University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Historical Materials from University of Nebraska-Lincoln Extension

Extension

1980

EC80-104 Performance of Soybean Varieties in Nebraska

A. F. Dreier

J. H. Williams

L. V. Svec

Follow this and additional works at: http://digitalcommons.unl.edu/extensionhist

Dreier, A. F.; Williams, J. H.; and Svec, L. V., "EC80-104 Performance of Soybean Varieties in Nebraska" (1980). *Historical Materials from University of Nebraska-Lincoln Extension*. 4331.
http://digitalcommons.unl.edu/extensionhist/4331

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

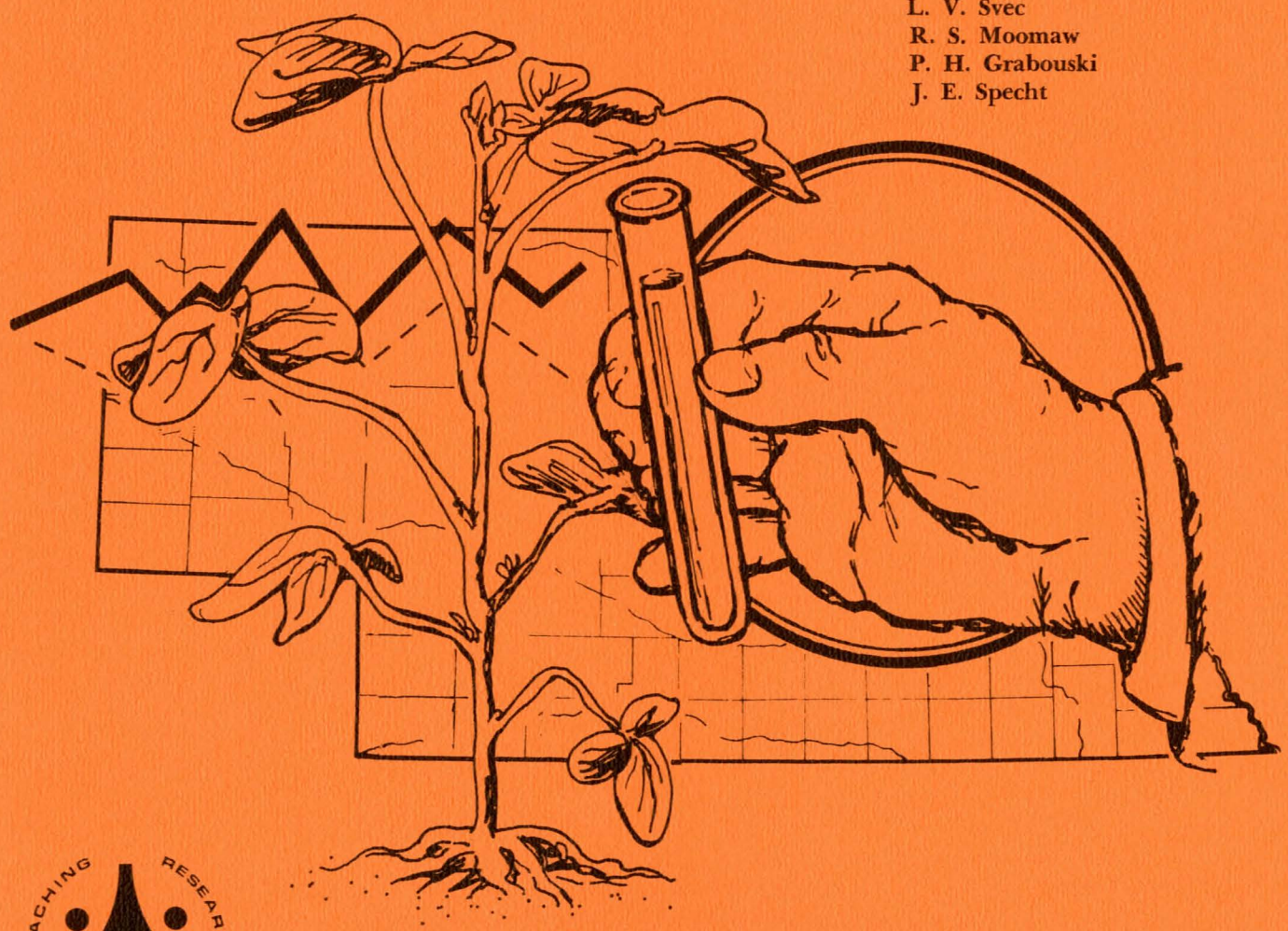
AGRI
S
85
E7

JANUARY 1980 E.C. 80-104

#80-104
c.1

PERFORMANCE OF SOYBEAN VARIETIES IN NEBRASKA 1979

A. F. Dreier
J. H. Williams
L. V. Svec
R. S. Moomaw
P. H. Grabouski
J. E. Specht



TEACHING RESEARCH EXTENSION
Institute of Agriculture and Natural Resources

Extension work in "Agriculture, Home Economics and subjects relating thereto," The Cooperative Extension Service, Institute of Agriculture and Natural Resources, University of Nebraska–Lincoln, Cooperating with the Counties and the U.S. Department of Agriculture
Leo E. Lucas, Director

EXTENSION CIRCULAR 80-104

January 1980

CONTENTS

Foreword 2

The metric system 2

Introduction 3

Soybean varieties
Characteristics 4
Suggested for Nebraska 7

Testing procedure 8

Performance data
Northeast, No-Till, 1979 10
Northeast, 1979 11
Northeast, 1971-1979 12
Southeast, Mead Irrigated Narrow Rows, 1978-1979 13
Southeast, Mead Nonirrigated Narrow Rows, 1977-1979 14
Southeast, Mead Irrigated, 1979 15
Southeast, Mead Nonirrigated, 1979 16
Southeast, Mead, Irrigated, 1973-1979 17
Southeast, Mead Nonirrigated, 1973-1979 18
Southeast, Lancaster Nonirrigated, 1979 19
Southeast, Nemaha 1979 20
Southeast, Nemaha, 1971-1979 21
South Central, Fillmore Irrigated, 1979 22
South Central, Clay Furrow Irrigated 1979 23
South Central, Clay Sprinkler Irrigated 1979 24
South Central, Irrigated 1979 25
South Central, Irrigated 1973-1979 26
North Central, Dawson Irrigated 1979 27
Southwest, Irrigated 1968-1979 28

FOREWORD

This circular is a progress report of soybean variety trials conducted by the variety evaluation and soybean breeding projects of the Agricultural Experiment Station. Cooperating were the Agronomy Department and the Northeast, South Central and North Platte Stations. These Extension Circulars replace the Outstate Testing Series. Conduct of experiments and publication of results is a joint effort of the Agricultural Experiment Station and the Cooperative Extension Service.

Acknowledgment is made to station personnel, county extension agents and others who assisted in the conduct of these tests. Special acknowledgment is made to Eldo Coulter, Bettger Brothers and Phil Menke for furnishing land and caring for the Nemaha, Fillmore and Dawson County trials, respectively.

THE METRIC SYSTEM

The United States is committed to changing to the metric system of weights and measures. This conversion will take time and there will be some confusion until the metric system becomes more familiar. Measurement data in this circular are given in commonly used U.S. units followed by the metric units in parentheses ( ).

Among the equivalents are:

1 millimeter	(mm)	=	0.0394 inches
1 centimeter	(cm)	=	0.394 inches
1 hectare	(ha)	=	2.471 acres
1 kilogram	(kg)	=	2.205 pounds
1 metric ton	(t)	=	2,204.6 pounds

Conversion factors used in this circular were as follows:

mm	=	inches x 0.254
cm	=	inches x 2.54
ha	=	acres x 0.405
kg	=	pounds x 0.454
kg/ha	=	bu/A x 67.26 (60# bu)

PERFORMANCE OF SOYBEAN VARIETIES
IN NEBRASKA
1979

The November 1 estimated yield of soybeans for Nebraska was 35 bushels per acre (2350 kg/ha) from 1,600,000 harvested acres (648,000) hectares. The total production and harvested area represent new records for the state.

Yields by Crop Reporting Districts were as follows:

	Yield, bu/A (kg/ha)		
	1977	1978	1979
Northwest	---- ----	---- ----	---- ----
North	29.0 (1951)	30.2 (2031)	29.0 (1951)
Northeast	36.6 (2462)	33.9 (2280)	35.0 (2354)
Central	36.1 (2428)	36.1 (2428)	35.0 (2354)
East	36.0 (2421)	35.7 (2401)	35.6 (2394)
Southwest	32.3 (2172)	22.0 (1480)	32.0 (2152)
South	34.0 (2287)	28.6 (1924)	34.0 (2287)
Southeast	35.0 (2354)	29.8 (2004)	34.0 (2287)
State	36.0 (2421)	34.0 (2287)	35.0 (2354)

Some characteristics of soybean varieties included in recent Nebraska tests are shown in Table 1.

Most soybean varieties in the Corn Belt are of the indeterminate type. Flowering and growth continue until pod set is complete. Elf and Gnome are determinate types in which stem growth ceases about the time of flowering. Plants of these varieties are much shorter.

Maturity ratings shown in Table 1 are indicated as days earlier or later than Woodworth. Maturity is defined as the time 95% of the pods have turned brown. This would be about a week to 10 days ahead of harvest.

Resistance to lodging is affected by local environmental conditions. Varietal response to lodging may differ with changing irrigation schedules. High plant populations increase susceptibility to lodging.

Soybean varieties differ in their ability to emerge under unfavorable conditions. These are not a factor when seeding conditions are good but may become important when soil crusting or deep planting conditions exist.

Phytophthora root rot has not been a major problem in Nebraska. It has been identified in several areas of the state. Resistant varieties offer a control method for this soil fungus. Many races cause severe losses in other soybean growing areas of the United States.

Table 1. Characteristics of soybean varieties.

Variety	1/ Maturity	Lodging resistance	Emergence score	Color				Phytophtora 2/ rating	Seeds per lb (kg) 3/
				Flower	Pubescence	Pod	Hilum		
Weber	-10	Good	Good	White	Tawny	Brown	Black	S	---- ----
Coles	- 8	Good	Good	Purple	Gray	Brown	Yellow	S	---- ----
Wells	- 8	Good	Fair	Purple	Gray	Brown	Imp. black 4/	R	2620 (5780)
Wells II	- 8	Good	Poor	Purple	Gray	Brown	Imp. black 4/	R+	2660 (5870)
Corsoy	- 8	Fair	Good	Purple	Gray	Brown	Yellow	S	2780 (6130)
Corsoy 79	- 8	Fair	Good	Purple	Gray	Brown	Yellow	R+	2840 (6260)
Vickery	- 8	Fair	Good	Purple	Gray	Brown	Yellow	R+	---- ----
Harcor	- 8	Fair	Good	Purple	Gray	Brown	Yellow	R	2880 (6350)
Amsoy 71	- 7	Fair	Poor	Purple	Gray	Tan	Yellow	R	2670 (5890)
Nebsoy	- 6	Excellent	Good	White	Gray	Brown	Buff	R	2490 (5490)
Beeson	- 6	Good	Poor	Purple	Gray	Brown	Imp. black 4/	R	2350 (5180)
Beeson 80	- 6	Good	Poor	Purple	Gray	Brown	Imp. black 4/	R+	2350 (5180)
Century	- 4	Good	Poor	Purple	Tawny	Brown	Black	R	2430 (5360)
Gnome	- 4	Excellent	Good	Purple	Brown	Tan	Black	S	2720 (6000)
Amcor	- 4	Fair	Good	Purple	Gray	Brown	Yellow	R	2710 (5980)
Pella	0	Good	Fair	Purple	Tawny	Tan	Black	R	2400 (5290)
Will	0	Excellent	Poor	White	Brown	Tan	Black	T	2670 (5800)
Wayne	0	Fair	Good	White	Tawny	Brown	Black	T	---- ----
Woodworth	0	Good	Poor	White	Tawny	Tan	Black	T	2870 (6330)
Cumberland	+ 1	Good	Good	Purple	Gray	Brown	Imp. black 4/	S	2440 (5380)
Oakland	+ 1	Good	Fair	Purple	Gray	Brown	Imp. black 4/	R	2410 (5310)
Calland	+ 3	Fair	Good	Purple	Tawny	Brown	Black	R	---- ----
Williams 79	+ 4	Good	Poor	White	Brown	Tan	Black	R+	2630 (5800)
Williams	+ 5	Good	Poor	White	Tawny	Tan	Lt. black	T	2650 (5840)
Elf	+ 5	Excellent	Good	Purple	Borwn	Tan	Black	S	2610 (5760)
Union	+ 6	Good	Fair	White	Brown	Tan	Black	R	---- ----
Bonus	+ 6	Good	Poor	Purple	Gray	Brown	Imp. black 4/	R	---- ----
Cutler 71	+ 7	Good	Poor	Purple	Tawny	Brown	Black	R	---- ----
Kent	+12	Good	Good	Purple	Tawny	Brown	Black	S	---- ----

1/ Approximate days earlier - or later + than Woodworth, varies with season and location.

2/ S = susceptible, R = resistant to Races 1 & 2, R+ = resistant to Races 1,2,3,6,7,8,9, T = tolerant in field.

3/ Varies greatly with season andlocation. Data shown are 1979 averages of irrigated and nonirrigated tests, 30- and 7-inch (76 and 18 cm) rows at the Mead Field Laboratory and nonirrigated 30-inch (76 cm) rows at the Lincoln Agronomy Farm.

4/ Black with brown ring around edge.

Many varieties listed are relatively new releases. Vickery, Wells II, Nebsoy, Cumberland, Oakland, Elf and Union were tested as named varieties for the first time in 1978. Of these, Vickery, Sloan and Union were not continued in 1979 trials. Weber, Corsoy 79, Beeson 80, Century, Gnome, Amcor, Pella, Will, and Williams 79 were tested for the first time in 1979. These will not be generally available for farm planting in 1980.

Weber is a Group I maturity soybean. This puts it in a maturity class three or four days earlier than Corsoy. It was developed in Iowa and Swift, Harosoy, and Blackhawk are included in its parentage.

Vickery is the result of a Corsoy backcross made in Iowa. The purpose of the cross was to add resistance to several races of phytophthora root rot to Corsoy. It is a Group II variety and is similar to Corsoy in appearance, agronomic performance, seed composition, and disease resistance except for phytophthora.

Wells II, Corsoy 79, Beeson 80 and Williams 79 are backcross derivatives of the original varieties. Each has added phytophthora resistance not found in the parent variety. Other agronomic characters and performance in the absence of phytophthora are essentially unchanged.

Nebsoy represents the first soybean variety released by the Nebraska Agricultural Experiment Station. It was selected at the Mead Field Laboratory from a cross made at Purdue. Nebsoy is of Group II maturity, similar to Amsoy 71. It has consistently been superior to Amsoy 71 and Beeson in seed yield. It is 3 to 6 inches (8-15 cm) shorter, has better lodging resistance and slightly better seed quality than either. Also, Nebsoy rates higher in seed emergence under unfavorable conditions.

Century was selected by Purdue from the cross Calland x Bonus. Century is slightly later than Beeson and has large seeds.

Gnome is a determinate semidwarf variety out of the same cross as Elf (Williams x Ransom). It averages eight days earlier in maturity than Elf and two days later than Beeson. It can best be described as an early Elf. Like Elf, it was developed for high yielding environments where lodging often limits yields.

Amcor was developed in Ohio from a cross between Amsoy 71 and Corsoy. It is 2 days later than Beeson and is taller. Amcor has performed best in lower-yielding environments.

Pella is a Group III variety of Woodworth maturity. It was developed in Iowa from crosses involving Wayne, Clark, Adams, and Calland. Pella has an excellent appearance, good standability and high yield potential.

Will is a semideterminate intermediate height variety developed in Illinois. Except for the semideterminate factors, it has the same genetic background as Williams. Maturity is similar to Woodworth. Will has shown good lodging resistance.

Cumberland was developed in Iowa from the cross Corsoy x Williams. Cumberland is of Group III maturity as are Woodworth and Williams. Seed size has exceeded Woodworth and Williams and yield performance in regional trials was superior.

Oakland also is of Group III maturity of Calland or Woodworth maturity. It was selected in Iowa for resistance to Race 1 to phytophthora. Oakland should offer improved yield and lodging resistance over Calland.

Elf is a 1977 release selected in Illinois from the cross Williams x Ransom. It came from a breeding program directed toward the development of high-yielding, lodging-resistant, semidwarf soybean varieties. Elf is the same maturity as Williams but about one-half as tall. Its chief advantage over Williams is greater lodging resistance and higher yields in favorable environments where Williams lodges. The greatest yield advantage has been in high yield environments with slightly increased planting rates and 7-inch (18 cm) rows. The short stature may cause increased harvest losses. Elf has not performed well under stress conditions.

Union was selected in Illinois from a backcross of Williams x a strain to add phytophthora resistance. Union is early Group IV maturity, earlier than Cutler 71 and later than Williams. Seeds are slightly larger than Williams. Plant appearance is similar to Williams and Woodworth except for later maturity.

Yield summaries for some of these varieties follow. Most of the trials were at Mead Field Laboratory and include irrigated and nonirrigated comparisons. Maturity is the number of days from planting to physiological maturity. Varietal comparisons are valid only within groups.

Variety	Yield bu/A (kg/ha)	Maturity days	Lodging score	Height in (cm)
		20 Tests (1976-1979)		
Cumberland	45.6 (3070)	129	1.5	34 (86)
Woodworth	45.2 (3040)	129	1.5	35 (89)
Oakland	46.1 (3100)	130	1.4	36 (91)
Williams	44.0 (2960)	133	1.5	37 (94)
		20 Tests (1976-1979)		
Will	46.9 (3150)	128	1.2	32 (81)
Woodworth	46.5 (3130)	128	1.5	36 (91)
Williams	45.4 (3050)	132	1.5	38 (97)
ELf	47.8 (3210)	133	1.1	22 (56)
		8 Tests (1978-1979)		
Gnome	45.6 (3070)	126	1.0	22 (56)
Nebsoy	43.5 (2930)	125	1.3	33 (84)
Woodworth	46.4 (3120)	129	1.4	35 (89)

Variety	Yield bu/A (kg/ha)	Maturity days	Lodging score	Height in (cm)
	13 Tests (5 locations, 1976-1979)			
Century	49.7 (3340)	126	1.2	32 (81)
Beeson	45.3 (3050)	124	1.5	35 (89)
Corsoy	43.6 (2930)	121	1.9	34 (86)
	26 Tests (1976-1979)			
Corsoy	44.1 (2970)	119	2.0	35 (89)
Wells	44.6 (3000)	119	1.3	34 (86)
Harcor	44.6 (3000)	120	2.1	36 (91)
Amsoy 71	43.0 (2890)	121	2.0	39 (99)
Beeson	42.9 (2890)	122	1.8	35 (89)
Nebsoy	48.1 (3230)	122	1.4	32 (81)

Suggested soybean varieties for Nebraska are shown in Table 2. Newly released varieties may be added to the list when adequate information becomes available. Varieties are listed in order of approximate maturity. Nebraska trials include only varieties of Experiment Station origin. Many privately developed varieties are being marketed.

Table 2. Suggested soybean varieties for Nebraska.

Southeast	South Central	Central and Southwest*	East Central	Northeast
Nebsoy	Corsoy	Corsoy	Corsoy	Corsoy
Woodworth	Harcor	Harcor	Harcor	Harcor
Cumberland	Wells	Wells	Wells	Wells
Williams	Amsoy 71	Amsoy 71	Amsoy 71	Amsoy 71
Elf**	Nebsoy	Nebsoy	Nebsoy	Nebsoy
	Beeson	Beeson	Beeson	Beeson
	Woodworth	Woodworth	Woodworth	
	Cumberland	Cumberland	Cumberland	
	Williams		Williams	
	Elf**			

* Primarily on irrigated land

** Primarily on irrigated land and/or high production environments and narrow rows.

SOYBEAN DATA

Soybean variety tests were conducted in 6 areas of Nebraska as follows:

1. Northeast
2. Mead Field Laboratory, Saunders County
3. Agricultural Experiment Station, Lancaster County
4. Nemaha County
5. South Central Station
6. Southwest Irrigated

Several experiments were located in some areas. Current and/or periods of years data from each location are shown in Tables 3 through 21.

Testing Procedure

Soybeans were planted in 4-row plots replicated 4 times. Rates of 8-10 beans per foot of row were used. This produces good stands under favorable conditions for emergence. Seeding rates for the variety Elf were increased 50%. Row spacing varied with location and years. Recent row spacings have generally been 30 inches (76 cm).

Yields were calculated in bushels per acre at 60 pounds per bushel and 13% grain moisture. Yielding ability of different varieties cannot be measured with absolute accuracy because of variations in soil fertility, moisture and other factos. For this reason small differences in yield have little significance. Yield differences requires for significance are shown in each of the data tables. Unless the difference in yield of two varieties is greater than this difference, little confidence can be placed in the superiority of one over the other in that particular test. These differences are shown at the 5% level, meaning that differences as large or larger could be expected through chance alone in 1 of 20 trials.

In these trials, varietal performance over years has been inconsistent. Early-maturing varieties were favored in some seasons and later-maturing ones in others. Variety yield differences in period-of-years averages are often nonsignificant. Since significant yield differences were obtained in individual tests, this indicates that relative varietal performance was not the same in all years included.

Northeast

High soybean yields were produced at the Northeast Station in Dixon County. Late season moisture was more than adequate and favorable fall weather allowed all varieties to mature.

Century and Wells were high yielding in the no-till trial (Table 3). Four varieties, Wells, Amsoy 71, Nebsoy, and Woodworth had similar two-year average yields.

Eleven of the fourteen varieties in the conventional tillage test produced yields of 60 bushels (4036 kg/ha) or more (Table 4). Later varieties were generally most productive in 1979. In four-year averages, seven varieties did not differ significantly in yield (Table 5).

Southeast - Mead

Results of four variety experiments at the Mead Field Laboratory (Saunders County) are reported (Tables 6, 7, 8, and 9). Experiments were conducted with and without irrigation and at 7-inch (18 cm) and 30-inch (76 cm) row spacings. The 1979 trials were designed to allow comparisons of varieties at different row spacings and irrigation practices.

Good but not outstanding yields were obtained. The 1979 yields were in the same range as the three-year averages. Earlier-maturing varieties were generally at a yield disadvantage in 1979. Elf, Pella, Will and Oakland were in the top yield class in all experiments.

Period-of-years averages for the narrow row trials are shown in Tables 6 and 7. Many varieties had equivalent yields. Period-of-years data (1973-1979) from 30-inch (76 cm) row spacing irrigated and nonirrigated trials are shown in Tables 11 and 12, respectively. Eleven varieties included in 1977-1979 trials did not differ significantly in yield.

Southeast - Lancaster County

Twenty varieties were tested at the Agronomy Farm. Yield and other data are shown in Table 12. Many varieties had equivalent performance records.

Southeast - Nemaha County

Eleven varieties were tested in Nemaha County. Moisture was adequate at planting. A long period without rain followed. Herbicide was not activated and a weed problem resulted. This reduced yields and increased plot variability. Final yields of four varieties exceeded 50 bushels per acre (3360 kg/ha) (Table 13). Period-of-years data are included in Table 14. This was a period of large seasonal differences and four varieties did not differ in average yield.

South Central - Irrigated

Three irrigated trials were conducted in this area. Excellent yields were produced in all tests (Tables 15, 16 and 17). Average relative performance of varieties in the three trials was similar (Table 18). Pella, Oakland and Century had the highest 1979 average yields. Early-maturing varieties were lowest in yield. Woodworth, Williams and Elf were highest yielding in five year averages (Table 19).

Southwest Irrigated

Eight varieties were grown under irrigation in Dawson County (Table 20). Weber, Wells and Nebsoy were highest in yield. Data from trials since 1968 in this area are shown in Table 21.

Table 3. No-till soybean variety tests. Dixon County. 1978-1979.

Variety	1979				Two-year average			
	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)
Wells	62.9 (4230)	9-30	1.0	39 (99)	52.0 (3500)	9-26	1.0	38 (97)
Corsoy 79	59.2 (3980)	9-25	2.0	40 (102)	----	----	---	--
Amsoy 71	60.6 (4080)	10-1	2.0	46 (117)	50.2 (3380)	9-27	2.0	44 (112)
Nebsoy	57.2 (3850)	10-1	1.0	35 (89)	49.6 (3340)	9-28	1.2	36 (91)
Century	67.3 (4530)	10-2	1.0	39 (99)	----	----	---	--
Gnome	58.8 (3950)	10-2	1.0	23 (58)	----	----	---	--
Woodworth	58.7 (3950)	10-4	1.0	40 (102)	50.6 (3400)	10-1	1.2	39 (99)
Dif. req. sig.	5.2 (350)	1.1	---	3.4 (9)	N.S.	2.1	0.4	N.S.

Cooperator: Northeast Station

1979 test

Planted: May 24. 30-inch (76 cm) rows. Premerge metalachlor + metribuzin + paraquat, 1.8+0.5+0.5 lb/A (20+0.6+0.6 kg/ha). No cultivation.

Harvested: October 11.

Table 4. Dixon County. Soybean variety test. 1979.

Variety	Yield bu/A (kg/ga)	Mature date	Lodging score	Height inches (cm)
Weber	63.9 (4300)	9-30	1.8	38 (97)
Wells	58.0 (3900)	9-29	1.6	41 (104)
Wells II	57.0 (3830)	9-29	1.5	39 (99)
Corsoy	61.9 (4160)	9-27	2.9	39 (99)
Corsoy 79	64.5 (4340)	9-25	2.3	42 (107)
Harcor	58.8 (3950)	9-29	2.8	41 (104)
Amsoy 71	63.1 (4240)	10-2	2.0	48 (122)
Nebsoy	61.2 (4120)	10-2	1.5	39 (99)
Beeson	58.7 (3950)	10-2	2.0	41 (104)
Beeson 80	60.0 (4040)	10-2	2.5	40 (102)
Century	63.9 (4300)	10-2	1.0	40 (102)
Gnome	62.5 (4200)	10-1	1.0	25 (64)
Pella	75.9 (5110)	10-4	1.5	41 (104)
Will	65.3 (4390)	10-4	1.4	40 (102)
Woodworth	66.9 (4500)	10-3	2.1	41 (104)
Dif. req. sig.	5.6 (377)	1.9	0.8	2.8 (7)

Cooperator: Northeast Station
Planted: May 24. 30-inch (76 cm) rows.
Harvested: October 10.

Table 5. Northeast District soybean variety tests. Dixon County. 1971-1979. No 1974 data.

Variety	Grain yield, bu/A (kg/ha)									1976-79 average		
	1971	1972	1973	1975	1976	1977	1978	1979	1976-79 average	Mature date	Lodging score	Height in (cm)
Weber	----	----	----	----	----	----	----	63.9 (2860)	----	----	---	--
Coles	----	----	----	----	----	50.0 (3360)	42.5 (2860)	----	----	----	---	--
Wells	37.8 (2540)	52.8 (3550)	----	35.6 (2390)	21.7 (1460)	52.8 (3550)	48.7 (3280)	58.0 (3900)	45.3 (3050)	9-19	1.6	34
Wells II	----	----	----	----	----	48.2 (3240)	47.2 (3170)	57.0 (3830)	----	----	---	--
Corsoy	39.8 (2680)	54.6 (3670)	37.4 (2520)	40.7 (2740)	24.8 (1670)	47.9 (3220)	51.2 (2440)	61.9 (4160)	46.5 (3130)	9-18	2.2	34 (86)
Corsoy 79	----	----	----	----	----	----	----	64.5 (4340)	----	----	---	--
Harcor	----	----	----	35.7 (2400)	23.2 (1560)	49.5 (3330)	50.1 (3370)	48.8 (3950)	45.5 (3050)	9-19	2.3	36 (91)
Amsoy 71	38.9 (2620)	53.8 (3620)	34.8 (2340)	36.8 (2480)	20.2 (1360)	50.9 (3420)	47.7 (3210)	63.1 (4240)	45.5 (3060)	9-23	2.1	39 (99)
Nebsoy	----	----	----	----	26.4 (1780)	54.0 (3630)	49.3 (3320)	61.2 (4120)	47.7 (3210)	9-22	1.5	32 (81)
Beeson	37.3 (2510)	52.0 (3500)	36.7 2470)	39.3 (2640)	19.4 (1300)	43.8 (3950)	47.7 (3210)	58.7 (3950)	42.4 (2850)	9-24	2.1	34 (86)
Beeson 80	----	----	----	----	----	----	----	60.0 (4040)	----	----	---	--
Century	----	----	----	----	----	----	----	63.9 (4300)	----	----	---	--
Gnome	----	----	----	----	----	----	----	62.5 (4200)	----	----	---	--
Wayne	32.2 (2170)	49.0 (3300)	40.0 (2690)	29.9 (2010)	21.1 (1420)	48.5 (3260)	42.1 (2830)	----	----	----	---	--
Pella	----	----	----	----	----	----	----	75.9 (5110)	----	----	---	--
Will	----	----	----	----	----	----	----	65.3 (4390)	----	----	---	--
Woodworth	----	----	40.8 (2740)	29.4 (1980)	19.5 (1310)	50.4 (3390)	48.0 (3230)	66.9 (4500)	46.2 (3110)	9-29	1.7	34 (86)
Cumberland	----	----	----	----	----	48.5 (3260)	50.5 (3400)	----	----	----	---	--
Dif. req. sig.	4.3 (289)	N.S.	2.9 (195)	5.8 (390)	4.4 (296)	N.S.	5.5 (370)	5.6 (377)	N.S.	3.5	0.5	2.0 (5)

Table 6. Saunders County soybean variety test. Irrigated narrow rows. 1978-79.

Variety	1979						1978-79 average
	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality	Grams 100 seeds	Yield bu/A (kg/ha)
Wells	40.6 (2730)	9-25	1.4	33 (84)	2.5	18.6	44.8 (3010)
Wells II	40.3 (2710)	9-21	1.0	30 (76)	2.8	18.4	45.0 (3030)
Corsoy	39.6 (2660)	9-20	1.8	33 (84)	2.1	17.0	47.7 (3210)
Corsoy 79	41.3 (2780)	9-20	1.5	33 (84)	2.3	16.3	----
Harcor	38.0 (2560)	9-21	1.8	34 (86)	2.1	16.5	45.6 (3070)
Amsoy 71	38.1 (2560)	9-24	1.6	36 (91)	2.3	18.4	45.6 (3070)
Nebsoy	43.3 (2910)	9-26	1.3	30 (76)	2.5	19.5	47.4 (3190)
Beeson	40.5 (2720)	9-25	1.4	32 (81)	2.5	21.5	41.9 (2820)
Beeson 80	46.9 (3150)	9-25	1.4	30 (76)	2.5	21.4	----
Century	42.6 (2870)	9-25	1.1	29 (74)	2.1	20.7	----
Gnome	50.0 (3360)	9-25	1.0	19 (48)	1.6	17.2	----
Amcor	44.9 (3020)	9-26	1.8	35 (89)	2.3	18.0	----
Pella	49.1 (3300)	9-29	1.0	34 (86)	2.0	20.7	----
Will	48.8 (3280)	9-29	1.0	32 (81)	1.9	18.4	47.8 (3220)
Woodworth	46.8 (3150)	9-29	1.0	31 (79)	1.6	16.5	48.4 (3260)
Cumberland	47.8 (3220)	9-30	1.3	29 (74)	2.1	20.3	47.4 (3190)
Oakland	45.7 (3070)	10-1	1.0	34 (86)	2.4	20.8	46.9 (3150)
Williams	45.6 (3070)	10-2	1.3	33 (84)	2.0	18.6	47.0 (3160)
Williams 79	44.9 (3020)	10-1	1.1	33 (84)	1.8	18.4	45.8 (3080)
Elf	49.3 (3320)	10-1	1.0	20 (51)	1.5	17.6	51.3 (3450)
Dif. req. sig.	7.7 (520)	2.8	0.6	5.1 (13)	0.5	1.4	N.S.

Cooperator: Mead Field Laboratory.
Planted: May 24. 7-inch (18 cm) rows.

Table 7. Saunders County soybean variety test. Nonirrigated narrow rows. 1977-1979.

Variety	1979						1977-79 average
	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality	Grams 100 seeds	Yield bu/A (kg/ha)
Wells	30.8 (2070)	9-22	1.0	30 (76)	2.4	17.0	36.7
Wells II	32.3 (2170)	9-15	1.0	29 (74)	2.3	16.6	----
Corsoy	35.7 (2400)	9-14	1.1	31 (79)	2.0	15.3	39.4 (2650)
Corsoy 79	36.2 (2430)	9-17	1.3	33 (84)	2.1	16.0	----
Harcor	33.9 (2280)	9-16	1.0	35 (89)	2.0	15.4	39.1 (2630)
Amsoy 71	31.2 (2100)	9-18	1.3	34 (86)	2.3	16.6	37.8 (2540)
Nebsoy	34.3 (2310)	9-20	1.0	29 (74)	2.4	18.1	40.8 (2740)
Beeson	32.7 (2200)	9-19	1.1	28 (71)	2.3	19.1	36.2 (2430)
Beeson 80	33.0 (2220)	9-20	1.0	30 (76)	2.5	19.5	----
Century	34.4 (2310)	9-21	1.0	27 (69)	2.1	19.0	----
Gnome	38.4 (2590)	9-19	1.0	20 (51)	1.8	15.6	----
Amcor	32.4 (2180)	9-19	1.5	34 (86)	2.0	16.4	----
Pella	36.9 (2480)	9-25	1.3	31 (79)	2.0	19.2	----
Will	36.9 (2480)	9-27	1.1	27 (69)	2.1	17.4	----
Woodworth	35.4 (2380)	9-26	1.1	30 (76)	2.1	15.5	39.2 (2640)
Cumberland	40.0 (2690)	9-26	1.1	29 (74)	2.0	19.0	41.3 (2780)
Oakland	34.7 (2330)	9-26	1.1	30 (76)	2.0	20.1	41.6 (2800)
Williams	35.3 (2370)	9-29	1.0	31 (79)	2.0	18.0	37.8 (2540)
Williams 79	38.5 (2590)	9-28	1.1	32 (81)	2.0	18.5	----
Elf	41.5 (2790)	9-27	1.0	20 (51)	1.9	16.5	41.5 (2790)
Dif. req. sig.	7.7 (518)	3.4	0.4	4.2 (11)	0.4	1.3	N.S.

Cooperator: Mead Field Laboratory.

Table 8. Saunders County soybean variety test. Irrigated. 1979.

Variety	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality	Grams 100 seeds
Wells	34.8 (2340)	9-30	1.0	27 (69)	3.0	16.4
Wells II	34.5 (2320)	9-29	1.0	27 (69)	3.4	16.0
Corsoy	29.3 (1970)	9-29	1.1	29 (74)	2.8	16.0
Corsoy 79	33.0 (2220)	9-30	1.3	30 (76)	2.5	15.4
Harcor	33.0 (2220)	9-29	1.1	30 (76)	2.6	15.2
Amsoy 71	34.5 (2320)	9-31	1.1	33 (84)	3.1	16.3
Nebsoy	34.0 (2290)	10-1	1.1	27 (69)	3.0	16.9
Beeson	37.6 (2530)	10-2	1.0	29 (74)	3.3	18.8
Beeson 80	36.2 (2430)	10-3	1.0	26 (66)	3.4	18.2
Century	32.9 (2210)	10-3	1.0	27 (69)	2.9	17.0
Gnome	44.1 (2970)	10-3	1.0	19 (48)	2.0	16.4
Amcor	34.7 (2330)	10-3	1.1	33 (84)	2.8	15.7
Pella	43.3 (2910)	10-9	1.0	30 (76)	3.0	17.7
Will	40.5 (2720)	10-10	1.4	29 (74)	2.8	15.4
Woodworth	40.7 (2740)	10-5	1.3	31 (79)	2.5	14.4
Cumberland	35.6 (2400)	10-9	1.4	28 (71)	3.4	17.0
Oakland	46.0 (3100)	10-8		30 (76)	2.6	17.0
Williams	41.3 (2780)	10-14	1.5	32 (81)	2.6	16.0
Williams 79	41.1 (2760)	10-12	1.5	33 (84)	2.9	15.9
Elf	47.8 (3220)	10-11	1.0	22 (56)	2.0	17.6
Dif. req. sig.	5.6 (377)	3.1	0.4	6.1 (15)	0.5	1.3

Cooperator: Mead Field Laboratory.
Planted: May 24. 30-inch (76 cm) rows.

Table 9. Saunders County soybean variety test. Nonirrigated. 1979.

Variety	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality	Grams 100 seeds
Wells	33.9 (2280)	9-26	1.0	29 (74)	3.4	15.5
Wells II	29.9 (2010)	9-25	1.0	29 (74)	3.3	15.0
Corsoy	34.8 (2340)	9-25	1.3	31 (79)	2.6	15.3
Corsoy 79	36.9 (2480)	9-25	1.4	33 (84)	2.6	14.2
Harcor	39.5 (2660)	9-26	1.1	31 (79)	2.5	14.3
Amsoy 71	35.5 (2390)	9-27	1.0	31 (79)	2.9	15.7
Nebsoy	33.9 (2280)	9-26	1.0	32 (81)	3.4	16.3
Beeson	38.2 (2570)	9-26	1.0	33 (84)	3.3	17.6
Beeson 80	35.5 (2390)	9-27	1.0	29 (74)	3.0	17.8
Century	33.4 (2250)	9-28	1.1	28 (71)	2.6	17.4
Gnome	34.4 (2310)	9-25	1.1	25 (64)	2.0	15.4
Amcor	40.4 (2720)	9-27	1.3	33 (84)	2.4	15.4
Pella	42.0 (2820)	10-3	1.0	27 (69)	2.6	17.3
Will	38.6 (2600)	10-3	1.0	26 (66)	2.3	16.0
Woodworth	40.3 (2710)	10-1	1.1	28 (71)	2.3	14.2
Cumberland	34.6 (2330)	10-4	1.0	25 (64)	2.9	16.9
Oakland	39.8 (2680)	10-6	1.3	29 (74)	2.8	17.1
Williams	36.8 (2480)	10-5	1.0	26 (66)	2.6	15.8
Williams 79	36.5 (2460)	10-5	1.3	27 (69)	2.6	16.1
Elf	43.1 (2900)	10-5	1.0	24 (61)	2.0	16.2
Dif. req. sig.	5.2 (350)	3.1	0.4	6.4 (16)	0.6	1.4

Cooperator: Mead Field Laboratory
Planted: May 24. 30-inch (76 cm) rows.

Table 10. Southeast District soybean variety tests. Mead Field Laboratory. Irrigated. 1973-1979.

Variety	Grain yield, bu/A (kg/ha)								1977-79 average				
	1973	1974	1975	1976	1977	1978	1979	1977-79 average	Mature date	Ldg. score	Height in (cm)	Seed quality	Grams 100 seeds
Wells	55.2 (3710)	43.0 (2890)	40.9 (2750)	38.2 (2570)	42.7 (2870)	42.7 (2870)	34.8 (2340)	40.1 (2700)	9-19	1.3	37 (94)	2.8	15.8
Wells II	----	----	----	----	----	45.8 (3080)	34.5 (2320)	----	----	---	--	---	----
Corsoy	43.8 (2950)	45.9 (3090)	48.0 (2330)	43.6 (2930)	43.2 (2910)	47.7 (3210)	29.3 (1970)	40.1 (2700)	9-20	2.0	38 (97)	2.5	15.2
Corsoy 79	----	----	----	----	----	----	33.0 (2220)	----	----	---	--	---	----
Vickery	----	----	----	----	36.5 (2450)	46.9 (3150)	----	----	----	---	--	---	----
Harcor	----	----	49.0 (3300)	39.7 (2670)	42.2 (2840)	47.1 (3170)	33.0 (2220)	40.8 (2740)	9-22	2.2	39 (99)	2.3	14.7
Amsoy 71	50.3 (3380)	38.3 (2580)	45.6 3070)	32.9 (2210)	43.1 (2900)	40.0 (2690)	34.5 (2320)	39.2 (2640)	9-24	2.0	42 (107)	2.7	16.3
Nebsoy	----	----	----	----	49.4 (3320)	45.3 (3050)	34.0 (2290)	42.9 (2890)	9-23	1.3	34 (86)	2.7	16.8
Beeson	47.3 (3180)	41.2 (2770)	42.3 (2850)	35.2 (2370)	46.8 (3150)	38.1 (2560)	37.6 (2530)	40.8 (2740)	9-22	1.6	37 (94)	2.6	17.8
Beeson 80	----	----	----	----	----	----	36.2 (2430)	----	----	---	--	---	----
Century	----	----	----	----	----	----	32.9 (2210)	----	----	---	--	---	----
Gnome	----	----	----	----	----	----	44.1 (2970)	----	----	---	--	---	----
Amcor	----	----	----	----	----	----	34.7 (2330)	----	----	---	--	---	----
Pella	----	----	----	----	----	----	43.3 (2910)	----	----	---	--	---	----
Will	----	----	----	----	----	----	40.5 (2720)	----	----	---	--	---	----
Wayne	47.0 (3160)	34.1 (2290)	41.3 (2780)	31.8 (2140)	42.7 (2870)	40.7 (2740)	----	----	----	---	--	---	----
Woodworth	51.2 (3440)	37.6 (2530)	41.5 (2790)	39.1 (2630)	45.7 (3070)	44.8 (3010)	40.7 (2740)	43.7 (2940)	9-29	1.5	38 (97)	2.2	14.9
Cumberland	----	----	----	----	51.5 (3460)	46.0 (3090)	35.6 (2400)	44.4 (2990)	10-1	1.7	37 (94)	2.7	18.0
Oakland	----	----	----	----	45.0 (3030)	41.2 (2770)	46.0 (3100)	44.1 (2970)	9-30	1.6	38 (97)	2.3	17.0
Calland	48.0 (3230)	36.1 (2430)	37.5 (2520)	34.2 (2300)	43.6 (2930)	36.9 (2480)	----	----	----	---	--	---	----
Williams	48.2 (3240)	31.1 (2090)	44.2 (2970)	34.0 (2290)	42.7 (2870)	41.0 (2760)	41.3 (2780)	41.7 (2800)	10-5	1.6	40 (102)	2.1	16.9
Williams 79	----	----	----	----	----	----	41.1 (2760)	----	----	---	--	---	----
Elf	----	----	----	----	41.9 (2820)	51.7 (3480)	47.8 (3220)	47.1 (3170)	10-4	1.0	23 (58)	1.8	17.1
Union	----	----	----	----	43.2 (2910)	37.6 (2530)	----	----	----	---	--	---	----
Bonus	45.7 (3070)	28.3 (1900)	33.6 (2260)	33.0 (2220)	38.0 (2560)	34.1 (2290)	----	----	----	---	--	---	----
Cutler 71	41.4 (2780)	31.1 (2090)	34.8 (2340)	33.6 (2260)	40.7 (2740)	37.4 (2520)	----	----	----	---	--	---	----
Dif. req. sig.	5.8 (390)	6.6 (443)	4.7 (316)	5.3 (356)	5.2 (350)	4.4 (296)	5.6 (377)	N.S.	2.7	0.6	3.9 (10)	0.3	1.2

30-inch (76 cm) rows.

Table 11. Southeast District soybean variety tests. Mead Field Laboratory. Nonirrigated. 1973-1979.

Variety	Grain yield, bu/A (kg/ha)								1977-79 average				
	1973	1974	1975	1976	1977	1978	1979	1977-79 average	Mature date	Ldg. score	Height in (cm)	Seed quality	Grams 100 seeds
Wells	----	33.4 (2250)	26.8 (1800)	25.1 (1690)	26.4 (1780)	36.6 (2460)	33.9 (2280)	32.3 (2170)	9-17	1.0	31 (79)	3.2	16.6
Wells II	----	----	----	----	----	38.2 (2570)	29.9 (2010)	----	----	---	--	---	----
Corsoy	40.5 (2720)	31.3 (2110)	27.8 (1870)	28.7 (1930)	24.0 (1610)	38.8 (2610)	34.8 (2340)	32.5 (2190)	9-7	1.6	33 (84)	2.5	15.5
Corsoy 79	----	----	----	----	----	----	36.9 (2480)	----	----	---	--	---	----
Vickery	----	----	----	----	27.5 (1850)	39.2 (2640)	----	----	----	---	--	---	----
Harcor	----	----	32.2 (2170)	25.7 (1730)	29.2 (1960)	40.2 (2700)	39.5 (2660)	36.3 (2440)	9-18	1.5	34 (86)	2.6	15.0
Amsoy 71	43.7 (2940)	38.0 (2560)	33.9 (2280)	24.1 (1620)	31.2 (2100)	33.5 (2250)	35.5 (2390)	33.4 (2250)	9-19	1.7	35 (89)	2.9	16.0
Nebsoy	----	----	----	23.4 (1570)	29.2 (1960)	37.9 (2550)	33.9 (2280)	33.7 (2270)	9-18	1.0	31 (79)	2.9	17.2
Beeson	44.8 (3010)	33.7 (2270)	35.0 (2350)	20.2 (1360)	33.6 (2260)	34.7 (2330)	38.2 (2570)	35.5 (2390)	9-18	1.2	34 (86)	2.8	18.6
Beeson 80	----	----	----	----	----	----	35.5 (2390)	----	----	---	--	---	----
Century	----	----	----	----	----	----	33.4 (2250)	----	----	---	--	---	----
Gnome	----	----	----	----	----	----	34.4 (2310)	----	----	---	--	---	----
Amcor	----	----	----	----	----	----	40.4 (2720)	----	----	---	--	---	----
Pella	----	----	----	----	----	----	42.0 (2820)	----	----	---	--	---	----
Will	----	----	----	----	----	----	38.6 (2600)	----	----	---	--	---	----
Wayne	46.2 (3110)	40.6 (2730)	33.8 (2270)	13.1 (880)	35.2 (2370)	34.4 (2310)	----	----	----	---	--	---	----
Woodworth	47.6 (3200)	39.5 (2660)	30.4 (2040)	16.1 (1080)	37.5 (2520)	34.0 (2290)	40.3 (2710)	37.3 (2510)	9-24	1.1	32 (81)	2.1	14.7
Cumberland	----	----	----	----	35.4 (2380)	38.9 (2620)	34.6 (2330)	36.3 (2440)	9-26	1.1	29 (74)	2.5	18.4
Oakland	----	----	----	----	32.3 (2170)	34.5 (2320)	39.8 (2680)	35.5 (2390)	9-27	1.2	34 (86)	2.3	17.8
Calland	41.0 (2760)	40.5 (2720)	36.0 (2420)	17.5 (1180)	35.6 (2390)	30.9 (2080)	----	----	----	---	--	---	----
Williams	46.7 (3140)	39.2 (2640)	39.6 (2660)	17.8 (1200)	33.7 (2270)	34.3 (2310)	36.8 (2480)	34.9 (2350)	9-28	1.1	31 (79)	2.0	16.7
Williams 79	----	----	----	----	----	----	36.5 (2460)	----	----	---	--	---	----
Elf	----	----	----	----	35.2 (2370)	33.3 (2240)	43.1 (2900)	37.2 (2500)	9-29	1.0	26 (66)	1.8	15.7
Union	----	----	----	----	39.1 (2630)	32.3 (2170)	----	----	----	---	--	---	----
Bonus	42.9 (2890)	36.9 (2480)	36.9 (2480)	15.8 (1060)	36.0 (2420)	27.7 (1860)	----	----	----	---	--	---	----
Cutler 71	40.2 (2700)	39.1 (2630)	34.4 (2310)	12.8 (860)	37.8 (2540)	30.5 (2040)	----	----	----	---	--	---	----
Dif. req. sig.	4.2 (282)	6.0 (404)	4.8 (323)	5.0 (336)	6.5 (437)	3.3 (222)	5.2 (350)	N.S.	3.4	N.S.	2.1 (5)	0.5	1.3

30-inch (76 cm) rows.

Table 12. Lancaster County soybean variety test. Nonirrigated. 1979.

Variety	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality	Grams 100 seeds
Wells	32.7 (2200)	9-21	1.4	35 (89)	3.6	19.0
Wells II	38.6 (2600)	9-18	1.6	36 (91)	3.6	19.2
Corsoy	32.7 (2200)	9-21	2.4	35 (89)	3.0	18.2
Corsoy 79	41.8 (2810)	9-19	2.5	37 (94)	2.4	17.8
Harcor	42.4 (2850)	9-19	2.8	38 (97)	2.5	17.3
Amsoy 71	39.5 (2660)	9-19	2.1	43 (109)	2.9	17.8
Nebsoy	43.9 (2950)	9-20	1.8	34 (86)	3.1	20.4
Beeson	49.1 (3300)	9-20	1.9	39 (99)	2.9	19.5
Beeson 80	38.7 (2600)	9-19	1.9	35 (89)	2.9	19.7
Century	46.8 (3150)	9-23	1.3	33 (84)	2.5	19.3
Gnome	39.2 (2640)	9-23	1.0	19 (48)	2.0	18.7
Amcor	36.4 (2450)	9-23	1.9	42 (107)	2.8	18.2
Pella	44.7 (3010)	9-27	1.6	37 (94)	2.9	19.5
Will	48.0 (3230)	9-25	1.4	30 (76)	2.3	17.8
Woodworth	45.0 (3030)	9-25	1.4	38 (97)	2.1	15.8
Cumberland	40.6 (2730)	9-28	1.8	33 (84)	2.8	19.6
Oakland	44.5 (2990)	9-26	1.3	37 (94)	2.3	19.2
Williams	43.1 (2900)	10-1	1.4	37 (94)	2.3	17.3
Williams 79	42.2 (2840)	9-27	1.9	37 (94)	2.0	17.5
Elf	40.6 (2730)	9-30	1.1	19 (48)	2.0	19.0
Dif. req. sig.	9.4 (632)	3.2	0.5	4.3 (11)	0.7	1.5

Cooperator: Lincoln Agronomy Farm
Planted: May 15. 30-inch (76 cm) rows.

Table 13. Nemaha County. Soybean variety test. 1979.

Variety	Yield bu/A (kg/ha)	Lodging score	Height inches (cm)	Grams 100 seeds
Amsoy 71	40.4 (2720)	3.3	47 (119)	16.4
Nebsoy	37.9 (2550)	1.8	34 (86)	16.2
Century	50.4 (3390)	2.3	40 (102)	17.3
Pella	48.2 (3240)	2.0	41 (104)	17.5
Will	48.7 (3280)	2.3	39 (99)	16.1
Woodworth	51.5 (3460)	3.0	41 (104)	15.2
Cumberland	56.4 (3790)	2.5	41 (104)	18.9
Oakland	45.5 (3060)	2.5	40 (102)	17.5
Williams	46.5 (3130)	3.8	45 (114)	16.2
Williams 79	43.0 (2890)	3.5	44 (112)	16.5
Elf	52.0 (3500)	1.8	26 (66)	14.6
Dif. req. sig.	6.5 (437)	0.7	2.6 (7)	1.0

Cooperator: Eldo Coulter, Auburn
Planted: May 23. 30-inch (76 cm) rows
Harvested: September 25. All mature.

Table 14. Southeast District soybean variety tests. Nemaha County. 1971-1979. No 1977 data.

Variety	Grain yield, bu/A (kg/ha)									1976-79 average		
	1971	1972	1973	1974	1975	1976	1978	1979	1976-79 average	Lodging score	Height in (cm)	Grams 100 seeds
Wells	----	----	----	----	22.9 (1540)	40.9 (2750)	44.6 (3000)	----	----	---	--	----
Amsoy 71	20.8 (1400)	52.8 (3550)	37.6 (2530)	38.7 (2600)	26.2 (1760)	36.8 (2480)	46.6 (3130)	40.4 (2720)	41.3 (2780)	3.0	49 (124)	14.8
Nebsoy	----	---	---	----	----	44.5 (2990)	49.9 (3360)	37.9 (2550)	44.1 (2970)	1.5	40 (102)	15.9
Century	----	----	----	----	----	----	----	50.4 (2390)	----	---	---	----
Wayne	30.5 (2050)	57.8 (3890)	43.0 (2890)	42.6 (2870)	21.8 (1470)	36.9 (2480)	46.5 (3130)	----	----	---	---	----
Pella	----	----	----	----	----	----	----	48.2 (3240)	----	---	---	----
Will	----	----	----	----	----	----	----	48.7 (3280)	----	---	---	----
Woodworth	----	----	44.4 (2990)	46.0 (3090)	32.1 (2160)	36.6 (2460)	49.4 (3320)	51.5 (3460)	45.8 (3080)	2.3	44 (112)	13.6
Cumberland	----	----	----	----	----	----	51.0 (3430)	56.4 (3790)	----	---	---	----
Oakland	----	----	----	----	----	----	48.5 (3260)	45.5 (3060)	----	---	---	----
Calland	30.5 (2050)	56.6 (3810)	40.3 (2710)	44.1 (2970)	27.2 (1830)	32.4 (2180)	42.5 (2860)	----	----	---	---	----
Williams	33.3 (2240)	59.9 (4030)	47.8 (3220)	46.4 (3120)	33.1 (2230)	33.2 (2230)	42.9 (2890)	46.5 (3130)	40.9 (2750)	2.9	47 (119)	15.1
Williams 79	----	----	----	----	----	----	----	43.0 (2890)	----	---	---	----
Elf	----	----	----	----	----	----	46.4 (3120)	52.0 (3500)	----	---	---	----
Bonus	30.8 (2070)	62.3 (4190)	45.8 (3080)	42.5 (2860)	32.2 (2170)	32.2 (2170)	44.9 (3020)	----	----	---	---	----
Cutler 71	27.0 (1820)	56.4 (3790)	43.4 (2920)	44.2 (2970)	36.8 (2480)	32.9 (2210)	41.5 (2790)	----	----	---	---	----
Kent	26.7 (1800)	51.1 (3440)	38.7 (2600)	37.0 (2490)	35.3 (2370)	39.7 (2670)	35.9 (2410)	----	----	---	---	----
Dif. req. sig.	4.8 (323)	6.4 (430)	4.9 (330)	5.0 (336)	9.2 (619)	3.9 (262)	5.7 (383)	6.5 (437)	N.S.	0.6	2.9 (7)	1.2

Table 15. Fillmore County. Soybean variety test. Irrigated. 1979.

Variety	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality score	Grams 100/seeds
Wells	45.3 (3050)	9-24	1.3	29 (74)	1.0	18.8
Wells II	37.2 (2500)	9-22	1.3	28 (71)	1.0	18.5
Corsoy	38.7 (2600)	9-19	1.8	31 (79)	1.0	17.0
Corsoy 79	43.7 (2940)	9-22	2.5	35 (89)	1.0	17.5
Harcor	41.0 (2760)	9-23	2.0	29 (74)	1.0	17.1
Amsoy 71	44.7 (3010)	9-25	1.0	33 (84)	1.0	18.0
Nebsoy	48.1 (3240)	10-2	1.0	28 (71)	1.0	20.7
Beeson	54.1 (3640)	9-28	1.8	34 (86)	1.0	20.9
Beeson 80	57.4 (3860)	9-26	1.5	30 (76)	1.0	21.3
Century	57.4 (3860)	9-30	1.0	30 (76)	1.0	20.5
Pella	72.1 (4850)	10-3	1.3	33 (84)	1.0	20.6
Will	51.5 (3460)	10-2	1.0	30 (76)	1.0	17.4
Woodworth	53.1 (3570)	10-2	1.0	33 (84)	1.0	16.4
Cumberland	52.5 (3530)	10-1	1.0	30 (76)	1.0	19.8
Oakland	60.8 (4090)	10-2	1.0	31 (79)	1.0	20.4
Williams	59.9 (4030)	10-4	1.0	33 (84)	1.0	18.1
Williams 79	58.4 (3930)	10-3	1.3	35 (89)	1.0	18.0
Elf	45.5 (3060)	10-5	1.3	20 (51)	1.8	16.8
Dif. req. sig.	7.2 (484)	2.7	0.7	3.3 (8)	0.1	1.0

Cooperator: Bettger Bros., Fairmont
Planted: May 24. 36-inch (91-cm) rows. Furrow irrigated.
Harvested: October 11.

Table 16. Clay County soybean variety test. Furrow irrigated. 1979.

Variety	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality	Grams 100 seeds
Wells	46.1 (3100)	9-20	1.0	29 (74)	1.0	19.6
Wells II	49.4 (3320)	9-24	1.0	28 (71)	1.0	19.1
Corsoy	44.3 (2980)	9-18	1.0	29 (74)	1.0	19.0
Corsoy 79	54.4 (3660)	9-20	1.3	34 (86)	1.0	17.8
Harcor	47.7 (3210)	9-21	1.0	31 (79)	1.0	18.6
Amsoy 71	45.0 (3030)	9-24	1.0	35 (89)	1.0	18.9
Nebsoy	59.4 (4000)	10-5	1.3	30 (76)	1.0	21.6
Beeson	51.5 (3460)	9-25	1.0	32 (81)	1.0	21.6
Beeson 80	60.3 (4060)	9-25	1.0	26 (66)	1.0	20.9
Century	65.4 (4400)	9-26	1.0	29 (74)	1.0	20.8
Gnome	52.7 (3540)	9-27	1.0	16 (41)	1.0	18.8
Amcor	53.6 (3610)	9-25	1.0	37 (94)	1.0	19.8
Pella	65.7 (4420)	10-3	1.0	30 (76)	1.0	22.0
Will	66.1 (4450)	10-1	1.0	28 (71)	1.0	19.4
Woodworth	65.3 (4390)	10-1	1.3	33 (84)	1.0	17.0
Cumberland	59.4 (4000)	10-3	1.0	31 (79)	1.0	21.1
Oakland	67.8 (4560)	10-6	1.3	33 (84)	1.0	21.9
Williams	60.1 (4040)	10-4	1.3	33 (84)	1.0	19.5
Williams 79	60.5 (4070)	10-3	1.0	33 (84)	1.0	19.3
Elf	57.0 (3830)	10-7	1.0	19 (48)	1.3	18.6
Dif. req. sig.	7.8 (525)	2.7	0.4	5.9 (15)	---	0.9

Cooperator: South Central Station
Planted: May 21. 30-inch (76 cm) rows.

Table 17. Clay County soybean variety test. Sprinkler irrigated. 1979.

Variety	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality	Grams 100 seeds
Wells	51.6 (3470)	9-24	1.0	31 (79)	1.0	16.6
Wells II	58.0 (3900)	9-24	1.0	33 (84)	1.0	16.6
Corsoy	55.5 (3730)	9-22	1.0	33 (84)	1.0	15.6
Corsoy 79	56.9 (3830)	9-21	1.0	35 (89)	1.0	15.0
Harcor	57.4 (3860)	9-24	1.8	38 (97)	1.0	15.5
Amsoy 71	54.0 (3630)	9-26	1.5	38 (97)	1.0	16.4
Nebsoy	60.0 (4040)	10-1	1.0	29 (74)	1.0	17.5
Beeson	59.3 (3990)	9-30	1.0	31 (79)	1.0	17.6
Beeson 80	63.6 (4280)	9-29	1.3	32 (81)	1.0	18.4
Century	68.0 (4570)	9-30	1.0	28 (71)	1.0	17.9
Gnome	55.0 (3700)	10-3	1.0	19 (48)	1.8	17.3
Amcor	63.4 (4260)	9-29	1.5	39 (99)	1.0	16.0
Pella	69.9 (4700)	10-3	1.3	34 (86)	1.0	20.6
Will	62.6 (4210)	10-3	1.3	32 (81)	1.0	17.6
Woodworth	69.0 (4640)	10-3	2.0	33 (84)	1.0	16.0
Cumberland	63.2 (4250)	9-30	1.3	30 (76)	1.0	18.9
Oakland	72.8 (4900)	10-4	1.0	32 (81)	1.3	20.1
Williams	63.5 (4270)	10-4	1.5	35 (89)	1.0	18.0
Williams 79	60.3 (4060)	10-3	1.5	34 (86)	1.0	18.0
Elf	51.2 (3440)	10-7	1.0	20 (51)	2.0	18.4
Dif. req. sig.	7.5 (504)	2.7	0.4	4.8 (12)	0.3	0.8

Cooperator: South Central Station
Planted: May 21. 30-inch (76 cm) rows.

Table 18. South Central District soybean varity tests. Irrigated. 1979.

Variety	Average 3 locations					
	Yield bu/A (kg/ha)	Mature date	Lodging score	Height inches (cm)	Seed quality	Grams 100 seeds
Wells	47.7 (3210)	9-23	1.1	30 (76)	1.0	18.3
Wells II	48.2 (3240)	9-23	1.1	30 (76)	1.0	13.1
Corsoy	46.2 (3110)	9-20	1.3	31 (79)	1.0	17.2
Corsoy 79	51.7 (3480)	9-21	1.6	35 (89)	1.0	16.8
Harcor	48.7 (3280)	9-23	1.6	33 (84)	1.0	17.1
Amsoy 71	47.9 (3220)	9-25	1.2	35 (89)	1.0	17.8
Nebsoy	55.8 (3750)	10-3	1.1	29 (74)	1.0	19.9
Beeson	55.0 (3700)	9-28	1.3	32 (81)	1.0	20.0
Beeson 80	60.4 (4060)	9-27	1.3	29 (74)	1.0	20.2
Century	63.6 (4280)	9-29	1.0	29 (74)	1.0	19.7
Pella	69.2 (4650)	10-3	1.2	32 (81)	1.0	21.1
Will	60.1 (4040)	10-2	1.1	30 (76)	1.0	18.1
Woodworth	62.5 (4200)	10-2	1.4	33 (84)	1.0	16.5
Cumberland	58.4 (3930)	10-1	1.1	30 (76)	1.0	20.0
Oakland	67.0 (4510)	10-4	1.1	32 (81)	1.1	20.8
Williams	61.2 (4120)	10-4	1.3	34 (86)	1.0	18.5
Williams 79	60.0 (4040)	10-3	1.3	34 (86)	1.0	18.4
Elf	51.2 (3440)	10-6	1.0	20 (51)	1.7	17.9
Dif. sig.	6.4 (430)	2.5	N.S.	2.9 (7)	0.1	1.2

Counties: Fillmore, Clay (sprinkler) and Clay (furrow) irrigated.

Table 19. South Central District soybean variety tests. Irrigated. 1973-1979.

Variety	Grain yield, bu/A (kg/ha)								1975-79 average			
	1973	1974	1975	1976	1977	1978	1979	1975-79 average	Mature date	Lodging score	Height in (cm)	Grams 100 seeds
Wells	53.6 (3610)	46.4 (3120)	43.8 (2950)	50.1 (3370)	48.7 (3280)	47.8 (3220)	47.7 (3210)	47.6 (3200)	9-20	1.6	35 (89)	17.3
Wells II	----	----	----	----	----	----	48.2 (3240)	----	----	---	---	----
Corsoy	58.7 (3950)	54.4 (3660)	45.8 (3080)	34.3 (2310)	50.9 (3420)	43.0 (2890)	46.2 (3110)	44.0 (2960)	9-16	2.3	34 (86)	17.1
Corysoy 79	----	----	----	----	----	----	51.7 (3480)	----	----	---	---	----
Harcor	----	----	45.9 (3090)	39.8 (2680)	55.7 (3750)	43.5 (2930)	48.7 (3280)	46.7 (3140)	9-16	2.5	37 (94)	16.8
Amsoy 71	63.5 (4270)	50.9 (3420)	40.3 (2710)	44.1 (2970)	58.5 (3930)	44.2 (2970)	47.9 (3220)	47.0 (3160)	9-19	2.0	41 (104)	17.5
Nebsoy	----	----	----	----	----	47.5 (3190)	55.8 (3750)	----	----	---	---	----
Beeson	52.5 (3530)	42.7 (2870)	43.8 (2950)	50.5 (3400)	47.8 (3220)	39.9 (2680)	55.0 (3700)	47.4 (3190)	9-24	2.2	36 (91)	19.4
Beeson 80	----	----	----	----	----	----	60.4 (4060)	----	----	---	---	----
Wayne	51.2 (3440)	43.8 (2950)	40.0 (2690)	45.6 (3070)	50.6 (3400)	49.1 (3300)	----	----	----	---	---	----
Century	----	----	----	----	----	----	63.6 (4280)	----	----	---	---	----
Pella	----	----	----	----	----	----	69.2 (4650)	----	----	---	---	----
Will	----	----	----	----	----	----	60.1 (4040)	----	----	---	---	----
Woodworth	----	53.0 (3560)	47.7 (3210)	56.7 (3810)	66.7 (4490)	49.6 (3340)	62.5 (4200)	56.6 (3810)	9-28	1.9	37 (94)	16.5
Cumberland	----	----	----	----	----	48.5 (3260)	58.4 (3930)	----	----	---	---	----
Oakland	----	----	----	----	----	55.8 (3750)	67.0 (4510)	----	----	---	---	----
Calland	56.5 (3800)	45.9 (3090)	36.0 (2420)	60.9 (4100)	61.6 (4140)	52.2 (3510)	----	----	----	---	---	----
Williams	58.6 (3940)	47.6 (3200)	41.9 (2820)	48.3 (3250)	59.9 (4030)	49.6 (3340)	61.2 (4120)	52.2 (3510)	9-30	1.7	38 (97)	18.1
Williams 79	----	----	----	----	----	----	60.0 (4040)	----	----	---	---	----
Elf	----	----	----	----	----	----	44.7 (3010)	51.2 (3440)	----	---	---	----
Dif. sig.	4.5 (303)	6.0 (404)	N.S.	9.6 (646)	8.1 (545)	N.S.	6.4 (430)	5.8 (390)	N.S.	2.1 (5)	0.8	

1973-1976 Clay County; 1977 Fillmore County; 1978-1979 Fillmore and Clay (2 tests) counties.

Table 20. Dawson County. Soybean variety test. Irrigated. 1979.

Variety	Yield bu/A (bu/ha)	Height inches (cm)	Grams 100 seeds
Weber	54.6 (3670)	44 (112)	12.7
Wells	52.8 (3550)	47 (119)	14.6
Corsoy	48.4 (3260)	47 (119)	13.6
Harcor	48.5 (3260)	54 (137)	16.5
Amsoy 71	45.2 (3040)	57 (145)	16.3
Nebsoy	50.3 (3380)	43 (109)	15.9
Beeson	42.1 (2830)	50 (127)	16.8
Woodworth	42.8 (2880)	48 (122)	14.4
Dif. req. for sig.	5.1 (343)	2.0 (5)	1.2

Cooperator: Phil Menke, Cozad

Planted: June 1, 30-inch (76-cm) rows. Furrow irrigated, 3 times.

Harvested: Sept. 26-October 5.

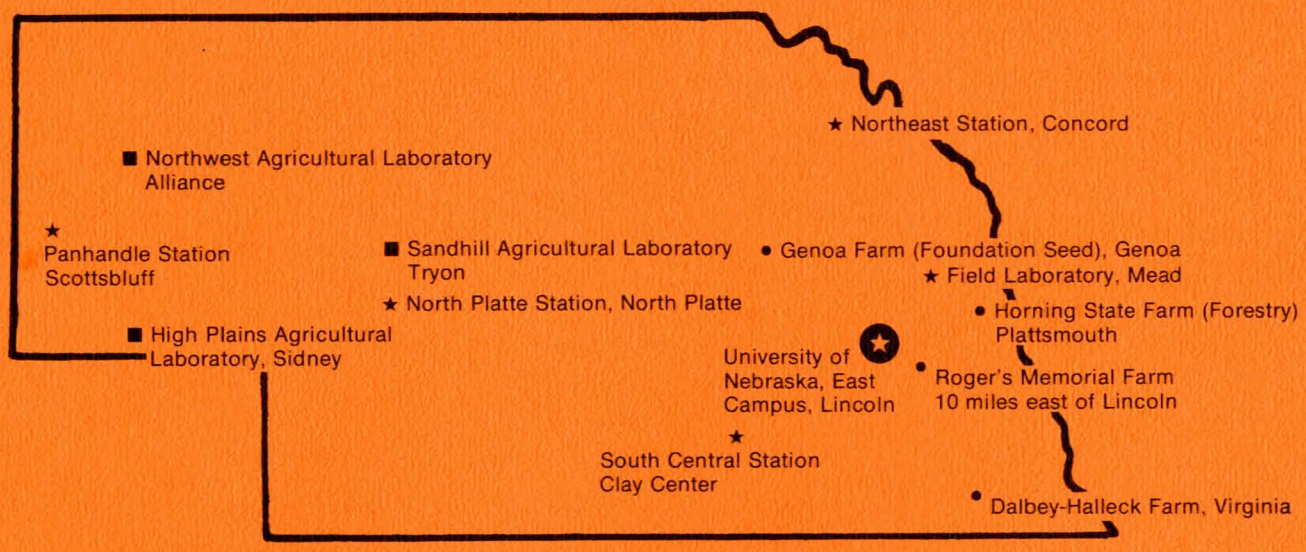
Table 21. Southwest District irrigated soybean variety tests. 1968-1979. 1/

Variety	Grain yield, bu/A (kg/ha)									1975-79 average	
	1968	1969	1970	1971	1974	1975	1977	1979	1975-79 average	Height in (cm)	Grams 100 seeds
Weber	----	----	----	----	----	----	----	54.6 (3670)	----	--	----
Wells	----	----	----	----	36.4 (2450)	44.2 (2970)	46.9 (3150)	52.8 (3550)	48.0 (3230)	43 (109)	15.7
Corsoy	55.6 (3740)	48.0 (3230)	61.9 (4160)	45.2 (3110)	42.2 (2840)	46.4 (3120)	39.6 (2660)	48.4 (3260)	44.8 (3010)	40 (102)	15.1
Harcor	----	----	----	----	----	48.3 (3250)	54.3 (3650)	48.5 (3260)	50.4 (3390)	40 (102)	15.0
Amsoy 71	----	----	52.6 (3540)	48.6 (3270)	39.7 (2670)	46.3 (3110)	53.0 (3560)	45.2 (3040)	48.2 (3240)	47 (119)	15.9
Nebsoy	----	----	----	----	----	----	----	50.3 (3380)	----	--	----
Beeson	45.9 (3090)	52.0 (3500)	60.8 (4090)	49.7 (3340)	35.4 (2380)	45.1 (3030)	48.5 (3260)	42.1 (2830)	45.2 (3040)	44 (112)	16.8
Wayne	47.0 (3160)	48.5 (3260)	51.5 (3460)	37.7 (2540)	35.3 (2370)	37.9 (2550)	48.6 (3270)	----	----	--	----
Woodworth	----	----	----	----	34.8 (2340)	39.6 (2660)	51.7 (3480)	42.8 (2880)	44.7 (3010)	42 (107)	13.9
Calland	48.6 (3270)	50.7 (3410)	55.1 (3710)	42.4 (2850)	37.2 (2500)	----	46.0 (3090)	----	----	--	----
Williams	----	----	----	40.8 (2740)	33.7 (2270)	41.6 (2800)	44.9 (3020)	----	----	--	----
Dif. sig.	N.S.	6.1 (410)	6.1 (410)	N.S.	4.4 (296)	5.9 (397)	7.1 (478)	5.1 (434)	N.S.	N.S.	1.6

1/ No height data in 1975.
No data: 1972, 1973, 1976, 1978.

1967-1971 Lincoln County; 1974 Frontier County; 1975 Dawson County; 1977 Lincoln County; 1979 Dawson County.

Agricultural Research for All of Nebraska



The agricultural research division of the Institute of Agriculture and Natural Resources is the Nebraska Agricultural Experiment Station. The Experiment Station relies on its research centers and field laboratories to provide applied knowledge for development of Nebraska's largest industry—agriculture. In addition, many Nebraska farmers cooperate by furnishing land and other facilities for research projects. This provides information from areas not well represented by stations.

The Cooperative Extension Service transmits data to users through District and County Extension Offices. Area and County Extension Agents are available to provide additional interpretation and more specific recommendations.

Nebraska is a large state and has great variation due to topography and the continental type of climate. The elevation ranges from 1,000 feet to near a mile high in the northwest portion of the state, rainfall varies from 14 to 40 inches per year, and the soil types vary from sands to heavy clays. The research program thus is broad in subject matter and geography, resulting in the need for various stations and satellite locations.

The Cooperative Extension Service provides information and educational programs to all people without regard to race, color or national origin.