Missouri Crop Performance

1973

Part I: Corn

Part II: Grain Sorghum

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PART I, CORN

INTRODUCTION

Synopsis

The fall and winter of 1972-73 experienced excessive precipitation which delayed the harvesting of crops and preparation of the fields for the coming season. By the third week in March only 11 percent of the plowing had been completed, compared with 44 percent in 1972. Between March 26 and May 14 considerable flooding occurred in lowland areas, and field work was at a virtual standstill throughout most of this period. For example, on the 14th of May only 1/10th of the corn was planted in the southern third of the state and essentially none was planted in the north. Soil moisture was surplus during this period in all areas of the state. By the 2nd of June the corn crop was two-thirds planted.

Total rainfall for the period May 1 through September 15 was considerably above normal. However, distribution of precipitation was not the best with June generally being below normal for all locations. This June-deficit and the dry periods at some locations, however, did not materially affect corn yields; 1973 yields were comparable or exceeded the 1972 yields at all locations. Monthly average temperatures during the season were below normal, ranging from a +2.1 ^{o}F in June at Tarkio (the only significant positive deviation) to -3.8 ^{o}F at Palmyra (Tables 1 and 2).

Stalk lodging was severe at only one location during 1973--North Missouri Center in Grundy County. Lodging ranged as high as 54 percent, and the direction the stalks fell caused such intermingling of the plot rows that the plots could not be harvested with a picker-sheller and maintain the integrity of the individual plots. Therefore, no yields were reported on this test.

Small yield differences should not be overemphasized since there was considerable variation in the soil at each test site. Special planting arrangements (lattice designs and replications) and use of the statistical procedure called analysis of variance, from which the L.S.D. (least significant difference) value is computed, help make valid yield comparisons. The L.S.D. value found at the bottom of the location tables simply states how much one hybrid must differ from another in yield to be reasonably confident that it is superior or inferior. For further discussion see the section on Hybrid Selection.

Table 1. Total rainfall, number of days with rain, and dry periods* from May 1 to September 15 at each testing location.

Location	Total Rainfall	Number of days with rain						Dry Periods*
		May	June	July	Aug	Sept 1-15	Total	
Tarkio	26.89	14	8	13	4	7	46	(5/8-5/25; 6/4-6/29; 7/21-8/7; 8/13-9/6)
Spickard	23.04	15	13	11	7	8	54	(8/13-9/1)
Edina	25.87	11	10	13	4	5	43	(5/8-5/23; 8/11-9/1)
Palmyra	22.40	11	11	13	8	5	48	(8/15-9/7)
Higginsville	16.67	12	5	11	3	7	38	(6/16-7/3; 7/29-9/8)
Columbia	17.17	12	11	12	4	7	46	(6/21-7/17; 8/14-9/2)
McCredie	20.18	10	9	10	4	6	39	(6/20-7/20; 7/24-8/13; 8/15-9/2)
Appleton City	17.70	8	6	9	5	8	36	(6/17-7/18; 8/14-8/30)
Mt. Vernon	16.18	13	13	9	5	10	50	(7/24-8/10; 8/14-8/31)
Portageville	27.71	12	10	11	5	5	43	(8/15-8/29)

*A dry period is 15 or more days with less than 0.25 inch precipitation in any one day. All dates listed are inclusive. The beginning date is the day after rainfall of 0.25 inch or more and the ending date is the day before a 0.25 inch rainfall.

Table 2. Summary of temperature data for May 1 through September 15 at various Missouri locations.

Location	Month	Avg. Temp.	Degrees From Normal	Number of Days Above 90°	Number of Days Above 100°
Tarkio	May	61.7	-1.3	0	0
	June	74.7	2.1	11	0
	July	76.2	-1.5	12	0
	Aug	76.1	0.4	9	0
	Sept 1-15	68.6	-2.7	0	0
Spickard	May	60.1	-3.6	0	0
	June	72.9	-0.5	2	0
	July	75.3	-2.4	5	0
	Aug	75.3	-1.5	5	0
	Sept 1-15	69.0	-3.9	0	0
Edina	May	59.6	-3.6	0	0
	June	72.5	-0.1	2	0
	July	76.0	-1.4	5	0
	Aug	75.2	-0.3	6	0
	Sept 1-15	68.7	-3.3	1	0
Palmyra	May	61.0	-3.8	0	0
	June	73.3	0.0	2	0
	July	75.9	-1.1	6	0
	Aug	76.0	-0.2	9	0
	Sept 1-15	70.2	-1.6	1	0
Higginsville	May	63.5	-2.5	0	0
	June	75.3	-0.2	5	0
	July	78.8	-1.7	21	0
	Aug	78.7	-0.7	21	1
	Sept 1-15	72.6	-3.2	1	0
Columbia	May	60.9	-3.5	0	0
	June	73.4	0.4	3	0
	July	77.8	0.5	9	0
	Aug	76.4	0.4	13	0
	Sept 1-15	71.7	-1.6	1	0
McCredie	May	61.2	-3.0	0	0
	June	73.3	-0.6	6	0
	July	78.2	-0.3	22	0
	Aug	76.8	-0.2	18	2
	Sept 1-15	72.7	-0.4	2	0
Appleton City	May	63.2	-2.3	0	0
	June	74.7	-0.3	5	0
	July	78.7	-0.9	25	0
	Aug	77.9	-0.9	22	0
	Sept 1-15	72.2	-0.9	2	0
Mt. Vernon	May	60.8	-3.8	0	0
	June	71.9	-2.3	0	0
	July	77.1	-1.7	11	0
	Aug	77.4	-0.6	21	0
	Sept 1-15	73.4	-0.8	2	0
Portageville	May	65.1	-2.8	0	0
	June	77.4	0.3	12	0
	July	80.5	0.3	22	0
	Aug	76.8	-2.2	11	0
	Sept 1-15	75.2	-0.2	1	0

Planting Rates

The rate of planting has a direct bearing on corn yields. In Missouri, experimental work indicates that optimum populations are between 16,000 and 20,000 harvested plants per acre depending on the area. Where moisture stress can be minimized with irrigation higher populations may be acceptable. Perfect stands are rarely realized. There is generally a 10 to 25 percent loss in stand between planting and harvest even under ideal conditions.

The following table is presented as an aid in estimating per-acre plant populations.

Table 3. Distance between plants within a row required for a given per-acre plant population.

Inches Between Each Plant in Row	Row Width in Inches				
	20	30	36	38	40
6	---	34,850	29,040	27,540	26,130
7	---	29,870	24,890	23,630	22,410
8	---	26,140	21,780	20,640	19,600
9	---	23,230	19,360	18,340	17,424
10	31,360	20,910	17,420	16,510	15,680
12	26,140	17,420	14,520	13,750	13,070
14	22,400	14,930	12,450	11,790	11,200
16	19,600	13,010	10,890	10,317	9,800
18	17,420	11,620	9,680	9,170	8,710
20	15,680	10,450	8,710	8,250	7,840

Date of Planting

Hybrids should be planted as soon as soil and climate permit. Research conducted at the North Missouri Research Center[1] indicates

[1]Zuber, M. S. 1966. Date of planting studies with corn. North Missouri Research Center. Mo. Agr. Exp. Sta. Bulletin 832.

highest yield can be expected from plantings made between April 20 and May 10. A reduction of 0.4 of a bushel resulted for each day of delay in planting after May 10 until June 1. For each day of delay after June 1 a reduction of 2.4 bushels occurred. At Columbia[2] a decrease of about 12 bushels per acre occurred when planting was delayed from April 20 to May 20. Only a small difference in yield was noted among the April 1, April 20, and May 10 plantings at the Delta Center[3]. After May 10 a reduction of one bushel occurred for each day of delay in planting. In addition to higher yield, early planted corn generally had less lodging, lower ear height, less European corn borer and less earworm damage.

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[2]Grogan, C. O., M. S. Zuber, N. Brown, D. C. Peters, and H. E. Brown. Date of planting studies with corn. Mo. Agr. Exp. Sta. Res. Bulletin 706.

[3]Zuber, M. S. 1967. Date of planting studies with corn in the Missouri Delta area. Mo. Agr. Exp. Sta. Bulletin 862.

EXPERIMENTAL PROCEDURE

Testing Area

For statistical reporting purposes the state is divided into nine districts, each based on the geographical characteristics of the area. Tests were located in seven of the nine districts. Figure 1 shows the districts and the counties in which tests were conducted. All but one of the corn test locations were harvested. Cultural practices applied at each site are given in Table 4.

Seed Sources

All producers of hybrid seed were eligible to enter hybrids in the 1973 evaluation plots. No limit was placed on the number of hybrids any one seed producer could enter in the normal and high population trials on a fee basis. In addition to the fee entries, a broader based program was continued in which certain widely-grown hybrids were included on a no-fee basis. Identification of these widely-grown hybrids was through an extensive mail survey of hybrids grown by farmers of Missouri. The number of subsidized entries from this option for each company was limited to three or less no-charge hybrids per location. Each company was also eligible to nominate two hybrids for inclusion in the irrigation trials. A minimum of 15 pounds of processed seed was supplied by the company or purchased from a seed dealer for each entry. Seed for the open-pedigree hybrids was furnished by the respective state agricultural experiment stations or by certified seed producers.

Field Design

Lattice field plot designs of appropriate size and random assignment of entry numbers were used in all tests to locate plots at random over the testing area. This was done to facilitate statistical analysis for computing the least significant differences (L.S.D.) and to minimize cultural and soil differences over the testing area. Three plots of each hybrid were planted at all locations in two- and three-row plots for non-irrigated and irrigated tests, respectively.

Stand

All plots were planted using conventional equipment modified for small plot work. Plots were over-planted for an expected 10 to 15 percent stand loss. In general, the loss was slightly higher than this.

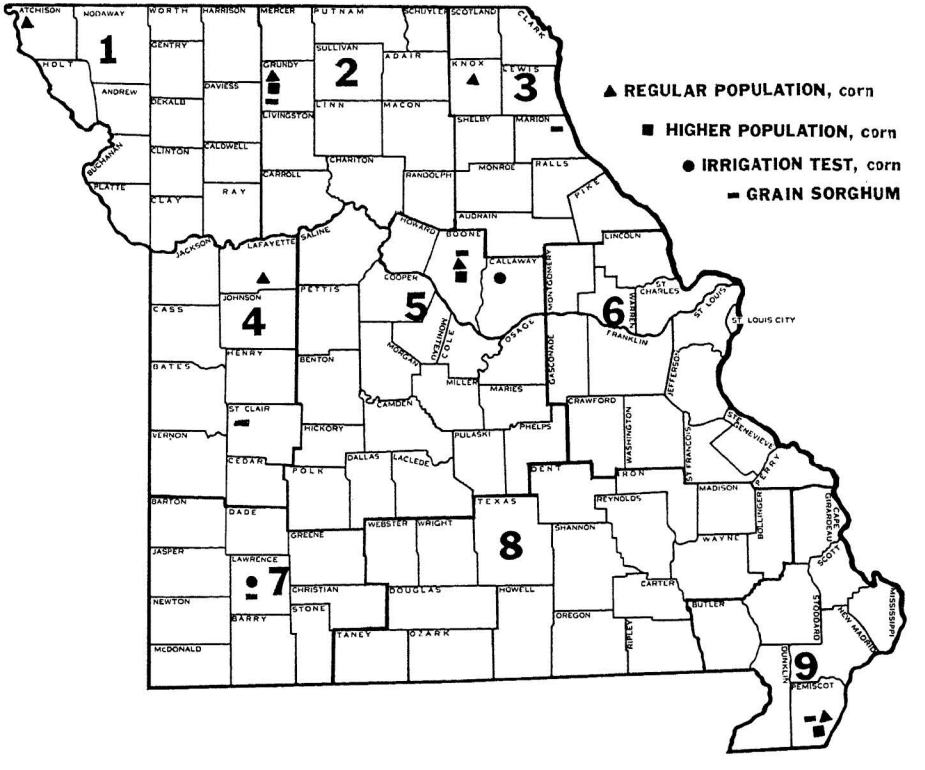

FIGURE 1. TEST SITE LOCATION.

Table 4. Cultural practices on 1973 hybrid corn evaluation plots.

Location	Soil Test O. M.	P_2O_5	K	Fertilizer Added	Insecticide*	Herbicide*	Row Width (in)	Planting Rate	Date Planted	Date Harvested	Cooperator-(Town)
District 1 (Atchison Co.)				120-60-60	None	AAtrex + Lasso	40	19,600	4/28	10/25-26	John Jones (Tarkio)
District 2 (Grundy Co.)	4.0	160	150	160-60-120	Aldrin	Sutan-AAtrex	30	19,600 & 26,100	5/18-19	10/29-30	North Mo. Center (Spickard)
District 3 (Knox Co.)	2.4	364	110	150-50-160	Aldrin	AAtrex-Lasso	30	19,600	5/15	10/18-19	Lynn Douglas (Edina)
District 4 (Lafayette Co.)	3.4	400	300				30	19,600	5/14	11/7-8	Lynn Dyer (Higginsville)
District 5 (Boone Co.)	1.8	254	390	180-80-80	None	Bladex	30	19,600 & 26,100	5/17	10/16-17 10/20-22	Bradford Research Farm (Columbia)
District 9 (Pemiscot Co.)	2.0	175	340	150-75-75	None	AAtrex	30	19,600 & 26,100	5/10	Not Harvested	Delta Center (Portageville)
Irrigation Test (Callaway Co.)	2.7	216	240	300-200-200	None	AAtrex-Lasso	30	28,700	5/16	11/16	Claypan Research Station (McCredie)
Irrigation Test (Lawrence Co.)	2.0	352	260	300-200-200	Furadan	Sutan-AAtrex	30	28,700	4/13	10/2	Southwest Center (Mt. Vernon)

*Applied at recommended rates.

Lodging

A plant was classified as root-lodged if it leaned more than 30 degrees from the vertical through the first several internodes and stalk-lodged if it was broken below the ear. A plant that was both root and stalk-lodged was recorded in both categories. The percent was calculated on the total number of plants present.

Dropped Ears

The total number of ears dropped by each hybrid was recorded at harvest. Dividing this number by the total number of plants present and multiplying by 100 gave the percent of ears dropped. It was assumed that each plant produced one ear.

Ear Height

The ear-height grade was determined from averages of the three plots of a hybrid at a location. The grade consisted of the approximate number of feet from the ground level to the point of attachment of the primary ear.

Yield

The corn from each plot was harvested with a one-row picker-sheller. The shelled corn was then weighed in the field. Yield was determined on the basis of shelled corn with a moisture content of 15.5 percent. Adjustments were not made for stand deviations. The reported yield for each hybrid is the average yield of three plots at all locations.

Moisture

The grain moisture of each entry was determined at harvest by obtaining a random sample from each plot during shelling. Grain from each plot was thoroughly mixed and the moisture content determined with a Burrows moisture tester. The moisture percentage reported in the tables for each hybrid is the average of three plots at all locations. The grain yields were adjusted to 15.5 percent moisture.

SELECTING A HYBRID FOR YOUR FARM

Period-of-Years Performance Records

A number of hybrids have been tested for periods of two or three years either in a single district or in groups of districts. These performance records are presented in tabular form for the respective districts.

Emphasis should be placed upon the fact that results for a period of greater than one year are of greater value in assessing the performance of a hybrid than the results from a single year. If one must rely on results from any one year it is best to use the average performance from as many testing locations as possible in the general area where the hybrid is to be grown.

Statistical Interpretations

The performance of each hybrid cannot be measured with absolute precision. Uncontrollable variability is involved in the determination of each yield average. The statistic used here as a measure of this variability is called the least significant difference. It can be expressed at any probability level. We have chosen to present it at the 5 and 20 percent levels. It is usually written as "L.S.D.". In each single year table the L.S.D. is given at the bottom in bushels per acre. The reader will note that the L.S.D.'s vary in magnitude from table to table. This means that the trials differ in their uncontrolled variability. One having an L.S.D. of 11 bushels has less variability than one with an L.S.D. of 15 bushels per acre. A yield difference of 12 bushels between two hybrids would be more meaningful in the first set of data than in the second. Interpreted in terms of probability of an event occuring, the L.S.D. values mean; (1) at the 5% level, if hybrid A exceeds hybrid B in yield by more than the L.S.D. value, then you would expect that 19 out of 20 years it would do so; (2) at the 20% level, if hybrid A exceeds hybrid B in yield by more than the L.S.D. value, then you would expect it to do so in 16 out of 20 years.

Recommendations

The Missouri Agricultural Experiment Station does not make specific recommendations for hybrids. It is suggested that the farmers growing a new hybrid for the first time consider the information contained in this booklet and then grow a small acreage to determine adaptability. This should be the practice for all new hybrids regardless of origin.

RESULTS

Results are reported on a relative maturity group basis. This is the approximate number of days from planting until physiological maturity or the number of days from planting until maximum dry matter content is reached. The relative maturity groups are as follows: Group I, approximately 90-110 days; Group II, 110-120 days; Group III, 120-130 days; Group IV, 130-140 days. Results reported for each district are for tests conducted in 1973. Period-of-years summary tables are also presented.

By checking the table of contents, the table and page numbers for the different open-pedigree hybrids, closed-pedigree hybrids, and sources of seed can be determined.

DISTRICT 1

Data for District 1 are presented in Tables 5 and 6. A summary of cultural practices will be found in Table 4.

This site was characterized by favorable patterns of rainfall throughout the growing season. Yields were good despite several dry periods that occurred (See Table 2). The temperature for June was above normal, but the other months were cooler than usual (Table 3).

The average yield from a harvest stand of 17,600 plants per acre was 146 bushels, up 24 bushels from the 1972 average. The yield ranged from 110 to 168 bushels per acre for the 100 hybrids included in this test. The average stand loss for the hybrids was within the 15% allowance made at planting time. However, the stand loss for individual hybrids was as large as 20% and as small as 3.5%, indicating a considerable difference in seed quality and seedling vigor.

Stalk lodging ranged from less than 1% to 27.9%, with the average for all hybrids being 6.1%. There was no root lodging and dropped ears were significant for only a few individual hybrids.

Weeds were not a problem in 1973.

For more reliable results with hybrids that have proven their potential over a two- or three-year period Table 6 should be consulted.

TABLE 5. 1973 PERFORMANCE RECORD FOR HYBRIDS TESTED IN DISTRICT 1, NEAR TARKIO, MO. IN ATCHISON COUNTY. PLANTED APRIL 28, 1973. HARVESTED OCTOBER 25-26, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
GROUP I MATURITY							
BEAR T495	138.0	20.0	18000	0.0	4.2	0.4	3.3
BO-JAC X51A (SX)	141.0	20.4	16400	0.0	3.9	0.8	3.5
BO-JAC X35 (SPX)	159.2	19.1	17400	0.0	11.4	0.8	3.8
BO-JAC X43 (SX)	158.0	21.4	17900	0.0	6.6	1.9	4.0
BO-JAC X4146 (SX)	164.2	20.5	17900	0.0	6.2	0.4	4.0
FUNK'S G4465 (SPX)	133.5	19.4	17900	0.0	7.6	1.2	3.3
CORN KING 1137 (SX)	146.3	19.8	16500	0.0	7.7	0.9	3.5
NC+ 57 (SX)	147.3	19.3	17100	0.0	5.2	1.2	3.8
PAG SX7 (SX)**	129.1	18.9	18300	0.0	3.7	1.5	3.3
PAG 315 (3X)**	121.2	19.1	17900	0.0	1.9	1.9	3.5
PIONEER 3388 (MX)	144.5	21.0	18000	0.0	2.7	1.5	3.8
PIONEER 3432 (DX)	135.7	19.6	18500	0.0	6.3	1.5	3.5
PIONEER 3517 (MX)	131.0	19.8	18000	0.0	1.1	0.8	3.3
PIONEER 339C (MX)**	145.4	18.3	17400	0.0	7.9	2.4	3.8
GROUP II MATURITY							
ACCO UC 8801 (SX)	146.0	21.4	17800	0.0	8.5	2.7	4.2
ACCO U392 (3X)	144.6	22.2	18300	0.0	5.8	0.4	3.7
ASGROW RX92 (SX)**	156.7	20.3	17300	0.0	6.8	0.8	3.8
ASGROW RX99A (SPX)	136.2	22.3	17000	0.0	6.4	1.2	3.7
ASGROW RX10C (SX)	147.2	21.6	18500	0.0	5.1	0.4	3.7
BO-JAC X9 (SX)	160.7	20.5	17700	0.0	5.4	0.8	3.8
BO-JAC X62 (SPX)	135.1	21.4	17900	0.0	4.2	1.2	3.7
BO-JAC X91 (SPX)	155.5	24.5	18100	0.0	4.9	2.7	3.5
BO-JAC X1A (SX)	149.1	20.5	17900	0.0	12.4	3.1	3.7
BO-JAC X7L (SX)	163.7	22.6	18300	0.0	3.4	1.5	3.7
CARGILL 470 (3X)**	133.6	20.7	17200	0.0	2.4	0.8	3.3
CARGILL 940 (SX)	149.6	20.5	17500	0.0	4.7	0.0	3.5
CARGILL 979 (SX)	143.9	23.5	16700	0.0	3.7	1.2	3.8
CARGILL 930 (SX)	126.2	20.3	16100	0.0	0.8	0.4	3.2
COOP S-318 (SX)	153.7	22.1	17200	0.0	4.0	2.0	3.3
DEKALB XL66 (SX)**	127.0	20.5	17400	0.0	2.9	1.3	3.3
DEKALB XL81 (SX)**	117.5	21.5	16100	0.0	3.9	1.7	3.5
DEKALB XL347 (3X)**	127.8	20.4	18300	0.0	2.2	0.8	3.0
FEDERAL FT44 (3X)	123.0	19.8	17700	0.0	7.1	2.8	4.0
FUNK'S G4646 (SPX)**	139.9	20.8	17800	0.0	4.2	0.4	3.5
FUNK'S G4628 (SX)	164.2	22.7	17400	0.0	3.1	0.8	3.7
FUNK'S G4538W* (SX)	124.3	22.1	17600	0.0	2.8	0.8	3.5
FUNK'S G4554W* (3X)	141.4	22.1	18200	0.0	9.8	1.2	4.0
FUNK'S EXP26503 (SX)	148.3	20.6	17300	0.0	6.8	0.8	4.0
FUNK'S G-4810 (SX)	145.1	22.3	16300	0.0	3.4	0.4	4.0
FUNK'S G4657 (SPX)**	146.5	21.7	17800	0.0	10.8	2.7	3.7
FRONTIER CX37 (SX)	155.9	20.7	17200	0.0	7.6	1.2	3.8
HAPPELS 3361 (3X)	122.7	20.4	16500	0.0	10.3	3.0	4.0
HAPPELS H-37 (3X)	130.8	20.5	16400	0.0	6.3	0.8	4.0
HAPPELS MS-72 (SX)	147.2	23.1	17200	0.0	6.0	2.0	3.8
LEWIS X62R (SX)	168.5	19.6	18200	0.0	4.9	0.8	4.0
LEWIS X78R (SX)	156.6	22.3	17200	0.0	3.2	1.6	3.3
MAYGOLD 2044 (3X)	146.2	22.1	18000	0.0	5.7	1.9	4.2
MAYGOLD 29X (DX)**	134.8	20.7	18600	0.0	6.7	2.2	3.7
MAYGOLD L47 (SX)	148.9	21.2	16500	0.0	15.8	2.1	4.0
MAYGOLD 2058 (3X)	146.2	21.6	18300	0.0	6.0	1.1	3.7
MFA EXP23108 (SPX)	143.3	21.7	17900	0.0	1.9	0.0	3.3
MFA V12 (SX)**	163.6	20.6	17700	0.0	4.1	0.0	3.7
MFA TX33 (3X)	156.7	20.7	18500	0.0	6.3	0.7	3.7

TABLE 5. (CONTINUED).

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP II MATURITY						
MFA 3030 (DX)	144.8	22.1	17000	0.0	5.6	0.8	3.3
MFA V16 (SX)	155.4	22.2	17200	0.0	4.0	0.4	3.3
MOEWS SM622 (SX)	152.4	23.2	18200	0.0	9.4	1.2	3.7
MOEWS SM822W* (SX)	123.1	22.4	16000	0.0	8.2	1.3	4.0
MOEWS SM822 (SX)	140.4	21.9	17300	0.0	4.7	2.1	3.8
MCALLISTERSX6837(SX)	150.9	22.1	16900	0.0	7.7	0.4	3.7
MCALLISTERSX7176(SX)	149.2	21.4	17400	0.0	8.3	0.8	3.8
MCCURDY MSX85 (SX)	159.2	20.4	18300	0.0	8.6	1.1	4.0
MCCURDY MSX88E (SX)	141.9	21.6	16500	0.0	5.2	0.4	3.5
MCCURDY 72-28 (SX)	151.5	21.6	17800	0.0	7.7	1.5	3.7
MCCURDY MSP88E (3X)	155.8	20.9	18100	0.0	8.0	0.8	3.8
MCNAIR X190 (SX)	155.5	22.7	17200	0.0	5.9	1.2	3.8
MCNAIR X214 (SX)	157.1	22.0	17800	0.0	5.0	1.5	4.5
MCNAIR X180 (SX)	153.7	20.9	17800	0.0	4.3	1.1	3.5
MCNAIR X170 (SX)	149.4	21.3	17600	0.0	5.9	1.6	3.7
NC+ 77SX (SX)	153.4	21.0	17200	0.0	3.6	0.8	3.7
NK PX616 (3X)**	143.5	20.1	18500	0.0	7.1	1.1	3.7
OSGOLD TX105A (3X)	138.6	21.1	17600	0.0	7.0	1.6	3.8
OSGOLD SX5500 (SX)**	144.0	22.4	16900	0.0	4.5	0.8	3.5
PIONEER 3368 (MX)	146.6	21.8	17400	0.0	5.3	1.3	3.8
PIONEER 3301 (SX)	149.5	20.5	17400	0.0	8.4	0.4	3.3
PIONEER 3369A (SX)**	146.6	22.0	17800	0.0	4.6	1.6	3.8
PIONEER 3385 (MX)	144.6	20.2	17600	0.0	5.9	0.8	3.7
PIONEER 3195 (SX)	167.8	21.6	18700	0.0	9.6	1.8	4.0
PIONEER 3355 (3X)	150.2	19.7	18200	0.0	2.5	0.4	3.5
PIONEER 3306 (SX)	163.5	21.2	18200	0.0	6.0	0.8	4.2
PIONEER 3219 (DX)**	144.6	20.9	18200	0.0	3.4	0.0	3.7
PIONEER 3366 (SX)	151.6	19.9	18800	0.0	2.6	1.1	3.5
TROJAN TX113 (3X)	142.1	21.2	17000	0.0	5.4	0.5	3.3
TROJAN TXS113 (SX)	138.0	21.5	16400	0.0	4.7	1.8	3.3
TROJAN TXS119 (SX)	159.8	22.4	18100	0.0	3.0	1.9	3.7
TROJAN TX117 (3X)	151.2	22.0	18900	0.0	4.4	0.0	3.3
TROJAN TXS118 (SX)**	154.4	21.6	18100	0.0	3.4	0.0	4.0
TROJAN TXS124 (SX)	146.3	21.3	18600	0.0	8.5	1.1	4.0
TROJAN TX119A (3X)	143.4	21.6	16400	0.0	4.1	1.7	3.5
US 13 (DX)	109.8	20.1	17900	0.0	27.9	5.8	4.3
	GROUP III MATURITY						
FONTANELLE 660SC(SX)	153.5	22.6	17900	0.0	6.1	2.3	3.7
FONTANELLE 600SC(SX)	158.0	20.5	17900	0.0	7.3	0.4	3.7
FUNK'S EXP262C5(SPX)	140.5	24.5	17000	0.0	14.6	1.6	4.3
FUNK'S G4737 (SX)	152.4	21.8	17200	0.0	8.3	0.4	3.3
FUNK'S G5757 (DX)**	133.3	22.1	17600	0.0	7.1	0.8	3.8
FUNK'S G48C8 (SX)	127.0	24.1	15900	0.0	5.8	0.0	3.7
FRONTIER SX255 (SX)	152.1	22.6	17500	0.0	5.5	0.8	3.7
MAYGOLD L50 (SX)	139.7	22.3	15700	0.0	4.5	0.4	3.7
MCCURDY MSX88 (SX)	152.6	22.7	17900	0.0	2.3	1.2	3.7
PIONEER 3149 (SX)	164.5	23.1	18800	0.0	9.9	0.7	4.0
PIONEER 3147 (MX)	156.1	23.6	18000	0.0	15.2	1.1	4.3
AVERAGE	145.8	21.3	17572	0.0	6.1	1.2	3.7

LSD AT 5% LEVEL IS 12.2 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 19 OF 20 TIMES GROWN.
LSD AT 20% LEVEL IS 7.8 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 16 OF 20 TIMES GROWN.
*WHITE HYBRID
**WIDELY GROWN HYBRIDS.

TABLE 6. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 1 NEAR TARKIO, MO. (ATCHISON COUNTY) DURING THE 2-YEAR PERIOD 1972-73 AND THE 3-YEAR PERIOD 1971-73.

BRAND--HYBRID	2-YEAR AVERAGE					3-YEAR AVERAGE				
	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 1 MATURITY					
PIONEER 3390 (MX)	136.0	0.0	5.0	1.6	3.8	129.4	0.0	9.2	1.7	4.0
					GROUP 2 MATURITY					
ACCO UC 8801 (SX)	137.9	0.0	6.1	2.7	4.3	-	-	-	-	-
ACCO U392 (3X)	130.4	0.0	7.1	0.6	3.8	-	-	-	-	-
ASGROW RX92 (SX)	147.9	0.0	3.4	1.0	3.9	-	-	-	-	-
ASGROW RX100 (SX)	141.6	0.0	4.6	0.6	4.0	129.2	0.0	10.1	0.6	3.9
BO-JAC X1A (SX)	144.1	0.0	8.5	1.9	4.2	133.3	0.0	7.3	1.5	4.1
BO-JAC X7L (SX)	150.7	0.0	2.1	1.0	3.8	142.3	0.0	2.2	0.6	3.8
CARGILL 940 (SX)	142.6	0.0	2.8	0.8	3.8	-	-	-	-	-
DEKALB XL66 (SX)	126.6	0.4	2.5	0.7	3.6	-	-	-	-	-
DEKALB XL81 (SX)	100.1	0.2	3.0	2.5	3.8	-	-	-	-	-
LEWIS X788 (SX)	151.7	0.4	2.2	1.6	3.8	-	-	-	-	-
MAYGOLD 2044 (3X)	137.2	0.0	4.4	1.5	4.1	-	-	-	-	-
MAYGOLD 29X (DX)	117.9	2.5	7.3	3.2	4.1	-	-	-	-	-
MAYGOLD L47 (SX)	142.2	0.0	9.9	1.8	4.2	-	-	-	-	-
MAYGOLD 2058 (3X)	131.8	0.0	4.0	1.5	4.1	-	-	-	-	-
MFA V12 (SX)	141.0	0.0	2.8	0.7	3.8	125.3	0.0	5.9	0.7	3.9
MFA TX33 (3X)	127.1	0.0	5.2	0.8	3.8	-	-	-	-	-
MFA V16 (SX)	143.9	0.0	2.7	0.6	3.7	-	-	-	-	-
MOEWS SM822 (SX)	129.1	0.0	4.1	2.1	4.0	-	-	-	-	-
MCCURDY MSX88E (SX)	135.4	0.0	2.8	0.4	3.8	-	-	-	-	-
MCCURDY MSP888 (3X)	144.9	0.0	4.6	1.2	4.2	-	-	-	-	-
NC+ 77SX (SX)	154.0	0.0	2.8	2.1	3.9	-	-	-	-	-
NK PX616 (3X)	120.8	0.2	4.3	1.1	3.9	-	-	-	-	-
OSGOLD SX5500 (SX)	144.2	0.0	3.2	0.6	3.8	-	-	-	-	-
PIONEER 3368 (MX)	137.4	0.0	3.0	1.2	4.1	-	-	-	-	-
PIONEER 3369A (SX)	137.3	0.0	3.6	2.6	4.2	124.8	0.0	13.5	2.1	4.3
PIONEER 3385 (MX)	137.7	0.0	3.8	1.2	4.1	-	-	-	-	-
PIONEER 3306 (SX)	150.3	0.0	5.9	0.4	4.5	134.1	0.0	12.5	0.6	4.5
PIONEER 3219 (DX)	140.8	0.0	2.1	0.8	4.0	-	-	-	-	-
TROJAN TXS113 (SX)	136.0	0.2	3.1	1.1	3.9	-	-	-	-	-
TROJAN TXS119 (SX)	144.9	0.0	2.7	1.2	4.1	129.6	0.0	7.5	1.0	4.1
TROJAN TXS118 (SX)	148.1	0.0	3.1	0.8	4.1	134.1	0.0	9.4	1.0	4.1
US 13 (DX)	113.1	0.0	22.9	5.2	4.5	98.4	0.0	27.1	4.5	4.7
					GROUP 3 MATURITY					
FONTANELLE 660SC(SX)	137.7	0.0	4.5	1.8	3.9	-	-	-	-	-
FONTANELLE 600SC(SX)	141.7	0.0	4.6	1.5	3.8	-	-	-	-	-
FUNK'S G5757 (DX)	122.2	0.0	6.9	1.2	4.1	-	-	-	-	-
MCCURDY MSX88 (SX)	142.6	0.0	2.0	1.2	3.9	125.8	0.0	3.8	1.0	3.9
PIONEER 3149 (SX)	164.2	0.0	7.4	0.8	4.3	147.1	0.0	7.7	0.5	4.3
PIONEER 3147 (MX)	150.1	0.0	11.5	1.6	4.7	-	-	-	-	-
AVERAGE	138.1	0.1	4.9	1.4	4.0	129.4	0.0	9.7	1.3	4.1

*WHITE HYBRID.

DISTRICT 2

Data on agronomic performance of hybrids evaluated at this site are found in Tables 7 through 10. A summary of the site cultural information is found in Table 4. All hybrids were evaluated at what is considered a normal population for North Missouri (approximately 17,500 plants/acre) and at a somewhat higher population (22,500 plants/acre). Due to severe stalk lodging the higher population plots were not machine harvestable; therefore, no yields are presented (Table 9).

The site was characterized by above normal rainfall for the May 1 through September 15 period. Only one dry period was recorded and it was between August 13 and September 1 (Table 1). During this same period the average monthly temperature was approximately two degrees below normal.

The average yield of the 90 hybrids evaluated was 147 bushels/acre. The range in yield was from a low of 113 to a high of 176 bushels/acre. The average harvest stand was 17,400 plants/acre. No harvest was taken from the higher planting rate.

Stalk lodging averaged 10.0% over all hybrids (normal population) with a range from 2.1 to 34.4%. At the higher population the average stalk lodging was nearly double that of the lower population (10.0 vs. 19.0%). The range for the individual hybrids was from 3.8 to 54.0%.

Weeds were not a factor in determining the final yield at this location in 1973.

TABLE 7. 1973 PERFORMANCE RECORD FOR HYBRIDS TESTED IN DISTRICT 2, NEAR SPICKARD, MO. IN GRUNDY COUNTY. PLANTED MAY 18 1973. HARVESTED OCTOBER 29-30, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
GROUP I MATURITY							
CARGILL 422 (3X)**	127.2	22.8	16900	10.4	7.7	1.9	4.2
CARGILL 880 (SX)**	143.8	23.7	18300	1.6	7.5	2.0	3.8
FUNK'S G4465 (SPX)	128.7	22.2	17500	2.0	17.9	1.0	3.9
LEWIS X34B (SX)	169.0	24.1	18800	1.0	7.3	0.9	4.0
MFA 2180 (DX)**	127.9	22.9	17100	3.2	17.6	1.1	3.9
NK PX50A (SX)	116.7	21.0	17500	2.5	18.4	2.0	3.7
PAG SX7 (SX)**	145.9	22.4	17000	2.7	9.6	2.2	3.3
PIONEER 3432 (DX)	128.6	22.0	17500	0.0	6.8	0.5	4.0
PIONEER 3388 (MX)	134.0	23.6	17500	0.0	9.1	0.5	3.6
PIONEER 3517 (MX)	154.0	22.6	18000	0.0	9.8	0.5	3.7
PIONEER 3390 (MX)**	148.5	21.7	17400	1.6	14.6	0.5	3.9
GROUP II MATURITY							
ACCO U392 (3X)	131.5	25.1	17200	0.5	11.7	0.0	3.9
ACCO UC 8801 (SX)	125.1	23.4	16300	1.1	10.6	2.4	5.0
ASGROW RX99A (SPX)	136.1	25.7	17900	0.5	4.6	0.5	4.4
ASGROW RX100 (SX)	157.4	24.8	18300	0.0	6.6	1.4	4.2
ASGROW RX92 (SX)	139.5	23.1	17300	0.0	16.6	0.0	4.1
BO-JAC X91 (SPX)	164.0	28.0	18600	2.0	2.9	0.0	3.9
BO-JAC X83(SX)	151.3	24.0	17700	0.5	8.4	1.0	4.3
BO-JAC X9 (SX)	154.5	24.3	17100	0.6	8.2	0.6	4.0
BO-JAC X7L (SX)	161.6	25.7	17900	0.0	9.7	0.0	4.3
BO-JAC X62 (SPX)	147.2	24.1	17400	0.0	5.4	0.6	4.2
CARGILL 979 (SX)	153.2	26.0	17400	0.0	8.0	0.5	4.0
COOP S-318 (SX)	148.3	25.2	16700	0.0	7.2	0.0	3.8
DEKALB XL81 (SX)**	134.0	25.6	18000	0.5	10.3	1.5	4.4
DEKALB XL64 (SX)**	130.3	23.0	17500	1.6	4.8	0.5	3.3
DEKALB XL72A (SX)**	160.0	25.3	17000	1.1	4.9	1.0	4.1
FUNK'S G4628 (SX)	163.5	26.0	16800	0.0	3.3	1.7	4.3
FUNK'S G4646 (SPX)**	155.9	23.7	17100	2.2	9.1	0.6	4.4
FUNK'S EXP26503 (SX)	169.4	23.1	17200	9.0	9.1	0.5	4.2
FUNK'S G4697 (SPX)**	146.9	24.0	17000	1.1	7.6	0.5	3.9
SUPERCROST 8442 (SX)	144.7	25.2	17000	2.1	10.8	0.5	4.5
SUPERCROST S79 (SX)	166.1	23.7	17900	3.7	8.3	1.6	4.3
SUPERCROST S85 (SX)	134.1	25.3	15900	0.0	5.9	1.1	4.2
HAPPELS 3361 (3X)	118.3	23.0	16300	0.6	19.2	1.1	4.1
HAPPELS MS-72 (SX)	149.9	26.1	16500	0.5	6.6	0.6	4.2
HAPPELS H-37 (3X)	129.5	23.7	16500	1.1	7.2	0.6	4.3
HOLDEN H1024 (SX)	152.4	23.4	17400	1.6	2.1	1.6	4.5
LEWIS X628 (SX)	171.7	22.7	18600	0.0	6.5	0.9	4.7
LEWIS X788 (SX)	168.0	26.4	17300	0.6	9.1	0.0	4.0
LEWIS X848 (SX)	144.6	24.6	15500	0.6	7.1	4.1	4.6
MAYGOLD 2044 (3X)	129.7	25.4	17400	1.6	13.9	0.5	4.2
MAYGOLD L47 (SX)	142.7	24.7	16500	1.7	22.9	1.1	4.2
MAYGOLD 2058 (3X)	139.5	23.7	17900	8.2	14.4	0.5	3.9
MAYGOLD 29X (DX)**	133.6	23.8	17700	8.1	14.8	1.6	4.3
MFA TX33 (3X)	155.2	23.8	18000	3.6	5.6	0.0	4.4
MFA 3030 (DX)	146.6	25.0	17600	8.0	6.4	0.5	4.3
MFA V16 (SX)	168.1	25.0	17600	0.0	6.7	1.1	4.2
MFA EXP23108 (SPX)	166.2	23.0	18200	2.5	4.6	0.0	4.1
MFA K6 (SX)**	135.6	23.9	15900	4.3	18.5	1.1	4.1
MFA V12 (SX)**	141.1	24.0	15300	0.0	7.2	0.0	4.0

TABLE 7. (CONTINUED).

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
GROUP II MATURITY							
MOEWS SM622 (SX)	167.6	27.4	17200	1.5	20.9	1.1	4.1
MOEWS SM822W* (SX)	153.5	24.3	15100	18.5	6.7	0.6	5.2
MOEWS SM822 (SX)	146.3	24.7	16900	7.3	11.1	1.1	4.1
MUNCYCHIEF SX878(SX)	144.3	24.6	17700	2.5	5.3	1.0	4.5
MCALLISTERSX6837(SX)	156.9	26.1	16600	0.6	14.4	0.0	4.0
NC+ 85SX (SX)	160.1	25.1	17700	0.5	10.4	0.5	4.0
NC+ 77SX (SX)	132.6	25.7	17400	0.0	23.8	1.0	4.4
NK PX77 (SX)	152.4	23.8	17300	13.5	4.7	0.0	4.3
NK PX670 (3X)	149.7	22.9	17700	4.8	7.1	0.5	4.4
NK PX616 (3X)**	138.9	22.6	16200	0.6	13.8	1.1	4.1
OSGOLD SX5500 (SX)**	139.2	25.7	16900	0.6	7.0	1.1	4.1
OSGOLD TX104 (3X)**	127.7	22.6	17300	0.6	20.5	0.6	4.4
PAG SX520 (SX)**	158.9	23.1	18700	7.7	6.4	1.4	4.0
PIONEER 3368 (MX)	165.9	24.1	18100	0.0	4.6	0.5	4.4
PIONEER 3301 (SX)	154.7	23.3	17800	0.0	5.0	0.5	4.3
PIONEER 3355 (3X)	152.7	23.3	17700	0.0	6.7	0.0	4.4
PIONEER 3195 (SX)	164.8	23.8	18100	6.9	8.1	0.0	4.6
PIONEER 3366 (SX)	157.9	23.1	20000	6.3	4.6	0.4	4.7
PIONEER 3369A (SX)**	157.5	23.9	18800	0.4	6.2	2.9	4.5
PIONEER 3385 (MX)	162.7	23.4	17900	3.8	13.6	0.0	4.2
PIONEER 3219 (DX)**	176.4	23.7	19700	0.0	3.8	0.5	3.8
PIONEER 3306 (SX)	159.7	23.3	17500	0.0	15.1	0.5	4.4
TROJAN TX119A (3X)	159.8	23.7	18800	0.5	3.4	1.0	4.7
TROJAN TX117 (3X)	142.0	24.6	17700	1.0	8.0	1.1	4.1
TROJAN TXS113 (SX)	150.5	23.9	17600	2.7	5.2	0.0	4.2
TROJAN TXS119 (SX)**	161.4	25.0	17900	0.0	9.8	1.0	4.5
TROJAN TX113 (3X)**	145.9	23.9	18000	1.1	9.1	0.0	3.9
TROJAN TXS118 (SX)**	153.3	24.3	16500	1.1	10.5	0.0	4.1
VINTON V95 (DX) **	124.7	23.3	16100	1.1	34.4	0.6	4.1
US 13 (DX)	113.3	23.4	16900	1.7	29.2	0.0	4.7
GROUP III MATURITY							
CARGILL 495 (3X)	152.8	23.9	17700	1.1	2.6	0.0	4.6
FUNK'S EXP26205(SPX)	141.6	27.1	16300	10.5	16.0	0.0	5.0
FUNK'S G5757 (DX)**	138.9	25.6	16400	10.4	9.1	0.6	4.4
FUNK'S G4737 (SX)	136.4	25.5	16300	0.0	16.9	0.0	3.9
SUPERCROST 8282 (SX)	133.0	27.1	17300	0.0	5.4	0.6	3.9
MAYGOLD L50 (SX)	134.3	25.2	17400	0.5	7.4	0.5	4.0
MCCURDY MSX88 (SX)	151.5	26.1	17200	0.5	5.9	0.6	4.3
NK KT680 (DX)**	134.0	23.4	16100	5.7	8.0	1.2	4.3
PIONEER 3149 (SX)	155.1	26.0	18700	0.5	9.3	2.0	4.8
PIONEER 3147 (MX)	146.5	26.2	17700	3.0	13.5	0.5	4.9
AVERAGE	147.2	24.3	17375	2.4	10.0	0.8	4.2

LSD AT 5% LEVEL IS 17.8 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 19 OF 20 TIMES GROWN.
LSD AT 20% LEVEL IS 11.6 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 16 OF 20 TIMES GROWN.
*WHITE HYBRID
**WIDELY GROWN HYBRIDS.

TABLE 8. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 2 NEAR SPICKARD, MO. (GRUNDY COUNTY — NORMAL POPULATION TEST) DURING THE 2-YEAR PERIOD 1972-73 AND THE 3-YEAR PERIOD 1971-73.

BRAND--HYBRID	2-YEAR AVERAGE					3-YEAR AVERAGE				
	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 1 MATURITY					
CARGILL 880 (SX)	136.0	0.8	7.0	1.0	3.9	-	-	-	-	-
PIONEER 3390 (MX)	134.6	0.8	16.7	0.2	3.9	130.6	0.5	11.1	0.2	4.1
					GROUP 2 MATURITY					
ACCO U392 (3X)	139.3	0.3	10.3	0.0	3.8	-	-	-	-	-
ACCO UC 8801 (SX)	124.4	0.5	12.8	1.2	4.6	-	-	-	-	-
ASGROW RX100 (SX)	147.3	0.0	5.4	0.7	4.0	136.5	0.0	3.9	0.5	4.1
ASGROW RX92 (SX)	131.7	0.0	12.0	0.0	3.8	-	-	-	-	-
BO-JAC X7L (SX)	144.2	0.0	5.4	0.0	4.1	137.8	0.0	3.6	0.0	4.0
DEKALB XL81 (SX)	135.1	0.2	6.0	0.7	4.2	-	-	-	-	-
FUNK'S G4697 (SPX)	133.3	0.6	5.2	0.3	3.8	-	-	-	-	-
SUPERCROST S79 (SX)	146.1	1.8	5.4	0.8	4.0	-	-	-	-	-
SUPERCROST S85 (SX)	136.6	0.0	5.4	0.6	3.9	-	-	-	-	-
HAPPELS MS-72 (SX)	147.1	0.3	6.3	0.3	3.9	-	-	-	-	-
LEWIS X788 (SX)	154.5	0.3	7.8	0.3	3.9	-	-	-	-	-
MAYGOLD 2044 (3X)	133.7	0.8	14.4	0.3	4.2	-	-	-	-	-
MAYGOLD L47 (SX)	130.9	0.9	15.9	0.5	3.9	-	-	-	-	-
MAYGOLD 2058 (3X)	134.6	4.1	10.0	0.5	3.9	-	-	-	-	-
MAYGOLD 29X (DX)	123.6	4.0	12.2	0.8	4.2	-	-	-	-	-
MFA TX33 (3X)	133.3	1.8	4.1	0.0	4.2	-	-	-	-	-
MFA 3030 (DX)	143.6	4.0	6.3	0.3	4.2	-	-	-	-	-
MFA V16 (SX)	152.4	0.0	4.2	0.5	3.9	-	-	-	-	-
MFA K6 (SX)	115.3	2.2	12.9	0.9	4.1	-	-	-	-	-
MFA V12 (SX)	127.4	0.0	6.5	0.0	3.9	120.0	0.0	4.6	0.0	4.1
MOEWS SM822 (SX)	140.3	3.6	11.2	0.6	4.1	-	-	-	-	-
MUNCYCHIEF SX878(SX)	133.5	1.3	6.6	0.5	4.3	-	-	-	-	-
MCALLISTERSX6837(SX)	145.6	0.3	8.2	0.0	4.0	131.4	0.2	5.5	0.0	4.0
NC+ 85SX (SX)	142.6	0.3	7.3	0.3	4.0	132.4	0.2	4.9	0.2	4.0
NC+ 77SX (SX)	125.4	0.0	17.3	0.5	4.2	122.5	0.0	13.3	0.3	4.2
NK PX77 (SX)	146.5	6.7	5.4	0.0	4.1	-	-	-	-	-
NK PX670 (3X)	137.9	2.4	4.8	0.3	4.1	-	-	-	-	-
NK PX616 (3X)	128.8	0.3	11.5	0.6	3.9	-	-	-	-	-
OSGOLD SX5500 (SX)	138.0	0.3	5.1	0.5	4.0	139.9	0.2	3.4	0.4	4.1
PIONEER 3368 (MX)	151.5	0.0	3.3	0.5	4.2	-	-	-	-	-
PIONEER 3369A (SX)	151.7	0.2	6.3	1.5	4.3	149.2	0.1	5.2	1.0	4.4
PIONEER 3385 (MX)	147.6	1.9	10.3	0.0	4.1	-	-	-	-	-
PIONEER 3219 (DX)	158.1	0.0	4.7	0.5	4.0	-	-	-	-	-
PIONEER 3306 (SX)	145.7	0.0	9.8	0.5	4.2	136.4	0.0	7.2	0.3	4.2
TROJAN TXS113 (SX)	145.4	1.4	6.1	0.0	4.1	-	-	-	-	-
TROJAN TXS119 (SX)	151.1	0.0	5.9	0.5	4.1	139.5	0.0	3.9	0.3	4.1
TROJAN TXS118 (SX)	132.0	0.6	10.6	0.0	4.1	-	-	-	-	-
US 13 (DX)	109.3	0.8	24.6	0.3	4.5	109.6	0.6	18.0	0.2	4.7
					GROUP 3 MATURITY					
FUNK'S G5757 (DX)	127.2	5.2	5.7	0.3	4.3	-	-	-	-	-
MCCURDY MSX86 (SX)	141.4	0.3	5.5	0.3	4.0	135.8	0.2	3.6	0.2	4.0
PIONEER 3149 (SX)	158.7	0.3	7.8	2.8	4.3	147.3	0.2	6.1	1.9	4.3
PIONEER 3147 (MX)	151.8	1.5	10.4	0.3	4.7	-	-	-	-	-
AVERAGE	139.0	1.2	8.7	0.5	4.1	133.5	0.2	6.7	0.4	4.2

*WHITE HYBRID.

TABLE 9. 1973 PERFORMANCE RECORD FOR HYBRIDS GROWN AT A HIGHER POPULATION IN DISTRICT 2 NEAR SPICKARD, MO. IN GRUNDY COUNTY. PLANTED MAY 18, 1973. NOT HARVESTED DUE TO EXTREME LODGING. NOTES TAKEN OCTOBER 29-30, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP I MATURITY						
CARGILL 422 (3X)**	0.0	0.0	21500	1.0	26.1	2.5	4.0
CARGILL 880 (SX)**	0.0	0.0	22600	5.7	24.6	3.3	3.4
FUNK'S G4465 (SPX)	0.0	0.0	22600	0.9	42.7	1.6	3.9
LEWIS X348 (SX)	0.0	0.0	23700	5.6	6.8	0.0	4.3
MFA 218C (DX)**	0.0	0.0	20800	0.0	26.1	0.0	4.1
NK PX50A (SX)	0.0	0.0	21300	0.0	50.6	0.0	3.5
PAG SX7 (SX)**	0.0	0.0	21700	5.5	23.7	0.0	3.2
PIONEER 3432 (DX)	0.0	0.0	23600	3.0	15.8	0.8	4.0
PIONEER 3388 (MX)	0.0	0.0	23400	4.6	19.8	0.0	3.7
PIONEER 3517 (MX)	0.0	0.0	25000	1.4	7.4	0.7	3.7
PIONEER 3390 (MX)**	0.0	0.0	25400	4.4	28.2	0.0	4.2
	GROUP II MATURITY						
ACCO U392 (3X)	0.0	0.0	21500	5.2	54.0	0.8	3.8
ACCO UC 8801 (SX)	0.0	0.0	21200	11.8	26.4	0.9	4.8
ASGROW RX99A (SPX)	0.0	0.0	22300	0.8	11.5	0.0	4.7
ASGROW RX100 (SX)	0.0	0.0	23000	16.3	8.8	0.8	4.5
ASGROW RX92 (SX)	0.0	0.0	21500	4.9	15.9	0.0	4.3
BO-JAC X91 (SPX)	0.0	0.0	23400	1.6	9.5	0.8	4.2
BO-JAC X83(SX)	0.0	0.0	23700	0.0	37.9	4.7	4.5
BO-JAC X9 (SX)	0.0	0.0	22300	3.4	32.3	0.0	4.5
BO-JAC X7L (SX)	0.0	0.0	23400	1.6	18.7	2.2	4.1
BO-JAC X62 (SPX)	0.0	0.0	22600	5.8	13.1	1.6	4.3
CAPGILL 979 (SX)	0.0	0.0	21900	2.4	13.7	0.9	4.2
COOP S-318 (SX)	0.0	0.0	21700	0.0	11.1	0.0	4.1
DEKALB XL81 (SX)**	0.0	0.0	23000	0.0	24.0	0.8	4.5
DEKALB XL64 (SX)**	0.0	0.0	20400	6.2	33.6	0.0	3.6
DEKALB XL72A (SX)**	0.0	0.0	20800	1.8	8.7	0.0	4.4
FUNK'S G4628 (SX)	0.0	0.0	22300	5.3	10.1	0.0	4.3
FUNK'S G4646 (SPX)**	0.0	0.0	19900	6.6	29.2	0.0	3.9
FUNK'S EXP26503 (SX)	0.0	0.0	21900	7.8	9.6	0.0	4.3
FUNK'S G4697 (SPX)**	0.0	0.0	20800	9.3	10.9	2.6	4.2
SUPERCROST 8442 (SX)	0.0	0.0	22800	12.5	25.6	0.7	4.4
SUPERCROST S79 (SX)	0.0	0.0	23700	2.2	10.4	0.0	4.3
SUPERCROST S85 (SX)	0.0	0.0	20600	0.0	9.8	1.7	4.4
HAPPELS 3361 (3X)	0.0	0.0	22400	5.8	19.8	0.9	4.0
HAPPELS MS-72 (SX)	0.0	0.0	20400	2.7	21.4	0.0	4.5
HAPPELS H-37 (3X)	0.0	0.0	21300	5.4	12.6	0.9	4.5
HOLDEN H1024 (SX)	0.0	0.0	20000	24.4	3.8	0.9	4.8
LEWIS X62P (SX)	0.0	0.0	23700	9.9	5.3	1.5	4.5
LEWIS X78B (SX)	0.0	0.0	23200	0.9	15.1	0.7	4.1
LEWIS X64B (SX)	0.0	0.0	20800	1.8	13.4	2.6	4.7
MAYGOLD 2044 (3X)	0.0	0.0	21200	7.8	39.1	2.7	4.2
MAYGOLD L47 (SX)	0.0	0.0	22100	3.5	29.9	0.8	4.8
MAYGOLD 2058 (3X)	0.0	0.0	22800	11.3	23.9	0.0	4.0
MAYGOLD 29X (DX)**	0.0	0.0	22800	9.6	25.4	1.7	3.9
MFA TX33 (3X)	0.0	0.0	23200	0.0	21.0	1.5	4.3
MFA 3030 (DX)	0.0	0.0	23900	4.1	19.8	0.7	4.1
MFA V16 (SX)	0.0	0.0	21300	0.0	9.4	0.0	4.5
MFA EXP23108 (SPX)	0.0	0.0	22400	3.3	5.1	0.9	3.9
MFA K6 (SX) **	0.0	0.0	21900	1.6	16.5	0.0	4.3
MFA V12 (SX) **	0.0	0.0	22600	1.6	32.5	0.0	4.5
MOEWS SM622 (SX)	0.0	0.0	21300	8.1	45.7	0.0	4.1
MOEWS SM822W* (SX)	0.0	0.0	21900	55.1	6.9	0.9	5.2
MOEWS SM822 (SX)	0.0	0.0	21700	4.4	22.1	0.0	4.3
MUNCYCHIEF SX878(SX)	0.0	0.0	20600	20.7	22.1	0.0	4.2
MCALLISTERSX6837(SX)	0.0	0.0	22400	0.8	24.7	1.6	4.1
NC+ 85SX (SX)	0.0	0.0	23400	0.0	22.9	2.4	4.0
NC+ 77SX (SX)	0.0	0.0	20600	2.8	35.4	0.0	4.2
NK PX77 (SX)	0.0	0.0	22800	35.0	6.5	0.0	4.3
NK PX670 (3X)	0.0	0.0	22800	37.5	6.4	0.8	4.5
NK PX616 (3X) **	0.0	0.0	21900	2.5	36.4	0.8	4.0
OSGOLD SX550C (SX)**	0.0	0.0	21700	2.8	14.9	0.0	4.3
OSGOLD TX104 (3X)**	0.0	0.0	24300	0.0	30.6	1.4	3.8
PAG SX520 (SX) **	0.0	0.0	23900	14.6	9.9	0.0	4.2
PIONEER 3368 (MX)	0.0	0.0	22600	5.1	13.2	0.8	4.5
PIONEER 3301 (SX)	0.0	0.0	21700	2.7	8.3	0.0	4.2
PIONEER 3355 (3X)	0.0	0.0	22100	3.9	6.8	0.9	4.0
PIONEER 3195 (SX)	0.0	0.0	22400	9.6	10.7	0.0	4.6
PIONEER 3366 (SX)	0.0	0.0	22100	3.4	31.3	0.0	4.8
PIONEER 3369A (SX)	0.0	0.0	22300	10.3	19.8	0.0	4.5
PIONEER 3385 (MX)	0.0	0.0	23900	3.1	17.5	0.8	4.1

TABLE 9. (CONTINUED).

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP II MATURITY						
PIONEER 3219 (DX)**	0.0	0.0	23000	3.1	10.6	0.8	4.0
PIONEER 3306 (SX)	0.0	0.0	23400	4.1	17.8	0.8	4.5
TROJAN TX119A (3X)	0.0	0.0	20800	2.6	7.8	1.0	4.8
TROJAN TX117 (3X)	0.0	0.0	22300	2.5	14.6	0.0	3.9
TROJAN TXS113 (SX)**	0.0	0.0	22400	6.9	12.1	0.8	4.2
TROJAN TXS119 (SX)**	0.0	0.0	21700	0.0	12.6	1.7	4.5
TROJAN TX113 (3X)	0.0	0.0	23700	0.8	18.6	0.8	4.3
TROJAN TXS118 (SX)**	0.0	0.0	20800	0.0	12.7	0.0	4.4
VINTON V95 (DX)**	0.0	0.0	23000	2.4	25.5	0.8	4.0
US 13 (DX)	0.0	0.0	21900	3.6	41.8	0.9	4.3
	GROUP III MATURITY						
CARGILL 495 (3X)	0.0	0.0	21500	5.2	12.1	0.9	4.0
FUNK'S EXP2625(SPX)	0.0	0.0	22300	20.9	14.0	0.8	5.0
FUNK'S G5757 (DX) **	0.0	0.0	23900	22.8	7.7	3.0	4.2
FUNK'S G4737 (SX)	0.0	0.0	22100	0.0	27.6	0.0	3.7
SUPERCROST 8282 (SX)	0.0	0.0	20800	8.6	9.0	1.7	4.0
MAYGOLD L50 (SX)	0.0	0.0	20000	2.6	17.9	0.8	4.2
MCCURDY MSX88 (SX)	0.0	0.0	22600	0.0	6.6	1.6	4.5
NK KT680 (DX)**	0.0	0.0	18000	3.9	10.9	0.0	4.7
PIONEER 3149 (SX)	0.0	0.0	22400	19.6	11.3	0.0	4.8
PIONEER 3147 (MX)	0.0	0.0	21900	11.0	19.3	0.8	5.0
AVERAGE	0.0	0.0	22191	6.4	19.0	0.8	4.3

*WHITE HYBRID
**WIDELY GROWN HYBRIDS.

TABLE 10. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 2 NEAR SPICKARD, MO. (GRUNDY COUNTY -- HIGH POPULATION TEST) DURING THE 2-YEAR PERIOD 1971-72 AND THE 3-YEAR PERIOD 1970-72. NO HARVEST IN 1973 DUE TO SEVERE LODGING.

	2-YEAR AVERAGE					3-YEAR AVERAGE				
BRAND--HYBRID	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 1 MATURITY					
PIONEER 3390 (SPX)	119.0	0.0	21.5	0.0	4.2	114.5	1.9	30.2	0.9	4.2
PIONEER 3381 (3X)	115.4	0.0	8.2	0.4	3.7	-	-	-	-	-
					GROUP 2 MATURITY					
ASGROW RX100 (SX)	146.7	0.4	7.9	0.4	4.1	-	-	-	-	-
ASGROW RX99 (SX)	116.4	0.0	12.3	0.0	4.0	-	-	-	-	-
BO-JAC X7L (SX)	146.0	0.0	4.4	0.2	4.0	140.4	0.0	24.2	1.2	4.0
BO-JAC X1A (SX)	143.9	0.0	4.4	0.0	4.2	-	-	-	-	-
COOP S-304 (SX)	116.9	0.0	5.2	0.0	4.1	118.8	1.2	5.3	0.0	4.1
MFA V-12 (SX)	113.9	0.0	12.8	0.0	4.3	121.1	0.6	9.5	0.6	4.3
MCALLISTERSX6837(SX)	137.9	0.0	6.2	0.0	3.6	132.1	0.0	13.1	0.5	3.7
MCALLISTERSX7001(SX)	125.6	0.0	12.7	0.0	4.1	-	-	-	-	-
MCCURDY MSP999 (3X)	126.3	0.0	3.8	0.0	4.0	118.2	0.6	13.2	1.0	4.0
NC+ 85SX (SX)	135.2	0.0	4.5	0.2	4.0	-	-	-	-	-
NC+ 77SX (SX)	111.6	0.0	14.5	0.0	4.2	111.6	1.4	11.2	0.3	4.3
O'S GOLD SX5500 (SX)	140.4	0.0	4.5	0.0	4.1	132.4	0.2	17.5	1.1	4.1
PIONEER 3222 (DX)	132.8	0.0	7.6	0.2	4.3	129.8	5.4	15.8	0.6	4.4
PIONEER 3340 (3X)	129.6	0.0	6.5	0.0	3.9	-	-	-	-	-
PIONEER 3369A (SX)	140.7	0.0	8.6	0.2	4.4	133.2	2.2	20.4	0.3	4.4
PIONEER 3199 (SPX)	124.6	0.0	4.0	0.2	4.5	125.6	2.1	7.9	0.7	4.6
PIONEER 3306 (SX)	118.3	0.2	3.1	0.4	4.3	115.3	3.0	11.6	0.8	4.4
TROJAN TXS 119 (SX)	135.1	0.0	8.5	0.2	4.3	127.5	0.2	15.5	1.4	4.2
US 13 (DX)	116.2	0.0	11.2	0.4	4.7	-	-	-	-	-
					GROUP 3 MATURITY					
MCCURDY MSX88 (SX)	133.3	0.0	7.9	0.0	4.0	127.0	0.0	13.4	0.4	4.0
PIONEER 3149 (SPX)	149.0	0.0	1.5	0.0	4.3	140.6	7.3	2.4	0.5	4.4
AVERAGE	129.4	0.0	7.9	0.1	4.1	125.9	1.7	14.1	0.7	4.2

*WHITE HYBRID.

DISTRICT 3

Data on the performance of hybrids evaluated at this location are presented in Tables 11 and 12. The cultural practices are summarized in Table 4.

This site was characterized by favorable rainfall distribution throughout most of the growing season. Two dry periods were in evidence (May 8 to May 23 and August 11 to September 1), but neither was at a time critical to achievement of good yields. In fact, the first one was welcome since this was the first time that the soil became dry enough to work the fields.

Yields were probably affected by poor stands in some hybrids. Where we considered the stand poor enough to significantly influence the final yield, the data are not presented for that hybrid. The average stand loss for hybrids exceeded the 15% allowance made at planting time by 4.5%. The average stand was 15,000 plants/acre. The average yield from this stand was 129 bushels/acre, which was down from the 140 bushel average obtained in 1972.

Weeds were not a factor in determining yield in 1973.

TABLE 11. 1973 PERFORMANCE RECORD FOR HYBRIDS TESTED IN DISTRICT 3, NEAR EDINA, MISSOURI IN KNOX COUNTY. PLANTED MAY 15, 1973. HARVESTED OCTOBER 18-19, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP I MATURITY						
BEAR T495	***	25.3	15000	0.0	5.8	0.0	4.2
CARGILL 422 (3X)**	127.5	23.3	15000	0.0	10.5	3.7	4.2
CARGILL 880 (SX)**	118.8	24.0	15000	0.0	6.0	6.4	4.0
FUNK'S G4465 (SPX)	125.4	25.4	15600	0.0	5.3	5.3	4.0
MORTON 5200 (3X)**	141.4	23.6	16000	0.0	1.7	1.7	4.3
MCCURDY MSX55 (SX)	146.9	22.5	15400	0.0	6.7	4.4	4.2
PIONEER 3390 (MX) **	133.1	24.3	17000	0.0	2.9	0.6	4.2
PIONEER 3432 (DX)	123.7	23.7	16200	0.0	3.9	0.6	4.2
PIONEER 3388 (MX) **	141.9	25.7	15900	0.0	5.8	1.1	3.5
PIONEER 3517 (MX)	133.8	25.7	14100	0.0	3.6	1.9	4.0
	GROUP II MATURITY						
ACCO UC 8801 (SX)	122.5	25.0	14600	0.0	10.1	4.5	4.2
ACCO UC 8601 (SX)	***	27.4	13400	0.0	13.5	8.1	4.5
ACCO U392 (3X)	135.2	26.1	16100	0.0	7.2	1.7	4.2
ASGROW RX99A (SPX)	122.2	28.1	16100	0.0	8.9	2.3	4.3
ASGROW RX92 (SX)	119.1	26.3	16100	0.0	6.3	2.9	4.5
ASGROW RX100 (SX)	131.5	27.1	16100	0.0	4.6	1.8	4.0
BEAR T647	133.7	26.7	16300	0.0	14.6	3.3	4.5
BO-JAC X62 (SPX)	116.0	24.8	14400	0.0	5.1	6.0	4.3
BO-JAC X91 (SPX)	122.4	29.9	16100	0.0	6.0	3.3	4.0
BO-JAC X1A (SX)	105.4	24.7	14900	0.0	3.1	6.3	4.2
BO-JAC X7L (SX)	129.4	27.0	15900	0.0	7.1	2.4	4.2
CARGILL 979 (SX)	***	27.3	14000	0.0	8.4	0.9	4.0
COOP S-318 (SX)	140.9	27.9	15700	0.0	1.8	3.5	4.2
DEKALB XL81 (SX)**	117.4	25.8	14600	0.0	4.7	5.1	4.2
DEKALB XL66 (SX)**	119.9	24.7	16300	0.0	4.1	2.2	3.8
FUNK'S G4628 (SX)	126.7	28.6	14000	0.0	6.3	7.3	4.0
FUNK'S G4646 (SPX)	139.2	24.1	16000	0.0	5.7	2.3	4.2
FUNK'S EXP2650 3 (SX)	158.4	24.0	15800	0.0	5.8	1.1	4.2
FUNK'S G4697 (SPX)**	128.6	26.3	14100	0.0	9.6	3.7	4.3
FRONTIER CX37 (SX)	126.9	25.1	14200	0.0	5.1	1.3	4.3
SUPERCROST S85 (SX)	135.7	27.4	14200	0.0	2.6	2.6	4.0
HAPPELS MS-72 (SX)	129.3	27.7	14900	0.0	7.4	8.0	4.0
HAPPELS 3361 (3X)	118.3	23.9	14400	0.0	3.8	5.7	4.0
HAPPELS H-37 (3X)	118.8	25.9	13800	0.0	6.2	2.7	4.2
IA-MO. SX18 (SX)	141.1	28.1	14500	0.0	5.1	4.4	4.0
IA-MO. SX17 (SX)	132.0	25.8	15000	0.0	2.4	3.7	4.3
IA-MO. SX30 (SX)	124.8	24.8	14900	0.0	2.4	4.4	4.2
IA-MO. SX37 (SX)	135.8	27.8	15400	0.0	5.0	0.6	4.3
LEWIS X84P (SX)	111.5	26.3	14200	0.0	9.5	6.8	4.5
LEWIS X62P (SX)	141.8	23.8	15500	0.0	1.9	3.5	4.5
LEWIS 701P (3X)	***	23.9	12900	0.0	7.6	3.1	4.2
LEWIS X78B (SX)	136.3	29.6	15400	0.0	5.8	3.6	4.2
MAYGOLD 2058 (3X)	103.2	26.0	17000	0.0	6.4	5.3	4.3
MAYGOLD L47 (SX)	134.1	25.2	16100	0.0	9.1	0.6	4.3
MAYGOLD 2044 (3X)	130.0	26.7	16100	0.0	6.0	3.5	4.3
MFA TX33 (3X)	146.0	25.1	16900	0.0	0.6	2.0	4.2
MFA EXP23108 (SPX)	***	25.2	13500	0.0	7.1	0.5	4.2
MFA 3030 (DX)	120.2	27.8	16200	0.0	6.2	4.4	4.2
MFA V16 (SX)	138.6	27.3	15600	0.0	7.3	2.3	4.0
MFA V12 (SX)**	***	25.5	12200	0.0	5.1	2.2	4.3
MORTON 67CC (SX)	129.9	28.6	14100	0.0	6.1	1.3	4.2
MORTON 57C0 (SX) **	113.8	26.1	16600	0.0	3.3	0.6	4.3
MORTON 64GC (3X) **	136.2	25.9	16500	0.0	9.7	4.5	4.5
MORTON 49C1 (SX)	145.5	28.3	15700	0.0	7.6	2.3	4.5
MCALLISTERSX7176(SX)	133.0	26.6	15500	0.0	13.0	2.3	4.7
MCALLISTERSX7207(SX)	149.8	24.5	15600	0.0	2.1	2.7	4.2
MCALLISTERSX6837(SX)	159.0	27.8	15400	0.0	5.1	1.1	4.2
MCCURDY 72-25 (SX)	125.3	26.6	14700	0.0	5.8	2.9	4.0

TABLE 11. (CONTINUED).

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP II MATURITY						
MCCURDY MSX87 (SX)	136.7	25.2	16200	0.0	3.4	3.4	4.0
MCNAIR X210 (SX)	120.5	17.8	13000	0.0	8.0	0.0	4.2
MCNAIR X190 (SX)	136.5	28.0	15500	0.0	4.6	4.1	4.2
MCNAIR X214 (SX)	123.4	26.9	14900	0.0	4.5	1.7	4.5
MCNAIR X170 (SX)	126.1	25.3	15400	0.0	3.8	1.7	4.3
MCNAIR X180 (SX)	132.4	26.0	14600	0.0	2.5	2.4	4.2
NC+ 77SX (SX)	139.1	25.6	16100	0.0	3.9	1.7	4.2
OSGOLD SX550C (SX)	136.1	28.0	17000	0.0	5.7	7.4	4.0
OSGOLD TX105A (3X)	118.6	25.6	14900	0.0	3.1	1.9	4.0
PAG SX98 (SX) **	129.8	28.7	14700	0.0	7.1	1.8	4.2
PAG SX39 (SX)	144.2	26.7	17400	0.0	8.8	3.7	4.5
PAULSMEYER SX300(SX)	***	24.8	11600	0.0	4.9	2.2	4.2
PIONEER 3366 (SX)	126.8	25.1	14400	0.0	7.9	2.6	4.0
PIONEER 3355 (3X)	136.1	25.6	14700	0.0	4.8	1.3	4.3
PIONEER 3368 (MX)	114.5	26.3	15700	0.0	3.4	7.4	4.3
PIONEER 3195 (SX)	161.6	25.2	16000	0.0	8.2	3.0	4.5
PIONEER 3385 (MX)	132.7	25.1	15500	0.0	4.0	2.3	4.2
PIONEER 3219 (DX)	138.9	25.6	15200	0.0	6.3	1.8	4.3
PIONEER 3369A (SX)**	155.4	25.5	17200	0.0	6.9	3.3	4.3
PIONEER 3301 (SX)	145.7	25.1	15500	0.0	4.1	2.3	4.0
PIONEER 3306 (SX)	146.8	24.4	15800	0.0	7.4	0.5	4.3
STULL 707 (SX)	127.7	24.4	15000	0.0	5.0	1.6	4.0
STULL EXP8092 (SX)	124.2	27.5	15100	0.0	5.5	4.4	4.0
STULL 720 (SX)	***	25.8	12900	0.0	8.5	2.8	4.3
TROJAN TX117 (3X)	117.5	27.6	13400	0.0	9.1	1.3	4.0
TROJAN TXS119 (SX)	128.1	27.4	15500	0.0	6.2	4.1	4.2
TROJAN TXS124 (SX)	148.5	25.6	14500	0.0	10.2	3.4	4.3
TROJAN TX119A (3X)	121.5	26.1	15000	0.0	10.4	4.4	4.5
TROJAN TX113 (3X)	***	25.2	13200	0.0	5.8	2.9	4.0
TROJAN TXS113 (SX)	148.0	25.6	15700	0.0	4.1	3.2	4.2
H93XMG17 (SX)	139.5	24.8	15100	0.0	8.7	1.9	4.2
US 13 (DX)	113.1	23.9	16500	0.0	17.9	3.8	4.5
	GROUP III MATURITY						
CARGILL 495 (3X)	121.9	26.2	15300	0.0	4.3	2.4	4.0
COOP S-304 (SX)	***	26.3	11800	0.0	3.8	2.3	4.0
FUNK'S EXP262C5(SPX)	109.2	30.0	14100	0.0	10.1	4.1	4.3
FUNK'S G5757 (DX)**	139.3	27.7	15700	0.0	7.5	1.7	4.3
FUNK'S G4737 (SX)	148.2	27.1	14900	0.0	7.1	0.8	3.8
FRONTIER SX255 (SX)	131.0	27.9	14800	0.0	3.7	3.8	4.0
SUPERCROST 8282 (SX)	127.1	27.1	13400	0.0	1.4	0.0	3.8
MAYGOLD L50 (SX)	133.0	27.6	15400	0.0	14.4	4.0	4.0
MCCURDY MSX88 (SX)	129.3	28.7	16500	0.0	5.0	3.3	4.2
PIONEER 3149 (SX)	124.7	29.5	14400	0.0	13.0	2.0	4.3
PIONEER 3147 (MX)	140.0	28.8	14200	0.0	12.4	1.7	4.7
STULL 877 (SX)	109.4	27.3	13200	0.0	10.3	3.5	4.0
STULL 850W* (SX)	121.3	27.0	15700	0.0	13.2	2.8	4.3
STULL EXP8233 (3X)	121.8	26.1	15700	0.0	2.6	6.8	4.2
STULL 560W* (3X)	98.9	27.8	15300	0.0	16.9	5.3	4.8
STULL 809A (3X)	116.9	26.6	14800	0.0	7.3	2.6	4.5
STULL 809 (SX)	127.4	27.3	14300	0.0	10.8	0.6	4.2
STULL 555W* (DX)	***	28.2	12900	0.0	8.7	4.3	4.7
FARMERS 3883XL (3X)	121.3	27.3	15300	0.0	8.3	4.8	4.0
FARMERS 4589XL (SX)	120.6	27.2	15200	0.0	5.6	4.9	4.0
AVERAGE	129.1	26.2	15081	0.0	6.6	3.0	4.2

LSD AT 5% LEVEL IS 23.0 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 19 OF 20 TIMES GROWN.
LSD AT 20% LEVEL IS 15.0 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 16 OF 20 TIMES GROWN.
*WHITE HYBRID
**WIDELY GROWN HYBRIDS.
*** YIELD NOT REPORTED DUE TO ERRATIC STAND.

TABLE 12. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 3 NEAR EDINA, MISSOURI (KNOX COUNTY) DURING THE 2-YEAR PERIOD 1972-73 AND THE 3-YEAR PERIOD 1971-72.

BRAND--HYBRID	2-YEAR AVERAGE					3-YEAR AVERAGE				
	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 1 MATURITY					
CARGILL 422 (3X)	122.8	0.0	6.8	2.2	4.2	-	-	-	-	-
CARGILL 880 (SX)	129.6	0.0	8.0	4.2	4.1	-	-	-	-	-
PIONEER 3390 (MX)	135.9	0.0	7.0	1.4	4.2	124.4	0.0	6.6	1.5	4.1
					GROUP 2 MATURITY					
ACCO U392 (3X)	136.2	0.0	6.3	0.9	3.8	-	-	-	-	-
BO-JAC X1A (SX)	125.7	0.0	4.7	3.1	4.2	124.1	0.0	3.6	2.9	4.1
BO-JAC X7L (SX)	136.8	0.0	5.5	2.3	4.1	-	-	-	-	-
DEKALB XL81 (SX)	124.6	0.0	3.4	2.9	4.0	-	-	-	-	-
DEKALB XL66 (SX)	131.6	0.0	4.8	1.1	3.7	-	-	-	-	-
HAPPELS MS-72 (SX)	138.8	0.0	10.2	4.0	4.0	-	-	-	-	-
HAPPELS 3361 (3X)	120.8	0.0	5.4	2.9	3.9	-	-	-	-	-
IA-MO. SX18 (SX)	141.9	0.0	5.8	2.2	4.0	-	-	-	-	-
IA-MO. SX17 (SX)	143.3	0.0	3.5	2.3	4.2	-	-	-	-	-
IA-MO. SX37 (SX)	146.8	0.0	4.4	0.7	4.3	-	-	-	-	-
LEWIS X78R (SX)	145.7	0.0	6.3	1.8	4.1	-	-	-	-	-
MAYGOLD 2058 (3X)	111.4	0.0	6.9	3.8	4.0	-	-	-	-	-
MAYGOLD L47 (SX)	136.5	0.0	6.6	0.3	4.2	-	-	-	-	-
MAYGOLD 2044 (3X)	142.5	0.0	4.8	2.1	4.4	-	-	-	-	-
MFA TX33 (3X)	130.7	0.0	1.9	1.4	4.2	-	-	-	-	-
MFA V16 (SX)	146.2	0.0	7.0	1.1	4.1	-	-	-	-	-
MORTON 6700 (SX)	134.7	0.0	6.2	0.7	4.0	-	-	-	-	-
MORTON 4901 (SX)	141.4	0.0	8.1	1.6	4.4	-	-	-	-	-
MCALLISTERSX7176(SX)	143.3	0.0	8.8	1.2	4.5	-	-	-	-	-
MCALLISTERSX6837(SX)	159.8	0.0	5.4	0.6	4.1	151.0	0.0	5.9	2.4	4.0
OSGOLD SX5500 (SX)	144.0	0.0	4.7	3.7	3.9	-	-	-	-	-
PAG SX98 (SX)	135.8	0.0	6.9	0.9	4.0	-	-	-	-	-
PIONEER 3368 (MX)	130.3	0.0	2.8	4.0	4.0	-	-	-	-	-
PIONEER 3385 (MX)	138.9	0.0	3.8	1.1	4.2	-	-	-	-	-
PIONEER 3219 (DX)	132.4	0.0	5.6	0.9	4.2	-	-	-	-	-
PIONEER 3369A (SX)	144.4	0.0	3.8	1.7	4.2	131.7	0.0	8.3	2.6	4.2
PIONEER 3306 (SX)	143.6	0.0	5.2	0.6	4.2	130.2	0.0	4.8	2.3	4.2
STULL 707 (SX)	133.5	0.0	5.1	0.8	4.1	-	-	-	-	-
TROJAN TXS119 (SX)	142.5	0.0	5.7	2.8	4.1	133.6	0.0	6.7	2.5	3.9
TROJAN TXS113 (SX)	157.7	0.0	2.8	1.6	4.2	-	-	-	-	-
H93XM017 (SX)	146.9	0.0	6.3	1.0	4.2	-	-	-	-	-
US 13 (DX)	123.9	0.0	18.1	3.0	4.6	105.2	0.0	21.4	3.9	4.5
					GROUP 3 MATURITY					
FUNK'S G5757 (DX)	135.7	0.0	3.8	1.2	4.4	-	-	-	-	-
MCCURDY MSX88 (SX)	139.7	0.0	4.9	2.1	4.1	133.3	0.0	5.4	1.4	4.1
PIONEER 3149 (SX)	144.6	0.0	9.0	1.4	4.0	138.5	0.0	9.9	1.5	4.0
PIONEER 3147 (MX)	150.0	0.0	10.6	0.9	4.8	-	-	-	-	-
AVERAGE	137.7	0.0	6.0	1.9	4.2	127.8	0.0	8.1	2.3	4.1

*WHITE HYBRID.

DISTRICT 4

The performance of hybrids evaluated in District 4 is presented in Tables 13 and 14.

An average of 120 bushels/acre was harvested from an average stand of 16,900 plants. One hundred hybrids were evaluated. Yields ranged from 82 to 143 bushels/acre, thus reemphasizing the wide diversity in yielding ability of hybrids grown under uniform conditions.

The average percent emergence fell within the 15% over-planting allowance made at planting time. Individual stand loss for the various hybrids ranged from 25.3 to 10%.

Rainfall for the May 1 through September 15 period was above normal; however, the distribution was not good for the full season since two dry periods occurred. The last one lasted from July 29 through September 8 (Table 1). The temperature was below normal during this same period.

Stalk lodging was significant with an average of 15.6% over all hybrids. The individual hybrids ranged from a low of 3.7 to a high of 49.1%. Root lodging averaged 4.4% over all hybrids. Dropped ears ranged as high as 7.7% for some hybrids.

Weeds were a problem during the first half of the growing season, but were eliminated with a supplemental application of herbicide (Lorox) at the rate of 1.6 pounds of active ingredient per acre (back-pack sprayers used). The extent to which these weeds may have reduced the final yield cannot be estimated, but some reduction probably occurred.

TABLE 13. 1973 PERFORMANCE RECORD FOR HYBRIDS TESTED IN DISTRICT 4, NEAR HIGGINSVILLE, MISSOURI IN LAFAYETTE COUNTY. PLANTED MAY 14, 1973. HARVESTED NOVEMBER 7-8, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP I MATURITY						
BEAR T495	97.9	18.6	17700	1.5	33.0	1.0	3.5
CARGILL 880 (SX)**	99.8	19.2	18300	0.0	31.6	2.0	3.3
CARGILL 422 (3X)**	101.6	18.9	16500	0.5	24.2	1.1	3.5
FUNK'S G4465 (SPX)	110.8	18.7	17000	4.3	19.8	1.7	3.7
PAG SX7 (SX)**	115.7	18.6	17500	1.7	17.4	1.6	3.3
PIONEER 3388 (MX)**	100.6	19.7	15200	7.6	8.9	0.5	3.8
PIONEER 339C (MX)**	113.0	19.1	17400	1.6	12.7	2.1	3.8
PIONEER 3517 (MX)	125.1	19.1	17000	1.8	3.7	0.0	3.5
PIONEER 3432 (DX)	117.3	18.4	17700	3.6	8.3	1.0	3.7
	GROUP II MATURITY						
ACCO UC 8801 (SX)	107.3	19.8	15300	4.8	18.4	4.0	3.8
ACCO U392 (3X)	119.7	19.8	17000	5.3	23.2	2.7	3.7
ACCO UC 8601 (SX)	107.9	19.7	16800	4.4	43.1	2.8	3.8
ASGROW RX92 (SX)**	112.9	18.3	16500	1.0	21.7	0.5	3.5
ASGROW RX100 (SX)	125.2	20.5	16700	0.0	14.4	0.6	3.7
ASGROW RX99A (SPX)	132.8	20.7	16500	1.1	7.8	0.0	3.8
BEAR T647	130.4	19.5	18300	7.5	36.4	2.0	4.0
BO-JAC X62 (SPX)	102.2	18.8	15500	10.6	15.6	1.3	3.7
BO-JAC X7L (SX)	141.2	20.0	16700	0.0	8.9	0.5	3.5
BO-JAC X91 (SPX)	129.3	20.4	17500	3.7	4.8	2.6	3.7
BO-JAC X9722 (SPX)	121.7	24.4	15800	6.5	13.8	0.6	3.8
BO-JAC X83(SX)	132.3	19.5	17000	7.1	12.9	6.0	3.8
CARGILL 979 (SX)	116.2	20.8	14300	0.0	4.5	0.6	3.7
CARGILL 940 (SX)	110.6	18.7	17500	6.8	23.2	3.1	3.5
CARGILL 930 (SX)	109.0	18.5	16300	1.7	7.3	1.1	3.5
COOP S-318 (SX)	134.5	19.7	16500	1.6	6.3	1.1	3.7
DEKALB XL66 (SX)**	119.2	19.1	17800	4.1	14.6	1.1	3.5
DEKALB XL81 (SX)**	115.2	19.3	17700	1.0	14.6	1.6	3.7
DEKALB XL347 (3X)**	109.6	19.1	18000	2.1	16.2	2.0	3.5
FUNK'S EXP2650B (SX)	126.9	19.0	16400	9.5	10.8	1.2	4.0
FUNK'S G4628 (SX)	133.3	20.7	17800	2.0	6.8	2.1	4.0
FUNK'S G4554W* (3X)	82.0	19.9	15400	7.2	29.9	7.7	4.2
FUNK'S G4646 (SPX)	120.3	18.9	17000	6.5	17.4	1.1	3.5
FUNK'S G4697 (SPX)**	112.8	19.5	17300	2.6	27.5	1.6	3.7
FUNK'S G-4810 (SX)	101.4	20.7	16200	10.5	13.9	2.0	4.0
FUNK'S G4538W* (SX)	101.0	19.7	16600	5.7	18.8	1.2	3.7
SUPERCROST S85 (SX)**	111.7	20.5	15300	4.8	7.1	2.9	3.7
HAPPELS H-37 (3X)	124.9	19.5	15500	1.8	10.0	1.8	3.8
HAPPELS 3361 (3X)	118.7	18.9	16700	6.0	17.5	1.6	4.0
HAPPELS MS-72 (SX)	131.7	20.8	17600	6.3	9.4	2.6	3.8
LEWIS X78B (SX)	139.6	20.0	18000	2.0	7.5	2.5	3.7
LEWIS X62B (SX)	143.8	18.5	17400	1.0	8.6	0.5	4.0
MAYGOLD L47 (SX)	102.4	18.9	15400	8.5	21.0	2.4	3.7
MAYGOLD 2058 (3X)	117.2	19.4	17500	9.5	24.2	1.1	3.7
MAYGOLD 2044 (3X)	105.7	20.0	17600	9.1	20.4	3.8	3.5
MFA V12 (SX)**	109.6	19.0	16000	1.8	13.4	0.0	3.7
MFA V16 (SX)	139.2	20.0	17700	3.1	9.4	3.6	4.0
MFA TX33 (3X)	128.3	19.0	16600	8.7	12.0	2.7	3.8
MFA EXP23108 (SPX)	122.2	19.2	17000	4.2	15.6	0.5	3.3
MFA 3030 (DX)	125.4	20.7	17100	3.6	16.1	4.3	3.7
MOEWS SM822 (SX)	122.5	20.4	16600	2.1	14.2	1.7	4.0
MOEWS SM822W* (SX)	102.9	20.7	13900	4.8	16.1	0.8	4.2
MOEWS SM622 (SX)	112.9	21.1	16100	4.4	37.3	2.8	3.5
MORTON 6400 (3X)**	127.1	20.1	18300	2.6	22.7	2.1	4.0
MCALLISTERSX7207(SX)	123.6	19.0	17700	1.7	20.3	0.0	3.3
MCALLISTERSX6837(SX)	148.5	20.2	17500	2.6	4.8	1.6	3.7
MCCURDY MSP999 (3X)	133.3	19.5	18100	6.1	8.6	1.5	3.8
MCCURDY MSP88E (3X)	137.2	19.6	17700	4.6	8.3	1.6	3.5
MCCURDY 72-28 (SX)	117.5	29.4	16800	7.0	8.1	2.7	3.8
MCCURDY MSX88E (SX)	122.2	19.5	16700	6.7	11.4	2.2	3.5

TABLE 13. (CONTINUED).

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP II MATURITY						
MCCURDY MSX85 (SX)	131.1	18.9	17500	15.4	6.1	0.5	4.0
OSGOLD SX5500 (SX)	138.2	20.8	16700	1.1	4.9	0.6	3.7
PAG SX98 (SX)**	142.9	20.3	16700	2.7	7.1	3.2	4.0
PAG SX39 (SX)	111.6	19.9	17900	7.2	21.0	1.6	4.0
PAG SX83 (SX)**	134.9	18.8	16900	5.4	7.1	1.1	4.0
PIONEER 3195 (SX)	134.5	18.9	17500	0.5	11.2	0.5	3.8
PIONEER 3368 (MX)	139.1	19.9	18600	1.5	14.4	0.5	4.0
PIONEER 3366 (SX)	127.9	18.8	17200	1.0	3.7	0.0	3.7
PIONEER 3306 (SX)	127.2	18.9	17700	3.1	17.8	0.5	3.7
PIONEER 3355 (3X)	131.2	18.9	17700	0.5	12.0	2.1	3.5
PIONEER 3369A (SX)**	141.0	19.2	18100	2.1	17.4	1.0	4.0
PIONEER 3219 (DX)	136.1	12.8	18000	1.9	18.6	1.1	2.5
PIONEER 3385 (MX)	127.3	19.1	17400	3.1	7.4	0.0	3.8
PIONEER 3301 (SX)	123.7	19.2	16200	1.2	15.3	0.0	3.7
STULL 707 (SX)	115.6	19.1	17200	2.7	21.3	0.0	3.3
STULL EXP8092 (SX)	119.0	20.6	17900	5.2	21.1	2.1	3.5
STULL 720 (SX)	106.0	20.2	16900	4.4	14.1	1.0	3.8
TROJAN TXS113 (SX)	123.3	19.2	16500	3.9	16.7	0.6	3.5
TROJAN TX117 (3X)	118.5	20.3	17800	5.9	25.8	0.0	3.5
TROJAN TX119A (3X)	122.4	19.1	16500	4.3	9.9	2.7	3.7
TROJAN TXS124 (SX)	127.6	19.3	17100	0.5	16.7	2.7	3.8
TROJAN TX113 (3X)	116.8	19.3	17500	4.6	19.9	1.1	3.5
TROJAN TXS119 (SX)	135.8	20.0	17100	7.4	8.5	1.1	3.7
H93XM017 (SX)	132.6	19.0	17300	4.9	5.7	1.0	4.0
VA26XMC17HT (SX)	118.4	19.2	17400	11.0	11.6	4.7	3.7
NEBRASKA 620 (SPX)	126.9	18.8	17000	7.2	12.7	3.5	3.5
NEBRASKA 611 (SX)	109.0	18.9	15800	10.9	13.2	1.3	4.0
US 13 (DX)	109.8	19.6	17100	5.7	49.1	1.8	4.0
	GROUP III MATURITY						
CARGILL 495 (3X)	131.8	20.0	16900	6.4	14.0	0.5	3.8
COOP D-320 (DX)	113.1	19.4	16900	1.6	14.2	2.1	3.7
FUNK'S G5757 (DX)**	101.0	20.6	14800	10.3	21.0	3.6	4.0
FUNK'S G4737 (SX)	123.4	19.7	15800	1.9	15.5	1.7	3.5
FUNK'S EXP26205(SPX)	87.1	21.4	17400	7.2	24.0	2.7	3.7
FUNK'S G4808 (SX)	91.0	21.6	14500	9.7	4.4	0.7	3.8
MAYGOLD L50 (SX)	128.3	20.8	17500	4.8	10.5	2.6	4.0
MCCURDY MSX88 (SX)	127.2	20.8	16400	4.6	5.5	1.0	3.8
MCCURDY 9C8W* (4X)	97.2	21.0	17900	4.6	22.6	1.0	4.3
PIONEER 3149 (SX)	130.0	21.0	18200	1.0	13.7	0.5	3.8
PIONEER 3147 (MX)	125.4	20.4	17500	2.7	14.8	1.1	4.2
STULL 809A (3X)	105.1	20.1	16000	3.2	20.1	2.2	3.8
STULL 809 (SX)	116.1	20.4	16800	2.7	28.7	0.5	4.0
AVERAGE	120.1	19.7	16933	4.4	15.6	1.7	3.7

LSD AT 5% LEVEL IS 15.1 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 19 OF 20 TIMES GROWN.
LSD AT 20% LEVEL IS 9.7 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 16 OF 20 TIMES GROWN.
*WHITE HYBRID
**WIDELY GROWN HYBRIDS.

TABLE 14. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 4 NEAR CONCORDIA (1971-72) AND HIGGINSVILE (1973) IN LAFAYETTE COUNTY DURING THE 2-YEAR PERIOD 1972-73 AND THE 3-YEAR PERIOD 1971-73.

BRAND--HYBRID	2-YEAR AVERAGE					3-YEAR AVERAGE				
	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 1 MATURITY					
CARGILL 880 (SX)	103.4	0.0	19.3	1.0	3.3	-	-	-	-	-
CARGILL 422 (3X)	109.8	0.3	16.9	0.5	3.6	-	-	-	-	-
PIONEER 3390 (MX)	112.7	0.8	11.9	1.1	3.7	114.5	0.5	8.8	0.7	3.9
					GROUP 2 MATURITY					
ACCO U392 (3X)	115.0	2.7	15.7	1.3	3.6	-	-	-	-	-
ACCO UC 8601 (SX)	107.6	2.2	35.0	2.0	3.8	-	-	-	-	-
ASGROW RX92 (SX)	110.1	0.5	13.7	0.3	3.5	-	-	-	-	-
ASGROW RX100 (SX)	122.6	0.0	16.4	0.3	3.5	121.5	0.0	14.2	0.4	3.8
BO-JAC X7L (SX)	133.6	0.0	4.5	0.3	3.6	134.9	0.0	5.1	0.4	4.0
BO-JAC X91 (SPX)	125.9	1.9	3.8	1.3	3.6	-	-	-	-	-
DEKALB XL66 (SX)	108.1	2.1	13.1	1.3	3.4	-	-	-	-	-
DEKALB XL81 (SX)	109.6	0.5	11.6	1.5	3.6	-	-	-	-	-
FUNK'S G4697 (SPX)	107.6	1.3	15.3	0.8	3.8	-	-	-	-	-
LEWIS X78B (SX)	126.1	1.0	3.8	1.2	3.6	-	-	-	-	-
MAYGOLD L47 (SX)	99.0	4.2	14.4	1.2	3.5	-	-	-	-	-
MAYGOLD 2058 (3X)	114.2	4.8	14.8	1.9	3.6	-	-	-	-	-
MAYGOLD 2044 (3X)	103.9	4.5	10.2	2.6	3.6	-	-	-	-	-
MFA V12 (SX)	103.9	0.9	13.2	0.0	3.7	110.3	0.6	9.3	0.6	4.0
MFA V16 (SX)	131.7	1.6	5.4	2.5	3.6	-	-	-	-	-
MFA TX33 (3X)	106.1	4.3	6.9	1.3	3.8	-	-	-	-	-
MCCURDY MSP899 (3X)	126.6	3.1	7.5	1.3	3.8	121.6	2.0	6.8	1.7	4.0
MCCURDY MSP888 (3X)	128.4	2.3	9.4	1.6	3.6	-	-	-	-	-
MCCURDY MSX88E (SX)	126.8	3.3	10.8	1.1	3.6	-	-	-	-	-
MCCURDY MSX85 (SX)	131.4	7.7	5.6	0.9	3.8	-	-	-	-	-
OSGOLD SX550C (SX)	129.3	0.5	5.2	0.3	3.6	-	-	-	-	-
PAG SX98 (SX)	130.2	1.3	4.2	2.3	3.8	-	-	-	-	-
PAG SX39 (SX)	110.9	3.6	19.0	0.8	3.8	-	-	-	-	-
PIONEER 3368 (MX)	127.1	0.8	7.2	3.8	3.8	-	-	-	-	-
PIONEER 3306 (SX)	127.7	1.5	14.7	0.9	3.7	130.2	1.0	15.9	1.2	4.1
PIONEER 3369A (SX)	134.6	1.0	11.4	0.5	3.9	142.1	0.7	9.2	0.3	4.0
PIONEER 3219 (DX)	125.9	0.9	17.6	0.5	3.0	-	-	-	-	-
PIONEER 3385 (MX)	122.0	1.6	6.9	0.0	3.9	-	-	-	-	-
STULL 707 (SX)	111.9	1.3	21.6	0.7	3.2	-	-	-	-	-
TROJAN TXS113 (SX)	120.5	2.0	13.8	1.0	3.6	-	-	-	-	-
TROJAN TXS119 (SX)	130.8	3.7	4.3	0.5	3.5	-	-	-	-	-
H93XM017 (SX)	130.9	2.4	4.7	0.5	3.9	-	-	-	-	-
US 13 (DX)	107.1	2.9	44.4	0.9	4.0	108.2	1.9	32.3	1.5	4.3
					GROUP 3 MATURITY					
FUNK'S G5757 (DX)	109.6	5.1	14.4	2.5	4.0	-	-	-	-	-
MCCURDY MSX88 (SX)	117.3	2.3	2.8	0.5	3.7	124.6	1.5	3.4	0.6	4.0
MCCURDY 908W* (4X)	102.8	2.3	16.0	0.5	4.4	-	-	-	-	-
PIONEER 3149 (SX)	124.1	0.5	12.1	0.3	3.7	131.0	0.3	8.2	0.6	3.9
PIONEER 3147 (MX)	133.9	1.3	14.8	0.5	4.3	-	-	-	-	-
STULL 809 (SX)	105.1	1.3	18.3	1.0	3.8	-	-	-	-	-
AVERAGE	118.3	2.1	12.7	1.1	3.7	123.9	0.9	11.3	0.8	4.0

*WHITE HYBRID.

DISTRICT 5

Data from District 5 are presented in Tables 15 through 18.

The average yield from the normal population test was 131 bushels/acre with a range of 106 to 153 bushels. The average stand for all hybrids was 17,700 (a loss of 9.5%), some 1,100 plants above the 16,600 plants/acre intended.

For higher population plots the average yield was 136 bushels/acre with a range of 116 to 161 bushels. The average per acre plant population was 22,500 (a loss of 15.0%).

The fact that the average yield for the higher population plots was approximately 5 bushels above the normal population plots is indicative of the favorable distribution of rainfall during 1973. This difference is not enough to be significant, and therefore should not be considered as an indication that higher population were better than more moderate ones.

Stalk lodging in both the normal and higher population tests was moderate (5.1 vs. 6.3%, respectively).

Weeds were not a problem in these plots during 1973.

TABLE 15. 1973 PERFORMANCE RECORD FOR HYBRIDS TESTED IN DISTRICT 5, AT BRADFORD RESEARCH FARM NEAR COLUMBIA, MISSOURI IN BOONE COUNTY. PLANTED MAY 17, 1973. HARVESTED OCTOBER 16-17, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP I MATURITY						
CARGILL 880 (SX)**	122.2	24.8	18200	0.0	6.5	0.5	3.2
CARGILL 422 (3X)**	124.3	23.2	18100	1.0	5.7	0.0	3.8
FUNK'S G4465 (SPX)	126.3	23.9	17600	1.6	7.3	0.0	3.5
LEWIS X34B (SX)	133.0	26.2	18300	0.0	4.6	0.0	3.8
NK PX50A (SX)	137.4	21.8	18600	1.0	2.9	1.0	3.2
PAG SX7 (SX)**	117.9	23.6	17100	0.0	8.1	1.0	2.8
PIONEER 3432 (DX)	113.9	23.9	18300	0.0	3.0	1.4	3.8
PIONEER 3517 (MX)	133.0	23.6	18200	0.0	2.0	0.5	3.5
PIONEER 3390 (MX)**	123.4	23.4	17900	0.0	12.0	0.0	4.0
PIONEER 3388 (MX)**	135.0	27.3	17600	0.0	1.4	0.0	3.3
	GROUP II MATURITY						
ACCO U392 (3X)	137.4	25.9	19000	0.0	4.4	0.4	3.7
ACCO UC 8801 (SX)	128.1	27.0	17000	2.1	10.2	0.0	4.2
ASGROW RX92 (SX)**	136.7	26.4	18500	0.0	4.6	0.0	3.8
ASGROW RX99A (SPX)	141.8	27.7	18400	4.4	2.5	1.0	4.2
ASGROW RX100 (SX)	134.3	40.4	19600	0.0	6.7	1.8	4.0
BO-JAC X9722 (SPX)	124.9	31.4	17700	1.5	7.3	1.0	4.2
BO-JAC X83(SX)	148.1	25.2	18800	0.0	26.3	2.0	4.3
BO-JAC X91 (SPX)	121.1	30.1	18700	0.5	4.9	1.5	3.5
BO-JAC X7L (SX)	146.6	27.3	18300	0.0	3.3	1.4	4.0
BO-JAC X1A (SX)	112.7	25.3	15900	0.0	9.4	1.1	4.0
CARGILL 979 (SX)	125.5	27.7	16900	0.0	5.1	0.6	3.5
COOP S-318 (SX)**	144.6	27.8	18000	0.0	4.1	1.6	4.0
DEKALB XL81 (SX)**	121.0	24.8	16800	0.5	5.1	3.4	3.5
DEKALB XL347 (3X)**	124.5	24.7	17500	1.6	6.6	1.0	3.0
DEKALB XL66 (SX)**	122.3	25.9	18600	0.5	3.0	1.0	3.5
FUNK'S G4697 (SPX)**	105.8	26.0	18500	0.0	7.5	1.4	4.0
FUNK'S G4646 (SPX)**	128.0	24.0	18300	0.0	3.1	0.0	3.8
FUNK'S EXP26503 (SX)	147.7	25.6	17900	2.6	5.5	0.5	4.0
FUNK'S G462B (SX)	128.3	27.3	17900	0.0	5.1	0.5	4.0
HAPPELS 3361 (3X)	127.2	24.1	17600	0.0	5.2	1.1	4.0
HAPPELS H-37 (3X)	125.0	25.1	16300	0.5	4.5	0.6	4.0
HAPPELS MS-72 (SX)	146.3	28.2	16500	0.0	3.1	1.5	3.5
LEWIS X62B (SX)	148.9	26.6	18900	4.8	2.9	1.5	4.5
LEWIS X80B (SX)	153.2	27.4	19300	1.9	5.1	0.5	3.7
LEWIS X78B (SX)	150.0	28.3	18800	0.0	2.0	2.5	4.2
LEWIS X84B (SX)	123.6	27.0	16200	0.0	4.6	3.4	4.2
MFA EXP23108 (SPX)	132.1	26.5	18300	0.5	3.5	2.5	3.7
MFA V12 (SX)**	121.0	25.0	17900	0.0	7.6	0.5	3.8
MFA TX33 (3X)**	138.9	24.4	18700	0.0	3.0	0.5	3.8
MFA 3030 (DX)	135.1	26.5	17700	2.8	3.1	1.6	3.8
MFA V16 (SX)**	144.1	27.6	18000	0.0	3.6	1.1	4.0
MUNCYCHIEF 3X898(3X)	135.2	25.9	16000	0.0	4.4	0.0	4.2
MUNCYCHIEF SX878(SX)	124.8	27.8	15300	3.5	1.2	0.6	3.8
MUNCYCHIEF SX777(SX)	134.7	25.6	17800	2.8	2.7	2.1	4.0
MUNCYCHIEF H764 (DX)	118.4	25.8	16000	6.4	8.1	2.3	4.5
MCALLISTERSX6837(SX)	134.8	29.3	17100	0.0	1.0	0.5	3.8
MCCURDY MSX87 (SX)	128.9	26.7	18200	0.0	3.1	1.0	3.7
MCCURDY 72-28 (SX)	150.2	24.9	18300	0.0	4.4	0.5	4.2
MCCURDY 72-25 (SX)	124.3	25.9	16600	0.0	3.1	0.6	3.8
NK PX77 (SX)	122.3	25.0	17100	0.0	2.6	0.0	3.8
NK PX670 (3X)	124.6	23.1	18600	10.2	6.5	1.0	4.0
OSGOLD SX5500 (SX)	147.6	28.3	17700	0.0	3.6	1.0	4.0
OSGOLD SX3200 (SX)	127.4	26.5	17500	0.5	5.3	0.0	3.5
PAG SX98 (SX)**	132.1	29.2	18000	0.0	3.4	1.0	3.8
PAG SX93 (SX)**	127.4	27.0	18000	0.0	6.1	1.0	3.3
PAULSMEYER SX300(SX)	129.4	28.3	15300	0.0	2.9	2.6	4.0
PIONEER 3195 (SX)	134.9	25.4	18200	0.0	2.5	0.0	4.3
PIONEER 3301 (SX)	142.8	25.5	17100	0.0	3.7	0.0	3.8
PIONEER 3369A (SX)**	136.3	24.6	16900	0.0	2.6	2.1	3.8
PIONEER 3355 (3X)	141.0	25.2	18600	0.0	4.9	1.0	3.8
PIONEER 3306 (SX)	131.9	24.3	18000	0.0	4.0	0.5	4.0
PIONEER 3368 (MX)	121.8	25.4	18600	0.0	3.5	0.5	4.0
PIONEER 3219 (DX)	116.7	24.9	16300	0.0	3.9	2.3	4.0
PIONEER 3385 (MX)	119.1	25.5	17600	0.0	4.0	1.6	4.0
PIONEER 3366 (SX)	143.4	25.6	18800	0.0	1.5	0.5	3.8
TROJAN TXS113 (SX)	123.1	25.9	16500	0.0	3.9	0.6	3.8
TROJAN TXS119 (SX)	138.4	28.8	17900	0.0	2.6	1.0	4.2
TROJAN TX119A (3X)	122.4	28.2	18200	1.0	4.6	1.0	3.8
TROJAN TX113 (3X)	116.8	25.6	16500	0.0	6.4	0.6	3.8
TROJAN TX117 (3X)	131.0	27.4	17200	0.6	10.1	0.0	3.5
US 13 (DX)	120.5	24.2	18500	0.0	14.4	3.4	4.2

TABLE 15. (CONTINUED).

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
		GROUP III MATURITY					
CARGILL 495 (3X)	120.6	26.3	16700	0.6	8.6	1.7	4.2
COOP D-32C (DX)**	119.8	27.2	17700	1.1	2.5	0.0	3.8
COOP S-304 (SX)	108.2	25.9	17300	0.0	2.7	1.6	3.8
FEDERAL FX59 (SX)	143.4	28.2	15800	0.0	7.0	1.1	4.0
FUNK'S EXP262C5(SPX)	112.7	28.9	18300	0.0	15.0	3.6	4.2
FUNK'S G5757 (DX)**	127.6	27.4	17700	0.0	4.6	0.0	3.8
FUNK'S G4737 (SX)	130.2	28.2	16000	0.0	6.4	0.6	3.3
MCCURDY MSX88 (SX)	147.0	28.4	18300	0.0	3.0	1.5	4.0
PIONEER 3149 (SX)	153.3	30.1	18700	0.0	3.9	0.0	3.8
PIONEER 3147 (MX)	137.7	29.2	17300	0.5	5.3	1.1	4.3
AVERAGE	130.8	26.5	17686	0.7	5.1	1.0	3.9

LSD AT 5% LEVEL IS 17.5 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 19 OF 20 TIMES GROWN.
LSD AT 20% LEVEL IS 11.2 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 16 OF 20 TIMES GROWN.
*WHITE HYBRID
**WIDELY GROWN HYBRIDS.

TABLE 16. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 5 NEAR COLUMBIA, MO. (BOONE COUNTY -- NORMAL POPULATION TEST) DURING THE 2-YEAR PERIOD 1972-73 AND THE 3-YEAR PERIOD 1971-73.

	2-YEAR AVERAGE					3-YEAR AVERAGE				
BRAND--HYBRID	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 1 MATURITY					
CARGILL 880 (SX)	117.1	0.0	4.9	0.5	3.2	-	-	-	-	-
CARGILL 422 (3X)	120.3	0.5	6.4	0.3	3.7	-	-	-	-	-
LEWIS X34B (SX)	134.4	0.0	3.6	0.3	3.7	-	-	-	-	-
PIONEER 3390 (MX)	124.4	0.0	8.7	0.6	3.8	125.8	0.0	6.0	0.4	3.7
					GROUP 2 MATURITY					
ACCO U392 (3X)	129.7	0.0	8.0	0.6	3.5	-	-	-	-	-
ACCO UC 8801 (SX)	129.9	1.1	11.8	0.5	3.9	-	-	-	-	-
BO-JAC X91 (SPX)	124.6	0.2	3.3	0.7	3.3	-	-	-	-	-
BO-JAC X7L (SX)	140.8	0.0	4.0	0.7	3.6	151.3	0.0	2.7	0.5	3.6
BO-JAC X1A (SX)	128.0	0.0	8.0	0.6	3.9	140.4	0.0	6.3	0.4	3.8
DEKALB XL81 (SX)	121.8	0.3	4.7	1.7	3.4	-	-	-	-	-
DEKALB XL66 (SX)	119.8	0.2	8.0	0.8	3.3	-	-	-	-	-
FUNK'S G4697 (SPX)	111.7	0.0	7.1	1.3	3.9	-	-	-	-	-
LEWIS X78B (SX)	149.3	0.0	5.0	1.5	3.8	-	-	-	-	-
MFA V12 (SX)	114.7	0.0	5.4	0.9	3.7	116.5	0.0	3.6	0.6	3.6
MFA TX33 (3X)	113.4	0.0	3.3	0.9	3.5	-	-	-	-	-
MFA 3030 (DX)	127.6	1.4	3.3	1.8	3.5	-	-	-	-	-
MFA V16 (SX)	133.7	0.0	2.4	1.1	3.7	-	-	-	-	-
MUNCYCHIEF 3X898(3X)	120.5	0.0	8.3	0.8	3.8	-	-	-	-	-
MUNCYCHIEF SX878(SX)	125.6	1.7	3.7	0.9	3.7	-	-	-	-	-
MUNCYCHIEF SX777(SX)	122.6	1.4	4.6	1.1	3.7	-	-	-	-	-
MUNCYCHIEF H764 (DX)	116.9	3.2	9.4	1.7	4.4	-	-	-	-	-
MCALLISTERSX6837(SX)	135.8	0.0	1.6	0.8	3.6	-	-	-	-	-
NK PX77 (SX)	127.0	0.0	2.9	0.8	3.6	-	-	-	-	-
NK PX670 (3X)	120.9	5.1	4.4	0.5	3.8	-	-	-	-	-
OSGOLD SX5500 (SX)	139.3	0.0	2.9	0.8	3.6	145.5	0.0	2.3	0.5	3.4
PAG SX98 (SX)	137.0	0.0	4.5	0.5	3.5	-	-	-	-	-
PIONEER 3369A (SX)	139.8	0.0	3.9	1.3	3.8	148.4	0.0	2.8	1.4	3.7
PIONEER 3306 (SX)	133.5	0.0	5.4	0.3	4.0	129.4	0.0	3.8	0.2	3.9
PIONEER 3368 (MX)	136.9	0.0	3.8	0.2	3.8	-	-	-	-	-
PIONEER 3219 (DX)	130.9	0.0	3.5	1.2	3.8	-	-	-	-	-
PIONEER 3385 (MX)	127.8	0.0	4.7	1.1	3.8	-	-	-	-	-
TROJAN TXS113 (SX)	129.6	0.0	3.4	0.3	3.8	-	-	-	-	-
TROJAN TXS119 (SX)	141.3	0.0	4.3	0.5	3.6	-	-	-	-	-
US 13 (DX)	111.1	0.0	21.6	2.6	4.3	117.3	0.0	17.7	1.7	4.3
					GROUP 3 MATURITY					
COOP S-304 (SX)	110.3	0.0	6.3	1.1	3.7	118.8	0.0	4.2	0.7	3.6
FUNK'S G5757 (DX)	116.9	0.0	4.1	0.5	3.6	-	-	-	-	-
MCCURDY MSX88 (SX)	137.1	0.0	6.1	1.6	3.7	151.4	0.0	4.4	1.1	3.5
PIONEER 3149 (SX)	149.0	0.0	5.2	0.3	3.7	150.5	0.0	3.4	0.4	3.6
PIONEER 3147 (MX)	141.4	0.3	5.2	0.8	4.1	-	-	-	-	-
AVERAGE	128.0	0.4	5.6	0.9	3.7	135.9	0.0	5.2	0.7	3.7

*WHITE HYBRID.

TABLE 17. 1973 PERFORMANCE RECORD FOR HYBRIDS TESTED IN DISTRICT 5 AT A HIGHER POPULATION NEAR COLUMBIA, MISSOURI (BOONE COUNTY) AT THE BRADFORD RESEARCH FARM. PLANTED MAY 17, 1973. HARVESTED OCTOBER 20-22, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP I MATURITY						
CARGILL 880 (SX) **	137.6	21.6	23400	0.4	6.3	0.8	3.5
CARGILL 422 (3X) **	123.9	20.0	22100	0.4	2.5	0.4	3.5
FUNK'S G4465 (SPX)	123.2	21.8	22100	0.3	5.8	0.9	3.3
LEWIS X34B (SX)	133.3	22.0	21500	0.9	4.7	0.0	3.7
NK PX50A (SX)	130.8	18.9	22400	0.8	5.0	0.4	3.7
PAG SX7 (SX)**	140.7	20.3	22300	0.4	8.7	1.2	3.5
PIONEER 3432 (DX)	129.0	19.7	22800	0.4	5.2	0.8	3.7
PIONEER 3517 (MX)	138.3	20.2	23000	0.0	3.6	2.0	3.7
PIONEER 3390 (MX)**	128.7	20.1	22600	0.0	10.8	3.8	3.7
PIONEER 3388 (MX)**	129.2	22.6	22600	0.0	6.0	1.5	3.5
	GROUP II MATURITY						
ACCO U392 (3X)	139.0	24.0	23100	0.0	12.8	1.2	3.7
ACCO UC 8801 (SX)	131.0	22.4	20300	0.0	9.9	2.3	4.3
ASGROW RX92 (SX)**	130.2	21.1	21400	0.0	8.9	0.9	3.7
ASGROW RX99A (SPX)	136.0	24.1	23300	0.8	9.1	3.9	4.0
ASGROW RX100 (SX)	146.5	24.4	20100	0.0	8.2	1.8	4.0
BO-JAC X9722 (SPX)	123.9	30.3	24900	0.7	8.1	0.4	4.2
BO-JAC X83(SX)	136.5	20.9	22100	0.0	6.6	1.2	3.8
BO-JAC X91 (SPX)	130.1	25.0	23300	0.0	4.4	1.2	4.0
BO-JAC X7L (SX)	153.4	25.3	23200	0.0	2.9	0.8	3.7
BO-JAC X1A (SX)	121.8	20.3	22600	0.0	7.5	2.8	4.2
CARGILL 979 (SX)	136.2	26.1	22900	0.0	4.4	1.6	4.0
COOP S-318 (SX)**	143.4	25.2	22600	0.0	9.7	1.2	4.0
DEKALB XL81 (SX)**	116.2	22.0	23000	0.0	8.0	7.9	3.8
DEKALB XL347 (3X)**	136.5	21.6	23700	0.0	6.1	0.4	3.3
DEKALB XL66 (SX)**	143.1	22.7	23700	1.2	11.9	1.1	3.5
FUNK'S G4697 (SPX)**	125.6	22.2	23400	0.0	7.6	2.3	4.0
FUNK'S G4646 (SPX)**	148.1	22.4	23600	1.2	3.5	0.8	3.8
FUNK'S EXP26503 (SX)	145.5	21.6	21900	0.8	10.6	1.7	4.3
FUNK'S G4628 (SX)	146.4	24.5	22400	0.0	5.9	2.9	3.8
HAPPELS 3361 (3X)	129.9	20.8	21100	0.0	5.6	5.9	3.7
HAPPELS H-37 (3X)	132.1	23.3	19600	0.0	8.0	2.9	4.0
HAPPELS MS-72 (SX)	145.6	24.6	21600	0.0	7.9	2.1	4.0
LEWIS X62P (SX)	159.0	21.0	23100	0.0	5.1	1.2	4.0
LEWIS X80B (SX)	144.0	23.6	23500	0.4	1.2	0.4	4.2
LEWIS X78P (SX)	148.5	25.0	22600	0.5	6.1	2.4	3.7
LEWIS X84B (SX)	125.8	23.8	22400	0.0	9.1	4.3	4.3
MFA EXP23108 (SPX)	143.6	21.9	21000	0.0	6.6	1.2	3.8
MFA V12 (SX) **	123.9	21.5	22600	0.0	6.6	1.2	4.3
MFA TX33 (3X) **	141.9	22.3	23300	0.0	6.4	1.6	4.0
MFA 3030 (DX)	141.7	23.0	23600	0.0	2.3	1.1	4.2
MFA V16 (SX) **	139.2	24.7	22700	1.1	4.2	2.9	4.0
MUNCYCHIEF 3X896(3X)	131.3	23.4	22300	1.3	6.7	2.1	4.3
MUNCYCHIEF SX878(SX)	137.8	24.9	20800	2.2	3.1	0.4	4.0
MUNCYCHIEF SX777(SX)	136.0	19.6	22000	2.0	3.5	4.4	4.2
MUNCYCHIEF H764 (DX)	122.4	21.4	18500	1.1	10.7	0.0	4.0
MCALLISTERSX6837(SX)	151.7	24.6	23500	0.0	3.9	1.9	4.0
MCCURDY MSX87 (SX)	123.6	23.0	23000	3.3	4.4	0.4	3.7
MCCURDY 72-28 (SX)	137.5	22.0	21800	0.4	6.5	1.8	4.0
MCCURDY 72-25 (SX)	134.9	22.0	22600	0.0	4.8	1.2	3.7
NK PX77 (SX)	136.9	22.6	23200	1.9	1.2	1.5	4.0
NK PX670 (3X)	137.5	21.1	22900	2.9	7.0	0.8	4.3
OSGOLD SX5500 (SX)	142.1	25.3	20000	0.0	8.2	1.8	4.0
OSGOLD SX3200 (SX)	119.6	25.2	22500	0.4	6.6	2.8	3.7
PAG SX98 (SX)**	145.7	24.7	23800	0.0	7.7	3.1	3.8
PAG SX93 (SX)**	149.7	25.9	23600	0.0	8.6	1.5	3.2
PAULSMEYER SX300(SX)	131.0	24.3	20900	0.0	8.5	3.2	3.5
PIONEER 3195 (SX)	135.8	23.0	23200	1.2	0.8	0.0	4.3
PIONEER 3301 (SX)	142.1	22.4	22400	0.0	4.1	1.2	4.3
PIONEER 3369A (SX) **	139.0	21.7	22800	0.0	6.1	1.2	4.0
PIONEER 3355 (3X)	148.9	21.3	23000	0.0	9.2	0.4	4.0
PIONEER 3306 (SX)	121.2	20.9	22300	0.0	6.2	0.4	4.3
PIONEER 3368 (MX)	130.6	22.3	23600	0.4	3.9	1.6	4.0
PIONEER 3219 (DX)	145.6	21.4	24000	0.0	6.5	0.8	3.7
PIONEER 3385 (MX)	129.7	21.5	23500	0.0	4.4	1.2	4.0
PIONEER 3366 (SX)	135.8	21.8	22200	0.0	5.0	1.5	4.2
TROJAN TXS113 (SX)	127.2	23.1	21800	3.6	6.3	0.9	3.8
TROJAN TXS119 (SX)	139.3	24.6	24300	0.0	4.1	2.6	4.2
TROJAN TX119A (3X)	142.9	22.2	24000	0.0	5.0	3.9	4.0
TROJAN TX113 (3X)	136.5	22.0	23000	1.2	6.0	0.0	3.8
TROJAN TX117 (3X)	130.8	23.6	22900	0.0	6.5	2.8	4.0
US 13 (DX)	114.1	20.1	23800	3.9	17.1	2.3	4.7

TABLE 17. (CONTINUED).

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP III MATURITY						
CARGILL 495 (3X)	150.6	23.5	22900	0.0	6.0	1.6	3.8
COOP D-320 (DX)**	126.4	23.3	21200	0.0	3.4	0.0	3.7
COOP S-304 (SX)	131.5	23.7	20600	0.0	4.8	1.4	3.8
FEDERAL FX59 (SX)	161.2	24.0	22700	0.0	2.0	0.4	3.7
FUNK'S EXP262C5(SPX)	113.8	24.5	22200	2.0	9.6	2.8	4.2
FUNK'S G5757 (DX) **	131.7	25.2	17700	4.6	2.7	2.3	3.8
FUNK'S G4737 (SX)	147.0	23.6	21700	0.0	7.6	0.0	3.3
MCCURDY MSX88 (SX)	150.0	25.8	22200	0.0	5.9	0.9	4.0
PIONEER 3149 (SX)	156.0	24.4	23400	0.0	6.4	0.8	4.0
PIONEER 3147 (MX)	143.2	25.2	22600	0.0	6.5	2.9	4.7
AVERAGE	136.4	22.9	22454	0.6	6.3	1.7	3.9

LSD AT 5% LEVEL IS 17.8 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 1 OF 20 TIMES GROWN.
LSD AT 20% LEVEL IS 11.4 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 16 OF 20 TIMES GROWN.
*WHITE HYBRID
**WIDELY GROWN HYBRIDS.

TABLE 18. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 5 NEAR COLUMBIA, MO. (BOONE COUNTY -- HIGH POPULATION TEST) DURING THE 2-YEAR PERIOD 1972-73 AND THE 3-YEAR PERIOD 1971-73.

BRAND--HYBRID	2-YEAR AVERAGE ACRE YIELD (BU)	2-YEAR AVERAGE LODGING ROOT (%)	2-YEAR AVERAGE LODGING STALK (%)	2-YEAR AVERAGE DROPPED EARS (%)	2-YEAR AVERAGE EAR HEIGHT (FT)	3-YEAR AVERAGE ACRE YIELD (BU)	3-YEAR AVERAGE LODGING ROOT (%)	3-YEAR AVERAGE LODGING STALK (%)	3-YEAR AVERAGE DROPPED EARS (%)	3-YEAR AVERAGE EAR HEIGHT (FT)
					GROUP 1 MATURITY					
CARGILL 880 (SX)	123.9	0.2	10.6	1.2	3.3	-	-	-	-	-
CARGILL 422 (3X)	112.7	0.2	11.6	0.4	3.4	-	-	-	-	-
LEWIS X34B (SX)	128.4	0.4	6.4	0.0	3.5	-	-	-	-	-
PIONEER 3390 (MX)	121.2	0.0	14.5	2.5	3.5	134.0	0.0	11.0	1.7	3.4
					GROUP 2 MATURITY					
ACCO U392 (3X)	120.9	0.0	13.0	0.6	3.3	-	-	-	-	-
ACCO UC 8801 (SX)	126.4	0.0	12.8	1.8	4.1	-	-	-	-	-
BO-JAC X91 (SPX)	126.6	0.0	4.2	0.6	3.6	-	-	-	-	-
BO-JAC X7L (SX)	143.4	0.0	2.9	1.1	3.4	157.9	0.0	2.5	0.7	3.4
BO-JAC X1A (SX)	117.3	0.0	8.8	1.4	3.7	138.8	0.0	6.6	0.9	3.5
DEKALB XL81 (SX)	114.4	0.0	9.3	4.4	3.6	-	-	-	-	-
DEKALB XL66 (SX)	128.1	0.6	12.1	0.8	3.1	-	-	-	-	-
FUNK'S G4697 (SPX)	114.1	0.0	8.2	1.2	3.8	-	-	-	-	-
LEWIS X78B (SX)	143.8	0.2	6.5	1.2	3.4	-	-	-	-	-
MFA V12 (SX)	109.4	0.0	7.1	0.6	3.9	120.9	0.0	5.8	0.4	3.8
MFA TX33 (3X)	110.7	0.0	6.5	0.8	3.5	-	-	-	-	-
MFA 3030 (DX)	133.6	0.0	9.4	1.2	3.8	-	-	-	-	-
MFA V16 (SX)	129.1	0.6	6.2	1.4	3.5	-	-	-	-	-
MUNCYCHIEF 3X898(3X)**	118.6	0.6	11.2	1.1	4.0	-	-	-	-	-
MUNCYCHIEF SX878(SX)	128.9	1.1	15.8	0.7	4.0	-	-	-	-	-
MUNCYCHIEF SX777(SX)	124.1	1.0	7.0	2.2	3.4	-	-	-	-	-
MUNCYCHIEF H764 (DX)	111.9	0.5	19.0	0.2	3.6	-	-	-	-	-
MCALLISTERSX6837(SX)	143.4	0.0	8.0	0.9	3.5	-	-	-	-	-
NK PX77 (SX)	120.8	1.0	1.7	0.8	3.5	-	-	-	-	-
NK PX67C (3X)	124.1	1.4	7.9	0.4	3.9	-	-	-	-	-
OSGOLD SX550C (SX)	137.0	0.0	5.4	1.1	3.7	155.2	0.0	4.5	0.7	3.6
PAG SX98 (SX)	136.3	0.0	7.6	1.5	3.5	-	-	-	-	-
PIONEER 3369A (SX)	128.6	0.0	18.9	0.8	3.7	146.9	0.0	13.7	0.6	3.7
PIONEER 3306 (SX)	121.3	0.0	8.2	0.4	3.8	129.5	0.0	6.2	0.3	3.8
PIONEER 3368 (MX)	129.2	0.2	10.5	0.8	3.8	-	-	-	-	-
PIONEER 3219 (DX)	128.0	0.0	6.2	0.6	3.4	-	-	-	-	-
PIONEER 3385 (MX)	120.5	0.0	10.5	0.8	3.8	-	-	-	-	-
TROJAN TXS113 (SX)	124.7	1.9	10.7	0.7	3.7	-	-	-	-	-
TROJAN TXS119 (SX)	131.9	0.0	7.4	1.5	3.6	-	-	-	-	-
US 13 (DX)	105.3	2.0	23.3	1.4	4.2	122.4	1.6	19.0	1.1	4.2
					GROUP 3 MATURITY					
COOP S-304 (SX)	117.6	0.0	8.9	1.6	3.8	126.0	0.0	6.6	1.0	3.6
FUNK'S G5757 (DX)	115.4	2.3	4.8	1.9	3.3	-	-	-	-	-
MCCURDY MSX88 (SX)	134.7	0.0	4.0	1.1	3.6	149.0	0.0	3.4	0.7	3.5
PIONEER 3149 (SX)	144.5	0.0	6.4	0.4	3.6	158.9	0.0	5.8	0.3	3.6
PIONEER 3147 (MX)	128.1	0.0	8.2	1.7	4.3	-	-	-	-	-
AVERAGE	125.1	0.4	9.3	1.1	3.6	140.0	0.1	7.7	0.8	3.6

*WHITE HYBRID.

DISTRICT 6

No evaluation plots were located in this district during 1973.

DISTRICT 7

An irrigation trial was located in this district at the Southwest Center near Mt. Vernon (Lawrence County). The agronomic performance data for the 56 hybrids evaluated are presented in Tables 27 and 28 (see irrigation section).

DISTRICT 8

Since less than one percent of the land in this district is planted to corn, no hybrid evaluation trials were conducted.

DISTRICT 9

No yields are presented for 1973 due to the fact that excessive bird damage had occurred in the plots by early September.

The data presented in Tables 19 and 20 are for the previous two- or three-year periods.

TABLE 19. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 9 NEAR PORTAGEVILLE, MO. (PEMISCOT COUNTY -- NORMAL POPULATION TEST) DURING THE 2-YEAR PERIOD 1971-72 AND THE 3-YEAR PERIOD 1970-72. NO YIELD IN 1973--BIRD DAMAGED.

BRAND--HYBRID	2-YEAR AVERAGE					3-YEAR AVERAGE				
	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 1 MATURITY					
PIONEER 3390 (SPX)	116.0	1.8	1.3	0.0	3.5	119.4	1.2	7.2	0.0	3.4
					GROUP 2 MATURITY					
BO-JAC X1-83 (SX)	133.4	0.0	1.4	0.3	3.7	-	-	-	-	-
BO-JAC X7L (SX)	126.8	0.0	2.0	0.0	3.7	125.9	0.0	8.4	0.0	3.4
BO-JAC X1A (SX)	140.0	0.0	1.0	0.3	3.8	135.9	0.0	11.4	0.4	3.8
COOP S-304 (SX)	122.3	0.0	2.8	0.6	3.7	-	-	-	-	-
MFA V-12 (SX)	115.1	0.3	3.2	0.0	3.8	-	-	-	-	-
OLIVER 8871D (SX)	138.9	0.3	1.8	0.0	3.8	140.4	0.2	6.6	0.0	3.6
OLIVER 8870P (SX)	132.1	0.0	1.1	0.0	3.7	128.1	0.0	7.9	0.0	3.5
PIONEER 3369A (SX)	144.4	0.0	1.5	0.0	3.7	137.8	0.0	8.0	0.0	3.5
PIONEER 3222 (DX)	136.8	0.0	2.6	0.0	3.9	-	-	-	-	-
PRINCETON SX850 (SX)	140.2	0.3	1.1	0.0	3.8	136.7	0.2	8.7	0.0	3.5
PRINCETON SX823 (SX)	123.4	1.1	1.4	0.0	3.4	125.8	0.7	9.7	0.0	3.4
PRINCETON SX650 (SX)	142.6	0.0	0.7	0.0	3.5	-	-	-	-	-
PRINCETON SX836 (SX)	123.7	0.3	2.8	1.1	4.0	127.0	0.2	14.8	0.8	3.7
US 13 (DX)	109.1	1.6	9.3	1.0	4.1	105.3	1.1	22.7	1.1	4.1
					GROUP 3 MATURITY					
MCCURDY MSX88 (SX)	133.7	0.0	1.9	0.0	3.2	-	-	-	-	-
PIONEER 3147 (SPX)	140.1	0.3	1.8	0.0	4.5	125.8	0.2	6.2	0.3	4.3
PIONEER 3149 (SPX)	161.4	0.0	2.0	0.0	4.3	148.4	0.0	6.7	0.3	4.1
STULL 850WSX* (SX)	107.5	10.9	5.9	0.0	4.5	-	-	-	-	-
STULL 809SX (SX)	98.1	0.0	1.9	0.0	3.9	104.7	0.0	12.7	0.0	3.7
STULL 555W* (DX)	133.5	1.9	3.8	0.3	4.5	126.5	1.3	13.0	0.2	4.3
STULL 877SX (SX)	112.7	0.0	3.4	0.0	4.0	-	-	-	-	-
STULL 560WSP* (3X)	123.1	2.6	5.3	0.7	4.1	-	-	-	-	-
					GROUP 4 MATURITY					
MCCURDY 67-14 (SX)	141.0	0.3	2.9	0.3	4.1	131.5	0.2	9.9	0.2	3.9
AVERAGE	129.0	0.9	2.6	0.2	3.9	127.9	0.3	10.3	0.2	3.8

*WHITE HYBRID.

TABLE 20. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN DISTRICT 5 NEAR PORTAGEVILLE, MO. (PEMISCOT COUNTY -- HIGH POPULATION TEST) DURING THE 2-YEAR PERIOD 1971-72 AND THE 3-YEAR PERIOD 1970-72. NO YIELD IN 1973--BIRD DAMAGED.

BRAND--HYBRID	2-YEAR AVERAGE					3-YEAR AVERAGE				
	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 1 MATURITY					
PIONEER 3390 (SPX)	113.5	0.7	2.8	0.3	3.8	119.8	0.4	12.5	0.4	3.5
					GROUP 2 MATURITY					
BO-JAC X1-83 (SX)	150.0	1.3	3.0	0.0	4.2	-	-	-	-	-
BO-JAC X7L (SX)	136.0	0.0	2.6	0.2	3.6	-	-	-	-	-
BO-JAC X1A (SX)	142.4	0.0	3.4	0.4	4.1	-	-	-	-	-
COOP S-304 (SX)	118.2	0.0	6.6	0.0	3.6	-	-	-	-	-
MFA V-12 (SX)	107.8	0.0	3.0	0.5	3.6	-	-	-	-	-
OLIVER BP710 (SX)	137.8	0.0	4.5	0.0	3.8	139.6	0.0	12.5	0.2	3.6
OLIVER BP702 (SX)	146.0	0.0	4.0	0.2	3.6	-	-	-	-	-
PIONEER 3369A (SX)	141.8	0.2	2.0	0.0	3.9	142.7	0.1	7.1	0.0	3.7
PIONEER 3222 (DX)	136.4	1.4	6.4	0.4	4.0	-	-	-	-	-
PRINCETON SX85C (SX)	146.7	1.0	4.6	0.0	3.8	136.3	0.6	9.8	0.6	3.6
PRINCETON SX823 (SX)	123.6	2.8	1.5	0.0	3.3	117.6	1.9	10.5	0.0	3.0
PRINCETON SX65C (SX)	144.7	0.0	0.7	0.8	3.5	-	-	-	-	-
PRINCETON SX836 (SX)	129.7	0.2	5.6	0.0	3.9	136.6	0.2	19.5	0.7	3.7
US 13 (DX)	108.4	2.6	9.6	0.6	4.1	-	-	-	-	-
					GROUP 3 MATURITY					
MCCURDY MSX88 (SX)	126.5	0.0	3.0	0.0	3.8	-	-	-	-	-
PIONEER 3147 (SPX)	148.5	0.0	3.1	0.2	4.3	134.0	0.0	7.9	0.4	4.1
PIONEER 3149 (SPX)	145.7	0.0	2.8	0.0	4.1	142.4	0.0	5.7	0.0	3.8
STULL 850WSX* (SX)	106.8	5.4	11.3	0.0	4.3	-	-	-	-	-
STULL 809SX (SX)	113.6	1.1	3.9	0.2	4.1	-	-	-	-	-
STULL 555W* (DX)	126.1	2.2	6.5	0.0	4.2	-	-	-	-	-
STULL 877SX (SX)	128.3	0.0	4.5	0.0	3.9	-	-	-	-	-
STULL 560WSP* (3X)	123.2	4.7	4.2	0.0	4.4	-	-	-	-	-
					GROUP 4 MATURITY					
MCCURDY 67-14 (SX)	142.9	2.0	1.2	0.0	4.3	-	-	-	-	-
AVERAGE	131.0	1.1	4.2	0.2	3.9	133.6	0.4	10.7	0.3	3.6

*WHITE HYBRID.

TABLE 21. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN NORTHERN MISSOURI (ATCHISON, GRUNDY, AND KNOX COUNTIES) DURING 1973.

BRAND--HYBRID	ACRE YIELD (BU)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP 1 MATURITY (3-LOCATION AVERAGE)				
FUNK'S G4465 (SPX)	129.2	0.7	10.3	2.5	3.7
PIONEER 3388 (MX)	140.1	0.0	5.8	1.0	3.6
PIONEER 3432 (DX)	129.3	0.0	5.7	0.9	3.9
PIONEER 3517 (MX)	139.6	0.0	4.8	1.1	3.7
PIONEER 3390 (MX)	142.3	0.5	8.5	1.1	4.0
	GROUP 2 MATURITY (3-LOCATION AVERAGE)				
ACCO UC 8801 (SX)	131.2	0.4	9.7	3.2	4.4
ACCO U392 (3X)	137.1	0.2	8.2	0.7	3.9
ASGROW RX92 (SX)	139.4	0.0	9.9	1.2	4.1
ASGROW RX99A (SPX)	131.5	0.2	6.7	1.3	4.1
ASGROW RX100 (SX)	145.4	0.0	5.4	1.2	4.0
BO-JAC X62 (SPX)	132.8	0.0	4.9	2.6	4.1
BO-JAC X91 (SPX)	147.3	0.7	4.6	2.0	3.8
BO-JAC X7L (SX)	151.6	0.0	6.7	1.3	4.0
COOP S-318 (SX)	147.6	0.0	4.3	1.8	3.8
DEKALB XL81 (SX)	123.0	0.2	6.3	2.8	4.0
FUNK'S G4646 (SPX)	145.0	0.7	6.3	1.1	4.0
FUNK'S G4628 (SX)	151.5	0.0	4.2	3.2	4.0
FUNK'S EXP2650B (SX)	158.7	3.0	7.2	0.8	4.1
FUNK'S G4697 (SPX)	140.7	0.4	9.4	2.3	4.0
HAPPELS 3361 (3X)	119.8	0.2	11.1	3.3	4.0
HAPPELS H-37 (3X)	126.4	0.4	6.5	1.4	4.2
HAPPELS MS-72 (SX)	142.1	0.2	6.7	3.5	4.0
LEWIS X62B (SX)	160.7	0.0	4.4	1.7	4.4
LEWIS X78B (SX)	153.6	0.2	6.0	1.7	3.8
MAYGOLD 2044 (3X)	135.3	0.5	8.6	2.0	4.2
MAYGOLD L47 (SX)	141.9	0.6	15.9	1.3	4.2
MAYGOLD 2058 (3X)	129.6	2.7	8.9	2.3	4.0
MFA TX33 (3X)	152.6	1.2	4.2	0.9	4.1
MFA 3030 (DX)	137.2	2.7	6.1	1.9	3.9
MFA V16 (SX)	154.0	0.0	6.0	1.2	3.8
MCALLISTERSX6837(SX)	155.6	0.2	9.1	0.5	4.0
NC+ 77SX (SX)	141.7	0.0	10.4	1.2	4.1
OSGOLD SX5500 (SX)	139.8	0.2	5.7	3.1	3.9
PIONEER 3368 (MX)	142.3	0.0	4.4	3.0	4.2
PIONEER 3301 (SX)	150.0	0.0	5.8	1.1	3.9
PIONEER 3369A (SX)	153.2	0.1	5.9	2.6	4.2
PIONEER 3385 (MX)	146.7	1.3	7.9	1.0	4.0
PIONEER 3195 (SX)	164.7	2.3	8.6	1.6	4.4
PIONEER 3355 (3X)	146.3	0.0	4.7	0.5	4.1
PIONEER 3306 (SX)	156.7	0.0	9.5	0.6	4.3
PIONEER 3219 (DX)	153.3	0.0	4.5	0.7	3.9
PIONEER 3366 (SX)	145.4	2.1	5.0	1.4	4.1
TROJAN TXS113 (SX)	145.5	0.9	4.7	1.7	3.9
TROJAN TXS119 (SX)	149.8	0.0	6.4	2.4	4.1
TROJAN TX117 (3X)	136.9	0.3	7.1	0.8	3.8
TROJAN TX119A (3X)	141.6	0.2	6.0	2.3	4.2
US 13 (DX)	112.1	0.6	25.0	3.2	4.5
	GROUP 3 MATURITY (3-LOCATION AVERAGE)				
FUNK'S EXP262C5(SPX)	130.4	3.5	13.6	1.9	4.5
FUNK'S G4737 (SX)	145.7	0.0	10.8	0.4	3.7
FUNK'S G5757 (DX)	137.2	3.5	7.9	1.0	4.2
MAYGOLD L50 (SX)	135.7	0.2	8.7	1.7	3.9
MCCURDY MSX88 (SX)	144.5	0.2	4.4	1.7	4.0
PIONEER 3149 (SX)	148.1	0.2	10.7	1.6	4.4
PIONEER 3147 (MX)	147.5	1.0	13.7	1.1	4.6
MEAN	142.3	0.6	7.6	1.6	4.0

*WHITE HYBRID.

TABLE 22. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN IN CENTRAL MISSOURI (BOONE AND LAFAYETTE COUNTIES) DURING 1973.

BRAND--HYBRID	ACRE YIELD (BU)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP 1 MATURITY (2-LOCATION AVERAGE)				
CARGILL 880 (SX)	111.0	0.0	19.0	1.2	3.3
CARGILL 422 (3X)	112.9	0.8	14.9	0.5	3.7
FUNK'S G4465 (SPX)	118.6	2.9	13.6	0.8	3.6
PAG SX7 (SX)	116.8	0.6	12.7	1.3	3.1
PIONEER 3362 (MX)	117.8	3.8	5.1	0.3	3.6
PIONEER 3390 (MX)	118.2	0.8	12.4	1.1	3.9
PIONEER 3517 (MX)	129.0	0.9	2.9	0.3	3.5
PIONEER 3432 (DX)	115.6	1.8	5.7	1.2	3.8
	GROUP 2 MATURITY (2-LOCATION AVERAGE)				
ACCO UC 8801 (SX)	117.7	3.5	14.3	2.0	4.0
ACCO U392 (3X)	128.5	2.7	13.8	1.6	3.7
ASGROW RX92 (SX)	124.8	0.5	13.2	0.3	3.7
ASGROW RX100 (SX)	129.7	0.0	10.5	1.2	3.8
ASGROW RX99A (SPX)	137.2	2.7	5.1	0.5	4.0
BO-JAC X7L (SX)	143.9	0.0	6.1	1.0	3.8
BO-JAC X91 (SPX)	125.2	2.1	4.9	2.1	3.6
BO-JAC X9722 (SPX)	123.3	4.0	10.5	0.8	4.0
BO-JAC X83(SX)	140.2	3.6	19.6	4.0	4.1
CARGILL 979 (SX)	120.6	0.0	4.8	0.6	3.6
CCOP S-318 (SX)	139.5	0.8	5.2	1.3	3.8
DEKALB XL66 (SX)	120.7	2.3	8.8	1.1	3.5
DEKALB XL81 (SX)	118.1	0.8	9.8	2.5	3.6
DEKALB XL347 (3X)	117.1	1.9	11.4	1.5	3.3
FUNK'S EXP26503 (SX)	137.3	0.1	8.2	0.9	4.0
FUNK'S G4628 (SX)	130.8	1.0	5.9	1.3	4.0
FUNK'S G4646 (SPX)	124.1	3.2	10.2	0.5	3.7
FUNK'S G4697 (SPX)	109.3	1.3	17.5	1.5	3.8
HAPPELS H-37 (3X)	124.9	1.1	7.3	1.2	3.9
HAPPELS 3361 (3X)	122.9	3.0	11.3	1.3	4.0
HAPPELS MS-72 (SX)	136.0	3.1	6.2	2.1	3.7
LEWIS X78R (SX)	144.0	1.0	4.8	2.5	3.9
LEWIS X628 (SX)	146.3	2.9	5.7	1.0	4.3
MFA V12 (SX)	115.3	0.9	10.5	0.2	3.8
MFA V16 (SX)	141.6	1.6	6.5	2.3	4.0
MFA TX33 (3X)	133.6	4.3	7.5	1.6	3.8
MFA EXP23108 (SPX)	127.1	2.4	9.6	1.9	3.5
MFA 3C3C (DX)	130.2	3.2	9.6	3.0	3.8
MCALLISTERSX6837(SX)	141.6	1.3	2.9	1.0	3.8
MCCURDY 72-28 (SX)	133.8	3.9	6.3	1.6	4.0
OSGOLD SX5500 (SX)	142.9	0.5	4.3	0.8	3.8
PAG SX98 (SX)	137.5	1.3	5.3	2.1	3.9
PIONEER 3368 (MX)	130.4	0.8	8.9	0.5	4.0
PIONEER 3366 (SX)	139.6	0.5	2.6	0.3	3.8
PIONEER 3306 (SX)	129.5	1.5	10.9	0.5	3.8
PIONEER 3355 (3X)	136.1	0.3	8.5	1.5	3.7
PIONEER 3369A (SX)	136.6	1.0	10.0	1.5	3.9
PIONEER 3219 (DX)	126.4	0.9	11.2	1.7	3.2
PIONEER 3385 (MX)	129.2	1.6	5.7	0.8	3.9
PIONEER 3301 (SX)	133.2	0.6	9.5	0.0	3.8
TROJAN TXS113 (SX)	123.2	2.0	10.3	0.6	3.7
TROJAN TX117 (3X)	124.7	3.2	18.0	0.0	3.5
TROJAN TX119A (3X)	122.4	2.7	7.2	1.9	3.8
TROJAN TX113 (3X)	116.8	2.3	13.2	0.9	3.7
TROJAN TXS119 (SX)	137.1	3.7	5.5	1.1	3.9
US 13 (DX)	115.1	2.9	31.8	2.6	4.1
	GROUP 3 MATURITY (2-LOCATION AVERAGE)				
CARGILL 495 (3X)	126.2	3.5	11.3	1.1	4.0
CCOP C-32C (DX)	116.4	1.4	8.3	1.1	3.8
FUNK'S G5757 (DX)	114.3	5.1	12.8	1.6	3.9
FUNK'S G4737 (SX)	126.8	0.9	10.9	1.1	3.4
FUNK'S EXP2o205(SPX)	99.9	3.6	19.5	3.1	3.9
MCCURDY MSX88 (SX)	137.1	2.3	4.3	1.3	3.9
PIONEER 3149 (SX)	141.6	0.5	8.8	0.3	3.8
PIONEER 3147 (MX)	131.5	1.6	10.1	1.1	4.3
MEAN	127.4	2.0	9.7	1.3	3.8

*WHITE HYBRID.

IRRIGATION EXPERIMENTS

Irrigation experiments were conducted at two locations in order to assess hybrid performance independent of stress due to irregular precipitation patterns during the growing season. These experiments were located at two of the Agricultural Experiment Station Research Centers: Claypan Research Station near McCredie in Callaway County and the Southwest Center near Mt. Vernon in Lawrence County. The cultural practices applied to the 1973 irrigation experiments are listed in Table 4.

Figures 2 and 3 present the inches of accumulated precipitation (includes rainfall and water applied in several irrigations). The cross-hatched area represents optimum soil moisture. Accumulated precipitation above this area represents excess moisture and run-off, and below this area represents soil moisture stress and the need for supplemental irrigation.

The acre yield ranged from a high of 183 bushels to a low of 130 bushels per acre at McCredie and a high of 167 bushels to a low of 108 bushels per acre at the Southwest Center. Average yields (over all hybrids at each location) were 161 and 135 bushels per acre, respectively.

Average stalk lodging for all hybrids at McCredie was 8.4%, with a range from 3.9 to 18.6%. At the Southwest Center stalk lodging averaged 9.3% and ranged from 0.0 to 24.3%. Root lodging was not important at the Southwest Center, but at McCredie it averaged 10.4% over all hybrids. The range was from a low of 0.0 to a high of 43.8%.

These experiments were planted at approximately 28,700 plants per acre. With the normal stand loss of 10 to 15% the intended harvest population was 24,000 $\pm$ 500 plants at each location.

Data for 1973 and for the period 1971-73 are presented in Tables 23 through 27.

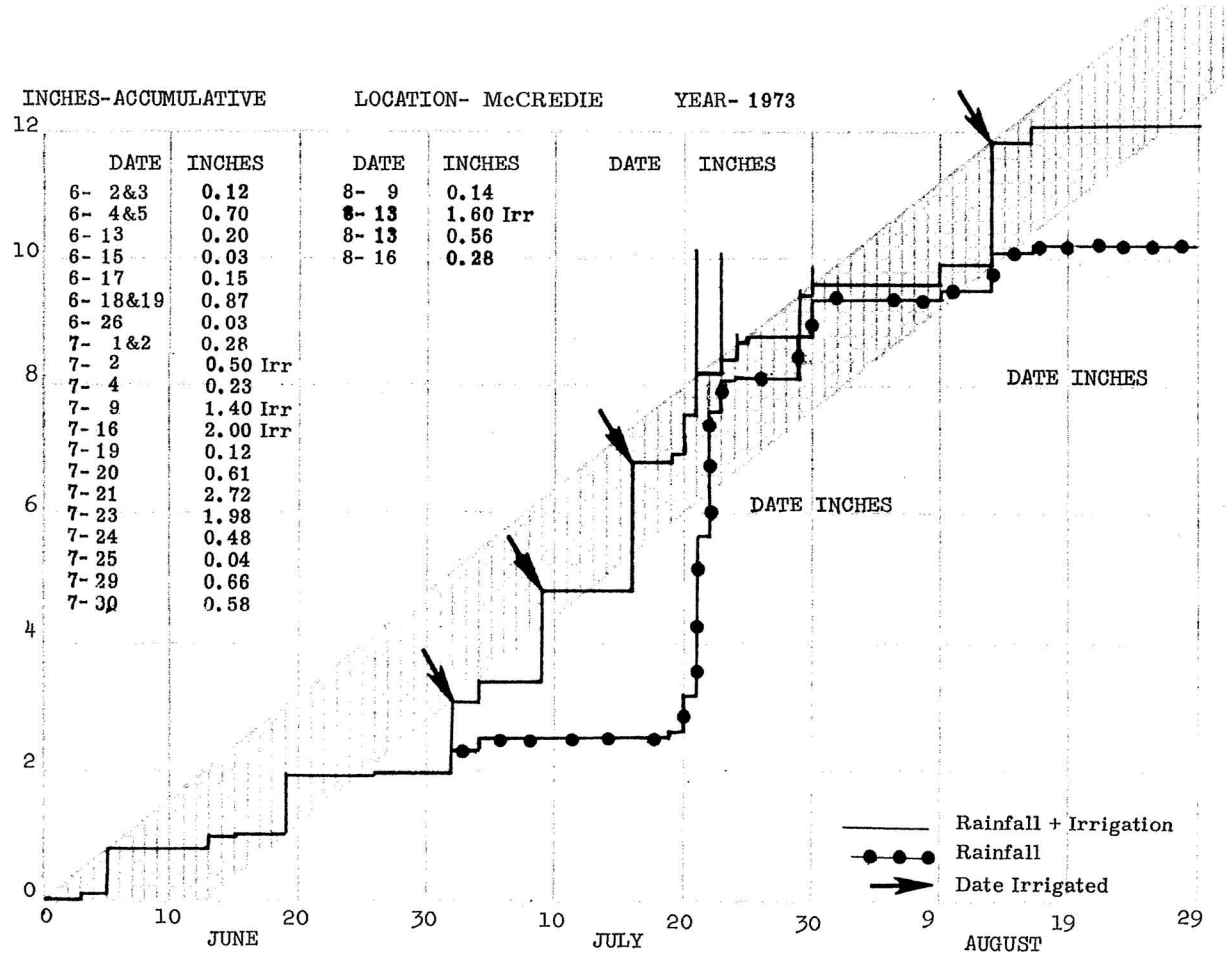

Figure 2. Record of Precipitation Pattern and Irrigation Schedule for 1973.

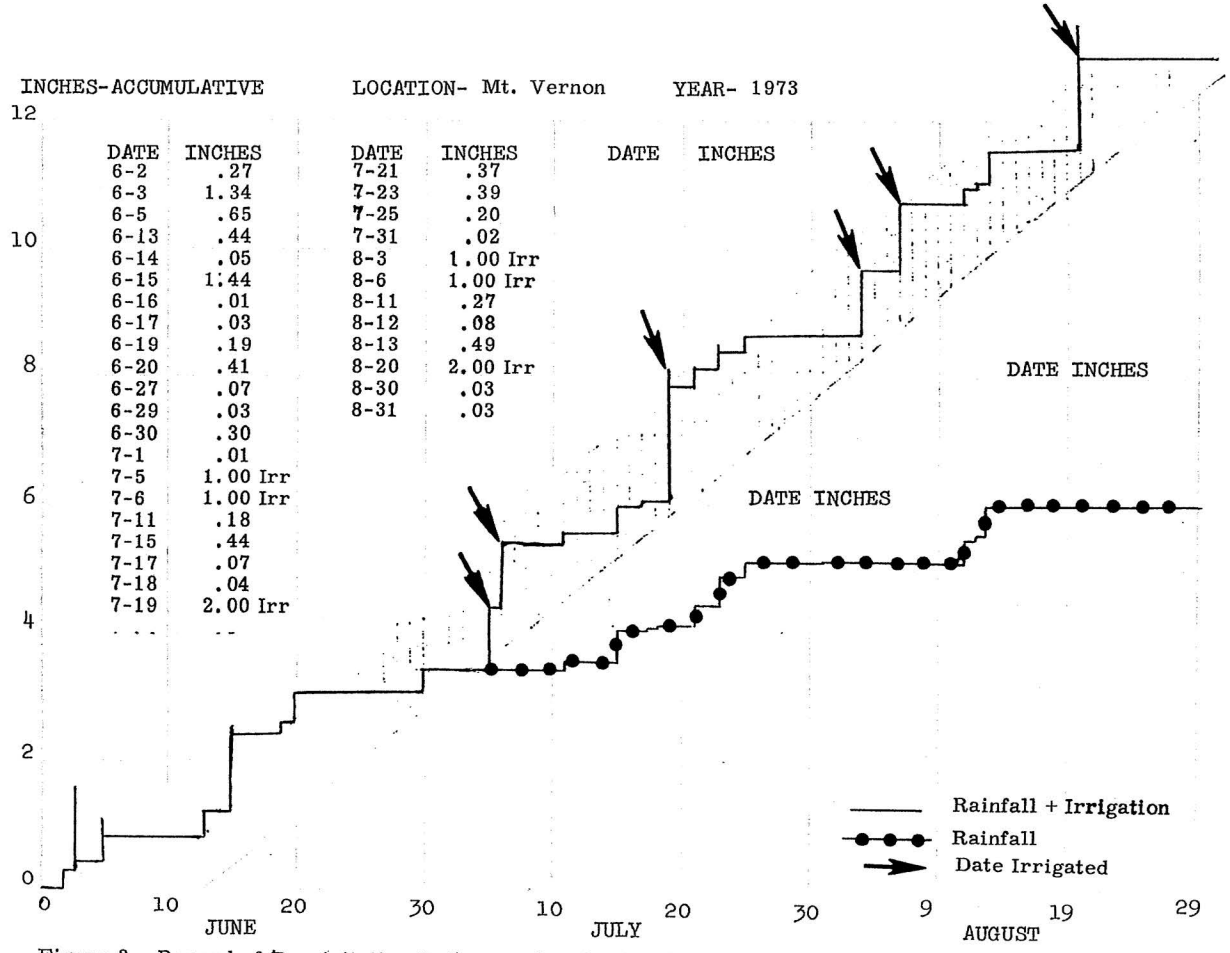

Figure 3. Record of Precipitation Pattern and Irrigation Schedule for 1973.

TABLE 23. 1973 PERFORMANCE RECORD FOR HYBRIDS GROWN UNDER IRRIGATION IN DISTRICT 5, AT THE CLAYPAN RESEARCH STATION NEAR MCCREDIE, MISSOURI (CALLAWAY COUNTY). PLANTED MAY 16, 1973. HARVESTED NOVEMBER 6, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP I MATURITY						
FUNK'S G4465 (SPX)	144.3	20.9	21100	21.9	7.0	0.0	3.5
HOLDEN H1023 (SX)	168.5	21.4	22000	2.8	5.8	1.3	3.8
NK PX50A (SX)	140.0	19.7	22300	23.6	9.1	3.3	3.3
	GROUP II MATURITY						
ACCO U392 (3X)	164.1	22.6	22500	14.1	13.4	2.0	3.7
ASGROW RX100 (SX)	170.3	22.6	23200	7.2	9.4	2.5	4.2
ASGROW RX92 (SX)	161.4	21.3	22200	17.2	9.1	0.6	4.0
BO-JAC X62 (SPX)	157.4	21.6	22000	13.9	3.2	3.4	4.0
BO-JAC X91 (SPX)	162.9	23.4	22200	6.5	11.1	0.6	3.7
CARGILL 930 (SX)	127.3	20.5	16200	14.5	1.8	0.0	3.5
CARGILL 979 (SX)	166.7	22.2	20300	0.0	7.1	2.8	3.8
COOP S-318 (SX)	166.4	22.8	21400	3.2	6.7	2.0	3.7
FEDERAL FT44 (3X)	130.2	21.0	20600	20.6	9.3	5.6	4.0
FUNK'S G4646 (SPX)	155.8	21.1	22200	22.6	5.9	0.6	4.0
FRONTIER CX37 (SX)	164.7	21.0	21600	13.3	12.9	2.8	4.0
SUPERCROST S85 (SX)	165.1	22.8	18400	2.4	4.6	1.7	3.8
HAPPELS H-37 (3X)	141.6	20.5	20100	4.9	12.7	3.7	3.8
HAPPELS MS-72 (SX)	164.5	22.9	21400	0.0	11.0	2.0	3.8
HOLDEN H1024 (SX)	173.1	20.2	21400	13.5	4.1	2.7	4.0
IA-MO. SX18 (SX)	179.0	22.6	21400	0.7	8.8	1.4	3.7
IA-MO. SX30 (SX)	147.4	21.3	21600	13.9	6.7	4.1	4.0
MFA TX33 (3X)	162.4	21.1	19800	7.1	10.2	3.7	3.8
MFA V16 (SX)	174.7	21.8	21700	3.4	6.0	3.3	4.0
MORTON 6700 (SX)	173.6	22.9	22300	2.0	6.5	1.3	4.0
MORTON 4901 (SX)	161.3	22.2	23500	13.2	18.6	1.3	4.0
MUNCYCHIEF SX878(SX)	150.1	23.0	21600	43.8	10.1	2.0	3.7
MCCURDY 72-28 (SX)	172.2	20.8	21100	9.0	7.6	2.8	3.8
MCNAIR X300 (SX)	139.1	24.0	20900	22.6	9.1	1.3	3.8
MCNAIR X210 (SX)	162.1	22.5	18800	5.1	6.9	0.0	3.7
NC+ 85SX (SX)	171.2	22.7	23500	0.0	6.8	3.1	3.5
NC+ 77SX (SX)	153.9	21.5	19300	7.5	8.3	2.3	4.0
NK PX77 (SX)	145.3	21.2	22900	42.0	5.6	0.6	3.8
OSGOLD SX5500 (SX)	174.8	22.7	21300	1.4	9.4	1.4	3.8
PAG SX98 (SX)	175.8	22.9	22600	0.0	3.9	1.3	3.8
PAG SX83 (SX)	172.0	20.3	21900	20.3	8.5	0.7	3.7
PAULSMEYER SX300(SX)	120.5	22.2	15600	5.9	5.1	3.0	4.0
PIONEER 3195 (SX)	183.4	21.4	23800	9.9	10.4	0.0	4.0
PIONEER 3369A (SX)	164.1	21.1	23000	12.2	6.9	3.8	3.8
PRINCETON SX650 (SX)	150.4	20.4	22900	7.7	3.9	0.6	3.5
PRINCETON SX85C (SX)	154.6	21.3	20300	11.2	16.0	3.0	4.0
TROJAN TXS119 (SX)	168.9	22.5	23200	0.0	10.6	2.6	4.0
TROJAN TXS113 (SX)	181.6	21.8	22300	8.1	7.3	1.8	3.8
	GROUP III MATURITY						
ACCO UC9701 (SX)	143.0	22.4	23300	16.7	15.6	4.3	4.0
COOP D-320 (DX)	132.8	21.8	21100	10.1	9.0	1.4	4.0
FEDERAL FX59 (SX)	177.5	22.7	21900	1.3	5.3	0.0	3.8
FRONTIER SX255 (SX)	172.2	22.9	21700	0.0	6.2	1.9	4.2
SUPERCROST 8282 (SX)	159.8	25.0	21000	4.2	8.4	2.0	3.5
MCCURDY MSX88 (SX)	165.2	22.4	20900	5.6	6.3	1.4	4.3
STULL 877 (SX)	139.5	23.2	20100	5.4	11.4	0.7	4.0
STULL 809A (3X)	148.0	21.5	21900	6.7	12.6	3.3	4.0
AVERAGE	159.2	21.9	21393	10.2	8.4	2.0	3.9

LSD AT 5% LEVEL IS 18.8 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 19 OF 20 TIMES GROWN.
LSD AT 20% LEVEL IS 12.1 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 16 OF 20 TIMES GROWN.
*WHITE HYBRID
**WIDELY GROWN HYBRIDS.

TABLE 24. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN AT THE CLAYPAN RESEARCH STATION NEAR MCCREDIE, MO. (CALLAWAY COUNTY — IRRIGATION TEST) DURING THE 2-YEAR PERIOD 1972-73 AND THE 3-YEAR PERIOD 1971-73.

BRAND--HYBRID	2-YEAR AVERAGE					3-YEAR AVERAGE				
	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 2 MATURITY					
ASGROW RX100 (SX)	171.4	4.5	8.4	1.4	3.5	176.0	3.2	6.6	0.9	3.9
SUPERCROST 585 (SX)	167.9	1.8	14.0	0.8	3.8	-	-	-	-	-
HAPPELS MS-72 (SX)	167.4	0.0	21.7	1.2	3.8	-	-	-	-	-
MFA TX33 (3X)	143.9	3.7	8.7	1.9	3.8	-	-	-	-	-
MORTON 670C (SX)	171.1	1.6	15.1	0.9	3.8	-	-	-	-	-
MUNCYCHIEF SX878(SX)	155.9	27.4	8.7	1.0	3.9	-	-	-	-	-
NC+ 77SX (SX)	149.2	4.2	21.0	1.8	4.0	151.5	2.8	15.8	1.2	4.2
NK PX77 (SX)	150.1	21.0	3.5	0.3	3.9	-	-	-	-	-
PAG SX83 (SX)	170.7	10.2	22.5	0.6	3.8	-	-	-	-	-
PAULSMEYER SX300(SX)	148.3	3.1	10.9	1.6	4.0	-	-	-	-	-
PIONEER 3369A (SX)	163.4	6.4	9.5	1.9	4.0	168.9	4.3	8.4	1.3	4.2
PRINCETON SX850 (SX)	158.3	5.9	15.9	1.8	3.8	161.2	3.9	11.6	1.2	4.2
TROJAN TXS113 (SX)	176.6	4.7	5.2	0.9	3.8	-	-	-	-	-
					GROUP 3 MATURITY					
FEDERAL FX59 (SX)	169.6	0.6	9.9	0.1	3.8	-	-	-	-	-
MCCURDY MSX88 (SX)	165.6	2.9	11.7	0.7	3.9	174.9	2.0	9.0	0.5	4.1
AVERAGE	162.0	6.6	12.5	1.1	3.9	166.5	3.2	10.3	1.0	4.1

*WHITE HYBRID.

TABLE 25. 1973 PERFORMANCE RECORD FOR HYBRIDS GROWN UNDER IRRIGATION AT THE SOUTHWEST CENTER NEAR MT. VERNON, MISSOURI (LAWRENCE COUNTY). PLANTED APRIL 13, 1973. HARVESTED OCTOBER 2, 1973.

BRAND--HYBRID	ACRE YIELD (BU)	MOISTURE IN GRAIN (%)	PLANTS PER ACRE (#)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP I MATURITY						
FUNK'S G4465 (SPX)	112.4	23.1	23400	0.0	21.2	0.0	3.5
HOLDEN H1023 (SX)	120.5	25.6	23400	0.0	5.5	0.8	3.8
NK PX5CA (SX)	119.2	22.6	25400	0.0	8.7	0.0	3.3
	GROUP II MATURITY						
ACCO U392 (3X)	120.8	25.1	24100	0.8	11.4	0.0	3.7
ASGROW RX100 (SX)	158.7	25.7	26500	0.0	6.3	0.0	4.2
ASGROW RX92 (SX)	127.5	24.7	24800	0.0	9.1	0.0	3.8
BO-JAC X62 (SPX)	121.4	24.9	23200	0.0	9.1	0.0	3.5
BO-JAC X91 (SPX)	117.1	25.8	24700	0.0	6.7	0.0	3.7
CARGILL 930 (SX)	***	23.3	18400	0.0	0.0	0.0	3.5
CARGILL 979 (SX)	150.6	25.4	23400	0.0	5.5	0.0	4.0
COOP S-318 (SX)	167.3	25.5	25400	0.0	4.6	0.0	3.8
FEDERAL FT44 (3X)	***	23.8	22400	0.9	18.6	0.0	3.8
FUNK'S G4646 (SPX)	130.2	23.8	25800	0.0	7.8	0.0	3.5
FRONTIER CX37 (SX)	156.9	24.5	23600	0.0	11.1	0.0	3.7
SUPERCROST S85 (SX)	133.5	25.5	20600	0.0	3.6	0.0	4.0
HAPPELS H-37 (3X)	133.8	24.4	22100	0.0	2.9	0.0	4.0
HAPPELS MS-72 (SX)	110.7	26.6	21000	0.0	3.8	1.7	3.8
HOLDEN H1024 (SX)	143.7	24.2	25200	0.0	14.6	0.0	4.2
IA-MO. SX18 (SX)	142.2	25.7	22600	0.0	4.9	0.0	3.8
IA-MO. SX30 (SX)	113.8	25.5	23900	0.7	11.6	0.0	3.7
MFA TX33 (3X)	137.7	24.2	23600	0.0	10.9	0.8	4.2
MFA V16 (SX)	158.3	25.2	22300	0.0	13.5	0.0	4.0
MORTON 6700 (SX)	152.3	25.7	25400	0.0	10.1	0.0	4.0
MORTON 4901 (SX)	139.4	25.0	25800	0.7	22.2	0.0	4.2
MUNCYCHIEF SX878(SX)	123.1	24.7	20400	0.9	10.8	0.9	3.7
MCCURDY 72-28 (SX)	137.3	24.5	21700	0.9	8.5	0.0	4.0
MCNAIR X300 (SX)	137.2	26.0	23700	0.8	4.7	0.0	4.0
MCNAIR X210 (SX)	129.9	24.9	21000	0.0	7.9	0.0	3.8
NC+ 85SX (SX)	155.7	25.7	25200	0.0	7.3	0.0	4.0
NC+ 77SX (SX)	143.6	25.1	23700	0.0	2.6	0.0	4.0
NK PX77 (SX)	121.7	24.0	26100	0.0	7.1	0.0	3.8
OSGOLD SX550C (SX)	156.6	25.5	24300	0.0	11.4	1.5	4.0
PAG SX98 (SX)	148.8	25.5	25400	0.0	10.9	0.7	4.2
PAG SX83 (SX)	160.6	23.8	22100	0.0	8.6	0.0	3.8
PAULSMEYER SX300(SX)	135.1	25.3	19300	1.0	2.8	0.0	3.5
PIONEER 3195 (SX)	153.9	24.8	26900	0.0	8.8	0.0	4.2
PIONEER 3369A (SX)	119.9	24.5	26100	0.0	5.6	1.4	3.7
PRINCETON SX650 (SX)	***	24.4	23000	0.9	15.6	0.0	3.5
PRINCETON SX850 (SX)	140.9	24.7	25600	0.0	8.6	0.0	3.7
TROJAN TXS119 (SX)	135.0	24.9	25800	0.0	9.2	0.0	3.8
TROJAN TXS113 (SX)	144.5	25.1	26300	0.0	7.8	0.0	3.8
	GROUP III MATURITY						
ACCO UC970 (SX)	122.0	25.3	23000	0.0	24.3	0.8	4.2
COOP D-320 (DX)	107.5	25.0	22400	0.0	7.5	0.0	3.5
FEDERAL FX59 (SX)	129.6	25.5	23900	0.0	12.1	0.8	3.8
FRONTIER SX255 (SX)	133.4	25.7	23000	0.0	3.7	0.0	4.0
SUPERCROST 8282 (SX)	118.9	25.8	23000	0.0	4.0	0.8	3.5
MCCURDY MSX88 (SX)	146.7	25.0	24700	0.0	5.2	1.7	4.0
STULL 877 (SX)	124.4	25.8	22400	0.8	17.3	0.0	4.3
STULL 809A (3X)	143.1	24.9	24300	0.0	18.4	0.0	4.3
AVERAGE	135.6	24.9	23679	0.2	9.3	0.2	3.9

LSD AT 5% LEVEL IS 18.3 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 19 OF 20 TIMES GROWN.
LSD AT 20% LEVEL IS 11.7 BU. HYBRIDS DIFFERING BY MORE THAN THIS VALUE MAY BE EXPECTED TO DIFFER SIGNIFICANTLY IN YIELD 16 OF 20 TIMES GROWN.
*WHITE HYBRID
**WIDELY GROWN HYBRIDS.
*** YIELD NOT REPORTED DUE TO ERRATIC STAND.

TABLE 26. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN AT THE SOUTHWEST CENTER NEAR MT. VERNON, MO. (LAWRENCE COUNTY --IRRIGATION TEST) DURING THE 2-YEAR PERIOD 1972-73 AND THE 3-YEAR PERIOD 1971-73.

BRAND--HYBRID	2-YEAR AVERAGE					3-YEAR AVERAGE				
	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)	ACRE YIELD (BU)	LODGING ROOT (%)	LODGING STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
					GROUP 2 MATURITY					
ASGROW RX100 (SX)	156.6	2.7	4.9	0.3	4.1	162.9	1.9	3.6	0.2	4.3
SUPERCROST S85 (SX)	146.1	0.8	2.6	0.5	4.2	-	-	-	-	-
HAPPELS MS-72 (SX)	134.2	0.6	5.0	0.8	3.9	-	-	-	-	-
MFA TX33 (3X)	125.6	0.2	8.0	0.4	4.1	-	-	-	-	-
MORTON 6700 (SX)	151.8	0.2	6.7	0.1	4.0	-	-	-	-	-
MUNCYCHIEF SX878(SX)	120.9	32.4	7.8	0.7	3.9	-	-	-	-	-
NC+ 77SX (SX)	137.0	0.1	2.8	0.3	4.1	138.6	0.1	2.1	0.3	4.2
NK PX77 (SX)	118.2	25.0	4.9	0.3	4.1	-	-	-	-	-
PAG SX83 (SX)	161.2	10.0	7.6	0.3	4.0	-	-	-	-	-
PAULSMEYER SX300(SX)	135.2	1.7	2.6	0.3	3.8	-	-	-	-	-
PIONEER 3369A (SX)	123.4	2.3	10.2	0.8	4.1	135.4	1.5	6.8	0.7	4.3
PRINCETON SX850 (SX)	137.1	4.2	6.3	0.1	4.0	145.4	3.0	4.3	0.2	4.3
TROJAN TXS113 (SX)	141.9	5.4	5.3	0.3	4.1	-	-	-	-	-
					GROUP 3 MATURITY					
FEDERAL FX59 (SX)	133.2	0.4	7.0	0.9	3.9	-	-	-	-	-
MCCURDY MSX88 (SX)	151.3	0.2	3.9	1.0	4.1	153.1	0.1	3.9	0.8	4.3
AVERAGE	138.3	5.7	5.7	0.5	4.0	147.1	1.3	4.1	0.4	4.3

*WHITE HYBRID.

TABLE 27. SUMMARY PERFORMANCE RECORD FOR HYBRIDS GROWN UNDER IRRIGATION AT THE CLAYPAN RESEARCH STATION (CALLAWAY COUNTY) AND THE SOUTHWEST CENTER (LAWRENCE COUNTY) DURING 1973.

BRAND--HYBRID	ACRE YIELD (BU)	LODGED PLANTS ROOT (%)	LODGED PLANTS STALK (%)	DROPPED EARS (%)	EAR HEIGHT (FT)
	GROUP 1 MATURITY (2-LOCATION AVERAGE)				
FUNK'S G4465 (SPX)	128.3	10.9	14.1	0.0	3.5
HOLDEN H1023 (SX)	144.5	1.4	5.6	1.0	3.8
NK PX50A (SX)	129.6	11.8	8.9	1.6	3.3
	GROUP 2 MATURITY (2-LOCATION AVERAGE)				
ACCO U392 (3X)	142.4	7.4	12.4	1.0	3.7
ASGROW RX100 (SX)	164.5	3.6	7.8	1.2	4.2
ASGROW RX92 (SX)	144.4	8.6	9.1	0.3	3.9
BO-JAC X62 (SPX)	139.4	6.9	6.2	1.7	3.8
BO-JAC X91 (SPX)	140.0	3.3	8.9	0.3	3.7
CARGILL 979 (SX)	158.6	0.0	6.3	1.4	3.9
COOP S-318 (SX)	166.8	1.6	5.7	1.0	3.8
FUNK'S G4646 (SPX)	143.0	11.3	6.9	0.3	3.8
FRONTIER CX37 (SX)	160.8	6.6	12.0	1.4	3.8
SUPERCROST S85 (SX)	149.3	1.2	4.1	0.8	3.9
HAPPELS H-37 (3X)	137.7	2.5	7.8	1.8	3.9
HAPPELS MS-72 (SX)	137.6	0.0	7.4	1.8	3.8
HOLDEN H1024 (SX)	158.4	6.8	9.3	1.3	4.1
IA-MO. SX18 (SX)	160.6	0.3	6.8	0.7	3.8
IA-MO. SX30 (SX)	130.6	7.3	9.2	2.1	3.8
MFA TX33 (3X)	150.0	3.5	10.5	2.2	4.0
MFA V16 (SX)	166.5	1.7	9.8	1.7	4.0
MORTON 6700 (SX)	162.9	1.0	8.3	0.7	4.0
MORTON 4901 (SX)	150.3	7.0	20.4	0.6	4.1
MUNCYCHIEF SX878(SX)	136.6	22.4	10.4	1.4	3.7
MCCURDY 72-28 (SX)	154.7	4.9	8.1	1.4	3.9
MCNAIR X300 (SX)	138.1	11.7	6.9	0.7	3.9
MCNAIR X210 (SX)	146.0	2.6	7.4	0.0	3.8
NC+ 85SX (SX)	163.4	0.0	7.0	1.5	3.8
NC+ 77SX (SX)	148.7	3.7	5.4	1.2	4.0
NK PX77 (SX)	133.5	21.0	6.3	0.3	3.8
OSGOLD SX5500 (SX)	165.7	0.7	10.4	1.4	3.9
PAG SX98 (SX)	162.3	0.0	7.4	1.0	4.0
PAG SX83 (SX)	166.3	10.2	8.5	0.4	3.8
PAULSMEYER SX300(SX)	127.8	3.5	4.0	1.5	3.8
PIONEER 3195 (SX)	168.6	4.9	9.6	0.0	4.1
PIONEER 3369A (SX)	142.0	6.1	6.3	2.6	3.8
PRINCETON SX850 (SX)	147.7	5.6	12.3	1.5	3.8
TROJAN TXS119 (SX)	151.9	0.0	9.9	1.3	3.9
TROJAN TXS113 (SX)	163.0	4.0	7.5	0.9	3.8
	GROUP 3 MATURITY (2-LOCATION AVERAGE)				
ACCO UC9701 (SX)	132.5	8.4	19.9	2.5	4.1
COOP D-320 (DX)	120.1	5.1	8.3	0.7	3.8
FEDERAL FX59 (SX)	153.5	0.6	8.7	0.4	3.8
FRONTIER SX255 (SX)	152.8	0.0	4.9	1.0	4.1
SUPERCROST 8282 (SX)	139.3	2.1	6.2	1.4	3.5
MCCURDY MSX88 (SX)	155.9	2.8	5.8	1.6	4.2
STULL 877 (SX)	131.9	3.1	14.4	0.3	4.2
STULL 809A (3X)	145.5	3.3	15.5	1.7	4.2
MEAN	148.1	5.0	8.8	1.1	3.9

*WHITE HYBRID.

Table 28. Pedigree of open-pedigree hybrids tested in 1973.

Hybrid	Pedigree	Endosperm Color
Medium Maturity (110-120 days)		
Nebraska 611	(N7A x Mo 17)	yellow
Nebraska 620	(N7A x N7B) x Mo 17	yellow
US 13	(Wf9 x 38-11) (L317 x Hy)	yellow
	(H93 x Mo 17)	yellow
	(Va 26 x Mo 17 Ht)	yellow

Table 29. Location by district of open-pedigree hybrids in 1973 yield trials.

	Districts								
	Regular Planting Rate						Higher Planting Rate		
Hybrid	1	2	3	4	5	9	2	5	9
	Group II Maturity								
Nebraska 611				X					
Nebraska 620				X					
US 13	X	X	X	X	X	X	X	X	X
H93 x Mo 17		X		X					
Va 36 x Mo 17 Ht				X					

TABLE 30. COMMERCIAL ENTRIES IN THE 1973 MISSOURI HYBRID CORN EVALUATION TRIALS. X INDICATES THE LOCATION AT WHICH EACH HYBRID WAS EVALUATED.

	DISTRICTS											
	REGULAR PLANTING RATE						HIGHER PLANTING RATE			IRRIGATION TESTS		
HYBRID	1	2	3	4	5	9	2	5	9	5	7	
GROUP I MATURITY												
BEAR T495	X		X	X								
BO-JAC X35 (SPX)	X											
BO-JAC X4146 (SX)	X											
BO-JAC X51A (SX)	X											
BO-JAC X43 (SX)	X											
CARGILL 422 (3X)		X	X	X	X		X	X				
CARGILL 880 (SX)		X	X	X	X		X	X				
FUNK'S G4465 (SPX)	X	X	X	X	X	X	X	X	X	X	X	
CORN KING 1137 (SX)	X											
HOLDEN H1023 (SX)										X	X	
LEWIS X348 (SX)		X			X	X	X	X	X			
MFA 2180 (DX)		X					X					
MORTON 5200 (3X)			X									
MCCURDY MSX55 (SX)			X									
NC+ 57 (SX)	X											
NK PX50A (SX)		X			X		X	X		X	X	
PAG SX7 (SX)	X	X		X	X		X	X				
PAG 315 (3X)	X											
PIONEER 3390 (MX)	X	X	X	X	X		X	X				
PIONEER 3388 (MX)	X	X	X	X	X	X	X	X	X			
PIONEER 3517 (MX)	X	X	X	X	X		X	X				
PIONEER 3432 (DX)	X	X	X	X	X		X	X				
GROUP II MATURITY												
ACCO U392 (3X)	X	X	X	X	X		X	X		X	X	
ACCO UC 8601 (SX)			X	X								
ACCO UC 8801 (SX)	X	X	X	X	X		X	X				
ASGROW RX100 (SX)	X	X	X	X	X	X	X	X	X	X	X	
ASGROW RX92 (SX)	X	X	X	X	X	X	X	X	X	X	X	
ASGROW RX99A (SPX)	X	X	X	X	X	X	X	X	X			
ASGROW RX115 (SPX)						X			X			
BEAR T647			X	X								
BO-JAC X9 (SX)	X	X					X					
BO-JAC X7L (SX)	X	X	X	X	X		X	X				
BO-JAC X1A (SX)	X		X		X			X				
BO-JAC X91 (SPX)	X	X	X	X	X	X	X	X	X	X	X	
BO-JAC X62 (SPX)	X	X	X	X			X			X	X	
BO-JAC X83(SX)		X		X	X	X	X	X	X			
BO-JAC X9722 (SPX)				X	X			X				
CARGILL 940 (SX)	X			X								
CARGILL 470 (3X)	X											
CARGILL 930 (SX)	X			X						X	X	
CARGILL 979 (SX)	X	X	X	X	X		X	X		X	X	
COOP S-31E (SX)	X	X	X	X	X	X	X	X	X	X	X	
DEKALB XL66 (SX)	X		X	X	X	X		X	X			
DEKALB XL81 (SX)	X	X	X	X	X	X	X	X	X			
DEKALB XL347 (3X)	X			X	X			X				
DEKALB XL72A (SX)		X				X	X		X			
DEKALB XL64 (SX)		X					X					
FEDERAL FT44 (3X)	X									X	X	
FUNK'S G4697 (SPX)	X	X	X	X	X		X	X				
FUNK'S G4646 (SPX)	X	X	X	X	X	X	X	X	X	X	X	
FUNK'S G481C (SX)	X			X		X			X			
FUNK'S G4628 (SX)	X	X	X	X	X	X	X	X	X			
FUNK'S EXP26503 (SX)	X	X	X	X	X		X	X				
FUNK'S G4538W* (SX)	X			X								
FUNK'S G4554W* (3X)	X			X		X			X			
FRONTIER CX37 (SX)	X		X							X	X	
SUPERCROST S85 (SX)		X	X	X			X			X	X	
SUPERCROST S79 (SX)		X					X					
SUPERCROST 8442 (SX)		X					X					
HAPPELS 3361 (3X)	X	X	X	X	X		X	X				
HAPPELS MS-72 (SX)	X	X	X	X	X		X	X		X	X	

TABLE 30. CONTINUED.

HYBRID	DISTRICTS: REGULAR PLANTING RATE 1	2	3	4	5	9	HIGHER PLANTING RATE 2	5	9	IRRIGATION TESTS 5	7
					GROUP II MATURITY						
HAPPELS H-37 (3X)	X	X	X	X	X		X	X		X	X
HOLDEN H1C24 (SX)		X					X			X	X
IA-MC. SX17 (SX)			X								
IA-MC. SX18 (SX)			X							X	X
IA-MC. SX37 (SX)			X								
IA-MC. SX30 (SX)			X							X	X
LEWIS 701B (3X)			X								
LEWIS X78B (SX)	X	X	X	X	X	X	X	X	X		
LEWIS X80E (SX)					X	X		X	X		
LEWIS X62B (SX)	X	X	X	X	X	X	X	X	X		
LEWIS X41B (SX)		X	X		X		X	X			
MAYGOLD 29X (DX)	X	X					X				
MAYGOLD 2058 (3X)	X	X	X	X			X				
MAYGOLD 2044 (3X)	X	X	X	X			X				
MAYGOLD L47 (SX)	X	X	X	X			X				
MFA K6 (SX)		X					X				
MFA V12 (SX)	X	X	X	X	X	X	X	X	X		
MFA TX33 (3X)	X	X	X	X	X	X	X	X	X	X	X
MFA V16 (SX)	X	X	X	X	X	X	X	X	X	X	X
MFA 3030 (DX)	X	X	X	X	X	X	X	X	X		
MFA EXP23108 (SPX)	X	X	X	X	X	X	X	X	X		
MCEWS SM822 (SX)	X	X		X			X				
MCEWS SM822W* (SX)	X	X		X			X				
MCEWS SM622 (SX)	X	X		X			X				
MCRTCN 6700 (SX)			X							X	X
MORTON 49C1 (SX)			X							X	X
MCRTCN 6400 (3X)			X	X							
MORTCN 57C0 (SX)			X								
MUNCYCHIEF H764 (DX)					X			X			
MUNCYCHIEF SX878(SX)		X			X	X	X	X	X	X	X
MUNCYCHIEF SX777(SX)					X			X			
MUNCYCHIEF 3X898(3X)					X			X			
MCALLISTERSX6837(SX)	X	X	X	X	X		X	X			
MCALLISTERSX7176(SX)	X		X								
MCALLISTERSX7207(SX)			X	X							
MCCURCY MSP999 (3X)				X							
MCCURDY MSX88E (SX)	X			X							
MCCURCY MSX85 (SX)	X			X		X			X		
MCCURDY MSP888 (3X)	X			X							
MCCURCY MSX87 (SX)			X		X			X			
MCCURDY 72-25 (SX)			X		X			X			
MCCURDY 72-28 (SX)	X			X	X			X		X	X
MCNAIR X170 (SX)	X		X								
MCNAIR X180 (SX)	X		X								
MCNAIR X190 (SX)	X		X								
MCNAIR X210 (SX)			X			X			X	X	X
MCNAIR X214 (SX)	X		X								
MCNAIR X233* (SX)						X			X		
MCNAIR X300 (SX)						X			X	X	X
MCNAIR 73002 (SX)						X			X		
NC+ 77SX (SX)	X	X	X				X			X	X
NC+ 85SX (SX)		X					X			X	X
NK PX616 (3X)	X	X					X				
NK PX77 (SX)		X			X	X	X	X	X	X	X
NK PX67C (3X)		X			X	X	X	X	X		
OSGOLD SX5500 (SX)	X	X	X	X	X		X	X		X	X
OSGOLD SX32C0 (SX)					X			X			
OSGOLD TX104 (3X)		X					X				
OSGOLC TX105A (3X)	X		X								
PAG SX39 (SX)			X	X							
PAG SX98 (SX)			X	X	X	X		X	X	X	X
PAG SX83 (SX)				X		X			X	X	X
PAG SX93 (SX)					X			X			
PAG SX52C (SX)		X				X	X		X		
PAULSMEYER SX300(SX)			X		X			X		X	X
PIONEER 3306 (SX)	X	X	X	X	X		X	X			
PIONEER 3369A (SX)	X	X	X	X	X	X	X	X	X	X	X

TABLE 30. CONTINUED.

HYBRID	DISTRICTS: REGULAR PLANTING RATE 1	2	3	4	5	9	HIGHER PLANTING RATE 2	5	9	IRRIGATION TESTS 5	7
GROUP II MATURITY											
PIONEER 3385 (MX)	X	X	X	X	X		X	X			
PIONEER 3368 (MX)	X	X	X	X	X	X	X	X	X		
PIONEER 3219 (DX)	X	X	X	X	X		X	X			
PIONEER 3301 (SX)	X	X	X	X	X	X	X	X	X		
PIONEER 3366 (SX)	X	X	X	X	X		X	X			
PIONEER 3355 (3X)	X	X	X	X	X		X	X			
PIONEER 3195 (SX)	X	X	X	X	X	X	X	X	X	X	X
PRINCETON 990A* (DX)						X			X		
PRINCETON SX85C (SX)						X			X	X	X
PRINCETON SX65C (SX)						X			X	X	X
PRINCETON SX63C (SX)						X			X		
PRINCETON SX91C*(SX)						X			X		
PRINCETONSP935*(SPX)						X			X		
STULL 707 (SX)			X	X							
STULL 72C (SX)			X	X							
STULL EXP8092 (SX)			X	X							
TROJAN TXS118 (SX)	X	X				X	X		X		
TROJAN TXS119 (SX)	X	X	X	X	X	X	X	X	X	X	X
TROJAN TXS113 (SX)	X	X	X	X	X	X	X	X	X	X	X
TROJAN TX113 (3X)	X	X	X	X	X		X	X			
TROJAN TX117 (3X)	X	X	X	X	X	X	X	X	X		
TROJAN TX119A (3X)	X	X	X	X	X	X	X	X	X		
TROJAN TXS124 (SX)	X		X	X		X			X		
VINTON V95 (DX)		X					X				
ZIMMERMAN Z24 (SX)						X			X		
GROUP III MATURITY											
CARGILL 495 (3X)		X	X	X	X		X	X			
COOP S-304 (SX)			X		X			X			
COOP C-32C (DX)				X	X	X		X	X	X	X
FEDERAL FX59 (SX)					X			X		X	X
FONTANELLE 60CSC(SX)	X										
FONTANELLE 66OSC(SX)	X										
FUNK'S G5757 (DX)	X	X	X	X	X	X	X	X	X		
FUNK'S G4808 (SX)	X			X		X			X		
FUNK'S G4737 (SX)	X	X	X	X	X	X	X	X	X		
FUNK'S EXP262C5(SPX)	X	X	X	X	X	X	X	X	X		
FRONTIER SX255 (SX)	X		X							X	X
SUPERCROST 8282 (SX)		X	X				X			X	X
HOLDEN H1C26 (SX)						X			X		
MAYCLD L50 (SX)	X	X	X	X			X				
MCCURDY MSX88 (SX)	X	X	X	X	X		X	X		X	X
MCCURDY 908W* (4X)				X							
MCNAIR S338 (3X)						X			X		
NK KT680 (DX)		X					X				
PIONEER 3149 (SX)	X	X	X	X	X	X	X	X	X		
PIONEER 3147 (MX)	X	X	X	X	X	X	X	X	X		
STULL 555W* (DX)			X			X			X		
STULL 56CW* (3X)			X			X			X		
STULL 809 (SX)			X	X		X			X		
STULL 809A (3X)			X	X		X			X	X	X
STULL 877 (SX)			X			X			X	X	X
STULL 850W* (SX)			X			X			X		
STULL EXP8233 (3X)			X			X			X		
ZIMMERMAN Z11W* (SX)						X			X		
GROUP IV MATURITY											
MCCURDY 67-14 (SX)						X			X		

*WHITE HYBRID

Table 31. Sources of commercial seed corn for hybrids entered in the 1973 Missouri yield trials.

Brand	Firm	Address
ACCO	ACCO Seed	P. O. Box 9, Belmond, Iowa 50421
Asgrow	Asgrow Seed Company	P. O. Box 2010, Des Moines, Iowa 50310
Bear	Bear Hybrid Corn Company, Inc.	P. O. Box 628, Decatur, Illinois 62525
Bo-Jac	Bo-Jac Hybrid Corn Company	R. R. #2, Mt. Pulaski, Illinois 62548
Cargill	Cargill, Inc.	1433 Cargill Building, Minneapolis, Minn. 55402
Coop	Farmland Industries, Inc.	P. O. Box 7305, Kansas City, Missouri 64116
DeKalb	DeKalb Ag Research, Inc.	
Farmers	Farmers Hybrid Companies, Inc.	Hampton, Iowa 50441
Federal	Federal Hybrids	Route 3, Marion, Iowa 52302
Fontanelle	Fontanelle Hybrids	Nickerson, Nebraska 68044
Frontier	Frontier Hybrids, Inc.	Box 460, Hutchinson, Kansas 67501
Funk	Funk Seeds International, Inc.	1300 W. Washington, Bloomington, Illinois 61701
Super Crost	Edw. J. Funk & Sons, Inc.	P. O. Box 67, Kentland, Indiana 47951
Corn King	Malcolm H. Grieve	Pierson, Iowa 51048
Happel	Happel's Hybrids	Route #1, Palmyra, Missouri 63461
Holden	Holden Foundation Seed Company, Inc.	Williamsburg, Iowa 52361
Ia. - Mo.	Iowa-Missouri Hybrid Corn Company	Keosauqua, Iowa 52565
Lewis	Lewis Hybrids	Box 36, Ursa, Illinois 62376
Maygold	Earl May Seed & Nursery Company	Shenandoah, Iowa 51601
MFA	M. F. A. Seed Operations	Box 550, Marshall, Missouri 65340
Moews	The Moews Companies	P. O. Box 277, Granville, Illinois 61326
Morton	Roy A. Morton & Sons, Inc.	Bowen, Illinois 62316
Muncy Chief	Muncy Chief Hybrids	Market & High Streets, Muncy, Pennsylvania 17756
McAllister	McAllister Seed Company	Mt. Pleasant, Iowa 52641
McCurdy	McCurdy Seed Company	Fremont, Iowa 52561
McNair	McNair Seed Company	P. O. Box 706, Laurinburg, North Carolina 28352
NC+	NC+ Hybrids	Box 4408, Lincoln, Nebraska 68901
NK	Northrup-King & Company	P. O. Box 370, Richardson, Texas 75080
O's Gold	O's Gold Seed Company	P. O. Box 460, Parkersburg, Iowa 50665
PAG	P-A-G Seeds	Box 2187 Loop Station, Minneapolis, Minnesota 55402
Paulsmeyer's	Paulsmeyer & Paulsmeyer	Silex, Missouri 63372
Pioneer	Garst & Thomas Hybrid Corn Company	Coon Rapids, Iowa 50058
Princeton	Princeton Farms	P. O. Box 319, Princeton, Indiana 47670
Stull	Stull Bros., Inc.	P. O. Box 7, Sebree, Kentucky 42455
Trojan	Trojan Seed Company	Box 367, Windfall, Indiana 46076
Vinton	Vinton Hybrids	Vinton, Iowa 52349
Zimmerman	Zimmerman's Hybrids	R.R. #2, Evansville, Indiana 47712

PART II, GRAIN SORGHUM

INTRODUCTION

Locations. Grain sorghum performance trials were planted at six location in 1973. They were (1) the North Missouri Center near Spickard in Grundy County, (2) the Earl Page farm near Palmyra in Marion County, (3) the Bradford Research Farm near Columbia in Boone County, (4) the Southwest Center near Mt. Vernon in Lawrence County, (5) the Warren Lewellen farm near Appleton City in St. Clair County, and (6) at the Delta Center near Portageville in Pemiscot County. Yield trials were successful at the Bradford Research Farm in Boone County, the Lewellen farm in St. Clair County, and the Delta Center in Pemiscot County. The plots suffered severe bird damage at the other locations. The yield of the bird-resistant varieties at the Southwest Center are presented, however.

Selection of a hybrid. Small differences in yield should not be overemphasized since there was considerable inherent variability in the soil at each test site. Special planting arrangements and use of the statistical procedure called analysis of variance, from which the L.S.D. (least significant difference) value is computed, help make valid yield comparisons. The L.S.D. value, found at the bottom of the 1973 tables, simply states how much one hybrid must differ from another in yield to be reasonably confident of superior or inferior performance. Since we are presenting L.S.D. values at two levels of probability, 5 and 20%, additional explanation on the use of this statistic is hereby presented. The L.S.D. value at the 5% probability level indicates how much two hybrids must differ from each other to be sure that 19 out of 20 times grown these two hybrids would follow the same relative order. For the 20% level, two hybrids differing by more than the given L.S.D. value can be expected to perform in like manner 16 out of 20 times grown.

Also presented as an aid in identifying superior hybrid performance are the period-of-years tables and the table showing the average over all locations. Hybrids selected on the basis of more than one year's or one location's performance are much more likely to perform as expected than those not selected on this basis.

ENVIRONMENTAL CONDITIONS

The rainfall and temperature records for May 1 through September 15 at each location are reported in Tables 2 and 3 (corn section). Temperatures for 1973 were generally below normal (long-term averages) throughout the period May 1 to September 15.

EXPERIMENTAL METHODS

Seed source. All producers and distributors of grain sorghum seed were eligible to enter the tests in 1973. No limit was placed on the number of hybrids any one company could enter. Also widely grown hybrids were identified by a mail survey of Missouri farmers and tested on a no-fee basis. Table 32 lists the seed sources and identifies widely grown hybrids.

Field plot design. Fifty-six entries were tested at five of the sites (North Missouri Center, Marion County, Bradford Farm, St. Clair County, and Southwest Center). Individual entries were planted in one-row plots with three replications. The triple lattice field plot design was used to minimize soil and cultural differences. The length of individual plots was 25 feet with a harvested length of 20 feet. The distance between rows was 30 inches at the above five locations. At the Delta Center, eleven hybrids were evaluated on both a loam and a heavy clay soil using a randomized block design and four replications. Plot lengths were 42 and 47 feet, respectively, for the loam and clay soils. Row width was 38 inches, and the two center rows from a 4-row plot were harvested.

Yield. The acre yield (pounds) was determined in the following manner: (1) Boone and St. Clair Counties -- The grain was harvested with a research plot combine, weighed, and sampled for moisture. (2) Delta Center (Pemiscot County) -- The grain was harvested from the two center rows of a 4-row plot with a Massey 35 combine, weighed, and sampled for moisture content. (3) Southwest Center (Lawrence County) -- The heads were cut by hand, dried, weighed, threshed, and then the grain was weighed to approximately 6% moisture.

All yields were expressed on the basis of 12.5% moisture in the grain.

Plant height. The average height of the plants, in inches, was determined for each entry. These data are included in the tables for each location.

Head compactness. Compactness was graded from 1 to 5; 1 for most compact or tight head, and 5 for the most lax or loose head.

Exsertion. Exsertion is the relative distance that the head base protrudes above the top leaf blade. Grade 1 indicates the least exsertion and grade 5 the greatest.

Off-type heads, tall plants and lodged plants. Off-type heads, tall plants and lodged plants were counted prior to harvest. These data are intended mainly to indicate seed purity and ability of each entry to resist lodging under conditions encountered in each test.

Planting rate. The planting rate at all locations was six pounds per acre. This is equal to approximately 105 plants in a 20-foot row or 91,000 plants per acre.

Table 32. Variety and seed source of grain sorghum entries tested in 1973.

Brand-Variety	Seed Source
ACCO R109-A* R1019* R1029 R1090	ACCO Seed, Box 1630, Plainview, Texas 79072
Asgrow Dorado, Dorado M, Dorado TX	Asgrow Seed Company, P. O. Box 2010, Des Moines, Iowa 50310
Cargill TE66B*	Cargill, Inc., 1433 Cargill Bldg., Minneapolis, Minnesota 55402
DeKalb E-57* C-42Y* BR-64 E-59 BR-54	DeKalb Ag Research, Inc., Rt. 2, Lubbock, Texas 79415
Funk G-522* G-766W* G-393 G-399 G-577 G-634 G-490 G-516BR BR-79 Exp. HW 3636	Funk Seeds International, Inc., 1300 W. Washington Street, Bloomington, Illinois 61701
McNair 656BR 650 654	McNair Seed Company, Box 1132, Plainview, Texas 79072
MFA GS10*	MFA Seed Operations, Box 550, Marshall, Missouri 65340
Niagara Oro NCX1000S	Niagara Chemical Company, 11334 Elm St., Omaha, Nebraska 68144
N.K. 222G* Savanna-2 Savanna-3 266A	Northrup, King & Co., P. O. Box 370, Richardson, Texas 75080
P.A.G. 429*	P-A-G Seeds, Box 2187 Loop Station, Minneapolis, Minnesota 55402
Pioneer 833* 848* 8417 842 8442 8674 8311 X0382 8681	Garst & Thomas Hybrid Corn Company, Coon Rapids, Iowa 50058
Warner W-85 W-851 W-65 W-839 W-758	George Warner Seed Co., Box 1448, Hereford, Texas 79045
AKS 614 618 663*	Arkansas Agricultural Exp. Station, Fayetteville, Arkansas 72701
Martin	Kansas State Agricultural Exp. Station, Manhattan, Kansas 66502
RS625 RS626 RS671	Nebraska Agricultural Exp. Station, Lincoln, Nebraska 68503
RS702	Bunch Hybrids, Everest, Kansas 66424

*Widely grown varieties.

TABLE 33. 1973 PERFORMANCE OF GRAIN SORGHUM HYBRIDS EVALUATED AT THE BRADFORD FARM (BOONE COUNTY) NEAR COLUMBIA, MISSOURI. PLANTED MAY 25, 1973. HARVESTED OCTOBER 18, 1973.

					HEADS PER 20 FT ROW				
HYBRID/VARIETY	YIELD (LB/AC)	MOIS-TURE (%)	LODG-ING (%)	PLANTS 20' OF ROW (NO)	COM-PACT-NESS (1-5)	EXSER-TION (1-5)	OFF-TYPE HEADS (NO)	TALL PLANTS (NO)	PLANT HEIGHT (IN)
DEKALB 8R-54	5704	16.9	0.0	73	4.0	4.0	0.0	0.0	58
ASGROW DORADO	5290	15.5	0.4	77	3.0	2.0	0.3	0.7	48
PIONEER 8311	5232	15.6	0.4	80	3.0	2.0	0.0	0.0	48
DEKALB E-59	5203	15.5	0.0	68	2.3	2.7	0.0	0.0	47
MCNAIR 650	5137	15.5	0.4	72	3.0	2.7	0.0	0.0	47
NIAGARA ORO	5109	15.2	0.0	73	2.0	2.3	0.0	0.0	45
PIONEER 842	5048	16.1	0.4	81	1.7	3.0	0.0	0.0	53
ACCO R1029	5030	14.9	0.6	66	3.7	3.3	0.3	0.3	47
DEKALB 8R-64	5024	16.9	0.5	78	3.0	2.7	0.0	0.0	55
ASGROW DORADO M	4985	15.4	2.9	67	2.7	2.0	0.0	0.0	52
MFA GS10	4959	14.8	0.8	77	2.7	2.3	0.0	0.0	46
ACCO R1019	4849	15.3	0.0	71	3.0	2.7	0.0	0.0	45
ACCO R1090	4814	14.4	1.8	72	3.3	2.7	0.3	0.3	49
FUNK G-5168R	4779	16.7	0.0	61	4.3	2.3	0.0	0.3	45
N-K SAVANNA 3	4730	16.3	0.5	72	4.0	4.3	0.0	0.0	50
AKS 663	4656	15.6	0.0	64	5.0	4.7	0.0	0.0	52
PIONEER 8417	4648	16.1	3.1	76	3.7	2.0	0.0	0.3	48
MCNAIR 654	4614	15.3	4.7	60	3.7	3.3	0.0	0.0	49
DEKALB E-57	4610	16.2	0.5	73	4.3	3.3	0.0	0.7	50
PIONEER 8442	4559	15.5	0.0	68	2.3	3.3	0.0	0.3	46
FUNK G-522	4554	15.2	0.9	81	2.7	2.7	0.0	0.3	45
AKS 618	4553	15.5	7.0	88	5.0	3.7	0.0	0.3	48
FUNK G-634	4376	15.8	0.0	68	3.0	2.0	0.0	0.0	44
PIONEER 848	4368	16.2	0.6	75	2.7	4.3	0.0	0.3	49
N-K 266A	4354	16.0	0.0	82	1.7	4.7	0.0	0.0	52
RS 671	4351	15.6	1.4	66	2.0	2.0	0.0	1.0	49
FUNK G-766W	4339	14.8	0.0	76	2.0	2.3	0.3	0.3	55
PIONEER X0382	4314	15.6	0.0	82	2.3	2.0	0.0	0.3	47
AKS 614	4285	16.8	5.5	90	4.0	3.7	0.7	0.0	48
FUNK 8R79	4267	16.1	5.0	70	4.7	4.7	0.0	0.0	57
PIONEER 8674	4159	15.8	0.5	67	2.0	2.3	0.0	0.0	45
MCNAIR 6568R	4133	16.1	0.0	66	4.7	2.7	0.0	0.0	47
ASGROW DORADO TX	4093	15.4	7.0	59	4.7	4.0	0.0	0.7	49
WARNER W-85	4068	15.6	0.5	71	2.0	3.3	0.0	0.0	49
NIAGARA NCX1000S	4059	14.7	9.9	71	4.0	3.3	0.0	0.3	51
N-K 222G	4036	18.8	0.0	85	3.0	2.0	0.0	0.3	47
PIONEER 833	4010	15.6	0.4	80	1.7	2.0	0.0	0.3	56
N-K SAVANNA 2	3988	16.4	4.4	69	3.7	2.3	0.0	0.7	46
RS 626	3937	15.5	0.5	64	1.7	2.7	1.0	2.0	47
ACCO R109-A	3930	15.9	0.0	74	2.7	1.7	0.0	1.3	46
FUNK G-490	3922	14.7	0.0	72	3.3	3.0	0.0	0.0	46
PIONEER 8681	3907	14.7	3.2	80	2.7	4.0	0.0	0.0	46
WARNER W-758	3820	16.5	0.5	59	4.7	3.0	0.0	0.3	48
RS 702	3620	17.4	0.0	54	2.0	2.0	0.0	0.0	45
WARNER W-65	3466	14.5	0.5	65	3.0	1.7	0.0	0.0	40
WARNER W-839	3370	15.7	0.0	28	2.3	1.7	0.0	0.7	43
CARGILL TE668	3268	14.5	0.0	68	2.0	3.3	0.0	1.0	42
MARTIN	3127	15.6	2.3	84	3.7	4.7	0.3	0.0	48
RS 625	3119	15.2	0.9	72	3.0	3.7	0.0	0.7	45
WARNER W-851	3115	14.7	0.0	40	2.0	1.7	0.0	0.3	45
DEKALB C-42Y	3110	15.4	0.0	59	3.3	5.0	0.0	0.7	52
FUNK G-577	3035	15.4	4.0	66	2.3	3.0	0.0	0.3	48
FUNK EXP. HW3636	3013	15.9	0.0	51	2.7	3.3	0.0	0.3	45
PAG 429	2993	14.9	0.4	77	2.7	4.0	0.0	0.3	47
FUNK G-393	2735	16.1	0.5	75	2.7	4.0	0.0	0.3	49
FUNK G-399	2538	16.0	0.4	76	3.0	3.0	0.3	0.0	44
	4202	15.7	1.3	70	3.0	3.0	0.1	0.3	48

LSD at 5% level is 907 lb. Hybrids differing by more than this value may be expected to differ significantly in yield 19 of 20 times grown.
LSD at 20% level is 580 lb. Hybrids differing by more than this value may be expected to differ significantly in yield 4 of 5 times grown.

TABLE 34. 1973 PERFORMANCE OF GRAIN SORGHUM HYBRIDS EVALUATED ON THE WARREN LEWELLEN FARM (ST. CLAIR COUNTY) NEAR APPLETON CITY, MISSOURI. PLANTED JUNE 2, 1973. HARVESTED OCTOBER 16, 1973.

					HEADS		PER 20 FT ROW		
HYBRID/VARIETY	YIELD (LB/AC)	MOIS-TURE (%)	LODG-ING (%)	PLANTS 20' OF ROW (NO)	COM-PACT-NESS (1-5)	EXSER-TION (1-5)	OFF-TYPE HEADS (NO)	TALL PLANTS (NO)	PLANT HEIGHT (IN)
DEKALB BR-54	6068	16.8	0.0	57	3.0	3.7	0.0	0.0	58
DEKALB BR-64	5380	19.7	0.0	53	3.7	3.0	0.0	0.0	58
ASGROW DORADO	5061	14.1	0.0	65	3.3	3.7	0.0	0.0	45
AKS 663	5017	17.3	4.6	57	5.0	4.0	0.0	0.0	50
PIONEER 8311	4991	16.6	0.0	59	2.0	2.3	0.0	0.3	45
N-K 222G	4986	15.4	1.1	66	3.0	3.0	0.0	0.0	45
PIONEER X0382	4977	15.8	0.0	67	1.3	3.7	0.0	0.0	48
FUNK G-766W	4905	15.7	0.0	61	1.0	3.7	1.3	0.3	54
N-K 266A	4872	16.5	0.0	61	1.7	4.0	0.0	0.0	48
N-K SAVANNA 2	4824	18.1	4.4	51	3.0	2.3	0.0	0.0	48
ASGROW DORADO M	4689	15.4	0.0	54	2.0	2.7	0.0	0.7	51
PIONEER 8417	4646	16.7	0.0	62	3.3	2.0	0.0	0.0	47
PIONEER 8442	4643	15.9	1.8	62	1.7	3.3	0.0	0.0	46
NIAGARA NCX1000S	4628	15.3	0.6	56	4.0	4.0	0.0	0.7	50
FUNK G-634	4595	17.7	0.0	57	2.7	3.0	0.0	0.3	46
FUNK G-522	4579	15.1	0.0	56	3.3	2.3	0.0	0.7	45
ACCO R1090	4572	14.4	3.7	49	3.3	3.0	0.0	0.0	48
FUNK BR79	4571	17.9	0.7	52	4.7	3.7	0.0	0.0	46
ACCO R1019	4541	15.0	0.0	54	2.7	2.0	0.0	0.0	45
ACCO R109-A	4466	15.3	0.0	50	3.0	2.3	0.0	0.0	45
DEKALB E-57	4457	16.3	0.6	58	4.0	4.0	0.0	0.0	48
FUNK G-516BR	4452	17.3	0.4	64	4.0	2.3	0.0	0.3	48
MCNAIR 654	4423	15.6	0.0	50	2.7	3.3	0.0	0.3	49
MFA GS10	4419	15.2	0.0	58	2.3	2.3	0.0	0.0	47
PIONEER 842	4377	16.8	0.0	57	1.0	2.3	0.0	0.0	49
NIAGARA ORO	4349	15.3	1.6	52	2.3	3.0	0.0	0.0	44
RS 626	4347	15.4	0.0	53	1.3	3.7	0.0	1.0	46
MCNAIR 650	4305	15.0	0.0	59	3.3	2.0	0.0	0.0	45
DEKALB E-59	4274	16.3	0.0	59	3.0	3.3	0.0	0.0	47
RS 671	4231	15.4	0.0	49	2.0	3.0	0.0	0.0	47
WARNER W-85	4194	15.3	1.1	56	1.7	2.7	0.0	0.0	46
FUNK G-393	4186	15.2	0.4	58	3.0	4.3	0.0	0.3	45
PIONEER 848	4152	15.6	0.0	55	3.0	4.0	0.0	0.0	44
MCNAIR 656BR	4018	18.3	0.0	53	3.3	3.0	2.7	2.7	47
FUNK G-490	3918	15.1	0.7	60	2.3	3.0	0.0	0.3	46
WARNER W-758	3905	17.8	2.2	45	4.7	3.3	0.0	0.0	46
PIONEER 833	3886	15.6	0.0	59	1.0	2.0	0.0	0.0	45
FUNK G-577	3862	16.5	0.0	54	1.3	3.7	0.0	0.3	50
N-K SAVANNA 3	3827	18.5	0.0	52	4.3	3.7	0.3	0.0	47
AKS 614	3808	16.8	3.5	65	4.0	3.0	0.0	0.0	47
ASGROW DORADO TX	3795	15.0	0.0	52	3.7	4.0	0.0	0.0	51
RS 625	3767	15.0	0.0	56	3.0	4.0	0.3	0.0	44
PIONEER 8674	3733	15.1	1.3	54	2.0	3.3	0.7	0.0	45
CARGILL TE66B	3565	14.8	0.0	61	1.3	3.0	0.3	0.3	44
PIONEER 8681	3525	14.8	1.1	51	2.3	4.0	0.0	0.0	46
ACCO R1029	3498	14.7	0.0	50	3.3	3.7	0.0	0.0	45
WARNER W-65	3442	14.4	0.8	54	2.0	2.7	0.7	0.0	41
MARTIN	3348	15.5	0.0	81	3.0	3.3	0.3	0.3	43
DEKALB C-42Y	3336	15.3	0.7	44	2.3	4.7	0.3	0.3	51
PAG 429	3293	14.5	0.0	62	3.0	3.0	0.0	0.0	44
AKS 618	3283	16.3	0.0	57	4.3	3.3	0.0	0.0	48
WARNER W-839	3134	17.1	0.0	25	2.3	1.0	0.0	0.0	45
FUNK EXP. HW3636	2806	16.5	0.0	33	3.7	2.7	0.0	0.0	44
FUNK G-399	2724	15.3	0.7	43	2.3	2.7	0.0	0.3	42
RS 702	2419	23.1	0.0	28	1.0	1.0	0.0	0.0	45
WARNER W-851	2364	15.4	0.0	31	2.0	1.0	0.0	0.0	52
	4150	16.1	0.6	54	2.7	3.1	0.1	0.2	46

LSD at 5% level is 1035 lb. Hybrids differing by more than this value may be expected to differ significantly in yield 19 of 20 times grown.
LSD at 20% level is 624 lb. Hybrids differing by more than this value may be expected to differ significantly in yield 4 of 5 times grown.

Table 35. 1973 performance record for grain sorghum hybrids and varieties in the yield trial conducted in Lawrence County at the Southwest Center near Mt. Vernon, Missouri. Planted June 8, 1973. Harvested October 26, 1973.

Brand-Variety	Acre Yield (lb)	Lodging (%)	Heads in 25 ft. (no)	Heads		Per 20 ft. Row		
				Compactness (1-5)	Exsertion (1-5)	Off-Type Heads (no)	Tall Plants (no)	Plant Height (in)
DeKalb BR-64	7643	0.4	87	4.3	4.7	0.0	0.0	52
Funk BR-79	7238	0.0	83	5.0	4.0	1.0	0.0	51
Warner W-758	6926	3.2	86	5.0	2.7	2.0	0.0	46
Funk G-516BR	6863	0.4	81	5.0	2.3	0.0	0.0	43
AKS 663	6707	1.3	77	5.0	4.3	0.0	0.0	48
NK Savanna-2	6645	1.0	68	3.7	2.7	0.7	0.0	43
DeKalb BR-54	6520	0.0	81	4.3	3.6	0.7	0.0	50
AKS 618	6208	1.4	86	4.7	4.3	0.3	0.0	45
AKS 614	5927	0.0	84	4.7	1.7	4.0	0.0	41
NK Savanna-3	5927	1.3	77	5.0	3.7	0.3	0.0	41
McNair 656BR	5553	3.6	72	5.0	2.7	4.7	0.3	41
Mean	6560	1.1	80	4.7	3.3	1.2	0.03	45

LSD at 5% level is 975 lb. Hybrids differing by more than this value may be expected to differ significantly in yield 19 of 20 times grown.

LSD at 20% level is 619 lb. Hybrids differing by more than this value may be expected to differ significantly in yield 16 out of 20 times grown.

Table 36. 1973 performance record for grain sorghum hybrids included in the yield trial conducted in Pemiscot County at the Delta Center near Portageville, Missouri. Planted June 8, 1973. Harvested September 17, 1973. (Loam)

Brand-Variety	Acre Yield (lb)	Plants in 10 ft. (no)	Heads		Per 42 ft. Row		Plant Height (in)	Planting to 50% bloom (days)	Moisture in Grain (%)
			Compactness (1-5)	Exsertion (1-5)	Off-type Heads (no)	Tall Plants (no)			
AKS 614	5363	53	3.8	3.2	0.8	4	53	51	18.0
AKS 618	5355	46	4.8	2.4	1.5	7	53	50	16.5
Warner W-758	5309	54	4.8	3.7	0.3	9	52	50	17.4
Funk G-516-BR	5121	58	3.5	3.2	0.3	9	53	59	21.7
NK Savanna-2	5117	60	2.0	4.4	0.0	5	52	58	20.9
NK Savanna-3	4994	62	3.8	3.4	0.3	3	53	56	19.4
AKS 663	4877	50	4.8	4.0	0.0	5	59	61	22.8
DeKalb BR-64	4653	58	3.0	3.9	0.0	4	62	57	23.3
Funk BR 79	4358	50	3.5	3.5	0.5	6	57	55	20.7
McNair 656 BR	4345	60	4.0	3.0	0.8	7	53	58	21.7
DeKalb BR-64	4149	66	3.3	4.2	0.0	8	69	59	20.9
Mean	4876	56	3.7	3.5	0.4	6	56	56	20.3

LSD at the 5% level is 670 lb. Hybrids differing by more than this value may be expected to differ significantly 19 of 20 times grown.
LSD at the 20% level is 429 lb. Hybrids differing by more than this value may be expected to differ significantly 4 of 5 times grown.

Table 37. 1973 performance record for grain sorghum hybrids included in the yield trial conducted in Pemiscot County at the Delta Center near Portageville, Missouri. Planted July 3, 1973. Harvested (Gumbo)

Brand-Variety	Acre Yield (lb)	Plants in 10 ft (no)	Heads		Per 47 ft. Row		Plant Height (in)	Planting to 50% bloom (days)	Moisture in Grain (%)
			Compactness (1-5)	Exsertion (1-5)	Off-type Heads (no)	Tall Plants (no)			
AKS 618	4812	29	4.5	1.9	0.3	10	47	56	19.6
AKS 614	4502	35	3.5	1.9	0.0	7	49	56	21.0
DeKalb BR-54	4417	47	2.8	3.3	0.0	10	57	58	20.6
Funk G-516 BR	4379	37	3.3	1.7	0.0	13	43	58	21.5
Funk BR 79	4217	30	3.5	2.3	0.0	13	54	57	23.9
Warner W-758	4047	34	4.3	2.0	0.3	16	43	57	20.4
NK Savanna-3	3855	34	3.3	2.0	0.0	2	46	58	19.9
DeKalb BR-64	3820	37	3.5	3.9	0.0	6	54	58	23.4
NK Savanna-2	3796	33	3.3	2.4	0.0	0	46	59	21.5
McNair 656 BR	3338	43	2.8	1.7	0.5	7	44	59	20.6
AKS 663	2977	24	5.0	3.0	0.3	6	48	60	21.8
Mean	4015	35	3.6	2.4	0.1	8	48	58	21.3

LSD at the 5% level is 729 lb. Hybrids differing by more than this value may be expected to differ significantly in yield 19 of 20 times grown.
LSD at the 20% level is 467 lb. Hybrids differing by more than this value may be expected to differ significantly in yield of 4 of 5 times grown.

TABLE 38. AVERAGE PERFORMANCE RECORD OF GRAIN SORGHUM HYBRIDS EVALUATED IN BOONE AND ST. CLAIR COUNTIES DURING 1973.

BRAND-VARIETY	ACRE YIELD (LB)	GRAIN MOIS-TURE (%)	LODGED PLANTS (%)	HEADS IN 20 FEET (#)	HEADS COMPT-NESS (1-5)	HEADS EXSER-TION (1-5)	20 FT. OF ROW OFF-TYPE HEADS (#)	20 FT. OF ROW TALL PLANTS (#)	PLANT HEIGHT (#)
DEKALB BR-54	4932	15.9	0.0	55	3.5	3.6	0.0	0.0	54
PIONEER 8311	4930	15.4	0.5	68	3.5	3.0	0.0	0.3	49
PIONEER 842	4847	16.4	0.2	72	2.5	2.5	0.0	0.0	50
PIONEER X0382	4774	15.1	1.8	58	2.3	3.3	0.0	0.0	48
ASGROW DORADO TX	4736	17.5	3.5	56	4.2	2.5	0.0	0.3	52
FUNK G-516BR	4734	16.0	0.0	58	3.1	2.5	0.0	0.5	46
ACCO R1029	4726	15.3	0.3	56	3.2	3.3	0.1	0.3	48
FUNK G-516BR	4714	16.5	0.2	66	2.6	3.0	0.0	0.1	48
PIONEER 842	4625	16.6	0.0	59	1.3	3.1	0.0	0.0	48
ACCO R1090	4616	14.8	0.9	65	2.6	2.5	0.1	0.1	46
DEKALB BR-54	4601	15.8	0.0	62	3.6	3.9	0.0	0.0	51
ACCO R1019	4599	15.3	0.8	61	2.6	2.8	0.0	0.0	44
N-K SAVANNA 3	4594	16.3	0.5	65	4.0	4.1	0.0	0.0	49
ASGROW DORADO M	4578	15.3	0.0	52	2.5	2.9	0.0	0.3	48
FUNK EXP. HW3636	4541	16.3	0.0	54	2.8	3.5	0.0	0.1	51
MFA GS10	4488	16.5	0.4	65	3.0	2.6	1.2	1.3	46
NIAGARA NCX1000S	4487	15.3	0.3	54	2.6	3.3	0.0	0.8	48
DEKALB E-59	4468	15.3	0.7	61	2.1	3.0	0.3	0.0	46
PIONEER 8681	4462	16.0	3.9	69	3.5	4.0	0.0	0.0	48
NIAGARA NCX1000S	4441	16.4	7.1	61	3.5	2.8	0.0	0.1	49
ACCO R109-A	4421	16.0	0.0	53	2.0	2.3	0.0	0.0	47
ASGROW DORADO M	4397	16.1	3.2	66	3.3	2.5	0.0	0.0	46
FUNK G-766W	4396	16.0	0.2	70	3.0	2.3	0.1	0.3	51
FUNK G-766W	4396	15.6	0.0	60	1.0	2.8	0.7	0.1	49
FUNK BR79	4379	16.5	0.5	55	3.9	4.0	0.0	0.1	45
RS 702	4340	15.7	0.0	60	2.6	2.8	0.0	0.0	45
PIONEER 8681	4256	15.1	1.1	59	2.8	3.5	0.0	0.0	46
DEKALB E-59	4253	15.8	0.0	54	2.5	3.1	0.0	0.0	47
FUNK BR79	4230	15.7	3.1	63	3.2	3.7	0.0	0.0	51
ACCO R1019	4229	15.0	0.3	57	2.5	2.5	0.0	0.1	45
AKS 618	4229	16.6	4.6	66	4.8	3.5	0.0	0.1	47
PIONEER 8311	4217	15.5	0.4	57	2.0	2.5	0.3	0.1	43
N-K SAVANNA 3	4211	18.1	0.0	54	3.5	3.3	0.1	0.1	46
ACCO R1090	4199	16.4	1.8	50	3.8	3.3	0.1	0.0	47
MARTIN	4127	15.6	0.0	71	2.0	3.5	0.8	0.3	48
ACCO R1029	4071	15.3	0.9	56	2.5	3.5	0.0	0.0	45
FUNK G-577	4068	16.4	0.0	50	2.1	3.5	0.0	0.1	48
AKS 618	3931	15.7	0.0	56	3.6	2.8	0.0	0.3	46
PAG 429	3917	14.8	0.0	58	2.8	2.5	0.0	0.0	44
AKS 614	3905	15.8	3.3	71	3.1	3.8	0.3	0.0	47
FUNK EXP. HW3636	3899	16.6	0.0	46	2.8	2.5	0.0	0.1	44
PIONEER 833	3874	16.0	0.0	56	1.1	2.8	0.0	0.1	47
WARNER W-839	3838	15.3	0.0	44	2.8	1.8	0.0	0.3	44
PIONEER X0382	3804	15.0	0.0	72	2.0	2.5	0.0	0.1	45
PAG 429	3782	16.4	0.5	65	3.7	3.8	0.0	0.1	46
WARNER W-65	3617	14.8	0.3	61	3.0	2.6	0.1	0.0	42
ASGROW DORADO TX	3565	15.1	0.3	48	3.0	4.3	0.1	0.1	51
AKS 614	3546	16.6	1.8	61	4.1	3.1	0.0	0.0	47
WARNER W-65	3503	14.6	0.4	57	1.6	2.8	0.5	0.1	42
PIONEER 833	3408	16.0	0.2	56	2.7	2.3	0.0	0.1	50
MFA GS10	3391	15.3	0.0	44	2.1	1.6	0.0	0.0	49
RS 702	3285	19.3	0.0	41	2.0	2.5	0.0	0.0	44
MARTIN	3238	15.5	1.1	82	3.3	4.0	0.3	0.1	45
ACCO R109-A	3174	19.5	0.0	51	1.8	1.3	0.0	0.7	45
FUNK G-577	3085	16.3	2.0	45	2.5	2.0	0.0	0.1	46
WARNER W-839	2929	16.2	0.3	34	2.3	1.8	0.0	0.1	43
MEAN	4176	15.9	0.9	62	2.9	3.0	0.1	0.2	47

Table 39. Summary of performance records for grain sorghum entries tested near Columbia, Missouri for the period 1971-1973.

Brand-Variety	2-Year Average[1]				3-Year Average			
		Heads				Heads		
	Acre Yield (lb/A)	Compactness (1-5)	Exsertion (1-5)	Plant Height (in)	Acre Yield (lb/A)	Compactness (1-5)	Exsertion (1-5)	Plant Height (in)
DeKalb E-59	5188	3.0	2.5	44	5546	3.0	3.0	45
DeKalb BR-64	5147	3.5	3.0	54	5878	3.7	3.6	53
Pioneer 842	4943	2.4	2.8	49	5803	2.2	3.1	49
MFA GS10	4930	3.2	2.3	43	5507	3.0	2.5	42
Asgrow Dorado M	4921	3.2	2.6	47	5665	3.0	3.3	48
N.K. Savanna-2	4650	4.0	2.3	44	----	---	---	--
McNair 650	4636	3.2	2.5	43	----	---	---	--
McNair 654	4605	3.8	3.0	46	5690	3.6	3.0	43
AKS 614	4553	4.4	3.8	45	5360	4.0	3.7	46
Niagara Oro	4540	2.8	2.3	43	----	---	---	--
Pioneer 8417	4485	4.2	2.5	45	----	---	---	--
N.K. Savanna-3	4304	4.2	3.8	47	----	---	---	--
AKS 663	4264	5.0	4.3	51	5126	5.0	4.5	51
Pioneer 8674	4017	2.5	2.8	42	----	---	---	--
Pioneer 833	3868	2.2	2.4	49	4661	2.2	2.9	50
Pioneer 8681	3833	2.9	3.5	43	----	---	---	--
Warner W-851	3528	2.7	2.4	41	4181	2.8	2.3	41
Martin	2860	3.9	3.8	44	3364	3.5	4.1	44
Mean	4404	3.4	2.9	46	5162	3.3	3.3	47

[1]Average of 1972-1973 data.

Table 40. Summary of performance records for grain sorghum entries tested near Mt. Vernon, Missouri for the period 1971-1973.

Brand-Variety	2-Year Average[1]				3-Year Average			
		Heads				Heads		
	Acre Yield (lb/A)	Compactness (1-5)	Exsertion (1-5)	Plant Height (in)	Acre Yield (lb/A)	Compactness (1-5)	Exsertion (1-5)	Plant Height (in)
DeKalb B4-64	6644	4.3	4.3	49	6041	4.4	4.4	49
N.K. Savanna-2	6159	3.5	2.3	40	----	---	---	--
AKS 614	6052	4.5	1.8	39	6201	4.6	2.7	42
AKS 663	5781	5.0	4.5	47	4947	4.9	4.2	48
N.K. Savanna-3	5707	5.0	3.0	39	----	---	---	--
Mean	6069	4.5	3.2	43	5730	4.6	3.8	46

[1]Average of 1972-1973 data.

Table 41. Summary of performance records for grain sorghum entries tested at the Delta Center near Portageville, Missouri for the period 1971-1973. (Loam)

Brand-Variety	2-Year Average[1]				3-Year Average			
		Heads				Heads		
	Acre Yield (lb)	Compactness (1-5)	Exsertion (1-5)	Plant Height (in)	Acre Yield (lb)	Compactness (1-5)	Exsertion (1-5)	Plant Height (in)
AKS 614	5711	4.4	3.1	52	5759	4.2	3.2	54
Warner W-758	5578	4.9	3.0	49	5818	4.4	3.0	53
NK Savanna-3	5404	4.4	3.6	51	----	---	---	--
NK Savanna-2	4826	2.9	3.8	50	----	---	---	--
AKS 663	4265	4.9	3.7	56	4987	4.9	3.7	58
DeKalb BR-64	4191	3.2	3.6	60	4966	3.1	3.7	62

[1] Average of 1972 -1973 data.

Table 42. Summary of performance records for grain sorghum entries tested at the Delta Center near Portageville, Missouri for the period 1971-1973. (Gumbo)

Brand-Variety	2-Year Average [1]				3-Year Average			
		Heads				Heads		
	Acre Yield (lb)	Compactness (1-5)	Exsertion (1-5)	Plant Height (in)	Acre Yield (lb)	Compactness (1-5)	Exsertion (1-5)	Plant Height (in)
DeKalb BR-64	5167	3.6	4.0	58	4925	3.4	3.9	58
NK Savanna-3	5085	3.8	3.2	48	----	---	---	--
NK Savanna-2	5018	3.2	3.1	49	----	---	---	--
AKS 614	5000	4.0	2.5	50	4712	3.7	2.6	52
Warner W-758	4727	4.4	2.3	46	4605	4.0	2.5	47
AKS 663	4489	5.0	3.4	52	4465	5.0	3.5	54

[1] Average of 1972-1973 data.