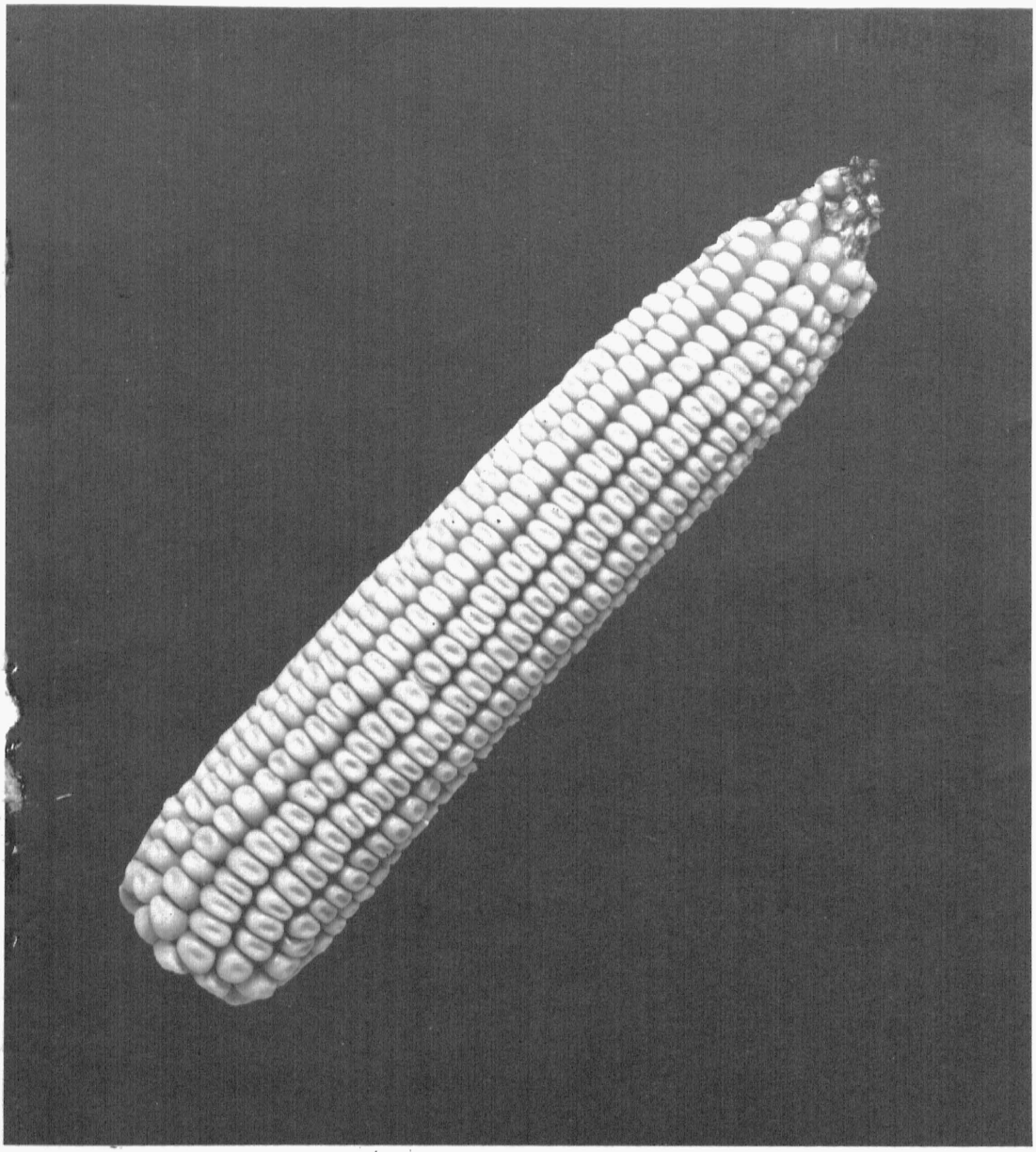
White Maize

Crop Performance

1978



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University of Missouri-Columbia
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University of Tennessee
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Many collaborators contribute to the successful operation of a regional evaluation such as the White Maize Variety Trial. Seed was entered by 18 companies. The following individuals assisted in conducting the 1978 trial: Carl Morris, Charles Thiel, William Forgey, and Cecil Schull, Columbia, MO; Dr. Marvin Rode and the staff of Illinois Foundation Seed, Inc., Champaign, IL; and Dr. W. D. Guthrie of the Corn Insects Research Laboratory, Ankeny, IA. We thank Ms. D. Pennington for careful typing of the manuscript.

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The 1978 White Maize Variety Trial involved 47 hybrids submitted by 18 commercial seed producers (Table 1). Fourteen sites participated in the evaluation, but only 11 were able to return data. Trials at Marshall, Missouri; Iowa City, Iowa; and Greenville, Tennessee failed. Data were received from sites in Missouri, Iowa, Illinois, Indiana, Kansas, and Tennessee. Virus data were obtained from Waverly, Tennessee and European Corn Borer ratings were done at Ankeny, Iowa.

DATA COLLECTED

Yield

Yields were measured on a plot basis and converted to quintals per hectare (q/ha = 100kg/ha) and adjusted to 15.5 percent moisture. Yields reported have been adjusted for percent stand at each site except Rossville, Kansas. Adjustments were small at all but Columbia, Missouri (Rollins Bottom) and Washington, Iowa where error was substantially reduced. To convert q/ha to bu/a, multiply by 1.6.

Stand

Stand is expressed as a percentage of the optimum plot stand or planted stand. Some trials were overplanted and thinned.

Root and stalk lodging

Lodging is expressed as a percentage of the counted stand for each hybrid. Generally, a plant was rated as root lodged if it leaned more than 30 degrees from vertical; and as stalk lodged if it was broken over or off below the ear. Breakage above the ear was not counted.

Dropped ears

Ears breaking away from the stalk are counted as dropped ears and calculated as a percentage of the counted stand. With increased use of mechanical harvesting equipment, reliability of this character has decreased because of the difficulty of spotting the dropped ears from a moving combine.

Ear and plant height

Ear height was measured from the soil level to the top ear leaf collar. Plant height was measured either from the soil to the top leaf collar or to the base branch of the tassel. Our analysis has not distinguished between the two procedures. Heights are expressed in centimeters (cm). To convert centimeters to inches, multiply by 0.4.

Days to flowering

The number of days from planting to mid-tassel or mid-silk is shown.

Growing degree days

Degree days from planting to 20 percent flowering are recorded.

Usable ears per 100 plants

The number of usable ears is calculated as a percentage of the counted stand and expressed as ears per 100 plants.

Virus ratings

Virus infection percentage (VIR INF %) is the percentage of plants in the plot showing symptoms. Virus severity (VIR SEVR) is a rating of diseased plants using a scale on which 2 represents a

mildly diseased plant and 9 represents a severely damaged plant. Unaffected plants (scored 1) are not included in VIR SEVR. Average virus rating (AVG VIRS) is the mean severity of all plants in the plot.

European corn borer ratings

Leaf feeding by the first generation of the European corn borer (1ST ECB) was rated in nine classes in which a score of 1 represents no feeding and 9 represents extensive feeding. Six plants in each plot were infested with two egg masses in each of five applications during the whorl stage. Ratings were made three weeks after egg hatch.

Sheath-collar feeding by the second generation of the European corn borer (2ND ECB) was rated on a 1-9 scale. Six plants per plot were infested with two egg masses in each of eight applications during flowering. Rating was done about 60 days after egg hatch. Susceptible and resistant checks were included and are noted in Table 15.

Environmental yield response (b_I) and standard deviation of fit

These statistics are shown for the entry means combined over all sites only in Table 14. The yield response (b_I) is expressed as q/ha/unit increase in the environmental index, where the index for a site is the average performance of all hybrids except local entries at the site. The deviation of fit is given in q/ha. The origin and use of these statistics are fully described in the section on statistical analysis and interpretation.

STATISTICAL ANALYSIS AND INTERPRETATION

The evaluation was analyzed as a three-replication, randomized

complete block at each site. The least significant differences at probability level 0.05 (LSD 0.05) and coefficients of variation percentage (CV%) were calculated from the site analyses of variance (AOV). Where differences among hybrids were not significant for a character, no LSD is shown and the letters "NS" are given.

The LSD 0.05 is used to compare the performance of two specific hybrids at a time. It should not be used, however, to compare all pairs of hybrids. If the mean of hybrid "X" exceeds the mean for hybrid "Y" by the LSD 0.05 or more, then the difference observed will be a true difference 19 times out of 20.

The CV% relates error of measurement and the mean of the observed character. Values of 10 to 15 percent are common for yield, stand, and ear and plant heights. Values for lodging and dropped ears are sometimes much higher and are generally associated with nonsignificant differences among hybrids.

Data combined from the 11 locations with an appropriate LSD 0.05 for each character are shown in Table 14. The combined LSD 0.05 is based on the hybrid by site interaction versus the pooled error from the combined AOV. When a character was not observed at a site, zeros show in the site analysis; the combined means and AOV have been adjusted accordingly.

The yields shown have been adjusted for plot stand by standard covariance techniques by which we calculated the yield due to one additional plant per plot and adjusted plot yields by the difference between the plot stand and mean stand for the site. Percent stand, therefore, should not be considered when comparing yields.

Stability analysis gives information on the responsiveness of

hybrids to changes in environment and the reliability with which these responses may be predicted. Mean performance of all hybrids at a site was the measure used to rate the environment. This environmental index (I) is then used as the independent variable in a regression analysis with the individual hybrid's performance at each site. A hybrid that is stable will have a regression coefficient (b_I) equal to 1.0, meaning that an increase in the environmental index would result in an equal increase in the hybrid's yield. Regression coefficients greater than 1.0 indicate relatively better performance in good environments. Hybrids with b_I values less than 1.0 would be relatively advantageous in poor environments.

Deviations from fit reflect the accuracy with which the regression line given by b_I represents probable performance. Low deviations indicate a stabler hybrid.

Overall, a desirable hybrid would have a high mean yield, $b_I = 1.0$, and low deviations from fit. If a grower knew that he was producing on the high side of the environments sampled, then a hybrid with b_I greater than 1.0 would be more responsive than one with $b_I = 1.0$ and would be likely to yield more if mean yield levels were equivalent.

Simple correlation coefficients (r) were calculated among the 15 observed characters based on the character means. Significant correlations are noted with an asterisk and indicate that a positive or negative relationship exists between the characters. For example, r = -0.52** indicates that stalk lodging significantly reduced yield (Table 16).

Individual site yields ranged from 35.3 q/ha at Manhattan, Kansas to 105.1 q/ha at Crossville, Tennessee (Table 2). Most sites yielded from 60 to 70 q/ha. Lodging was variable. At some sites it was near zero and at others up to 21 percent root lodging and 45 percent stalk lodging. Stands ranged from 73 to 99 percent, averaging slightly more than 90 percent for all sites. Details of individual site data are given in Tables 3 to 13.

Combined agronomic data from the 11 sites

Twenty-three high-yielding white hybrids could not be statistically differentiated. None of the entries yielded significantly more than the mean of all the entries. Among those yielding greater than 75 q/ha were IFS 78-3, Pioneer Brand X5386, Princeton SX910, and the yellow check O's Gold 5500A. The genotype x environment interaction for yield was highly significant. Differences among stand levels were significant at six of ten sites having stand data, supporting the need for yield adjustment for stand.

No significant differences among entries were detected for root lodging. The mean stalk lodging was 19.4 percent. Only Funk 28236-7900B and MFA EXP 1-White of the white hybrids had less than the mean stalk lodging. Significantly worse than the stalk lodging mean were Mason 5850 (S X), Pioneer Brand 511A, and Whisnand EXP77-1W.

The percentage of dropped ears was less than 1 percent for ACCO U398W, Jacques W300, MFA EXP 1-White, P-A-G SX70W and 644W, Sturdygrow SG921W and SG933W, and Zimmerman Z52W. Whisnand EXP 4W had significantly more dropped ears than the mean for all entries.

Usable ears per 100 plants were counted at only two sites. No entry had significantly more or fewer ears than the mean for all entries. Among the better performers for this character were Funk 28236-7900B, IFS 78-3, MFA EXP 1-White, Pioneer Brand X5386, Princeton SX910, Whisnand EXP 1W, and Zimmerman Z19W -- all of which were over 70 usable ears per 100 plants. Note that the mean usable ears at Waverly, Tennessee was only 46 per 100 plants. A mean of 80 for Crossville,Tennessee was more acceptable.

Ear and plant height were highly correlated (r = 0.87**) in these hybrids. Six white hybrids had ear heights significantly less than the mean of all hybrids: Golden Harvest H-2644W, MFA EXP 1-W, Pioneer Brand EXP X6409, Sturdygrow SG907W and SG957W, and Whisnand 75W, EXP77-1W, EXP 2W and 3W. The latest flowering hybrid was Cargill 99W which required 73.8 days to flower.

The environmental response coefficients (b_I) and deviations are shown in the last two columns of Table 14. (A difference of ±0.10 from 1.0 is necessary for significance. The LSD 0.05 should be used when comparing the coefficents of two hybrids.) Several white hybrids had responses significantly greater than most other hybrids: Funk 28236-7900B, McNair X233, Pioneer Brand X5386, Sturdygrow SG904W and SG935W, and Zimmerman Z19W and Z52W. Responses of these hybrids were greater than those of all the yellow checks except Pioneer Brand 3369A. In making a hybrid choice, all of the factors must be considered in relation to the anticipated environment. Data from several sites are more reliable than data from a single site evaluated for two or three years.

Virus and European corn borer ratings

Virus ratings were made at Waverly, Tennessee, under conditions expected to provide high levels of incidence. Twenty-six percent of all plants showed virus symptoms with an average virus rating of 1.7 on a 1 to 9 scale on which 9 represented a severely affected plant. Golden Harvest H-2660W had only 2.6 percent infection, which was significantly less than the mean of all entries. However many other entries were in the low "teens" or better. Symptoms were significantly worse for these entries than most: Jacques W200, MFA C4W, NC+ 66W, P-A-G SX70W, Sturdygrow SG921W, and Whisnand 77W, EXP 77-1W and EXP2W.

For virus severity, Pioneer Brand X5386 and Zimmerman Z19W were both significantly less than the mean (rated on diseased plants only). Among the best hybrids for average plot virus rating were Funk 28236-7900B, Golden Harvest H-2660W, Sturdygrow SG904W, and Zimmerman Z11W and Z19W.

European corn borer ratings (ECB) were done at the Corn Insects Research Laboratory in Ankeny, Iowa. For the first generation of ECB the resistant check, CI31A, scored 2.7, which was significantly lower than the score of any other hybrid. The best of the white hybrids, Pioneer Brand X5386, scored 5.3 on the 1 to 9 scale -- which was significantly better than all but six other hybrids. Five hybrids scored 9.0, which was the same as the susceptible check WF9.

The second generation ECB ratings showed that the B52 resistant check was scored significantly lower than any hybrid. However, Funk 28236-7900B, Mason 5440 (SP X), and Sturdygrow SG921W all were scored significantly lower than the mean of all entries, scoring from 5.7 to 6.0.

Correlations among agronomic characters

Yield was positively correlated with stand, usable ears per 100 plants, and plant height and negatively correlated with stalk lodging and all virus characters. Stand was positively correlated with usable ears and plant height in addition to yield. Negative correlations for stand were found for the virus characters and first generation of ECB. Ear height was positively correlated with plant height, days to flower, and growing degree days and negatively correlated with the virus characters and corn borer ratings. The second generation of ECB was significantly correlated with dropped ears. The virus characters and ECB ratings were all positively correlated.

Comparison of white and yellow hybrids

Grain yield, stalk lodging percent, ear height, and days to flowering for the 47 white hybrids and local checks and the five yellow hybrids are compared in Table 17. At four of eleven sites, the white hybrids yielded more than the yellow checks. Overall, however, the yellow hybrids yielded 6 percent more. Generally the white hybrids stalk-lodged more, were taller, and took nearly three days longer from planting to flowering.

SEED SOURCES

Contributors of seed for the 1978 evaluation are listed in Table 1. Those that have an EXP as part of the hybrid name, such as Pioneer Brand EXP X6409, have not yet been released. The last five named hybrids are yellow kernel hybrid checks.

SITE LOCATIONS AND AGRONOMIC CONDITIONS

Table 2 lists the sites returning data, together with a record of the agronomy applied. Dashed lines indicate that treatment was not applied.

TABLE 1. SOURCES OF COMMERCIAL WHITE SEED CORN HYBRIDS ENTERED IN THE 1978 WHITE MAIZE VARIETY TRIAL.

BRAND	FIRM †	ADDRESS
ACCO	ACCO SEED	P.O. BOX 9, BELMOND, IA 50421
CARGILL	CARGILL SEED	P.O. BOX 9300, DEPT. 16, MINNEAPOLIS, MN 55440
FUNK	FUNK SEEDS INT'L.	1300 WASHINGTON ST., BLOOMINGTON IL 61701
GOLDEN HARVEST	GOLDEN HARVEST SEEDS, INC.	513 E. LOCUST, BLOOMINGTON, IL 61701
IFS	ILLINOIS FOUNDATION SEED	P.O. BOX 722, CHAMPAIGN, IL 61820
JACQUES	JACQUES SEED CO	PRESCOTT, WI 54021
MFA	MFA SEED DIVISION	P.O. BOX 550, MARSHALL, MO 65340
MASON	MASON HYBRID CORN CO, INC	P.O. BOX 4, PRINCETON, KY 42445
MC NAIR	MC NAIR SEED COMPANY	P.O. BOX 706, LAURINBURG, NC 28352
NC+	NC+ HYBRIDS	3820 N. 56TH, LINCOLN, NE 68504
P-A-G	P-A-G SEEDS	P.O. BOX 9480, DEPT 16, MINNEAPOLIS, MN 55440
PIONEER	PIONEER HI-BRED INTERNATIONAL, INC.	1206 MULBERRY ST., DES MOINES, IA 50308
PRINCETON	PRINCETON FARMS	P.O. BOX 319, PRINCETON, IN 47670
RING AROUND	RING AROUND PRODUCTS, INC	P.O. BOX 1629, PLAINVIEW, TX 79072
STURDYGROW	STURDY-GROW HYBRID CORN CO	P.O. BOX 94, ARCOLA, IL 61910
TENNESSEE	UNIV OF TENNESSEE	DEPT OF PLANT & SOIL SCIENCE, P.O. BOX 1071, KNOXVILLE, TN 37901
WHISNAND	WHISNAND HYBRIDS	RFD 1, ARCOLA, IL 61910
ZIMMERMAN	ZIMMERMAN HYBRIDS, INC	ROUTE 2, BOX 275B, EVANSVILLE, IN 47712

† MENTION OF A TRADEMARK OR PROPRIETARY PRODUCT DOES NOT CONSTITUTE A GUARANTEE OR WARRANTY OF THE PRODUCT BY THE U.S. DEPT. OF AGRICULTURE AND DOES NOT IMPLY ITS APPROVAL TO THE EXCLUSION OF OTHER PRODUCTS THAT MAY ALSO BE SUITABLE.

TABLE 2. SITE LOCATIONS AND AGRONOMIC CONDITIONS.

SITE	PREVIOUS CROP	FERTILIZER (KG/HA)†			DATE PLANTED	HERBICIDE	INSECTICIDE	PLANTED POPULATION (/HA)‡
		N	P	K				
COLUMBIA, MO (ROLLINS BOTTOM)	MAIZE	179	78	78	18MAY78	ATRAZINE, LASSO	FURADAN, SEVIN, CHLORDANE	43,744
COLUMBIA, MO (BRADFORD ARC)	WHEAT	166	59	59	6JUN78	ATRAZINE, LASSO 2-4-D	FURADAN, BELT	43,055
MC BAINE, MO	SOYBEANS	168	---	---	26MAY78	ATRAZINE, LASSO	FURADAN	43,744
SPICKARD, MO	WHEAT	202	101	135	2MAY78	ATRAZINE, LASSO	---	49,943
WASHINGTON, IA	SOYBEANS	202	67	146	11MAY78	BLADEX, LASSO	---	43,055
CHAMPAIGN, IL	MAIZE	188	103	135	28APR78	ATREX, SUTAN	FURADAN	55,598
EVANSVILLE, IN	MAIZE	202	56	112	11MAY78	ATRAZINE, LASSO	---	44,478
CROSSVILLE, TN	MAIZE	155	47	141	19MAY78	ATRAZINE	FURADAN	53,818
WAVERLY, TN	MAIZE	112	61	61	23MAY78	ATRAZINE, LASSO	---	50,987
MANHATTAN, KS	SOYBEANS	202	---	---	4MAY78	BLADEX, LASSO	---	43,055
ROSSVILLE, KS	SOYBEANS	235	47	24	24APR78	ATREX, LASSO	FURADAN	54,362

† TO CONVERT KG/HA TO LBS/A, MULTIPLY BY 0.9.

‡ TO CONVERT PLANTS/HA TO PLANTS/A, DIVIDE BY 2.5.

TABLE 3. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT COLUMBIA (ROLLINS BOTTOM), MISSOURI.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	DAYS FLW	EAR H CM	PLT H CM
ACCO U398W	1	69.4	90.6	0.0	12.6	0.0	62.7	136.7	281.3
CARGILL 99W	2	95.9	97.9	0.0	23.9	0.0	66.0	156.7	276.3
FUNK 28236-7900B	3	68.4	92.7	0.0	7.1	0.0	63.3	146.7	286.7
GOLDEN HARVEST H-2644W	4	71.1	93.8	0.0	6.0	0.0	58.3	109.0	221.7
GOLDEN HARVEST H-2660W	5	76.3	88.5	0.0	9.2	0.0	63.3	148.0	284.3
GOLDEN HARVEST H-2665W	6	80.5	97.9	0.0	8.7	0.0	62.3	150.3	289.3
IFS 78-1	7	76.0	85.4	0.0	14.3	0.0	63.7	144.3	283.0
IFS 78-2	8	64.2	90.6	0.0	13.8	0.0	60.0	144.3	267.0
IFS 78-3	9	82.8	94.8	0.0	9.8	0.0	62.0	136.0	281.3
JACQUES W200	10	74.2	93.8	0.0	8.6	0.0	60.7	131.0	255.7
JACQUES W300	11	77.3	81.3	0.0	9.1	0.0	62.3	135.0	245.7
MASON 5440 (SP X)	12	51.0	92.7	0.0	24.7	0.0	63.3	142.7	254.0
MASON 5540 (SP X)	13	65.3	95.8	0.0	14.0	0.0	61.0	128.7	252.0
MASON 5550 (SP X)	14	58.1	105.2	0.0	11.6	0.0	60.7	132.0	250.3
MASON 5850 (S X)	15	74.4	95.8	0.0	23.0	0.0	64.3	131.3	242.7
MCNAIR X233	16	80.0	82.3	0.0	15.4	0.0	63.7	147.7	273.3
MFA C4W	17	71.4	92.7	0.0	12.4	0.0	63.7	131.0	236.0
MFA EXP 1-WHITE	18	57.7	97.9	0.0	9.6	0.0	58.7	112.3	222.3
NC+ 66W	19	73.5	96.9	0.0	17.2	0.0	59.0	125.0	240.0
P-A-G SX70W	20	77.6	92.7	0.0	19.0	0.0	63.3	139.0	254.0
P-A-G 644W	21	82.8	97.9	0.0	13.5	0.0	62.3	140.3	261.0
PIONEER BRAND 511A	22	71.3	95.8	0.0	19.9	0.0	64.0	156.7	277.3
PIONEER BRAND X5386	23	100.2	99.0	0.0	8.5	0.0	63.7	152.7	286.0
PIONEER BRAND EXP X6409	24	74.3	96.9	0.0	8.2	0.0	62.3	119.0	242.7
PRINCETON SX910	25	83.2	95.8	0.0	8.3	0.0	63.0	144.3	284.7
PRINCETON SP936	26	82.3	92.7	0.0	13.2	0.0	62.3	140.3	282.0
RINGARCUND WSP2799	27	64.4	100.0	0.0	18.7	0.0	61.3	139.7	248.7
RINGARCUND RA2602W	28	78.3	97.9	0.0	9.4	0.0	64.7	153.0	270.3
STURDYGROW SG904W	29	78.7	101.0	0.0	8.2	0.0	63.7	148.7	294.0
STURDYGROW SG907W	30	57.4	93.8	0.0	10.0	0.0	57.7	129.7	247.3

STURDYGROW SG921W	31	65.4	96.9	0.0	3.1	0.0	60.0	118.0	242.7
STURDYGROW SG933W	32	67.1	90.6	0.0	23.4	0.0	65.0	143.3	259.3
STURDYGROW SG935W	33	80.1	96.9	0.0	22.4	0.0	63.0	145.7	288.0
STURDYGROW SG957W	34	62.9	96.9	0.0	9.6	0.0	59.0	104.7	259.0
TENNESSEE 505	35	74.8	94.8	0.0	28.6	0.0	64.0	155.7	280.0
WHISNAND 75W	36	58.6	96.9	0.0	15.9	0.0	59.3	139.0	233.0
WHISNAND 77W	37	64.5	88.5	0.0	11.6	0.0	59.7	144.3	260.7
WHISNAND 79W	38	71.2	101.0	0.0	10.1	0.0	61.7	133.3	248.3
WHISNAND EXP 77-1W	39	74.5	90.6	0.0	19.4	0.0	61.0	134.3	247.7
WHISNAND EXP 1W	40	72.6	89.6	0.0	9.4	0.0	61.3	145.7	274.7
WHISNAND EXP 2W	41	65.6	88.5	0.0	14.2	0.0	60.0	123.7	238.0
WHISNAND EXP 3W	42	68.1	86.5	0.0	9.6	0.0	59.3	127.7	245.0
WHISNAND EXP 4W	43	58.3	84.4	0.0	7.2	0.0	58.7	120.0	238.7
WHISNAND EXP 5W	44	63.0	91.7	0.0	11.2	0.0	61.7	155.0	278.3
ZIMMERMAN Z11W	45	81.4	94.8	0.0	20.8	0.0	63.7	154.0	285.3
ZIMMERMAN Z19W	46	67.2	95.8	0.0	12.8	0.0	61.3	150.0	280.3
ZIMMERMAN Z52W	47	87.7	96.9	0.0	6.4	0.0	63.3	148.3	299.3
YELLOW CK B73 X M017	48	65.9	85.4	0.0	3.7	0.0	59.0	120.0	230.3
YELLOW CK M017 X N28	49	62.9	96.9	0.0	5.3	0.0	59.0	93.3	212.0
YELLOW CK DEKALB XL81	50	63.6	91.7	0.0	7.1	0.0	58.0	106.7	221.3
YELLOW CK O'S GOLD 5500A	51	66.0	85.4	0.0	3.5	0.0	58.0	114.7	226.0
YELLOW CK PIONEER BRAND 3369A	52	66.3	93.8	0.0	10.2	0.0	61.3	130.0	259.7
LOCAL ENTRY	53	80.3	96.9	0.0	10.9	0.0	62.7	149.7	294.3
LOCAL ENTRY	54	74.6	93.8	0.0	2.1	0.0	57.7	108.3	228.7
AVERAGE		71.9	93.5	0.0	12.3	0.0	61.6	135.5	259.7
LSD 0.05		16.9	NS	NS	9.5		2.0	10.2	14.3
CV %		14			47		2	5	3

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 4. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT COLUMBIA (BRADFORD ARC), MISSOURI.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	GROW D D	EAR H CM	PLT H CM
ACCO U398W	1	48.6	82.3	0.0	39.2	0.0	0.0	145.0	279.0
CARGILL 99W	2	51.8	93.8	1.1	35.2	0.0	0.0	153.0	263.7
FUNK 28236-7900B	3	48.2	86.5	0.0	27.4	0.0	0.0	156.3	283.7
GOLDEN HARVEST H-2644W	4	40.3	90.6	0.0	47.2	0.0	0.0	106.7	227.3
GOLDEN HARVEST H-2660W	5	37.6	99.0	0.0	37.2	0.0	0.0	146.0	279.0
GOLDEN HARVEST H-2665W	6	52.7	95.8	0.0	42.4	0.0	0.0	150.3	288.3
IFS 78-1	7	45.6	92.7	0.0	44.4	0.0	0.0	150.7	278.7
IFS 78-2	8	55.2	91.7	0.0	50.9	0.0	0.0	146.7	273.7
IFS 78-3	9	45.2	88.5	0.0	49.0	0.0	0.0	148.7	278.3
JACQUES W200	10	43.3	88.5	0.0	45.6	0.0	0.0	123.3	235.7
JACQUES W300	11	40.3	105.2	0.0	78.4	0.0	0.0	136.3	240.3
MASON 5440 (SP X)	12	45.4	94.8	0.0	52.7	0.0	0.0	138.7	245.7
MASON 5540 (SP X)	13	51.2	89.6	0.0	80.4	0.0	0.0	122.7	235.0
MASON 5550 (SP X)	14	47.6	93.8	1.1	51.2	0.0	0.0	136.7	246.7
MASON 5850 (S X)	15	46.3	105.2	0.0	65.7	0.0	0.0	139.7	241.7
MCNAIR X233	16	41.2	94.8	0.0	31.1	0.0	0.0	152.3	282.3
MFA C4W	17	45.0	93.8	0.0	55.4	0.0	0.0	132.3	237.0
MFA EXP 1-WHITE	18	60.9	84.4	0.0	31.3	0.0	0.0	114.0	236.0
NC+ 66W	19	34.1	80.2	1.2	50.7	0.0	0.0	127.0	242.3
P-A-G SX70W	20	39.0	108.3	0.0	67.0	0.0	0.0	140.0	235.3
P-A-G 644W	21	35.9	88.5	0.0	46.4	0.0	0.0	148.3	257.3
PIONEER BRAND 511A	22	57.2	111.5	0.0	46.0	0.0	0.0	147.3	264.0
PIONEER BRAND X5386	23	42.6	88.5	0.0	28.3	0.0	0.0	148.3	271.7
PIONEER BRAND EXP X6409	24	52.7	87.5	0.0	28.6	0.0	0.0	116.0	235.0
PRINCETON SX910	25	43.8	89.6	0.0	49.9	0.0	0.0	143.7	271.7
PRINCETON SP936	26	53.7	89.6	0.0	29.3	0.0	0.0	144.0	279.0
RINGAROUND WSP2799	27	40.3	82.3	0.0	47.9	0.0	0.0	139.7	258.0
RINGAROUND RA2602W	28	41.1	97.9	1.0	50.8	0.0	0.0	151.7	280.3
STURDYGROW SG904W	29	40.0	86.5	0.0	60.7	0.0	0.0	151.7	281.0
STURDYGROW SG907W	30	37.8	90.6	0.0	40.6	0.0	0.0	139.7	258.3

STURDYGROW SG921W	31	50.6	88.5	1.0	29.8	0.0	0.0	124.7	241.3
STURDYGROW SG933W	32	33.7	85.4	0.0	41.2	0.0	0.0	143.7	249.7
STURDYGROW SG935W	33	48.4	83.3	1.1	42.2	0.0	0.0	145.7	279.0
STURDYGROW SG957W	34	49.3	85.4	0.0	23.8	0.0	0.0	122.0	262.0
TENNESSEE 505	35	38.5	85.4	0.0	42.7	0.0	0.0	152.7	262.7
WHISNAND 75W	36	28.4	77.1	0.0	68.9	0.0	0.0	131.7	234.7
WHISNAND 77W	37	45.5	94.8	0.0	36.6	0.0	0.0	126.3	240.0
WHISNAND 79W	38	35.2	96.9	0.0	42.7	0.0	0.0	121.7	242.7
WHISNAND EXP 77-1W	39	43.2	86.5	0.0	67.3	0.0	0.0	127.7	242.0
WHISNAND EXP 1W	40	41.2	99.0	0.0	58.5	0.0	0.0	141.0	272.0
WHISNAND EXP 2W	41	41.2	80.2	0.0	50.6	0.0	0.0	125.0	240.7
WHISNAND EXP 3W	42	45.7	86.5	0.0	69.2	0.0	0.0	136.0	252.0
WHISNAND EXP 4W	43	38.0	85.4	0.0	33.1	0.0	0.0	111.3	233.0
WHISNAND EXP 5W	44	47.8	82.3	0.0	57.3	0.0	0.0	153.0	274.7
ZIMMERMAN Z11W	45	48.3	84.4	0.0	51.4	0.0	0.0	145.7	274.0
ZIMMERMAN Z19W	46	42.0	87.5	1.3	41.2	0.0	0.0	147.0	281.7
ZIMMERMAN Z52W	47	48.6	100.0	0.0	39.7	0.0	0.0	152.0	284.0
YELLOW CK B73 X M017	48	61.9	92.7	0.0	20.2	0.0	0.0	123.3	240.7
YELLOW CK M017 X N28	49	53.2	94.8	0.0	20.9	0.0	0.0	106.7	227.7
YELLOW CK DEKALB XL81	50	52.0	94.8	0.0	28.5	0.0	0.0	113.0	234.0
YELLOW CK O'S GOLD 5500A	51	50.9	92.7	0.0	27.5	0.0	0.0	119.3	243.0
YELLOW CK PIONEER BRAND 3369A	52	47.0	86.5	0.0	63.2	0.0	0.0	132.3	260.0
LOCAL ENTRY	53	53.5	97.9	0.0	42.8	0.0	0.0	139.3	271.7
LOCAL ENTRY	54	51.5	88.5	0.0	30.1	0.0	0.0	111.0	229.3
AVERAGE		45.6	90.9	0.1	45.2	0.0	0.0	136.1	256.6
LSD 0.05		13.7	NS	NS	23.7			9.6	14.0
CV %		18			32			4	3

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 5. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT MC BAINE, MISSOURI.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	GROW D D	EAR H CM	PLT H CM
ACCO U398W	1	68.8	106.3	0.0	37.5	0.0	0.0	159.7	295.7
CARGILL 99W	2	61.9	92.7	0.0	29.2	0.0	0.0	159.3	273.3
FUNK 28236-7900B	3	76.3	110.4	0.0	8.7	1.0	0.0	160.0	304.3
GOLDEN HARVEST H-2644W	4	66.7	96.9	0.0	19.2	0.0	0.0	117.0	237.7
GOLDEN HARVEST H-2660W	5	69.1	91.7	0.0	34.2	0.0	0.0	150.3	284.3
GOLDEN HARVEST H-2665W	6	63.3	100.0	0.0	26.8	1.0	0.0	151.7	294.7
IFS 78-1	7	71.7	95.8	0.0	43.9	1.1	0.0	150.7	290.7
IFS 78-2	8	61.0	92.7	0.0	47.7	1.0	0.0	148.7	270.7
IFS 78-3	9	74.8	96.9	0.0	38.7	0.0	0.0	147.0	284.0
JACQUES W200	10	70.7	100.0	0.0	30.6	1.1	0.0	139.3	266.0
JACQUES W300	11	61.1	91.7	0.0	45.7	0.0	0.0	138.3	242.7
MASON 5440 (SP X)	12	59.4	105.2	0.0	37.3	2.9	0.0	143.7	257.3
MASON 5540 (SP X)	13	54.5	104.2	0.0	45.3	0.0	0.0	135.0	248.7
MASON 5550 (SP X)	14	50.9	103.1	0.0	48.5	1.0	0.0	146.7	256.7
MASON 5850 (S X)	15	65.9	96.9	0.0	49.9	1.0	0.0	142.0	246.0
MCNAIR X233	16	65.4	92.7	0.0	38.5	1.2	0.0	153.7	288.3
MFA C4W	17	66.7	82.3	0.0	37.6	2.7	0.0	146.0	246.0
MFA EXP 1-WHITE	18	64.0	99.0	0.0	9.6	0.0	0.0	111.3	242.0
NC+ 66W	19	62.5	92.7	0.0	31.9	1.0	0.0	140.0	257.3
P-A-G SX70W	20	59.0	91.7	0.0	32.2	0.0	0.0	146.7	242.0
P-A-G 644W	21	73.3	90.6	0.0	53.1	0.0	0.0	167.7	284.7
PIONEER BRAND 511A	22	58.3	89.6	0.0	66.5	1.2	0.0	146.0	265.7
PIONEER BRAND X5386	23	73.0	118.7	0.0	36.8	0.0	0.0	161.0	285.7
PIONEER BRAND EXP X6409	24	73.1	96.9	0.0	8.7	0.0	0.0	124.3	249.0
PRINCETON SX910	25	73.1	101.0	0.0	28.9	2.0	0.0	153.7	284.3
PRINCETON SP936	26	61.9	94.3	0.0	27.3	0.0	0.0	145.0	276.7
RINGAROUND WSP2799	27	53.3	95.8	0.0	40.5	0.0	0.0	148.7	263.0
RINGAROUND RA2602W	28	59.8	85.4	0.0	39.3	1.3	0.0	154.0	286.0
STURDYGROW SG904W	29	62.2	91.7	0.0	36.3	1.1	0.0	157.3	282.3
STURDYGROW SG907W	30	59.7	95.8	0.0	40.3	1.1	0.0	143.3	266.0

STURDYGROW SG921W	31	55.9	96.9	0.0	45.7	0.0	0.0	134.0	243.3
STURDYGROW SG933W	32	48.0	95.3	0.0	32.8	0.0	0.0	150.3	252.7
STURDYGROW SG935W	33	66.4	99.0	0.0	35.8	0.0	0.0	148.3	283.0
STURDYGROW SG957W	34	64.3	84.4	0.0	49.7	1.4	0.0	124.0	278.3
TENNESSEE 505	35	50.1	103.1	0.0	45.5	0.0	0.0	152.7	271.7
WHISNAND 75W	36	49.0	105.2	0.0	41.6	0.0	0.0	142.0	253.0
WHISNAND 77W	37	60.2	92.7	0.0	32.3	2.4	0.0	136.7	257.0
WHISNAND 79W	38	62.5	96.9	0.0	47.6	1.0	0.0	143.0	260.3
WHISNAND EXP 77-1W	39	62.7	106.3	0.0	40.0	0.0	0.0	136.3	248.3
WHISNAND EXP 1W	40	77.5	95.8	0.0	41.4	0.0	0.0	150.7	286.3
WHISNAND EXP 2W	41	53.8	96.9	0.0	29.1	2.2	0.0	137.7	255.0
WHISNAND EXP 3W	42	65.6	111.5	0.0	45.9	1.0	0.0	141.3	267.7
WHISNAND EXP 4W	43	56.0	94.8	0.0	23.3	1.3	0.0	123.7	250.3
WHISNAND EXP 5W	44	64.5	102.1	0.0	35.2	0.0	0.0	155.7	275.7
ZIMMERMAN Z11W	45	69.1	103.1	0.0	28.7	0.0	0.0	158.3	294.0
ZIMMERMAN Z19W	46	73.5	106.3	0.0	42.6	2.8	0.0	156.0	293.7
ZIMMERMAN Z52W	47	70.5	91.7	0.0	23.7	1.1	0.0	160.7	304.0
YELLOW CK B73 X M017	48	80.4	102.1	0.0	7.1	3.2	0.0	124.3	259.0
YELLOW CK M017 X N28	49	79.4	100.0	0.0	12.7	0.0	0.0	107.3	234.7
YELLOW CK DEKALB XL81	50	56.8	92.7	0.0	12.6	1.0	0.0	122.7	247.7
YELLOW CK O'S GOLD 5500A	51	77.7	107.3	0.0	11.8	1.9	0.0	129.0	258.3
YELLOW CK PIONEER BRAND 3369A	52	83.6	95.8	0.0	15.0	0.0	0.0	138.3	279.0
LOCAL ENTRY	53	55.4	103.1	0.0	27.0	2.1	0.0	159.3	285.3
LOCAL ENTRY	54	69.7	101.0	0.0	11.9	2.3	0.0	117.7	249.7
AVERAGE		64.7	97.9	0.0	33.5	0.8	0.0	143.3	267.8
LSD 0.05		17.1	14.9		20.7	NS		10.3	15.2
CV %		16	9		38			4	3

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 6. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT SPICKARD, MISSOURI.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	GROW D D	EAR H CM	PLT H CM
ACCO U398W	1	84.6	72.2	0.0	6.9	0.0	0.0	121.3	305.0
CARGILL 99W	2	92.6	87.8	7.0	7.0	0.7	0.0	135.0	301.3
FUNK 28236-7900B	3	78.4	82.2	0.0	3.3	0.7	0.0	124.7	318.7
GOLDEN HARVEST H-2644W	4	72.8	78.9	0.7	6.4	0.0	0.0	102.7	260.3
GOLDEN HARVEST H-2660W	5	74.3	76.1	0.8	5.7	2.2	0.0	119.0	291.3
GOLDEN HARVEST H-2665W	6	80.5	73.3	0.7	6.9	1.6	0.0	127.0	301.0
IFS 78-1	7	72.4	76.1	0.0	4.2	2.9	0.0	121.7	291.0
IFS 78-2	8	79.8	81.7	0.0	9.5	0.0	0.0	129.0	284.0
IFS 78-3	9	86.4	79.4	1.5	4.6	2.1	0.0	133.0	291.7
JACQUES W200	10	74.1	72.8	1.6	6.0	0.0	0.0	113.7	268.0
JACQUES W300	11	82.5	72.2	3.5	2.4	0.0	0.0	118.0	261.3
MASON 5440 (SP X)	12	77.0	78.9	0.6	1.4	0.0	0.0	125.7	289.7
MASON 5540 (SP X)	13	67.5	78.9	0.6	6.0	1.6	0.0	121.7	270.7
MASON 5550 (SP X)	14	76.0	78.3	1.5	8.8	0.7	0.0	114.3	279.7
MASON 5850 (S X)	15	80.0	76.1	5.7	3.0	0.8	0.0	116.3	259.3
MCNAIR X233	16	86.1	83.3	0.8	2.0	0.7	0.0	130.3	300.7
MFA C4W	17	74.6	72.2	0.0	4.8	0.8	0.0	108.0	272.7
MFA EXP 1-WHITE	18	75.5	83.3	0.0	1.1	1.3	0.0	124.0	275.3
NC+ 66W	19	69.2	78.9	0.7	8.4	1.4	0.0	113.3	263.0
P-A-G SX70W	20	82.0	84.4	4.7	2.0	0.7	0.0	117.0	283.3
P-A-G 644W	21	76.5	80.0	1.4	2.7	0.7	0.0	123.7	269.3
PIONEER BRAND 511A	22	82.4	71.7	0.7	12.5	3.8	0.0	123.0	301.0
PIONEER BRAND X5386	23	84.8	78.9	0.7	6.2	1.4	0.0	133.3	299.0
PIONEER BRAND EXP X6409	24	73.7	80.0	0.0	3.4	1.3	0.0	116.7	275.3
PRINCETON SX910	25	79.3	81.1	1.1	7.9	1.7	0.0	125.0	284.3
PRINCETON SP936	26	80.3	79.4	0.6	6.1	0.9	0.0	126.0	308.7
RINGAROUND WSP2799	27	61.1	79.4	0.0	7.6	0.0	0.0	123.7	291.3
RINGAROUND RA2602W	28	94.0	81.7	0.0	2.7	2.0	0.0	123.0	285.0
STURDYGROW SG904W	29	77.2	78.9	4.0	4.3	0.7	0.0	124.3	295.3
STURDYGROW SG907W	30	75.6	86.1	0.0	5.9	1.3	0.0	119.0	268.0

STURDYGROW SG921W	31	63.7	71.7	0.7	2.4	0.9	0.0	110.0	259.0
STURDYGROW SG933W	32	70.3	68.9	1.0	3.6	0.0	0.0	129.3	287.7
STURDYGROW SG935W	33	80.3	70.0	0.0	4.8	1.6	0.0	124.3	291.3
STURDYGROW SG957W	34	65.6	71.1	0.0	13.9	3.1	0.0	101.3	268.7
TENNESSEE 505	35	77.6	84.4	1.2	7.5	0.7	0.0	120.0	276.7
WHISNAND 75W	36	68.3	78.3	2.3	9.5	0.7	0.0	116.0	259.7
WHISNAND 77W	37	71.4	71.1	0.0	2.4	0.7	0.0	117.0	272.3
WHISNAND 79W	38	64.7	78.9	0.7	5.4	1.7	0.0	99.7	259.7
WHISNAND EXP 77-1W	39	72.3	73.9	1.5	9.1	4.5	0.0	118.0	282.7
WHISNAND EXP 1W	40	61.2	80.0	0.0	8.3	2.1	0.0	115.3	295.3
WHISNAND EXP 2W	41	74.9	81.1	1.4	9.0	1.5	0.0	119.0	290.0
WHISNAND EXP 3W	42	58.8	72.2	0.0	13.9	3.0	0.0	117.0	278.0
WHISNAND EXP 4W	43	66.4	85.0	0.0	6.5	4.0	0.0	108.0	245.3
WHISNAND EXP 5W	44	64.0	74.4	0.0	15.2	2.3	0.0	126.3	289.7
ZIMMERMAN Z11W	45	85.3	84.4	0.7	7.3	3.3	0.0	132.0	300.0
ZIMMERMAN Z19W	46	81.4	83.3	0.0	8.1	3.5	0.0	128.7	294.3
ZIMMERMAN Z52W	47	73.7	76.1	0.0	5.4	0.7	0.0	125.0	284.3
YELLOW CK B73 X MO17	48	67.5	75.6	0.0	3.2	0.0	0.0	102.3	206.7
YELLOW CK MO17 X N28	49	69.9	77.2	0.0	8.8	2.3	0.0	99.7	239.3
YELLOW CK DEKALB XL81	50	61.9	65.6	0.0	6.7	1.7	0.0	107.7	243.3
YELLOW CK O'S GOLD 5500A	51	65.0	76.7	0.0	4.5	1.6	0.0	103.0	251.7
YELLOW CK PIONEER BRAND 3369A	52	70.3	81.7	0.0	3.4	0.7	0.0	108.0	268.7
LOCAL ENTRY	53	97.0	85.0	0.6	5.4	0.7	0.0	136.7	315.0
LOCAL ENTRY	54	67.7	77.2	0.0	7.9	1.4	0.0	110.3	260.7
AVERAGE		75.0	77.9	0.9	6.1	1.4	0.0	119.0	279.0
LSD 0.05		15.6	NS	NS	7.0	NS		18.3	32.6
CV %		13			70			9	7

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 7. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT WASHINGTON, IOWA.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	GROW D D	EAR H CM	PLT H CM
ACCO U398W	1	104.1	83.3	39.5	15.6	3.2	1480.7	0.0	0.0
CARGILL 99W	2	104.0	104.8	40.8	19.7	1.5	1545.7	0.0	0.0
FUNK 23236-7900B	3	97.6	88.2	10.8	8.9	5.0	1552.0	0.0	0.0
GOLDEN HARVEST H-2644W	4	96.4	97.3	26.5	9.9	4.9	1357.7	0.0	0.0
GOLDEN HARVEST H-2660W	5	87.7	102.7	22.7	19.0	3.1	1533.7	0.0	0.0
GOLDEN HARVEST H-2665W	6	95.7	80.1	18.3	8.2	2.0	1532.0	0.0	0.0
IFS 78-1	7	100.0	95.2	17.7	23.7	4.0	1526.7	0.0	0.0
IFS 78-2	8	90.0	90.9	3.7	31.8	11.2	1443.7	0.0	0.0
IFS 78-3	9	91.2	87.1	12.7	13.5	3.3	1510.7	0.0	0.0
JACQUES W200	10	108.5	86.6	35.1	13.6	4.4	1404.7	0.0	0.0
JACQUES W300	11	87.5	91.4	37.2	22.7	0.6	1523.7	0.0	0.0
MASON 5440 (SP X)	12	70.1	88.7	18.6	15.1	4.8	1548.0	0.0	0.0
MASON 5540 (SP X)	13	95.9	81.2	24.7	17.6	1.9	1482.7	0.0	0.0
MASON 5550 (SP X)	14	82.1	75.3	17.5	15.1	3.1	1496.7	0.0	0.0
MASON 5850 (S X)	15	79.4	91.9	12.8	14.5	0.5	1560.7	0.0	0.0
MCNAIR X233	16	88.9	98.4	23.4	21.0	4.5	1547.7	0.0	0.0
MFA C4W	17	96.2	81.7	30.3	16.4	0.6	1516.3	0.0	0.0
MFA EXP 1-WHITE	18	99.3	94.6	18.9	10.3	1.2	1430.3	0.0	0.0
NC+ 66W	19	91.3	90.3	34.2	17.2	7.7	1419.0	0.0	0.0
P-A-G SX70W	20	102.2	95.2	22.4	19.7	2.3	1530.3	0.0	0.0
P-A-G 644W	21	96.9	80.6	14.4	24.1	3.8	1516.0	0.0	0.0
PIONEER BRAND 511A	22	96.3	92.5	24.3	22.6	8.6	1495.3	0.0	0.0
PIONEER BRAND X5386	23	90.3	88.7	22.7	13.5	2.5	1547.7	0.0	0.0
PIONEER BRAND EXP X6409	24	109.7	79.0	9.4	5.7	1.4	1493.0	0.0	0.0
PRINCETON SX910	25	101.3	97.3	26.8	19.4	7.2	1484.7	0.0	0.0
PRINCETON SP936	26	97.1	82.3	14.6	14.5	2.7	1526.7	0.0	0.0
RINGAROUND WSP2799	27	100.3	78.5	25.1	36.8	2.9	1478.7	0.0	0.0
RINGAROUND RA2602W	28	90.8	89.3	24.7	17.3	4.2	1537.3	0.0	0.0
STURDYGROW SG904W	29	95.6	94.6	24.7	12.3	5.6	1524.0	0.0	0.0
STURDYGROW SG907W	30	99.4	98.9	22.9	21.6	1.1	1424.0	0.0	0.0

STURDYGROW SG921W	31	87.9	87.1	32.8	16.6	1.2	1480.0	0.0	0.0
STURDYGROW SG933W	32	88.5	76.9	26.9	18.8	1.4	1518.3	0.0	0.0
STURDYGROW SG935W	33	113.7	89.8	30.4	14.1	3.0	1466.3	0.0	0.0
STURDYGROW SG957W	34	110.5	86.0	2.4	16.9	2.6	1367.7	0.0	0.0
TENNESSEE 505	35	73.3	101.1	17.0	16.9	3.7	1569.7	0.0	0.0
WHISNAND 75W	36	80.1	96.2	18.7	18.7	7.6	1408.3	0.0	0.0
WHISNAND 77W	37	99.5	86.6	45.1	8.1	5.0	1392.0	0.0	0.0
WHISNAND 79W	38	92.4	83.9	36.0	8.8	6.5	1404.3	0.0	0.0
WHISNAND EXP 77-1W	39	81.6	93.0	27.6	18.4	9.3	1430.7	0.0	0.0
WHISNAND EXP 1W	40	99.2	101.1	7.0	29.7	8.0	1458.3	0.0	0.0
WHISNAND EXP 2W	41	94.5	87.6	16.0	20.3	7.4	1455.3	0.0	0.0
WHISNAND EXP 3W	42	98.3	96.2	11.2	16.4	6.8	1392.3	0.0	0.0
WHISNAND EXP 4W	43	90.2	86.0	32.0	7.7	9.2	1411.3	0.0	0.0
WHISNAND EXP 5W	44	91.4	96.2	8.8	27.8	3.2	1445.7	0.0	0.0
ZIMMERMAN Z11W	45	83.6	90.3	26.5	22.6	4.4	1548.7	0.0	0.0
ZIMMERMAN Z19W	46	103.4	96.8	9.5	21.6	6.8	1499.0	0.0	0.0
ZIMMERMAN Z52W	47	94.5	93.5	21.3	20.4	2.5	1537.3	0.0	0.0
YELLOW CK 873 X M017	48	108.0	77.4	9.9	11.5	3.1	1409.3	0.0	0.0
YELLOW CK M017 X N28	49	111.9	88.2	2.5	3.1	1.3	1427.0	0.0	0.0
YELLOW CK DEKALB XL81	50	101.0	86.0	3.1	8.2	8.1	1367.7	0.0	0.0
YELLOW CK O'S GOLD 5500A	51	121.2	39.2	15.8	10.8	4.8	1386.0	0.0	0.0
YELLOW CK PIONEER BRAND 3369A	52	104.7	98.9	14.2	7.7	2.8	1446.3	0.0	0.0
LOCAL ENTRY	53	97.3	97.8	13.0	16.2	1.6	1500.0	0.0	0.0
LOCAL ENTRY	54	113.7	100.5	19.2	8.7	3.2	1439.0	0.0	0.0
AVERAGE		96.0	90.3	20.8	16.5	4.1	1476.5	0.0	0.0
LSD 0.05		15.3	12.9	21.1	12.2	4.9	61.3		
CV %		10	9	61	45	72	3		

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 8. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT CHAMPAIGN, ILLINOIS.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	GROW D D	EAR H CM	PLT H CM
ACCO L398W	1	85.9	77.1	2.7	10.5	0.0	0.0	159.0	285.0
CARGILL 99W	2	92.9	80.7	4.9	2.5	0.0	0.0	126.0	272.0
FUNK 28236-7900B	3	77.0	76.0	7.3	3.5	0.0	0.0	157.0	277.0
GOLDEN HARVEST H-2644W	4	85.6	80.2	6.1	3.4	0.0	0.0	104.0	234.0
GOLDEN HARVEST H-2660W	5	79.9	69.8	4.0	7.5	0.0	0.0	157.0	300.0
GOLDEN HARVEST H-2665W	6	87.8	62.5	12.2	5.9	0.0	0.0	167.0	309.0
IFS 78-1	7	81.1	70.3	3.1	6.1	0.0	0.0	149.0	280.0
IFS 78-2	8	91.8	65.1	8.6	9.7	0.8	0.0	126.0	271.0
IFS 78-3	9	88.4	80.7	10.3	4.5	0.6	0.0	172.0	299.0
JACQUES W200	10	82.2	70.3	9.8	5.7	0.9	0.0	132.0	254.0
JACQUES W300	11	85.1	76.0	20.0	3.4	0.0	0.0	146.0	251.0
MASON 5440 (SP X)	12	65.5	60.4	2.4	1.6	0.0	0.0	141.0	257.0
MASON 5540 (SP X)	13	68.6	52.6	4.8	6.3	1.1	0.0	138.0	260.0
MASON 5550 (SP X)	14	74.6	44.8	19.8	5.3	1.0	0.0	107.0	230.7
MASON 5850 (S X)	15	82.1	66.7	13.6	10.1	0.0	0.0	129.0	241.0
MCNAIR X233	16	93.7	66.7	2.1	2.4	0.0	0.0	163.0	288.0
MFA C4W	17	88.7	67.2	9.3	10.4	0.0	0.0	148.0	266.0
MFA EXP 1-WHITE	18	89.0	79.2	3.0	2.6	0.0	0.0	107.0	243.0
NC+ 66W	19	89.1	78.6	8.0	9.7	0.0	0.0	140.0	251.0
P-A-G SX70W	20	68.5	69.3	4.2	8.4	0.0	0.0	155.0	253.0
P-A-G 644W	21	76.1	70.3	17.0	23.7	0.0	0.0	176.0	288.0
PIONEER BRAND 511A	22	80.5	75.0	12.7	11.9	0.0	0.0	144.0	264.0
PIONEER BRAND X5386	23	92.7	70.3	7.5	1.5	0.0	0.0	146.0	284.0
PIONEER BRAND EXP X6409	24	93.3	74.5	2.8	4.2	0.7	0.0	133.0	259.0
PRINCETON SX910	25	90.1	81.8	7.0	3.8	0.0	0.0	163.0	285.0
PRINCETON SP936	26	88.9	83.3	5.7	5.7	0.0	0.0	177.0	297.0
RINGAROUND WSP2799	27	63.9	65.1	12.8	13.6	1.6	0.0	162.0	262.0
RINGAROUND RA2602W	28	84.7	68.8	9.4	1.6	0.0	0.0	172.0	284.0
STURDYGROW SG904W	29	91.3	87.5	2.4	2.5	0.6	0.0	163.0	274.0
STURDYGROW SG907W†	30	86.4	73.4	7.1	7.1	0.0	0.0	144.0	268.3

STURDYGROW SG921W	31	84.0	65.1	13.0	3.7	0.0	0.0	124.0	253.0
STURDYGROW SG933W	32	67.6	49.0	14.5	16.1	0.0	0.0	176.0	274.0
STURDYGROW SG935W	33	92.3	78.1	3.5	9.6	0.0	0.0	172.0	281.0
STURDYGROW SG957W	34	95.1	72.9	1.4	8.8	0.0	0.0	134.0	267.0
TENNESSEE 505†	35	86.4	73.4	7.1	7.1	0.0	0.0	144.0	268.3
WHISNAND 75W	36	87.5	79.2	5.8	12.7	0.0	0.0	145.0	243.0
WHISNAND 77W	37	92.1	85.9	11.0	7.4	1.2	0.0	133.0	266.0
WHISNAND 79W	38	85.5	76.0	10.8	16.9	0.0	0.0	141.0	267.0
WHISNAND EXP 77-1W	39	95.6	83.3	13.3	14.9	0.0	0.0	133.0	273.0
WHISNAND EXP 1W	40	99.9	79.2	12.7	10.5	0.7	0.0	146.0	274.0
WHISNAND EXP 2W †	41	86.4	73.4	7.1	7.1	0.0	0.0	144.0	268.3
WHISNAND EXP 3W	42	99.7	83.9	1.9	3.8	0.0	0.0	138.0	258.0
WHISNAND EXP 4W	43	90.8	75.5	6.3	1.4	0.6	0.0	145.0	275.0
WHISNAND EXP 5W	44	75.0	63.5	4.9	12.3	0.0	0.0	132.0	262.0
ZIMMERMAN Z11W	45	92.2	83.9	3.9	5.5	0.6	0.0	174.0	293.0
ZIMMERMAN Z19W	46	83.6	82.3	1.2	7.8	0.6	0.0	176.0	304.0
ZIMMERMAN Z52W	47	84.2	84.9	5.7	7.3	0.0	0.0	132.0	287.0
YELLOW CK 873 X MO17	48	85.1	49.0	6.3	2.3	1.0	0.0	125.0	245.0
YELLOW CK MO17 X N28	49	87.8	73.4	2.1	4.3	0.0	0.0	111.0	245.0
YELLOW CK DEKALB XL81	50	92.8	81.8	1.7	1.1	0.7	0.0	96.0	221.0
YELLOW CK O'S GOLD 5500A	51	110.8	76.6	3.4	4.1	1.4	0.0	107.0	252.0
YELLOW CK PIONEER BRAND 3369A	52	109.6	82.8	2.1	0.6	0.0	0.0	124.0	282.0
LOCAL ENTRY	53	99.4	88.0	12.0	11.3	0.0	0.0	164.0	292.0
LOCAL ENTRY†	54	86.4	73.4	7.1	7.1	0.0	0.0	144.0	268.3
AVERAGE		86.6	73.3	7.4	7.0	0.3	0.0	143.8	268.6
LSD 0.05		12.0	10.4	NS	9.1	NS		3.8	2.6
CV %		8	9		79			2	1

† ENTRIES MISSING IN ALL REPLICATIONS; ESTIMATED BY LOCATION MEAN.

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 9. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT EVANSVILLE, INDIANA.

ENTRY NAME†	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	GROW D D	EAR H CM	PLT H CM
ACCO U398W	1	37.7	97.9	6.4	21.1	0.0	0.0	0.0	0.0
CARGILL 99W	2	29.1	107.3	1.9	32.7	0.0	0.0	0.0	0.0
FUNK 28236-7900B	3	40.1	107.3	2.0	5.7	0.0	0.0	0.0	0.0
GOLDEN HARVEST H-2644W	4	34.4	94.8	0.0	15.4	0.0	0.0	0.0	0.0
GOLDEN HARVEST H-2660W	5	38.9	99.0	19.4	14.3	0.0	0.0	0.0	0.0
GOLDEN HARVEST H-2665W	6	49.3	103.1	8.3	9.5	0.0	0.0	0.0	0.0
IFS 78-1	7	32.5	91.7	3.1	21.6	0.0	0.0	0.0	0.0
IFS 78-2	8	20.3	95.8	2.2	11.0	0.0	0.0	0.0	0.0
IFS 78-3	9	60.2	100.0	5.3	10.2	0.0	0.0	0.0	0.0
JACQUES W200	10	34.5	96.9	1.1	11.7	0.0	0.0	0.0	0.0
JACQUES W300	11	29.9	89.6	0.0	31.1	0.0	0.0	0.0	0.0
MASON 5440 (SP X)	12	23.0	94.8	0.0	26.5	0.0	0.0	0.0	0.0
MASON 5540 (SP X)	13	27.2	96.9	4.3	32.3	0.0	0.0	0.0	0.0
MASON 5550 (SP X)	14	30.9	100.0	3.3	23.2	0.0	0.0	0.0	0.0
MASON 5850 (S X)	15	26.7	93.8	0.0	72.5	0.0	0.0	0.0	0.0
MCNAIR X233	16	24.0	94.8	7.9	14.1	0.0	0.0	0.0	0.0
MFA C4W	17	34.4	94.8	2.2	46.8	0.0	0.0	0.0	0.0
MFA EXP 1-WHITE	18	43.0	92.7	6.6	7.1	0.0	0.0	0.0	0.0
NC+ 66W	19	44.0	105.2	0.0	14.3	0.0	0.0	0.0	0.0
P-A-G SX70W	20	34.8	89.6	0.0	44.3	0.0	0.0	0.0	0.0
P-A-G 644W	21	35.7	95.3	2.2	18.5	0.0	0.0	0.0	0.0
PIONEER BRAND 511A	22	40.7	104.2	0.0	40.6	0.0	0.0	0.0	0.0
PIONEER BRAND X5386	23	32.9	99.0	2.2	7.5	0.0	0.0	0.0	0.0
PIONEER BRAND EXP X6409	24	21.2	99.0	5.2	24.3	0.0	0.0	0.0	0.0
PRINCETON SX910	25	42.3	96.9	0.0	21.3	0.0	0.0	0.0	0.0
PRINCETON SP936	26	48.8	102.1	2.3	11.5	0.0	0.0	0.0	0.0
RINGAROUND WSP2799	27	38.8	96.9	0.0	23.6	0.0	0.0	0.0	0.0
RINGAROUND RA2602W	28	53.7	96.9	7.9	11.9	0.0	0.0	0.0	0.0
STURDYGROW SG904W	29	25.9	96.9	3.3	34.8	0.0	0.0	0.0	0.0
STURDYGROW SG907W	30	41.2	93.8	3.4	11.0	0.0	0.0	0.0	0.0

STURDYGROW SG921W	31	56.3	89.6	4.4	5.1	0.0	0.0	0.0	0.0
STURDYGROW SG933W	32	22.8	102.1	0.0	39.8	0.0	0.0	0.0	0.0
STURDYGROW SG935W	33	40.2	100.0	2.2	12.1	0.0	0.0	0.0	0.0
STURDYGROW SG957W	34	37.8	95.8	6.5	6.6	0.0	0.0	0.0	0.0
TENNESSEE 505	35	38.7	102.1	1.0	39.6	0.0	0.0	0.0	0.0
WHISNAND 75W	36	33.8	99.0	1.1	16.8	0.0	0.0	0.0	0.0
WHISNAND 77W	37	45.2	101.0	1.0	16.6	0.0	0.0	0.0	0.0
WHISNAND 79W	38	35.4	105.2	0.0	17.0	0.0	0.0	0.0	0.0
WHISNAND EXP 77-1W	39	31.8	105.2	2.1	32.2	0.0	0.0	0.0	0.0
WHISNAND EXP 1W	40	41.8	101.0	0.0	15.4	0.0	0.0	0.0	0.0
WHISNAND EXP 2W	41	33.2	96.9	7.5	4.3	0.0	0.0	0.0	0.0
WHISNAND EXP 3W	42	37.4	95.3	0.0	18.6	0.0	0.0	0.0	0.0
WHISNAND EXP 4W	43	33.6	92.7	3.3	16.9	0.0	0.0	0.0	0.0
WHISNAND EXP 5W	44	43.9	94.8	0.0	18.7	0.0	0.0	0.0	0.0
ZIMMERMAN Z11W	45	33.4	95.8	8.3	39.7	0.0	0.0	0.0	0.0
ZIMMERMAN Z19W	46	42.0	97.9	1.1	20.1	0.0	0.0	0.0	0.0
ZIMMERMAN Z52W	47	37.4	104.2	1.0	34.1	0.0	0.0	0.0	0.0
YELLOW CK B73 X MO17	48	47.4	86.5	1.2	8.1	0.0	0.0	0.0	0.0
YELLOW CK MO17 X N28	49	47.2	101.0	0.0	8.3	0.0	0.0	0.0	0.0
YELLOW CK DEKALB XL81	50	41.2	86.5	2.3	30.9	0.0	0.0	0.0	0.0
YELLOW CK O'S GOLD 5500A	51	59.3	100.0	2.1	6.3	0.0	0.0	0.0	0.0
YELLOW CK PIONEER BRAND 3369A	52	32.7	102.1	0.0	18.3	0.0	0.0	0.0	0.0
LOCAL ENTRY	53	31.5	96.9	2.1	33.4	0.0	0.0	0.0	0.0
LOCAL ENTRY	54	29.3	93.8	2.2	5.6	0.0	0.0	0.0	0.0
AVERAGE		37.2	97.6	2.8	21.0	0.0	0.0	0.0	0.0
LSD 0.05		16.9	9.4	7.8	18.9				
CV %		28	6	172	55				

† FOURTEEN MISSING PLOTS ESTIMATED BY PERFORMANCE IN OTHER REPLICATIONS.

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 10. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT CROSSVILLE, TENNESSEE.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	GROW D D	EAR H CM	PLT H CM	USBL EAR
ACCO U398W	1	119.7	98.9	0.0	9.1	0.0	0.0	149.0	307.0	90.0
CARGILL 99W	2	79.2	98.9	0.0	20.3	0.0	0.0	129.7	295.7	59.4
FUNK 28236-7900B	3	131.2	100.0	0.0	10.0	0.0	0.0	161.7	342.7	92.2
GOLDEN HARVEST H-2644W	4	101.2	100.0	0.0	13.3	0.0	0.0	138.7	296.0	82.2
GOLDEN HARVEST H-2660W	5	122.5	100.0	0.0	21.1	0.0	0.0	152.0	308.0	86.7
GOLDEN HARVEST H-2665W	6	123.7	98.9	0.0	11.3	0.0	0.0	150.7	308.0	92.2
IFS 78-1	7	115.3	98.9	0.0	12.3	0.0	0.0	158.0	311.0	84.4
IFS 78-2	8	103.6	98.9	0.0	30.5	0.0	0.0	144.7	302.0	86.4
IFS 78-3	9	122.4	100.0	0.0	5.6	0.0	0.0	152.0	302.0	94.4
JACQUES W200	10	100.0	97.8	0.0	32.9	0.0	0.0	138.7	302.0	76.2
JACQUES W300	11	88.7	98.9	0.0	19.1	0.0	0.0	131.0	291.7	59.7
MASON 5440 (SP X)	12	99.0	98.9	0.0	21.1	0.0	0.0	137.0	297.7	73.1
MASON 5540 (SP X)	13	83.3	100.0	0.0	23.3	0.0	0.0	137.0	290.0	64.4
MASON 5550 (SP X)	14	94.4	98.9	0.0	26.9	0.0	0.0	149.0	296.0	70.8
MASON 5850 (S X)	15	84.0	98.9	0.0	12.3	0.0	0.0	161.7	292.7	57.4
MCNAIR X233	16	119.7	100.0	0.0	7.8	0.0	0.0	160.0	332.0	83.3
MFA C4W	17	84.9	100.0	0.0	25.6	0.0	0.0	140.0	289.7	57.8
MFA EXP 1-WHITE	18	90.0	98.9	0.0	13.5	0.0	0.0	123.7	286.7	81.0
NC+ 86W	19	101.7	100.0	0.0	24.4	0.0	0.0	137.0	296.0	76.7
P-A-G SX70W	20	91.4	98.9	0.0	19.1	0.0	0.0	141.7	296.0	65.1
P-A-G 644W	21	102.8	98.9	0.0	17.9	0.0	0.0	150.7	300.0	64.0
PIONEER BRAND 511A	22	102.6	98.9	0.0	12.4	0.0	0.0	144.7	299.0	85.5
PIONEER BRAND X5386	23	123.4	101.1	0.0	2.2	0.0	0.0	158.7	311.0	94.6
PIONEER BRAND EXP X6409	24	100.1	98.9	0.0	13.4	0.0	0.0	140.0	291.7	82.0
PRINCETON SX910	25	118.3	95.6	0.0	21.2	0.0	0.0	143.0	306.7	94.6
PRINCETON SP936	26	99.5	100.0	0.0	8.9	0.0	0.0	141.7	297.0	76.7
RINGAROUND WSP2799	27	83.7	100.0	0.0	16.7	0.0	0.0	149.0	307.7	57.8
RINGAROUND RA2602W	28	119.0	100.0	0.0	8.9	0.0	0.0	155.0	323.0	78.9
STURDYGROW SG904W	29	119.2	100.0	0.0	21.1	0.0	0.0	147.7	311.0	81.1
STURDYGROW SG907W	30	87.6	100.0	0.0	7.8	0.0	0.0	146.0	305.0	62.2
STURDYGROW SG921W	31	89.2	98.9	0.0	10.1	0.0	0.0	144.7	286.7	57.2
STURDYGROW SG933W	32	86.5	97.8	0.0	11.1	0.0	0.0	132.7	288.0	58.0
STURDYGROW SG935W	33	122.1	98.9	0.0	15.8	0.0	0.0	137.0	305.0	86.5
STURDYGROW SG957W	34	97.1	100.0	0.0	25.6	0.0	0.0	138.7	302.0	83.3
TENNESSEE 505	35	102.3	100.0	0.0	22.2	0.0	0.0	144.7	306.7	87.8

WHISNAND 75W	36	99.1	100.0	0.0	28.9	0.0	0.0	144.7	294.7	80.0
WHISNAND 77W	37	101.9	98.9	0.0	20.3	0.0	0.0	132.7	290.0	78.6
WHISNAND 79W	38	95.3	100.0	0.0	25.6	0.0	0.0	143.0	294.7	70.3
WHISNAND EXP 77-1W	39	102.4	100.0	0.0	35.6	0.0	0.0	137.0	291.7	78.9
WHISNAND EXP 1W	40	118.5	101.1	0.0	20.8	0.0	0.0	149.0	315.7	93.3
WHISNAND EXP 2W	41	99.9	101.1	0.0	24.2	0.0	0.0	152.0	296.0	76.9
WHISNAND EXP 3W	42	106.4	100.0	0.0	30.0	0.0	0.0	142.0	306.7	92.2
WHISNAND EXP 4W	43	89.7	96.7	0.0	20.9	0.0	0.0	125.0	288.0	77.2
WHISNAND EXP 5W	44	116.2	98.9	0.0	26.9	0.0	0.0	147.7	302.0	93.3
ZIMMERMAN Z11W	45	125.2	100.0	0.0	18.9	0.0	0.0	157.0	308.0	86.7
ZIMMERMAN Z19W	46	129.8	98.9	0.0	14.6	0.0	0.0	156.7	320.0	93.3
ZIMMERMAN Z52W	47	132.8	100.0	0.0	6.7	0.0	0.0	161.7	323.0	98.9
YELLOW CK B73 X MO17	48	97.8	97.8	0.0	6.9	0.0	0.0	126.7	294.7	85.2
YELLOW CK MO17 X N28	49	112.6	100.0	0.0	13.3	0.0	0.0	138.7	286.0	95.6
YELLOW CK DEKALB XL81	50	94.3	100.0	0.0	7.8	0.0	0.0	131.0	294.7	77.8
YELLOW CK O'S GOLD 5500A	51	101.2	98.9	0.0	7.9	0.0	0.0	128.0	296.0	88.7
YELLOW CK PIONEER BRAND 3369A	52	112.4	100.0	0.0	8.9	0.0	0.0	134.0	305.0	92.2
LOCAL ENTRY	53	114.6	98.9	0.0	11.2	0.0	0.0	140.0	302.0	94.3
LOCAL ENTRY	54	115.5	101.1	0.0	4.4	0.0	0.0	144.7	305.0	93.4
AVERAGE		105.1	99.4	0.0	16.8	0.0	0.0	143.7	301.8	80.2
LSD 0.05		17.7	NS		14.3			12.2	11.8	14.4
CV %		10			52			5	2	11

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 11. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT WAVERLY, TENNESSEE.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	DAYS FLW	EAR H CM	PLT H CM	USBL EAR
ACCO U398W	1	54.4	98.9	0.0	3.4	0.0	63.7	0.0	0.0	46.1
CARGILL 99W	2	64.8	94.4	0.0	13.1	0.0	64.0	0.0	0.0	55.3
FUNK 28236-7900B	3	49.4	96.7	0.0	0.0	0.0	65.0	0.0	0.0	55.2
GOLDEN HARVEST H-2644W	4	43.7	88.9	0.0	50.0	0.0	56.0	0.0	0.0	45.3
GOLDEN HARVEST H-2660W	5	61.2	88.9	0.0	19.0	0.0	63.0	0.0	0.0	51.3
GOLDEN HARVEST H-2665W	6	44.8	90.0	0.0	22.6	0.0	63.0	0.0	0.0	39.4
IFS 78-1	7	57.0	96.7	0.0	30.2	0.0	64.0	0.0	0.0	47.0
IFS 78-2	8	50.6	95.6	0.0	40.8	0.0	57.0	0.0	0.0	49.4
IFS 78-3	9	50.6	97.8	0.0	10.3	0.0	63.0	0.0	0.0	51.0
JACQUES W200	10	34.1	88.9	0.0	56.7	0.0	58.0	0.0	0.0	37.1
JACQUES W300	11	39.4	90.0	0.0	50.1	0.0	63.0	0.0	0.0	32.3
MASON 5440 (SP X)	12	48.1	93.3	0.0	20.2	0.0	63.7	0.0	0.0	39.2
MASON 5540 (SP X)	13	49.0	90.0	0.0	28.8	0.0	61.0	0.0	0.0	40.7
MASON 5550 (SP X)	14	52.1	92.2	0.0	43.3	0.0	61.7	0.0	0.0	45.8
MASON 5850 (S X)	15	46.4	86.7	0.0	38.6	0.0	61.0	0.0	0.0	38.4
MCNAIR X233	16	53.4	88.9	0.0	33.4	0.0	64.0	0.0	0.0	51.8
MFA C4W	17	40.7	81.1	0.0	47.6	0.0	61.7	0.0	0.0	43.5
MFA EXP 1-WHITE	18	59.7	97.8	0.0	6.8	0.0	58.7	0.0	0.0	68.1
NC+ 66W	19	43.2	81.1	0.0	48.1	0.0	61.0	0.0	0.0	53.8
P-A-G SX70W	20	35.2	87.8	0.0	53.3	0.0	60.0	0.0	0.0	32.9
P-A-G 644W	21	52.5	94.4	0.0	11.8	0.0	65.0	0.0	0.0	42.3
PIONEER BRAND 511A	22	51.3	93.3	0.0	38.4	0.0	63.0	0.0	0.0	41.6
PIONEER BRAND X5386	23	60.1	93.3	0.0	14.3	0.0	62.7	0.0	0.0	62.9
PIONEER BRAND EXP X6409	24	45.2	96.7	0.0	17.3	0.0	61.7	0.0	0.0	38.0
PRINCETON SX910	25	62.9	95.6	0.0	13.8	0.0	62.0	0.0	0.0	54.8
PRINCETON SP936	26	47.7	94.4	0.0	16.1	0.0	63.7	0.0	0.0	42.3
RINGAROUND WSP2799	27	47.7	93.3	0.0	22.6	0.0	61.0	0.0	0.0	52.4
RINGAROUND RA2602W	28	61.4	88.9	0.0	24.0	0.0	63.7	0.0	0.0	48.7
STURDYGROW SG904W	29	50.2	98.9	0.0	29.5	0.0	63.7	0.0	0.0	43.9
STURDYGROW SG907W	30	63.0	96.7	0.0	3.4	0.0	57.0	0.0	0.0	55.2
STURDYGROW SG921W	31	39.9	91.1	0.0	20.5	0.0	56.7	0.0	0.0	39.0
STURDYGROW SG933W	32	48.6	84.4	0.0	13.3	0.0	64.7	0.0	0.0	46.2
STURDYGROW SG935W	33	48.8	94.4	0.0	19.1	0.0	63.7	0.0	0.0	37.7
STURDYGROW SG957W	34	46.2	88.9	0.0	51.5	0.0	56.7	0.0	0.0	53.0
TENNESSEE 505	35	58.9	95.6	0.0	14.0	0.0	64.0	0.0	0.0	44.0

WHISNAND 75W	36	41.7	84.4	0.0	65.7	0.0	56.0	0.0	0.0	38.2
WHISNAND 77W	37	31.1	91.1	0.0	57.6	0.0	58.7	0.0	0.0	32.7
WHISNAND 79W	38	38.5	87.3	0.0	67.0	0.0	59.7	0.0	0.0	37.0
WHISNAND EXP 77-1W	39	47.5	90.0	0.0	46.2	0.0	60.7	0.0	0.0	43.3
WHISNAND EXP 1W	40	56.9	95.6	0.0	9.1	0.0	60.7	0.0	0.0	63.0
WHISNAND EXP 2W	41	39.6	95.6	0.0	39.3	0.0	59.7	0.0	0.0	40.8
WHISNAND EXP 3W	42	57.6	86.7	0.0	57.5	0.0	56.7	0.0	0.0	68.2
WHISNAND EXP 4W	43	46.4	91.1	0.0	48.1	0.0	58.7	0.0	0.0	42.7
WHISNAND EXP 5W	44	43.1	90.0	0.0	41.8	0.0	59.7	0.0	0.0	39.6
ZIMMERMAN Z11W	45	54.7	97.8	0.0	13.7	0.0	63.7	0.0	0.0	50.2
ZIMMERMAN Z19W	46	52.4	100.0	0.0	27.8	0.0	63.0	0.0	0.0	53.3
ZIMMERMAN Z52W	47	51.3	101.1	0.0	15.2	0.0	61.7	0.0	0.0	38.5
YELLOW CK B73 X MO17	48	13.2	91.1	0.0	38.7	0.0	61.7	0.0	0.0	18.3
YELLOW CK MO17 X N28	49	40.4	94.4	0.0	17.8	0.0	59.0	0.0	0.0	49.5
YELLOW CK DEKALB XL81	50	54.0	97.8	0.0	16.0	0.0	57.7	0.0	0.0	50.0
YELLOW CK O'S GOLD 5500A	51	23.4	86.7	0.0	26.9	0.0	59.0	0.0	0.0	26.9
YELLOW CK PIONEER BRAND 3369A	52	45.5	94.4	0.0	23.5	0.0	57.0	0.0	0.0	56.5
LOCAL ENTRY	53	50.1	94.4	0.0	13.0	0.0	63.0	0.0	0.0	42.4
LOCAL ENTRY	54	64.0	92.2	0.0	18.7	0.0	64.7	0.0	0.0	61.3
AVERAGE		48.4	92.4	0.0	29.1	0.0	61.1	0.0	0.0	45.9
LSD 0.05		12.6	8.9		24.3		2.3			11.4
CV %		16	6		51		2			15

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 12. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT MANHATTAN, KANSAS.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	DAYS FLW	EAR H CM	PLT H CM
ACCO U398W	1	33.3	95.0	0.0	8.8	0.0	75.0	0.0	0.0
CARGILL 99W	2	28.3	84.2	0.0	10.8	7.5	79.3	0.0	0.0
FUNK 2823E-7900B	3	26.5	97.5	0.8	1.7	0.9	75.7	0.0	0.0
GOLDEN HARVEST H-2644W	4	36.8	99.2	0.0	5.0	1.6	71.0	0.0	0.0
GOLDEN HARVEST H-2660W	5	35.6	76.7	0.0	5.5	1.1	75.3	0.0	0.0
GOLDEN HARVEST H-2665W	6	30.5	90.0	0.0	10.5	2.9	75.0	0.0	0.0
IFS 78-1	7	35.6	85.8	0.0	8.7	0.0	75.3	0.0	0.0
IFS 78-2	8	37.3	90.8	0.0	9.0	2.7	72.0	0.0	0.0
IFS 78-3	9	38.0	92.5	0.0	11.9	0.0	75.0	0.0	0.0
JACQUES W200	10	35.9	87.5	0.0	4.6	1.0	71.3	0.0	0.0
JACQUES W300	11	36.7	83.3	0.0	10.0	1.0	74.3	0.0	0.0
MASON 5440 (SP X)	12	26.1	38.3	0.0	6.8	3.8	75.7	0.0	0.0
MASON 5540 (SP X)	13	32.0	84.2	1.0	5.9	2.1	73.3	0.0	0.0
MASON 5550 (SP X)	14	17.0	69.2	0.0	5.5	3.0	80.0	0.0	0.0
MASON 5850 (S X)	15	32.4	81.7	1.3	13.3	3.7	76.3	0.0	0.0
MCNAIR X233	16	36.5	85.0	0.0	4.9	2.9	75.7	0.0	0.0
MFA C4W	17	41.6	78.3	0.0	6.4	1.1	75.0	0.0	0.0
MFA EXP 1-WHITE	18	38.4	96.7	0.9	0.8	0.9	61.7	0.0	0.0
NC+ 66W	19	39.0	95.8	0.8	1.9	5.4	71.3	0.0	0.0
P-A-G SX70W	20	38.4	86.7	1.0	2.1	1.0	76.3	0.0	0.0
P-A-G 644W	21	36.0	89.2	1.0	5.5	0.0	75.3	0.0	0.0
PIONEER BRAND 511A	22	31.9	90.0	0.0	8.3	1.9	75.7	0.0	0.0
PIONEER BRAND X5386	23	32.2	95.0	0.0	4.4	0.9	75.3	0.0	0.0
PIONEER BRAND EXP X6409	24	37.3	87.5	1.8	12.7	1.9	72.3	0.0	0.0
PRINCETON SX910	25	33.1	101.7	0.0	7.4	1.6	76.3	0.0	0.0
PRINCETON SP936	26	33.2	90.0	0.0	4.7	1.9	73.3	0.0	0.0
RINGAROUND WSP2799	27	36.8	80.0	0.0	6.2	2.2	73.3	0.0	0.0
RINGAROUND RA2602W	28	31.5	85.0	0.9	7.7	0.9	75.3	0.0	0.0
STURDYGROW SG904W	29	31.4	94.2	0.9	8.1	4.7	75.7	0.0	0.0
STURDYGROW SG907W	30	40.3	98.3	0.0	5.8	1.9	72.0	0.0	0.0

STURDYGROW SG921W	31	39.4	82.5	0.0	9.9	0.0	74.0	0.0	0.0
STURDYGROW SG933W	32	27.0	80.0	0.0	8.4	1.2	76.7	0.0	0.0
STURDYGROW SG935W	33	37.5	80.0	0.0	4.1	2.0	64.3	0.0	0.0
STURDYGROW SG957W	34	33.0	83.3	0.0	16.3	6.3	71.0	0.0	0.0
TENNESSEE 505	35	22.5	92.5	0.9	11.7	0.9	77.3	0.0	0.0
WHISNAND 75W	36	34.1	95.8	0.0	6.1	5.1	71.0	0.0	0.0
WHISNAND 77W	37	38.2	95.0	0.0	5.2	2.6	71.7	0.0	0.0
WHISNAND 79W	38	45.6	97.5	0.9	6.4	0.9	71.3	0.0	0.0
WHISNAND EXP 77-1W	39	39.4	92.5	0.0	7.4	2.7	62.3	0.0	0.0
WHISNAND EXP 1W	40	39.0	87.5	0.0	11.2	1.9	72.3	0.0	0.0
WHISNAND EXP 2W	41	39.4	94.2	1.8	4.3	5.3	62.7	0.0	0.0
WHISNAND EXP 3W	42	43.1	92.5	0.0	8.1	5.4	72.0	0.0	0.0
WHISNAND EXP 4W	43	24.1	86.7	0.0	4.0	3.9	72.0	0.0	0.0
WHISNAND EXP 5W	44	28.8	80.0	1.5	4.8	4.8	78.7	0.0	0.0
ZIMMERMAN Z11W	45	34.8	68.3	6.1	7.7	1.9	79.0	0.0	0.0
ZIMMERMAN Z19W	46	35.1	86.7	0.0	5.9	3.0	74.7	0.0	0.0
ZIMMERMAN Z52W	47	41.1	99.2	0.0	6.7	0.0	75.0	0.0	0.0
YELLOW CK B73 X M017	48	47.5	74.2	0.0	5.1	5.1	71.7	0.0	0.0
YELLOW CK M017 X N28	49	46.5	90.8	0.0	4.6	1.0	72.0	0.0	0.0
YELLOW CK DEKALB XL81	50	40.4	74.2	2.4	1.0	4.5	71.0	0.0	0.0
YELLOW CK O'S GOLD 5500A	51	53.8	87.5	0.0	5.8	3.0	71.0	0.0	0.0
YELLOW CK PIONEER BRAND 3369A	52	42.3	99.2	0.0	1.7	0.0	71.7	0.0	0.0
LOCAL ENTRY	53	36.4	92.5	0.0	6.4	0.0	74.7	0.0	0.0
LOCAL ENTRY	54	15.9	67.5	1.0	3.8	1.4	82.3	0.0	0.0
AVERAGE		35.3	87.8	0.5	6.7	2.3	73.5	0.0	0.0
LSD 0.05		11.2	18.0	NS	NS	NS	9.1		
CV %		19	13				8		

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 13. YIELD AND AGRONOMIC DATA OBTAINED FROM THE 1978 WHITE MAIZE VARIETY TRIAL GROWN AT ROSSVILLE, KANSAS.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	DAYS FLW	EAR H CM	PLT H CM
ACCO U398W	1	73.2	0.0	0.0	0.0	0.0	80.3	0.0	0.0
CARGILL 99W	2	69.6	0.0	0.0	0.0	0.0	86.0	0.0	0.0
FUNK 28236-7900B	3	65.1	0.0	0.0	0.0	0.0	85.3	0.0	0.0
GOLDEN HARVEST H-2644W	4	66.2	0.0	0.0	0.0	0.0	75.0	0.0	0.0
GOLDEN HARVEST H-2660W	5	70.3	0.0	0.0	0.0	0.0	83.7	0.0	0.0
GOLDEN HARVEST H-2665W	6	68.1	0.0	0.0	0.0	0.0	79.7	0.0	0.0
IFS 78-1	7	66.6	0.0	0.0	0.0	0.0	84.0	0.0	0.0
IFS 78-2	8	59.7	0.0	0.0	0.0	0.0	78.3	0.0	0.0
IFS 78-3	9	76.9	0.0	0.0	0.0	0.0	81.0	0.0	0.0
JACQUES W200	10	65.3	0.0	0.0	0.0	0.0	75.0	0.0	0.0
JACQUES W300	11	58.7	0.0	0.0	0.0	0.0	81.0	0.0	0.0
MASON 5440 (SP X)	12	47.8	0.0	0.0	0.0	0.0	84.0	0.0	0.0
MASON 5540 (SP X)	13	58.1	0.0	0.0	0.0	0.0	80.7	0.0	0.0
MASON 5550 (SP X)	14	60.0	0.0	0.0	0.0	0.0	79.0	0.0	0.0
MASON 5850 (S X)	15	59.9	0.0	0.0	0.0	0.0	82.0	0.0	0.0
MCNAIR X233	16	71.2	0.0	0.0	0.0	0.0	83.0	0.0	0.0
MFA C4W	17	52.7	0.0	0.0	0.0	0.0	79.7	0.0	0.0
MFA EXP 1-WHITE	18	80.7	0.0	0.0	0.0	0.0	74.0	0.0	0.0
NC+ 66W	19	67.3	0.0	0.0	0.0	0.0	76.0	0.0	0.0
P-A-G SX70W	20	64.2	0.0	0.0	0.0	0.0	82.0	0.0	0.0
P-A-G 644W	21	69.0	0.0	0.0	0.0	0.0	83.7	0.0	0.0
PIONEER BRAND 511A	22	65.4	0.0	0.0	0.0	0.0	81.3	0.0	0.0
PIONEER BRAND X5386	23	81.2	0.0	0.0	0.0	0.0	81.0	0.0	0.0
PIONEER BRAND EXP X6409	24	66.3	0.0	0.0	0.0	0.0	78.3	0.0	0.0
PRINCETON SX910	25	70.3	0.0	0.0	0.0	0.0	82.3	0.0	0.0
PRINCETON SP936	26	65.3	0.0	0.0	0.0	0.0	83.0	0.0	0.0
RINGAROUND WSP2799	27	61.5	0.0	0.0	0.0	0.0	80.0	0.0	0.0
RINGAROUND RA2602W	28	66.9	0.0	0.0	0.0	0.0	81.0	0.0	0.0
STURDYGROW SG904W	29	71.9	0.0	0.0	0.0	0.0	79.7	0.0	0.0
STURDYGROW SG907W	30	57.5	0.0	0.0	0.0	0.0	74.0	0.0	0.0

STURDYGROW SG921W	31	55.2	0.0	0.0	0.0	0.0	77.0	0.0	0.0
STURDYGROW SG933W	32	47.5	0.0	0.0	0.0	0.0	84.7	0.0	0.0
STURDYGROW SG935W	33	62.7	0.0	0.0	0.0	0.0	83.0	0.0	0.0
STURDYGROW SG957W	34	65.7	0.0	0.0	0.0	0.0	74.0	0.0	0.0
TENNESSEE 505	35	54.4	0.0	0.0	0.0	0.0	84.7	0.0	0.0
WHISNAND 75W	36	66.5	0.0	0.0	0.0	0.0	76.0	0.0	0.0
WHISNAND 77W	37	63.7	0.0	0.0	0.0	0.0	76.0	0.0	0.0
WHISNAND 79W	38	61.9	0.0	0.0	0.0	0.0	76.7	0.0	0.0
WHISNAND EXP 77-1W	39	66.8	0.0	0.0	0.0	0.0	76.0	0.0	0.0
WHISNAND EXP 1W	40	61.8	0.0	0.0	0.0	0.0	76.0	0.0	0.0
WHISNAND EXP 2W	41	72.2	0.0	0.0	0.0	0.0	77.7	0.0	0.0
WHISNAND EXP 3W	42	56.3	0.0	0.0	0.0	0.0	76.0	0.0	0.0
WHISNAND EXP 4W	43	64.8	0.0	0.0	0.0	0.0	77.7	0.0	0.0
WHISNAND EXP 5W	44	63.6	0.0	0.0	0.0	0.0	79.0	0.0	0.0
ZIMMERMAN Z11W	45	69.4	0.0	0.0	0.0	0.0	83.0	0.0	0.0
ZIMMERMAN Z19W	46	67.7	0.0	0.0	0.0	0.0	82.7	0.0	0.0
ZIMMERMAN Z52W	47	65.6	0.0	0.0	0.0	0.0	82.0	0.0	0.0
YELLOW CK 873 X MO17	48	70.2	0.0	0.0	0.0	0.0	76.7	0.0	0.0
YELLOW CK MO17 X N28	49	76.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0
YELLOW CK DEKALB XL81	50	68.2	0.0	0.0	0.0	0.0	75.0	0.0	0.0
YELLOW CK C'S GOLD 5500A	51	83.8	0.0	0.0	0.0	0.0	76.0	0.0	0.0
YELLOW CK PIONEER BRAND 3369A	52	78.5	0.0	0.0	0.0	0.0	76.0	0.0	0.0
LOCAL ENTRY	53	69.7	0.0	0.0	0.0	0.0	82.0	0.0	0.0
LOCAL ENTRY	54	66.5	0.0	0.0	0.0	0.0	79.7	0.0	0.0
AVERAGE		65.8	0.0	0.0	0.0	0.0	79.6	0.0	0.0
LSD 0.05		15.3					3.0		
CV %		14					2		

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 14. COMBINED YIELD AND AGRONOMIC DATA FROM ELEVEN SITES GROWING THE 1978 WHITE MAIZE VARIETY TRIAL.

ENTRY NAME	NO.	YLD Q/HA	STAND %	R LODG %	S LODG %	DROP E %	GROW D D	EAR H CM	PLT H CM	USBL EAR	DAYS FLW	B_I	STD DEV FIT
ACCO U398W	1	70.9	90.3	6.9	16.5	0.6	1480.7	145.1	292.2	68.0	70.4	1.14	5
CARGILL 99W	2	70.0	94.3	8.0	19.4	1.9	1545.7	143.3	280.4	57.4	73.8	0.94	15
FUNK 28236-7900B	3	68.9	93.7	3.0	7.6	1.5	1552.0	151.1	302.2	73.7	72.3	1.19	9
GOLDEN HARVEST H-2644W	4	65.0	92.1	4.8	17.6	1.3	1357.7	113.0	246.2	63.8	65.1	1.02	2
GOLDEN HARVEST H-2660W	5	68.5	89.2	6.7	17.3	1.3	1533.7	145.4	291.2	69.0	71.3	1.04	9
GOLDEN HARVEST H-2665W	6	70.6	89.2	5.6	15.3	1.5	1532.0	149.5	298.4	65.8	70.0	1.11	7
IFS 78-1	7	68.5	88.9	3.4	20.9	1.6	1526.7	145.7	289.1	65.7	71.7	1.07	5
IFS 78-2	8	64.9	89.4	2.1	25.5	3.2	1443.7	139.9	278.1	67.9	66.8	1.02	8
IFS 78-3	9	74.3	91.8	4.3	15.8	1.2	1510.7	148.1	289.4	72.7	70.3	0.99	9
JACQUES W200	10	65.7	88.3	6.8	21.6	1.5	1404.7	129.7	263.6	56.7	66.2	1.09	7
JACQUES W300	11	62.5	88.0	8.7	27.2	0.3	1523.7	134.1	255.4	46.0	70.2	0.94	7
MASON 5440 (SP X)	12	55.7	89.6	3.1	20.7	2.3	1548.0	138.1	266.9	56.2	71.7	0.86	10
MASON 5540 (SP X)	13	59.3	87.3	5.1	26.0	1.3	1482.7	130.5	259.4	52.6	69.0	0.82	7
MASON 5550 (SP X)	14	58.5	86.1	6.2	23.9	1.8	1496.7	130.9	260.0	58.3	70.3	0.92	8
MASON 5850 (S X)	15	61.6	89.4	4.8	30.3	1.2	1560.7	136.7	253.9	47.9	70.9	0.84	8
MCNAIR X233	16	69.1	88.7	4.9	17.1	1.9	1547.7	151.2	294.1	67.6	71.6	1.19	8
MFA C4W	17	63.4	84.4	6.0	26.3	1.1	1516.3	134.2	257.9	50.6	70.0	0.88	7
MFA EXP 1-WHITE	18	68.9	92.4	4.2	9.3	0.7	1430.3	115.4	250.9	74.6	63.2	0.76	9
NC+ 66W	19	65.0	90.0	6.4	22.4	3.1	1419.0	130.4	258.3	65.2	66.8	0.96	5
P-A-G SX70W	20	62.9	90.5	4.6	26.7	0.8	1530.3	139.9	260.6	49.0	70.4	0.96	9
P-A-G 644W	21	67.0	88.6	5.2	21.7	0.9	1516.0	151.1	276.7	53.1	71.6	0.99	7
PIONEER BRAND 511A	22	67.1	92.2	5.4	27.9	3.1	1495.3	143.6	278.5	63.5	71.0	0.93	6
PIONEER BRAND X5386	23	73.9	93.3	4.7	12.3	1.0	1547.7	150.0	289.6	78.7	70.7	1.18	11
PIONEER BRAND EXP X6409	24	67.9	89.7	2.7	12.7	1.1	1493.0	124.8	258.8	60.0	68.7	1.13	8
PRINCETON SX910	25	72.5	93.6	5.0	18.2	2.5	1484.7	145.4	286.1	74.7	70.9	1.10	5
PRINCETON SP936	26	69.0	90.9	3.3	13.7	1.1	1526.7	145.7	290.1	59.5	70.6	0.92	6
RINGAROUND WSP2799	27	59.3	87.1	5.4	23.4	1.3	1478.7	143.8	271.8	55.1	68.9	0.78	8
RINGAROUND RA2602W	28	71.0	89.2	6.3	17.4	1.7	1537.3	151.4	288.1	63.8	71.2	1.01	10
STURDYGROW SG904W	29	67.6	93.0	5.0	21.8	2.5	1524.0	148.8	289.6	62.5	70.7	1.23	5
STURDYGROW SG907W†	30	64.2	92.7	4.8	15.4	1.1	1424.0	136.9	268.8	58.7	65.2	0.79	9
STURDYGROW SG921W	31	62.5	86.8	7.4	14.7	0.4	1480.0	125.9	254.3	48.1	66.9	0.70	7
STURDYGROW SG933W	32	55.2	83.1	6.1	20.9	0.5	1518.3	145.9	268.6	52.1	72.7	0.93	7
STURDYGROW SG935W	33	72.0	89.0	5.3	18.0	1.3	1466.3	145.5	287.9	62.1	68.5	1.22	5
STURDYGROW SG957W	34	66.1	86.5	1.5	22.3	2.7	1367.7	120.8	272.8	68.2	65.2	1.04	8
TENNESSEE 505†	35	61.6	93.2	3.9	23.6	1.1	1569.7	144.9	277.7	65.9	72.5	0.91	11
WHISNAND 75W	36	58.8	91.2	4.0	28.5	2.7	1408.3	136.4	253.0	59.1	65.6	0.98	7
WHISNAND 77W	37	64.8	90.6	8.2	19.8	2.4	1392.0	131.7	264.3	55.6	66.5	1.01	7
WHISNAND 79W	38	62.6	92.4	6.9	24.8	2.0	1404.3	130.3	262.1	53.7	67.3	0.92	6
WHISNAND EXP 77-1W	39	65.3	92.1	6.4	29.0	3.3	1430.7	131.1	264.2	61.1	65.0	0.96	6
WHISNAND EXP 1W	40	70.0	93.0	2.8	21.4	2.5	1458.3	141.3	286.3	78.2	67.6	1.09	9

WHISNAND EXP 2W†	41	63.7	89.6	4.8	20.2	3.3	1455.3	133.6	264.7	58.9	65.0	0.99	6
WHISNAND EXP 3W	42	67.0	91.2	1.9	27.3	3.2	1392.3	133.7	267.9	80.2	66.0	0.97	9
WHISNAND EXP 4W	43	59.8	87.8	6.0	16.9	3.8	1411.3	122.2	255.1	60.0	66.7	0.98	6
WHISNAND EXP 5W	44	63.7	87.4	2.2	25.1	2.1	1445.7	144.9	280.4	66.4	69.7	1.00	8
ZIMMERMAN Z11W	45	70.7	90.3	6.5	21.6	2.1	1548.7	153.5	292.4	68.4	72.3	1.12	8
ZIMMERMAN Z19W	46	70.7	93.5	1.9	20.3	3.4	1499.0	152.4	295.7	73.3	70.4	1.25	7
ZIMMERMAN Z52W	47	71.6	94.8	4.0	16.6	0.9	1537.3	146.6	296.9	68.7	70.5	1.14	9
YELLOW CK B73 X MO17	48	67.7	83.2	2.5	10.7	2.5	1409.3	120.3	246.1	51.8	67.2	0.92	16
YELLOW CK MO17 X N28	49	71.6	91.7	0.7	9.9	0.9	1427.0	109.4	240.8	72.5	66.3	1.10	9
YELLOW CK DEKALB XL81	50	66.0	87.1	1.4	12.0	3.2	1367.7	112.8	243.7	63.9	65.4	0.86	7
YELLOW CK G'S GOLD 5500A	51	73.9	90.1	3.0	10.9	2.5	1386.0	116.8	254.5	57.8	66.0	1.02	17
YELLOW CK PIONEER BRAND 3369A	52	72.1	93.5	2.3	15.2	0.7	1446.3	127.8	275.7	74.4	66.5	1.16	10
LOCAL ENTRY	53	71.4	95.1	4.0	17.8	0.9	1500.0	148.2	293.4	68.3	70.6	----	--
LOCAL ENTRY	54	68.6	88.9	4.2	10.0	1.7	1439.0	122.7	256.9	77.4	71.1	----	--
AVERAGE		66.5	90.1	4.6	19.4	1.8	1476.5	136.9	272.2	63.0	68.9	1.00	7.9
LSD 0.05		7.9	5.4	NS	8.1	1.8	61.3	10.2	11.6	19.2	2.9	0.10	

ENVIRONMENT MEANS

COLUMBIA (RB), MO	71.9	93.6	0.0	12.3	0.0	0.0	135.5	259.7	0.0	61.6
COLUMBIA (BARC), MO	45.6	90.9	0.1	45.2	0.0	0.0	136.1	256.6	0.0	0.0
MC BAINE, MO	64.7	97.9	0.0	33.5	0.8	0.0	143.3	267.8	0.0	0.0
SPICKARD, MO	75.0	77.9	0.9	6.1	1.4	0.0	119.0	279.0	0.0	0.0
WASHINGTON, IA	96.0	90.3	20.8	16.5	4.1	1476.5	0.0	0.0	0.0	0.0
CHAMPAIGN, IL	86.6	73.3	7.4	7.0	0.3	0.0	143.8	268.6	0.0	0.0
EVANSVILLE, IN	37.2	97.6	2.8	21.0	0.0	0.0	0.0	0.0	0.0	0.0
CROSSVILLE, TN	105.1	99.4	0.0	16.8	0.0	0.0	143.7	301.8	80.2	0.0
WAVERLY, TN	48.4	92.4	0.0	29.1	0.0	0.0	0.0	0.0	45.9	61.1
MANHATTAN, KS	35.3	87.8	0.5	6.7	2.3	0.0	0.0	0.0	0.0	73.5
ROSSVILLE, KS	65.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.6

† CHAMPAIGN LOCATION OMITTED FOR CALCULATION OF ENVIRONMENTAL RESPONSES.

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 15. VIRUS AND EUROPEAN CORN BORER RATINGS OF ENTRIES IN THE 1978 WHITE MAIZE VARIETY TRIAL.

ENTRY NAME	NO.	VIR INF%	VIR SEVR	AVG VIRS	1ST ECB	2ND ECB
ACCO U398W	1	11.2	3.1	1.3	7.7	7.0
CARGILL 99W	2	13.0	3.4	1.3	7.0	6.7
FUNK 28236-7900B	3	5.7	2.7	1.1	7.0	6.0
GOLDEN HARVEST H-2644W	4	37.4	3.6	1.8	7.3	7.0
GOLDEN HARVEST H-2660W	5	2.6	2.7	1.1	7.7	6.3
GOLDEN HARVEST H-2665W	6	10.1	3.1	1.2	6.7	7.0
IFS 78-1	7	9.4	2.3	1.2	7.7	7.0
IFS 78-2	8	12.7	3.3	1.4	8.3	7.3
IFS 78-3	9	13.6	3.1	1.3	6.7	7.0
JACQUES W200	10	54.8	3.9	2.6	8.3	8.7
JACQUES W300	11	38.5	3.7	2.1	9.0	7.0
MASON 5440 (SP X)	12	22.7	3.3	1.5	6.7	6.0
MASON 5540 (SP X)	13	36.4	3.8	2.0	7.7	7.0
MASON 5550 (SP X)	14	27.7	3.3	1.7	8.3	7.0
MASON 5850 (S X)	15	47.3	4.2	2.4	8.3	7.0
MCNAIR X233	16	14.1	3.0	1.3	7.0	6.7
MFA C4W	17	57.8	4.0	2.9	7.7	7.3
MFA EXP 1-WHITE	18	13.7	3.3	1.3	9.0†	9.0§
NC+ 66W	19	58.1	3.6	2.5	8.3	8.3
P-A-G SX70W	20	50.7	4.2	2.7	6.3	7.7
P-A-G 644W	21	17.9	3.3	1.4	8.3	7.3
PIONEER BRAND 511A	22	45.6	3.1	1.9	8.0	8.0
PIONEER BRAND X5386	23	9.4	2.1	1.2	5.3	6.3
PIONEER BRAND EXP X6409	24	35.8	3.0	1.8	9.0	6.7
PRINCETON SX910	25	6.9	3.0	1.2	7.7	6.7
PRINCETON SP936	26	16.7	3.1	1.4	7.0	7.0
RINGAROUND WSP2799	27	22.2	3.3	1.5	9.0	7.0
RINGAROUND RA2602W	28	12.5	3.1	1.2	7.7	7.3
STURDYGROW SG904W	29	6.7	2.4	1.1	7.3	7.0
STURDYGROW SG907W	30	24.1	3.1	1.5	7.0	7.3

STURDYGROW SG921W	31	62.0	3.8	2.7	8.3	5.7
STURDYGROW SG933W	32	13.1	3.3	1.3	7.3	7.0
STURDYGROW SG935W	33	9.1	2.6	1.2	9.0	7.0
STURDYGROW SG957W	34	22.3	2.3	1.4	8.7	9.0
TENNESSEE 505	35	7.1	2.5	1.2	8.3	7.3
WHISNAND 75W	36	32.8	3.5	1.8	7.7	9.0
WHISNAND 77W	37	51.4	4.1	2.7	8.3	8.7
WHISNAND 79W	38	33.9	3.1	1.7	8.3	8.3
WHISNAND EXP 77-1W	39	53.5	3.7	2.5	8.3	8.3
WHISNAND EXP 1W	40	15.7	3.1	1.3	9.0	7.3
WHISNAND EXP 2W	41	55.6	3.9	2.6	8.3	8.3
WHISNAND EXP 3W	42	18.2	3.0	1.4	8.3	7.3
WHISNAND EXP 4W	43	30.9	3.5	1.8	8.7	9.0
WHISNAND EXP 5W	44	21.3	2.5	1.4	7.0	6.7
ZIMMERMAN Z11W	45	5.7	2.3	1.1	7.0	7.0
ZIMMERMAN Z19W	46	4.4	2.2	1.1	6.7	6.7
ZIMMERMAN Z52W	47	7.6	3.3	1.2	8.3	7.0
YELLOW CK B73 X M017	48	55.5	4.0	2.6	9.0	8.7
YELLOW CK M017 X N28	49	43.4	3.5	2.1	8.0	8.7
YELLOW CK DEKALB XL81	50	25.0	3.2	1.7	7.7	6.7
YELLOW CK O'S GOLD 5500A	51	34.6	4.0	2.0	8.7	8.0
YELLOW CK PIONEER BRAND 3369A	52	28.6	3.4	1.8	7.0	7.0
LOCAL ENTRY	53	14.1	2.9	1.3	9.0	7.3
LOCAL ENTRY	54	18.1	3.0	1.4	2.7‡	3.3 ¶
AVERAGE		25.9	3.2	1.7	7.8	7.3
LSD 0.05		22.0	1.0	0.7	1.7	1.3
CV %		52	20	25	14	11

† SUSCEPTIBLE CHECK WF9.
‡ RESISTANT CHECK CI31A.
§ SUSCEPTIBLE CHECK OH43.
¶ RESISTANT CHECK B52.
SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 16. CORRELATIONS AMONG 15 OBSERVED CHARACTERS IN THE 1978 WHITE MAIZE VARIETY TRIAL. MEANS COMBINED OVER LOCATIONS WERE USED, UNLESS THE CHARACTER WAS OBSERVED AT ONLY ONE LOCATION. LOCAL ENTRIES WERE OMITTED.

	YIELD	STAND	ROOT LODGING	STALK LODGING	DROPPED EARS	USABLE EARS	EAR HEIGHT	PLANT HEIGHT	DAYS TO FLOWER	GROWING DEG. DAYS	VIRUS INF. %	VIRUS SEVR.	AVG. VIRUS	1ST GEN. E.C.B.†	2ND GEN. E.C.B.†
YIELD	---														
STAND	0.49**	---													
ROOT LODGING	-0.21	-0.10	---												
STALK LODGING	-0.53**	-0.13	0.27	---											
DROPPED EARS	-0.05	0.05	-0.23	0.23	---										
USABLE EARS	0.62**	0.55**	-0.47**	-0.34*	0.21	---									
EAR HEIGHT	0.18	0.22	0.22	0.21	-0.11	0.17	---								
PLANT HEIGHT	0.49**	0.37**	0.03	-0.09	-0.05	0.49**	0.87**	---							
DAYS TO FLOWER	0.06	0.03	0.23	0.11	-0.30*	-0.06	0.77**	0.61**	---						
GROWING DEG. DAYS	0.07	0.12	0.23	0.06	-0.42**	-0.05	0.75**	0.58**	0.89**	---					
VIRUS INF. %	-0.37**	-0.33*	0.20	0.23	0.09	-0.56**	-0.59**	-0.74**	-0.48**	-0.41**	---				
VIRUS SEVR.	-0.36**	-0.31*	0.25	0.16	-0.05	-0.62**	-0.54**	-0.69**	-0.39**	-0.32*	0.80**	---			
AVG. VIRUS	-0.35**	-0.35**	0.23	0.23	0.05	-0.60**	-0.55**	-0.71**	-0.43**	-0.35**	0.98**	0.83**	---		
1ST GEN. E.C.B.†	-0.18	-0.28*	0.06	0.12	0.15	-0.23	-0.46**	-0.43**	-0.43**	-0.42**	0.32**	0.34*	0.29*	---	
2ND GEN. E.C.B.†	-0.10	-0.08	-0.02	0.13	0.36**	-0.09	-0.50	-0.47**	-0.61**	-0.61**	0.45**	0.40**	0.42**	0.46**	---

*, ** INDICATE SIGNIFICANCE AT P=0.05 AND P=0.01, RESPECTIVELY.

† ENTRY 18 WAS WF9 FOR 1ST GEN. E.C.B. AND OH43 FOR 2ND GEN. E.C.B. THESE CHECKS SHOULD NOT SIGNIFICANTLY ALTER THE CORRELATION COEFFICIENTS.

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.

TABLE 17. COMPARISON OF GRAIN YIELD, STALK LODGING, EAR HEIGHT, AND DAYS TO FLOWERING BETWEEN THE AVERAGE OF ALL WHITE HYBRIDS AND FIVE YELLOW CHECK HYBRIDS.

LOCATION	YIELD (Q/HA)		STALK LODGING %		EAR HEIGHT (CM)		DAYS TO FLOWERING	
	WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW
COLUMBIA, MO (ROLLINS BOTTOM)	72.6	64.9	12.9	6.0	137.8	112.9	61.9	59.1
COLUMBIA, MO (BRADFORD ARC)	44.48	53.0	46.5	32.1	137.9	118.9	---	---
MC BAINE, MO	63.6	75.6	35.7	11.8	145.2	124.3	---	---
SPICKARD, MO	75.8	66.9	6.2	5.3	120.5	104.1	---	---
WASHINGTON, IA	94.6	109.4	17.3	8.3	---	---	---	---
CHAMPAIGN, IL	85.5	97.2	7.5	2.5	147.0	112.6	---	---
EVANSVILLE, IN	36.3	45.6	21.7	14.4	---	---	---	---
CROSSVILLE, TN	105.2	103.7	17.6	9.0	144.9	131.7	---	---
WAVERLY, TN	49.7	35.3	29.6	24.6	---	---	61.3	58.9
MANHATTAN, KS	34.2	46.1	7.0	3.6	---	---	73.7	71.5
ROSSVILLE, KS	64.8	75.3	---	---	---	---	80.0	75.7
AVERAGE	66.1	70.3	20.2	11.7	138.9	117.4	69.2	66.3

SEE PAGES 4-6 FOR AN EXPLANATION OF COLUMN HEADINGS.