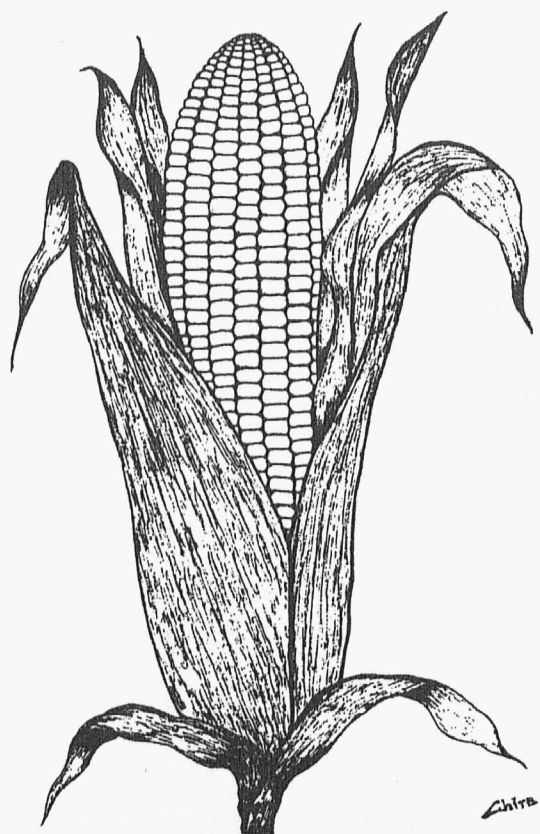


YELLOW FOOD CORN

1992 Performance Test



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INTRODUCTION

The 1992 Yellow Food Corn Performance Test (YFCPT) included 47 hybrids and the yellow hybrid check B73 × Mo17. Hybrids were submitted by 15 commercial seed producers (Table 1). Eleven locations were planted in the agronomic evaluation, but the Test in Uvalde, TX, was abandoned for agronomic data. Quality data were observed on the grain from Uvalde. Data were received from locations in Illinois, Indiana, Kentucky, Missouri, Ohio, Tennessee, Texas, and Wisconsin. First and second generation European corn borer (*Ostrinia nubilalis* Hübner) data were observed at Columbia and Novelty, MO. Grain samples were evaluated for quality aspects by L. W. Rooney, Department of Soil and Crop Science, Texas A & M University and B. R. Hamaker, Department of Food Science, Purdue University.

ENTRIES AND SEED SOURCES

Contributors of seed for the 1992 evaluations are listed in Table 1. Those entries that have an EXP as part of the hybrid name, such as Cargill EXP 50076¹, have not been released. The last hybrid in each table is a yellow check hybrid.

For averages over years, entry names have been changed to current designations, so that an experimental hybrid from an earlier year is now identified as the released hybrid. For example, Asgrow XP9877 was released as Asgrow RX947, Asgrow XP8119 was released as Asgrow RX811, and Asgrow XP8459 was released as Asgrow RX899. Garst R7188 was released as Garst 8113 and renamed ICI Seeds 8113. All other Garst and ICI hybrids have been renamed to ICI Seeds hybrids. Pioneer Brand X0813 was released as Pioneer Brand 3146. Triumph EXP TRX9382 (also entered as Triumph TRX9382) was released as Triumph 1660. Triumph TRX8338 was renamed TRX1630 and released as Triumph 1630. Wilson Hybrids, Inc. has changed its name to Wilson Seeds, Inc.

Seed of the yellow check hybrid B73 × Mo17 was contributed by Dr. T. R. Colbert, CIBA-GEIGY Seed Division, Union City, TN.

LOCATIONS AND AGRONOMIC PRACTICES

Table 2 lists the locations of the YFCPT from which acceptable data were returned, together with a record of the agronomic practices. Note that tests at College Station and Halfway, TX, were irrigated.

DATA COLLECTED

Yield

Yields were measured on a plot basis, converted to bushels per acre (bu/a), and adjusted to 15.5% moisture. Yields were adjusted to the mean stand for a location if the efficiency of adjustment

¹ Mention of a trademark or proprietary product does not constitute a guarantee, warranty, or recommendation of the product by the U.S. Dep. of Agriculture or the University of Missouri and does not imply its approval to the exclusion of other products that may also be suitable.

exceeded 104% (ratio of unadjusted error sum of squares to adjusted error sum of squares).

Stand

Stand is expressed as a percentage of the optimum plot stand or planted stand.

Root and stalk lodging

Lodging is expressed as a percentage of the total plants for each hybrid. Generally, a plant was rated as root lodged if it leaned more than 30° from vertical, and as stalk lodged if it was broken at or below the ear node. Breakage above the ear was not counted.

Ear height

Ear height was measured from the soil level to the top ear leaf collar. Heights are expressed in inches.

Days to flowering

The number of days from planting to mid-tassel or mid-silk is shown. Depending on weather conditions, the total number of days from planting to physiological maturity might be taken as 1.6 to 1.8 times the number of days to flowering.

Grain moisture

Grain moisture was measured at harvest or when the grain was weighed.

Environmental yield response (b_1) and standard deviation of fit

These statistics are shown in Table 13 for the entry means combined over all locations in the 1992 YFCPT. The yield response (b_1) is expressed as bu/a/unit increase in the environmental index, where the index for a location is the average performance of all hybrids at the location. The deviation of fit is given in bu/a. The origin and use of these statistics are fully described later.

European corn borer

Leaf feeding by the first generation of the European corn borer was rated in nine classes. A score of 1 represented no feeding and 9 represented extensive damage. Plants in each plot were infested with about 120 larvae during the whorl stage of plant development. Ratings for leaf feeding were made three weeks later.

Feeding by the second generation of the European corn borer was determined by splitting stalks of five randomly infested plants per plot, counting the number of tunnels, and visually estimating the length of tunneling in inches. The minimum tunnel length associated with one hole was 1 inch. About 120 larvae were applied at flowering, and stalks were split six or more weeks later.

Test weight

Bulk density was determined with a Winchester bushel meter and expressed as pounds per bushel (Texas A & M University and Purdue University [grain conditioned at 80.6°F and 67% relative humidity]).

1000-kernel weight

Weight of 1000 whole, cleaned kernels was measured in grams (Texas A & M University).

Density

Density was determined using a multipycnometer (Texas A & M University) or stereopycnometer (Quantachrome Corporation, Syosset, NY) on grain conditioned at 80.6°F and 67% relative humidity (Purdue University).

Hardness index

Forty grams of corn (whole kernels) were abrasively milled using a tangential abrasive dehulling device for 10 min to remove the pericarp in a uniform manner. The weight of material removed, expressed as a percent of the original sample, is directly related to hardness of the kernel (Texas A & M University).

Pericarp removal

The pericarp removal test was conducted by cooking 25 g of corn in nylon bags in a steam kettle containing 1% lime. One-hundred samples of corn were cooked for 20 min at the boiling point. The samples were then washed and stained with eosine and methyl blue solution. The pericarp stains a blue-green color while the endosperm stains a light green color. Each sample was then rated on a scale in which 1 represented complete removal and 5 represented no removal (Texas A & M University).

Kernel color

Kernel color was rated on a scale of 1 to 5 on which 1 represents a light yellow color, 3 represents a bright yellow to yellow-orange color, and 5 represents a deep orange, red, or other undesirable kernel color. A rating of 2 to 3 is optimum on the color scale (Texas A & M University).

Cob color

Cob color is indicated by "R" for red, "P" for pink, and "W" for white. A white cob is desirable (Texas A & M University).

Stenvert hardness test

Twenty grams of corn conditioned at 80.6°F and 67% relative humidity were ground on a micro hammer-cutter mill (Glen Mills, Inc., Maywood, NJ). The Stenvert hardness value is the time, in

seconds, required to collect 17 ml of ground corn (Purdue University).

Milling evaluation factor

A short-flow corn dry milling procedure was used to separate grit, flour, and germ fractions. The milling evaluation factor (MEF) was calculated using product yields obtained from the short-flow dry milling procedure. The MEF increases when both total endosperm product yields and flaking grit yields increase (Purdue University).

Kernel length, width, and thickness

Kernel length, width, and thickness measurements were done on 30 representative kernels from each entry. Length and width determinations were obtained using a Zeiss Videoplan Image Analyzer (Carl Zeiss, Inc., Germany) and thickness measurements were done with a computerized digital micrometer (Purdue University).

STATISTICAL ANALYSES AND INTERPRETATIONS

The data from the YFCPT were analyzed as a three-replication, randomized, complete-block design experiment at each location. If an observation was missing in one replication, the average of those observations in the remaining replications was used to approximate the missing observation. The least significant differences at probability level 0.05 (LSD 0.05) and coefficients of variation percentages (CV%) were calculated from the location analyses of variance (AOV). Where differences among hybrids were not significant for a character, no LSD or CV% is shown. Occasionally, data were observed in only one or two replications; a footnote is used to identify those situations.

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, the difference observed is a true difference in 19 out of 20 instances when the two hybrids are grown under conditions like those of the test.

The CV% relates error of measurement and the mean of the observed character. Values of the CV% for root and stalk lodging are sometimes much higher than for other characters and are generally associated with nonsignificant differences among hybrids.

Agronomic data combined from 10 locations of the 1992 YFCPT with an appropriate LSD 0.05 for each character are shown in Table 13. The combined LSD 0.05 and CV% are based on the entries \times locations interaction versus the pooled error from the combined AOV. When a character was not observed at a location, dots show in the location analysis; the combined mean and LSD 0.05 have been adjusted accordingly.

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 location was the measure used to rate the environment. This environmental index (I) was then used as the independent variable in a regression analysis with the individual hybrid's performance at each location. A hybrid that is stable will have a regression coefficient (b_1) equal to 1.0, which means 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_1 values less than 1.0 would have a relative advantage in poor environments.

Deviation from fit reflects the accuracy with which the regression line given by b_1 represents probable performance. Low deviation indicates that a hybrid has greater stability.

Overall, a desirable hybrid would have a high mean yield, b_1 near 1.0, and low deviation from fit. If a grower knew he was producing on the high side of the environments sampled, then a hybrid with b_1 greater than 1.0 would be more responsive than one with $b_1 = 1.0$, and would be likely to yield more if mean yield levels were equivalent.

NARRATIVE SUMMARY

Yields from individual locations ranged from 115.9 bu/a at College Station, TX, to 206.2 bu/a at Milan, OH. The overall average for 10 locations was 169.1 bu/a, up 22.4 bu/a from 1991 and reflecting good growing conditions throughout most of the Corn Belt. Environments sampled ranged from Texas to southern Wisconsin to Ohio.

Plot stands averaged 92.3%, ranging from 83.7% at College Station, TX, to 102.7% at Halfway, TX. Covariance adjustment of yield for stand was done for data from Champaign, IL; West Lafayette, IN; Columbia, MO; Knoxville and Union City, TN; and College Station, TX, where the efficiency of adjustment exceeded 104%.

Root lodging ranged from 0.0% at Knoxville, TN, and College Station, TX, to 9.7% at Janesville, WI. Stalk lodging averaged only 2.5% and was uniformly low in 1992. Overall, standability was very good in this Test.

The number of days to flowering was recorded at five locations. A 10.3-day spread was observed, ranging from 69.6 days at Lexington, KY, to 79.9 days at Knoxville, TN. Low grain moisture percentages can be observed where plots were harvested and dried before shelling and weighing, but most locations were combine harvested. Details of individual location data are in Tables 3 to 12 with the combined data in Table 13. Yield data from all 10 locations are given in Table 14.

Combined agronomic data from locations (Table 13)

Three hybrids yielded significantly more than the mean for all entries of 169.1 bu/a: Pioneer Brand X1814 (187.4 bu/a), Pioneer Brand 3162 (186.3 bu/a), and Funk's G Brand 4631 (184.6 bu/a). One entry yielded significantly less than the mean of all entries: Wilson E14287 (154.5 bu/a). The entries \times locations interaction was highly significant, indicating different entry responses in different environments.

Stand differences among entries were significant. No entry was significantly better than the average of 92.3%, but three entries had stands significantly lower than the average: IFSI 92-1Y (87.6%), IFSI 91-1Y (87.3 %), and NobleBear NBX1420 (85.7 %).

Root lodging was low in the 1992 test, averaging 3.4%. Although no hybrid was significantly better than the mean because the mean minus the LSD was 0.0% and all hybrids had some root

lodging. The most root lodging occurred for IFSI 91-2Y (6.6%), but that was not significantly more than the average of 3.4%.

Stalk lodging averaged only 2.5%, which was judged excellent. Higher stalk lodging than for the average entry was observed for ORO 201YW (6.1%) and ICI Seeds 8113 (7.0%). No entry was significantly better than the mean ($\bar{X} - \text{LSD} < 0.0\%$) although there were many significant differences between the better and poorer entries.

Ear heights ranged from 36.1 inches for Vineyard FCx5191 to 49.3 inches for Asgrow RX947. Eight hybrids had ear heights that were significantly below the mean of 41.5 inches: Vineyard FCx5191 (36.1 in), Pioneer Brand 3162 (36.5 in), NobleBear NBX1380 (36.6 in), Wilson E14287 (37.3 in), DeKalb Plant Genetics DK764 (37.4 in), Vineyard FCx5421 (37.6 in), Pioneer Brand 3279 (39.0 in), and Pioneer Brand 3245 (39.1 in). Another eight hybrids had ear heights that were significantly greater than that for the average entry: NC+ 5860 (43.9 in), DeKalb Plant Genetics DK656 (43.9 in), Triumph 1660 (44.0 in), Asgrow RX899 (44.2 in), Funk's G Brand 4631 (44.9 in), Pioneer Brand 3146 (45.1 in), Asgrow XP9451 (47.7 in), and Asgrow RX947 (49.3 in).

Seven hybrids flowered significantly earlier than the average of 76.4 days for all entries: Wilson E14287 (73.3 days), Golden Harvest H-2572 (74.7 days), Pioneer Brand 3162 (74.7 days), NC+ 5963 (74.8 days), Vineyard FCx5191 (74.9 days), ICI Seeds 8344 (74.9 days), and Asgrow RX811 (75.0 days). Eight hybrids were later flowering than average, but that only required a 1.4-day delay for significance.

Differences in grain moisture measured during early-season combine harvesting may be reduced when averaged with moistures after prolonged field or uniform drying. Average grain moistures ranged from 21.7% for Vineyard FC540 to 26.0% for Funk's G Brand EXP 6140X with an overall average of 23.6%. Six hybrids had grain moistures that were significantly less than the mean for all entries: Vineyard FC540 (21.7 %), Wilson E14287 (21.8 %), Pioneer Brand 3279 (22.2 %), NC+ 5963 (22.2 %), DeKalb Plant Genetics DK656 (22.3 %), and Vineyard FCx5181 (22.3 %). The range of days to flower and grain moistures observed indicate that seed producers are offering a range of maturities in yellow food corn hybrids.

The environmental response coefficients (b_1) and standard deviations of fit are shown in the last two columns of Table 13. (A difference of ± 0.11 from 1.00 is necessary for significance. The LSD should be used when comparing coefficients of two hybrids.) Eight hybrids had b_1 s that were significantly greater than 1.00, indicating greater than average response to better environmental conditions, but somewhat poorer performance in adverse environments. Among the more responsive hybrids were Pioneer Brand X1814 (187.4 bu/a, $b_1=1.17$) and Cargill EXP 50076 (181.5 bu/a, $b_1=1.28$) which were ranked first and fourth for yield, respectively, and would be good selections for growing in above-average environments. Nine hybrids had regression coefficients significantly less than 1.00. Usually, low response is associated with low mean yields. Exceptions can be found that have high mean yield and they would be preferable when grown in environments subject to stress or other adverse conditions. An example is Funk's G Brand 4631 with a mean yield of 184.6 bu/a (ranked third) and $b_1=0.74$.

The standard deviations of fit varied for similar environmental response coefficients. For example, ICI Seeds 8344 (171.5 bu/a, $b_1=1.01$) and NC+ 5963 (164.0 bu/a, $b_1=1.01$) had standard deviations of 19.5 and 8.4 bu/a, respectively. NC+ 5963 would be expected to be a more predictable performer in response to varied environments than ICI Seeds 8344 at similar yield levels.

In choosing a hybrid, all agronomic factors must be considered in relation to the anticipated environment. Data from several locations are usually more reliable than data from a single location evaluated for two or three years.

European corn borer susceptibility data for the 1992 YFCPT (Table 15)

First generation leaf-feeding ratings were obtained at Columbia and Novelty, MO. Significant differences were found among entries. Only Asgrow RX899 (2.2) and DeKalb Plant Genetics DK677 (2.3) had significantly lower leaf feeding ratings than the average entry (3.6). Entries more susceptible to leaf feeding damage included Funk's G Brand EXP 6126X (4.7), Wilson E14287 (4.8), and the susceptible checks Ki3 (5.8) and WF9×W182E (5.8).

Second generation stalk-feeding data were also obtained at Columbia and Novelty, MO. For the number of tunnels, no entry was better than the average entry (\bar{X} - LSD = 0.0). Wilson E14287 (1.3 tunnels) and the susceptible check WF9×W182E (1.4 tunnels) had more tunnels than average. Tunnel length differences among entries were also significant. No entry was significantly better than the mean of all entries (\bar{X} - LSD = 0.0). Wilson E14287 (1.4 in) and the susceptible check WF9×W182E (1.4 in) had significantly more stalk tunnelling than the average entry (0.7 in). Thirteen entries that had significantly less stalk tunnelling than the average of the two susceptible check entries (Ki3 and WF9×W182E) were Triumph 1660 (0.1 in), IFSI 91-3Y (0.2 in), Wilson 2330 (0.2 in), DeKalb Plant Genetics DK764 (0.3 in), Triumph 1630 (0.3 in), Cargill EXP 50076 (0.5 in), Cargill EXP 50079 (0.5 in), Funk's G Brand EXP 6126X (0.5 in), NC+ 5860 (0.5 in), NC+ 6485 (0.5 in), Pioneer Brand 3245 (0.5 in), Vineyard FCx5191 (0.5 in), and the resistant check hybrid Pioneer Brand 3184 (0.5 in).

Two-, three-, four-, and five-year mean yields and agronomic performance (Tables 16 to 19)

Data were summarized for common entries in the last two, three, four, and five years of the YFCPT. Individual year means were averaged without weighting for the varying numbers of locations over the years. For the past five years, the number of locations with acceptable data has ranged from six in 1988 to 11 in 1991. This procedure does not permit an LSD to be directly calculated. Approximate values of 11 bu/a for the two-year means, 9 bu/a for the three-year means, and 7 bu/a for the four-year means, and 7 bu/a for the five-year means could be used to compare yields of individual entries in the respective tables.

Based on the approximate LSD 0.05 for means based on five years' testing, no difference was found between the mean and DeKalb Plant Genetics DK656 (152.4 bu/a), Vineyard FC540 (144.1 bu/a), or the yellow check hybrid B73×Mo17 (151.9 bu/a). DeKalb Plant Genetics DK656, however, could be judged to significantly outyield Vineyard FC540. For the four-year means, Pioneer Brand 3162 (173.4 bu/a) was significantly higher yielding than Asgrow RX947 (164.4 bu/a) or DeKalb Plant Genetics

DK677 (164.1 bu/a), and these three were all higher yielding than the remaining four entries. As the YFCPT continues, more hybrids will be tested for more years and some of the better performers in the past two years' tests will provide additional competition.

Grain quality evaluation of entries in the 1992 YFCPT (Tables 20-27)

L.W. Rooney and A. J. Bockholt of Texas A & M University and B. R. Hamaker of Purdue University conducted the grain quality evaluation of entries in the 1992 YFCPT. At harvest, grain samples from one replication were collected from seven of the 11 locations growing the trial. Samples from the Purdue test were damaged by frost and were not used. The Ohio location samples were obtained too late to include them and they were of poor quality resulting from the unusually late season. No grain sampling was done at Union City, TN, or Janesville, WI. Data in Table 20 are the means of observations on grain from each location while the individual location data for test weight, 1000-kernel weight, kernel density, kernel hardness index, and pericarp removal are in Tables 21-25. Additional quality data for grain from Champaign, IL, and Halfway, TX, are in Tables 26 and 27.

A number of entries in the 1992 YFCPT have characteristics desired for food corn. For alkaline cooking, generally, the grain should have 60 lb/bu or greater test weight, a true density of 1.3 g/cc or greater, a 1000-kernel weight of 300 g or more, a pericarp removal rating of 1 to 3, and a kernel color rating of 2 to 3. Grain with an orange-yellow color (rating 4 to 5) is undesirable for cooking. A clean, bright yellow color is preferred. Grain without pronounced dents is required for alkaline cooking. The depth of the dent is usually related to the proportion of hard vs. soft endosperm. Use of a multipycnometer for volume measurement at Texas A&M University gives higher density values than that obtained with liquid displacement procedures.

Cob color is an important attribute that affects quality for alkaline cooking. A white cob is, without question, preferred and should be the goal of all food corn improvement programs. However, certain hybrids with red cobs are used in alkaline cooking, particularly if only a very small portion of the cob (glume) adheres to the kernels. Good products may be made with corn from red cobs, but adverse environmental conditions can cause significantly more red streaking of the pericarp in kernels from a red cob which gives off-color, dingy-appearing products. The cleaner, brighter color of products from corn with white cobs, however, will mandate the use of white cob hybrids in the future.

The hardness index values reported were obtained by using a tangential abrasive dehulling device (TADD) to remove the pericarp in a uniform manner. Forty grams of corn (whole kernels) were dehulled in the TADD for 10 min. The weight of material removed was expressed as a percentage of the total sample. Values were corrected for day-to-day variation using a standard corn sample. Samples from a single location were all processed on the same day with consistent relative humidity and temperature. The hardest grain samples have the least amount of material removed during abrasive milling. Hardness values within a given location rank the corn hybrids consistently. However, the hardness data for the samples grown in Kentucky in 1992 indicated the samples were softer overall than some other locations even though the test weight and density were high. We cannot explain these differences. The values for Uvalde and College Station, TX, were lower because

of hot, dry weather during maturation which reduced kernel hardness, test weight, and density.

The pericarp removal test was conducted by cooking 25 g of corn in Nylon bags in a steam kettle containing 1% lime. One-hundred samples of corn were cooked for 20 min at the boiling point. The samples were then washed and stained with eosine and methyl blue solution. The pericarp stains a blue-green color while the endosperm stains a light green color. Each sample was then rated on a scale in which 1 represented complete removal and 5 represented no removal. This method is repeatable and consistently differentiates between samples with good and poor pericarp removal characteristics. Environment strongly affects pericarp removal. The pericarp removal values for 1992 did not show as wide a range as in the past, partly because a new person was in charge of the evaluations. The relative differences are still valid, but they are smaller.

Corn quality attributes vary among hybrids and are affected significantly by environmental conditions. In actual practice, a good quality corn hybrid must have outstanding yield and agronomic performance along with most of the desirable processing attributes. Thus, it requires a significant effort to develop a food corn hybrid with all the desirable characteristics. Often, good quality is associated with lower yields and requires additional management in harvesting and handling. Thus, a farmer must be paid an incentive, or premium, to produce high quality food corn hybrids.

Good quality corn hybrids

The data presented in this report give a relative idea of the potential quality of corn hybrids over a wide range of environmental conditions. This data is most useful for corn breeders developing new hybrids because it provides information on general adaption over a wide range of conditions in a uniform set of nurseries. The data in this report is of somewhat limited usefulness for a food corn company to use to select a corn hybrid for processing. Instead, the food corn company should work with a corn supplier to secure corn with the best characteristics in their procurement area. All of the reputable food corn suppliers pick certain hybrids that can be grown by producers profitably in their area of the country.

Table 1. Sources of commercial yellow endosperm food corn hybrids entered in the 1992 Yellow Food Corn Performance Test.

Brand	Firm [†]	Address
Asgrow	Asgrow Seed Company	P. O. Box 7570, Des Moines, IA 50322
Cargill	Cargill, Inc.	P. O. Box 5645, Minneapolis, MN 55440
DeKalb Plant Genetics	DeKalb Plant Genetics	3100 Sycamore Road, DeKalb, IL 60115
Deltapine	Delta and Pine Land Co.	P.O. Box 157, Scott, MS 38772
Funk's G Brand	CIBA-GEIGY Seed Division	P.O. Box 2911, Bloomington, IL 61701
Golden Harvest	J.C. Robinson Seed Co.	100 J.C. Robinson Boulevard, Waterloo, IA 68069
ICI Seeds	ICI Seeds, Inc.	P. O. Box 500, Slater, IA 50244
IFSI	Illinois Foundation Seeds	P. O. Box 722, Champaign, IL 61824
NC+	NC+ Hybrids	Route 2, Box 190, Hastings, NE 68901
NobleBear	NobleBear	P.O. Box 950, Decatur, IL 62525
ORO	ORO Hybrids - R. C. Young Seed Company	624 - 27 th Street, Lubbock, TX 79404
Pioneer Brand	Pioneer Hi-Bred International	4445 Corporate Drive, Suite 200 West Des Moines, IA 50265
Triumph	Triumph Seed Company	P. O. Box 1050, Ralls, TX 79357
Vineyard	Vineyard Seed Co., Inc.	RR 1, Box 139, Sidney, IL 61877
Wilson	Wilson Seeds, Inc.	P. O. Box 391, Harlan, IA 51537

[†] Mention of a trademark or proprietary product does not constitute a guarantee, warranty, or recommendation of the product by the U.S. Department of Agriculture or the University of Missouri and does not imply its approval to the exclusion of other products that may also be suitable.

Table 2. Locations and agronomic conditions for yield tests.

Location	Mean yield (bu/a)	Previous crop	Fertilizer (lb/a)			Date planted	Herbicide	Insecticide	Plant density (plants/a)
			N	P ₂ O ₅	K ₂ O				
Champaign, IL	199.9	Soybeans	187	50	255	2MAY92	Atrazine, metolachlor	----- [†]	26,550
West Lafayette, IN	148.8	Soybeans	167	0	0	8MAY92	Alachlor, atrazine, cyanazine	-----	24,394
Lexington, KY	197.1	Corn	150	0	72	12MAY92	Alachlor, atrazine, butylate	Terbufos	23,868
Columbia, MO	177.3	Wheat	160	100	100	5MAY92	Alachlor, atrazine	-----	21,780
Milan, OH	206.2	Soybeans	148	0	0	12MAY92	Alachlor, atrazine	Phorate	25,000
Knoxville, TN	186.1	Corn	160	50	32	15APR92	Alachlor, atrazine	Carbofuran	25,642
Union City, TN	167.3	Soybeans	180	45	60	6APR92	Atrazine, metolachlor	Permethrin	26,000
College Station, TX [‡]	115.9	Corn	142	121	32	10MAR92	Atrazine, metolachlor	Terbufos	26,000
Halfway, TX [‡]	155.0	Soybeans	278	138	0	24APR92	Atrazine	Terbufos	26,000
Janesville, WI	137.8	Corn	109	36	36	4MAY92	Alachlor, atrazine, cyanazine	Terbufos	28,512

[†] Dashes indicate none used.

[‡] Irrigated location.

Table 3. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at Champaign, IL.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	197.1	99.0	2.1	8.4	45.0	.	19.6
Asgrow RX899	2	213.7	100.0	0.0	0.0	45.0	.	23.9
Asgrow RX947	3	194.7	89.6	0.0	1.8	54.7	.	24.8
Asgrow XP9451	4	190.3	100.0	0.5	2.1	49.3	.	24.8
Cargill EXP 50076	5	229.9	100.0	0.0	2.1	50.0	.	22.8
Cargill EXP 50079	6	198.3	97.4	0.0	2.6	43.3	.	22.0
DeKalb Plant Genetics DK656	7	208.5	100.0	0.0	7.8	48.0	.	21.1
DeKalb Plant Genetics DK677	8	186.9	96.9	0.0	1.1	44.3	.	22.1
DeKalb Plant Genetics DK764	9	186.7	97.4	0.0	1.1	39.7	.	28.1
Deltapine 4581	10	202.7	99.0	0.0	1.6	46.0	.	23.4
Deltapine G-4673B	11	207.5	100.0	1.0	5.7	43.0	.	23.4
Funk's G Brand 4631	12	210.4	97.9	2.6	1.1	45.0	.	24.0
Funk's G Brand EXP 6126X	13	195.2	100.0	0.0	1.6	44.0	.	21.2
Funk's G Brand EXP 6140X	14	185.2	99.5	0.0	0.5	48.7	.	27.1
ICI Seeds 8113	15	211.1	98.4	1.0	25.7	43.7	.	22.0
ICI Seeds 8344	16	216.4	98.4	0.0	0.5	44.3	.	22.0
Golden Harvest H-2572	17	209.1	98.4	0.0	2.1	45.7	.	21.9
Golden Harvest H-2583	18	203.7	99.5	0.0	4.2	41.7	.	21.7
Golden Harvest H-2592	19	218.5	93.7	0.0	8.5	45.0	.	21.8
ICI Seeds 8260	20	194.7	97.4	0.0	7.0	42.7	.	21.3
ICI Seeds 8310	21	212.5	98.4	1.0	1.0	42.3	.	21.7
IFSI 91-1Y	22	193.5	97.9	1.6	2.7	49.0	.	20.1
IFSI 91-2Y	23	203.0	99.5	1.0	14.6	47.0	.	21.6
IFSI 91-3Y	24	216.6	87.0	2.6	9.5	47.7	.	22.6
IFSI 92-1Y	25	197.1	98.4	2.6	3.7	44.3	.	24.1
NC+ 5860	26	201.9	100.0	3.1	0.5	47.7	.	19.0
NC+ 5963	27	199.3	98.4	0.0	0.5	45.0	.	21.2
NC+ 6485	28	217.2	93.2	0.0	1.2	45.3	.	21.0
NobleBear NBX1380	29	173.8	84.9	2.3	1.7	36.7	.	21.0
NobleBear NBX1420	30	193.6	95.3	14.4	3.2	45.7	.	24.6
ORO 201YW	31	181.1	95.8	1.0	25.2	45.3	.	22.5
Pioneer Brand 3146	32	205.0	97.9	0.0	1.0	49.3	.	22.3
Pioneer Brand 3162	33	220.1	89.6	0.0	0.0	37.0	.	22.8
Pioneer Brand 3245	34	208.3	99.5	0.0	0.0	40.0	.	19.4
Pioneer Brand 3279	35	214.0	78.1	0.0	0.0	40.7	.	18.3
Pioneer Brand X1814	36	225.8	97.4	0.0	4.3	47.0	.	22.3
Triumph 1630	37	184.7	99.0	0.0	4.2	43.7	.	24.0
Triumph 1660	38	189.0	99.5	2.6	11.1	44.3	.	24.7
Vineyard FC533	39	180.2	100.0	0.0	1.6	44.7	.	22.1
Vineyard FC540	40	171.5	91.1	1.7	0.6	47.3	.	20.4
Vineyard FCx5181	41	186.8	100.0	0.0	3.6	42.7	.	19.1
Vineyard FCx5191	42	185.9	100.0	1.0	3.1	37.0	.	21.1
Vineyard FCx5321	43	205.6	92.7	0.5	2.2	43.0	.	21.9
Vineyard FCx5421	44	195.6	100.0	0.0	1.0	43.0	.	21.3
Wilson 2330	45	201.1	100.0	0.0	2.1	45.0	.	24.6

Table 3. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	191.8	97.9	0.0	0.0	43.7	.	22.8
Wilson E14287	47	174.8	88.5	1.2	2.2	39.3	.	19.5
Yellow check B73 × Mo17	48	204.6	99.5	1.0	5.8	49.0	.	20.9
Mean		199.9	96.7	0.9	4.0	44.6	.	22.2
LSD 0.05		28.8	9.1	2.5	8.5	5.3		1.2
CV%		8.8	5.7	163.9	129.6	7.2		3.4

Table 4. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at West Lafayette, IN.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height [†] (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	158.2	95.2	3.5	2.0	42.1	.	34.6
Asgrow RX899	2	163.4	96.2	2.5	4.4	42.9	.	35.2
Asgrow RX947	3	120.3	74.3	18.6	2.5	45.6	.	34.2
Asgrow XP9451	4	138.5	88.6	3.6	3.2	45.2	.	34.8
Cargill EXP 50076	5	171.0	92.9	16.9	1.6	41.3	.	34.6
Cargill EXP 50079	6	159.4	91.0	11.1	2.6	41.3	.	32.6
DeKalb Plant Genetics DK656	7	155.6	93.3	1.5	5.5	44.1	.	32.3
DeKalb Plant Genetics DK677	8	136.0	86.2	10.5	3.9	33.1	.	33.0
DeKalb Plant Genetics DK764	9	124.7	88.6	4.1	2.7	33.1	.	35.8
Deltapine 4581	10	173.2	92.4	0.5	2.1	36.7	.	33.8
Deltapine G-4673B	11	160.0	95.2	4.5	3.0	37.8	.	32.9
Funk's G Brand 4631	12	163.7	90.0	1.1	6.9	38.6	.	32.3
Funk's G Brand EXP 6126X	13	137.7	88.1	10.3	1.1	37.4	.	33.9
Funk's G Brand EXP 6140X	14	121.1	88.6	7.6	1.6	35.5	.	36.0
ICI Seeds 8113	15	142.7	87.6	3.2	10.7	36.3	.	32.3
ICI Seeds 8344	16	149.5	88.6	1.6	2.7	34.3	.	34.7
Golden Harvest H-2572	17	151.1	85.2	3.4	3.3	37.0	.	33.3
Golden Harvest H-2583	18	156.5	82.9	1.1	4.1	35.1	.	30.6
Golden Harvest H-2592	19	156.6	78.6	4.9	3.7	37.8	.	32.6
ICI Seeds 8260	20	149.3	85.7	1.1	3.9	35.5	.	34.8
ICI Seeds 8310	21	155.1	92.4	0.5	2.6	36.3	.	33.3
IFSI 91-1Y	22	140.7	81.4	5.9	5.1	38.2	.	32.5
IFSI 91-2Y	23	164.6	88.1	6.1	4.1	35.9	.	31.2
IFSI 91-3Y	24	156.9	82.4	2.9	3.4	42.5	.	34.2
IFSI 92-1Y	25	146.0	80.0	3.6	0.6	37.4	.	33.4
NC+ 5860	26	147.7	91.4	3.1	1.6	41.3	.	33.0
NC+ 5963	27	151.6	91.4	4.1	2.5	35.9	.	33.0
NC+ 6485	28	157.5	89.0	3.7	2.7	37.0	.	31.5
NobleBear NBX1380	29	131.3	87.6	2.7	0.5	33.9	.	32.2
NobleBear NBX1420	30	156.2	77.6	4.1	4.8	33.9	.	32.8
ORO 201YW	31	129.0	77.6	5.2	4.1	39.0	.	32.1
Pioneer Brand 3146	32	172.6	93.3	3.5	2.6	40.2	.	30.3
Pioneer Brand 3162	33	148.4	85.7	0.5	0.0	30.8	.	35.4
Pioneer Brand 3245	34	143.1	88.1	2.2	2.7	34.3	.	31.5
Pioneer Brand 3279	35	160.8	86.2	1.1	1.7	28.9	.	34.8
Pioneer Brand X1814	36	154.0	94.3	7.1	2.5	41.7	.	34.2
Triumph 1630	37	147.3	84.3	2.2	1.8	36.7	.	33.3
Triumph 1660	38	140.8	79.5	9.6	3.0	44.8	.	35.7
Vineyard FC533	39	135.0	89.0	2.7	4.2	36.3	.	31.5
Vineyard FC540	40	134.2	88.1	1.6	4.2	34.7	.	28.3
Vineyard FCx5181	41	142.2	92.4	2.1	3.5	33.9	.	32.6
Vineyard FCx5191	42	138.8	91.9	2.7	1.1	31.2	.	29.4
Vineyard FCx5321	43	158.5	88.6	3.7	6.8	33.1	.	31.9
Vineyard FCx5421	44	136.2	94.3	0.0	2.0	32.0	.	33.3
Wilson 2330	45	148.7	82.4	5.2	0.6	37.4	.	34.5

Table 4. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height [†] (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	155.2	92.4	3.2	2.6	35.9	.	30.6
Wilson E14287	47	134.2	82.4	2.2	4.0	31.6	.	31.9
Yellow check B73 × Mo17	48	166.3	92.4	4.1	6.7	38.6	.	31.6
Mean		148.8	87.8	4.3	3.2	37.2	.	33.0
LSD 0.05		16.7	6.6	5.6	ns	.		1.4
CV%		6.9	4.6	80.8				2.7

[†] Data from one replication.

Table 5. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at Lexington, KY.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	223.1	100.0	12.5	0.0	39.3	68.0	19.6
Asgrow RX899	2	202.4	100.0	0.9	0.9	41.2	71.0	19.8
Asgrow RX947	3	240.8	100.0	2.3	0.0	50.7	71.7	23.1
Asgrow XP9451	4	237.9	100.0	3.7	0.9	50.6	72.3	23.6
Cargill EXP 50076	5	240.8	100.0	4.6	2.3	44.1	69.7	20.6
Cargill EXP 50079	6	202.6	100.0	5.1	1.9	40.7	69.0	20.4
DeKalb Plant Genetics DK656	7	184.6	100.0	14.8	0.5	41.5	69.0	19.0
DeKalb Plant Genetics DK677	8	197.5	100.0	1.9	1.9	40.3	69.7	20.8
DeKalb Plant Genetics DK764	9	201.4	100.0	10.6	0.5	33.4	69.0	23.6
Deltapine 4581	10	188.6	100.0	0.9	0.5	41.5	71.0	20.0
Deltapine G-4673B	11	191.6	100.0	5.6	0.0	40.2	69.0	18.9
Funk's G Brand 4631	12	190.8	100.0	20.8	0.5	42.2	69.0	20.1
Funk's G Brand EXP 6126X	13	203.2	100.0	18.5	0.9	40.9	69.7	22.1
Funk's G Brand EXP 6140X	14	195.6	100.0	7.4	0.5	44.2	73.0	22.9
ICI Seeds 8113	15	204.6	100.0	9.3	0.5	42.4	69.0	21.1
ICI Seeds 8344	16	203.4	100.0	2.8	0.9	40.8	69.0	19.2
Golden Harvest H-2572	17	194.4	100.0	7.4	0.9	39.4	68.0	18.9
Golden Harvest H-2583	18	189.8	100.0	6.5	0.5	42.6	69.0	19.3
Golden Harvest H-2592	19	205.2	100.0	13.0	0.0	41.9	69.0	19.7
ICI Seeds 8260	20	211.1	100.0	2.3	0.0	40.4	69.0	20.9
ICI Seeds 8310	21	177.5	100.0	4.2	0.9	38.1	69.0	18.7
IFSI 91-1Y	22	160.0	100.0	15.7	0.0	43.4	69.7	20.1
IFSI 91-2Y	23	188.9	100.0	23.1	0.0	39.1	69.0	20.6
IFSI 91-3Y	24	185.8	100.0	9.3	0.5	39.9	69.0	20.4
IFSI 92-1Y	25	209.3	98.1	14.9	0.0	41.3	71.0	22.6
NC+ 5860	26	196.2	100.0	14.4	0.5	41.5	69.7	19.8
NC+ 5963	27	183.7	100.0	6.5	0.5	42.9	68.0	18.5
NC+ 6485	28	204.0	100.0	14.4	0.9	40.3	69.0	19.0
NobleBear NBX1380	29	169.7	100.0	6.9	0.0	35.7	69.0	20.5
NobleBear NBX1420	30	184.6	100.0	12.0	0.0	35.9	69.0	20.4
ORO 201YW	31	196.8	100.0	8.8	2.8	43.5	69.7	21.2
Pioneer Brand 3146	32	206.4	100.0	6.0	1.9	48.1	71.7	22.0
Pioneer Brand 3162	33	233.2	100.0	3.2	1.4	37.3	68.0	20.8
Pioneer Brand 3245	34	175.1	100.0	13.9	0.0	39.6	69.7	19.5
Pioneer Brand 3279	35	181.4	100.0	12.0	0.0	40.9	69.0	18.7
Pioneer Brand X1814	36	234.7	100.0	6.9	2.8	44.1	70.3	21.0
Triumph 1630	37	208.8	100.0	1.4	0.0	39.0	71.0	21.3
Triumph 1660	38	203.1	100.0	10.2	0.5	42.1	71.0	22.3
Vineyard FC533	39	186.5	100.0	10.2	1.9	40.7	71.0	20.1
Vineyard FC540	40	180.9	100.0	6.9	0.9	42.0	69.0	18.4
Vineyard FCx5181	41	184.7	100.0	3.2	1.4	39.3	69.0	18.5
Vineyard FCx5191	42	162.1	100.0	3.2	0.5	36.9	69.0	20.2
Vineyard FCx5321	43	207.2	100.0	6.0	2.3	42.2	69.0	19.4
Vineyard FCx5421	44	187.5	100.0	0.9	1.4	37.6	69.0	20.3
Wilson 2330	45	206.3	100.0	0.0	0.0	38.5	71.7	20.8

Table 5. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	198.6	100.0	3.7	6.5	39.9	69.7	20.3
Wilson E14287	47	167.1	100.0	8.3	0.5	35.6	66.0	18.2
Yellow check B73 × Mo17	48	169.4	100.0	7.4	1.4	41.5	69.0	19.2
Mean		197.1	100.0	8.0	0.9	40.9	69.6	20.3
LSD 0.05		31.5	ns	ns	ns	4.5	1.3	1.2
CV%		9.8				6.8	1.1	3.7

Table 6. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at Columbia, MO.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	181.2	83.6	0.0	1.5	43.8	75.0	19.4
Asgrow RX899	2	199.1	94.3	0.0	1.4	45.2	78.0	21.2
Asgrow RX947	3	179.3	73.0	2.5	7.8	49.9	80.0	22.9
Asgrow XP9451	4	205.4	85.5	0.0	1.6	51.2	78.7	22.7
Cargill EXP 50076	5	206.2	94.3	2.6	5.6	48.1	77.7	21.6
Cargill EXP 50079	6	188.7	89.3	2.8	1.4	40.7	75.7	21.1
DeKalb Plant Genetics DK656	7	172.4	89.9	0.0	2.8	46.3	76.0	19.7
DeKalb Plant Genetics DK677	8	192.2	88.7	0.0	2.1	42.4	76.7	21.3
DeKalb Plant Genetics DK764	9	167.9	78.6	0.9	4.0	36.3	74.0	24.9
Deltapine 4581	10	178.2	91.8	0.0	3.4	44.8	78.0	20.5
Deltapine G-4673B	11	173.9	91.2	2.8	4.7	40.0	74.0	20.9
Funk's G Brand 4631	12	183.2	86.2	0.7	5.8	48.1	76.0	20.6
Funk's G Brand EXP 6126X	13	165.6	85.5	0.0	4.2	40.4	77.3	20.4
Funk's G Brand EXP 6140X	14	179.8	96.2	0.0	5.2	41.6	81.0	22.8
ICI Seeds 8113	15	179.8	88.7	0.0	7.0	42.6	75.0	21.2
ICI Seeds 8344	16	158.6	87.4	0.0	3.3	41.9	74.7	19.8
Golden Harvest H-2572	17	170.3	83.0	0.0	1.7	42.5	74.7	19.5
Golden Harvest H-2583	18	161.9	81.1	0.0	2.1	42.5	75.7	19.6
Golden Harvest H-2592	19	168.3	84.9	0.7	5.8	45.5	77.7	21.2
ICI Seeds 8260	20	185.5	86.8	0.0	3.7	42.8	76.7	21.1
ICI Seeds 8310	21	176.3	84.3	0.8	0.0	41.2	74.3	20.8
IFSI 91-1Y	22	161.6	79.2	2.3	1.6	42.5	75.7	20.6
IFSI 91-2Y	23	181.5	85.5	0.7	2.8	43.8	76.0	21.9
IFSI 91-3Y	24	174.8	78.6	0.0	0.8	46.7	75.7	21.8
IFSI 92-1Y	25	189.1	69.2	0.0	0.9	41.7	76.3	23.1
NC+ 5860	26	172.4	88.7	2.1	1.3	43.3	75.3	20.3
NC+ 5963	27	167.6	84.3	0.8	6.7	43.7	73.7	19.2
NC+ 6485	28	166.5	88.1	0.7	0.7	44.7	76.3	19.5
NobleBear NBX1380	29	162.5	74.8	0.0	1.6	36.8	74.3	20.8
NobleBear NBX1420	30	156.1	79.9	0.6	3.1	41.9	75.0	23.8
ORO 201YW	31	178.2	85.5	0.0	4.5	46.4	75.7	22.0
Pioneer Brand 3146	32	196.7	91.8	0.0	2.0	45.0	77.3	22.5
Pioneer Brand 3162	33	177.3	78.0	0.0	0.8	35.7	74.3	22.1
Pioneer Brand 3245	34	183.7	86.2	0.0	4.4	39.0	74.7	19.5
Pioneer Brand 3279	35	197.7	84.3	0.7	0.7	39.4	75.7	19.0
Pioneer Brand X1814	36	211.6	86.8	0.7	2.9	45.5	76.3	21.7
Triumph 1630	37	178.0	86.2	0.0	2.2	40.4	78.0	23.0
Triumph 1660	38	180.3	88.7	5.1	2.1	44.8	79.0	25.1
Vineyard FC533	39	180.9	85.5	0.0	5.2	44.6	74.7	19.6
Vineyard FC540	40	162.9	86.2	0.0	7.3	43.0	75.3	19.1
Vineyard FCx5181	41	170.8	86.8	0.0	0.7	40.0	73.7	20.1
Vineyard FCx5191	42	138.2	88.7	0.0	6.4	38.9	73.7	21.2
Vineyard FCx5321	43	169.7	88.1	0.0	8.6	43.3	73.7	20.2
Vineyard FCx5421	44	165.7	93.1	0.7	0.7	37.6	74.7	21.2
Wilson 2330	45	194.1	81.8	0.0	1.5	42.5	79.7	22.1

Table 6. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	183.2	95.0	0.6	0.7	39.5	75.7	21.0
Wilson E14287	47	160.9	78.0	0.0	0.7	37.7	71.7	20.0
Yellow check B73 × Mo17	48	174.0	81.1	0.7	1.4	45.1	76.0	20.0
Mean		177.3	85.5	0.6	3.1	42.7	75.9	21.1
LSD 0.05		21.5	12.6	ns	4.7	2.9	2.4	1.1
CV%		7.4	9.0		93.4	4.2	2.0	3.1

Table 7. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at Milan, OH.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height [†] (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	190.5	.	.	.	51.0	.	27.8
Asgrow RX899	2	218.7	.	.	.	51.5	.	26.0
Asgrow RX947	3	212.7	.	.	.	58.0	.	26.9
Asgrow XP9451	4	204.8	.	.	.	56.5	.	26.4
Cargill EXP 50076	5	200.8	.	.	.	53.5	.	28.7
Cargill EXP 50079	6	197.3	.	.	.	50.3	.	25.5
DeKalb Plant Genetics DK656	7	211.7	.	.	.	51.0	.	26.4
DeKalb Plant Genetics DK677	8	194.0	.	.	.	45.0	.	27.4
DeKalb Plant Genetics DK764	9	202.2	.	.	.	46.8	.	27.3
Deltapine 4581	10	215.9	.	.	.	50.5	.	26.3
Deltapine G-4673B	11	177.0	.	.	.	52.5	.	25.8
Funk's G Brand 4631	12	227.2	.	.	.	50.0	.	24.3
Funk's G Brand EXP 6126X	13	193.7	.	.	.	53.0	.	27.0
Funk's G Brand EXP 6140X	14	199.2	.	.	.	54.5	.	27.7
ICI Seeds 8113	15	207.7	.	.	.	51.0	.	27.4
ICI Seeds 8344	16	190.9	.	.	.	44.5	.	28.2
Golden Harvest H-2572	17	197.6	.	.	.	51.0	.	25.9
Golden Harvest H-2583	18	214.8	.	.	.	48.5	.	26.8
Golden Harvest H-2592	19	204.5	.	.	.	54.0	.	27.4
ICI Seeds 8260	20	193.2	.	.	.	47.0	.	23.8
ICI Seeds 8310	21	221.4	.	.	.	45.5	.	24.8
IFSI 91-1Y	22	209.9	.	.	.	47.0	.	26.5
IFSI 91-2Y	23	197.7	.	.	.	45.0	.	24.3
IFSI 91-3Y	24	198.3	.	.	.	45.5	.	28.2
IFSI 92-1Y	25	206.1	.	.	.	47.5	.	24.4
NC+ 5860	26	194.2	.	.	.	49.5	.	26.8
NC+ 5963	27	211.9	.	.	.	48.5	.	24.0
NC+ 6485	28	230.2	.	.	.	50.0	.	27.8
NobleBear NBX1380	29	231.3	.	.	.	41.0	.	25.3
NobleBear NBX1420	30	175.1 [†]	.	.	.	51.5	.	27.0 [†]
ORO 201YW	31	222.1	.	.	.	47.5	.	25.5
Pioneer Brand 3146	32	206.5	.	.	.	50.5	.	26.3
Pioneer Brand 3162	33	215.7	.	.	.	41.0	.	25.9
Pioneer Brand 3245	34	207.8	.	.	.	44.5	.	26.7
Pioneer Brand 3279	35	218.9	.	.	.	43.5	.	25.4
Pioneer Brand X1814	36	202.4	.	.	.	51.5	.	26.7
Triumph 1630	37	219.1	.	.	.	53.0	.	27.4
Triumph 1660	38	204.1	.	.	.	54.0	.	26.9
Vineyard FC533	39	210.1	.	.	.	48.0	.	26.0
Vineyard FC540	40	231.7	.	.	.	43.0	.	23.1
Vineyard FCx5181	41	200.5	.	.	.	48.5	.	24.4
Vineyard FCx5191	42	216.1	.	.	.	39.5	.	26.8
Vineyard FCx5321	43	209.9	.	.	.	41.0	.	28.2
Vineyard FCx5421	44	229.6	.	.	.	43.0	.	24.3
Wilson 2330	45	170.1	.	.	.	45.0	.	25.0

Table 7. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height [†] (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	174.0	.	.	.	46.5	.	25.1
Wilson E14287	47	218.4	.	.	.	47.0	.	25.5
Yellow check B73 × Mo17	48	210.5	.	.	.	58.0	.	24.8
Mean		206.2	.	.	.	48.7	.	26.2
LSD 0.05		ns				9.3		ns
CV%						9.6		

[†] Data from two replications.

Table 8. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at Knoxville, TN.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height [†] (in)	Days to flower [†] (no)	Moist. (%)
Asgrow RX811	1	199.3	92.0	0.0	0.0	44.1	78.7	21.7
Asgrow RX899	2	198.7	93.3	0.0	0.0	45.2	80.0	19.7
Asgrow RX947	3	194.9	93.3	0.0	0.0	45.8	82.0	23.4
Asgrow XP9451	4	198.8	96.7	0.0	0.0	44.6	84.7	24.0
Cargill EXP 50076	5	186.1	92.0	0.0	0.0	42.9	79.7	21.9
Cargill EXP 50079	6	171.3	96.0	0.0	0.0	42.9	79.7	22.2
DeKalb Plant Genetics DK656	7	173.6	92.7	0.0	0.0	42.8	78.7	18.3
DeKalb Plant Genetics DK677	8	199.3	92.0	0.0	0.0	42.9	79.7	20.4
DeKalb Plant Genetics DK764	9	176.3	91.3	0.0	0.0	41.7	79.7	22.2
Deltapine 4581	10	183.7 [†]	94.0	0.0	0.0	44.1	80.7	19.4 [†]
Deltapine G-4673B	11	176.1	97.3	0.0	1.3	41.7	78.0	20.0
Funk's G Brand 4631	12	207.3	95.3	0.0	0.0	47.6	79.0	21.3
Funk's G Brand EXP 6126X	13	201.9	98.0	0.0	0.0	42.9	78.7	19.5
Funk's G Brand EXP 6140X	14	178.9	96.7	0.0	0.0	42.9	82.7	23.4
ICI Seeds 8113	15	175.3	92.7	0.0	0.0	41.1	79.7	21.6
ICI Seeds 8344	16	192.3	97.3	0.0	0.7	43.4	79.0	19.1
Golden Harvest H-2572	17	172.2	94.7	0.0	0.0	44.6	78.7	19.2
Golden Harvest H-2583	18	170.5	98.0	0.0	0.0	41.7	79.7	18.8
Golden Harvest H-2592	19	174.8	100.0	0.0	1.3	41.7	80.0	20.6
ICI Seeds 8260	20	181.9	91.3	0.0	0.0	38.1	80.7	22.5
ICI Seeds 8310	21	169.8	98.0	0.0	0.0	39.4	79.7	19.7
IFSI 91-1Y	22	168.8	82.7	0.0	0.0	41.1	80.7	20.7
IFSI 91-2Y	23	169.8	96.7	0.0	0.7	44.6	79.0	20.0
IFSI 91-3Y	24	215.1	98.7	0.0	1.4	46.4	79.7	21.9
IFSI 92-1Y	25	200.5	95.3	0.0	0.0	41.7	80.7	22.9
NC+ 5860	26	194.1	96.7	0.0	0.7	44.6	79.7	19.5
NC+ 5963	27	177.6	94.0	0.0	0.0	45.8	79.0	18.6
NC+ 6485	28	196.5	97.3	0.0	0.0	42.2	79.7	20.0
NobleBear NBX1380	29	183.4	90.0	0.0	0.0	36.7	79.7	22.5
NobleBear NBX1420	30	167.1	92.7	0.0	0.0	39.9	79.7	21.7
ORO 201YW	31	166.2	92.7	0.0	0.7	39.3	81.0	20.7
Pioneer Brand 3146	32	215.2	90.0	0.0	0.0	49.3	80.7	22.9
Pioneer Brand 3162	33	207.5	97.3	0.0	0.0	41.7	78.7	21.3
Pioneer Brand 3245	34	206.0	97.3	0.0	0.0	39.3	79.7	20.6
Pioneer Brand 3279	35	202.6	92.0	0.0	0.0	41.7	79.0	19.2
Pioneer Brand X1814	36	223.7	96.7	0.0	0.0	45.2	78.7	20.7
Triumph 1630	37	178.0	96.0	0.0	0.0	39.9	81.7	19.8
Triumph 1660	38	187.3	90.7	0.0	0.0	41.1	81.0	21.1
Vineyard FC533	39	195.0 [†]	93.3	0.0	0.0	44.1	81.7	20.8 [†]
Vineyard FC540	40	181.4	94.0	0.0	0.0	42.9	79.0	19.7
Vineyard FCx5181	41	189.7	94.0	0.0	0.0	41.1	79.7	20.6
Vineyard FCx5191	42	165.5	92.7	0.0	0.0	36.8	80.0	21.2
Vineyard FCx5321	43	182.0	90.7	0.0	0.0	42.2	79.7	19.8
Vineyard FCx5421	44	185.9	94.7	0.0	0.0	38.6	79.0	19.6
Wilson 2330	45	187.8	93.3	0.0	0.0	39.4	82.0	21.2

Table 8. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height [†] (in)	Days to flower [†] (no)	Moist. (%)
Wilson E4461	46	188.9	96.0	0.0	0.0	36.3	80.7	20.5
Wilson E14287	47	154.9	93.3	0.0	0.0	35.5	77.0	19.3
Yellow check B73 × Mo17	48	160.2	97.3	0.0	0.0	44.1	80.0	17.9
Mean		186.1	94.3	0.0	0.1	42.2	79.9	20.7
LSD 0.05		31.5	ns	ns	ns	5.9	2.0	1.3
CV%		10.4				7.0	1.2	3.8

[†] Data from two replications.

Table 9. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at Union City, TN.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	171.8	93.5	.	3.9	.	.	19.8
Asgrow RX899	2	187.9	87.5	.	1.5	.	.	18.9
Asgrow RX947	3	204.4	88.0	.	2.1	.	.	23.5
Asgrow XP9451	4	197.5	86.1	.	0.6	.	.	24.7
Cargill EXP 50076	5	175.5	93.5	.	0.5	.	.	20.5
Cargill EXP 50079	6	155.5	88.0	.	1.6	.	.	19.5
DeKalb Plant Genetics DK656	7	142.0	88.0	.	7.5	.	.	18.5
DeKalb Plant Genetics DK677	8	198.9	75.0	.	2.9	.	.	20.4
DeKalb Plant Genetics DK764	9	174.2	91.7	.	1.5	.	.	22.4
Deltapine 4581	10	180.1	93.5	.	2.5	.	.	19.0
Deltapine G-4673B	11	173.0	84.7	.	5.9	.	.	20.4
Funk's G Brand 4631	12	179.3	89.4	.	1.6	.	.	19.4
Funk's G Brand EXP 6126X	13	151.0	86.6	.	3.2	.	.	19.0
Funk's G Brand EXP 6140X	14	163.2	88.4	.	2.7	.	.	22.7
ICI Seeds 8113	15	162.4	90.3	.	7.6	.	.	21.2
ICI Seeds 8344	16	161.6	91.2	.	1.0	.	.	18.3
Golden Harvest H-2572	17	168.3	89.8	.	3.1	.	.	18.7
Golden Harvest H-2583	18	154.8	85.6	.	6.5	.	.	21.8
Golden Harvest H-2592	19	184.6	91.2	.	2.6	.	.	20.2
ICI Seeds 8260	20	155.4	88.9	.	2.0	.	.	21.2
ICI Seeds 8310	21	161.4	95.4	.	1.0	.	.	19.6
IFSI 91-1Y	22	157.5	79.2	.	1.8	.	.	19.1
IFSI 91-2Y	23	145.1	89.4	.	4.2	.	.	19.5
IFSI 91-3Y	24	167.8	89.4	.	0.0	.	.	20.3
IFSI 92-1Y	25	165.1	82.9	.	1.7	.	.	22.2
NC+ 5860	26	162.5	95.8	.	0.5	.	.	18.2
NC+ 5963	27	160.0	87.5	.	4.7	.	.	18.5
NC+ 6485	28	169.4	83.8	.	1.7	.	.	18.6
NobleBear NBX1380	29	142.7	85.2	.	1.1	.	.	19.0
NobleBear NBX1420	30	176.7	76.9	.	1.3	.	.	24.1
ORO 201YW	31	161.9	85.6	.	6.2	.	.	21.7
Pioneer Brand 3146	32	186.4	89.4	.	1.6	.	.	20.3
Pioneer Brand 3162	33	192.3	94.0	.	3.9	.	.	20.7
Pioneer Brand 3245	34	190.3	93.1	.	1.9	.	.	20.7
Pioneer Brand 3279	35	164.4	92.6	.	0.0	.	.	18.5
Pioneer Brand X1814	36	172.4	92.6	.	2.0	.	.	20.8
Triumph 1630	37	175.2	82.4	.	0.0	.	.	20.7
Triumph 1660	38	157.4	86.6	.	1.6	.	.	21.1
Vineyard FC533	39	165.6	84.3	.	2.3	.	.	18.6
Vineyard FC540	40	144.5	94.9	.	2.0	.	.	17.7
Vineyard FCx5181	41	155.0	92.6	.	4.6	.	.	18.8
Vineyard FCx5191	42	146.1	97.2	.	2.9	.	.	20.3
Vineyard FCx5321	43	152.8	91.2	.	4.4	.	.	19.6
Vineyard FCx5421	44	155.6	95.4	.	3.4	.	.	19.5
Wilson 2330	45	177.6	88.4	.	2.0	.	.	20.4

Table 9. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	170.3	92.1	.	1.0	.	.	20.0
Wilson E14287	47	142.7	89.4	.	4.0	.	.	18.8
Yellow check B73 × Mo17	48	168.4	92.1	.	7.0	.	.	19.3
Mean		167.3	89.0	.	2.7	.	.	20.1
LSD 0.05		25.4	ns		3.7			1.6
CV%		9.3			83.6			4.9

Table 10. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at College Station, TX.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	113.2	79.9	0.0	0.0	30.3	76.0	12.0
Asgrow RX899	2	113.0	83.3	0.0	0.0	38.3	79.7	11.8
Asgrow RX947	3	141.7	81.0	0.0	0.0	50.3	81.0	12.9
Asgrow XP9451	4	147.5	78.7	0.0	0.0	45.3	79.7	13.1
Cargill EXP 50076	5	110.8	78.7	1.2	0.6	33.0	77.3	12.0
Cargill EXP 50079	6	97.9 [†]	89.1	0.0	0.0	30.0	79.0	12.1 [†]
DeKalb Plant Genetics DK656	7	99.3	98.3	0.0	0.6	36.3	78.0	12.2
DeKalb Plant Genetics DK677	8	113.2	83.3	0.0	0.0	35.0	78.7	12.7
DeKalb Plant Genetics DK764	9	116.5	77.0	0.0	0.0	28.7	77.7	12.5
Deltapine 4581	10	110.8	86.2	0.0	0.0	37.7	79.7	12.1
Deltapine G-4673B	11	113.5	83.3	0.0	0.0	35.0	78.3	12.2
Funk's G Brand 4631	12	164.7	85.1	0.0	0.0	35.0	76.7	13.6
Funk's G Brand EXP 6126X	13	125.6	87.4	0.0	0.7	33.0	77.0	12.5
Funk's G Brand EXP 6140X	14	124.9	90.8	0.0	0.6	35.0	80.3	13.2
ICI Seeds 8113	15	124.8	91.4	0.0	1.3	36.0	79.7	13.2
ICI Seeds 8344	16	100.6 [†]	90.2	0.0	0.0	35.3	77.3	12.3 [†]
Golden Harvest H-2572	17	110.3	82.8	0.0	0.0	31.0	77.0	12.5
Golden Harvest H-2583	18	109.9	81.0	0.0	0.0	32.3	78.0	12.7
Golden Harvest H-2592	19	101.6	70.1	0.0	0.0	34.7	77.7	12.4
ICI Seeds 8260	20	126.5	87.4	0.0	0.0	33.7	78.0	12.2
ICI Seeds 8310	21	101.2	86.2	0.0	0.6	30.7	78.3	11.9
IFSI 91-1Y	22	115.6	78.2	0.0	0.0	32.0	77.0	11.7
IFSI 91-2Y	23	119.9	82.8	0.0	0.0	33.3	76.7	12.8
IFSI 91-3Y	24	113.3	82.8	0.0	0.0	40.7	77.3	13.3
IFSI 92-1Y	25	121.5	80.5	0.0	0.7	30.3	78.7	12.7
NC+ 5860	26	119.2	86.8	0.0	0.0	39.3	79.3	12.4
NC+ 5963	27	108.5	85.6	0.0	0.0	33.0	76.7	12.2
NC+ 6485	28	122.9	89.7	0.0	0.0	37.7	78.0	12.6
NobleBear NBX1380	29	98.5	76.4	0.0	0.0	30.3	77.3	12.4
NobleBear NBX1420	30	73.3 [†]	70.1	0.0	1.1	35.0	77.7	11.9 [†]
ORO 201YW	31	120.6	75.9	0.0	0.0	36.7	79.0	13.0
Pioneer Brand 3146	32	120.4	83.3	0.0	0.7	41.0	79.7	12.9
Pioneer Brand 3162	33	130.7	76.4	0.0	0.8	31.0	76.0	14.0
Pioneer Brand 3245	34	133.7	79.9	0.0	0.0	31.3	78.3	12.7
Pioneer Brand 3279	35	125.4	72.4	0.0	0.0	37.7	77.0	12.5
Pioneer Brand X1814	36	127.5	82.2	0.0	0.7	34.7	78.3	13.8
Triumph 1630	37	122.3	86.2	0.0	0.0	31.3	79.7	12.2
Triumph 1660	38	131.7	106.3	0.8	0.4	33.3	79.7	13.5
Vineyard FC533	39	115.2	89.7	0.0	0.0	35.3	80.0	12.5
Vineyard FC540	40	111.8	82.2	0.0	0.0	34.7	78.3	12.5
Vineyard FCx5181	41	104.7	87.4	0.0	0.6	33.7	76.0	12.6
Vineyard FCx5191	42	100.8	87.4	0.0	0.0	29.3	78.0	12.4
Vineyard FCx5321	43	112.0	81.0	0.0	0.0	37.3	76.7	12.5
Vineyard FCx5421	44	104.4	82.2	0.0	0.0	29.7	77.3	12.3
Wilson 2330	45	115.9	86.2	0.0	0.0	36.3	81.0	12.6

Table 10. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	120.2	91.4	0.0	0.0	30.7	77.7	12.6
Wilson E14287	47	100.2	79.3	0.0	0.7	29.0	75.0	12.0
Yellow check B73 × Mo17	48	104.7	82.2	0.0	0.7	35.0	78.3	11.9
Mean		115.9	83.7	0.0	0.2	34.5	78.1	12.6
LSD 0.05		25.6	ns	ns	ns	5.8	1.2	0.6
CV%		13.6				10.4	0.9	2.7

† Data from two replications.

Table 11. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at Halfway, TX.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	165.1	93.5	.	.	35.7	72.3	16.3
Asgrow RX899	2	127.0	103.7	.	.	39.3	76.0	13.7
Asgrow RX947	3	179.9	113.0	.	.	45.3	77.3	15.4
Asgrow XP9451	4	176.2	94.4	.	.	42.0	76.7	15.1
Cargill EXP 50076	5	169.5	93.5	.	.	40.0	75.0	16.9
Cargill EXP 50079	6	151.2 [†]	110.2	.	.	37.3	74.3	15.3 [†]
DeKalb Plant Genetics DK656	7	155.3	106.5	.	.	42.3	73.0	15.1
DeKalb Plant Genetics DK677	8	178.3	108.3	.	.	38.3	74.0	15.7
DeKalb Plant Genetics DK764	9	148.3	103.7	.	.	33.0	73.3	14.7
Deltapine 4581	10	140.8	100.9	.	.	40.3	76.0	16.6
Deltapine G-4673B	11	150.4	106.5	.	.	39.0	74.7	15.8
Funk's G Brand 4631	12	175.8	104.6	.	.	45.7	72.3	17.1
Funk's G Brand EXP 6126X	13	129.4	113.0	.	.	36.3	71.7	15.0
Funk's G Brand EXP 6140X	14	172.9	103.7	.	.	44.0	79.3	14.9
ICI Seeds 8113	15	204.7	107.4	.	.	41.7	74.7	15.5
ICI Seeds 8344	16	198.1	89.8	.	.	38.3	72.0	15.0 [†]
Golden Harvest H-2572	17	121.6	104.6	.	.	37.3	71.3	15.6
Golden Harvest H-2583	18	133.1 [†]	103.7	.	.	40.3	73.0	16.3 [†]
Golden Harvest H-2592	19	143.6	105.6	.	.	38.3	72.7	20.2
ICI Seeds 8260	20	155.6	115.7	.	.	35.3	77.0	15.5 [†]
ICI Seeds 8310	21	158.5	99.1	.	.	38.0	74.0	14.2
IFSI 91-1Y	22	171.9	96.3	.	.	36.3	74.3	15.2 [†]
IFSI 91-2Y	23	164.0	101.9	.	.	41.7	73.3	15.0
IFSI 91-3Y	24	150.2	117.6	.	.	42.0	73.3	14.3
IFSI 92-1Y	25	125.6	97.2	.	.	35.0	76.0	18.2
NC+ 5860	26	151.3	106.5	.	.	39.7	74.7	14.6
NC+ 5963	27	137.3	104.6	.	.	41.3	72.3	16.1 [†]
NC+ 6485	28	109.7	91.7	.	.	39.0	73.3	15.9
NobleBear NBX1380	29	206.4	111.1	.	.	35.0	73.0	14.9
NobleBear NBX1420	30	154.3	88.9	.	.	38.0	74.3	15.1
ORO 201YW	31	147.4	107.4	.	.	42.0	75.0	15.0
Pioneer Brand 3146	32	130.7	96.3	.	.	42.0	76.3	17.1 [†]
Pioneer Brand 3162	33	178.9	108.3	.	.	34.0	71.3	16.0
Pioneer Brand 3245	34	139.7	108.3	.	.	37.0	74.0	16.0 [†]
Pioneer Brand 3279	35	154.8	95.4	.	.	38.7	74.3	17.1
Pioneer Brand X1814	36	176.0	100.0	.	.	37.0	74.7	16.1
Triumph 1630	37	162.3	102.8	.	.	38.0	75.7	15.6
Triumph 1660	38	117.7	103.7	.	.	44.0	77.0	18.9 [†]
Vineyard FC533	39	164.3	96.3	.	.	36.0	77.3	16.7
Vineyard FC540	40	135.8	90.7	.	.	38.0	75.7	15.3
Vineyard FCx5181	41	136.0	115.7	.	.	39.7	73.0	14.7
Vineyard FCx5191	42	159.4	109.3	.	.	35.0	72.3	16.9
Vineyard FCx5321	43	164.2	102.8	.	.	37.3	73.0	17.4 [†]
Vineyard FCx5421	44	145.4	94.4	.	.	33.3	72.7	14.8
Wilson 2330	45	138.5	100.0	.	.	36.0	77.3	16.1

Table 11. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	160.4	106.5	.	.	34.0	75.0	15.4
Wilson E14287	47	159.5	90.7	.	.	35.3	71.7	15.3
Yellow check B73 × Mo17	48	163.5	102.8	.	.	40.7	74.0	17.6
Mean		155.0	102.7	.	.	38.6	74.3	15.9
LSD 0.05		49.5	ns			4.6	1.8	ns
CV%		19.6				7.3	1.5	

† Data from two replications.

‡ Data from one replication.

Table 12. Yield and agronomic data from the 1992 Yellow Food Corn Performance Test at Janesville, WI.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	1	148.4	91.2	16.7	6.6	46.7	.	43.3
Asgrow RX899	2	144.0	94.4	14.4	4.9	49.3	.	42.1
Asgrow RX947	3	96.9	88.9	8.5	3.3	43.3	.	48.6
Asgrow XP9451	4	104.3	94.9	9.2	6.4	44.3	.	47.1
Cargill EXP 50076	5	124.8	97.2	9.9	6.1	41.7	.	48.4
Cargill EXP 50079	6	151.8	93.5	18.9	2.0	43.0	.	41.4
DeKalb Plant Genetics DK656	7	167.2	94.4	4.4	4.3	42.7	.	40.9
DeKalb Plant Genetics DK677	8	136.8	94.9	3.0	7.3	44.3	.	46.8
DeKalb Plant Genetics DK764	9	122.4	89.4	13.2	3.6	43.7	.	46.5
Deltapine 4581	10	138.7	94.4	3.9	3.5	41.7	.	45.7
Deltapine G-4673B	11	155.1	91.2	11.1	2.0	45.3	.	41.1
Funk's G Brand 4631	12	143.9	87.0	17.9	7.0	51.7	.	42.9
Funk's G Brand EXP 6126X	13	137.9	91.2	12.6	10.1	53.3	.	47.6
Funk's G Brand EXP 6140X	14	88.4	91.2	3.0	8.1	47.0	.	49.0
ICI Seeds 8113	15	112.4	93.5	5.5	2.9	44.0	.	45.5
ICI Seeds 8344	16	144.0	90.7	10.0	2.4	43.0	.	44.6
Golden Harvest H-2572	17	170.9	88.9	6.3	6.6	40.3	.	39.1
Golden Harvest H-2583	18	151.9	92.6	19.3	15.9	48.0	.	40.9
Golden Harvest H-2592	19	163.3	91.7	17.8	2.1	47.0	.	38.2
ICI Seeds 8260	20	162.9	85.6	5.6	2.7	47.0	.	43.2
ICI Seeds 8310	21	145.5	94.9	4.3	1.5	41.7	.	40.5
IFSI 91-1Y	22	140.2	90.7	12.8	3.1	40.3	.	43.1
IFSI 91-2Y	23	157.9	94.0	15.6	0.5	46.0	.	44.6
IFSI 91-3Y	24	136.2	89.4	13.2	4.6	40.7	.	44.3
IFSI 92-1Y	25	135.4	87.0	12.6	9.1	43.3	.	47.0
NC+ 5860	26	140.4	68.5	1.0	16.3	48.3	.	41.2
NC+ 5963	27	142.3	94.9	8.2	8.5	47.3	.	40.5
NC+ 6485	28	153.6	92.1	11.3	6.8	43.7	.	38.8
NobleBear NBX1380	29	117.8	86.6	15.7	9.2	43.7	.	45.2
NobleBear NBX1420	30	129.3	89.8	8.6	4.2	41.3	.	47.2
ORO 201YW	31	103.7	87.0	19.3	5.1	48.7	.	46.0
Pioneer Brand 3146	32	141.0	94.0	2.5	3.5	40.7	.	45.5
Pioneer Brand 3162	33	159.2	90.7	11.1	7.3	40.0	.	40.9
Pioneer Brand 3245	34	140.0	94.4	4.4	0.5	46.7	.	41.4
Pioneer Brand 3279	35	171.8	90.7	3.6	3.1	40.0	.	38.3
Pioneer Brand X1814	36	146.2	93.1	2.9	13.9	43.7	.	45.2
Triumph 1630	37	123.5	87.5	8.2	9.4	41.7	.	48.7
Triumph 1660	38	103.5	79.2	6.0	2.9	47.7	.	49.1
Vineyard FC533	39	122.4	92.1	3.0	3.4	43.0	.	42.1
Vineyard FC540	40	137.9	93.1	9.4	15.6	41.7	.	42.3
Vineyard FCx5181	41	152.8	94.4	11.8	6.8	42.3	.	41.1
Vineyard FCx5191	42	148.8	88.0	8.0	2.7	40.7	.	40.1
Vineyard FCx5321	43	126.4	90.7	11.8	3.5	45.0	.	38.4
Vineyard FCx5421	44	139.8	94.4	10.6	6.8	44.0	.	42.5
Wilson 2330	45	108.1	91.7	7.5	4.7	46.0	.	48.9

Table 12. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Wilson E4461	46	141.1	92.1	11.2	7.0	48.7	.	45.8
Wilson E14287	47	132.1	90.7	12.3	5.1	45.0	.	37.8
Yellow check B73 × Mo17	48	150.8	96.8	8.1	5.7	40.7	.	40.4
Mean		137.8	91.0	9.7	5.8	44.4	.	43.5
LSD 0.05		25.1	ns	ns	ns	ns		3.3
CV%		11.2						4.6

Table 13. Combined yield and agronomic data from 10 locations of the 1992 Yellow Food Corn Performance Test.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)	b ₁ (bu/a/I)	Std. devn. (bu/a)
Asgrow RX811	1	174.8	92.0	5.0	2.8	42.0	75.0	23.4	0.97	11.9
Asgrow RX899	2	176.8	94.8	2.5	1.6	44.2	78.1	23.2	1.18	14.3
Asgrow RX947	3	176.6	89.0	4.6	2.2	49.3	78.2	25.6	1.19	28.2
Asgrow XP9451	4	180.1	91.7	2.4	1.8	47.7	79.6	25.6	1.06	25.2
Cargill EXP 50076	5	181.5	93.6	5.0	2.3	43.8	77.4	24.8	1.28	17.7
Cargill EXP 50079	6	167.4	94.9	5.4	1.5	41.1	76.8	23.2	1.00	12.3
DeKalb Plant Genetics DK656	7	167.0	95.9	3.0	3.6	43.9	75.6	22.3	0.97	16.6
DeKalb Plant Genetics DK677	8	173.3	91.7	2.2	2.4	40.6	76.9	24.1	0.94	16.7
DeKalb Plant Genetics DK764	9	162.1	90.9	4.1	1.7	37.4	75.8	25.8	1.04	9.9
Deltapine 4581	10	171.3	94.7	0.8	1.7	42.6	77.6	23.7	1.01	11.8
Deltapine G-4673B	11	167.8	94.4	3.6	2.8	41.6	76.1	23.1	0.77	11.8
Funk's G Brand 4631	12	184.6	92.8	6.2	2.8	44.9	75.6	23.6	0.74	13.0
Funk's G Brand EXP 6126X	13	164.1	94.4	5.9	2.7	42.4	75.1	23.8	0.98	13.6
Funk's G Brand EXP 6140X	14	160.9	95.0	2.6	2.4	43.7	79.5	26.0	1.07	20.1
ICI Seeds 8113	15	172.5	94.4	2.7	7.0	42.1	76.7	24.1	1.03	20.7
ICI Seeds 8344	16	171.5	92.6	2.1	1.4	40.7	74.9	23.3	1.01	19.5
Golden Harvest H-2572	17	166.6	91.9	2.4	2.2	41.0	74.7	22.4	0.91	17.8
Golden Harvest H-2583	18	164.7	91.6	3.8	4.2	41.4	75.3	22.8	0.99	13.0
Golden Harvest H-2592	19	172.1	90.6	5.2	3.0	42.9	75.6	23.4	1.05	15.3
ICI Seeds 8260	20	171.6	93.2	1.3	2.4	40.3	77.2	23.6	0.80	11.0
ICI Seeds 8310	21	167.9	94.3	1.6	1.0	39.2	76.1	22.5	1.06	13.0
IFSI 91-1Y	22	162.0	87.3	5.5	1.8	41.1	75.7	23.0	0.79	14.0
IFSI 91-2Y	23	169.2	93.1	6.6	3.4	41.8	75.7	23.2	0.75	12.2
IFSI 91-3Y	24	171.5	91.7	4.0	2.5	43.6	75.7	24.1	1.06	12.9
IFSI 92-1Y	25	169.6	87.6	4.8	2.1	40.3	77.3	25.1	1.11	12.9
NC+ 5860	26	168.0	92.7	3.4	2.7	43.9	76.5	22.5	0.94	5.6
NC+ 5963	27	164.0	93.4	2.8	2.9	42.6	74.8	22.2	1.01	8.4
NC+ 6485	28	172.7	91.7	4.3	1.7	42.2	75.7	22.5	1.16	20.1
NobleBear NBX1380	29	161.7	88.5	4.0	1.8	36.6	75.1	23.4	1.05	27.3
NobleBear NBX1420	30	156.6	85.7	5.7	2.2	40.3	75.6	24.9	1.02	17.5
ORO 201YW	31	160.7	89.7	4.9	6.1	43.2	77.0	24.0	1.13	15.1
Pioneer Brand 3146	32	178.1	92.9	1.7	1.7	45.1	78.5	24.2	1.07	16.0
Pioneer Brand 3162	33	186.3	91.1	2.1	1.8	36.5	74.7	24.0	1.06	12.0
Pioneer Brand 3245	34	172.8	94.1	2.9	1.2	39.1	76.5	22.8	0.92	15.5
Pioneer Brand 3279	35	179.2	88.0	2.5	0.7	39.0	76.2	22.2	0.87	14.1
Pioneer Brand X1814	36	187.4	93.7	2.5	3.6	43.4	77.4	24.2	1.17	15.1
Triumph 1630	37	169.9	91.6	1.7	2.2	40.4	77.7	24.6	1.03	10.9
Triumph 1660	38	161.5	92.7	4.9	2.7	44.0	78.1	25.8	1.09	17.7
Vineyard FC533	39	165.5	92.3	2.3	2.3	41.4	78.1	23.0	1.01	11.1
Vineyard FC540	40	159.2	91.1	2.8	3.8	40.8	75.9	21.7	1.03	16.1
Vineyard FCx5181	41	162.3	95.9	2.4	2.7	40.1	75.3	22.3	0.95	10.2
Vineyard FCx5191	42	156.2	95.0	2.1	2.1	36.1	74.9	23.0	0.86	17.9
Vineyard FCx5321	43	168.8	91.8	3.2	3.5	40.5	75.5	22.9	1.09	9.3
Vineyard FCx5421	44	164.6	94.3	1.7	1.9	37.6	75.5	22.9	1.17	10.5
Wilson 2330	45	164.8	91.5	1.8	1.4	40.7	78.8	24.6	1.03	18.5

Table 13. Continued.

Entry	No.	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)	b _f (bu/a/I)	Std. devn. (bu/a)
Wilson E4461	46	168.4	95.9	2.7	2.2	39.5	76.9	23.4	0.77	10.1
Wilson E14287	47	154.5	88.0	3.4	2.2	37.3	73.3	21.8	0.93	15.2
Yellow check B73 × Mo17	48	167.2	93.8	3.0	3.6	43.6	76.0	22.4	0.84	15.6
Mean		169.1	92.3	3.4	2.5	41.5	76.4	23.6	1.00	14.9
LSD 0.05		14.3	4.5	3.4	2.6	2.4	1.4	1.3	0.11	
CV%		11.2	8.3	155.8	147.4	7.3	1.6	6.0		
Location means:										
Champaign, IL		199.9	96.7	0.9	4.0	44.6	.	22.2		
West Lafayette, IN		148.8	87.8	4.3	3.2	37.2	.	33.0		
Lexington, KY		197.1	100.0	8.0	0.9	40.9	69.6	20.3		
Columbia, MO		177.3	85.5	0.6	3.1	42.7	75.9	21.1		
Milan, OH		206.2	.	.	.	48.7	.	26.2		
Knoxville, TN		186.1	94.3	0.0	0.1	42.2	79.9	20.7		
Union City, TN		167.3	89.0	.	2.7	.	.	20.1		
College Station, TX		115.9	83.7	0.0	0.2	34.5	78.1	12.6		
Halfway, TX		155.0	102.7	.	.	38.6	74.3	15.9		
Janesville, WI		137.8	91.0	9.7	5.8	44.4	.	43.5		

Table 14. Yield data (bu/a) from ten locations of the 1992 Yellow Food Corn Performance Test.

Entry	No.	Cham- paign, IL	W. La- fayette, IN	Lexing- ton, KY	Colum- bia, MO	Milan, OH	Knox- ville, TN	Union City, TN	College Station, TX [†]	Half- way, TX [†]	Janes- ville, WI	Com- bined
Asgrow RX811	1	197.1	158.2	223.1	181.2	190.5	199.3	171.8	113.2	165.1	148.4	174.8
Asgrow RX899	2	213.7	163.4	202.4	199.1	218.7	198.7	187.9	113.0	127.0	144.0	176.8
Asgrow RX947	3	194.7	120.3	240.8	179.3	212.7	194.9	204.4	141.7	179.9	96.9	176.6
Asgrow XP9451	4	190.3	138.5	237.9	205.4	204.8	198.8	197.5	147.5	176.2	104.3	180.1
Cargill EXP 50076	5	229.9	171.0	240.8	206.2	200.8	186.1	175.5	110.8	169.5	124.8	181.5
Cargill EXP 50079	6	198.3	159.4	202.6	188.7	197.3	171.3	155.5	97.9	151.2	151.8	167.4
DeKalb Plant Genetics DK656	7	208.5	155.6	184.6	172.4	211.7	173.6	142.0	99.3	155.3	167.2	167.0
DeKalb Plant Genetics DK677	8	186.9	136.0	197.5	192.2	194.0	199.3	198.9	113.2	178.3	136.8	173.3
DeKalb Plant Genetics DK764	9	186.7	124.7	201.4	167.9	202.2	176.3	174.2	116.5	148.3	122.4	162.1
Deltapine 4581	10	202.7	173.2	188.6	178.2	215.9	183.7	180.1	110.8	140.8	138.7	171.3
Deltapine G-4673B	11	207.5	160.0	191.6	173.9	177.0	176.1	173.0	113.5	150.4	155.1	167.8
Funk's G Brand 4631	12	210.4	163.7	190.8	183.2	227.2	207.3	179.3	164.7	175.8	143.9	184.6
Funk's G Brand EXP 6126X	13	195.2	137.7	203.2	165.6	193.7	201.9	151.0	125.6	129.4	137.9	164.1
Funk's G Brand EXP 6140X	14	185.2	121.1	195.6	179.8	199.2	178.9	163.2	124.9	172.9	88.4	160.9
ICI Seeds 8113	15	211.1	142.7	204.6	179.8	207.7	175.3	162.4	124.8	204.7	112.4	172.5
ICI Seeds 8344	16	216.4	149.5	203.4	158.6	190.9	192.3	161.6	100.6	198.1	144.0	171.5
Golden Harvest H-2572	17	209.1	151.1	194.4	170.3	197.6	172.2	168.3	110.3	121.6	170.9	166.6
Golden Harvest H-2583	18	203.7	156.5	189.8	161.9	214.8	170.5	154.8	109.9	133.1	151.9	164.7
Golden Harvest H-2592	19	218.5	156.6	205.2	168.3	204.5	174.8	184.6	101.6	143.6	163.3	172.1
ICI Seeds 8260	20	194.7	149.3	211.1	185.5	193.2	181.9	155.4	126.5	155.6	162.9	171.6
ICI Seeds 8310	21	212.5	155.1	177.5	176.3	221.4	169.8	161.4	101.2	158.5	145.5	167.9
IFSI 91-1Y	22	193.5	140.7	160.0	161.6	209.9	168.8	157.5	115.6	171.9	140.2	162.0
IFSI 91-2Y	23	203.0	164.6	188.9	181.5	197.7	169.8	145.1	119.9	164.0	157.9	169.2
IFSI 91-3Y	24	216.6	156.9	185.8	174.8	198.3	215.1	167.8	113.3	150.2	136.2	171.5
IFSI 92-1Y	25	197.1	146.0	209.3	189.1	206.1	200.5	165.1	121.5	125.6	135.4	169.6
NC+ 5860	26	201.9	147.7	196.2	172.4	194.2	194.1	162.5	119.2	151.3	140.4	168.0
NC+ 5963	27	199.3	151.6	183.7	167.6	211.9	177.6	160.0	108.5	137.3	142.3	164.0
NC+ 6485	28	217.2	157.5	204.0	166.5	230.2	196.5	169.4	122.9	109.7	153.6	172.7
NobleBear NBX1380	29	173.8	131.3	169.7	162.5	231.3	183.4	142.7	98.5	206.4	117.8	161.7
NobleBear NBX1420	30	193.6	156.2	184.6	156.1	175.1	167.1	176.7	73.3	154.3	129.3	156.6

Table 14. Continued.

Entry	No.	Cham- paign, IL	W. La- fayette, IN	Lexing- ton, KY	Colum- bia, MO	Milan, OH	Knox- ville, TN	Union City, TN	College Station, TX [†]	Half- way, TX [†]	Janes- ville, WI	Com- bined
ORO 201YW	31	181.1	129.0	196.8	178.2	222.1	166.2	161.9	120.6	147.4	103.7	160.7
Pioneer Brand 3146	32	205.0	172.6	206.4	196.7	206.5	215.2	186.4	120.4	130.7	141.0	178.1
Pioneer Brand 3162	33	220.1	148.4	233.2	177.3	215.7	207.5	192.3	130.7	178.9	159.2	186.3
Pioneer Brand 3245	34	208.3	143.1	175.1	183.7	207.8	206.0	190.3	133.7	139.7	140.0	172.8
Pioneer Brand 3279	35	214.0	160.8	181.4	197.7	218.9	202.6	164.4	125.4	154.8	171.8	179.2
Pioneer Brand X1814	36	225.8	154.0	234.7	211.6	202.4	223.7	172.4	127.5	176.0	146.2	187.4
Triumph 1630	37	184.7	147.3	208.8	178.0	219.1	178.0	175.2	122.3	162.3	123.5	169.9
Triumph 1660	38	189.0	140.8	203.1	180.3	204.1	187.3	157.4	131.7	117.7	103.5	161.5
Vineyard FC533	39	180.2	135.0	186.5	180.9	210.1	195.0	165.6	115.2	164.3	122.4	165.5
Vineyard FC540	40	171.5	134.2	180.9	162.9	231.7	181.4	144.5	111.8	135.8	137.9	159.2
Vineyard FCx5181	41	186.8	142.2	184.7	170.8	200.5	189.7	155.0	104.7	136.0	152.8	162.3
Vineyard FCx5191	42	185.9	138.8	162.1	138.2	216.1	165.5	146.1	100.8	159.4	148.8	156.2
Vineyard FCx5321	43	205.6	158.5	207.2	169.7	209.9	182.0	152.8	112.0	164.2	126.4	168.8
Vineyard FCx5421	44	195.6	136.2	187.5	165.7	229.6	185.9	155.6	104.4	145.4	139.8	164.6
Wilson 2330	45	201.1	148.7	206.3	194.1	170.1	187.8	177.6	115.9	138.5	108.1	164.8
Wilson E4461	46	191.8	155.2	198.6	183.2	174.0	188.9	170.3	120.2	160.4	141.1	168.4
Wilson E14287	47	174.8	134.2	167.1	160.9	218.4	154.9	142.7	100.2	159.5	132.1	154.5
Yellow check B73 × Mo17	48	204.6	166.3	169.4	174.0	210.5	160.2	168.4	104.7	163.5	150.8	167.2
Mean		199.9	148.8	197.1	177.3	206.2	186.1	167.3	115.9	155.0	137.8	169.1
LSD 0.05		28.8	16.7	31.5	21.5	ns	31.5	25.4	25.6	49.5	25.1	14.3
CV%		8.8	6.9	9.8	7.4		10.4	9.3	13.6	19.6	11.2	11.2

[†] Irrigated location.

Table 15. Combined European corn borer whorl-leaf feeding and stalk tunneling data from Columbia and Novelty, MO, for the 1992 Yellow Food Corn Performance Test.

Entry	No.	Leaf feeding (1-9)	No. of tunnels (no)	Tunnel length (in)
Asgrow RX811	1	3.5	0.5	0.6
Asgrow RX899	2	2.2	0.9	1.0
Asgrow RX947	3	3.3	1.1	1.2
Asgrow XP9451	4	3.7	0.4	0.6
Cargill EXP 50076	5	3.3	0.4	0.5
Cargill EXP 50079	6	2.7	0.5	0.5
DeKalb Plant Genetics DK656	7	3.3	0.5	0.6
DeKalb Plant Genetics DK677	8	2.3	0.6	0.7
DeKalb Plant Genetics DK764	9	2.7	0.3	0.3
Deltapine 4581	10	3.0	0.5	0.6
Deltapine G-4673B	11	3.8	0.7	0.8
Funk's G Brand 4631	12	3.2	0.8	0.8
Funk's G Brand EXP 6126X	13	4.7	0.4	0.5
Funk's G Brand EXP 6140X	14	3.7	0.6	0.8
ICI Seeds 8113	15	3.8	0.5	0.6
ICI Seeds 8344	16	3.8	1.1	1.3
Golden Harvest H-2572	17	3.5	1.1	1.3
Golden Harvest H-2583	18	4.0	1.0	1.1
Golden Harvest H-2592	19	2.7	0.8	0.8
ICI Seeds 8260	20	2.8	0.6	0.7
ICI Seeds 8310	21	4.3	0.9	1.0
IFSI 91-1Y	22	3.8	0.9	1.0
IFSI 91-2Y	23	4.0	0.5	0.6
IFSI 91-3Y	24	3.7	0.2	0.2
IFSI 92-1Y	25	3.2	0.6	0.6
NC+ 5860	26	3.8	0.4	0.5
NC+ 5963	27	3.5	0.7	0.8
NC+ 6485	28	3.3	0.4	0.5
NobleBear NBX1380	29	3.8	0.5	0.6
NobleBear NBX1420	30	3.3	0.6	0.6
ORO 201YW	31	4.0	0.8	0.9
Pioneer Brand 3146	32	3.0	0.9	0.9
Pioneer Brand 3162	33	3.3	0.5	0.6
Pioneer Brand 3245	34	3.3	0.5	0.5
Pioneer Brand 3279	35	3.0	0.6	0.7
Pioneer Brand X1814	36	3.0	0.6	0.7
Triumph 1630	37	3.2	0.3	0.3
Triumph 1660	38	4.0	0.1	0.1
Vineyard FC533	39	3.5	0.5	0.6
Vineyard FC540	40	4.5	0.7	0.7
Vineyard FCx5181	41	3.8	0.5	0.6
Vineyard FCx5191	42	3.5	0.4	0.5
Vineyard FCx5321	43	4.3	0.8	0.9
Vineyard FCx5421	44	3.3	0.8	1.1
Wilson 2330	45	3.0	0.1	0.2

Table 15. Continued.

Entry	No.	Leaf feeding (1-9)	No. of tunnels (no)	Tunnel length (in)
Wilson E4461	46	4.2	0.6	0.6
Wilson E14287	47	4.8	1.3	1.4
Yellow check B73×Mo17	48	3.3	0.9	1.1
Susceptible check (Ki3)		5.8	1.0	1.0
Susceptible check (WF9×W182E)		5.8	1.4	1.4
Resistant check (Pioneer Brand 3184)		2.8	0.4	0.5
Mean		3.6	0.6	0.7
LSD 0.05		1.0	0.6	0.7
CV%		24.5	81.3	78.8

Table 16. Yield and agronomic data from common entries in the 1991-1992 Yellow Food Corn Performance Tests.

Entry	Years (no)	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	2	166.8	94.8	2.9	3.3	42.0	70.6	20.7
Asgrow RX899	2	164.2	97.0	1.6	2.5	43.8	73.9	20.9
Asgrow RX947	2	160.8	94.8	4.1	4.9	49.3	74.4	23.1
DeKalb Plant Genetics DK656	2	152.7	95.2	1.8	3.5	44.1	71.0	20.1
DeKalb Plant Genetics DK677	2	161.5	96.6	1.3	3.7	39.8	71.9	21.3
Funk's G Brand EXP 6126X	2	156.9	98.0	3.4	3.9	41.8	70.8	21.4
Funk's G Brand EXP 6140X	2	149.0	96.7	2.3	2.4	43.7	75.0	23.6
Golden Harvest H-2572	2	155.3	96.1	1.3	3.1	40.7	70.3	20.4
Golden Harvest H-2583	2	155.1	94.8	2.2	4.1	41.4	70.5	20.3
Golden Harvest H-2592	2	167.2	96.5	2.9	4.9	43.1	71.2	20.9
ICI Seeds 8113	2	155.1	95.6	2.4	8.4	41.3	71.8	21.9
ICI Seeds 8344	2	155.0	95.5	1.1	2.5	40.8	70.6	20.6
IFSI 91-1Y	2	156.8	93.4	3.2	4.6	42.3	70.7	20.4
IFSI 91-2Y	2	159.1	95.5	4.2	5.8	42.2	71.0	21.4
IFSI 91-3Y	2	160.9	96.0	2.8	5.3	43.2	71.1	21.8
NC+ 5860	2	151.8	97.5	2.2	2.3	43.4	72.3	20.5
Pioneer Brand 3146	2	165.8	93.5	1.2	3.1	45.4	73.5	22.1
Pioneer Brand 3162	2	176.4	92.6	1.1	2.9	36.5	70.2	21.6
Pioneer Brand 3245	2	169.2	94.7	1.8	2.6	39.0	72.1	20.5
Triumph 1630	2	157.3	92.7	1.4	3.7	39.8	73.4	22.4
Triumph 1660	2	146.0	95.3	5.5	5.5	43.6	74.0	23.5
Vineyard FC540	2	151.2	95.5	1.8	4.0	42.1	71.7	19.9
Yellow check B73×Mo17	2	153.5	95.5	3.4	4.8	44.6	71.4	20.1
Mean	.	158.6	95.4	2.4	4.0	42.3	71.9	21.3

Table 17. Yield and agronomic data from common entries in the 1990-1992 Yellow Food Corn Performance Tests.

Entry	Years (no)	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX811	3	161.0	98.4	2.0	4.0	40.9	71.0	20.1
Asgrow RX899	3	164.9	97.2	1.1	2.3	43.1	74.4	20.8
Asgrow RX947	3	158.8	97.8	2.8	4.7	48.3	75.1	22.3
DeKalb Plant Genetics DK656	3	149.0	97.6	1.3	3.8	43.5	71.5	19.5
DeKalb Plant Genetics DK677	3	162.3	98.0	0.9	3.6	38.8	72.4	20.5
Funk's G Brand EXP 6126X	3	154.3	99.5	3.2	3.6	40.2	71.3	20.8
ICI Seeds 8113	3	154.4	97.3	1.8	8.1	40.8	72.2	21.2
Pioneer Brand 3162	3	171.8	95.7	0.7	2.5	35.8	70.5	21.1
Triumph 1660	3	147.1	97.6	4.1	7.1	43.1	74.2	22.5
Vineyard FC540	3	148.0	97.3	1.3	3.5	41.2	72.5	19.5
Yellow check B73×Mo17	3	150.8	96.9	2.6	5.8	44.0	71.8	19.4
Mean	.	156.6	97.6	2.0	4.5	41.8	72.4	20.7

Table 18. Yield and agronomic data from common entries in the 1989-1992 Yellow Food Corn Performance Tests.

Entry	Years (no)	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
Asgrow RX947	4	164.4	97.4	2.3	4.5	49.3	76.1	22.7
DeKalb Plant Genetics DK656	4	155.3	98.6	1.1	3.4	43.8	72.5	19.6
DeKalb Plant Genetics DK677	4	164.1	97.4	0.8	3.5	39.0	73.0	20.4
Pioneer Brand 3162	4	173.4	95.8	0.6	2.3	36.3	71.6	21.3
Triumph 1660	4	151.6	94.4	5.0	5.7	43.2	75.1	23.0
Vineyard FC540	4	149.6	98.2	1.1	3.0	41.4	73.5	19.5
Yellow check B73 × Mo17	4	154.7	98.1	2.3	5.5	43.9	72.5	19.6
Mean	.	159.0	97.1	1.9	4.0	42.4	73.5	20.9

Table 19. Yield and agronomic data from common entries in the 1988-1992 Yellow Food Corn Performance Tests.

Entry	Years (no)	Yield (bu/a)	Stand (%)	Root lodged (%)	Stalk lodged (%)	Ear height (in)	Days to flower (no)	Moist. (%)
DeKalb Plant Genetics DK656	5	152.2	97.3	0.9	3.7	43.6	73.4	19.4
Vineyard FC540	5	144.1	97.8	0.9	3.0	40.4	74.0	19.3
Yellow check B73 × Mo17	5	151.9	96.8	1.9	5.8	43.3	73.5	19.3
Mean	.	149.4	97.3	1.2	4.2	42.4	73.6	19.3

Table 20. Grain quality data from seven locations[†] of the 1992 Yellow Food Corn Performance Test.

Entry	No.	Test weight (lb/bu)	1000-kernel weight (g)	Density (g/cc)	Hardness index [‡] (%)	Pericarp removal [§] (1-5)	Kernel color [¶] (1-5)	Cob color [#]
Asgrow RX811	1	60.3	343	1.31	46.5	4.4	3.0	R
Asgrow RX899	2	60.8	376	1.30	46.6	3.1	3.0	R
Asgrow RX947	3	60.0	335	1.31	45.6	2.9	2.5	W
Asgrow XP9451	4	60.9	329	1.33	44.2	3.6	2.0	W
Cargill EXP 50076	5	60.6	334	1.31	52.2	3.3	2.5	W
Cargill EXP 50079	6	60.3	332	1.32	47.4	4.2	3.0	W
DeKalb Plant Genetics DK656	7	60.1	356	1.30	49.2	2.9	3.0	R
DeKalb Plant Genetics DK677	8	61.3	347	1.31	46.4	3.2	3.0	P
DeKalb Plant Genetics DK764	9	60.4	376	1.32	45.6	2.9	2.5	W
Deltapine 4581	10	60.7	376	1.31	47.2	3.3	2.0	R
Deltapine G-4673B	11	59.9	336	1.29	50.3	2.7	3.5	R
Funk's G Brand 4631	12	62.1	353	1.34	42.2	3.1	2.5	R
Funk's G Brand EXP 6126X	13	62.0	362	1.34	41.9	2.9	2.0	W
Funk's G Brand EXP 6140X	14	60.5	375	1.32	44.7	2.7	3.5	R
ICI Seeds 8113	15	62.3	341	1.33	43.4	3.1	2.5	W
ICI Seeds 8344	16	61.3	382	1.32	43.0	3.2	2.5	R
Golden Harvest H-2572	17	60.9	370	1.31	44.1	3.1	3.0	P
Golden Harvest H-2583	18	61.7	382	1.32	42.9	3.6	2.5	W
Golden Harvest H-2592	19	60.2	345	1.30	45.6	3.9	3.0	P
ICI Seeds 8260	20	61.0	311	1.32	44.7	4.8	3.0	R
ICI Seeds 8310	21	60.6	351	1.32	47.5	3.6	3.0	P
IFSI 91-1Y	22	61.3	299	1.34	42.9	4.8	2.5	P
IFSI 91-2Y	23	62.2	339	1.33	42.3	3.5	2.0	W
IFSI 91-3Y	24	62.5	357	1.34	41.6	3.7	2.0	W
IFSI 92-1Y	25	61.7	308	1.31	49.6	4.2	2.5	P
NC+ 5860	26	61.6	341	1.33	45.4	3.1	2.0	W
NC+ 5963	27	61.1	377	1.32	44.4	3.9	3.0	R
NC+ 6485	28	60.7	355	1.32	45.6	3.5	3.0	R
NobleBear NBX1380	29	61.0	334	1.32	46.2	3.0	2.5	W
NobleBear NBX1420	30	59.6	436	1.31	46.2	4.2	2.5	W
ORO 201YW	31	61.9	350	1.32	43.6	3.4	2.5	W
Pioneer Brand 3146	32	61.1	361	1.34	46.2	3.9	3.0	W
Pioneer Brand 3162	33	62.3	354	1.32	47.0	1.8	3.0	R
Pioneer Brand 3245	34	62.2	365	1.33	43.8	2.1	3.0	R
Pioneer Brand 3279	35	60.2	341	1.32	46.4	3.0	3.0	R
Pioneer Brand X1814	36	60.7	399	1.31	51.4	2.6	2.5	R
Triumph 1630	37	60.0	351	1.31	49.5	2.7	3.0	P
Triumph 1660	38	62.0	353	1.33	41.9	2.4	2.5	W
Vineyard FC533	39	62.0	343	1.33	43.8	3.2	2.5	W
Vineyard FC540	40	62.6	349	1.33	41.8	2.7	2.5	W
Vineyard FCx5181	41	62.0	329	1.33	45.7	3.6	2.5	W
Vineyard FCx5191	42	61.4	343	1.32	43.0	3.1	2.5	W
Vineyard FCx5321	43	60.9	344	1.32	47.0	3.0	2.5	W
Vineyard FCx5421	44	61.6	366	1.32	46.3	3.3	2.5	W
Wilson 2330	45	59.8	366	1.31	46.8	3.1	2.0	P

Table 20. Continued.

Entry	No.	Test weight (lb/bu)	1000-kernel weight (g)	Density (g/cc)	Hardness index [‡] (%)	Pericarp removal [§] (1-5)	Kernel color [¶] (1-5)	Cob color [#]
Wilson E4461	46	60.1	312	1.31	45.4	2.6	2.0	W
Wilson E14287	47	60.3	346	1.31	44.6	2.9	3.0	P
Yellow check B73×Mo17	48	58.7	329	1.28	50.9	3.5	3.0	P
Mean		31.0	351	1.32	44.7	3.3	3.3	
LSD 0.05		1.1	19	0.01	2.5	0.6		

[†] Data from Champaign, IL; Lexington, KY, Columbia, MO; Knoxville, TN; and College Station, Halfway, and Uvalde, TX.

[‡] Percent material removed by abrasion. Kernels that are softer give higher values.

[§] Rated on a scale in which 1 represents complete removal and 5 represents no removal.

[¶] Rated on a scale in which 1 represents a very light yellow kernel color and 5 represents a very dark orange kernel color. A 2 to 3 rating is desirable.

[#] W represents a white cob, R represents a red cob, and P represents a pink cob. A white cob is desirable.

Table 21. Test weight (lb/bu) data from seven locations of the 1992 Yellow Food Corn Performance Test.

Entry	No.	Cham- paign, IL	Lexing- ton, KY	Colum- bia, MO	Knox- ville, TN	College Station, TX	Half- way, TX	Uvalde, TX	Com- bined
Asgrow RX811	1	61.4	60.7	61.4	--	61.4	58.0	58.1	60.2
Asgrow RX899	2	61.2	61.5	62.4	61.8	60.8	59.6	58.6	60.8
Asgrow RX947	3	60.7	60.2	--	63.1	60.0	58.5	57.0	59.9
Asgrow XP9451	4	62.5	61.2	62.5	64.1	61.7	58.4	57.1	61.1
Cargill EXP 50076	5	61.9	60.1	63.2	61.1	60.7	58.9	58.0	60.6
Cargill EXP 50079	6	62.5	61.1	63.4	60.7	61.2	59.0	54.3	60.3
DeKalb Plant Genetics DK656	7	61.5	60.5	61.2	60.3	61.8	57.6	57.5	60.1
DeKalb Plant Genetics DK677	8	61.8	61.7	62.9	61.6	62.1	59.2	59.8	61.3
DeKalb Plant Genetics DK764	9	62.5	58.7	62.1	--	61.9	57.2	59.2	60.3
Deltapine 4581	10	62.1	60.5	62.4	--	61.5	57.9	59.0	60.6
Deltapine G-4673B	11	61.1	59.4	61.8	--	60.0	58.1	58.5	59.8
Funk's G Brand 4631	12	63.5	62.9	58.8	63.4	61.8	62.0	62.2	62.1
Funk's G Brand EXP 6126X	13	63.5	61.8	63.8	64.6	59.5	61.0	59.5	62.0
Funk's G Brand EXP 6140X	14	63.1	59.0	62.1	62.2	59.0	59.0	59.4	60.5
ICI Seeds 8113	15	64.1	61.4	63.9	--	61.5	60.4	58.8	61.7
ICI Seeds 8344	16	63.1	60.7	63.5	62.3	60.2	59.6	59.6	61.3
Golden Harvest H-2572	17	62.6	61.4	62.5	--	60.2	59.2	58.5	60.7
Golden Harvest H-2583	18	61.9	62.4	59.8	--	61.9	59.3	59.8	60.9
Golden Harvest H-2592	19	61.0	60.7	62.1	--	61.0	57.2	58.3	60.1
ICI Seeds 8260	20	62.6	61.2	62.4	--	60.2	59.2	59.4	60.8
ICI Seeds 8310	21	62.5	61.7	62.2	60.6	58.8	57.8	58.3	60.3
IFSI 91-1Y	22	62.8	62.4	63.4	62.2	60.4	59.9	57.9	61.3
IFSI 91-2Y	23	63.9	62.1	65.6	62.2	60.7	61.1	60.0	62.2
IFSI 91-3Y	24	63.6	63.4	65.3	64.9	58.1	61.1	61.0	62.5
IFSI 92-1Y	25	62.6	63.4	62.9	62.0	60.7	60.6	--	62.0
NC+ 5860	26	63.1	61.5	--	62.5	60.1	60.5	61.6	61.6
NC+ 5963	27	62.5	62.2	63.6	61.3	60.4	59.5	58.4	61.1
NC+ 6485	28	61.7	60.7	63.1	60.8	60.4	58.9	59.1	60.7
NobleBear NBX1380	29	62.1	60.8	62.4	62.5	60.1	59.9	59.3	61.0
NobleBear NBX1420	30	61.7	58.3	60.8	59.8	61.5	57.5	57.3	59.6
ORO 201YW	31	63.8	62.2	64.1	63.0	59.8	60.3	59.9	61.9
Pioneer Brand 3146	32	63.2	60.5	62.5	62.5	61.7	58.0	59.6	61.1
Pioneer Brand 3162	33	62.8	61.9	63.6	61.5	62.1	61.5	60.5	62.0
Pioneer Brand 3245	34	63.9	61.7	63.8	61.7	60.9	60.7	62.7	62.2
Pioneer Brand 3279	35	63.1	60.8	59.1	60.2	57.6	60.8	59.5	60.2
Pioneer Brand X1814	36	61.5	59.4	63.6	61.5	61.4	58.5	59.1	60.7
Triumph 1630	37	60.8	57.8	63.1	61.2	60.2	57.5	59.7	60.0
Triumph 1660	38	63.6	61.1	63.8	63.4	60.7	60.7	60.5	62.0
Vineyard FC533	39	63.4	62.8	63.9	63.3	60.0	59.9	58.8	61.7
Vineyard FC540	40	63.8	62.9	64.4	63.9	61.1	60.6	60.6	62.5
Vineyard FCx5181	41	62.4	61.8	63.5	63.3	61.5	60.8	60.5	62.0
Vineyard FCx5191	42	62.9	62.1	63.6	61.5	61.9	58.5	58.6	61.3
Vineyard FCx5321	43	62.8	61.9	62.2	60.8	60.0	59.4	59.5	60.9
Vineyard FCx5421	44	63.4	60.7	62.5	62.0	60.5	60.8	59.8	61.4
Wilson 2330	45	60.4	58.6	61.7	58.8	60.7	60.5	57.7	59.8

Table 22. 1000-kernel weight (g) data from seven locations of the 1992 Yellow Food Corn Performance Test.

Entry	No.	Cham- paign, IL	Lexing- ton, KY	Colum- bia, MO	Knox- ville, TN	College Station, TX	Half- way, TX	Uvalde, TX	Com- bined
Asgrow RX811	1	365	365	420	350	350	280	270	343
Asgrow RX899	2	435	380	360	360	425	360	310	376
Asgrow RX947	3	350	340	365	335	335	310	315	336
Asgrow XP9451	4	360	340	330	365	335	305	265	329
Cargill EXP 50076	5	355	360	355	345	340	325	260	334
Cargill EXP 50079	6	365	360	340	340	355	300	265	332
DeKalb Plant Genetics DK656	7	405	345	420	350	370	305	295	356
DeKalb Plant Genetics DK677	8	385	340	390	345	380	325	265	347
DeKalb Plant Genetics DK764	9	445	365	420	---	375	340	310	376
Deltapine 4581	10	440	370	405	---	405	335	300	376
Deltapine G-4673B	11	385	320	365	340	385	300	260	336
Funk's G Brand 4631	12	375	360	380	355	380	305	315	353
Funk's G Brand EXP 6126X	13	370	370	370	365	345	325	290	348
Funk's G Brand EXP 6140X	14	415	375	405	385	400	345	300	375
ICI Seeds 8113	15	365	335	410	---	370	315	250	341
ICI Seeds 8344	16	425	385	425	380	405	---	310	388
Golden Harvest H-2572	17	405	380	420	365	395	320	305	370
Golden Harvest H-2583	18	430	365	435	---	410	335	315	382
Golden Harvest H-2592	19	380	345	385	---	365	310	285	345
ICI Seeds 8260	20	340	330	335	---	325	270	265	311
ICI Seeds 8310	21	390	350	410	355	390	275	290	351
IFSI 91-1Y	22	335	320	315	300	315	270	235	299
IFSI 91-2Y	23	365	330	395	350	370	285	280	339
IFSI 91-3Y	24	380	365	395	345	385	330	300	357
IFSI 92-1Y	25	325	320	325	305	380	265	235	308
NC+ 5860	26	380	350	385	335	360	320	260	341
NC+ 5963	27	430	375	440	385	400	320	290	377
NC+ 6485	28	385	370	390	355	385	320	280	355
NobleBear NBX1380	29	360	330	370	340	360	285	295	334
NobleBear NBX1420	30	525	440	500	425	460	375	330	436
ORO 201YW	31	365	350	400	350	360	330	295	350
Pioneer Brand 3146	32	380	355	390	375	380	335	315	361
Pioneer Brand 3162	33	400	350	405	360	360	335	270	354
Pioneer Brand 3245	34	405	345	380	400	420	300	305	365
Pioneer Brand 3279	35	360	345	400	330	370	320	265	341
Pioneer Brand X1814	36	425	405	405	445	425	375	315	399
Triumph 1630	37	390	355	400	355	360	325	270	351
Triumph 1660	38	380	350	425	360	370	300	285	353
Vineyard FC533	39	360	350	395	355	340	315	285	343
Vineyard FC540	40	365	350	405	360	355	325	285	349
Vineyard FCx5181	41	335	310	440	320	340	270	290	329
Vineyard FCx5191	42	360	360	380	330	370	300	300	343
Vineyard FCx5321	43	375	355	405	345	360	285	285	344
Vineyard FCx5421	44	405	380	395	360	405	305	315	366
Wilson 2330	45	395	375	405	370	395	330	290	366

Table 23. Kernel density (g/cc) data from seven locations of the 1992 Yellow Food Corn Performance Test.

Entry	No.	Cham- paign, IL	Lexing- ton, KY	Colum- bia, MO	Knox- ville, TN	College Station, TX	Half- way, TX	Uvalde, TX	Com- bined
Asgrow RX811	1	1.30	1.34	1.34	1.32	1.33	1.28	1.27	1.31
Asgrow RX899	2	1.30	1.34	1.33	1.31	1.33	1.26	1.27	1.31
Asgrow RX947	3	1.32	1.34	1.31	1.33	1.32	1.28	1.29	1.31
Asgrow XP9451	4	1.33	1.35	1.34	1.34	1.34	1.29	1.30	1.33
Cargill EXP 50076	5	1.30	1.33	1.32	1.32	1.33	1.29	1.26	1.31
Cargill EXP 50079	6	1.30	1.35	1.32	1.34	1.34	1.29	1.27	1.32
DeKalb Plant Genetics DK656	7	1.30	1.34	1.31	1.30	1.32	1.25	1.27	1.30
DeKalb Plant Genetics DK677	8	1.31	1.35	1.32	1.32	1.33	1.28	1.29	1.31
DeKalb Plant Genetics DK764	9	1.33	1.34	1.32	1.33	1.32	1.29	1.28	1.32
Deltapine 4581	10	1.31	1.33	1.32	1.30	1.33	1.28	1.28	1.31
Deltapine G-4673B	11	1.29	1.32	1.31	1.30	1.32	1.26	1.26	1.29
Funk's G Brand 4631	12	1.33	1.37	1.34	1.35	1.35	1.31	1.31	1.34
Funk's G Brand EXP 6126X	13	1.33	1.35	1.35	1.39	1.34	1.30	1.29	1.34
Funk's G Brand EXP 6140X	14	1.32	1.35	1.33	1.35	1.34	1.29	1.29	1.32
ICI Seeds 8113	15	1.33	1.35	1.34	1.35	1.33	1.29	1.29	1.33
ICI Seeds 8344	16	1.32	1.35	1.34	1.32	1.34	-	1.29	1.33
Golden Harvest H-2572	17	1.31	1.34	1.33	1.31	1.33	1.29	1.29	1.31
Golden Harvest H-2583	18	1.31	1.34	1.36	1.33	1.34	1.30	1.29	1.32
Golden Harvest H-2592	19	1.29	1.32	1.32	1.32	1.32	1.28	1.28	1.30
ICI Seeds 8260	20	1.32	1.34	1.34	1.35	1.33	1.30	1.29	1.32
ICI Seeds 8310	21	1.31	1.34	1.36	1.31	1.33	1.27	1.28	1.32
IFSI 91-1Y	22	1.33	1.36	1.38	1.36	1.35	1.31	1.29	1.34
IFSI 91-2Y	23	1.33	1.35	1.34	1.35	1.34	1.31	1.29	1.33
IFSI 91-3Y	24	1.33	1.37	1.35	1.35	1.35	1.31	1.30	1.34
IFSI 92-1Y	25	1.32	1.35	1.32	1.33	1.33	1.29	1.26	1.31
NC+ 5860	26	1.32	1.35	1.33	1.34	1.34	1.31	1.29	1.33
NC+ 5963	27	1.32	1.35	1.33	1.31	1.33	1.30	1.28	1.32
NC+ 6485	28	1.31	1.35	1.34	1.32	1.33	1.29	1.29	1.32
NobleBear NBX1380	29	1.31	1.35	1.33	1.33	1.34	1.30	1.29	1.32
NobleBear NBX1420	30	1.32	1.34	1.32	1.31	1.31	1.28	1.26	1.31
ORO 201YW	31	1.33	1.35	1.35	1.34	1.33	1.29	1.26	1.32
Pioneer Brand 3146	32	1.32	1.35	1.35	1.34	1.34	1.30	1.29	1.33
Pioneer Brand 3162	33	1.31	1.34	1.34	1.32	1.33	1.30	-	1.32
Pioneer Brand 3245	34	1.33	1.36	1.35	1.34	1.35	1.30	1.31	1.33
Pioneer Brand 3279	35	1.32	1.35	1.31	1.31	1.33	1.31	1.29	1.32
Pioneer Brand X1814	36	1.29	1.33	1.32	1.33	1.33	1.29	1.28	1.31
Triumph 1630	37	1.30	1.33	1.32	1.31	1.32	-	1.27	1.31
Triumph 1660	38	1.33	1.35	1.35	1.34	1.35	1.31	1.29	1.33
Vineyard FC533	39	1.32	1.36	1.35	1.32	1.34	1.30	1.29	1.33
Vineyard FC540	40	1.32	1.36	1.34	1.34	1.35	1.31	1.30	1.33
Vineyard FCx5181	41	1.31	1.35	1.34	1.35	1.33	1.31	1.30	1.33
Vineyard FCx5191	42	1.32	1.35	1.33	1.32	1.33	1.30	1.29	1.32
Vineyard FCx5321	43	1.31	1.35	1.32	1.32	1.34	1.28	1.30	1.32
Vineyard FCx5421	44	1.32	1.35	1.33	1.31	1.34	1.29	1.28	1.32
Wilson 2330	45	1.30	1.34	1.32	1.30	1.32	1.29	1.27	1.31

Table 24. Kernel hardness index[†] (%) data from seven locations of the 1992 Yellow Food Corn Performance Test.

Entry	No.	Cham- paign, IL	Lexing- ton, KY	Colum- bia, MO	Knox- ville, TN	College Station, TX	Half- way, TX	Uvalde, TX	Com- bined
Asgrow RX811	1	49.8	51.0	38.6	45.3	42.7	46.0	47.7	45.9
Asgrow RX899	2	42.3	50.9	41.2	50.6	41.5	47.9	45.6	45.7
Asgrow RX947	3	43.5	53.6	38.5	47.4	41.5	44.2	45.6	44.6
Asgrow XP9451	4	44.0	53.1	40.1	44.0	38.9	42.7	39.8	43.2
Cargill EXP 50076	5	53.2	60.4	48.9	56.0	42.8	45.1	52.7	51.3
Cargill EXP 50079	6	49.8	52.9	40.7	49.9	40.6	43.7	47.5	46.4
DeKalb Plant Genetics DK656	7	48.7	52.4	44.1	51.9	44.0	51.0	45.3	48.2
DeKalb Plant Genetics DK677	8	44.6	50.9	38.9	53.6	40.5	45.1	44.9	45.5
DeKalb Plant Genetics DK764	9	39.6	54.8	38.7	47.1	42.4	44.1	45.4	44.6
Deltapine 4581	10	44.8	54.9	41.0	49.5	41.7	48.3	43.9	46.3
Deltapine G-4673B	11	49.6	55.9	48.1	49.8	40.4	52.9	48.1	49.3
Funk's G Brand 4631	12	42.4	49.4	37.0	45.9	36.7	40.3	37.7	41.3
Funk's G Brand EXP 6126X	13	43.2	48.6	36.2	37.7	37.5	40.8	42.7	41.0
Funk's G Brand EXP 6140X	14	40.1	51.6	41.9	42.9	39.9	44.2	40.7	43.0
ICI Seeds 8113	15	40.4	53.5	34.8	42.9	39.8	41.6	43.9	42.4
ICI Seeds 8344	16	41.2	50.7	37.8	45.8	39.8	--	38.9	42.4
Golden Harvest H-2572	17	43.4	51.9	38.3	46.8	37.3	42.4	42.6	43.2
Golden Harvest H-2583	18	41.7	50.4	--	47.1	40.7	39.8	38.8	43.1
Golden Harvest H-2592	19	45.1	49.6	40.4	45.5	41.7	45.6	45.1	44.7
ICI Seeds 8260	20	47.5	50.0	37.8	46.6	40.0	41.9	43.0	43.8
ICI Seeds 8310	21	46.3	55.1	37.9	49.6	41.1	49.7	45.7	46.5
IFSI 91-1Y	22	44.7	49.8	37.2	37.9	39.1	40.2	45.2	42.0
IFSI 91-2Y	23	42.8	50.3	37.3	44.3	37.7	39.3	41.3	41.9
IFSI 91-3Y	24	41.5	47.7	34.6	42.6	37.8	40.5	40.4	40.7
IFSI 92-1Y	25	46.8	53.6	46.0	51.8	42.1	47.1	52.8	48.6
NC+ 5860	26	47.1	51.9	40.5	42.9	43.7	43.0	42.0	44.4
NC+ 5963	27	44.5	49.8	38.8	45.3	40.8	41.6	43.7	43.5
NC+ 6485	28	45.0	53.4	37.3	46.4	40.4	46.6	43.7	44.7
NobleBear NBX1380	29	46.7	52.4	40.6	48.1	40.7	43.8	44.5	45.3
NobleBear NBX1420	30	37.5	56.1	39.1	49.3	40.3	45.2	49.0	45.2
ORO 201YW	31	43.3	49.7	35.7	42.6	40.7	44.1	43.1	42.7
Pioneer Brand 3146	32	44.3	55.2	40.1	51.0	40.6	41.7	43.2	45.2
Pioneer Brand 3162	33	47.3	53.8	38.0	50.8	45.4	42.7	--	46.3
Pioneer Brand 3245	34	39.8	51.1	38.0	46.2	39.9	44.9	40.3	42.9
Pioneer Brand 3279	35	45.7	53.1	42.0	48.4	43.9	38.2	47.3	45.5
Pioneer Brand X1814	36	53.7	57.5	44.7	54.5	45.7	46.8	49.6	50.4
Triumph 1630	37	49.7	56.5	45.2	46.3	45.5	47.3	49.0	48.5
Triumph 1660	38	41.6	50.2	35.3	45.5	35.3	39.0	39.4	40.9
Vineyard FC533	39	49.1	49.1	38.0	43.7	39.4	40.4	40.5	42.9
Vineyard FC540	40	45.6	48.0	36.9	40.4	38.0	39.2	38.4	40.9
Vineyard FCx5181	41	48.3	51.9	39.8	48.8	40.2	41.3	42.9	44.7
Vineyard FCx5191	42	42.5	47.9	36.5	45.0	38.0	41.6	43.8	42.2
Vineyard FCx5321	43	45.5	51.0	37.7	60.0	42.7	45.4	40.0	46.0
Vineyard FCx5421	44	43.4	52.6	40.8	48.2	40.5	48.8	43.6	45.4
Wilson 2330	45	47.0	53.8	40.7	46.9	41.6	44.7	46.3	45.9

Table 24. Continued.

Entry	No.	Cham- paign, IL	Lexing- ton, KY	Colum- bia, MO	Knox- ville, TN	College Station, TX	Half- way, TX	Uvalde, TX	Com- bined
Wilson E4461	46	44.2	52.8	39.1	46.1	42.6	--	43.7	44.8
Wilson E14287	47	44.3	49.8	36.4	46.5	41.7	42.9	44.5	43.7
Yellow check B73×Mo17	48	50.4	54.7	42.1	50.8	45.5	53.2	52.3	49.9
Mean		45.1	52.2	39.6	47.2	40.9	44.1	44.2	44.7
LSD 0.05									2.5

[†] Percent material removed by abrasion. Kernels that are softer give higher values.

Table 25. Pericarp removal[†] data from seven locations of the 1992 Yellow Food Corn Performance Test.

Entry	No.	Champaign, IL	Lexington, KY	Columbia, MO	Knoxville, TN	College Station, TX	Half- way, TX	Uvalde, TX	Com- bined
Asgrow RX811	1	4.5	5.0	5.0	3.0	5.0	4.5	4.0	4.4
Asgrow RX899	2	3.5	5.0	2.5	4.0	3.0	2.0	2.0	3.1
Asgrow RX947	3	3.5	2.0	4.5	3.0	2.5	1.5	3.5	2.9
Asgrow XP9451	4	4.5	3.5	4.0	3.5	3.5	3.0	3.5	3.6
Cargill EXP 50076	5	3.0	3.0	4.0	3.5	3.5	3.0	2.5	3.2
Cargill EXP 50079	6	5.0	4.5	5.0	4.5	4.5	3.5	2.5	4.2
DeKalb Plant Genetics DK656	7	3.5	2.5	2.5	4.0	3.0	2.0	2.5	2.9
DeKalb Plant Genetics DK677	8	3.0	3.0	3.5	3.5	3.0	3.5	3.0	3.2
DeKalb Plant Genetics DK764	9	2.5	3.0	3.0	3.5	4.0	2.5	2.0	2.9
Deltapine 4581	10	4.5	4.0	3.5	3.0	3.0	2.5	2.5	3.3
Deltapine G-4673B	11	2.5	2.5	4.0	3.0	2.0	3.0	2.0	2.7
Funk's G Brand 4631	12	2.5	3.5	3.5	3.5	2.0	4.0	2.5	3.1
Funk's G Brand EXP 6126X	13	2.5	3.0	4.0	2.0	2.5	3.0	3.0	2.9
Funk's G Brand EXP 6140X	14	3.5	3.0	2.5	3.0	3.0	2.0	2.0	2.7
ICI Seeds 8113	15	3.5	2.5	4.0	3.0	3.0	3.0	2.5	3.1
ICI Seeds 8344	16	4.0	4.0	2.5	3.5	3.0	-	2.5	3.3
Golden Harvest H-2572	17	4.5	2.5	4.0	3.5	2.0	2.5	2.5	3.1
Golden Harvest H-2583	18	4.5	5.0	4.0	4.0	3.0	2.5	2.5	3.6
Golden Harvest H-2592	19	4.5	5.0	4.0	4.5	2.5	4.0	3.0	3.9
ICI Seeds 8260	20	5.0	5.0	5.0	5.0	4.0	4.5	5.0	4.8
ICI Seeds 8310	21	5.0	3.5	4.0	4.0	3.5	3.5	2.0	3.6
IFSI 91-1Y	22	5.0	4.5	5.0	5.0	5.0	5.0	4.0	4.8
IFSI 91-2Y	23	4.0	3.5	-	3.0	3.5	3.5	3.0	3.4
IFSI 91-3Y	24	5.0	3.5	3.0	4.0	4.5	3.0	3.0	3.7
IFSI 92-1Y	25	4.0	4.0	5.0	4.0	4.5	5.0	3.0	4.2
NC+ 5860	26	3.0	2.5	3.5	3.5	3.5	3.0	3.0	3.1
NC+ 5963	27	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.9
NC+ 6485	28	4.5	3.5	4.0	4.0	2.5	3.0	3.3	3.5
NobleBear NBX1380	29	3.5	3.5	3.5	3.0	2.0	3.0	2.5	3.0
NobleBear NBX1420	30	4.0	3.5	5.0	4.0	4.5	4.0	4.5	4.2
ORO 201YW	31	3.5	3.0	4.5	2.5	4.0	3.1	3.0	3.4
Pioneer Brand 3146	32	4.0	3.5	4.0	3.0	5.0	4.0	3.5	3.9
Pioneer Brand 3162	33	2.0	1.5	2.5	1.5	2.0	2.0	-	1.9
Pioneer Brand 3245	34	2.5	2.5	2.5	1.5	2.0	2.0	2.0	2.1
Pioneer Brand 3279	35	-	3.5	3.5	2.5	2.0	3.5	3.0	3.0
Pioneer Brand X1814	36	2.0	3.0	2.5	4.0	1.5	3.0	2.0	2.6
Triumph 1630	37	2.5	3.5	3.0	2.0	2.5	2.5	3.0	2.7
Triumph 1660	38	1.5	2.5	3.5	3.0	2.0	2.0	2.5	2.4
Vineyard FC533	39	4.0	3.5	3.5	3.5	3.0	2.5	2.5	3.2
Vineyard FC540	40	2.5	3.0	3.5	3.0	2.5	2.0	2.5	2.7
Vineyard FCx5181	41	4.0	4.5	4.0	3.0	3.0	3.5	3.5	3.6
Vineyard FCx5191	42	3.5	4.0	3.0	3.0	3.0	2.5	3.0	3.1
Vineyard FCx5321	43	3.7	2.5	4.0	4.5	1.5	2.5	2.0	3.0
Vineyard FCx5421	44	3.0	3.5	4.0	3.5	3.0	3.0	3.0	3.3
Wilson 2330	45	3.5	3.0	4.0	2.5	2.5	3.0	3.5	3.1

Table 25. Continued.

Entry	No.	Cham- paign, IL	Lexing- ton, KY	Colum- bia, MO	Knox- ville, TN	College Station, TX	Half- way, TX	Uvalde, TX	Com- bined
Wilson E4461	46	2.0	3.0	2.5	3.0	2.5	-	3.0	2.7
Wilson E14287	47	2.5	2.5	4.0	3.5	2.5	2.0	3.8	3.0
Yellow check B73 × Mo17	48	4.0	3.0	4.5	2.5	4.0	3.0	3.3	3.5
Mean		3.6	3.4	3.7	3.44	3.1	3.0	2.9	3.3
LSD 0.05									0.6

† Rated on a scale in which 1 represents complete removal and 5 represents no removal.

Table 26. Grain quality data from Purdue University for Champaign, IL.

Entry	No.	Test weight [†] (lb/bu)	Density [†] (g/ml)	Sten-vert value ^{‡‡} (sec)	MEF [§] (%)	Kernel		
						Length [¶] (mm)	Width [¶] (mm)	Thick-ness [¶] (mm)
Asgrow RX811	1	61.6	1.27	14.4	36.1	11.54	7.83	4.22
Asgrow RX899	2	62.1	1.28	17.0	42.2	11.18	8.16	4.57
Asgrow RX947	3	60.3	1.30	14.7	42.4	12.06	7.50	4.07
Asgrow XP9451	4	61.9	1.31	14.5	42.6	11.03	7.16	4.05
Cargill EXP 50076	5	62.1	1.29	12.1	33.2	11.53	7.99	4.19
Cargill EXP 50079	6	62.2	1.29	13.0	38.2	10.53	7.55	4.49
DeKalb Plant Genetics DK656	7	61.8	1.29	15.9	37.2	11.92	7.49	4.14
DeKalb Plant Genetics DK677	8	62.1	1.28	14.3	41.9	11.63	7.76	4.12
DeKalb Plant Genetics DK764	9	62.7	1.31	17.8	47.5	11.97	8.42	4.51
Deltapine 4581	10	61.7	1.30	15.6	43.6	11.56	7.90	4.64
Deltapine G-4673B	11	60.7	1.28	13.5	34.7	11.91	7.71	4.24
Funk's G Brand 4631	12	63.6	1.32	13.9	46.6	11.98	7.65	4.07
Funk's G Brand EXP 6126X	13	63.9	1.31	16.5	43.7	11.15	8.16	4.15
Funk's G Brand EXP 6140X	14	63.1	1.30	15.9	45.3	11.67	8.40	3.94
ICI Seeds 8113	15	64.0	1.32	17.7	46.2	11.13	7.87	4.54
ICI Seeds 8344	16	62.8	1.30	16.7	43.9	11.94	8.09	4.32
Golden Harvest H-2572	17	62.2	1.29	16.5	41.8	11.88	7.96	4.15
Golden Harvest H-2583	18	62.9	1.30	17.0	43.8	12.21	8.39	4.35
Golden Harvest H-2592	19	61.9	1.28	13.7	40.2	12.02	7.80	4.14
ICI Seeds 8260	20	62.1	1.32	14.6	42.1	11.17	7.16	4.03
ICI Seeds 8310	21	62.1	1.32	15.7	44.6	12.24	8.13	4.30
IFSI 91-1Y	22	62.6	1.30	16.1	42.4	11.15	7.61	4.12
IFSI 91-2Y	23	63.4	1.32	14.7	48.4	10.88	7.53	4.37
IFSI 91-3Y	24	63.8	1.33	16.7	50.0	10.94	7.77	4.31
IFSI 92-1Y	25	61.6	1.30	12.9	43.1	10.90	7.16	4.22
NC+ 5860	26	63.0	1.31	13.8	43.0	11.27	7.68	4.23
NC+ 5963	27	62.4	1.31	18.3	41.4	11.23	7.88	4.34
NC+ 6485	28	61.5	1.30	15.2	41.9	11.93	7.33	4.33
NobleBear NBX1380	29	61.4	1.30	13.5	43.1	11.21	7.08	4.10
NobleBear NBX1420	30	61.8	1.30	20.6	50.6	12.01	9.52	4.56
ORO 201YW	31	63.9	1.31	14.5	50.4	11.34	7.56	4.20
Pioneer Brand 3146	32	63.6	1.31	16.3	44.3	11.24	7.73	4.24
Pioneer Brand 3162	33	63.4	1.29	16.0	42.3	12.09	7.83	4.64
Pioneer Brand 3245	34	63.4	1.31	15.8	45.5	11.66	7.89	4.38
Pioneer Brand 3279	35	62.6	1.30	15.3	44.7	11.39	7.27	4.63
Pioneer Brand X1814	36	61.4	1.28	12.3	36.6	11.20	7.94	4.66
Triumph 1630	37	60.5	1.29	13.7	36.7	11.87	7.78	4.15
Triumph 1660	38	63.3	1.30	15.0	42.5	10.98	7.79	4.46
Vineyard FC533	39	62.9	1.30	13.0	38.8	11.28	7.29	4.09
Vineyard FC540	40	63.8	1.30	14.5	42.0	11.21	7.47	4.13
Vineyard FCx5181	41	62.5	1.31	13.7	39.2	11.26	6.84	4.03
Vineyard FCx5191	42	62.6	1.30	15.7	43.4	10.74	7.54	4.21
Vineyard FCx5321	43	62.0	1.30	15.7	39.8	11.46	8.02	4.16
Vineyard FCx5421	44	62.5	1.30	15.0	42.5	11.65	8.16	4.37
Wilson 2330	45	60.6	1.29	15.8	39.9	12.09	8.70	4.05

Table 26. Continued.

Entry	No.	Test weight [†] (lb/bu)	Density [†] (g/ml)	Sten- vert value ^{†‡} (sec)	MEF [§] (%)	Kernel		
						Length [¶] (mm)	Width [¶] (mm)	Thick- ness [¶] (mm)
Wilson E4461	46	61.8	1.30	13.9	41.9	10.89	7.59	3.95
Wilson E14287	47	62.4	1.30	15.7	43.8	11.20	8.00	4.23
Yellow check B73 × Mo17	48	59.2	1.26	12.8	35.2	12.56	7.66	3.95
Mean		62.3	1.30	15.2	42.7	11.50	7.79	4.26
SD		1.0	0.01	1.7	4.8	0.46	0.46	0.20

[†] Data are averages of duplicate determinations on one field replication.

[‡] Stenvert hardness value; hard kernels require longer grinding times than softer kernels.

[§] Milling evaluation factor; results from a short-flow dry milling procedure. The MEF increases when both total endosperm product yields and flaking grit yields increase. Data are from a single determination on one field replication.

[¶] Data are averages of 30 kernel measurements on one field replication.

Table 27. Grain quality data from Purdue University for Halfway, TX.

Entry	No.	Test weight [†] (lb/bu)	Density [†] (g/ml)	Sten-vert value ^{†‡} (sec)	MEF [§] (%)	Kernel		
						Length [¶] (mm)	Width [¶] (mm)	Thick-ness [¶] (mm)
Asgrow RX811	1	61.2	1.31	15.6	43.8	10.82	7.44	4.27
Asgrow RX899	2	61.5	1.30	15.7	43.6	11.11	8.10	4.44
Asgrow RX947	3	60.6	1.29	15.3	44.2	12.20	7.30	4.07
Asgrow XP9451	4	61.3	1.31	15.4	47.4	11.74	7.57	3.90
Cargill EXP 50076	5	59.5	1.29	13.1	41.1	11.29	7.75	4.15
Cargill EXP 50079	6	61.5	1.31	15.9	48.5	10.46	7.45	4.55
DeKalb Plant Genetics DK656	7	61.1	1.29	15.1	44.4	10.53	7.48	4.38
DeKalb Plant Genetics DK677	8	61.6	1.31	15.4	44.0	11.47	8.14	4.28
DeKalb Plant Genetics DK764	9	61.3	1.31	15.4	41.2	10.53	8.26	4.40
Deltapine 4581	10	61.6	1.30	16.1	42.5	11.20	8.02	4.48
Deltapine G-4673B	11	60.3	1.30	16.7	45.0	11.10	8.30	4.60
Funk's G Brand 4631	12	62.7	1.33	18.9	48.3	11.67	7.57	4.26
Funk's G Brand EXP 6126X	13	62.4	1.34	15.6	47.3	10.75	7.92	4.29
Funk's G Brand EXP 6140X	14	60.9	1.32	15.3	48.3	11.47	8.23	4.19
ICI Seeds 8113	15	62.1	1.33	17.0	49.5	10.86	7.67	4.36
ICI Seeds 8344	16	62.5	1.32	16.5	45.5	11.11	8.33	4.50
Golden Harvest H-2572	17	61.8	1.31	17.5	45.4	11.04	7.73	4.46
Golden Harvest H-2583	18	61.9	1.32	17.0	46.5	11.19	8.17	4.51
Golden Harvest H-2592	19	61.3	1.31	16.3	45.1	11.78	7.76	4.18
ICI Seeds 8260	20	61.0	1.32	16.9	48.7	11.61	7.29	4.21
ICI Seeds 8310	21	62.0	1.31	16.5	45.5	11.32	7.98	4.40
IFSI 91-1Y	22	61.5	1.33	19.2	49.2	11.01	7.41	4.17
IFSI 91-2Y	23	61.6	1.34	16.3	51.3	10.47	7.72	4.41
IFSI 91-3Y	24	62.2	1.33	17.9	51.5	10.94	8.01	4.62
IFSI 92-1Y	25	61.0	1.32	15.9	46.4	10.59	6.98	4.05
NC+ 5860	26	62.0	1.32	15.3	44.0	11.01	7.70	4.30
NC+ 5963	27	61.3	1.32	16.4	46.4	11.11	8.01	4.39
NC+ 6485	28	60.6	1.31	15.9	42.9	11.86	7.51	4.49
NobleBear NBX1380	29	61.0	1.32	16.3	49.2	11.49	7.49	4.23
NobleBear NBX1420	30	60.6	1.31	15.3	50.5	11.27	9.29	4.59
ORO 201YW	31	62.0	1.32	14.4	49.8	11.16	7.73	4.34
Pioneer Brand 3146	32	62.2	1.32	17.5	44.6	11.67	8.23	4.16
Pioneer Brand 3162	33	62.0	1.32	14.5	46.5	11.55	7.64	4.43
Pioneer Brand 3245	34	62.9	1.33	18.0	51.9	12.04	7.70	4.64
Pioneer Brand 3279	35	61.7	1.32	16.1	47.6	11.67	7.26	4.51
Pioneer Brand X1814	36	61.3	1.31	12.7	47.7	11.55	8.44	4.78
Triumph 1630	37	60.7	1.31	14.6	42.9	11.44	7.81	4.17
Triumph 1660	38	62.1	1.35	15.9	51.7	10.93	7.94	4.45
Vineyard FC533	39	60.0	1.33	17.3	51.7	11.14	7.44	4.11
Vineyard FC540	40	59.9	1.33	16.8	51.7	11.14	7.92	4.21
Vineyard FCx5181	41	62.1	1.32	15.9	51.0	11.65	7.42	4.30
Vineyard FCx5191	42	61.8	1.33	16.1	51.5	11.44	8.11	4.36
Vineyard FCx5321	43	61.2	1.31	15.1	47.2	11.17	7.90	4.21
Vineyard FCx5421	44	61.8	1.32	15.1	47.8	11.30	7.96	4.25
Wilson 2330	45	60.6	1.32	16.0	45.2	12.07	8.50	4.10

Table 27. Continued.

Entry	No.	Test weight [†] (lb/bu)	Density [†] (g/ml)	Sten- vert value ^{†‡} (sec)	MEF [§] (%)	Kernel		
						Length [¶] (mm)	Width [¶] (mm)	Thick- ness [¶] (mm)
Wilson E4461	46	59.8	1.32	14.5	50.4	11.45	7.88	4.01
Wilson E14287	47	60.3	1.31	15.1	49.4	11.05	8.12	4.23
Yellow check B73 × Mo17	48	60.7	1.29	14.2	43.5	11.22	7.73	4.12
Mean		61.4	1.32	15.9	47.1	11.30	7.84	4.32
SD		0.8	0.01	1.3	3.1	0.42	0.40	0.18

[†] Data are averages of duplicate determinations on one field replication.

[‡] Stenvert hardness value; hard kernels require longer grinding times than softer kernels.

[§] Milling evaluation factor; results from a short-flow dry milling procedure. The MEF increases when both total endosperm product yields and flaking grit yields increase. Data are from a single determination on one field replication.

[¶] Data are averages of 30 kernel measurements on one field replication.

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