23	Daniel O'Rourke.....	37	48	115		37	32
11	Pieton*.....	39	15	117		39	56	24	Wisconsin Blue.....	37	34	118		36	16
12	White Marrowfat.....	38	58	149		39	28	25	Duke*.....	37	33	120		40	44
13	Chancellor.....	38	56	114		45	56	26	Blk eye Marrowfat.....	37	30	118		40	16

The average crop of the twenty six varieties of pease tested on all the Experimental Farms in 1905 was 39 bushels, 39 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 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.			Bu. Lbs.	
1	Golden Vine.....	36	41	110	39	40	11	Agnes*.....	31	52	110	38	20
2	Victoria*.....	35	..	117	38	..	15	Pearl*.....	31	40	111	37	20
3	Mackay*.....	31	44	111	34	..	16	Nelson*.....	31	..	107	22	40
4	White Wonder.....	31	44	107	48	40	17	Arthur*.....	30	56	109	27	40
5	Prince*.....	34	32	111	35	40	18	Early Britain.....	30	56	112	36	40
6	Prussian Blue.....	34	16	109	34	..	19	Duke*.....	30	48	112	35	..
7	English Grey.....	34	..	113	35	40	20	Archer*.....	30	24	114	25	..
8	Pieton*.....	33	56	111	39	..	21	Wisconsin Blue.....	30	8	112	29	40
9	Chancellor.....	33	20	107	38	20	22	German White.....	30	4	108	41	20
10	Kent*.....	33	4	113	27	..	23	White Marrowfat.....	29	48	112	29	..
11	Daniel O'Rourke.....	32	36	109	29	40	24	Blk-eye Marrowfat.....	29	32	114	31	..
12	Gregory*.....	32	28	113	41	40	25	Carleton*.....	28	12	113	30	..
13	Prince Albert.....	31	56	113	25	29	26	Macoun*.....	28	8	115	27	..

The average crop of the twenty six varieties of pease tested on the Central Experimental Farm in 1905, was 33 bushels, 45 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 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.		
		Bu. Lbs.	Days.					Bu. Lbs.	Days.			Bu. Lbs.	
1	Agnes*.....	35	41	115	24	40	14	Blk-eye Marrowfat.....	30	16	114	34	..
2	Archer*.....	35	32	114	21	20	15	Duke*.....	29	52	113	40	30
3	Arthur*.....	35	12	110	30	40	16	Pearl*.....	29	48	116	25	40
4	Nelson*.....	34	24	111	38	..	17	Golden Vine.....	29	28	111	30	..
5	Prince Albert.....	33	21	114	31	..	18	Pieton*.....	29	8	114	31	30
6	White Marrowfat.....	32	52	111	35	40	19	German White.....	28	56	111	28	..
7	Gregory*.....	32	32	116	26	40	20	Kent*.....	28	32	116	25	20
8	Macoun*.....	32	32	115	19	20	21	Wisconsin Blue.....	28	24	114	26	..
9	Mackay*.....	31	12	116	26	20	22	Early Britain.....	27	36	109	24	..
10	English Grey.....	31	12	115	37	20	23	Prince*.....	27	28	112	21	..
11	Carleton*.....	31	4	115	26	40	24	Prussian Blue.....	27	20	110	21	40
12	Victoria*.....	30	40	119	15	20	25	Daniel O'Rourke.....	26	48	109	30	..
13	Chancellor.....	30	20	105	31	40	26	White Wonder.....	25	12	109	31	..

The average crop of the twenty-six varieties of pease tested on the Experimental Farm at Nappan, in 1905, was 28 bushels, 40 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 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.	
		Bu.	Lbs.		Bu.	Lbs.			Bu.	Lbs.		Bu.	Lbs.
1	Macoun *	48	54	131	29	50	14	German White	44	4	127	40	..
2	Early Britain	48	54	125	51	40	15	Gregory	43	28	131	44	..
3	Mackay *	47	41	130	45	40	16	Carleton *	43	20	132	31	40
4	Victoria *	47	18	133	36	20	17	White Marrowfat	43	18	132	38	..
5	Pearl *	47	..	134	40	20	18	Prussian Blue	41	34	124	42	..
6	Wisconsin Blue	46	54	125	41	40	19	Agnes *	41	26	128	37	..
7	Picton *	45	30	126	37	40	20	Prince Albert	41	26	134	33	20
8	Golden Vine	45	24	126	40	40	21	Daniel O'Rourke	41	26	128	35	40
9	English Grey	45	4	132	41	40	22	Kent *	41	20	133	38	..
10	Prince *	45	..	137	45	..	23	Duke *	40	30	130	37	40
11	White Wonder	44	44	122	44	20	24	Chancellor	39	22	119	41	20
12	Arthur *	44	30	125	40	20	25	Nelson *	38	58	124	31	..
13	Archer *	44	19	133	31	20	26	Blk-eye Marrowfat	38	12	124	38	20

The average crop of the twenty-six varieties of pease tested on the Experimental Farm at Brandon, in 1905 was 39 bushels, 1 lb. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1905.	
		Bu.	Lbs.		Bu.	Lbs.			Bu.	Lbs.		Bu.	Lbs.
1	Daniel O'Rourke	54	50	112	57	..	14	Kent *	48	54	120	70	..
2	Early Britain	52	38	116	55	40	15	Golden Vine	48	42	115	67	40
3	Chancellor	52	18	115	60	20	16	Arthur *	47	46	114	45	40
4	Prussian Blue	52	18	115	53	..	17	Archer *	47	18	119	56	20
5	English Grey	51	42	116	58	20	18	Macoun *	47	6	120	56	20
6	Prince *	51	38	116	48	40	19	German White	46	54	116	42	40
7	Gregory	51	18	118	62	..	20	Duke *	46	34	119	59	50
8	Picton *	50	54	114	56	..	21	Nelson *	46	34	118	57	40
9	Carleton	50	54	120	58	..	22	Pearl *	46	30	118	52	..
10	Agnes *	50	50	115	61	40	23	Wisconsin Blue	45	30	119	47	40
11	Black-eye Marrowfat	50	46	118	57	..	24	White Marrowfat	43	42	118	51	..
12	White Wonder	50	42	111	57	40	25	Prince Albert	42	50	117	56	40
13	Mackay *	49	46	121	65	40	26	Victoria *	41	22	119	58	..

The average crop of the twenty-six varieties of pease tested on the Experimental Farm at Indian Head, in 1905 was 56 bushels, 59 lbs. per acre:

PEASE—*Concluded.*

## 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 in 1905.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1905.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.		
1	White Marrowfat.....	45	10	121	43	40	14	Golden Vine.....	39	26	120	42	40
2	Early Britain.....	44	26	116	47	29	15	Gregory.....	39	18	118	43	20
3	German White.....	42	31	117	48	40	16	Chancellor.....	39	18	122	48	40
4	English Grey.....	42	30	117	50	..	17	Blk eye Marrowfat...	38	41	119	41	..
5	White Wonder.....	41	54	119	42	19	18	Carleton.....	38	42	120	41	26
6	Mackay.....	41	52	121	42	19	19	Kent.....	38	16	121	28	40
7	Prince.....	41	46	120	41	10	20	Victoria.....	38	16	121	42	20
8	Agnes.....	41	6	120	40	30	21	Pearl.....	37	..	121	26	40
9	Arthur.....	40	54	114	41	30	22	Wisconsin Blue.....	36	56	121	36	20
10	Macoun.....	40	14	121	43	19	23	Pieton.....	36	46	121	34	..
11	Duke.....	40	2	124	39	20	24	Prussian Blue.....	36	8	118	23	..
12	Nelson.....	40	2	117	35	40	25	Archer.....	35	4	122	39	20
13	Prince Albert.....	39	56	119	38	30	26	Daniel O'Rourke.....	33	20	115	35	20

The average crop of the twenty-six varieties of pease tested on the Experimental Farm at Agassiz in 1905 was 40 bushels, 3 lbs. per acre.

## INDIAN CORN.

The number of varieties of Indian corn tested in 1905 was twenty. 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., May 22; Nappan, N.S., June 9; Brandon, Man., May 19; Indian Head, Sask., May 19; and at Agassiz, B.C., April 18.

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. 11; Nappan, N.S., Sept. 29; Brandon, Man., Sept. 4; Indian Head, Sask., Sept. 8; and at Agassiz, B.C., Sept. 26.

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 2,000 lbs.

## INDIAN CORN—Continued.

## AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Thoroughbred White Flint	22	400	24	1230	10	Mammoth Cuban	17	1960	19	918
2	Salzer's All Gold	20	448	22	1188	11	Champion White Pearl	17	1688	19	118
3	Superior Fodder	19	1699	23	847	12	Longfellow	17	1490	23	1496
4	Pride of the North	19	1368	26	1281	13	Angel of Midnight	17	1132	20	1089
5	Red Cob Ensilage	19	865	23	1740	14	North Dakota White	17	632	21	262
6	Giant Prolific Ensilage	19	688	21	548	15	White Cap Yellow Dent	17	627	19	610
7	Compton's Early	18	1593	22	1012	16	Selected Leaning	16	1663	21	831
8	Early Butler	18	1016	21	896	17	Cloud's Early Yellow	16	703	19	258
9	Early Mastodon	18	984	20	568	18	Evergreen Sugar	15	941	18	40
Varieties tested for less than five years.		Average yield for less than five years.		Average yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Average yield in 1905.	
Eureka (4 years)		20	1003	25	600	King Philip (4 years)		17	1992	20	370

The average crop of the twenty varieties of Indian corn tested on all the Experimental Farms in 1905 was 21 tons 1,397 lbs. per acre.

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Thoroughbred White Flint	21	1981	33	880	10	Mammoth Cuban	21	1098	26	1900
2	Superior Fodder	21	1481	32	900	11	Cloud's Early Yellow	21	1076	32	1310
3	Giant Prolific Ensilage	21	763	29	1620	12	Selected Leaning	21	944	31	700
4	Salzer's All Gold	23	1388	29	1620	13	Compton's Early	21	801	28	1316
5	Early Butler	23	1058	28	1750	14	Champion White Pearl	20	1745	27	1880
6	Early Mastodon	23	915	30	60	15	Evergreen Sugar	19	1864	29	520
7	Red Cob Ensilage	23	486	32	1150	16	North Dakota White	19	1534	26	1900
8	Pride of the North	22	1948	33	1650	17	Longfellow	19	1292	31	920
9	White Cap Yellow Dent	21	1298	27	450	18	Angel of Midnight	17	1919	27	450
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
Eureka (4 years)		27	1275	37	1130	King Philip (4 years)		21	1670	30	910

The average crop of the twenty varieties of Indian corn tested on the Central Experimental Farm at Ottawa in 1905 was 30 tons 868 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 in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Thoroughbred White Flint	23	176	30	1690	10	Selected Learning	17	1706	24	1830
2	Salzer's All Gold	20	304	27	670	11	Compton's Early	17	1068	22	1320
3	Red Cob Ensilage	20	128	28	1200	12	Mammoth Cuban	17	980	22	770
4	Giant Prolific Ensilage	19	1091	24	950	13	Evergreen Sugar	17	436	23	1850
5	Early Mastodon	19	170	25	1700	14	Cloud's Early Yellow	17	354	24	70
6	Longfellow	18	1902	26	20	15	Angel of Midnight	16	1962	22	1460
7	Pride of the North	18	1710	27	450	16	White Cap Yellow Dent	15	956	18	1400
8	Superior Fodder	18	891	22	550	17	Champion White Pearl	16	934	20	150
9	Earl Butler	18	520	23	1520	18	North Dakota White	15	1130	22	1100
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Eureka (4 years)		21	1780	29	850	King Philip (4 years)		18	135	22	770

The average crop of the twenty varieties of Indian corn tested on the Experimental Farm at Nappan in 1905 was 24 tons 1011 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Thoroughbred White Flint	22	1,646	19	808	10	Earl Butler	18	1,118	22	1,104
2	Superior Fodder	20	1,105	464		11	Pride of the North	18	643	23	290
3	Longfellow	20	297	80		12	Giant Prolific Ensilage	18	326	15	1,680
4	Salzer's All Gold	19	1,412	240		13	Early Mastodon	17	426	15	1,680
5	Champion White Pearl	19	57	1,720		14	Mammoth Cuban	17	109	11	1,760
6	North Dakota White	19	438	880		15	White Cap Yellow Dent	16	1,686	13	1,720
7	Compton's Early	18	1,390	160		16	Selected Learning	16	578	19	280
8	Angel of Midnight	18	1,541	1,744		17	Cloud's Early Yellow	15	1,126	13	1,720
9	Red Cob Ensilage	18	1,382	1,600		18	Evergreen Sugar	14	538	11	1,700
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Eureka (4 years)		21	37	23	1,520	King Philip (4 years)		18	828	18	960

The average crop of the twenty varieties of Indian corn tested on the Experimental Farm at Brandon in 1905 was 19 tons, 1,019 lbs. per acre.



## INDIAN CORN—Continued.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Angel of Midnight	17	1,526	13	950	10	Champ White Pearl	14	937	14	50		
2	Salzer's All Gold	17	1,486	16	1,550	11	Red Cob Ensilage	14	772	18	850		
3	Pride of the North	16	842	19	500	12	White Cap Yellow Dent	14	565	14	600		
4	Thoroughbred White Flint	16	652	17	650	13	Early Mastodon	13	1,896	13	400		
5	Compton's Early	16	503	17	650	14	Mammoth Cuban	13	1,594	14	600		
6	North Dakota White	15	1,368	15	1,370	15	Early Butler	13	1,572	11	1,100		
7	Giant Prolific Ensilage	15	690	14	50	16	Selected Leaming	13	770	18	300		
8	Superior Fodder	15	510	19	1,600	17	Evergreen Sugar	13	259	12	1,850		
9	Longfellow	14	1,273	13	1,500	18	Cloud's Early Yellow	12	655	11			
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.			
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.		
Eureka (1 year)		15	481	19	1,600	King Philip (4 years)		14	655	13	400		

The average crop of the twenty varieties of Indian corn tested on the Experimental Farm at Indian Head in 1905 was 15 tons, 828 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 in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Thoroughbred White Flint	23	1,542	22	1,210	10	Early Butler	18	960	20	700		
2	Pride of the North	21	1,576	29	1,620	11	Champion White Pearl	18	256	19	940		
3	Red Cob Ensilage	20	1,558	19	1,600	12	White Cap Yellow Dent	17	628	22	880		
4	Superior Fodder	20	504	19	720	13	Angel of Midnight	16	692	13	840		
5	Mammoth Cuban	20	18	21	1,560	14	North Dakota White	16	692	18	80		
6	Salzer's All Gold	19	1,622	17	1,860	15	Longfellow	15	778	18	960		
7	Compton's Early	19	1,604	18	1,620	16	Selected Leaming	15	316	13	1,060		
8	Giant Prolific Ensilage	19	566	22	440	17	Cloud's Early Yellow	15	301	14	160		
9	Early Mastodon	18	1,510	16	1,900	18	Evergreen Sugar	12	1,612	12	220		
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.			
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.		
Eureka (4 years)		16	1,440	15	1,900	King Philip (4 years)		16	670	16	780		

The average crop of the twenty varieties of Indian corn tested on the Experimental Farm at Agassiz, in 1905 was 18 tons, 1,307 lbs. per acre.

## FIELD ROOTS.

In the previous issues of this Annual Crop Bulletin the results have been given of two sowings of roots at each farm, the second sowing having always been made about two weeks later than the first. Except in a few cases (chiefly at Indian Head where the young plants of the first sowing have been injured by unfavourable weather or by destructive insects) a considerably greater yield has almost invariably been obtained from the plots earliest sown. This applies to all the kinds of field roots here reported upon. In turnips and mangels the gain from early sowing, taking the average of all the experimental farms for the five years ending 1904, was more than five tons per acre; while in carrots it was more than three tons and in sugar beets nearly three tons per acre. On the experimental farms at Ottawa and Nappan the average gains from early sowing have in most instances been considerably greater than those just mentioned.

The increased yields obtained by early sowing having been so fully demonstrated it has been thought unnecessary to continue the publication in this bulletin of the returns from the second sowings. They will be found in the annual report of the Experimental Farms.

## TURNIPS.

Twenty varieties were tested in 1905, sown in drills, or on the flat, 2½ feet apart. The dates of sowing were as follows:—Ottawa, Ont., May 10; Nappan, N.S., May 25; Brandon, Man., May 20; Indian Head, Sask., May 17; and at Agassiz, B.C., May 15

The dates of pulling were as follows:—Ottawa, Oct. 25; Nappan, Oct. 16; Brandon, Oct. 14, Indian Head, Oct. 23; and at Agassiz, Oct. 30.

In Canada the ton is 2,000 lbs.

## AVERAGE YIELD AT ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.		Average yield for five years.		Number.	Varieties tested for five years.		Average yield for five years.			
	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.		
1	Perfection Swede	32	1569	30	1609	10	Mammoth Clyde	30	1612	27	469
2	Magnum Bonum	32	942	30	417	11	Kangaroo	30	1534	26	1298
3	Hall's Westbury	32	290	29	2	12	Elephant's Master	30	1327	26	1363
4	Carter's Elephant	31	1716	31	533	13	Skirvings	30	1208	28	528
5	Halewood's Bronze Top	31	1398	29	252	14	Bangholm Selected	30	981	28	1113
6	Emperor Swede	31	1071	29	958	15	Drummond Purple Top	30	623	24	1760
7	Jumbo	31	931	28	1105	16	Selected Purple Top	29	1972	27	1522
8	Imperial Swede	31	93	27	71	17	East Lothian	29	1537	26	1203
9	Hartley's Bronze	30	1719	28	1923	18	Sutton's Champion	29	1516	29	304
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Average yield for 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Good Luck (4 years)		32	1522	29	636	New Century (4 years)		30	499	28	901

The average yield of the twenty varieties of turnips tested on all the Experimental Farms in 1905, was 28 tons, 795 lbs. per acre.

## TURNIPS—Continued.

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Emperor Swede.....	37	1,912	32	1,400	10	Hartley's Bronze.....	34	1,269	32	1,300
2	Jumbo.....	37	1,777	34	1,190	11	Imperial Swede.....	34	739	23	200
3	Kangaroo.....	37	1,536	34	800	12	Carter's Elephant.....	34	535	30	1,600
4	Magnum Bonum.....	36	1,523	31	500	13	Perfection Swede.....	34	422	26	500
5	Manmoth Clyde.....	36	197	33	1,700	14	East Lothian.....	33	731	27	1,300
6	Halewood's BronzeTop	36	27	29	600	15	Selected Purple Top...	32	1,988	30	1,900
7	Drummond Purple Top	35	680	24	400	16	Bangholm Selected....	32	971	26	1,110
8	Hall's Westbury.....	35	205	27	1,100	17	Skirvings.....	31	1,878	28	1,700
9	Elephant's Master....	34	1,748	29	1,000	18	Sutton's Champion....	31	1,333	31	1,400
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Good Luck (4 years)....		39	1,481	29	1,700	New Century (4 years)...		39	1,350	34	1,900

The average yield of the twenty varieties of turnips tested on the Central Experimental Farm at Ottawa in 1905 was 30 tons, 1,060 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 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede.....	43	560	41	688	19	Elephant's Master.....	39	270	35	1,592
2	Hartley's Bronze.....	41	1,163	40	1,624	11	Imperial Swede.....	39	62	25	376
3	Carter's Elephant.....	41	579	40	256	12	Jumbo.....	38	1,836	34	1,824
4	Magnum Bonum.....	41	310	43	994	13	Drummond Purple Top	38	1,818	39	888
5	Selected Purple Top....	40	102	39	432	14	Bangholm Selected....	38	1,698	37	328
6	Kangaroo.....	39	1,884	35	1,896	15	Hall's Westbury.....	38	978	37	1,848
7	Manmoth Clyde.....	39	641	35	1,288	16	Sutton's Champion....	37	1,324	34	400
8	Emperor Swede.....	39	423	41	80	17	Skirvings.....	37	411	39	1,344
9	Halewood's BronzeTop	39	351	35	832	18	East Lothian.....	36	345	39	584
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Good Luck (4 years)....		42	357	39	1,040	New Century (4 years)...		37	466	34	1,008

The average yield of the twenty varieties of turnips tested on the Experimental Farm at Nappan in 1905 was 38 tons, 466 lbs. per acre.

## TURNIPS—Continued.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Magnum Bonum	29	1,661	26	8	10	Elephant's Master	26	1,962	29	311
2	Hall's Westbury	29	238	27	1,110	11	Imperial Swede	26	1,750	30	456
3	Bangholm Selected	28	971	33	792	12	Mammoth Clyde	26	1,381	26	1,328
4	Skirvings	28	350	25	1,744	13	Kangaroo	26	430	18	1,221
5	Sutton's Champion	28	285	30	1,248	14	Halewood's Bronze Top	26	378	27	912
6	Hartley's Bronze	27	1,176	29	1,928	15	East Lottian	26	325	25	160
7	Perfection Swede	27	806	29	872	16	Drummond Purple Top	25	1,955	26	536
8	Jumbo	27	11	25	688	17	Selected Purple Top	24	1,471	24	48
9	Carter's Elephant	27	13	30	981	18	Emperor Swede	21	1,104	29	80
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Good Luck (1 years)....		32	350	29	1,100	New Century (4 years)...		28	100	30	192

The average yield of the twenty varieties of turnips tested on the Experimental Farm at Brandon in 1905 was 27 tons, 1,519 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede	27	3	31	436	10	Jumbo	22	1,601	26	1,196
2	Halewood's Bronze Top	26	774	38	1,481	11	Hartley's Bronze	22	1,591	21	1,956
3	Hall's Westbury	25	1,853	32	1,868	12	Carter's Elephant	22	1,063	34	1,168
4	Skirvings	24	1,112	30	1,776	13	Bangholm Selected	22	609	29	1,664
5	Sutton's Champion	21	326	33	1,980	14	Drummond Purple Top	21	1,794	22	748
6	Emperor Swede	23	1,954	30	729	15	Mammoth Clyde	21	1,326	21	240
7	Selected Purple Top	23	1,921	25	1,876	16	Kangaroo	20	1,583	27	1,836
8	Imperial Swede	23	1,299	28	1,288	17	Elephant's Master	20	1,531	22	1,804
9	Magnum Bonum	23	821	29	1,400	18	East Lottian	20	36	23	860
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Good Luck (4 years)....		22	979	31	1,228	New Century (4 years)...		21	66	25	820

The average yield of the twenty varieties of turnips tested on the Experimental Farm at Indian Head in 1905, was 28 tons, 1,017 lbs. per acre.

TURNIPS—*Concluded.*

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Carter's Elephant.....	31	389	20	676	11	Jumbo.....	30	1,426	17	77
2	East Lothian.....	33	220	17	1,112	12	Bangholm Selected ..	30	654	15	1,000
3	Elephant's Master.....	32	1,122	16	76	13	Mammoth Clyde.....	30	516	18	1,008
4	Hall's Westbury.....	32	178	18	1,752	14	Drummond Purple Top.....	29	867	12	228
5	Perfection Swede.....	32	54	15	1,548	15	Kangaroo.....	29	285	16	736
6	Emperor Swede.....	31	1,966	14	512	16	Selected Purple Top..	28	377	18	1,356
7	Imperial Swede.....	31	614	18	36	17	Hartley's Bronze.....	27	1,458	19	808
8	Magnum Bonum.....	31	390	20	1,184	18	Sutton's Champion ..	27	113	15	492
9	Skirvings.....	30	1,919	16	76						
10	Halewood's Bronze Top .....	30	1,461	14	1,430						
	Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.			Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
	Good Luck (4 years).....	27	442	15	1,812		New Century (4 years) ..	25	515	17	584

The average yield of the twenty varieties of turnips tested on the Experimental Farm at Agassiz in 1905, was 16 tons, 1,914 lbs. per acre.

## MANGELS.

Sixteen varieties of mangels have been under test during 1905. All were sown in drills or on the flat in rows  $2\frac{1}{2}$  feet apart. The dates of sowing were as follows:—At Ottawa, Ont., May 10; Nappan, N.S., May 25; Brandon, Man., May 20; Indian Head, Sask., May 13, and at Agassiz, B.C., April 12.

The dates of pulling were as follows:—At Ottawa, Ont., October 25; Nappan, N.S., October 12; Brandon, Man., October 4; Indian Head, Sask., October 9, and at Agassiz, B.C., October 27.

In Canada the ton is 2,000 lbs.

## MANGELS—Continued.

## AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average yield for 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Half Long Sugar White.....	32	295	33	974	7	Prize Winner Yellow Globe.....	30	769	32	804
2	Mammoth Yellow Intermediate.....	31	1,952	31	1,487	8	Prize Mammoth Long Red.....	30	317	34	1,481
3	Mammoth Long Red.....	31	1,433	28	1,978	9	Giant Yellow Globe.....	29	833	30	1,046
4	Lion Yellow Intermediate.....	31	155	32	848	10	Selected Mammoth Long Red.....	28	1,542	28	241
5	Yellow Intermediate.....	30	1,865	30	1,548	11	Triumph Yellow Globe.....	28	1,319	28	18
6	Giant Yellow Intermediate.....	30	1,000	30	1,723	12	Half Long Sugar Rosy.....	28	945	24	1,066
						13	Gate Post.....	28	850	27	1,636
						14	Leviathan Long Red.....	26	1,794	28	1,716
	Varieties tested for less than five years.	Average yield for less than five years.		Average yield in 1905.			Varieties tested for less than five years.	Average yield for less than five years.		Average yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
	Selected Yellow Globe (4 years).....	30	432	31	528		Giant Sugar (1 years)....	28	1,012	29	819

The average yield of the 16 varieties of mangels tested on all the Experimental Farms in 1905 was 30 tons, 620 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 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Yellow Intermediate.....	42	140	45	950	7	Yellow Intermediate.....	37	1,491	35	1,360
2	Mammoth Long Red.....	41	557	37	700	8	Triumph Yellow Globe.....	37	334	29	590
3	Half Long Sugar White.....	40	1,326	52	690	9	Gate Post.....	35	1,090	35	.....
4	Prize Winner Yellow Globe.....	39	1,007	45	290	10	Giant Yellow Intermediate.....	35	568	40	1,250
5	Prize Mammoth Long Red.....	39	187	46	700	11	Leviathan Long Red.....	35	20	40	1,400
6	Lion Yellow Intermediate.....	37	1,742	39	600	12	Giant Yellow Globe.....	34	1,179	37	800
						13	Half Long Sugar Rosy.....	34	74	36	.....
						14	Selected Mammoth Long Red.....	32	372	28	1,200
	Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.			Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
	Giant Sugar Mangel (4 years).....	35	839	40	900		Selected Yellow Globe (4 years).....	35	345	37	800

The average yield of the sixteen varieties of mangels tested on the Central Experimental Farm at Ottawa in 1905 was 39 tons 369 lbs. per acre.

## MANGELS—Continued.

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

Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Yellow Intermediate	38	1,313	31	1,092	7	Giant Yellow Globe	34	309	29	1,888		
2	Lion Yellow Intermediate	38	298	30	1,104	8	Half Long Sugar Rosy	33	473	27	1,328		
	at Yellow Intermediate	36	751	30	618	9	Prize Mammoth Long Red	33	279	31	776		
4	Yellow Intermediate	36	34	28	392	10	Gate Post	32	300	23	1,272		
5	Prize Winner Yellow Globe	35	526	27	1,632	11	Selected Mammoth Long Red	31	627	27	416		
6	Half Long Sugar White	34	1,630	31	1,688	12	Mammoth Long Red	31	449	24	1,000		
						13	Leviathan Long Red	30	1,452	24	1,704		
						14	Triumph Yellow Globe	30	178	26	896		
	Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.		
	Selected Yellow Globe (4 years)	35	1,670	28	1,000		Giant Sugar Mangel (4 years)	31	333	24	32		

The average yield of the sixteen varieties of mangels tested on the Experimental Farm at Nappan in 1905 was 28 tons 135 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Long Red	32	1,102	38	560	8	Triumph Yellow Globe	27	1,915	33	792		
2	Half Long Sugar White	32	522	30	720	9	Half Long Sugar Rosy	37	833	34	640		
3	Selected Mammoth Long Red	30	1,566	38	1,880	10	Giant Yellow Intermediate	26	1,090	30	720		
4	Yellow Intermediate	29	1,347	37	976	11	Lion Yellow Intermediate	36	272	35	224		
	Mammoth Long	29	450	42	744	12	Prize Winner Yellow Globe	25	1,451	36	192		
	Yellow Intermediate	28	285	31	40	13	Giant Yellow Globe	25	27	33			
		28	21	33	1,848	14	Leviathan Long Red	25	288	29	1,136		
	Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.		
	Selected Yellow Globe (4 yrs.)	25	622	32	944		Giant Sugar Mangel (4 yrs.)	23	1,718	29	80		

The average yield of the sixteen varieties of mangels on the Experimental Farm at Brandon in 1905 was 34 tons 218 lbs. per acre.

## MANGELS—Continued.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Prize Winner Yellow Globe	29	1,311	40	124	8	Giant Yellow Globe	23	986	31	964
2	Giant Yellow Intermediate	25	1,338	31	214	9	Lion Yellow Intermediate	23	556	33	396
3	Triumph Yellow Globe	25	964	37	1,240	10	Half Long Sugar Rosy	22	1,900	28	628
4	Mammoth Yellow Intermediate	24	1,876	34	1,828	11	Selected Mammoth Long Red	22	1,456	27	120
5	Half Long Sugar White	24	1,295	33	1,980	12	Gate Post	21	1,538	25	1,348
6	Yellow Intermediate	23	1,516	33	1,452	13	Mammoth Long Red	21	818	32	238
7	Prize Mammoth Long Red	23	1,484	29	1,004	14	Leviathan Long Red	21	648	26	494
Varieties tested for less than five years.		Ave. yield for less than five years		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
Selected Yellow Globe (4 yrs.)		24	1,845	34	1,960	Giant Sugar Mangel (4 yrs.)		21	1,316	32	284

The average yield of the sixteen varieties of mangels on the Experimental Farm at Indian Head in 1905 was 32 tons 388 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 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Long Red	32	238	16	76	8	Mammoth Yellow Intermediate	28	147	15	624
2	Lion Yellow Intermediate	29	1,996	23	1,916	9	Prize Mammoth Long Red	25	1,187	24	180
3	Giant Yellow Globe	29	265	29	1,580	10	Half Long Sugar Rosy	24	1,445	16	736
4	Giant Yellow Intermediate	28	1,251	18	1,752	11	Gate Post	24	1,302	29	1,712
5	Half Long Sugar White	28	793	18	1,884	12	Prize Winner Yellow Globe	24	1,250	12	1,872
6	Yellow Intermediate	27	905	18	1,620	13	Triumph Yellow Globe	22	1,654	13	664
7	Selected Mammoth Long Red	26	1,691	18	1,588	14	Leviathan Long Red	22	585	22	1,934
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
Giant Sugar Mangel (4 yrs.)		30	1,006	26	800	Selected Yellow Globe (4 yrs.)		29	1,630	22	1,936

The average yield of the sixteen varieties of mangels on the Experimental Farm at Agassiz in 1905 was 19 tons 930 lbs. per acre.



## CARROTS.

Ten different sorts of carrots were tested during 1905, all being sown in drills or on the flat in rows two feet apart. The dates of sowing were as follows:—At Ottawa, Ont., May 10; Nappan, N.S., May 25; Brandon, Man., May 20; Indian Head, Sask., April 19; and Agassiz, B.C., April 12.

The dates of pulling were as follows:—At Ottawa, October 25; Nappan, October 17; Brandon, October 4; Indian Head, October 23; and at Agassiz, October 27.

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.		Average yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Giant White Vosges.	23	1,969	21	484	6	White Belgian.	20	642	20	1,103
2	New White Intermediate.	23	1,594	25	584	7	Carter's Orange Giant Rooted.	19	1,438	22	1,082
3	Ontario Champion.	23	1,177	24	1,964	8	Long Yellow Stump Rooted.	19	566	18	1,851
4	Mammoth White Intermediate.	23	219	24	1,988	9	Half Long Chantenay.	18	55	14	1,361
5	Improved Short White.	22	1,587	25	832	10	Early Gem.	17	1,390	21	310

The average yield of the ten varieties of carrots on all the Experimental Farms in 1905 was 22 tons, 556 lbs. per acre.

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Mammoth White Intermediate.	32	1,139	32	500	6	Carter's Orange Giant	25	1,745	24	600
2	New White Intermediate.	32	995	30	1,600	7	Long Yellow Stump Rooted.	24	1,906	21	600
3	Giant White Vosges.	31	379	30	600	8	Half Long Chantenay.	24	1,101	14	200
4	Ontario Champion.	29	1,448	28	1,090	9	White Belgian.	21	1,963	21	1,100
5	Improved Short White.	29	1,068	30	1,700	10	Early Gem.	20	1,747	23	1,200

The average yield of the ten varieties of carrots on the Central Experimental Farm at Ottawa in 1905 was 25 tons, 1,510 lbs. per acre.

## CARROTS—Continued.

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Mammoth White Intermediate	27	1,507	18	1,392	6	Improved Short White	21	179	19	304
2	Giant White Vosges	25	1,472	18	1,544	7	Long Yellow Stump Rooted	20	1,348	17	808
3	Ontario Champion	25	937	18	24	8	Half Long Chantenay	19	1,279	17	200
4	New White Intermediate	22	428	19	.....	9	Early Gem	18	1,393	17	504
5	White Belgian	21	865	18	784	10	Carter's Orange Giant	18	686	18	1,240

The average yield of the ten varieties of carrots on the Experimental Farm at Nappan in 1905 was 18 tons, 480 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	New White Intermediate	24	1,104	27	120	7	Mammoth White Intermediate	17	1,772	27	1,880
2	Ontario Champion	23	1,168	26	1,240	8	Carter's Orange Giant	17	1,036	25	600
3	Improved Short White	22	528	32	1,120	9	Early Gem	14	1,128	23	1,080
4	Giant White Vosges	20	1,624	31	1,360	10	Half Long Chantenay	14	576	10	1,120
5	White Belgian	20	920	24	1,560						
6	Long Yellow Stump Rooted	18	124	19	720						

The average yield of the ten varieties of carrots on the Experimental Farm at Brandon in 1905 was 24 tons, 1,280 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Ontario Champion	16	113	25	1,744	7	Half Long Chantenay	12	1,730	13	1,984
2	New White Intermediate	15	1,562	24	1,368	8	Mammoth White Intermediate	12	1,694	17	584
3	Giant White Vosges	14	1,464	21	1,236	9	Carter's Orange Giant	12	749	29	4,448
4	Improved Short White	14	402	16	1,264	10	Long Yellow Stump Rooted	12	274	10	1,618
5	White Belgian	13	426	18	36						
6	Early Gem	13	47	17	1,904						

The average yield of the ten varieties of carrots on the Experimental Farm at Indian Head in 1905 was 18 tons, 1,527 lbs. per acre.

CARROTS—*Concluded.*

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Giant White Vosges	29	905	18	1,620	7	New White Intermediate	23	1,972	24	1,830
2	Mammoth White Intermediate	28	982	23	1,585	8	Early Gem	21	636	23	860
3	Improved Short White	26	1,756	27	1,770	9	Long Yellow Stump Rooted	20	1,184	25	1,480
4	Ontario Champion	25	217	25	1,810	10	Half Long Chantenay	18	1,387	17	1,300
5	White Belgian	24	1,038	23	35						
6	Carter's Orange Giant	24	972	23	1,520						

The average yield of the ten varieties of carrots on the Experimental Farm at Agassiz in 1905 was 23 tons, 1,981 lbs. per acre.

## SUGAR BEETS.

Eight varieties of sugar beets have been tested during 1905, sown in drills or on the flat in rows two feet apart. The dates of sowing were:—At Ottawa, Ont., May 10; Nappan, N.S., May 25; Brandon, Man., May 20; Indian Head, Sask., May 13; and at Agassiz, B.C., April 12.

The dates of pulling were as follows:—At Ottawa, Oct. 25; Nappan, Oct. 13; Brandon, Oct. 4; Indian Head, Oct. 21; and at Agassiz, Oct. 30.

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 2,000 lbs.

## AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Average yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Red Top Sugar	26	1,573	32	363	5	Improved Imperial	24	455	25	877
2	Royal Giant	26	35	27	1,729	6	Wanzleben	20	1,546	20	1,443
3	Danish Red Top	25	1,432	27	958	7	Vilmorin's Improved	19	358	19	1,745
4	Danish Improved	24	1,513	25	78						
	Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.			Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
	French Very Rich (4 yrs.)	18	359	18	1,077						

The average yield of the eight varieties of sugar beets on all the Experimental Farms in 1905 was 24 tons, 1,284 lbs. per acre.

## SUGAR BEETS—Continued.

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Red Top Sugar. ....	35	69	36	900	5	Royal Giant. ....	20	1,286	29	660
2	Danish Red Top. ....	34	581	50	1,300	6	Wanzleben. ....	25	115	25	600
3	Danish Improved. ....	33	1,868	38	1,900	7	Vilmorin's Improved. ....	23	260	26	900
4	Improved Imperial. ....	31	198	32	1,600						
Varieties tested for less than five years.								Average yield for less than five years.		Yield in 1905.	
French Very Rich (4 years) . . . . .								Tons.	Lbs.	Tons.	Lbs.
								23	737	28	...

The average yield of the eight varieties of sugar beets on the Central Experimental Farm at Ottawa in 1905 was 32 tons, 475 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 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Royal Giant. ....	30	1,261	27	1,176	5	Danish Improved. ....	26	219	23	824
2	Red Top Sugar. ....	28	957	28	1,912	6	Wanzleben. ....	23	1,011	16	1,592
3	Improved Imperial. ....	27	908	24	836	7	Vilmorin's Improved. ....	21	691	16	1,149
4	Danish Red Top. ....	27	597	28	1,000						
Varieties tested for less than five years.								Average yield for less than five years.		Yield in 1905.	
French Very Rich (4 years) . . . . .								Tons.	Lbs.	Tons.	Lbs.
								18	400	14	120

The average yield of the eight varieties of sugar beets on the Experimental Farm at Nappan in 1905 was 22 tons, 1,050 lbs. per acre.

## SUGAR BEETS—Continued.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Red Top Sugar	28	1,763	52	544	6	Royal Giant	21	210	33	528		
2	Danish Red Top	26	879	46	400	6	Improved Imperial	20	814	33	..		
3	Danish Improved	22	1,883	28	1,024	7	Vilmorin's Improved	16	683	24	576		
4	Wanzleben	21	979	32	680								
Varieties tested for less than five years.										Average yield for less than five years.		Yield in 1905.	
										Tons.	Lbs.	Tons.	Lbs.
French Very Rich (4 years)										16	310	21	210

The yield of the eight varieties of sugar beets on the Experimental Farm at Brandon in 1905, was 33 tons, 1749 lbs. per acre.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Royal Giant	22	310	27	252	5	Danish Improved	17	735	22	616		
2	Red Top Sugar	20	1,140	27	384	6	Vilmorin's Improved	14	1,525	16	1,396		
3	Improved Imperial	19	382	19	1,600	7	Wanzleben	14	398	15	1,416		
4	Danish Red Top	17	800	12	1,872								
Varieties tested for less than five years.										Average yield for less than five years.		Yield in 1905.	
										Tons.	Lbs.	Tons.	Lbs.
French Very Rich (4 years)										13	1301	15	888

The average yield of the eight varieties of sugar beets on the Experimental Farm at Indian Head in 1905 was 19 tons, 1303 lbs per acre.

SUGAR BEETS—*Concluded.*

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Royal Giant. . . . .	25	1,076	22	88	5	Red Top Sugar . . . . .	29	1,938	16	76
2	Danish Improved. . . . .	23	858	12	24	6	Vilmorin's Improved. . . . .	26	622	15	412
3	Danish Red Top. . . . .	23	361	9	246	7	Wanzleben . . . . .	18	1,198	13	928
4	Improved Imperial. . . . .	23	61	17	818						
Varieties tested for less than five years.								Average yield for less than five years.		Yield in 1905.	
French Very Rich (4 years) . . . . .								19	1,017	13	136

The average yield of the eight varieties of sugar beets on the Experimental Farm at Agassiz in 1905, was 11 tons, 1591 lbs. per acre.

## POTATOES.

Forty varieties of potatoes have been under test during 1905. The potatoes were cut into pieces with two or three eyes in each, and these pieces were planted in rows 2½ 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 22, dug October 5; at Nappan, N.S., planted May 31, dug October 3 and 4; at Brandon, Man., planted May 16, dug October 2; at Indian Head, Sask., planted May 13, dug October 3; and at Agassiz, B.C., planted April 29, dug September 22.

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 in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Average yield in 1905.	
	Bush.	Lbs.	Bush.	Lbs.	Bush.	Lbs.		Bush.	Lbs.	Bush.	Lbs.	Bush.	Lbs.
1	Late Puritan.....	451	53	512	34	18	Canadian Beauty.....	407	57	434	50		
2	Rose No. 9.....	436	52	468	34	19	Delaware.....	404	41	459	11		
3	Uncle Sam.....	436	6	488	49	20	Reeves' Rose.....	398	31	469	10		
4	Seedling No. 7.....	430	49	487	56	21	Penn Manor.....	394	16	438	13		
5	Enormous.....	424	53	469	18	22	Vick's Extra Early....	393	39	439	50		
6	Caramah No. 1.....	428	23	450	6	23	Rochester Rose.....	393	34	387	46		
7	American Wonder....	423	22	532	40	24	Irish Cobbler.....	388	32	406	58		
8	Country Gentleman....	421	55	500	33	25	Swiss Snowflake.....	387	52	383	20		
9	Money Maker.....	420	16	457	30	26	Main's Thoroughbred..	387	43	471	4		
10	Sabean's Elephant....	420	5	479	52	27	Cambridge Russet....	387	25	393	56		
11	Burnaby Mammoth....	418	31	420	54	28	Carman No. 3.....	379	53	448	14		
12	Dreer's Standard....	418	28	513	45	29	Everett.....	376	2	364	10		
13	State of Maine.....	417	26	467	6	30	Early St. George.....	372	37	427	30		
14	Holborn Abundance....	417	3	477	40	31	Early White Prize....	344	56	412	15		
15	American Giant.....	416	25	475	44	32	Bove.....	334	37	385	51		
16	N. L.....	415	41	469	10	33	Early Rose.....	329	3	346	15		
17	Empire State.....	403	37	520	12	34	Early Andes.....	297	29	341	25		
	Varieties tested for less than five years.	Average yield for less than five years.		Average yield in 1905.			Varieties tested for less than five years.	Average yield for less than five years.		Average yield in 1905.			
		Bush.	Lbs.	Bush.	Lbs.			Bush.	Lbs.	Bush.	Lbs.		
	Pearce (3 years).....	425	46	458	1		Vermont Gold Coin (1 yr).	534	26	534	26		
	Early Envoy (3 years)....	311	22	328	13		Morgan Seedling (1 year).	508	10	508	10		
	Pingree (3 years).....	272	45	302	33		Dooley (1 year).....	436	45	436	45		

The average crop of the forty varieties of potatoes on all the Experimental Farms in 1905 was 444 bushels, 16 lbs. per acre.

## POTATOES—Continued.

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

Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Bush.	Lbs.	Bush.	Lbs.	Bush.	Lbs.		Bush.	Lbs.	Bush.	Lbs.	Bush.	Lbs.
1	Late Puritan	452	46	330	..	..	18	Everett	369	36	290	24	
2	Carman No. 1.	447	55	321	12	12	19	Country Gentleman	367	50	382	48	
3	Money Maker	439	7	299	12	12	20	American Wonder	362	7	369	36	
4	Lucer's Standard	434	17	334	24	24	21	Rose No. 9.	359	55	294	48	
5	Burnaby Mammoth	427	41	316	43	43	22	Delaware	359	29	356	24	
6	L. X. L.	422	50	396	..	..	23	Swiss Snowflake	359	29	386	..	
7	Canadian Beauty	422	24	396	..	..	24	Penn Manor	349	48	281	36	
8	Sabeau's Elephant	418	00	404	48	48	25	Seedling No. 7.	343	12	365	12	
9	Uncle Sam	390	43	321	12	12	26	Empire State	332	12	360	56	
10	Holborn Abundance	389	50	360	48	48	27	Maule's Thoroughbred	331	46	396	..	
11	Rochester Rose	385	26	352	..	..	28	Early Rose	321	12	291	48	
12	Enormous	383	41	343	12	12	29	Carman No. 3.	315	29	277	12	
13	Irish Cobbler	383	41	290	24	24	30	Cambridge Russet	309	19	328	48	
14	Vick's Extra Early	383	41	338	48	48	31	Early St. George	286	53	198	..	
15	American Giant	381	29	281	36	36	32	Early White Prize	279	24	272	48	
16	Rosves' Rose	378	51	343	12	12	33	Bovee	253	55	250	48	
17	State of Maine	371	48	316	48	48	34	Early Andes	214	46	246	24	
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.			
		Bush.	Lbs.	Bush.	Lbs.			Bush.	Lbs.	Bush.	Lbs.		
Pearce (3 years)		367	..	391	36	Morgan Seedling (1 year)		374	..	374	..		
Early Envoy (3 years)		231	..	162	48	Dooley (1 year)		356	24	356	24		
P'ingree (3 years)		198	44	268	24	Vermont Gold Coin (1 yr)		347	36	347	36		

The average crop of the forty varieties of potatoes on the Central Experimental Farm for 1905 was 320 bushels, 13 lbs. per acre.



## POTATOES—Continued.

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

Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Vick's Extra Early...	436	10	424	36	18	State of Maine.....	329	34	321	12
2	Enormous.....	410	5	345	24	19	Swiss Snowflake.....	328	41	327	48
3	Rose No. 9.....	407	26	345	24	20	Early White Prize.....	325	36	345	24
4	Seedling No. 7.....	391	10	288	12	21	Carman No. 3.....	324	43	319	..
5	Rochester Rose.....	387	34	325	36	22	Maule's Thoroughbred.....	322	58	301	24
6	Canadian Beauty.....	373	34	319	..	23	Dreer's Standard.....	321	12	264	..
7	Late Puritan.....	370	29	360	48	24	Sabeau's Elephant.....	319	..	275	..
8	Holborn Abundance.....	370	2	477	24	25	Uncle Sam.....	315	29	270	36
9	Everett.....	368	46	268	24	26	Cambridge Russet.....	314	36	266	12
10	Penn. Manor.....	368	43	325	36	27	Country Gentleman.....	310	38	327	48
11	I. X. L.....	357	43	418	..	28	Early St. George.....	308	7	233	12
12	Irish Cobbler.....	356	12	308	..	29	American Giant.....	302	43	301	24
13	Delaware.....	341	52	352	..	30	Bovee.....	302	17	257	24
14	Money Maker.....	341	38	387	12	31	American Wonder.....	296	7	407	..
15	Burnaby Mammoth.....	340	34	272	48	32	Early Andes.....	280	17	217	48
16	Carman No. 1.....	336	10	354	12	33	Reeve's Rose.....	267	31	222	12
17	Empire State.....	333	5	407	..	34	Early Rose.....	252	34	244	12
	Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.			Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
	Pearce (3 years).....	456	8	338	48		Vermont Gold Coin (1 yr.)	512	36	512	31
	Pingree (3 years).....	343	12	330	..		Morgan Seedling (1 year)	484	..	484	..
	Early Envoy (3 years).....	350	44	233	12		Dooley (1 year).....	413	36	413	36

The average crop of the forty varieties of potatoes on the Experimental Farm at Nappan for 1905 was 329 bushels 50 lbs. per acre.

## POTATOES—Continued.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.
1	American Wonder	566	8	799	20	18 Seedling No. 7	492	48	520	40			
2	Enormous	565	24	722	20	19 I. X. I.	489	8	561	..			
3	State of Maine	552	12	755	20	20 Reeve's Rose	487	40	726	..			
4	Dreer's Standard	548	20	887	20	21 Holborn Abundance	478	52	790	20			
5	Late Puritan	544	30	652	40	22 Irish Cobbler	478	8	575	40			
6	Money Maker	536	48	718	49	23 Carman No. 3	462	..	605	..			
7	Sabean's Elephant	529	28	744	20	24 Swiss Snowflake	454	40	656	20			
8	Empire State	528	..	704	..	25 Carman No. 1	450	16	564	40			
9	Maine's Thoroughbred	526	32	689	20	26 Penn. Manor	450	16	663	40			
10	Uncle Sam	525	48	762	40	27 Early White Prize	431	52	586	40			
11	Country Gentleman	525	48	788	20	28 Early St. George	431	56	678	20			
12	Delaware	523	36	680	20	29 Everett	418	..	531	40			
13	Canadian Beauty	517	..	759	..	30 Early Rose	389	2	553	40			
14	Rose No. 9	514	48	696	40	31 Bovee	385	..	542	40			
15	Cambridge Russet	505	16	605	..	32 Vick's Extra Early	379	8	568	20			
16	Burnaby Mammoth	495	44	656	20	33 Rochester Rose	348	..	398	..			
17	American Giant	494	16	638	..	34 Early Andes	329	16	454	40			
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.			
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.		
Pearce (3 years)		534	7	685	40	Morgan Seedling (1 year)		..	..	729	40		
Early Envoy (3 years)		387	24	575	40	Vermont Gold Coin (1 yr)		..	..	623	20		
Pingree (3 years)		267	40	348	20	Dooley (1 year)		..	..	403	20		

The average crop of the forty varieties of potatoes on the Experimental Farm at Brandon for 1905 was 635 bushels, 48 lbs. per acre.

## POTATOES—Continued.

## AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.		Number.	Varieties tested for five years.		Average yield for five years.		Yield in 1905.	
	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.
1	Carman No. 1.....	481	21	442	48	18	Empire State.....	409	49	447	12		
2	American Giant.....	465	13	514	48	19	Rochester Rose.....	405	44	561	36		
3	Uncle Sam.....	457	15	508	48	20	Reeves' Rose.....	405	33	530	48		
4	Seedling No. 7.....	454	34	640	48	24	Money Maker.....	398	2	451	36		
5	Country Gentleman...	453	2	458	12	22	L. X. L.....	386	5	442	48		
6	American Wonder....	442	58	458	12	23	Swiss Snowflake....	385	39	335	..		
7	Rose No. 9.....	442	58	453	36	24	Canadian Beauty....	384	6	348	12		
8	Late Puritan.....	442	27	519	48	25	Everett.....	377	23	434	..		
9	Burnaby Mammoth....	442	16	484	36	26	Manly's Thoroughbred.	376	50	484	36		
10	Carman No. 3.....	437	5	525	12	27	Cambridge Russet....	372	44	460	24		
11	Penn. Manor.....	435	10	453	48	28	Irish Cobbler.....	372	25	337	12		
12	Early St. George.....	425	34	491	12	29	Vick's Extra Early....	361	44	462	36		
13	Dreer's Standard....	425	15	475	48	30	Enormous.....	348	54	379	..		
14	Delaware.....	422	58	449	24	31	Early White Prize....	345	14	394	24		
15	State of Maine.....	422	52	418	36	32	Boyer.....	321	13	359	12		
16	Holborn Abundance....	416	23	392	12	33	Early Andes.....	319	36	392	12		
17	Sabeau's Elephant...	413	53	494	12	34	Early Rose.....	309	30	308	36		

Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1905.	
Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.	Bus.	Lbs.
Early Envoy (1 year)	386	13	458	12	Vermont Gold Coin (1 yr.)	625	24				
Pearce (3 years)	359	49	398	48	Morgan Seedling (1 year)	486	48				
Pingree (3 years)	351	45	337	12	Dooley (1 year)	354	48				

The average crop of the forty varieties of potatoes on the Experimental Farm at Indian Head in 1905 was 449 bushels 39 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 1905.		Number.	Varieties tested for five years.	Average yield for five years.		Yield in 1905.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Uncle Sam	491	16	540	48	18	State of Maine	410	44	523	36
2	Seedling No. 7	372	29	624	48	19	Bovee	410	42	519	12
3	Rose No. 9	439	15	532	24	20	Early St. George	410	33	536	48
4	Reeves' Rose	452	59	523	36	21	Vick's Extra Early	397	32	404	48
5	Country Gentleman	452	19	545	36	22	Burnaby Mammoth	386	18	374	..
6	Late Puritan	419	14	699	36	23	Money Maker	385	46	431	12
7	American Wonder	447	46	629	12	24	Maule's Thoroughbred	380	31	484	..
8	Eremonus	441	19	556	36	25	Delaware	375	52	448	48
9	Rochester Rose	441	6	391	36	26	Early Rose	372	59	330	..
10	Empire State	410	..	673	12	27	Penn. Manor	367	24	466	24
11	American Giant	438	26	646	40	28	Dreer's Standard	363	17	607	12
12	Cambridge Russet	335	10	499	12	29	Carman No. 3	360	8	514	48
13	Holland Abundance	439	6	457	36	30	Irish Cobbler	352	13	523	36
14	Carman No. 1	426	12	567	36	31	Everett	346	27	296	24
15	Salcear's Elephant	417	24	484	..	32	Early Andes	343	32	396	..
16	L. N. L.	412	37	528	..	33	Canadian Beauty	342	39	352	..
17	Swiss Snowflake	410	56	312	24	34	Early White Prize	339	38	462	..
	Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.			Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1905.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
	Pearce (3 yrs.)	411	45	475	12		Dooley (1 yr.)	..	..	655	36
	Early Envoy (3 yrs.)	221	28	211	12		Vermont Gold Coin (yr.)	..	..	563	12
	Pingree (3 yrs.)	362	24	298	48		Morgan Seedling (1 yr.)	..	..	466	24

The average crop of the forty varieties of potatoes on the Experimental Farm at Agassiz for 1905 was 485 bushels, 51 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.

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. Hence if an individual receives a sample of oats, he cannot also receive one of wheat, barley, Indian corn or potatoes, and applications for more than one sample for one household cannot be entertained. 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 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.

The distribution also includes samples of Indian corn (for ensilage purposes only) and potatoes. These latter samples weigh 3 lbs. each.

Among the principal varieties available for distribution are the following.

**OATS.**—Banner, Abundance, Wide Awake, Goldfinder, Thousand Dollar and Improved Ligowo. Goldfinder is a yellow oat. Black oats are not recommended for general cultivation and are only sent out when specially asked for. Improved Ligowo is earlier than the other varieties mentioned, but is less productive.

**SPRING WHEAT.**—Red Fife, (beardless) White Fife, (beardless) Preston, (bearded) Huron, (bearded) Stanley, (beardless) Percy (beardless) and Laurel, (beardless). Red and White Fife are varieties of the highest quality for the production of strong flour; but the present inspection laws for the Manitoba Inspection Division are so framed as to discourage the cultivation of White Fife in the prairie provinces.

Preston, Huron, Stanley and Percy are red wheats which ripen earlier than Red or White Fife but are not quite equal to those varieties for making strong flour. Laurel is a red wheat of rather soft character.

**BARLEY** *Sic rowed.*—Mensury, Odessa, Claude, Mansfield and Royal. *Two-rowed.*—Standwell, Canadian Thorpe, Invincible and Sidney.

**INDIAN CORN**—*Early maturing sorts.*—Angel of Midnight, Compton's Early and Longfellow. *Later sorts.*—Selected Leaming, Early Mastodon and White Cap Yellow Dent.

**POTATOES**—*Early varieties.*—Rochester Rose, Early White Prize, Bovee. *Medium to late sorts.*—Carman No. 1, Uncle Sam, Canadian Beauty, American Wonder and Late Puritan. These later varieties are as a rule more productive than the earlier kinds.

Applications should be addressed to the Director of Experimental Farms, Ottawa, and may be sent in any time before March 1, after which the lists will be closed, so that all the samples asked for may be sent out in good time for sowing. Parties writing should mention the sort or variety they would prefer, with a second sort as an alternative, and should the available stock of both these varieties be exhausted, some other good sort will be sent instead. Those applying for Indian corn or potatoes will please bear in mind that the corn is not available for distribution until March or April, and that potatoes cannot be mailed from here until danger from frost in transit is over. No postage is required on mail matter addressed to the Central Experimental Farm, Ottawa.

