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EC 94-102-A Nebraska Spring Wheat, Oats, Barley, Canola and Crambe Variety Tests 1994

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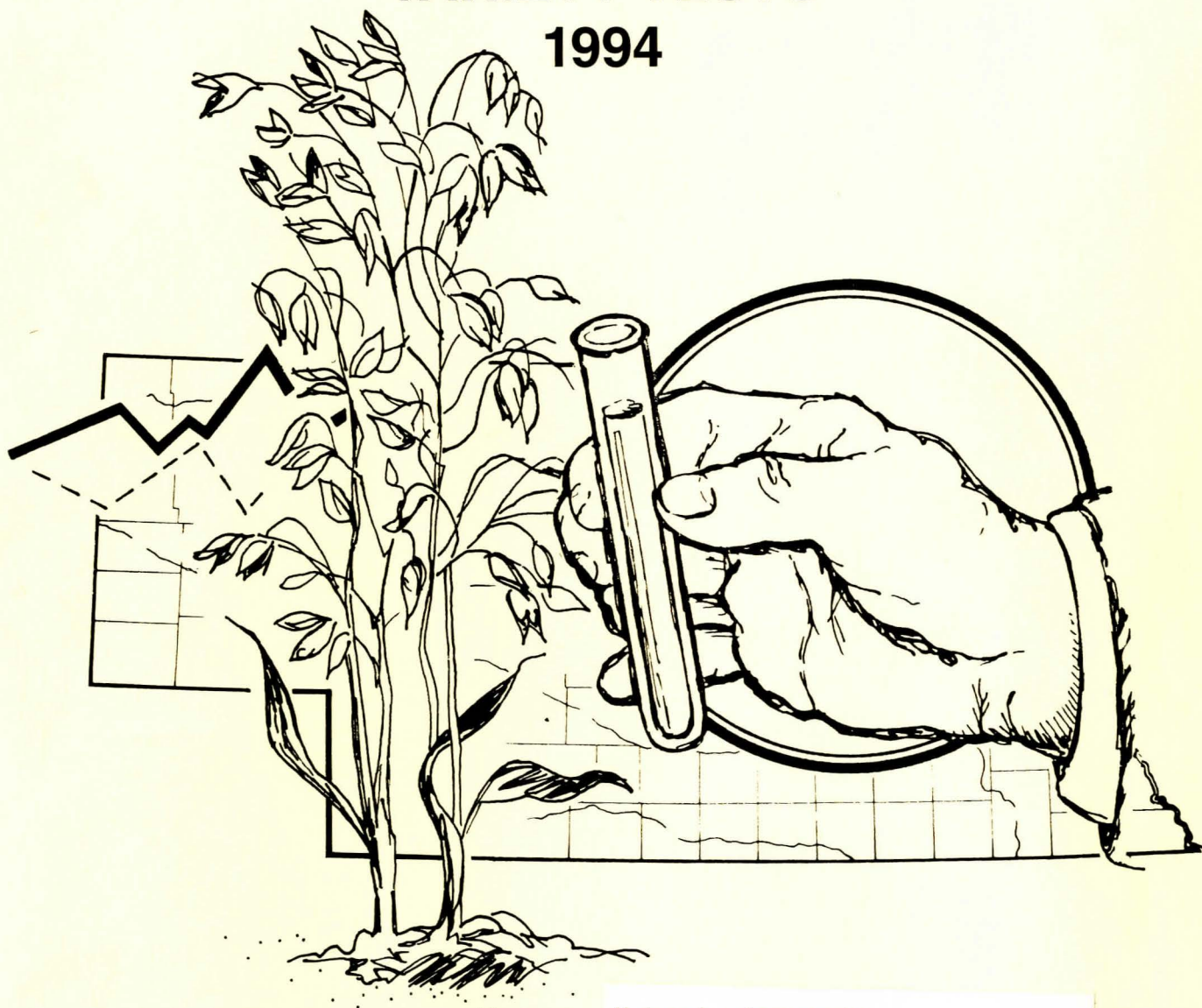
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NEBRASKA SPRING WHEAT, OATS, BARLEY, CANOLA AND CRAMBE VARIETY TESTS 1994



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EXTENSION CIRCULAR 94-102

NEBRASKA SPRING WHEAT, OATS, BARLEY CANOLA, AND CRAMBE VARIETY TESTS

November 1994

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METRIC EQUIVALENTS

1 centimeter = 0.394 inches	cm = inches x 2.54
1 hectare = 2.471 acres	ha = acres x 0.045
1 kilogram = 2.205 pounds	kg = pounds x 0.454
1 hectoliter = 2.838 bushels	hl = bushels x 0.352

Kilogram/hectoliter = lb/bu x 1.287
 Kilogram/hectare = bu/A x 35.87 (32#bushel) oats
 Kilogram/hectare = bu/A x 53.81 (48#bushel) barley
 Kilogram/hectare = bu/A x 67.26 (60#bushel) wheat

EXTENSION CIRCULAR 94-102

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NEBRASKA OATS AND BARLEY PRODUCTION

Year	Oats		Barley	
	Harv. acres 000	Yield bu/A	Harv. acres 000	Yield bu/A
1920	2,400	33.0	256	25.0
1930	2,485	29.0	726	25.5
1940	1,426	24.0	1,321	16.0
1950	2,562	24.0	310	15.0
1960	1,213	35.5	225	29.0
1970	573	42.0	45	36.0
1980	380	41.0	25	38.0
1985	420	61.0	120	32.0
1986	360	59.0	135	40.0
1987	360	48.0	75	36.0
1988	300	37.0	60	34.0
1989	310	31.0	30	23.0
1990	280	48.0	22	40.0
1991	210	54.0	27	45.0
1992	220	70.0	30	50.0
1993	160	43.0	32	38.0
1994 ¹	150	50.0	20	38.0

¹ 1994 data are preliminary. Comparable data for spring wheat are not available. Data furnished by Nebraska Agricultural Statistics Service.

Nebraska Spring Wheat, Oat, Barley, Crambe, Canola, Rapeseed Trial 1994

Introduction - Wheat, oats, barley

The purpose of the Nebraska Spring Grain Variety Trial is to provide interested growers with information as to the varieties best suited to their areas. The trial includes spring barley, spring wheat, and spring oats. Entries for this trial were acquired from Foundation Seed centers and plant breeders from Ohio, North Dakota, South Dakota, Illinois, Minnesota, and Wisconsin.

Locations

Three locations were selected for this year's trial. A dryland trial was grown in Mead, Nebraska, (Saunders County), and in Concord, Nebraska (Dixon County). A dryland and irrigated trial were grown in Sidney, Nebraska (Cheyenne County).

Experimental Design

All trials were designed as a Randomized Complete Block with four replications with the exception of the Dixon county oat trial which had five replications. The spring barley trial

consisted of thirteen entries. Eight of these entries were spring varieties. The other five were winter varieties with facultative type growth habits. The spring barley trial was grown at all locations. The spring wheat trial included seven entries. This trial was tested in Saunders and Cheyenne Counties. The Southeast and Northeast spring oat trials were comprised of 25 entries. Twenty eight varieties were grown in the dryland and irrigated trial in Sidney, Nebraska. Plot size and seeding rates were different at each location. See Table A for plot size and seeding rate at each location.

Plot culture

Planting and harvest date are recorded for each location in Table A. Plant height, percent lodging, heading date, yield, and test weight are recorded at each location. Due to the low incidence of disease, there were no disease ratings taken for the 1994 spring grains.

Results for the 1994 Trials

Spring Oat

Troy oats was the highest yielding variety in Saunders County. For Saunders County yields and plant height, see page 8. Over years average yields are found on page 9. Dixon County yield and field data are located on page

10. Over years average yields are found on page 11. The Cheyenne County irrigated oat data is found on page 12. 'Whitestone' the new release from North Dakota was the highest yielding variety for this location. Over years average yields are found on page 13. Yield and

field data for the dryland oat trial in Cheyenne County are found on page 14. This year, O-29, an experimental from Illinois had the highest yield. For over years average yields, see page 15.

Spring Barley

In Saunders County (Mead, Nebraska), the Minnesota variety 'Excel' topped the trial with 43 bu/a. Yield and field data for Saunders and Dixon Counties are found on page 16. Yield averages from 1990 to 1994 are found on page 17. The experimental B-01 from North Dakota had the highest yield with 39 bu/a for the 1994 Dixon County Trial.

The Cheyenne County dryland and irrigated data is found on page 18. 'Steptoe' was the highest yielding variety for both the dryland and irrigated trial. The over year averages for yield are on page 19.

Spring Wheat

Kulm, the new variety from North Dakota was the highest yielding variety for Saunders County with 23 bu/a. Yield and field data for Saunders and Cheyenne Counties are on page 20. In Cheyenne County, 2375 had the best yields for both the irrigated and dryland trials with 25 and 28 bu/a respectively.

Varieties Released in 1994

Milton-(PVP)

Milton, formerly Mn 86231, is an oat selection released by the Minnesota Agricultural Experiment Station. Milton has the pedigree: Premier sib/Mn80111. Foundation seed is available with the Minnesota Crop Improvement Association.

Whitestone- (PVP)

Whitestone is a North Dakota oat selection developed by the Agricultural Experiment Station, North Dakota State University, in cooperation with the United States Department of Agriculture. Whitestone was formerly tested as ND870258. The pedigree for Whitestone is Porter/4/ M23/ RL3038// Otana/3/ Froker/ RL3038// Hudson.

Kulm- (PVP)

Kulm is a hard red spring wheat developed by the Agricultural Experiment Station, North Dakota State University, in cooperation with the United States Department of Agriculture. 'Kulm' was previously tested as ND671. This variety was selected from a Stoa sib/ND620 cross.

2375

2375 is a hard red spring wheat which has not been tested in Nebraska before 1994. It was developed by Pioneer and given to North Dakota State University when their wheat breeding program was closed.

Crambe and Canola/Rapeseed Trials

Spring Canola

Twelve canola/rapeseed varieties were planted in four replicated trials in Cheyenne, Gage, and Lancaster Counties. Cheyenne County had dryland and irrigated sites. Both Cheyenne County trials were abandoned after a late spring freeze destroyed most of the plants. The Gage County plot was short of moisture most of the summer. There was also considerable weed competition at the Gage County trial. The 1994 Lancaster County locations had excellent yields. Canola/rapeseed yields from Gage and Lancaster Counties are reported on pages 21 and 22..

Crambe

Twelve genotypes of crambe were planted in four replicated sites in Cheyenne, Gage, and Lancaster Counties. Cheyenne County had dryland and irrigated trials. A late spring freeze destroyed the plots in Cheyenne County. Dry weather and weed competition reduced yields in Gage County. The trial in Lancaster County had very good yields. The 1994 crambe yields from Lancaster County are reported on page 23, and the over years average yields are reported in page 24.

Table A. Spring grain plot information – 1994

LOCATION	PLANTING DATE	HARVEST DATE	PLOT SIZE	SEED DENSITY
Northeast (Concord)	April 22	July 21	15 X 4.5 ft	60 lbs/A
Southeast (Mead)	March 22–23	July 14	8 X 4 ft	60 lbs/A
Panhandle–dryland (Sidney)	March 31	July 27	11 X 4 ft	56 lbs/A
Panhandle–irrigated (Sidney)	April 1	August 1	12 X 4 ft	65 lbs/A

Southeast District oat variety test Saunders County dryland – 1994

Variety	GRAIN YIELD BU/A	PLANT HEIGHT IN
TROY	72	30
VALLEY	70	26
MILTON	69	28
O-37	68	28
JERRY	67	29
SHELDON	65	29
WHITESTONE	63	25
OGLE	63	28
O-38	62	28
O-39	62	28
SETTLER	62	29
O-30	62	28
O-40	61	28
O-29	59	27
DON	56	24
STARTER	55	26
PREMIER	54	27
NEWDAK	52	28
PRAIRIE	52	27
DANE	51	25
BRAWN	51	23
O-31	51	28
RUSSELL	42	30
PAUL	41	29
HAZEL	33	25
Average all entries	58	27
Dif. Req. for Sig. 5%	16	1
25%	9	1

Southeast District Oat Variety Tests – 1990 – 1994

Variety	Grain yield Two year ave.	Bushel weight	Plant height	Grain yield Three year ave.	Bushel weight	Grain yield Four year ave.	Bushel weight	Grain yield Five year ave.	Bushel weight
Brawn	48.0	26.1	23.0	.	.	.	.	.	.
Dane	59.0	31.8	25.0	70.0	31.9	63.8	31.9	.	.
Don	46.0	30.0	24.0	51.8	31.0	53.9	31.3	47.2	32.3
Hazel	34.5	24.1	25.0	48.3	28.1	51.5	29.4	45.8	30.3
Newdak	53.5	29.3	28.0	63.7	30.7	61.1	31.1	52.4	31.3
O-29	52.0	26.8	27.0	.	.	.	.	.	.
O-30	60.5	26.6	28.0	.	.	.	.	.	.
O-31	56.0	29.6	28.0	.	.	.	.	.	.
Ogle	55.0	27.0	28.0	68.5	29.5	70.0	30.3	69.4	30.8
Prairie	49.5	25.8	27.0	67.1	28.9	68.2	29.9	.	.
Premier	39.0	24.8	27.0	52.7	28.4	51.6	29.6	45.7	30.2
Russell	38.5	25.4	30.0	.	.	.	.	.	.
Settler	57.5	25.4	29.0	66.1	28.7	62.4	29.8	.	.
Sheldon	53.0	24.3	29.0	.	.	.	.	.	.
Starter	48.0	28.1	26.0	58.4	30.1	58.7	30.7	52.0	31.8
Troy	64.5	27.1	30.0	69.5	29.6	.	.	.	.
Valley	61.0	31.6	26.0	69.7	31.8	65.8	31.9	57.6	31.9
Whitestone	60.5	28.0	25.0	.	.	.	.	.	.
Average all entries	52.0	27.3	26.9	62.3	29.8	60.7	30.6	52.9	31.2
Dif. Req. for Sig. 5%	N.S.	—	—	N.S.	N.S.	N.S.	N.S.	6.1	N.S.
25%	4.9	—	—	4.4	N.S.	3.9	N.S.	3.5	N.S.

Northeast District Oat Variety Test Dixon County dryland – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Plant lodging pct	Flower date June
Jerry	62.0	30.8	36.0	0.0	12.0
O-37	53.0	28.6	34.0	1.0	10.0
Ogle	53.0	25.6	34.0	2.0	12.0
Troy	52.0	27.2	38.0	2.0	16.0
O-30	51.0	27.2	37.0	2.0	14.0
Valley	49.0	29.6	35.0	0.0	15.0
Whitestone	47.0	28.6	35.0	6.0	16.0
O-39	46.0	25.2	35.0	4.0	14.0
Prairie	46.0	26.2	35.0	8.0	14.0
Settler	45.0	29.6	34.0	3.0	12.0
O-31	45.0	28.8	35.0	2.0	11.0
O-38	44.0	25.8	34.0	4.0	10.0
Milton	44.0	28.2	35.0	1.0	14.0
Brawn	43.0	25.2	32.0	2.0	15.0
O-29	42.0	26.2	34.0	2.0	11.0
Dane	41.0	25.6	35.0	2.0	10.0
Newdak	38.0	26.4	35.0	1.0	14.0
O-40	37.0	26.0	34.0	2.0	12.0
Sheldon	37.0	26.6	34.0	9.0	11.0
Starter	36.0	29.2	33.0	8.0	10.0
Paul	35.0	34.6	39.0	1.0	15.0
Russell	35.0	28.6	40.0	2.0	16.0
Premier	35.0	27.8	36.0	6.0	12.0
Don	29.0	26.4	31.0	6.0	10.0
Hazel	17.0	24.0	33.0	1.0	15.0
Average all entries	42.0	27.5	35.0	3.0	13.0
Dif. Req. for Sig. 5%	14.9	2.0	2.8	2.2	1.4
	8.7	1.2	1.7	1.3	0.8

Northeast District Oat Variety Tests – 1990 – 1994

Variety	Grain yield	Lodging pct	Plant height	Bushel weight	Grain yield	Bushel weight	Grain yield	Bushel weight	Grain yield	Bushel weight
	Two year ave.				Three year ave.		Four year ave.		Five year ave.	
Dane	48.5	14.0	26.2	32.0	70.3	28.3	79.6	27.3	73.7	29.4
Don	33.5	34.0	26.6	30.0	59.3	29.1	71.2	28.7	68.7	28.5
Hazel	22.5	29.0	25.0	32.0	55.7	27.6	67.1	27.5	74.5	27.7
Newdak	40.5	7.0	26.4	34.0	75.7	28.1	78.7	27.2	.	.
O-29	45.5	48.0	25.5	32.0	.	.	.	.	.	.
O-30	54.0	15.0	26.3	35.0	.	.	.	.	.	.
O-31	55.0	20.0	28.5	34.0	.	.	.	.	.	.
Ogle	45.5	47.0	25.2	32.0	78.0	27.4	85.1	26.6	84.4	27.1
Prairie	43.5	51.0	23.3	33.0	76.0	26.2	82.6	26.1	.	.
Premier	33.5	49.0	26.9	34.0	61.7	30.2	71.1	29.9	73.0	30.0
Russell	26.5	7.0	27.1	37.0	.	.	.	.	.	.
Settler	53.5	40.0	29.1	32.0	75.7	31.2	79.6	29.8	.	.
Sheldon	31.5	54.0	25.2	32.0	.	.	.	.	.	.
Starter	33.5	53.0	27.4	30.0	59.0	29.8	67.2	29.2	69.3	29.7
Valley	46.0	4.0	29.2	34.0	78.7	31.1	84.8	29.6	78.0	29.1
Whitestone	56.5	22.0	27.1	34.0	.	.	.	.	.	.
Average all entries	41.8	30.8	26.6	32.8	69.0	28.9	76.7	28.2	74.5	28.8
Dif. Req. for Sig. 5%	9.0	N.S.	1.5	1.2	8.5	1.2	N.S.	1.1	N.S.	N.S.
25%	5.1	N.S.	0.8	0.7	4.8	0.7	4.1	0.6	N.S.	0.6

West District Oat Variety Test Cheyenne County Irrigated – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower date June
Whitestone	70.0	31.2	27.0	20.0
O-40	67.0	31.2	27.0	13.0
Ogle	64.0	30.0	27.0	13.0
O-37	61.0	33.1	29.0	10.0
Border	58.0	30.6	26.0	13.0
Brawn	58.0	30.8	23.0	15.0
Prairie	57.0	31.1	24.0	15.0
Don	57.0	33.0	25.0	9.0
Russell	56.0	31.8	30.0	18.0
Newdak	55.0	31.2	27.0	13.0
O-38	54.0	29.3	28.0	9.0
O-31	50.0	30.9	25.0	10.0
Troy	50.0	32.8	26.0	19.0
Milton	49.0	30.5	25.0	14.0
O-39	49.0	31.3	22.0	11.0
Monida	49.0	30.9	27.0	21.0
Valley	49.0	33.1	24.0	15.0
Dane	48.0	28.4	26.0	8.0
O-29	48.0	31.4	25.0	10.0
Sheldon	46.0	31.4	28.0	12.0
Bay	45.0	31.1	23.0	20.0
Jerry	45.0	33.5	26.0	13.0
Paul	43.0	34.3	28.0	19.0
Hazel	43.0	30.0	23.0	10.0
O-30	42.0	30.4	23.0	12.0
Premier	41.0	33.4	25.0	12.0
Settler	41.0	33.5	27.0	12.0
Starter	35.0	32.1	23.0	9.0
Average all entries	51.0	31.5	26.0	14.0
Dif. Req. for Sig. 5%	20.6	1.8	4.9	1.8
25%	12.0	1.0	2.8	1.1

West District Irrigated Spring Oat Variety Test – 1990 – 1994

Variety	Grain yield Two year ave.	Bushel weight	Plant height	Grain yield Three year ave.	Bushel weight	Grain yield Four year ave.	Bushel weight	Grain yield Five year ave.	Bushel weight
Dane	45.0	29.8	26.0	65.5	31.3	.	.	.	.
Don	52.5	33.8	25.0	78.5	35.3	72.1	34.0	68.7	33.6
Hazel	43.0	32.1	23.0	70.4	33.5	63.3	32.6	64.4	32.6
Newdak	57.5	32.5	27.0	75.7	33.1	73.6	31.4	.	.
Ogle	63.0	32.5	27.0	79.1	33.5	74.6	32.6	72.0	32.4
Prairie	62.0	32.8	24.0	85.5	33.1	.	.	.	.
Premier	39.5	35.1	25.0	64.3	36.5	61.5	34.9	.	.
Russell	55.0	33.7	30.0	59.7	33.3	.	.	.	.
Settler	41.5	34.9	27.0	57.0	35.2	.	.	.	.
Starter	36.0	33.7	23.0	59.6	34.8	58.2	32.7	55.9	32.8
Troy	50.5	34.2	26.0	.	.	.	.	.	.
Valley	47.5	34.6	24.0	78.0	36.4	72.5	34.3	.	.
Average all entries	49.4	33.3	25.6	70.3	34.2	68.0	33.2	65.3	32.9
Dif. Req. for Sig. 5%	3.9	0.7	—	N.S.	1.1	N.S.	0.9	N.S.	N.S.
25%	2.1	0.4	—	6.1	0.6	3.6	0.5	3.4	N.S.

West District Oat Variety Test Cheyenne County dryland – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower date June
O-29	47	31.5	24	9
Russell	46	32.3	25	14
O-37	46	32.7	24	9
O-40	46	29.2	23	10
O-30	46	30.6	22	10
O-31	44	31	24	8
Prairie	44	29.7	23	12
Ogle	42	30.4	21	10
Valley	42	33.9	24	12
Bay	41	29.4	22	16
Jerry	41	34.5	26	10
Monida	40	27.3	24	16
Troy	39	31.1	23	13
Whitestone	39	31.2	18	14
Border	39	29.5	26	13
Newdak	39	30.2	24	11
O-39	38	30.5	20	8
O-38	38	29.2	22	8
Brawn	37	29.9	20	11
Dane	35	28.6	21	8
Settler	35	34.4	24	10
Milton	33	28.4	22	11
Premier	32	32.5	22	11
Paul	32	38.6	25	12
Hazel	31	29.3	19	12
Sheldon	30	32.8	22	9
Starter	29	33.8	23	9
Don	27	33.7	22	10
Average all entries	39	31.3	23	11
Dif. Req. for Sig. 5%	9.2	2	2.9	1.4
25%	5.5	1.2	1.7	0.79

West District Dryland Oat Variety Tests – 1990 – 1994

Variety	Grain yield Two year ave.	Bushel weight	Plant height	Grain yield Three year ave.	Bushel weight	Grain yield Four year ave.	Bushel weight	Grain yield Five year ave.	Bushel weight
Dane	36.5	29.5	21.0	56.5	30.1	.	.	.	.
Don	31.0	33.6	22.0	52.6	33.6	43.5	31.6	42.2	31.6
Hazel	34.5	31.0	19.0	56.4	31.2	45.8	29.6	44.5	30.3
Newdak	46.5	32.1	24.0	60.9	31.4	50.2	29.2	.	.
Ogle	48.0	31.8	21.0	71.0	31.6	61.0	29.4	57.2	29.7
Prairie	52.5	31.6	23.0	66.3	30.3	.	.	.	.
Premier	35.0	33.5	22.0	55.0	33.8	47.0	32.7	.	.
Russell	48.5	33.2	25.0	52.1	31.4	.	.	.	.
Settler	37.5	35.3	24.0	50.5	34.5	.	.	.	.
Starter	30.0	34.0	23.0	55.3	34.3	45.2	32.3	42.8	32.7
Troy	48.0	33.5	23.0	.	.	.	.	.	.
Valley	41.0	34.0	24.0	59.8	33.4	48.3	31.4	.	.
Average all entries	40.8	32.7	22.6	57.9	32.3	48.7	30.7	46.6	31.1
Dif. Req. for Sig. 5%	4.9	1.2	—	N.S.	1.2	4.4	0.9	2.9	0.7
25%	2.7	0.7	—	N.S.	0.7	2.5	0.5	1.4	0.4

Southeast District spring barley variety test Saunders County dryland – 1994

Variety	Grain yield bu/a	Plant height inches
EXCEL	43	21
B-O1	40	21
ROBUST	33	22
STEPTOE	26	20
HAZEN	24	23
STARK	23	23
STANDER	23	20
PERKINS	21	18
BOWMAN	18	22
NE80725	17	19
HITCHCOCK	15	18
NEBAR	14	24
SCHUYLER	4	14
Average all entries	23	20
Dif. Req. for Sig. 5%	7	2
25%	4	1

Northeast District spring barley variety test Dixon County dryland – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Plant lodging pct
B-01	39	32.3	27	2
Stander	32	36.8	27	2
Hazen	31	33.3	31	2
Robust	29	37.5	30	2
Excel	24	36.3	29	2
Stark	21	37.3	29	2
Steptoe	18	33.0	24	2
Bowman	11	31.5	25	7
PERKINS	9	32.0	23	2
NE86954	7	30.0	24	2
HITCHCOCK	7	.	25	2
NEBAR	5	.	26	1
SCHUYLER	4	.	18	0
Average all entries	18	34.0	26	2
Dif. Req. for Sig. 5%	9	N.S.	4	1
25%	5	2.2	3	0

Southeast District Barley Variety Tests – 1990 – 1994

Variety	Grain yield Two year ave.	Bushel weight	Plant height	Grain yield Three year ave.	Bushel weight	Grain yield Four year ave.	Bushel weight	Grain yield Five year ave.	Bushel weight
Bowman	17.0		22.0	19.4	48.0	16.5	48.0	18.9	48.0
Hazen	24.0	42.8	23.0	25.8	45.4	24.5	46.3	26.3	46.7
Robust	27.0	46.5	22.0	30.2	47.3	27.3	47.5	29.5	47.6
Stark	23.0	46.0	23.0	24.1	47.0	22.4	47.3	.	.
Steptoe	21.5	33.3	20.0	.	.	.	.	.	.
Average all entries	22.5	42.2	22.0	24.9	46.8	22.7	47.2	24.9	47.4
Dif. Req. for Sig. 5%	N.S.	—	—	3.3	N.S.	2.5	N.S.	2.1	N.S.
25%	N.S.	—	—	1.7	N.S.	1.4	N.S.	1.2	N.S.

Northeast District Barley Variety Tests – 1990 – 1994

Variety	Grain yield Two year ave.	Lodging pct	Bushel weight	Plant height	Grain yield Three year ave.	Bushel weight	Grain yield Four year ave.	Bushel weight	Grain yield Five year ave.	Bushel weight
Bowman	22.5	9.0	35.5	26.0	41.3	38.6	40.3	39.7	44.4	41.3
Hazen	42.5	3.0	34.5	31.0	66.0	35.9	63.9	36.0	63.1	37.4
Robust	39.0	5.0	35.2	30.0	61.3	36.9	58.9	37.2	58.1	38.7
Stark	32.0	3.0	38.5	29.0	48.7	40.4	47.8	40.5	.	.
Steptoe	31.5	9.0	32.3	25.0	.	.	.	.	.	.
Average all entries	33.5	5.6	35.2	28	54.3	38.0	52.7	38.3	55.2	39.2
Dif. Req. for Sig. 5%	2.5	N.S.	N.S.	1.5	5.5	N.S.	3.8	N.S.	5.2	N.S.
25%	1.2	N.S.	N.S.	0.7	2.8	N.S.	2.1	1.1	2.8	1.0

West District Irrigated Barley Variety Test Cheyenne County – 1994

Variety	Grain yield bu/a	Bushel weight lbs/bu	Plant height inches	Flower date June
Step toe	33.0	41.1	20.0	10.0
Bowman	31.0	45.5	21.0	12.0
Excel (MN)	29.0	42.4	21.0	12.0
B-01 (ND11055)	28.0	42.2	25.0	12.0
PERKINS	28.0	44.5	20.0	23.0
Stark	25.0	45.3	21.0	12.0
HITCHCOCK	25.0	41.4	17.0	23.0
Hazen	23.0	42.6	23.0	14.0
Stander (MN)	23.0	43.0	21.0	13.0
NE86954	22.0	41.4	18.0	23.0
Robust	22.0	44.4	22.0	12.0
NEBAR	19.0	41.4	25.0	24.0
SCHUYLER	14.0	36.5	20.0	
Average all entries	25.0	42.4	21.0	16.0
Dif. Req. for Sig. 5%	6.7	2.0	3.3	1.1
25%	3.9	1.1	1.7	0.6

West District Dryland Barley Variety Test Cheyenne County – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower date June
Step toe	37.0	43.3	20.0	9.0
Bowman	33.0	49.9	22.0	12.0
Stark	27.0	49.6	22.0	13.0
Stander	25.0	45.8	20.0	13.0
Excel	24.0	46.2	18.0	12.0
PERKINS	22.0	45.1	14.0	20.0
NE86954	21.0	42.0	15.0	15.0
Hazen	20.0	46.0	19.0	12.0
Robust	19.0	46.0	20.0	12.0
HITCHCOCK	19.0	42.6	14.0	18.0
B-01	17.0	44.5	18.0	12.0
SCHUYLER	15.0	43.4	14.0	
NEBAR	11.0	42.0	19.0	18.0
Average all entries	22.0	45.1	18.0	14.0
Dif. Req. for Sig. 5%	6.4	1.1	2.8	2.5
25%	3.7	0.7	1.6	1.4

West District Irrigated Barley Variety Tests – 1990 – 1994

Variety	Grain yield Two year ave.	Bushel weight	Plant height	Grain yield Three year ave.	Bushel weight	Grain yield Four year ave.	Bushel weight	Grain yield Five year ave.	Bushel weight
Bowman	43.0	46.5	21.0	57.0	48.0	61.5	48.1	67.8	49.1
Hazen	27.5	43.2	23.0	43.7	44.4	51.3	44.7	59.2	45.7
Robust	24.0	44.4	22.0	39.3	45.2	44.8	45.6	49.8	45.9
Stark	42.5	46.6	21.0	56.0	47.8	.	.	.	.
Steptoe	47.0	41.5	20.0	52.8	41.5	59.4	41.9	67.9	43.1
Average all entries	36.8	44.4	21.4	49.8	45.4	54.2	45.1	61.2	45.9
Dif. Req. for Sig. 5%	N.S.	1.0	–	N.S.	1.1	N.S.	0.8	5.7	0.8
25%	6.2	0.5	–	4.9	0.6	3.8	0.4	3.1	0.5

West District Dryland Barley Variety Tests – 1990 – 1994

Variety	Grain yield Two year ave.	Bushel weight	Plant height	Grain yield Three year ave.	Bushel weight	Grain yield Four year ave.	Bushel weight	Grain yield Five year ave.	Bushel weight
Bowman	39.5	48.0	22.0	56.6	48.1	47.9	45.8	49.1	46.0
Hazen	26.5	45.4	19.0	40.7	45.7	34.6	41.9	36.0	42.1
Robust	28.5	45.8	20.0	39.4	45.1	33.3	41.9	33.6	41.9
Stark	36.5	48.0	22.0	54.0	48.1	.	.	.	.
Steptoe	45.5	41.8	20.0	58.8	41.2	50.1	39.3	50.9	39.4
Average all entries	35.3	45.8	20.6	49.9	45.6	41.5	42.2	42.4	42.3
Dif. Req. for Sig. 5%	3.0	1.4	–	4.7	1.0	3.8	1.5	3.0	1.1
25%	1.4	0.7	–	2.5	0.5	2.1	0.8	1.6	0.6

Southeast District spring wheat variety test Saunders County dryland – 1994

Variety	GRAIN YIELD BU/A	PLANT HEIGHT IN
KULM	23	31
PIONEER	22	29
SHARP	20	28
PROSPECT	19	28
BUTTE 86	17	28
STOA	17	26
W 01	17	23
AVERAGE	19	27
DIF.REQ.FOR SIG 5%	5	2
25%	2	1

West District spring wheat variety test Cheyenne County irrigated – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower date June
2375	25	55.4	24	11
Prospect	24	53.9	22	13
Sharp	20	56.8	26	12
Kulm	20	57.2	24	11
W 01	17	54.4	27	15
Butte 86	17	53.6	27	12
Stoa	16	52.6	25	20
Average all entries	20	54.8	25	13
Dif. Req. for Sig. 5%	7	2.0	2	1
25%	4	1.1	1	1

West District spring wheat variety test Cheyenne County dryland – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower date June
2375	28	58.2	22	10
Sharp	27	59.2	26	9
Kulm	27	59.2	23	9
Butte 86	26	56.8	26	10
Prospect	23	56.3	23	11
W 01	23	56.0	25	13
Stoa	23	54.4	24	14
Average all entries	25	57.2	24	11
Dif. Req. for Sig. 5%	5	0.9	2	1
25%	3	0.5	2	0

Lancaster Co. canola/rapeseed variety test–1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Plant lodging pct	Flower date May
Lethbridge 22A	1117	47.1	43	8	26
Common Brown	1044	49.3	45	3	21
Gisilba	954	50.8	32	0	21
Forage	935	47.4	48	4	25
Tilney	928	51.9	28	0	21
Ochre	849	53.2	31	0	22
Legend	705	40.2	37	2	25
Westar	633	40.8	40	2	26
Tobin	547	44.0	33	2	14
Parkland	523	43.6	30	2	19
Horizon	477	43.4	34	5	13
Celebra	261	37.0	38	0	29
AVERAGE ALL ENTRIES	748	46.4	36	2	22
DIF. REQ. FOR SIG. 5%	226	3.1	5	3	5
25%	129	1.8	3	2	3

Gage Co. canola/rapeseed variety test – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Plant lodging pct	Flower date May
Gisilba	444	33	8.8	0	24
Common Brown	430	43	8.8	5	31
Ochre	327	29	7.5	0	24
Forage	318	48	8.8	5	29
Tilney	294	28	8.3	0	23
Lethbridge 22A	240	39	10	8	31
Westar	99	37	8.8	8	31
Legend	77	37	7.5	2	31
Horizon	.	29	.	.	20
Tobin	.	28	.	.	18
Celebra	.	.	.	.	.
Parkland	.	29	.	.	20
AVERAGE ALL ENTRIES	279	34	8.5	3.4	25
DIF. REQ. FOR SIG. 5%	153	4	NS	3.2	3
25%	87	2	NS	1.8	1

Seed was not harvested from several early maturing varieties because of insect damage.

Spring Canola/rapeseed variety tests Lancaster County – 1993 – 1994

Variety	Grain yield lb/a	Plant lodging pct	Bushel weight lb/bu	Plant height inches
2 Year average				
Lethbridge 22A	1099	19	48.0	50
Legend	1066	18	40.3	45
Common Brown	1047	21	48.9	51
Westar	991	13	40.7	45
Tilney	899	9	52.3	37
Gisilba	891	8	52.1	39
Forage	874	20	47.5	51
Ochre	761	14	53.3	40
Celebra	755	10	38.4	46
Horizon	710	25	43.8	39
Parkland	684	41	42.5	35
Tobin	625	36	42.0	37
AVERAGE ALL ENTRIES	867	19	45.8	43
DIF. REQ. FOR SIG. 5%	NS	NS	1.5	3
25%	NS	NS	0.8	2

Spring Canola/rapeseed variety tests Barnston (1994) and West Point (1993)

Variety	Grain yield lb/a	Plant lodging pct	Bushel weight lb/bu	Plant height inches
2 Year average				
Tilney	1454	34	52.7	40
Legend	1387	37	45.8	48
Westar	1288	49	47.9	48
Gisilba	1175	50	52.8	42
Lethbridge 22A	1110	49	52.0	50
Common Brown	1094	41	52.0	53
Ochre	1042	43	50.9	43
Forage	909	40	52.8	58
AVERAGE ALL ENTRIES	1182	43	50.9	47
DIF. REQ. FOR SIG. 5%	NS	NS	--	2
25%	NS	NS	--	1

Lancaster Co. Crambe Variety Test – 1994

Variety	Grain yield bu/a	Bushel weight lb/bu	Plant height inches	Flower date May
Belann	3231	22.1	32	29
C 22	3199	21.8	30	30
Belenzien	3138	22.1	29	30
NM 89	3130	24.4	31	27
C 29	3065	23.3	28	30
NM 97	2798	23.0	31	25
C 37	2793	21.4	31	30
Meyer	2765	21.5	27	29
Indy	2755	22.5	28	30
NM 28	2710	24.6	28	26
Prophet	2533	19.9	29	30
NM 2	2504	24.3	28	26
AVERAGE ALL ENTRIES	2885	22.6	29	28
DIF. REQ. FOR SIG. 5%	NS	2.9	NS	3
25%	481	1.7	2	2

Crambe Variety Tests 1990 – 1994

Plots at Barnston, Lincoln, and West Point

Variety	Grain yield bu/a	Plant lodging pct	Bushel weight lb/bu	Plant height inches
2 Year average				
Belann	1756	15	22.1	37
Belenzien	1680	15	22.1	36
C 22	1697	22	21.8	37
C 29	1674	15	23.3	35
C 37	1507	18	21.4	36
Indy	1489	14	22.5	33
Meyer	1506	7	21.5	34
NM 2	1337	13	24.3	34
NM 28	1461	16	24.6	33
NM 89	1704	9	24.4	35
NM 97	1488	19	23.0	36
Prophet	1369	19	19.9	35
Average all entries	1556	15	22.6	35
Dif. Req. for Sig. 5%	NS	NS	--	NS
25%	NS	NS	--	1
3 Year average				
Meyer	1384	13	21.5	34
NM 2	1393	11	23.7	34
NM 28	1419	17	23.3	34
NM 89	1615	7	23.6	35
NM 97	1421	22	22.6	36
Average all entries	1446	14	22.9	34
Dif. Req. for Sig. 5%	NS	NS	NS	NS
25%	NS	NS	0.4	NS
4 Year average				
NM 2	1419	9	22.6	34
NM 28	1446	13	21.9	34
NM 89	1598	5	22.5	35
NM 97	1392	17	21.0	35
Average all entries	1463	11	22.0	34
Dif. Req. for Sig. 5%	NS	NS	0.4	NS
25%	61	2	0.2	1
5 Year average				
NM 2	1250	9	21.3	30
NM 89	1408	5	21.4	31
NM 97	1207	17	20.1	31
Average all entries	1288	10	20.9	31
Dif. Req. for Sig. 5%	NS	NS	0.4	NS
25%	56	2	0.2	1



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