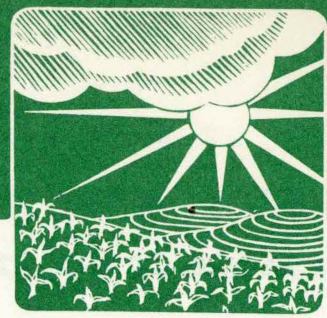


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STATE UNIVERSITY



AGRONOMY

- Crops
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- Climate

Iowa - Agriculture Pam

THE 1975 IOWA CORN YIELD TEST REPORT

District 4 Bottomland

Results of the Iowa Corn Yield Test are published to aid Iowa farmers in selecting corn varieties. This is the fifty-sixth consecutive year for the test.

The presentation of data for the varieties tested does not imply approval or endorsement by the authors or by the agencies sponsoring or conducting the test. Iowa State University approves the reproduction of any table in this report **only** if no portion is deleted and if the order of the data is not rearranged. Entries in tables 1 and 2 are designated by brand name and variety.

1975 Procedure

Producers of corn seed and Iowa State University were eligible to enter varieties in the Iowa Corn Yield Test. Each producer was allowed a maximum of nine entries per district. All entries had to be available in a quantity of at least 10 bushels.

One-hundred varieties were compared in this test. Two open-pedigree varieties were entered by Iowa State University from its corn breeding program. Twenty-five of the varieties were determined to be widely grown and were entered by Iowa State University. Varieties were considered widely grown if they were planted on 0.90 percent or more of the corn acreage in the district according to the 1974 survey of Iowa corn growers. Iowa State University entered a maximum of five widely grown varieties of any given brand. These entries were given priority over the remaining 73 entries made by seed producers.

Each entry was replicated four times in 4-row plots at a planting rate of 21,000 kernels per acre at each location. All locations were machine-planted. The center two rows of each plot were harvested with a corn combine. No gleanings or dropped ears were included in yield data. A moisture determination was made from each plot, and yields were corrected to 15.5-percent moisture for shelled corn.

Prepared by William E. Falck, associate in agronomy, and C.D. Hutchcroft, professor of agronomy and secretary of the Iowa Crop Improvement Association.

How Information Is Presented

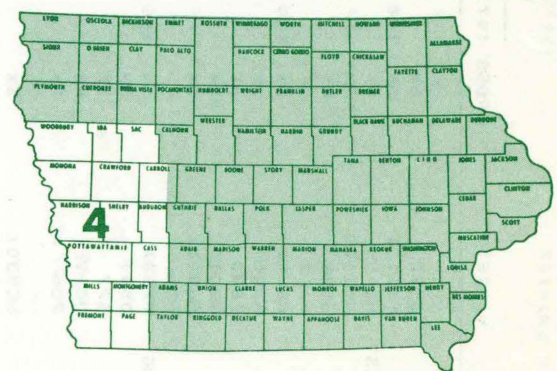
The data presented are averages of two locations in 1973 and 1975 and of one location in 1974. Yield in bushels per acre and percentages of moisture, root lodging, stalk lodging, dropped ears, and stand are shown for all varieties tested in 1975 and for varieties tested in 1973 and 1974 that were in the 1975 test.

Interpretation of Results

Yield differences due to variation in soil, fertility, moisture availability, insect infestation, and diseases, plus any variation due to planting and harvesting techniques, are identified through statistical analysis. The LSD values shown in tables 1 and 2 represent, in bushels per acre, the amounts of yield variation that could be due to variations in the factors just mentioned. In comparing varieties, yield differences greater than the LSD value can be attributed to genetic differences in the yield potential of these varieties; yield differences less than the LSD value are not statistically different and could have been due to other factors.

Grain moistures shown in tables 1 and 2 are indicators of maturity and natural drying rate. Maturity of varieties entered generally ranged from early to full season. Yield comparisons should be made among varieties of similar maturity.

Yield comparisons were made at one plant population that was similar to the moderate planting rate in the past years. It is important to select varieties having stable performance over a range of environmental conditions. High yields for two or more consecutive years indicate stable performance. Supplemental yield and agronomic information about specific varieties may be obtained from your seed corn dealers and from neighbors who have grown these varieties.



**IOWA STATE UNIVERSITY of Science and Technology
Cooperative Extension Service,
Agriculture and Home Economics Experiment Station,
Iowa Crop Improvement Association, and the
United States Department of Agriculture, cooperating**

**Ames, Iowa
December 1975
Pm-660-4B**

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TABLE 1. AVERAGE PERFORMANCE OF VARIETIES TESTED IN DISTRICT 4B.
 MODERATE POPULATION - 21,000 PLANTING RATE. LSD FOR 1975 YIELD IN BUSHELS IS 18.

BRAND	VARIETY	CROSS	YIELD BU./A			MOISTURE PCT.			ROOT LODGING PCT.			STALK LODGING PCT.			DROPPED EARS PCT.			STAND PCT.				
			1973	1974	1975	1975	1974	1973	1975	1974	1973	1975	1974	1973	1975	1974	1973	1975	1974	1973		
*PIONEER	3780	SX			132	16.1						14			1					88		
*TROJAN	TXS102	SX	122	123	136	17.2	18.7	16.2	0	1	0	10	5	3	0	0	0			85	96	91
GOLDEN HARVEST	H2450	SX		123	139	17.3	17.1		1	2		5	5		0	0				90	94	
*O'S GOLD	SX1100	SX			135	17.5			0			8			0					87		
*PICNEER	3529	MS			133	17.5			0			4			1					88		
*FUNKS	G4444	SX	129	128	137	17.8	16.9	15.9	3	1	0	8	3	4	0	0	0			87	99	89
LYNKS	4200	SX		125	134	17.8	18.0		2	1		10	4		3	0				85	92	
SUPER CROST	2890	SX			130	17.8			0			8			1					88		
SCHETTLER	4201	SX			142	17.9			0			5			0					84		
FUNKS	G4321A	SX			126	18.0			0			19			0					86		
*NORTHROP KING	PX50A	SX	126	114	121	18.1	20.6	16.0	0	0	0	7	6	3	0	0	0			85	95	92
PICNEER	3541	SX			134	18.1			0			1			2					85		
SUPER CROST	527	SX		122	131	18.3	17.6		1	0		5	1		0	0				83	95	
WILSON	2317	MS		113	130	18.3	18.7		0	2		7	2		2	3				87	96	
*CROWS	226	SX			138	18.4			0			7			0					89		
*ACCO	UC3301	SX		138	138	18.5	17.7		0	1		5	4		0	0				87	96	
SUPER CROST	4242	MS		112	115	18.5	17.4		2	4		13	20		2	3				84	94	
*PAG	SX397	SX		141	122	18.8	16.9		0	1		9	6		0	0				84	94	
PICNEER	3517	MS	126	111	120	18.9	20.4	16.8	1	2	0	5	1	1	1	0	1			80	92	96
GOLDEN HARVEST	H2510	SX			129	18.9			0			7			1					89		
CURRY	TC344	3X			133	19.3			0			5			0					85		
*DEKALB	XL43	SX			143	19.6			0			2			0					85		
FUNKS	G4465	3X	127	108	128	19.7	21.6	16.7	2	1	0	10	1	2	1	0	0			88	99	92
*PAG	SX7	SX	125	115	131	19.9	20.4	16.4	1	0	0	6	2	2	1	1	1			86	96	91
PIONEER	3390	MS	123	118	131	19.9	19.0	15.8	0	0	0	6	8	11	0	1	0			98	98	97
NORTHROP KING	PX614	3X			122	20.1			2			5			1					86		
*NORTHROP KING	PX610A	3X		129	136	20.1	18.3		8	1		11	10		1	0				82	95	
*DEKALB	XL54	SX			128	20.2			0			10			1					87		
NC+	57	SX		132	125	20.2	19.6		0	0		4	1		2	1				84	92	
*TROJAN	TXS111	SX	123	100	131	20.2	18.2	15.9	8	1	0	5	4	5	2	4	0			80	94	84
WILSON	1040	SX	146	134	144	20.3	23.0	16.7	1	2	0	9	11	8	1	2	0			78	89	88
WILSON	1700	SX			113	20.5			1			9			1					85		
ACCO	UC3601	SX			125	20.5			0			18			0					88		
PICNEER	3388	MS	134	135	141	20.6	20.0	17.1	2	0	0	2	2	2	0	1	0			89	96	91
FUNKS	G4449	SX			132	20.7			1			4			0					89		
CARGILL	920	SX			125	20.8			0			6			0					84		
*DEKALB	XL64	SX	130	137	142	21.1	23.3	17.7	1	0	0	5	1	1	0	0	0			83	96	93
TEKSEED	SPX39A	SX			131	21.1			3			10			1					78		
ASGROW	RX87	MS			130	21.3			0			6			0					86		
NORTHROP KING	PX74	SX		132	139	21.3	21.9		1	3		4	0		0	1				81	97	
TEKSEED	SPX34	SX			142	21.5			2			5			4					89		
GOLDEN HARVEST	H2655	MS		121	132	21.6	23.4		1	9		4	1		0	0				88	95	
ACCO	UC7151	SX			139	21.6			0			7			0					89		
FUNKS	G4503	SX		151	149	21.7	21.2		2	7		5	11		2	1				89	95	
LYNKS	4330	SX		123	140	21.7	21.5		3	1		3	3		1	3				87	96	
*CARGILL	930	SX		135	124	21.7	20.4		0	0		5	4		0	0				87	98	
TEKSEED	SPX383	SX			111	21.8			4			8			1					82		

GOLDEN HARVEST	H2500	SX		138	117	22.3	22.0		1	0		3	1		2	2		81	96
IOWA STATE UNIV	SX43 (B73XB75)	SX			124	22.4			3			14			0			88	
NC+	59	SX		124	134	22.4	21.8		0	1		4	1		1	2		83	97
MC CURDY	MSX70	SX		134	143	22.4	22.5		3	3		9	3		2	5		87	90
FS	680	SX			123	22.5			1			7			0			80	
NORTHRUP KING	PX675	3X			133	22.6			1			5			3			91	
MCALLISTER	SX7300	SX		148	142	22.6	22.0		5	1		6	3		1	3		91	93
SCHETTLER	SX19	SX			129	22.6			0			2			4			91	
WILSON	2395	MS		120	140	22.7	22.3		1	1		4	3		0	0		82	91
WILSON	1800	SX		128	115	22.7	22.5		4	1		3	0		2	4		73	100
ASGROW	RX90	SX		136	115	22.7	21.8		1	1		4	2		1	5		90	99
O'S GOLD	SX5500A	SX	145	133	142	22.7	22.0	16.8	2	2	0	4	2	4	0	2	1	88	98
*TROJAN	TXS115A	SX		136	122	22.7	22.0		8	9		5	1		4			87	93
NORTHRUP KING	PX76	SX		143	134	22.8	23.1		1	8		6	2		1	1		85	88
FUNKS	G4507	SX		115	139	22.9	21.8		4	1		4	3		0	3		86	96
ACCO	UC9301	SX	139	137	142	22.9	23.2	20.1	2	2	0	7	4	4	0	0	0	87	97
MELLOWDENT	36	3X		121	121	22.9	24.0		6	1		4	5		1	1		84	91
IOWA STATE UNIV	SX42 (B70XB73)	SX			134	23.0			5			5			1			86	
PAG	SX494	SX		130	116	23.0	24.4		0	5		11	2		1	1		82	93
MC CURDY	MSX68	SX			144	23.0			0			8			0			91	
GOLDEN HARVEST	H2645	SX			136	23.1			0			5			0			90	
SUPER CROST	S67	MS		138	129	23.2	24.0		0	1		7	2		1	1		83	97
CARGILL	949	SX			134	23.2			10			6			1			80	
*DEKALB	XL372	3X			117	23.2			1			8			2			90	
ACCO	UC9451	SX		117	126	23.3	24.3		8	8		8	12		2	6		89	99
MCALLISTER	SX7408	SX			143	23.4			0			5			3			88	
FONTANELLE	5905C	SX			137	23.6			0			13			2			90	
TEKSEED	SPX36	SX			125	23.8			2			9			1			86	
TROJAN	TXS114	SX			129	24.0			2			9			1			88	
CURRY	SC165	SX			139	24.1			0			11			1			82	
*TROJAN	TXS119	SX	140	117	115	24.4	26.1	21.8	0	0	0	13	1	3	2	2	1	87	96
FS	611	SX			131	24.4			0			4			1			87	
NC+	85	SX			133	24.5			1			13			1			80	
*TROJAN	TXS117A	SX		121	129	24.6	24.4		3	0		8	2		1	1		92	92
ACCO	E48951	SX		127	132	24.7	25.8		9	3		2	1		0	0		90	93
SUPER CROST	S85	SX		128	153	24.8	25.4		0	0		8	2		1	1		79	93
FUNKS	G4628	SX	151	130	131	24.9	25.8	22.2	0	1	0	6	1	4	1	4	0	88	89
MCALLISTER	SX6837	SX			139	24.9			0			8			0			84	
O'S GOLD	SX5500	SX	134	126	120	24.9	25.6	21.2	1	0	0	5	3	5	1	2	0	79	94
MC CURDY	MSX88	SX		128	150	24.9	25.9		0	0		13	4		2	2		86	96
FONTANELLE	6605C	SX		128	123	25.1	26.0		0	0		5	1		0	2		81	89
LYNKS	4510	SX	140	139	132	25.2	26.1	21.9	0	0	0	7	4	7	1	0	1	88	89
FARMERS	4589	SX			132	25.4			1			9			2			82	
FEDERAL	FX59	SX		130	126	25.4	25.8		2	0		12	3		0	1		84	94
*PAG	SX98	SX	136	124	130	25.7	26.2	21.6	0	0	0	9	5	3	1	0	0	87	94
ASGROW	RX100	SX	139	132	149	25.8	26.2	20.7	0	0	0	5	2	10	0	1	1	91	95
FS	850	SX			116	26.3			0			9			1			80	
CARGILL	979	SX	134	133	140	26.5	26.0	22.0	0	1	0	7	2	5	1	1	1	87	95
*DEKALB	XL75	SX			140	26.7			1			5			0			90	
FS	854	SX			117	27.1			0			11			0			85	

AVERAGE OF ALL ENTRIES 127.2 128.1 131.7 21.8 22.0 17.6 1.4 1.5 0.0 7.0 3.6 4.1 0.9 1.5 0.3 85.7 94.5 85.6

SX = SINGLE CROSS. MS = MODIFIED SINGLE CROSS. 3X = 3-WAY CROSS. 4X = 4-WAY CROSS.
 *WIDELY GROWN VARIETY.

1975 Field Data

The District 4 Bottomland test was conducted on farms operated by James Boyer near Silver City in Mills County and by Calvery Linscott near Sloan in Woodbury County. The field data are presented in Table A.

Subsoil moisture was favorable at planting time. Rainfall was normal during May and September and below normal during June, July and August. Temperatures were above normal during May, June, July, and August and below normal during September. Yields were about normal for the district.

Table A. Field Data

Fertilizer applied, lbs.	Linscott Farm Keg silt loam			Boyer Farm Wabash silt loam		
	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
Plowdown	27	69	45	120	60	40
Preplant	110	—	—	—	—	—
TOTAL	127	69	45	120	60	40
1974 Crop	Soybeans			Soybeans		
Row Width	38 inches			30 inches		
Planting date	May 2			May 8		
Harvest date	Sept. 30			Oct. 2		

District 4B

Designations Identifying Brands in the Yield Test

Designation	Name and Address
*ACCO	ACCO Seed Div. of Anderson, Clayton & Co., Belmond, Iowa 50421
Asgrow	Asgrow Seed Company, Des Moines, Ia. 50310
*Cargill	Cargill, Inc., Minneapolis, Minn. 55402
*Crows	Crows Hybrid Corn Co., Milford, Ill. 60953
Curry	Curry Seed Co., Elk Point, S.D. 57025
*DeKalb	DeKalb Ag. Research, Inc., DeKalb, Ill. 60115
Farmers	Farmers Hybrid Companies, Inc., Hampton, Ia. 50441
Federal	Federal Hybrids, Marion, Ia. 52302
Fontanelle	Fontanelle Hybrids, Nickerson, Neb. 68044
F.S.	F.S. Services, Inc., Bloomington, Ill. 61701
*Funks	Funk Seeds International, Inc., Bloomington, Ill. 61702
Golden Harvest	The J.C. Robinson Seed Co., Waterloo, Neb. 68069
Iowa State University	Department of Agronomy, Ia. State University, Ames, Ia. 50011
Lynks	Lynk Bros. & Baird, Inc., Marshalltown, Ia. 50158
McAllister	McAllister Seed Farms, Mt. Pleasant, Ia. 52641
Mellowdent	Mellowdent Industries, Inc., Alta, Ia. 51002
NC+	NC+ Hybrids, Lincoln, Neb. 68054
*Northrup King	Northrup King & Co., Minneapolis, Minn. 55413
*O's Gold	O's Gold Seed Co., Parkersburg, Ia. 50665
*PAG	PAG Seeds, Minneapolis, Minn. 55402
*Pioneer	Pioneer Hi-Bred International, Inc., Des Moines, Ia. 50308
Schettler	Schettler Seed Farm, Carroll, Ia. 51401
Super Crost	Edward J. Funk & Sons, Inc., Kentland, Ind. 47951
Tekseed	Tekseed Hybrid Co., Tekamah, Neb. 68061
*Trojan	Trojan Seed Co., Olivia, Minn. 56277
Wilson	Wilson Hybrids, Inc., Harlan, Ia. 51537

*Widely grown entries made by Iowa State University.

TABLE 2. AVERAGES OF 1974-75 AND 1973-75 OF VARIETIES TESTED IN DISTRICT 4B. LSD FOR YIELDS ARE 10 BUSHELS FOR 73-75 AND 14 BUSHELS FOR 74-75.

BRAND	VARIETY	CROSS	YIELD BU./A		MOISTURE PCT.
			73-75	74-75	
GOLDEN HARVEST	H2450	SX	131	131	17.2
*FUNKS	G4444	SX	131	132	17.3
*PAG	SX397	SX	131	131	17.8
SUPER CROST	527	SX	126	126	17.9
LYNKS	4200	SX	126	126	17.9
*TROJAN	TX5102	SX	127	129	17.9
SUPER CROST	4242	MS	113	113	18.0
*ACCO	UC3301	SX	138	138	18.1
WILSON	2317	MS	121	121	18.5
*TROJAN	TX5111	SX	118	115	19.2
*NORTHROP KING	PX610A	SX	120	132	19.2
*NORTHROP KING	PX50A	SX	120	117	19.3
PIONEER	3390	MS	124	124	19.4
PIONEER	3517	MS	119	115	19.6
NC+	57	SX	128	128	19.9
*PAG	SX7	SX	123	123	20.2
PIONEER	3388	MS	136	138	20.3
FUNKS	G4465	SX	121	118	20.6
*CARGILL	930	SX	129	129	21.0
FUNKS	G4503	SX	150	150	21.4
NORTHROP KING	PX74	SX	135	135	21.6
LYNKS	4330	SX	131	131	21.6
WILSON	1040	SX	141	139	21.7
CURRY	5C150	SX	136	136	21.8
SUPER CROST	5440	SX	137	137	22.0
NC+	59	SX	129	129	22.1
FONTANELLE	6115C	SX	142	142	22.1
GOLDEN HARVEST	H2500	SX	127	127	22.2
*DEKALB	XL64	SX	136	139	22.2
ASGROW	RX90	SX	125	125	22.3
MCALLISTER	SX7300	SX	145	145	22.3
FUNKS	G4507	SX	127	127	22.3
*TROJAN	TX5115A	SX	129	129	22.4
O'S GOLD	SX5500A	SX	140	137	22.4
MC CURDY	MSX70	SX	138	138	22.4
WILSON	2395	MS	130	130	22.5
GOLDEN HARVEST	H2655	MS	126	126	22.5
WILSON	1800	SX	121	121	22.6
NORTHROP KING	PX76	SX	138	138	22.9
ACCO	UC9301	SX	139	139	23.0
MELLOWDENT	36	SX	121	121	23.5
SUPER CROST	567	MS	133	133	23.6
PAG	SX494	SX	123	123	23.7
ACCO	UC9451	SX	121	121	23.8
*TROJAN	TX5117A	SX	125	125	24.5
SUPER CROST	585	SX	140	140	25.1
O'S GOLD	SX5500	SX	126	123	25.2
*TROJAN	TX5119	SX	124	116	25.2
ACCO	E48951	SX	129	129	25.3
FUNKS	G4628	SX	137	130	25.3
MC CURDY	MSX88	SX	139	139	25.4
FONTANELLE	6605C	SX	125	125	25.5
FEDERAL	FX59	SX	128	128	25.6
LYNKS	4510	SX	137	135	25.6
*PAG	SX98	SX	130	127	25.9
ASGROW	RX100	SX	140	140	26.0
CARGILL	979	SX	135	136	26.2

OTHER REPORTS

Separate reports for variety performance are available for each district shown in fig. 1. These publications are available at your county extension office or from Publications Distribution, Printing and Publications Building, Iowa State University, Ames, Iowa 50011.

The 1975 Iowa Corn Yield Test Report:

- Pm-660-1 District 1
- Pm-660-2 District 2
- Pm-660-3 District 3
- Pm-660-4U District 4 Upland
- Pm-660-4B District 4 Bottomland
- Pm-660-5 District 5
- Pm-660-6 District 6

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