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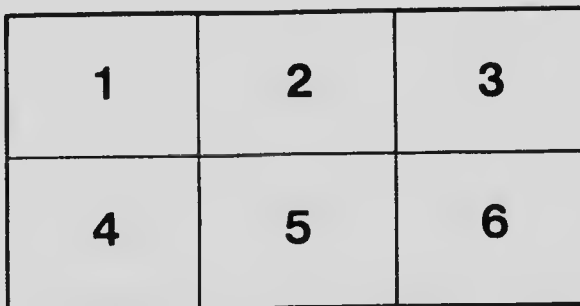
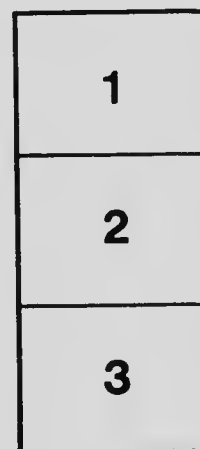
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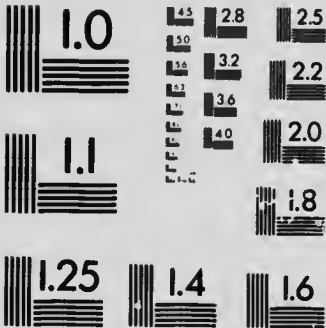
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DEPARTMENT OF AGRICULTURE  
CENTRAL EXPERIMENTAL FARM  
OTTAWA, CANADA

RESULTS OBTAINED IN 1908

ON THE

DOMINION EXPERIMENTAL FARMS

FROM TRIAL PLOTS OF

GRAIN, FODDER CORN, FIELD ROOTS AND POTATOES

BY

WILLIAM SAUNDERS, C.M.G., I.L.D.

*Director of Experimental Farms*

AND

CHAS. E. SAUNDERS, Ph. D.

*Cerealist*

BULLETIN No. 61.

DECEMBER, 1908

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



To the Honourable  
The Minister of Agriculture.

SIR,—I beg to submit herewith, for your approval, Bulletin No. 61 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 the experimental farms in your Department during the season of 1908, with wheat, oats, barley, peas, Indian corn, turnips, mangels, carrots, sugar beets and potatoes. The average results are also given of the tests for the past five years of those varieties which have been long under trial.

These trial 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, sir,

Your obedient servant,

WM. SAUNDERS,

*Director of Experimental Farms.*

OTTAWA, December 31, 1908.



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RESULTS OBTAINED  
ON THE  
DOMINION EXPERIMENTAL FARMS  
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 fourteen years experiments have been conducted on uniform trial plots at each of the older 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 seed has always been supplied at the outset from a common stock. In each case the seed has been sown as early as practicable and, as a rule, all the different varieties 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 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 fourteenth of the series, the results of the experiments are presented in the same way as last year. All the facts relating to each farm being brought together under one heading.

The varieties are, as far as possible, arranged in the tables in the order of their average yield for the last five years. Those sorts which have not been grown for five years are arranged in the order of their average yield for the time during which they have been tested. While a five-year period is undoubtedly rather short for reaching any final conclusions, it seems undesirable to lengthen it, since by so doing all recently introduced varieties would be kept so long from taking their place in the tables with the older sorts.

The lists of varieties given do not include all the sorts which are being tested on the experimental farms. Some of the new or less important varieties are omitted here but will be referred to in the annual report of 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 to be regarded as somewhat uncertain.

Cross-bred varieties produced on the experimental farms are marked with an asterisk \*.

The yields of the crops are expressed in the tables in bushels per acre or tons per acre. The legal bushels in Canada are as follows: wheat 60 lbs., oats 34 lbs., barley 48 lbs., peas 60 lbs., turnips 60 lbs., mangels 60 lbs., carrots 60 lbs., potatoes 60 lbs. The ton contains 2,000 lbs. 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.

### CENTRAL EXPERIMENTAL FARM, OTTAWA, ONTARIO.

The season of 1908 was not very favourable for most farm crops in this district. The spring was exceedingly wet and the early sowing of grain was therefore impossible. When at length the seed was all in, the weather changed, unusual heat and rather severe drought prevailing through the greater part of the summer and autumn. Such adverse conditions necessarily reduced the crops considerably below the average, except where the soil was unusually rich and retentive of moisture. At the same time comparatively slight variations in the character of the soil assumed unusual significance and interfered with the accuracy of experimental work in the fields.

Such a season emphasises very much the necessity for the early sowing of cereals in order that there may be time for adequate root growth before the hot weather hastens the plant towards maturity.

In this part of Canada the effort should be made to finish the sowing of cereals by about the first of May in an ordinary season on properly drained land. Any delay beyond this date will usually cause a considerable reduction in the weight of the crops harvested.

The uniform test plots of grain on this farm are one-sixtieth of an acre in extent. The yield per acre of the field plots is calculated from that obtained from one hundredth of an acre, the yield of Indian corn from two rows each 66 feet long, and the yield of potatoes from one row 66 feet long.

### SPRING WHEAT.

Fourteen of the most important varieties of spring wheat grown at the Central Experimental Farm during 1908 are here reported on. The wheat was sown May 6th, the seed being used at the rate of about one and one half bushels per acre.

### Central Experimental Farm, Ottawa, Ontario.

While all the varieties suffered from drought and from the attacks of Hessian fly, the injuries varied a great deal, chiefly owing to unavoidable variations in the soil. Downy Riga and Hungarian White suffered so much that the yields actually obtained are omitted as they would not give a fair indication of the character of these varieties.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Bishop*	31 36	95	2 00	10	Downy Riga*	23	89	.. ..
2	Preston*	29 36	97	21 30	11	White Fife	23 6	93	19 ..
3	Pringle's Champlain.	29 ..	98	20 ..		(For less than five yrs.)			
4	White Russian.	26 48	104	22 ..		Hungarian White† (4 years)	30 48	101	.. ..
5	Red Fern	26 26	100	21 ..		Chelsen* (3 years)	34 27	96	20 ..
6	Huron Selected*	25 38	100	13 ..		Marquis* (3 years)	24 ..	100	12 30
7	Red Fife II	25 15	103	19 ..					
8	Stanley*	24 54	99	21 30					
9	Percy*	24 16	98	20 30					

The average crop in 1908 of the twelve varieties of spring wheat on the Central Experimental Farm was 19 bushels 25 lbs. per acre.

### OATS.

Twenty-four of the varieties of oats tested at Ottawa are here mentioned. The seed was sown on May 15th and 16th at the rate of about two bushels per acre, except when the oats were unusually large, when about one-fourth or one-half as much seed again was used.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Twentieth Century	81 24	93	88 8	13	Milford White*	70 8	95	62 22
2	White Giant Selected.	76 12	96	89 4	14	Virginia White ..	70 4	94	89 4
3	Golden Beauty	74 32	96	90 30	15	Goldfinder	66 28	99	73 8
4	Thousand Dollar	74 24	93	79 14	16	Abundance†	65 6	95	.. ..
5	Pioneer (black)	73 26	93	83 28	17	American Triumph	64 ..	95	31 26
6	Swedish Select†	72 22	94	87 12	18	Improved Ligowo	63 30	95	71 16
7	Danish Island	73 14	97	84 14	19	Siberian	63 30	96	80 10
8	Improved American	72 24	96	80 10	20	Tartar King	63 20	92	60 ..
9	Lincoln	72 24	96	53 28	21	Kendal White*	60 30	96	37 2
10	Wide Awake	72 24	95	71 16	22	Golden Giant	59 14	103	53 28
11	Irish Victor	72 ..	97	64 14	23	Joanette†	57 4	102	.. ..
12	Banner	71 30	96	60 ..	24	Storm King	46 26	96	55 20

The average crop in 1908 of the twenty-two varieties of oats on the Central Experimental Farm was 70 bushels 28 lbs. per acre.

**Central Experimental Farm, Ottawa, Ontario.**

**BARLEY.**

Thirteen sorts of six-rowed barley and eleven sorts of two-rowed barley grown at Ottawa in 1908 are here mentioned.

The plots of six-rowed barley were sown on May 7th, the seed being used at the rate of about one and three-quarter bushels per acre.

The sowing of the plots of two-rowed barley was commenced on the 7th of May but was interrupted by rain and could not be completed until May 11th. The seed was used at the rate of about two bushels per acre.

**SIX-ROWED BARLEY.**

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.		Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.	(For five years.)	Bu. Lbs.		Days.	Bu. Lbs.				
1	Nugent*	56	6	89	46	12	8	Claude*	47	20	90	45	..
2	Stella*	53	32	90	56	42	9	Empire*	45	38	91	37	24
3	Odessa	52	36	89	49	18	10	Blue Long Head	45	22	92	32	24
4	Mensary	51	38	88	41	18	11	Yale*	44	6	92	41	12
5	Albert*	49	46	90	50	..	12	Mansfield*	38	30	93	37	24
6	Trooper*	49	16	88	49	18	13	Champion (beardless)	34	42	88	44	18
7	Oderbruch	47	36	92	48	36							

The average crop in 1908 of the thirteen varieties of six-rowed barley on the Central Experimental Farm was 43 bushels 15 lbs. per acre.

**TWO-ROWED BARLEY.**

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.		Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.	(For five years.)	Bu. Lbs.		Days.	Bu. Lbs.				
1	Swedish Chevalier	49	26	94	38	36	7	Invincible	43	4	97	24	18
2	Standwell	46	36	96	29	18	8	Beaver*	42	16	91	36	42
3	Clifford*	46	4	92	42	24	9	Jarvis*	41	19	91	26	12
4	Canadian Thorpe	45	22	96	36	12	10	Gordon*	38	42	91	31	12
5	Danish Chevalier	43	36	94	31	42	11	Sidney*	37	20	93	34	18
6	French Chevalier	43	32	93	28	36							

The average crop in 1908 of the eleven varieties of two-rowed barley on the Central Experimental Farm was 32 bushels 38 lbs. per acre.

## Central Experimental Farm, Ottawa, Ontario.

## PEAS.

Eighteen of the varieties of peas grown at Ottawa are here mentioned. The plots were sown on May 14th. The quantity of seed used per acre varied from two to three bushels, depending on the size of the pea.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.
		Bu. Lbs.	Days.				Bu. Lbs.	Days.	
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Prussian Blue	36 52	99	38 ..	10	Agnes*	33 34	102	27 ..
2	Mackay*	36 26	102	33 30	11	Early Britain	33 32	103	25 30
3	Prince*	35 30	102	33 30	12	English Grey	33 22	103	27 30
4	Picton*	35 18	101	26 30	13	Golden Vine	32 58	103	20 30
5	Victoria*	25 8	105	28 30	14	Wisconsin Blue	32 56	102	26 30
6	Chancellor*	34 48	97	29 30	15	White Marrowfat	32 6	102	33 30
7	Paragon*†	34 44	100	36 30	16	Gregory*	32 4	106	17 ..
8	Black-eye Marrowfat.	34 8	104	25 30	17	Daniel O'Rourke	31 56	101	27 ..
9	Arthur*	34 4	96	37 ..	18	Archer*	31 30	104	23 30

The average crop in 1908 of the eighteen varieties of peas on the Central Experimental Farm was 28 bushels 42 lbs. per acre.

## INDIAN CORN.

Fourteen varieties of Indian corn for ensilage were tested at Ottawa during 1908. They were sown in rows about 3 feet apart and the plants thinned out to six or eight inches apart in the rows.

The seed was sown on June 2nd and the crop was cut green for ensilage on September 10th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.
		Tons. Lbs.	Tons. Lbs.				Tons. Lbs.	Tons. Lbs.	
	(For five years.)	Tons. Lbs.	Tons. Lbs.			(For five years.)	Tons. Lbs.	Tons. Lbs.	
1	Eureka	24 312	19 170	10	Compton's Early	17 1,783	16 450		
2	Superior Fodder	23 112	21 900	11	White Cap Yellow Dent	17 1,178	16 1,110		
3	Early Mastodon	20 810	17 650	12	North Dakota White	16 1,880	15 30		
4	Salzer's All Gold	20 656	18 1,230	13	Angel of Midnight	16 296	15 1,570		
5	Mammoth Cuban	19 258	20 920		(For less than five years.)				
6	Selected Leaming	19 82	18 520		Wood's Northern Dent (4 years)	21 1,115	17 870		
7	Pride of the North	18 1,598	19 1,220						
8	Champion White Pearl	18 58	18 520						
9	Longfellow	17 1,882	13 1,170						

The average crop in 1908 of the fourteen varieties of Indian corn on the Central Experimental Farm was 17 tons 1,348 lbs. per acre.

## Central Experimental Farm, Ottawa, Ontario.

## TURNIPS.

Twelve varieties of field turnips were tested at Ottawa in 1908. The seed was sown in drills two feet apart and the young plants thinned out to about seven inches apart in the rows. The seed was sown on May 22nd and the roots were pulled October 24th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
		Tons.	Lbs.				Tons.	Lbs.			
	(For five years.)	Tons.	Lbs.	Tons.	Lbs.	(For five years.)	Tons.	Lbs.	Tons.	Lbs.	
1	Perfection Swede .....	31	657	32	1,900	7	Jumbo .....	29	1,019	27	200
2	Hartley's Bronze .....	30	1,750	30	200	8	Halewood's Bronze Top ..	28	1,573	28	700
3	Hall's Westbury .....	30	644	30	700	9	Good Luck .....	28	957	26	1,700
4	Magnum Bonum .....	30	400	28	600	10	Skirvings .....	27	982	26	600
5	Mammoth Clyde .....	30	334	27	1,300	11	Carter's Elephant .....	25	1,905	20	1,400
6	Kangaroo .....	29	1,930	27	200	12	Bangholin Selected .....	23	646	24	1,500

The average yield in 1908 of the twelve varieties of turnips on the Central Experimental Farm was 27 tons 1,033 lbs. per acre.

## MANGELS.

Ten sorts of mangels were tested at Ottawa in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to about seven inches apart in the rows. The seed was sown on May 22nd and the roots were pulled on October 21st.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.	
		Tons.	Lbs.				Tons.	Lbs.		
	(For five years.)	Tons.	Lbs.	Tons.	Lbs.	(For less than five years.)	Tons.	Lbs.	Tons.	Lbs.
1	Prize Mammoth Long Red	33	1,873	21	1,700	Perfection Mammoth Long Red (2 years) .....	25	1,950	23	300
2	Half Sugar White .....	32	961	29	1,700					
3	Giant Yellow Intermediate	31	15	22	200					
4	Yellow Intermediate .....	30	1,681	22	1,700					
5	Selected Yellow Globe .....	30	1,413	26	1,100					
6	Gate Post .....	28	361	25	200	Mammoth Red Intermediate (2 years) .....	21	1,900	20	1,000
7	Giant Yellow Globe .....	27	1,267	23	1,500					

The average yield in 1908 of the ten varieties of mangels on the Central Experimental Farm was 23 tons 690 lbs. per acre.

## Central Experimental Farm, Ottawa, Ontario.

## CARROTS.

Six varieties of field carrots were tested at Ottawa in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to about five inches apart in the rows. The seed was sown on May 22nd and the roots were pulled on October 22nd.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For five years.)	Tons.	Lbs.	Tons.		Lbs.	(For five years.)	Tons.	Lbs.	Tons.	Lbs.
1	Improved Short White....	26	252	21	1,900	4	Giant White Vosges.....	25	639	22	600
2	Ontario Champion.....	25	1,488	26	1,500	5	White Belgian.....	18	703	15	1,500
3	Mammoth White Intermediate.....	25	1,390	26	1,400	6	Half Long Chantenay....	17	1,030	18	1,900

The average yield in 1908 of the six varieties of carrots on the Central Experimental Farm was 22 tons 133 lbs. per acre.

## SUGAR BEETS.

Three varieties of sugar beets were tested at Ottawa in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to about five inches apart in the rows. The seed was sown on May 22nd and the roots were pulled on October 23rd.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For five years.)	Tons.	Lbs.	Tons.		Lbs.	(For five years.)	Tons.	Lbs.	Tons.	Lbs.
1	Vilmorin's Improved....	23	429	20	1,400	3	Wanzleben.....	21	1,766	15	800
2	French Very Rich.....	22	1,512	18	200						

The average yield in 1908 of the three varieties of sugar beets on the Central Experimental Farm was 18 tons 133 lbs. per acre.

## POTATOES.

Twenty-three kinds of potatoes grown at Ottawa are here mentioned.

For planting, the potatoes were cut into pieces with at least three eyes in each, and these pieces were planted in rows two and a half feet apart, the sets being placed about a foot apart in the rows.



**Central Experimental Farm, Ottawa, Ontario.**

The potatoes were planted on May 21st and were dug on October 5th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For five years.)	Bu.	Lbs.	Bu.		Lbs.	(For five years.)	Bu.	Lbs.	Bu.	Lbs.
1	Dooley	268	24	138	36	14	Country Gentleman	212	41	81	24
2	Vermont Gold Coin	263	7	106	36	15	Late Puritan	209	26	118	48
3	Morgan's Seedling	266	58	129	48	16	State of Maine	203	43	96	48
4	Holborn Abundance	245	31	90	12	17	American Wonder	199	46	101	12
5	Canadian Beauty	233	12	143	..	18	Money Maker	192	36	118	48
6	Carman No. 1	231	53	103	24	19	Uncle Sam	193	36	105	36
7	Vick's Extra Early	230	7	156	12	20	Early White Prize	188	46	123	12
8	Hurnsby Mammoth	224	50	125	24	21	Irish Cobbler	176	53	92	24
9	Empire State	221	19	118	48		(For less than five years.)				
10	Rochester Rose	220	53	96	48		Dalme y Beauty (4 years)	302	30	193	36
11	Reeves' Rose	218	14	103	24		Ashleaf Kidney (4 years)	200	45	125	24
12	Everett	213	50	147	24						
13	Dreer's Standard	212	58	101	12						

The average crop in 1908 of the twenty-three varieties of potatoes on the Central Experimental Farm was 118 bushels 8 lbs. per acre.

**EXPERIMENTAL FARM, NAPPAN, N.S.**

In the Maritime Provinces the spring opened very late, much as it did in 1907, the weather being for the most part cold and wet. The earliest sowing of grain on the Nappan Experimental Farm was on May 20th. Notwithstanding this late period of sowing, favourable weather afterwards brought the grain on rapidly and wheat gave a considerably higher average yield than in 1907 and barley a slightly higher yield. In oats there was a falling off of about six bushels in the average yield per acre, 68 bushels 16 lbs. being the returns for 1907 and 62 bushels 24 lbs. for 1908.

The average yield of Indian corn was 23 tons 251 lbs. per acre, quite double that obtained in 1907. Potatoes and field roots, with the exception of carrots, gave somewhat smaller crops than in 1907.

Experimental Farm, Nappan, N.S.

SPRING WHEAT.

Fourteen varieties of spring wheat were grown at the Nappan Experimental Farm. The wheat was sown on May 20th, the seed being used at the rate of about one and three-quarter bushels per acre.

Table with 4 columns for varieties tested, average yield, average days maturing, and yield in 1908. Left side covers 5 years, right side covers less than 5 years.

The average crop in 1908 of the fourteen varieties of spring wheat on the Experimental Farm at Nappan, N.S., was 38 bushels 36 lbs. per acre.

OATS.

Twenty-four varieties of oats were tested at Nappan in 1908.

The seed was sown on May 21st at the rate of about 2 1/2 bushels per acre.

Table with 4 columns for varieties tested, average yield, average days maturing, and yield in 1908. Left side covers 5 years, right side covers 3 years.

The average crop in 1908 of the twenty-four varieties of oats on the Experimental Farm at Nappan, N.S., was 62 bushels 24 lbs. per acre.

### Experimental Farm, Nappan, N.S.

#### BARLEY.

Thirteen sorts of six-rowed barley and eleven sorts of two-rowed were grown at Nappan in 1908.

The plots were sown on May 21st, the seed being used at the rate of about two bushels per acre.

#### SIX-ROWED BARLEY.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Mensury.....	45 4	98	42 44	10	Nugent*.....	36 20	94	45 40
2	Stella*.....	41 36	96	45 20	11	Mansfield*.....	35 28	95	41 32
3	Oderbruch.....	40 12	91	40 40	12	Champion (beardless).	33 24	90	37 24
4	Albert*.....	40 8	92	38 16					
5	Odessa.....	39 36	91	43 16					
6	Empire*.....	39 24	94	34 8		(For less than five yrs.)			
7	Trooper.....	38 28	92	41 32		Blue Long Head (3 years).....	39 35	97	42 24
8	Claude*.....	36 32	92	40 20					
9	Yale*.....	36 32	94	36 32					

The average crop in 1908 of the thirteen varieties of six-rowed barley on the Experimental Farm at Nappan, N.S., was 40 bushels 41 lbs. per acre.

#### TWO-ROWED BARLEY.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Danish Chevalier.....	51 40	96	50 20	9	Sidney*.....	33 8	96	40 ..
2	French Chevalier.....	50 31	96	57 40	10	Canadian Thorpe....	32 20	97	35 20
3	Beaver*.....	44 8	96	49 8					
4	Clifford*.....	39 34	96	42 24		(For less than five yrs.)			
5	Invincible.....	36 26	97	43 16		Swedish Chevalier (4 years.).....	41 45	98	40 40
6	Gordon*.....	35 12	95	47 24					
7	Standwell.....	33 40	97	42 44					
8	Jarvis*.....	33 36	96	48 16					

The average crop in 1908 of the eleven varieties of two-rowed barley on the Experimental Farm at Nappan, N.S., was 45 bushels 14 lbs. per acre.

### Experimental Farm, Nappan, N.S.

#### PEAS.

Eighteen varieties of field peas were tested at Nappan in 1908. The plots were sown on May 22nd, the quantity of seed used being from 2 to 3 bushels per acre, depending on the size of the pea.

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.
		(For five years.)	Bu. Lbs.	Days				Bu. Lbs.	(For five years.)	Bu. Lbs.	
1	Arthur*	27	20	107	20 ..	12	Piston*	22	12	110	18 ..
2	Archer*	26	20	110	13 20	13	Golden Vine.....	21	56	108	7 40
3	White Marrowfat....	26	20	108	14 40	14	Wisconsin Blue.....	21	36	109	12 ..
4	Daniel O'Rourke. ....	25	20	107	18 40	15	Victoria* .....	21	32	112	7 ..
5	Agnes* .....	25	12	110	15 20	16	Early Britain .....	20	40	107	6 40
6	Gregory* .....	24	32	111	12 40	17	Prussian Blue.....	19	16	108	8 ..
7	Mackay* .....	23	48	111	14 20	(For less than 5 years.)					
8	English Grey.....	23	44	109	11 20						
9	Black-eye Marrowfat.	23	36	110	10 40	Paragon* (new seed)					
10	Prince* .....	23	36	110	16 40	(2 years).....					
11	Chancellor. ....	23	8	105	14 ..	22	20	109	9	20	

The average crop in 1908 of the eighteen varieties of peas on the Experimental Farm at Nappan, N.S., was 12 bushels 48 lbs. per acre.

#### INDIAN CORN.

Fifteen varieties of Indian corn were tested at Nappan during 1908. They were sown in rows about three feet apart and the plants thinned out to six or eight inches apart in the rows.

The seed was sown on June 6th and the crop was cut green for ensilage on Sept. 28th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.
		(For five years.)	Tons. Lbs.				Tons. Lbs.	(For five years.)	
1	Eureka. ....	21	372	23 1,080	11	Compton's Early. ....	17	1,530	21 900
2	Salzer's All Gold.....	20	964	24 930	12	Selected Leaming .....	17	1,530	22 1,650
3	Early Mastodon.....	20	480	23 1,850	13	White Cap Yellow Dent..	16	1,000	21 1,450
4	Longfellow .....	19	848	23 1,300	14	Cloud's Early Yellow.....	15	988	8 1,600
5	Angel of Midnight.....	19	638	24 1,170	(For less than five years.)				
6	Pride of the North.....	18	1,664	23 200					
7	Superior Fodder.....	18	1,510	25 50	Wood's Northern Dent (3				
8	North Dakota White.....	18	542	26 250	years).....				
9	Champion White Pearl....	18	410	25 1,700	17	1,457	26	470	
10	Monmoth Cuban.....	18	180	25 1,150					

The average crop in 1908 of the fifteen varieties of Indian corn on the Experimental Farm at Nappan, N.S., was 23 tons 251 lbs. per acre.

**Experimental Farm, Nappan, N.S.**

**TURNIPS.**

Twelve varieties of field turnips were tested at Nappan in 1908. The seed was sown on June 8th in drills two feet apart and the young plants were thinned out to about 10 or 12 inches apart in the rows. The roots were pulled on October 24th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For five years.)	Tons.	Lbs.	Tons.		Lbs.	(For five years.)	Tons.	Lbs.	Tons.	Lbs.
1	Jumbo.....	33	736	28	1,255	7	Hall's Westbury.....	32	138	27	1,275
2	Perfection Swede.....	33	166	28	430	8	Carter's Elephant.....	31	406	23	1,025
3	Magnum Bonum.....	32	1,170	28	1,750	9	Halewood's Bronze Top..	30	1,953	28	100
4	Kankaroo.....	32	1,151	28	1,420	10	Mammoth Clyde.....	30	513	28	925
5	Hartley's Bronze.....	32	641	27	460	11	Skirvings.....	29	796	23	1,365
6	Good Luck.....	32	548	24	675	12	Bangholm Selected.....	29	62	27	1,770

The average yield in 1908 of the twelve varieties of turnips on the Experimental Farm at Nappan, N.S., was 27 tons 202 lbs. per acre.

**MANGELS.**

Ten varieties of mangels were tested at Nappan in 1908. The seed was sown in drills two feet apart, and the young plants were thinned out to 10 or 12 inches apart in the rows. The seed was sown on June 8th and the roots were pulled on October 20th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.	
	(For five years.)	Tons.	Lbs.	Tons.		Lbs.	(For less than five years.)	Tons.	Lbs.	Tons.
1	Yellow Intermediate.....	28	1,775	19	1,106	Perfection Mammoth Long Red (2 years).....	23	695	20	1,910
2	Giant Yellow Intermediate.....	26	1,677	18	1,620					
3	Half Sugar White.....	25	127	16	835					
4	Prize Mammoth Long Red.....	24	1,482	21	570					
5	Gate Post.....	22	1,721	20	755					
6	Selected Yellow Globe.....	22	832	13	1,735	Mammoth Red Intermediate (2 years).....	22	55	17	815
7	Giant Yellow Globe.....	21	1,295	14	1,535					

The average yield in 1908 of the ten varieties of mangels on the Experimental Farm at Nappan, N.S., was 17 tons 1,823 lbs. per acre.

## Experimental Farm, Nappan, N.S.

## CARROTS.

Six varieties of field carrots were tested at Nappan in 1908. The seed was sown in drills two feet apart, and the young plants were thinned out to about 4 or 5 inches apart in the rows. The seed was sown on June 8th and the roots were pulled on October 21st.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
		Tons.	Lbs.				Tons.	Lbs.		Tons.	Lbs.
	(For five years.)	Tons.	Lbs.	Tons.	Lbs.	(For five years.)	Tons.	Lbs.	Tons.	Lbs.	
1	White Belgian .....	17	853	21	1,100	5	Mammoth White Inter- mediate .....	15	1,964	16	175
2	Ontario Champion .....	17	608	20	1,150	6	Half Long Chantenay...	15	1,928	17	1,475
3	Improved Short White....	16	1,335	21	1,725						
4	Giant White Vosges .....	16	292	18	465						

The average yield in 1908 of the six varieties of carrots on the Experimental Farm at Nappan, N.S., was 19 tons 682 lbs. per acre.

## SUGAR BEETS.

Three varieties of sugar beets were tested at Nappan in 1908. The seed was sown in drills two feet apart and the young plants thinned to about 4 or 5 inches apart in the rows. The seed was sown on June 8th and the roots were pulled on October 20th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
		Tons.	Lbs.				Tons.	Lbs.		Tons.	Lbs.
	(For five years.)	Tons.	Lbs.	Tons.	Lbs.	(For five years.)	Tons.	Lbs.	Tons.	Lbs.	
1	Wanzleben .....	14	1,917	12	90	3	French Very Rich.....	12	1,787	11	1,430
2	Vilmorin's Improved ....	14	1,392	16	505						

The average yield in 1908 of the three varieties of sugar beets on the Experimental Farm at Nappan, N.S., was 13 tons 675 lbs. per acre.

**Experimental Farm, Nappan, N.S.**

**POTATOES.**

Twenty-five varieties of potatoes grown at Nappan are here mentioned.

For planting the potatoes were cut into pieces with two or three eyes in each and these pieces were planted in rows two and a half feet apart, the sets being planted about a foot apart in the rows. The potatoes were planted on June 13th and were dug October 8th.

Number.	Varieties tested.	Average yield.		Yield in 1908.		Number.	Varieties tested.	Average yield.		Yield in 1908.	
	(For five years.)	Bu.	Lbs.	Bu.	Lbs.		(For five years.)	Bu.	Lbs.	Bu.	Lbs.
1	Vick's Extra Early.....	443	5	378	24	15	American Wonder.....	337	55	310	12
2	Rochester Rose.....	423	43	418	48	16	Uncle Sam.....	315	2	272	48
3	Everett.....	391	10	444	24	17	Reeves' Rose.....	309	19	389	24
4	Empire State.....	384	34	391	36	18	Dreer's Standard.....	307	34	301	24
5	Carman No. 1.....	382	48	314	36		(For less than five years.)				
6	Holborn Abundance.....	377	58	343	12		Vermont Gold Coin (4 yrs.)	4-5	6	380	36
7	Money Maker.....	377	17	404	48		Dooley (4 years).....	420	45	376	12
8	Canadian Beauty.....	359	55	332	12		Morgan Seedling (4 years)	363	33	239	48
9	Late Puritan.....	359	55	290	24		Ashleaf Kidney (3 years)	467	..	421	36
10	State of Maine.....	348	2	275	..		Dalmeny Beauty (3 years)	280	29	226	36
11	Country Gentleman.....	344	5	277	12		Early Manistee (1 year)	..	..	360	48
12	Irish Cobbler.....	342	34	297	..		Twentieth Century (1 yr.)	..	..	237	36
13	Turnaby Mammoth.....	341	26	299	12						
14	Early White Prize.....	340	7	250	48						

The average crop in 1908 of the twenty-five varieties of potatoes on the Experimental Farm at Nappan, N.S., was 330 bushels 42 lbs. per acre.

**EXPERIMENTAL FARM, BRANDON, MANITOBA.**

At the Experimental Farm at Brandon the spring weather was favourable for sowing so that all crops were got in in good time and under good soil conditions. Favourable weather continued until about the middle of July when two weeks of very hot weather began. This ripened the grain very rapidly and thus the yields of some crops were considerably reduced. Oats suffered most severely. Heavy frost held off until all grain crops on the experimental farm were harvested. There were several degrees of frost on August 22nd which touched some of the latest wheat, also the corn on low land. The season throughout has been a good one in the Brandon district, a good average crop having been secured, and in good condition. The varieties of wheat grown averaged a somewhat heavier yield than in 1907 while most of the other crops fell a little short of the figures for that year.

## Experimental Farm, Brandon, Manitoba.

## SPRING WHEAT.

Fourteen varieties of spring wheat grown at the Brandon Experimental Farm are here reported on. The wheat was sown April 18th, the seed being used at the rate of about one and one half bushels per acre.

Number.	Varieties tested.	Average yield.		Average Days maturing.	Yield in 1908.	Number.	Varieties tested.	Average Yield.		Average days maturing.	Yield in 1908.
		Bu. Lbs.	Days					Bu. Lbs.	Days		
	(For five years.)	Bu. Lbs.	Days	Bu. Lbs.		(For less than five yrs)	Bu. Lbs.	Days	Bu. Lbs.		
1	Preston*	42 18	122	45 10		Bishop* (4 years).....	38 50	115	40 ..		
2	Red Fife.....	41 30	125	41 30		Hungarian White (4 years).....	36 7	122	34 30		
3	Huron*.....	39 54	120	37 50		Riga* (3 years).....	37 ..	114	36 30		
4	White Fife.....	38 52	126	37 56		Marquis* (1 year)....	49 10	116	49 10		
5	Pringle's Champlain..	37 56	122	37 30		Chelsea* (1 year)....	45 30	116	45 30		
6	Stanley*.....	35 56	121	37 10							
7	Percy.....	35 42	121	37 40							
8	White Russian.....	35 20	124	39 20							
9	Red Fern.....	30 52	122	36 50							

The average crop in 1908 of the fourteen varieties of spring wheat grown on the Experimental Farm at Brandon, Man., was 39 bushels 45 lbs. per acre.

## OATS.

Twenty-four varieties of oats tested at Brandon are here reported on. The seed was sown on May 7th at the rate of about two bushels to the acre.

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.
		Bu. Lbs.	Days					Bu. Lbs.	Days		
	(For five years.)	Bu. Lbs.	Days	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days	Bu. Lbs.		
1	Improved American..	123 29	109	115 15	13	Irish Victor.....	107 31	109	111 1		
2	Banner.....	122 3	110	113 33	14	Thousand Dollar ..	107 9	108	97 27		
3	White Giant.....	118 15	109	116 21	15	Joanette.....	104 22	111	95 30		
4	Danish Island.....	117 15	110	115 15	16	Virginia White.....	103 20	104	104 29		
5	Golden Beauty.....	116 18	112	98 8	17	Twentieth Century..	103 3	108	105 15		
6	Goldfinder.....	114 10	113	102 12	18	Kendal White*.....	102 25	110	98 8		
7	Siberian.....	113 31	111	107 27	19	Tartar King.....	102 23	106	91 21		
8	Abundance.....	113 21	110	109 19	20	Pioneer.....	101 10	108	94 24		
9	Golden Giant.....	113 18	114	90 10	21	Storm King.....	97 26	108	91 26		
10	Lincoln.....	112 29	109	107 27	22	Improved Ligowo....	93 13	107	100 5		
11	American Triumph..	112 3	110	104 29	23	Milford White*.....	93 6	111	89 24		
12	Wide Awake.....	110 13	110	106 11	24	Swedish Select.....	85 21	107	97 7		

The average crop in 1908 of the twenty-four varieties of oats on the Experimental Farm at Brandon, Man., was 102 1/2 lbs. per acre.

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## Experimental Farm, Brandon, Manitoba.

## BARLEY.

Thirteen sorts of six-rowed barley and eleven sorts of two-rowed barley were grown at Brandon in 1908. These plots were all sown on May 26th, the seed being used at the rate of about two bushels per acre.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Odessa.....	63 40	89	61 12	10	Nugent*.....	55 ..	89	47 4
2	Yale*.....	61 32	89	56 22	11	Trooper*.....	52 30	90	49 18
3	Mansury.....	61 22	88	50 38	12	Champion.....	57 10	84	32 24
4	Mansfield*.....	59 22	83	56 42	(For less than five yrs)				
5	Claude*.....	59 42	89	52 14	Blue Long Head (4 years).....				
6	Empire*.....	58 38	89	52 24	63 43	91	57 44		
7	Albert*.....	57 2	87	56 42					
8	Oderbruch.....	56 20	87	45 20					
9	Stella*.....	55 30	89	48 36					

The average crop in 1908 of the thirteen varieties of six-rowed barley on the Experimental Farm at Brandon, Man., was 52 bushels 4 lbs. per acre.

## TWO-ROWED BARLEY.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Swedish Chevalier.....	60 24	94	54 8	7	French Chevalier.....	55 14	92	42 24
2	Standwell.....	59 12	92	49 28	8	Clifford*.....	52 44	89	36 42
3	Jarvis*.....	58 38	90	35 10	9	Sidney*.....	51 42	89	41 12
4	Danish Chevalier.....	57 26	92	50 40	10	Invincible.....	51 16	91	36 12
5	Gordon*.....	56 8	90	41 32	11	Beaver*.....	48 20	90	41 22
6	Canadian Thorpe.....	55 18	91	41 42					

The average crop in 1908 of the eleven varieties of two-rowed barley on the Experimental Farm at Brandon, Man., was 42 bushels 45 lbs. per acre.

### Experimental Farm, Brandon, Manitoba.

#### PEAS.

Eighteen varieties of peas were grown at Brandon in 1908. These plots were sown on May 2nd, the quantity of seed used being from 2 to 3 bushels per acre, depending on the size of the pea.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Mackay*	56 58	130	57 50	10	English Grey	47 4	131	56 20
2	Gregory*	53 36	129	52 40	11	Chancellor	46 56	119	44 ..
3	Early Britain	53 4	129	54 30	12	Golden Vine	46 54	127	41 20
4	Prince*	52 44	131	57 40	13	Wisconsin Blue	46 2	127	44 30
5	Picton*	50 48	129	51 50	14	Daniel O'Rourke	45 38	130	39 40
6	Arthur*	50 46	124	49 50	15	Archer*	45 18	183	48 20
7	Victoria*	50 26	129	51 20	16	Black-eye Marrowfat	44 40	129	37 20
8	Paragon*	50 23	126	46 20	17	White Marrowfat	43 52	132	34 40
9	Prussian Blue	48 2	123	52 20	18	Agnes*	38 30	129	34 50

The average crop in 1908 of the eighteen varieties of peas on the Experimental Farm at Brandon, Man., was 47 bushels 31 lbs. per acre.

#### INDIAN CORN.

Fifteen varieties of Indian corn were tested at Brandon during 1908. They were sown in rows about three feet apart and the plants thinned out to 6 to 8 inches apart in the rows. The seed was sown on June 4th and the crop was green for ensilage on September 5th. This crop needs frequent cultivation throughout the summer to produce the best results.

Number.	Varieties tested.	Average yield.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Yield in 1908.
	(For five years.)	Tons. Lbs.	Tons. Lbs.		(For five years.)	Tons. Lbs.	Tons. Lbs.
1	Longfellow	22 722	22 550	10	Early Mastodon	17 1,574	19 808
2	Salzer's All Gold	20 1,197	21 966	11	Cloud's Early Yellow	17 492	18 234
3	Superior Fodder	20 1,026	19 1,204	12	White Cap Yellow Dent	17 56	15 1,680
4	Angel of Midnight	20 455	18 630	13	Selected Leaning	16 274	13 334
5	Compton's Early	19 1,640	18 1,026	14	Manmoth Cuban	15 400	15 294
6	North Dakota White	18 1,924	14 1,700	(For less than five years.)			
7	Pride of the North	18 1,356	17 1,838				
8	Eureka	18 392	16 274	15	Wood's Northern Dent	17 298	15 96
9	Champion White Pearl	17 1,680	16 1,660				

The average crop in 1908 of the fifteen varieties of Indian corn on the Experimental Farm at Brandon, Man., was 17 tons 1,020 lbs. per acre.

### Experimental Farm, Brandon, Manitoba.

#### TURNIPS.

Twelve varieties of turnips were tested at Brandon in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to 10 or 12 inches apart in the rows. The seed was sown on May 4th and the roots were pulled on October 23rd.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For five years.)	Tons. Lbs.	Tons. Lbs.			(For five years.)	Tons. Lbs.	Tons. Lbs.			
1	Good Luck.....	31	93	29	1,136	7	Magnum Bonum.....	27	1,810	27	120
2	Hall's Westbury.....	29	1,136	29	844	8	Mammoth Clyde.....	27	1,123	29	1,664
3	Perfection Swede.....	29	1,136	33	792	9	Jumbo.....	27	1,070	26	8
4	Hartley's Bronze.....	29	661	35	488	10	Carter's Elephant.....	27	806	27	912
5	Halewood's Bronze Top.....	28	1,341	38	1,880	11	Skirvinga.....	26	1,803	31	568
6	Bangholm Selected.....	28	602	26	1,856	12	Kangaroo.....	25	582	32	944

The average crop in 1908 of the twelve varieties of turnips on the Experimental Farm at Brandon, Man., was 30 tons 1,226 lbs. per acre.

#### MANGELS.

Ten varieties of mangels were tested at Brandon in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to 10 or 12 inches apart in the rows. The seed was sown on May 14th and the roots were pulled on October 7th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.	
	(For five years.)	Tons. Lbs.	Tons. Lbs.			(For five years.)	Tons. Lbs.	Tons. Lbs.		
1	Prize Mammoth Long Red	32	891	31	40	(For less than five years.)				
2	Gate Post.....	31	1,888	35	1,280	Perfection Mammoth Long Red (2 years).....	28	1,288	32	1,736
3	Yellow Intermediate.....	31	1,677	34	1,168	Mammoth Red Intermediate (2 years).....	21	1,956	26	272
4	Half Sugar White.....	29	27	23	992	Crimson Champion (2 yrs.)	17	584	14	1,040
5	Giant Yellow Globe.....	28	866	40	1,840					
6	Selected Yellow Globe.....	27	173	23	200					
7	Giant Yellow Intermediate	26	958	21	768					

The average yield in 1908 of the ten varieties of mangels on the Experimental Farm at Brandon, Man., was 28 tons 734 lbs. per acre.

### Experimental Farm, Brandon, Manitoba.

#### CARROTS.

Six varieties of field carrots were tested at Brandon in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to about 4 or 5 inches apart in the rows. The seed was sown on May 4th and the roots were pulled on October 27th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
		(For five years.)	Tons. Lbs.				Tons. Lbs.	(For five years.)		Tons. Lbs.	Tons. Lbs.
1	Improved Short White.....	24	1,896	15	360	4	Giant White Vosges ...	21	1,384	11	440
2	Ontario Champion.....	22	968	10	680	5	White Belgian .....	18	1,796	9	1,360
3	Mammoth White Intermediate.....	22	44	13	1,280	6	Half Long Chantenay.....	16	1,440	10	1,120

The average yield in 1908 of the six varieties of carrots on the Experimental Farm at Brandon, Man., was 11 tons 1,540 lbs. per acre.

#### SUGAR BEETS.

Three varieties of sugar beets were tested at Brandon in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to about 4 or 5 inches apart in the rows. The seed was sown on May 14th and the roots were pulled on October 7th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
		(For five years.)	Tons. Lbs.				Tons. Lbs.	(For five years.)		Tons. Lbs.	Tons. Lbs.
1	Wanzleben.....	22	352	20	1,184	3	French Very Rich... ..	18	590	18	1,224
2	Vilmorin's Improved.....	18	1,646	18	432						

The average yield in 1908 of the three varieties of sugar beets on the Experimental Farm at Brandon, Man., was 19 tons 280 lbs. per acre.

**Experimental Farm, Brandon, Manitoba.**

**POTATOES.**

Twenty-five kinds of potatoes were grown at Brandon in 1908. For planting the potatoes were cut into pieces with two or three eyes in each, and these pieces were planted in rows two and a half feet apart, the sets being placed about a foot apart in the rows. The potatoes were planted on May 25th and were dug on October 13th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.
	(For five years.)	Bus.	Lbs.	Bu. & Lbs.		(For five years.)	Bus.	Lbs.	Bus. & Lbs.
1	Late Puritan.....	569	48	418 ..	15	Everett .....	426	4	418 ..
2	State of Maine.....	547	48	407 ..	16	Early White Prize.....	306	22	414 20
3	Uncle Sam.....	514	34	392 20	17	Rochester Rose.....	372	54	414 20
4	Dreer's Standard.....	511	22	374 ..	18	Vick's Extra Early.....	351	16	207 10
5	American Wonder.....	539	44	465 40	(For less than five years.)				
6	Money Maker.....	522	30	352 ..	Morgan Seedling (4 yrs.) ..	561	52	410 40	
7	Holborn Abundance.....	508	12	447 20	Vermont Gold Coin (4 yrs.) ..	476	40	341 ..	
8	Reeves' Rose.....	500	8	454 40	Dooley (4 years).....	370	20	348 20	
9	Empire State.....	496	6	315 20	Ashleaf Kidney (3 years) ..	431	27	528 ..	
10	Country Gentleman.....	495	..	410 40	Dalmeny Beauty (3 years) ..	277	27	190 40	
11	Canadian Beauty.....	490	2	414 20	Twentieth Century (1 year) ..	377	40	377 40	
12	Irish Cobbler.....	474	6	432 40	Early Manistee (1 year) ..	238	20	238 20	
13	Carman No. 1.....	471	32	403 20					
14	Buttady Mammoth.....	435	36	421 40					

The average crop in 1908 of the twenty-five varieties of potatoes on the Experimental Farm at Brandon, Man., was 383 bushels 54 lbs. per acre.

**EXPERIMENTAL FARM, INDIAN HEAD, SASK.**

The spring of 1908 was probably the finest season for seeding in all parts of the province of Saskatchewan which has been had for many years. The weather was favourable at the outset and the seeding began nearly three weeks earlier than that of 1907. Timely showers kept the ground in a condition of moisture favourable for rapid growth, while hot weather later in the season brought about a rapid ripening of the grain. On the 25th of July the temperature reached 94.5° F., the culminating point of a very hot period. This extreme heat had an injurious effect on some of the grain, causing it to shrivel. The weather was exceptionally favourable for harvesting and threshing. The trial plots of wheat in 1908 have given more than twice the crop of 1907; the other grain crops are somewhat smaller than last year. The grain was nearly all ripe and safely harvested before frost occurred.

The plots of grain were one-twentieth of an acre each. The yield per acre of the Indian corn and field roots has been calculated from the crop obtained from two rows each 66 feet long. In the case of potatoes one row 132 feet long has been used.

### Experimental Farm, Indian Head, Sask.

#### SPRING WHEAT.

Fourteen varieties of spring wheat have been grown at the Indian Head Experimental Farm. The wheat was sown on April 16th, the seed being used at the rate of about one and one half bushels per acre.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For less than five yrs.)	Bu. Lbs.	Days.	Bu. Lbs.
1	White Fife	39 40	134	50 20					
2	Huron*	38 45	128	50 40					
3	Stanley*	37 13	127	38 20		Bishop*(4 years)	37 55	129	41 20
4	Preston*	36 46	127	31 40		Hungarian White (4 years)	26	130	32 40
5	Percy*	36 53	127	37		Riga*(3 years)	28 53	123	33 40
6	White Russian	34 36	132	36		Chelsea*(1 year)	48 40	127	48 40
7	Red Fife	34 17	131	35		Marquis*(1 year)	46 20	121	46 20
8	Red Fern	31 9	130	31 40					
9	Pringle's Champlain	29 49	121	32 40					

The average crop in 1908 of the fourteen varieties of spring wheat on the Experimental Farm at Indian Head, Sask., was 39 bushels 21 lbs. per acre.

#### OATS.

Twenty-four of the varieties of oats tested at Indian Head are here reported upon. The seed was sown on May 5th at the rate of about two bushels to the acre.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years).	Bu. Lbs.	Days.	Bu. Lbs.		(For five years).	Bu. Lbs.	Days.	Bu. Lbs.
1	Banner	117 7	117	115 10	15	Abundance	94 13	116	87 20
2	Danish Island	108 2	114	110 20	16	Swedish Select	93 28	115	70 20
3	Goldfinder	107 14	120	89 14	17	Milford White*	93 22	118	71 6
4	American Triumph	104 26	117	104 4	18	Storm King	93 6	119	94 4
5	Irish Victor	104 1	117	87 22	19	Tartar King	91 14	117	67 2
6	Golden Giant	104	121	98 28	20	Lincoln	90 3	117	62 32
7	Twentieth Century	103 16	116	98 28	21	Thousand Dollar	89 13	114	67 2
8	Golden Beauty	102 17	117	73 18	22	Wide Awake	87 27	114	68 8
9	Improved Ligowo	101 31	115	82 32	23	Joanette	87 24	119	46 16
10	Kendal White*	99 26	118	67 22					
11	White Giant	99 26	114	75 30		(For less than five years).			
12	Improved American	99 3	117	85 10		Virginia White (3 yrs.)	86 29	116	64 12
13	Siberian	98 12	119	91 26					
14	Pioneer	94 18	116	57 22					

The average crop in 1908 of the twenty-four varieties of oats on the Experimental Farm at Indian Head, Sask., was 80 bushels 24 lbs. per acre.

### Experimental Farm, Indian Head, Sask.

#### BARLEY.

Thirteen sorts of six-rowed barley and eleven sorts of two-rowed barley grown at Indian Head are here reported upon. These plots were all sown on May 5th, the seed being used at the rate of about two bushels per acre.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average Yie.	Average days maturing.	Yield in 1908.
	(For five years).	Bu. Lbs.	Days.	Bu. Lbs.		(For five years).	Bu. Lbs.	Days.	Bu. Lbs.
1	Stella*	60 40	102	55 40	9	Oderbruch . . . . .	56 41	98	40 40
2	Yale*	60 24	103	45 40	10	Odessa . . . . .	55 ..	110	42 44
3	Claude*	58 42	101	41 32	11	Albert* . . . . .	50 4	99	45 20
4	Trooper*	58 13	99	59 8	12	Champion . . . . .	40 23	95	35 40
5	Mansfield*	58 9	99	38 36		(For less than five years).			
6	Nugent*	57 34	101	37 4		Blue Long Head 4 yrs	67 16	100	45 20
7	Mensury . . . . .	57 18	99	45 20					
8	Empire*	57 2	100	44 8					

The average crop in 1908 of the thirteen varieties of six-rowed barley on the Experimental Farm at Indian Head, Sask., was 44 bushels 23 lbs. per acre.

#### TWO-ROWED BARLEY.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years).	Bu. Lbs.	Days.	Bu. Lbs.		(For five years).	Bu. Lbs.	Days.	Bu. Lbs.
1	Standwell . . . . .	59 1	108	54 8	7	Jarvis* . . . . .	51 25	103	47 4
2	Danish Chevalier . . . . .	58 28	109	60 ..	8	Beaver* . . . . .	50 25	107	37 44
3	Invincible . . . . .	58 4	108	41 32	9	Sidney* . . . . .	50 12	100	46 12
4	Gordon* . . . . .	55 23	102	56 12	10	Canadian Thorpe . . . . .	50 8	105	40
5	Swedish Chevalier . . . . .	55 10	108	59 8	11	French Chevalier . . . . .	46 44	109	48 16
6	Clifford* . . . . .	51 42	102	52 24					

The average crop in 1908 of the eleven varieties of two-rowed barley on the Experimental Farm at Indian Head, Sask., was 49 bushels 19 lbs. per acre.

### Experimental Farm, Indian Head, Sask.

#### PEAS

Eighteen of the varieties of peas grown at Indian Head are here reported upon. These plots were sown on May 22nd, the quantity of seed used being from two to three bushels per acre, depending on the size of the pea.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years).	Bu. Lbs.	Days.	Bu. Lbs.		(For five years).	Bu. Lbs.	Days.	Bu. Lbs.
1	Golden Vine.....	53 4	115	46 ..	10	Agnes* .....	46 48	117	33 20
2	Chancellor.....	52 56	114	45 20	11	Gregory*.....	46 12	119	48 40
3	Daniel O'Rourke.....	51 52	114	45 ..	12	Archer*.....	45 56	119	37 ..
4	Prussian Blue.....	50 48	118	45 20	13	Prince*.....	45 20	118	40 40
5	Early Britain.....	49 24	117	39 20	14	Arthur*.....	44 36	115	43 40
6	Mackay*.....	49 4	120	48 40	15	Wisconsin Blue.....	43 18	119	41 20
7	Black-eye Marrowfat.....	48 24	118	36 40	16	Paragon*.....	42 7	119	44 ..
8	Picton*.....	48 20	117	42 20	17	White Marrowfat.....	42 4	119	35 20
9	English Grey.....	48 16	118	42 ..	18	Victoria.....	39 48	116	32 40

The average crop in 1908 of the eighteen varieties of peas on the Experimental Farm at Indian Head, Sask., was 41 bushels 31 lbs. per acre.

#### INDIAN CORN.

Fifteen varieties of Indian corn were tested at Indian Head in 1908. The seed was sown in rows about three feet apart and the plants thinned out to 6 to 8 inches apart in the rows. The seed was sown on May 18th and the crop was cut green for ensilage on September 4th. This crop needs frequent cultivation throughout the summer to produce the best results.

Number.	Varieties tested.	Average yield.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Yield in 1908.
	(For five years).	Tons. Lbs.	Tons. Lbs.		(For five years).	Tons. Lbs.	Tons. Lbs.
1	Angel of Midnight.....	14 1,700	9 810	11	White Cap. "Low Dent" ..	11 748	8 1,490
2	Compton's Early.....	14 1,590	12 750	12	Cloud's Early Yellow.....	10 1,824	8 1,820
3	Salzer's All Gold.....	13 576	8 280	13	Early Masadon.....	10 196	8 60
4	Enreka.....	13 400	3 1,700	14	Mammoth Cuban.....	9 1,294	5 1,550
5	Selected Leaming.....	12 1,916	9 1,470		(For less than five years).		
6	North Dakota White.....	12 1,894	3 1,920		Wood's Northern Dent (3 years).....	10 203	9 920
7	Longfellow.....	12 1,322	11 1,540				
8	Champion White Pearl.....	12 1,124	11 1,210				
9	Pride of the North.....	11 1,166	2 1,830				
10	Superior Fodder.....	11 860	8 280				

The average crop in 1908 of the fifteen varieties of Indian corn on the Experimental Farm at Indian Head, Sask., was 8 tons 375 lbs. per acre.



**Experimental Farm, Indian Head, Sask.**

**TURNIPS.**

Twelve varieties of field turnips were tested at Indian Head in 1908. The seed was sown in drills two and a half feet apart, and the young plants thinned out to about 10 to 12 inches apart in the rows. The seed was sown on May 13th and the roots were pulled on October 12th.

Number.	Varieties tested	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For five years).	Tons.	Lbs.	Tons.		Lbs.	(For five years).	Tons.	Lbs.	Tons.	Lbs.
1	Hall's Westbury.....	24	687	17	584	7	Carter's Elephant.....	22	1,221	19	1,072
2	Halewood's Bronze Top....	24	629	15	888	8	Bangholm Selected.....	22	1,187	15	1,812
3	Perfection Swede.....	24	46	18	432	9	Magnum Bonum.....	21	1,649	13	632
4	Good Luck.....	23	1,079	14	1,436	10	Mammoth Clyde.....	21	378	15	1,944
5	Skirvings.....	23	324	15	360	11	Kangaroo.....	21	351	16	1,528
6	Hartley's Bronze.....	22	1,400	14	1,832	12	Jumbo.....	20	1,157	15	1,944

The average yield in 1908 of the twelve varieties of turnips on the Experimental Farm at Indian Head, Sask., was 16 tons 197 lbs. per acre.

**MANGELS**

Ten varieties of mangels were tested at Indian Head in 1908. The seed was sown in drills two and a half feet apart and the young plants were thinned out to 10 to 12 inches apart in the rows. The seed was sown May 13th and the roots were pulled on October 6th.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.	
	(For five years).	Tons.	Lbs.	Tons.		Lbs.	(For less than five years).	Tons.	Lbs.	Tons.
1	Giant Yellow Intermediate	22	1,482	16	604	Perfection Mammoth Long Red (2 years)..... Manimoth Red Intermediate (2 years)..... Crimson Champion (2 yrs.)	16	1,792	17	1,376
2	Half Sugar White.....	22	647	14	1,832					
3	Giant Yellow Globe.....	22	356	19	544					
4	Selected Yellow Globe.....	21	1,634	16	76					
5	Yellow Intermediate.....	20	1,878	17	1,904					
6	Prize Mammoth Long Red	20	769	17	56					
7	Gate Post.....	18	470	16	340					

The average yield in 1908 of the ten varieties of mangels on the Experimental Farm at Indian Head, Sask., was 16 tons 1,330 lbs. per acre.

### Experimental Farm, Indian Head, Sask.

#### CARROTS.

Six varieties of field carrots were tested at Indian Head in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to about 4 or 5 inches apart in the rows. The seed was sown on April 22nd and the roots were pulled on October 12th.

Number.	Varieties tested.	Average yield.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Yield in 1908.
	(For five years.)	Tons. Lbs.	Tons. Lbs.		(For five years.)	Tons. Lbs.	Tons. Lbs.
1	Ontario Champion.....	14 846	9 348	4	Mammoth White Intermediate.....	11 730	7 388
2	Giant White Vosges.....	12 1,896	10 64	5	Improved Short White....	10 1,918	8 368
3	Half Long Chantenay.....	12 1,116	9 744	6	White Belgian.....	10 1,437	7 1,048

The average yield in 1908 of the six varieties of carrots on the Experimental Farm at Indian Head, Sask., was 8 tons 1,160 lbs. per acre.

#### SUGAR BEETS.

Three varieties of sugar beets were tested at Indian Head in 1908. The seed was sown in drills two feet apart and the young plants thinned out to about 4 or 5 inches apart in the rows. The seed was sown on May 13th and the roots were pulled on October 10th.

Number.	Varieties tested.	Average yield.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Yield in 1908.
	(For five years.)	Tons. Lbs.	Tons. Lbs.		(For five years.)	Tons. Lbs.	Tons. Lbs.
1	Vilmorin's Improved.....	12 871	10 1,780	3	French Very Rich.....	11 327	7 1,708
2	Wanzleben.....	11 1,087	10 196				

The average yield in 1908 of the three varieties of sugar beets on the Experimental Farm at Indian Head, Sask., was 9 tons 1,228 lbs. per acre.

**Experimental Farm, Indian Head, Sask.**

**POTATOES.**

Twenty-five kinds of potatoes were grown at Indian Head in 1908. For planting the potatoes were cut into pieces with two or three eyes in each, and these pieces were planted in rows two and a half feet apart and about a foot apart in the rows. The potatoes were planted on May 15th and were dug on October 5th.

Number.	Varieties tested.	Average yield.		Yield in 1908.		Number.	Varieties tested.	Average yield.		Yield in 1908.	
	(For five years.)	Bu.	Lbs.	Bu.	Lbs.		(For five years.)	Bu.	Lbs.	Bu.	Lbs.
1	Reeves' Rosa.....	385	7	283	48	15	Holborn Abundance.....	315	10	226	36
2	Country Gentleman....	368	50	281	36	16	Canadian Beauty.....	313	50	230	..
3	Late Puritan.....	368	50	235	24	17	Early White Prize.....	310	19	211	12
4	Burnaby Mammoth.....	364	..	233	12	18	Iriah Cobbler.....	291	24	187	..
5	Uncle Sam.....	359	36	184	48	(For less than five years.)					
6	Rochester Rose.....	354	46	239	48						
7	Money Maker.....	350	48	189	12	Vermont Gold Coin (4 yrs).	400	33	224	24	
8	Everett.....	346	24	266	12	Morgan Seedling (4 years)	335	6	239	48	
9	Dreer's Standard.....	344	12	213	24	Dooley (4 years).....	230	57	178	12	
10	Empire State.....	343	19	237	36	Ashleaf Kidney (3 years)	373	51	264	..	
11	American Wonder.....	341	34	200	12	Dahmeny Beauty (3 yrs)..	262	22	145	12	
12	Vick's Extra Early.....	338	2	209	..	Early Manistee (1 year)...	233	12	233	12	
13	Carman No. 1.....	323	5	162	48	Twentieth Century (1 yr).	88	..	88	..	
14	State of Maine.....	323	5	226	36						

The average crop in 1908 of the twenty-five varieties of potatoes on the Experimental Farm at Indian Head, Sask., was 215 bushels 15 lbs. per acre.

**EXPERIMENTAL FARM, LETHBRIDGE, ALBERTA.**

On this farm there were two series of trial plots conducted in 1908. One after the methods practised in connection with "dry farming" (non-irrigated); the other on irrigated land.

The land used for both sets of plots was broken from the bare prairie in the spring of 1907 about three or four inches deep, and backset one or two inches deeper later in the season. The land on the dry or non-irrigated portion was backset in August, while the portion to be irrigated was not backset until September or October, which left it more open and less moist, consequently the non-irrigated grain was sown on land in a somewhat better condition of tilth than was the irrigated.

The different varieties of grain were all sown in uniform plots of one-seventieth of an acre each, excepting the winter wheats which were sown in plots of one-sixtieth of an acre. The preparation of the soil for the trial plots of Indian corn, field roots and potatoes was the same as for the grain.

Owing to unavoidable delay threshing was not begun until the 22nd of September. As the first grain was cut on the 23rd of July it was exposed a long time in shock and to the

### Experimental Farm, Lethbridge, Alberta.

depredations of birds. For these reasons the yields of all the plots must have been appreciably reduced.

Particulars regarding the results obtained from the non-irrigated plots will be first referred to, after which those on the irrigated land will be given. It should be borne in mind that the experiments referred to on the farm have only been carried on for one year.

#### WINTER WHEAT. (NON-IRRIGATED.)

Ten varieties of winter wheat grown at the Lethbridge Experimental Farm are here reported on. The wheat was sown August 31st, 1907, and was ripe on July 29th and 30th, 1908. The quantity of seed used was about three pecks per acre.

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.			
		Days.	Bu. Lbs.	Bu.	Lbs.			Days.	Bu. Lbs.	Bu.	Lbs.		
1	Turkey Red (No. 330 from Kansas) .....	333	53 4	6	Prosperity .....	333	40	19	7	Red Velvet Chaff .....	334	37	56
2	Kharkov .....	334	52 49	8	Reliable .....	333	32		8	Dawson's Golden Chaff .....	333	29	34
3	Abundant .....	333	44 4	9	Dawson's Golden Chaff .....	333	29	34	9	Red Chief .....	333	26	8
4	Turkey Red (Alberta gr'n) .....	334	43 56	10	Red Chief .....	333	26	8					
5	Early Windsor .....	334	43 30										

The average crop in 1908 of the ten varieties of winter wheat on the Experimental Farm at Lethbridge, Alberta, was 40 bushels 20 lbs. per acre.

#### SPRING WHEAT. (NON-IRRIGATED.)

Sixteen varieties of spring wheat grown at the Lethbridge Experimental Farm are here reported on. The wheat was sown on April 13th at the rate of about one bushel and one peck per acre.

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.			
		Days.	Bu. Lbs.	Bu.	Lbs.			Days.	Bu. Lbs.	Bu.	Lbs.		
1	Percy A* .....	119	35	9	Marquis* .....	116	29	10	10	Hungarian White .....	119	29	10
2	Red Fife H. ....	126	33 50	11	Huron* .....	119	29	10	11	Red Fern* .....	116	29	10
3	Chelsea* .....	119	33 15	12	Stanley* .....	119	29	10	12	Kubanka (durum) .....	126	26	50
4	Preston* .....	115	32 40	13	Gatineau* .....	119	29	10	13	Bishop* .....	112	30	20
5	White Russian .....	119	30 55	14	Riga .....	113	21		14	White Fife .....	119	30	20
6	Pringle's Champlain .....	116	30 20	15					15				
7	Bishop* .....	112	30 20	16					16				
8	White Fife .....	119	30 20										

The average crop in 1908 of the sixteen varieties of spring wheat on the Experimental Farm at Lethbridge, Alberta, was 29 bushels 32 lbs. per acre.

**Experimental Farm, Lethbridge, Alberta.**

**OATS. (NON-IRRIGATED.)**

Twenty-four of the varieties of oats tested at Lethbridge are here reported on. The seed was sown on April 17th at the rate of about two bushels to the acre.

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.	
		Days.	Bus.	Lbs.	Days.			Bus.	Lbs.		
1	Improved American.....	105	85	15	13	Wide Awake.....	105	63	28		
2	Banner.....	106	80	19	14	Tartar King.....	106	63	28		
3	Abundance.....	108	89	10	15	Goldfinder.....	112	61	26		
4	American Triumph.....	108	74	21	16	Lincoln.....	107	60	30		
5	Irish Victor.....	105	74	4	17	Siberian.....	106	59	24		
6	Golden Beauty.....	110	73	3	18	Golden Giant.....	118	58	24		
7	Danish Island.....	106	72	2	19	Pioneer.....	111	57	22		
8	Improved Ligowo.....	105	72	2	20	Virginia White.....	106	57	22		
9	Kendal White*.....	106	70		21	Milford White*.....	109	55	20		
10	Twentieth Century.....	106	64	24	22	Swedish Select.....	105	55	20		
11	Joanette.....	109	63	28	23	Thousand Dollar.....	105	55	20		
12	White Giant.....	106	63	28	24	Storm King.....	111	51	16		

The average crop in 1908 of the twenty-four varieties of oats on the Experimental Farm at Lethbridge, Alberta, was 65 bushels 23 lbs. per acre.

**BARLEY. (NON-IRRIGATED.)**

Thirteen sorts of six-rowed barley and eleven sorts of two-rowed barley were grown at Lethbridge in 1908. These plots were all sown on April 22nd, the seed being used at the rate of about one and one half bushels per acre.

**SIX-ROWED BARLEY. (NON-IRRIGATED.)**

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.	
		Days.	Bus.	Lbs.	Days.			Bus.	Lbs.		
1	Blue Long Head.....	100	56	42	8	Stella*.....	100	37	9		
2	Claude*.....	99	55	20	9	Nugent*.....	99	36	22		
3	Empire*.....	99	48	10	10	Yale*.....	100	32	4		
4	Mansfield*.....	99	42	14	11	Oderbruch.....	99	30	30		
5	Albert*.....	100	39	8	12	Trooper*.....	100	29	8		
6	Odessa.....	100	37	14	13	Champion (beardless).....	99	20	20		
7	Mensury.....	99	37	44							

The average crop in 1908 of the thirteen varieties of six-rowed barley on the Experimental Farm at Lethbridge, Alberta, was 38 bushels 36 lbs. per acre.

### Experimental Farm, Lethbridge, Alberta.

#### TWO-ROWED BARLEY. (NON-IRRIGATED.)

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.	
		Days.	Bus.	Lbs.	Days.			Bus.	Lbs.		
1	Swedish Chevalier	102	55	20	7	Gordon*	101	41	27		
2	Invincible	101	53	46	8	Clifford*	101	41	27		
3	Sidney*	101	51	2	9	Canadian Thorpe	101	40	40		
4	Standwell	102	49	28	10	Jarvis*	101	35	..		
5	Danish Chevalier	101	45	10	11	Beaver*	101	30	20		
6	French Chevalier	101	43	36							

The average crop in 1908 of the eleven varieties of two-rowed barley on the Experimental Farm at Lethbridge, Alberta, was 44 bushels, 20 lbs. per acre.

#### PEAS. (NON-IRRIGATED.)

Seventeen varieties of peas were grown at Lethbridge in 1908. These plots were sown on April 15th at the rate of about two bushels to the acre.

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.	
		Days.	Bus.	Lbs.	Days.			Bus.	Lbs.		
1	Paragon*	108	21	53	10	Wisconsin Blue	108	19	15		
2	Archer*	110	21	53	11	Mackay*	107	18	57		
3	English Grey	101	21	35	12	Daniel O'Rourke	108	18	57		
4	Prince*	108	21	18	13	Chancellor	108	18	22		
5	Agnes*	110	21	..	14	White Marrowfat	108	17	48		
6	Prussian Blue	108	19	56	15	Blue-eye Marrowfat	111	17	46		
7	Early Britain	108	19	32	16	Victoria*	111	14	58		
8	Golden Vine	108	19	32	17	Gregory*	108	12	15		
9	Arthur*	108	19	15							

The average crop in 1908 of the seventeen varieties of peas on the Experimental Farm at Lethbridge, Alberta, was 19 bushels 3 lbs. per acre.

## Experimental Farm, Lethbridge, Alberta.

### INDIAN CORN. (NON-IRRIGATED.)

Fourteen varieties of Indian corn were tested at Lethbridge during 1908. They were sown in rows about three feet apart and the plants thinned out to 6 to 8 inches apart in the rows.

The seed was sown on May 22nd and the crop was cut green for ensilage on September 11th. This crop needs frequent cultivation throughout the early summer months to produce the best results.

Number.	Varieties tested.	Yield in 1908.	Number.	Varieties tested.	Yield in 1908.
		Tons. Lbs.			
1	North Dakota White	7 1,840	8	Selected Lening	5 1,410
2	Angel of Midnight	6 1,860	9	Pride of the North	5 1,900
3	Superior Fodder	6 1,310	10	Compton's Early	5 1,900
4	Mammoth Cuban	6 210	11	Longfellow	4 1,790
5	Salzer's All Gold	5 1,880	12	White Cap Yellow Dent	4 1,380
6	Fareka	5 1,880	13	Wood's Northern Dent	4 690
7	Early Mastodon	5 1,770	14	Champion White Pearl	3 1,370

The average crop in 1908 of the fourteen varieties of Indian corn on the Experimental Farm at Lethbridge, Alberta, was 5 tons 1,409 lbs. per acre.

{One row partially destroyed.

### TURNIPS. (NON-IRRIGATED.)

Twelve varieties of field turnips were tested at Lethbridge in 1908. The seed was sown in drills 30 inches apart and the young plants thinned out to about 10 to 12 inches apart in the rows. The seed was sown on May 5th and the roots were pulled on October 16th.

Number.	Varieties tested.	Yield in 1908.	Number.	Varieties tested.	Yield in 1908.
		Tons. Lbs.			
1	Kangaroo	10 1,648	7	Magnum Bonum	7 1,840
2	Hall's Westbury	10 1,516	8	Jumbo	7 1,444
3	Hartley's Bronze	10 788	9	Perfection Swede	7 520
4	Halewood's Bronze Top	9 1,536	10	Skirvings	6 1,200
5	Good Luck	9 216	11	Carter's Elephant	6 408
6	Mammoth Clyde	8 236	12	Bangholm Selected	5 296

The average crop in 1908 of the twelve varieties of turnips on the Experimental Farm at Lethbridge, Alberta, was 8 tons 637 lbs. per acre.

**Experimental Farm, Lethbridge, Alberta.**

**MANGELS. (NON-IRRIGATED.)**

Ten varieties of mangels were tested at Lethbridge in 1908. The seed was sown in drills 30 inches apart, and the young plants were thinned out to 10 to 12 inches apart in the rows. The seed was sown on May 4th and the roots were pulled on October 15th.

Number.	Varieties tested.	Yield	Number.	Varieties tested.	Yield
		in 1908.			in 1908.
		Tons. Lbs.			Tons. Lbs.
1	Gate Post.....	13 1,984	6	Giant Yellow Intermediate.....	11 1,496
2	Giant Yellow Globe.....	13 796	7	Crimson Champion.....	11 1,496
3	Selected Yellow Globe.....	13 136	8	Half Sugar White.....	11 1,364
4	Perfection Mammoth Long.....	12 24	9	Mammoth Red Intermediate.....	10 1,912
5	Yellow Intermediate.....	11 1,760	10	Prize Mammoth Long Red.....	10 1,780

The average crop in 1908 of the ten varieties of mangels at the Experimental Farm at Lethbridge, Alberta, was 12 tons 275 lbs. per acre.

**CARROTS. (NON-IRRIGATED.)**

Six varieties of field carrots were tested at Lethbridge in 1908. The seed was sown in drills 20 inches apart and the young plants thinned out to about 4 or 5 inches apart in the rows. The seed was sown on May 4th and the roots were pulled on October 16th.

Number.	Varieties tested.	Yield	Number.	Varieties tested.	Yield
		in 1908.			in 1908.
		Tons. Lbs.			Tons. Lbs.
1	Giant White Vosges.....	10 1,186	4	Mammoth White Intermediate.....	7 1,404
2	Improved Short White.....	9 77	5	White Belgian.....	6 1,068
3	Ontario Champion.....	8 1,107	6	Half Long Chantenay.....	4 1,425

The average crop in 1908 of the six varieties of carrots on the Experimental Farm at Lethbridge, Alberta, was 7 tons 1,711 lbs. per acre.



### Experimental Farm, Lethbridge, Alberta.

#### SUGAR BEETS. (NON-IRRIGATED.)

Three varieties of sugar beets were tested at Lethbridge in 1908. The seed was sown in drills 20 inches apart and the young plants thinned out to about 4 or 5 inches apart in the rows. The seed was sown on May 6th and the roots were pulled on October 26th.

Number.	Varieties tested.	Yield	Number.	Varieties tested.	Yield
		in 1908.			in 1908.
		Tons. Lbs.			Tons. Lbs.
1	Klein Wanzleben . . . . .	10 770	3	Vimorin's Improved . . . . .	9 454
2	French Very Rich . . . . .	9 1,992			

The average crop in 1908 of the three varieties of sugar beets on the Experimental Farm at Lethbridge, Alberta, was 9 tons 1,600 lbs. per acre.

#### POTATOES. (NON-IRRIGATED.)

Twenty-two kinds of potatoes grown at Lethbridge in 1908 are here reported on. The potatoes for planting were cut into pieces with two or three eyes in each and these pieces were planted in rows two and a half feet apart, the sets being placed about a foot apart in the rows. The potatoes were planted on May 19th and were dug on October 6th.

Number.	Varieties tested.	Yield	Number.	Varieties tested.	Yield
		in 1908.			in 1908.
		Bus. Lbs.			Bus. Lbs.
1	Empire State . . . . .	138 35	12	Everett . . . . .	115 30
2	Holburn Abundance . . . . .	132 . .	13	Reeves' Rise . . . . .	114 24
3	American Wonder . . . . .	127 26	14	Burnaby Mammoth . . . . .	114 24
4	Dresser's Standard . . . . .	127 36	15	Uncle Sam . . . . .	112 12
5	Vermont Gold Coin . . . . .	121 . .	16	Vick's Extra Early . . . . .	110 . .
6	Carman No. 1 . . . . .	118 48	17	Late Puritan . . . . .	107 48
7	Country Gentleman . . . . .	118 48	18	Early White Prize . . . . .	103 24
8	Morgan Seedling . . . . .	117 42	19	Dahmny Beauty . . . . .	100 6
9	Rochester Rose . . . . .	116 36	20	Money Maker . . . . .	94 36
10	State of Maine . . . . .	116 36	21	Irish Colbler . . . . .	92 24
11	Canadian Beauty . . . . .	116 36	22	Ashleaf Kidney . . . . .	85 48

The average crop in 1908 of the twenty-two varieties of potatoes on the Experimental Farm at Lethbridge, Alberta, was 113 bushels 45 lbs. per acre.

**Experimental Farm, Lethbridge, Alberta.**

**CROPS GROWN AT LETHBRIDGE, ALBERTA. ON IRRIGATED LAND.**

No winter wheat was grown under irrigation at the Experimental Farm at Lethbridge, Alberta, in 1907.

The different crops under trial on irrigated land were irrigated as follows:—

All the trial plots of spring wheat, oats, barley, and peas were irrigated once only on July 11th. Some of these plots suffered from the lack of moisture before water could be supplied owing to the break in the main ditch caused by the unusual June floods. The barleys being the first of the grains to mature were the furthest advanced at this time and consequently suffered more than any of the other grains. The later maturing barleys received more benefit from the irrigation as is evidenced by the increased yields. The oats and peas seemed to suffer less than the barleys from this cause, while the wheats were affected least of all. In their case an earlier irrigation might not have helped the yield materially.

Potatoes, Indian corn and sugar beets were irrigated three times on July 22nd, August 1st and 10th.

Mangels and carrots were irrigated four times ; on July 22nd, August 1st, 10th and 29th.

The potatoes on the irrigated land were about twice the size of those grown on the non-irrigated land.

It is difficult to account for the very low yields of peas under irrigation. It might have been due to too little seed being sown and some loss was no doubt occasioned by the long exposure between cutting and threshing.

**SPRING WHEAT. (IRRIGATED.)**

Thirteen varieties of spring wheat have been grown in 1908 on irrigated land at the Lethbridge Experimental Farm. The wheat was sown on April 14th, the seed being used at the rate of about one bushel and one peck per acre. This crop was irrigated once only on July 11th.

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.	
		Days.	Bush.	Lbs.	Days.			Bush.	Lbs.		
1	Chelsea*	123	44	20	8	Bishop*	116	38	30		
2	Percy A*	123	43	10	9	Red Fern.	118	37	20		
3	Pringle's Champlain.	118	43	10	10	Red Fife H.	125	34	25		
4	Marquis*	118	43	10	11	White Fife.	125	30	20		
5	Preston*	118	42	35	12	Stanley*	125	22	45		
6	Hungarian White.	118	42	..	13	White Russian.	126	22	45		
7	Huron*	123	40	50							

The average crop in 1908 of the thirteen varieties of spring wheat grown under irrigation on the Experimental Farm at Lethbridge, Alberta, was 37 bushels 20 lbs. per acre.

**Experimental Farm, Lethbridge, Alberta.**

**OATS. (IRRIGATED.)**

Twenty-four varieties of oats were grown in 1908 on irrigated land at the Lethbridge Experimental Farm. The oats were sown on April 17th at the rate of about two bushels to the acre. This crop was irrigated once only on July 11th, 1908.

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested	No. of days maturing.		Yield in 1908.	
		Days.	Bus.	Libs.	Days.			Bus.	Libs.		
1	Improved American.....	114	88	18	13	Twentieth Century.....	113	64	24		
2	Banner.....	116	88	18	14	Golden Beauty.....	116	63	28		
3	Irish Victor.....	114	82	12	15	Milford White*.....	119	62	27		
4	Abundance.....	113	81	11	16	Golden Giant.....	127	61	26		
5	Danish Island.....	121	80	10	17	Wide Awake.....	120	59	24		
6	Improved Ligowo.....	114	78	8	18	Virginia White.....	113	58	23		
7	Goldfinder.....	124	77	7	19	Lincoln.....	119	57	22		
8	Joanette.....	125	74	4	20	Storm King.....	120	55	20		
9	American Triumph.....	114	71	1	21	Siberian.....	123	47	12		
10	White Giant.....	115	70	..	22	Swedish Select.....	120	45	10		
11	Pioneer.....	122	67	32	23	Thousand Dollar.....	113	43	8		
12	Kendall White*.....	119	64	21	24	Tartar King.....	112	33	28		

The average crop in 1908 of the twenty-four varieties of oats grown under irrigation on the Experimental Farm at Lethbridge, Alberta, was 65 bushels 26 lbs. per acre.

**BARLEY. (IRRIGATED.)**

Thirteen sorts of six-rowed barley and eleven sorts of two-rowed barley were grown in 1908 on irrigated land at the Lethbridge Experimental Farm. The barleys were all sown on April 21st at the rate of about one and one half bushels to the acre. This crop was irrigated once only on July 11th, 1908.

**SIX-ROWED BARLEY. (IRRIGATED.)**

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.	
		Days.	Bus.	Libs.	Days.			Bus.	Libs.		
1	Claude*.....	106	59	38	8	Nugent*.....	99	36	22		
2	Mansfield*.....	99	49	28	9	Oderbruch.....	192	36	22		
3	Blue Long Head.....	108	45	10	10	Albert*.....	99	30	30		
4	Yale*.....	102	45	10	11	Stella*.....	99	30	30		
5	Odessa.....	102	44	23	12	Champion (beardless).....	99	27	34		
6	Empire*.....	104	37	44	13	Trooper*.....	99	24	38		
7	Mensury.....	99	37	9							

The average crop in 1908 of the thirteen varieties of six-rowed barley grown under irrigation on the Experimental Farm at Lethbridge, Alberta, was 38 bushels 44 lbs. per acre.

## Experimental Farm, Lethbridge, Alberta.

## TWO-ROWED BARLEY. (IRRIGATED.)

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.	
		Days.	Bus.	Lbs.	Days.			Bus.	Lbs.		
1	Standwell	109	70		7	French Chevalier	104	40	5		
2	Sidney*	107	62	34	8	Clifford*	104	36	22		
3	Swedish Chevalier	107	61	12	9	Invincible	107	55	11		
4	Danish Chevalier	104	45	10	10	Jarvis*	102	32	39		
5	Canadian Thorpe	104	43	36	11	Beaver*	109	28	21		
6	Gordon*	102	42	14							

The average crop in 1908 of the eleven varieties of two-rowed barley grown under irrigation at the Experimental Farm at Lethbridge, Alberta, was 45 bushels 14 lbs. per acre.

## PEAS. (IRRIGATED.)

Eighteen varieties of peas were grown in 1908 on irrigated land at the Lethbridge Experimental Farm. The peas were sown on April 14th at the rate of about two bushels to the acre. This crop was irrigated once only on July 11th, 1908.

Number.	Varieties tested.	No. of days maturing.		Yield in 1908.		Number.	Varieties tested.	No. of days maturing.		Yield in 1908.	
		Days.	Bus.	Lbs.	Days.			Bus.	Lbs.		
1	Victoria*	125	25	40	10	Early Britain	118	19	24		
2	Mackay*	123	23	37	11	Prince*	123	18	57		
3	Paragon*	118	22	27	12	Golden Vine	123	17	48		
4	Archer*	125	21	..	13	Pictou*	123	17	30		
5	Black-eye Marrowfat	123	20	8	14	Agnes*	123	17	12		
6	Gregory*	123	20	8	15	Wisconsin Blue	123	17	12		
7	English Grey	118	20	8	16	Prussian Blue	118	15	28		
8	Arthur*	118	19	50	17	Daniel O'Rourke	123	14	53		
9	White Marrowfat	123	19	50	18	Chancellor	118	14	18		

The average crop in 1908 of the eighteen varieties of peas grown under irrigation on the Experimental Farm at Lethbridge, Alberta, was 19 bushels 12 lbs. per acre.

### Experimental Farm, Lethbridge, Alberta.

#### INDIAN CORN. (IRRIGATED.)

Fourteen varieties of Indian corn were grown in 1908 on irrigated land at the Lethbridge Experimental Farm. The corn was planted on May 21st in rows three feet apart and the plants thinned out to 6 or 8 inches apart in the rows. It was cut green for ensilage on September 17th. This crop was irrigated three times, on July 22nd, August 1st and 10th.

Number.	Varieties tested.	Yield	Number.	Varieties tested.	Yield
		in 1908.			in 1908.
		Tons. Lbs.			Tons. Lbs.
1	Pride of the North	14 160	8	Early Mastodon	11 880
2	Mammoth Cuban	13 1,940	9	Longfellow	10 1,780
3	Angel of Midnight	12 1,960	10	Superior Fodder	10 1,560
4	Champion White Pearl	12 1,500	11	Salzer's All Gold	9 1,360
5	Compton's Early	12 200	12	Selected Leaming	9 260
6	Eureka	11 1,870	13	White Cap Yellow Dent	9 40
7	North Dakota White	11 1,210	14	Wood's Northern Dent	8 610

The average crop in 1908 of the fourteen varieties of Indian corn grown under irrigation at the Experimental Farm at Lethbridge, Alberta, was 11 tons 652 lbs. per acre.

#### TURNIPS. (IRRIGATED.)

The crop of twelve varieties of turnips sown in 1908 on irrigated land at Lethbridge were badly injured by the turnip fly soon after the seed had germinated and before the injury was noticed, they were practically destroyed.

#### MANGELS. (IRRIGATED.)

Ten varieties of mangels were grown in 1908 on irrigated land on the Lethbridge Experimental Farm. The seed was sown on May 4th in drills two and a half feet apart and the young plants were thinned out to 10 to 12 inches apart in the rows. The roots were pulled on October 10th.

This crop was irrigated four times, on July 22nd, August 1st, 10th and 29th.

Number.	Varieties tested.	Yield	Number.	Varieties tested.	Yield
		in 1908.			in 1908.
		Tons. Lbs.			Tons. Lbs.
1	Gate Post	19 1,864	6	Yellow Intermediate	15 360
2	Giant Yellow Globe	18 828	7	Crimson Champion	14 248
3	Perfection Mammoth Long Red	17 1,772	8	Prize Mammoth Long Red	13 928
4	Giant Yellow Intermediate	17 716	9	Mammoth Red Intermediate	12 1,344
5	Hail Sugar White	17 56	10	Selected Yellow Globe	11 836

The average crop in 1908 of the ten varieties of mangels grown under irrigation on the Experimental Farm at Lethbridge, Alberta, was 15 tons 1,494 lbs. per acre.

### Experimental Farm, Lethbridge, Alberta.

#### CARROTS. (IRRIGATED.)

Six varieties of carrots were grown in 1908 on irrigated land on the Lethbridge Experimental Farm. The seed was sown on May 4th in drills 20 inches apart and the young plants were thinned out to about 4 or 5 inches apart in the rows. The roots were pulled on October 12th.

This crop was irrigated four times. On July 22nd, August 1st, 10th and 29th.

Number.	Varieties tested.	Yield	Number.	Varieties tested.	Yield
		in 1908.			in 1908.
		Tons. Lbs.			Tons. Lbs.
1	Ontario Champion	16 868	4	Mammoth White Intermediate	14 1,997
2	Giant White Vosges	15 1,145	5	Half Long Chautenay	12 1,740
3	Improved Short White	15 947	6	White Belgian	12 790

The average crop in 1908 of the six varieties of carrots grown under irrigation on the Experimental Farm at Lethbridge, Alberta, was 14 tons 1,248 lbs. per acre.

#### SUGAR BEETS. (IRRIGATED.)

Three varieties of sugar beets were grown in 1908 on irrigated land on the Lethbridge Experimental Farm. The seed was sown on May 6th in drills 20 inches apart and the young plants were thinned out to about 4 or 5 inches apart in the rows. The roots were pulled on October 13th.

This crop was irrigated three times, on July 22nd, August 1st and 10th.

Number.	Varieties tested.	Yield	Number.	Varieties tested.	Yield
		in 1908.			in 1908.
		Tons. Lbs.			Tons. Lbs.
1	French Very Rich	14 1,601	3	Vilmorin's Improved	10 374
2	Klein Wanzleben	12 1,749			

The average crop in 1908 of the three varieties of sugar beets grown under irrigation on the Experimental Farm at Lethbridge, Alberta, was 12 tons 1,238 lbs. per acre.

### Experimental Farm, Lethbridge, Alberta.

#### POTATOES. (IRRIGATED.)

Twenty-five varieties of potatoes were grown in 1908 on irrigated land on the Lethbridge Experimental Farm. The potatoes for planting were cut into pieces with two or three eyes in each, and these pieces were planted in rows two and a half feet apart, the sets being placed about a foot apart in the rows. The potatoes were planted on May 19th and were dug on October 9th.

This crop was irrigated three times, on July 22nd, August 1st and 10th.

Number.	Varieties tested.	Yield in 1908.		Number.	Varieties tested.	Yield in 1908.	
		Bus.	Lbs.			Bus.	Lbs.
1	Early Manistee	453	12	14	Burnaby Mammoth	242	..
2	Holborn Abundance	275	..	15	Uncle Sam	235	21
3	Rochester Rose	275	..	16	Irish Cobbler	235	24
4	Money Maker	270	36	17	Dreer's Standard	226	36
5	Reeves' Rose	268	24	18	Canadian Beauty	226	36
6	American Wonder	264	..	19	Vermont Gold Coin	222	12
7	Carran No. 1	264	..	20	Vick's Extra Early	217	48
8	Late Puritan	259	36	21	Early White Prize	213	24
9	Morgan Seedling	257	24	22	Everett	208	28
10	Country Gentleman	255	12	23	Dooley	204	36
11	Ashleaf Kidney	255	12	24	Empire State	202	24
12	State of Maine	250	48	25	Dalmeny Beauty	160	36
13	Twentieth Century	250	48				

The average crop in 1908 of the twenty-five varieties of potatoes grown under irrigation on the Experimental Farm at Lethbridge, Alberta, was 247 bushels 48 lbs. per acre.

#### EXPERIMENTAL FARM, LACOMBE, ALBERTA.

The season of 1908 at Lacombe, Alberta, was much more favourable for wheat growing than that of 1907. The crop has been larger and the grain well matured. Seeding was about three weeks earlier, and the growth was rapid until August, when cool weather delayed the maturing of the grain, which ripened slowly but fully before frost.

In 1907 the trial plots of spring wheat gave on an average 21 bushels 51 lbs. per acre, whereas in 1908 the average yield was 33 bushels 34 lbs. per acre. Of the other important farm crops, peas, turnips and potatoes have given larger crops in 1908, while with oats and barley the crops are lower, but the grain was better ripened.

The plots of grain grown were one-sixtieth of an acre each. The yield per acre of the field roots and potatoes has been calculated from the weight obtained from two rows, each 66 feet long.

### Experimental Farm, Lacombe, Alberta.

#### SPRING WHEAT.

Fourteen varieties of spring wheat were tested at Lacombe in 1908. The seed was sown on April 10th, at the rate of about one and one-half bushels per acre.

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.
		(For two years.)	Bu. Lbs.	Days.	Bu. Lbs.			(For two years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Bishop*	38	..	140	43	10	Red Fern.....	21	30	111	28
2	Preston*	34	..	141	39						
3	Stanley*	33	15	140	35	30					
4	Percy*	31	..	140	28						
5	White Russian.....	28	..	142	35						
6	Huron*.....	27	30	130	37	30					
7	Pringle's Champlain..	27	..	141	36						
8	Hungarian White.....	26	..	141	32						
9	White Fife.....	22	..	144	31						
							(For less than two yrs.)				
							Chelsea* (1 year).....	46	..	133	46
							Riga* (1 year).....	31	..	122	31
							Marquis* (1 year).....	30	..	133	30
							Red Fife (1 year).....	18	..	137	18

The average yield in 1908 of the fourteen varieties of spring wheat on the Experimental Farm at Lacombe, Alberta, was 33 bushels 34 lbs. per acre.

#### OATS.

Twenty-four varieties of oats were tested at Lacombe in 1908. The seed was sown on April 15th, at the rate of about two bushels per acre.

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.		
		(For two years.)	Bu. Lbs.	Days.	Bu. Lbs.			(For two years.)	Bu. Lbs.	Days.	Bu. Lbs.		
1	Pioneer.....	110	25	133	111	6	13	Wide Awake.....	75	30	134	67	2
2	Banner.....	91	11	134	90	..	14	Lincoln.....	75	..	133	74	4
3	Golden Beauty.....	86	16	133	63	18	15	Improved Ligowo.....	74	19	124	65	10
4	Milford White*.....	84	24	134	88	8	16	Storm King.....	74	19	131	50	10
5	White Giant.....	84	24	133	74	4	17	Twentieth Century.....	72	27	134	60	..
6	Danish Island.....	83	28	134	60	..	18	Tartar King.....	71	1	133	49	14
7	Siberian.....	82	17	134	77	22	19	Goldfinder.....	70	20	135	60	..
8	Abundance.....	79	14	134	75	..	20	Swedish Select.....	70	20	134	48	18
9	American Triumph.....	78	33	134	68	28	21	Kendal White*.....	66	21	132	60	..
10	Irish Victor.....	78	18	132	65	10	22	Virginia White.....	65	25	133	44	4
11	Improved American.....	78	3	134	67	32	23	Golden Giant.....	60	..	137	60	..
12	Thousand Dollar.....	75	30	133	68	28	24	Juanette.....	50	10	125	51	6

The average crop in 1908 of the twenty-four varieties of oats on the Experimental Farm at Lacombe, Alberta, was 66 bushels 23 lbs. per acre.



## Experimental Farm, Lacombe, Alberta.

## BARLEY.

Thirteen sorts of six-rowed barley and eleven sorts of two-rowed barley were sown at Lacombe in 1908. The plots were sown on April 17th, the seed being used at the rate of about two bushels per acre.

## SIX-ROWED BARLEY.

Number	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For two years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For two years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Man-field*	65 30	110	62 24	8	Oderbruch	49 28	110	29 8
2	Mensury	60	110	47 24	9	Albert*	46 12	111	43 36
3	Blue Long Head	56 42	113	60	10	Champion	41 12	116	33 36
4	Nugent*	56 12	110	40	11	Empire*	41 12	110	31 12
5	Stella*	54 18	110	43 36	12	Yale*	40 30	111	33 36
6	Odessa	50 45	110	45	13	Trooper*	33 6	105	23 36
7	Claud*	50 30	110	41 12					

The average crop in 1908 of the thirteen varieties of six-rowed barley on the Experimental Farm at Lacombe, Alberta, was 41 bushels 9 lbs. per acre.

## TWO-ROWED BARLEY.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For two years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For two years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Invincible	47 9	117	56 42	7	Canadian Thorpe	39 18	112	33 36
2	Standwell	46 42	116	53 36	8	Clifford*	38 36	110	27 24
3	Sidney*	46 32	112	55	9	Danish Chevalier	32 24	117	32 24
4	Gordon*	44 18	111	43 36	10	Beaver*	27 39	110	18 36
5	French Chevalier	41 42	115	37 24	11	Jarvis*	25 12	110	21 12
6	Swedish Chevalier	40 30	117	52 24					

The average crop in 1908 of the eleven varieties of two-rowed barley on the Experimental Farm at Lacombe, Alberta, was 39 bushels 18 lbs. per acre.

## Experimental Farm, Lacombe, Alberta.

### PEAS.

Seventeen varieties of peas were tested at Lacombe in 1908. The seed was sown on April 14th at the rate of two to three bushels per acre, depending on the size of the pea.

Number.	Varieties tested.	Yield in 1908.	Number.	Varieties tested.	Yield in 1908.
	(For one year.)	Bus. Lbs.		(For one year.)	Bus. Lbs.
1	English Grey .....	16	10	Daniel O'Rourke .....	12
2	Wisconsin Blue .....	16	11	Mackay* .....	12
3	Victoria .....	15	12	Prince* .....	12
4	Early Britain .....	14	13	White Marrowfat .....	12
5	Paragon* .....	14	14	Prussian Blue .....	11
6	Agnes* .....	13	15	Black-eye Marrowfat .....	10
7	Golden Vine .....	13	16	Archer* .....	9
8	Chancellor .....	13	17	Arthur* .....	8
9	Picton* .....	13			

The average crop in 1908 of the seventeen varieties of peas on the Experimental Farm at Lacombe, Alberta, was 12 bushels 37 lbs. per acre.

### INDIAN CORN.

Fourteen varieties of Indian corn grown for fodder purposes were tested at Lacombe in 1908. The seed was planted on May 28th in rows three feet apart and the plants thinned out to 6 to 8 inches apart in the rows. The crop was cut green for ensilage on August 22nd. This crop needs frequent cultivation throughout the early summer months to produce the best results.

Number.	Varieties tested.	Yield in 1908.	Number.	Varieties tested.	Yield in 1908.
	(For one year.)	Tons. Lbs.		(For one year.)	Tons. Lbs.
1	Longfellow .....	11 880	8	Selected Leaming .....	8 280
2	North Dakota White .....	11	9	Mammoth Cuban .....	7 1,400
3	Compton's Early .....	10 1,120	10	Pride of the North .....	7 960
4	Superior Fodder .....	10 680	11	Wool's Northern Dent .....	6 1,640
5	Angel of Midnight .....	9 480	12	Salzer's All Gold .....	6 1,200
6	White Cap Yellow Dent .....	9 480	13	Eureka .....	6 320
7	Early Mastodon .....	8 1,160	14	Champion White Pearl .....	5 1,880

The average crop in 1908 of the fourteen varieties of Indian corn on the Experimental Farm at Lacombe, Alberta, was 8 tons 1,034 lbs. per acre.

**Experimental Farm, Lacombe, Alberta.**

**TURNIPS.**

Twelve varieties of field turnips were tested at Lacombe in 1908. The seed was sown in drills two feet apart, and the young plants were thinned out to about 10 or 12 inches apart in the rows. The seed was sown on June 2nd and the roots were pulled on October 22nd.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For two years.)	Tons. Lbs.	Tons. Lbs.			(For two years.)	Tons. Lbs.	Tons. Lbs.			
1	Hartley's Bronze	28	760	30	720	7	Jumbo	19	1,204	20	392
2	Mammoth Clyde	26	1,328	31	304	8	Perfection Swede	15	1,408	16	1,792
3	Hall's Westbury	24	1,632	29	80	9	Halewood's Bronze Top	15	823	13	796
4	Kangaroo	22	814	22	220	10	Bangholm Selected	14	1,596	18	960
5	Skirvings	21	1,290	21	240	11	Magnum Bonum	14	1,992	18	168
6	Good Luck	21	768	20	128	12	Carter's Elephant	12	1,806	15	1,548

The average crop in 1908 of the twelve varieties of turnips grown on the Experimental Farm at Lacombe, Alberta, was 21 tons 779 lbs. per acre.

**MANGELS.**

Ten varieties of mangels were tested at Lacombe in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to 10 or 12 inches apart in the rows. The seed was sown on April 16th and the roots were pulled on October 21st.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For two years.)	Tons. Lbs.	Tons. Lbs.			(For two years.)	Tons. Lbs.	Tons. Lbs.			
1	Giant Yellow Intermediate	27	60	21	592	7	Mammoth Red Intermediate	17	1,992	13	48
2	Gate Post	24	1,456	20	1,888	8	Perfection Mammoth Long Red	17	1,816	16	32
3	Giant Yellow Globe	23	376	17	1,200	9	Selected Yellow Globe	17	1,552	12	1,696
4	Half Sugar White	22	1,144	16	736	10	Crimson Champion	16	560	11	1,936
5	Yellow Intermediate	22	352	15	1,680						
6	Prize Mammoth Long Red	18	1,312	16	1,440						

The average crop in 1908 of the ten varieties of mangels grown on the Experimental Farm at Lacombe, Alberta, was 16 tons 525 lbs. per acre.

## Experimental Farm, Lacombe, Alberta.

## CARROTS.

Six varieties of field carrots were tested at Lacombe in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to about 4 or 5 inches apart in the rows. The seed was sown on April 16th and the roots were pulled on October 21st.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
		Tons.	Lbs.				Tons.	Lbs.		Tons.	Lbs.
	(For two years.)	Tons.	Lbs.	Tons.	Lbs.	(For two years.)	Tons.	Lbs.	Tons.	Lbs.	
1	Improved Short White . . . . .	22	1,028	18	1,312	5	Half Long Chantenay. . . . .	15	96	15	624
2	Giant White Vosges. . . . .	17	1,700	19	720	6	Mammoth White Intermediate . . . . .	13	867	14	512
3	Ontario Champion . . . . .	16	1,764	17	848						
4	White Belgian . . . . .	15	597	16	32						

The average crop in 1908 of the six varieties of carrots on the Experimental Farm at Lacombe, Alberta, was 16 tons 1,675 lbs. per acre.

## SUGAR BEETS.

Three varieties of sugar beets were tested at Lacombe in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to about 4 or 5 inches apart in the rows. The seed was sown on May 18th and the roots were pulled on October 1st.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
		Tons.	Lbs.				Tons.	Lbs.		Tons.	Lbs.
	(For two years.)	Tons.	Lbs.	Tons.	Lbs.	(For two years.)	Tons.	Lbs.	Tons.	Lbs.	
1	French Very Rich. . . . .	14	1,920	14	160	3	Vilmorin's Improved. . . . .	13	664	11	176
2	Wanzleben . . . . .	13	1,194	8	1,248						

The average crop in 1908 of the three varieties of sugar beets on the Experimental Farm at Lacombe, Alberta, was 11 tons 524 lbs. per acre.

### Experimental Farm, Lacombe, Alberta.

#### POTATOES.

Twenty-five varieties of potatoes were grown at Lacombe in 1908. For planting the potatoes were cut into pieces with two or three eyes in each and these pieces were planted in rows two and a half feet apart, the sets being placed about a foot apart in the rows. The potatoes were planted on May 22nd and were dug on September 30th.

Number.	Varieties tested.	Yield in 1908.		Number.	Varieties tested.	Yield in 1908.	
		Bush.	Lbs.			Bush.	Lbs.
	(For one year.)	Bush.	Lbs.		(For one year.)	Bush.	Lbs.
1	Ashleaf Kidney .....	266	25	14	Empire State.....	208	22
2	Country Gentleman.....	253	14	15	Late Puritan.....	195	57
3	Reeves' Rose.....	246	39	16	Early White Prize.....	187	15
4	Everett.....	239	36	17	Carman No. 1.....	184	43
5	Uncle Sam.....	237	36	18	American Wonder.....	172	32
6	Irish Cobbler.....	230	1	19	Vick's Extra Early.....	165	66
7	Early Manistee.....	227	1	20	Dooley.....	159	6
8	State of Maine.....	225	33	21	Dreer's Standard.....	159	2
9	Rochester Rose.....	225	14	22	Canadian Beauty.....	145	62
10	Money Maker.....	211	1	23	Dalmeny Beauty.....	139	43
11	Vermont Gold Coin.....	210	29	24	Morgan Seedling.....	118	12
12	Bernaby Mammoth.....	210	14	25	Twentieth Century.....	109	51
13	Hollorn Abundance.....	210	14				

The average crop in 1908 of the twenty-five varieties of potatoes on the Experimental Farm at Lacombe, Alberta, was 197 bushels 36 lbs. per acre.

#### EXPERIMENTAL FARM, AGASSIZ, B.C.

The trial plots of spring wheat at Agassiz, B.C., which had been discontinued on account of the ravages of the wheat midge, *Diplosis tritici*, have been resumed, and during the past year the crops of the fourteen varieties under trial have averaged 22 bushels 4 lbs. per acre. The season of 1908 opened earlier and the grain was sown about ten days sooner than in 1907. The weather also later in the season was favourable to the ripening of the grain and it matured well and early. Oats, two-rowed barley, peas, turnips and mangels all gave heavier crops in 1908, while six-rowed barley, Indian corn and potatoes gave better results in 1907.

The plots of grain occupied one-fortieth of an acre each. The yield of Indian corn has been calculated from the weight obtained from two rows each 66 feet long, cut green for ensilage, and the returns given for the field roots have been computed from a similar area.

## Experimental Farm, Lacombe, Alberta.

## SPRING WHEAT.

Fourteen varieties of spring wheat were grown at the Agassiz Experimental Farm. The seed was sown on April 10th at the rate of about one and one-half bushels per acre.

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.
		Bu. Lbs.	Days.					Bu. Lbs.	Days.		
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For less than five yrs.)	Bu. Lbs.	Days.	Bu. Lbs.		
	1 Stanley*	30	10	118	25	20					
	2 White Russian	29	26	121	18	..					
	3 Percy*	29	25	117	24	40					
	" "	28	7	120	15	20	Hungarian White (2 years)...	18	10	121	20
	" "	27	57	115	20	40	Chelsea* (1 year)....	30		122	30
	" Pife	27	35	118	14	..	Marquia* (1 year)....	28	40	119	28
	" "	25	58	124	22	..	Riga* (1 year)....	28		126	28
	Red Fern	25	55	120	18	..	Bishop* (1 year)....	27	20	125	27
	Pringle's Champlain.	23	44	120	16	40					

The average crop in 1908 of the fourteen varieties of spring wheat grown on the Experimental Farm at Agassiz, B.C., was 22 bushels 4 lbs. per acre.

## OATS.

Twenty-four varieties of oats were grown at the Agassiz Experimental Farm. The seed was sown on April 10th, at the rate of about two and a half bushels per acre.

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.
		Bu. Lbs.	Days.					Bu. Lbs.	Days.		
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		
	1 Abundance	76	12	113	86	16	15 Swedish Select.	63	11	113	67
	2 Improve 1 American	69	33	116	83	18	16 Banner	63	4	114	75
	3 White Giant	68	26	115	81	6	17 Pioneer	62	28	113	81
	4 Siberian	68	16	114	71	26	18 Joannette	62	3	112	64
	5 Kendal White*	67	31	115	76	16	19 American Triumph	61	16	113	78
	6 Danish Island	67	30	115	75	10	20 Thousand Dollar	61	12	115	50
	7 Goldfinder	67	18	114	74	14	21 Storm King	58	4	110	67
	8 Milford White*	67	10	114	74	24	22 Twentieth Century	57	19	113	75
	9 Tartar King	66	20	112	73	4	23 Golden Beauty	56	33	115	85
	10 Lincoln	65	28	114	80	30					
	11 Irish Victor	65	13	113	65	30					
	12 Improved Ligowo	65	12	114	84	4	(For less than 5 yrs.)				
	13 Golden Giant	64	21	118	81	25	Virginia White (3 yrs.)	63	14	111	60
	14 Wide Awake	64	4	115	87	2					

The average crop in 1908 of the twenty-four varieties of oats grown on the Experimental Farm at Agassiz, B.C., was 75 bushels 6 lbs. per acre.

## Experimental Farm, Agassiz, B.C.

## BARLEY.

Thirteen sorts of six-rowed barley and eleven sorts of two-rowed barley were tested at Agassiz in 1908. These plots were all sown on May 5th, the seed being used at the rate of about two bushels per acre.

## SIX-ROWED BARLEY.

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.		Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	
		Bu.	Lbs.	Days.	Bu.	Lbs.			Bu.	Lbs.	Bu.	Lbs.	Days.
	(For five years.)	Bu.	Lbs.	Days.	Bu.	Lbs.		(For five years.)	Bu.	Lbs.	Days.	Bu.	Lbs.
1	Mensury .....	51	20	103	46	32	9	Stella* .....	44	4	107	40	..
2	Empire* .....	50	8	105	44	8	10	Nugent* .....	43	22	106	36	32
3	Odeasa .....	48	22	103	47	24	11	Mansfield* .....	42	38	106	35	40
4	Albert* .....	48	4	104	39	8	12	Champion .....	41	24	100	30	40
5	Oderbruch .....	46	12	102	44	28		(For less than 5 yrs.)					
6	Yale* .....	45	44	106	37	24		Blue Long Head(4yrs.)	47	11	106	55	40
7	Claude* .....	45	..	103	33	16							
8	Trooper* .....	44	12	108	49	8							

The average crop in 1908 of the thirteen varieties of six-rowed barley on the Experimental Farm at Agassiz, B.C., was 41 bushels 30 lbs. per acre.

## TWO-ROWED BARLEY.

Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.		Number.	Varieties tested.	Average yield.		Average days maturing.	Yield in 1908.	
		Bu.	Lbs.	Days.	Bu.	Lbs.			Bu.	Lbs.	Days.	Bu.	Lbs.
	(For five years.)	Bu.	Lbs.	Days.	Bu.	Lbs.		(For five years.)	Bu.	Lbs.	Days.	Bu.	Lbs.
1	Standwell .....	50	28	111	52	24	7	Beaver* .....	46	18	108	50	..
2	Danish Chevalier .....	49	4	110	58	16	8	Invincible .....	46	16	110	50	40
3	Sidney* .....	48	18	110	52	34	9	Clifford* .....	45	16	107	48	36
4	French Chevalier .....	46	36	110	51	32	10	Jarvis* .....	43	..	110	49	28
5	Swedish Chevalier .....	46	29	109	49	8	11	Gordon* .....	40	10	108	38	16
6	Canadian Thorpe .....	46	22	109	42	44							

The average crop in 1908 of the eleven varieties of two-rowed barley on the Experimental Farm at Agassiz, B.C., was 49 bushels 25 lbs. per acre.

### Experimental Farm, Agassiz, B.C.

#### PEAS.

Eighteen varieties of peas were sown at Agassiz in 1908. These plots were sown on April 10th, the quantity of seed sown varying from two to three bushels per acre, depending on the size of the pea.

Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Average days maturing.	Yield in 1908.
	(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.		(For five years.)	Bu. Lbs.	Days.	Bu. Lbs.
1	Early Britain	46 2	112	51 20	11	Picton*	39 26	118	46 30
2	English Grey	43 22	116	40 ..	12	Arthur*	39 10	115	40 40
3	Chancellor	42 32	116	60 40	13	Daniel O'Rourke	38 24	110	46 20
4	Victoria	42 ..	118	47 40	14	Black-eye Marrowfat	37 52	116	44 ..
5	White Marrowfat	41 52	117	37 10	15	Agnes*	37 40	118	49 20
6	Golden Vine	40 46	116	42 20	16	Archer*	37 8	115	32 40
7	Wisconsin Blue	40 20	114	46 ..	17	Prussian Blue	36 4	112	48 ..
8	Mackay*	40 ..	116	42 ..		(For less than 5 yrs.)			
9	Gregory*	39 36	114	41 ..		Paragon* (3 yrs.)	40 ..	117	48 40
10	Prince*	39 30	119	38 40					

The average crop in 1908 of the eighteen varieties of peas on the Experimental Farm at Agassiz, B.C., was 44 bushels 3 lbs. per acre.

#### INDIAN CORN.

Fifteen varieties of Indian corn were tested at Agassiz in 1908. The seed was sown in rows about three feet apart and the plants were thinned out to six or eight inches apart in the rows. The seed was sown on May 19th and the crop was cut green for ensilage on October 8th. This crop needs frequent cultivation throughout the early summer months to produce the best results.

Number.	Varieties tested.	Average yield.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Yield in 1908.
	(For five years.)	Tons. Lbs.	Tons. Lbs.		(For five years.)	Tons. Lbs.	Tons. Lbs.
1	Pride of the North	18 1,290	10 1,340	11	Angel of Midnight	13 642	10 240
2	Compton's Early	17 758	12 1,300	12	Early Mastodon	13 258	9 881
3	Superior Fodder	16 936	10 1,560	13	North Dakota White	12 992	9 1,580
4	White Cap Yellow Dent	15 1,680	11 1,100	14	Selected Leaming	12 376	11 1,320
5	Champion White Pearl	15 1,570	12 1,190		(For less than five years.)		
6	Mammoth Cuban	15 932	9 1,800		Wood's Northern Dent (3 years)	13 1,883	7 1,840
7	Cloud's Early Yellow	14 1,994	18 1,620				
8	Eureka	14 1,872	9 40				
9	Salzer's All Gold	14 846	7 300				
10	Longfellow	13 1,676	12 1,740				

The average crop in 1908 of the fifteen varieties of Indian corn on the Experimental Farm at Agassiz, B.C., was 10 tons 1,990 lbs. per acre.



## Experimental Farm, Agassiz, B.C.

### TURNIPS.

Twelve varieties of field turnips were tested at Agassiz in 1908. The seed was sown in drills two and a half feet apart and the young plants were thinned out to about 10 to 12 inches apart in the rows. The seed was sown on May 9th and the roots were pulled on October 21st.

Number.	Varieties tested.	Average yield.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Yield in 1908.
	(For five years.)	Tons.Lbs.	Tons.Lbs.		(For five years.)	Tons.Lbs.	Tons.Lbs.
1	Carter's Elephant.....	24 437	28 1,552	7	Bangholm Selected.....	20 1,905	19 1,072
2	Halewood's Bronze Top...	22 311	21 1,032	8	Good Luck.....	20 82	21 768
3	Junbo.....	22 8	27 1,968	9	Skirvinga.....	20 9	25 1,744
4	Magnun Bonum.....	21 1,256	25 1,612	10	Mammoth Clyde.....	18 1,924	24 48
5	Kangaroo.....	21 1,177	28 232	11	Hall's Westbury.....	18 1,462	20 128
6	Perfection Swede.....	21 165	19 1,600	12	Hartley's Bronze.....	18 379	21 240

The average crop in 1908 of the twelve varieties of turnips grown on the Experimental Farm at Agassiz, B.C., was 23 tons 1,333 lbs. per acre.

### MANGELS.

Ten varieties of mangels were tested at Agassiz in 1908. The seed was sown in drills two feet apart and the young plants were thinned out to 10 or 12 inches apart in the rows. The seed was sown on May 9th and the roots were pulled on October 21st.

Number.	Varieties tested.	Average yield.	Yield in 1908.	Number.	Varieties tested.	Average yield.	Yield in 1908.
	(For five years.)	Tons.Lbs.	Tons.Lbs.		(For less than five years.)	Tons.Lbs.	Tons.Lb.
1	Yellow Intermediate.....	20 1,674	17 584		Perfection Mammoth Long Red (2 years).....	25 368	26 1,196
2	Giant Yellow Globe.....	19 1,310	19 940		Mammoth Red Intermediate (2 years).....	19 1,072	26 932
3	Half Sugar White.....	19 16	15 1,152		Crimson Champion (2 yrs.)	15 1,680	17 848
4	Prize Mammoth Long Red	17 1,508	19 16				
5	Selected Yellow Globe...	17 650	14 1,832				
6	Giant Yellow Intermediate	17 414	17 980				
7	Gate Post.....	17 373	20 1,712				

The average crop in 1908 of the ten varieties of mangels grown on the Experimental Farm at Agassiz, B.C., was 19 tons 1,019 lbs. per acre.

## Experimental Farm, Agassiz, B.C.

## CARROTS.

Six varieties of field carrots were tested at Agassiz in 1908. The seed was sown in drills two feet apart, and the young plants were thinned out to about 4 or 5 inches apart in the rows. The seed was sown on May 9th and the roots were pulled on October 21st.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For five years.)	Tons. Lbs.	Tons. Lbs.			(For five years.)	Tons. Lbs.	Tons. Lbs.			
1	Giant White Vosges.....	28	1,275	28	660	5	Manmoth White Intermediate.....	23	1,524	26	1,328
2	Improved Short White.....	25	1,927	29	1,796	6	Half Long Chantenay.....	18	1,605	16	1,000
3	Ontario Champion.....	25	47	22	352						
4	White Belgian.....	24	332	26	800						

The average crop in 1908 of the six varieties of carrots on the Experimental Farm at Agassiz, B.C., was 24 tons 1,989 lbs. per acre.

## SUGAR BEETS.

Three varieties of sugar beets were tested at Agassiz in 1908. The seed was sown in drills two feet apart, and the young plants were thinned out to about 4 or 5 inches apart in the rows. The seed was sown on May 9th and the roots were pulled on October 21st.

Number.	Varieties tested.	Average yield.		Yield in 1908.	Number.	Varieties tested.	Average yield.		Yield in 1908.		
	(For five years.)	Tons. Lbs.	Tons. Lbs.			(For five years.)	Tons. Lbs.	Tons. Lbs.			
1	Vilmorin's Improved.....	17	964	12	815	3	French, Very Rich.....	13	24	8	1,688
2	Wanzleben.....	14	1,331	10	328						

The average yield in 1908 of the three varieties of sugar beets on the Experimental Farm at Agassiz, B.C., was 10 tons 944 lbs. per acre.

## Experimental Farm, Agassiz, B.C.

## POTATOES.

Twenty-five kinds of potatoes were grown at Agassiz in 1908. For planting the potatoes were cut into pieces with two or three eyes in each, and these pieces were planted in rows two and a half feet apart, the sets being placed about a foot apart in the rows. The potatoes were planted on May 22nd and were dug on September 23rd and 24th.

Number.	Varieties tested.	Average yield.		Yield in 1908.		Number.	Varieties tested.	Average yield.		Yield in 1908.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
	(For five years.)	Bus.	Lbs.	Bus.	Lbs.		(For five years.)	Bus.	Lbs.	Bus.	Lbs.
1	Late Puritan. . . . .	532	50	407	..	15	Irish Cobler. . . . .	342	19	272	48
2	American Wonder. . . . .	482	45	435	36	16	Vick's Extra Early. . . . .	333	55	290	..
3	Dreer's Standard. . . . .	471	31	272	..	17	Canadian Beauty. . . . .	297	53	268	24
4	Empire State. . . . .	470	48	338	48	18	Money Maker. . . . .	297	46	314	..
5	Uncle Sam. . . . .	468	36	314	36		(For less than five years.)				
6	Carman No. 1. . . . .	439	56	390	56		Vermont Gold Coin (4 yrs.)	506	..	391	36
7	State of Maine. . . . .	439	34	312	24		Morgan Seedling (4 years).	448	51	367	36
8	Holborn Abundance. . . . .	433	24	352	..		Dooley (4 years). . . . .	442	16	320	40
9	Country Gentleman. . . . .	429	13	347	36		Ashleaf Kidney (3 years). . . . .	396	44	264	..
10	Rochester Rose. . . . .	419	31	294	48		Dalmeny Beauty (3 years).	276	3	216	32
11	Reeves' Rose. . . . .	386	50	316	..		Twentieth Century (1 year)	319	..	319	..
12	Everett. . . . .	385	50	360	48		Early Manistee (1 year). . . . .	272	..	272	..
13	Burnaby Mammoth. . . . .	371	44	365	12						
14	Early White Prize. . . . .	371	22	316	48						

The average crop in 1908 of the twenty-five varieties of potatoes on the Experimental Farm at Agassiz, B.C., was 321 bushels 15 lbs. per acre.

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