# 1991 MICHIGAN SOYBEAN PERFORMANCE REPORT

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This bulletin provides information on the performance of soybean varieties available in Michigan. Comprehensive variety yield trials were conducted in Southeastern Michigan (Lenawee County), Southwestern Michigan (St. Joseph County), South Central Michigan (Hillsdale and Ingham Counties), Central Michigan (Saginaw County), and East Central Michigan (Sanilac County).

## Testing Procedures

Commercial varieties voluntarily entered were obtained from seed companies. Addresses for those companies who provided seed for the trials can be found on the back cover of this bulletin. Public varieties were supplied by the Michigan Foundation Seed Association.

Cooperators, planting and harvest dates, fertilizer practices, previous crops, and soil management groups at the six locations are listed in Table 1.

Maturity groups of all varieties tested are listed in Table 2. Seed of entries was planted in 4-row plots 20 feet long with a 30-inch row spacing, 1 1/2 inches deep at 7.5 seeds per foot of row. Each variety was randomized within the trial and replicated 3 times in a lattice design. Fourteen feet of the center two rows was harvested for yield.

## Evaluating Characteristics

YIELD — Yield is expressed in bushels per acre at 13% moisture.

MATURITY DATE — Entries were considered mature when 95% of the pods had attained their final color and would crack under finger pressure. Additional field drying was required before the plants were ready to harvest. Maturity is recorded as + or - days relative to the check variety (Corsoy 79).

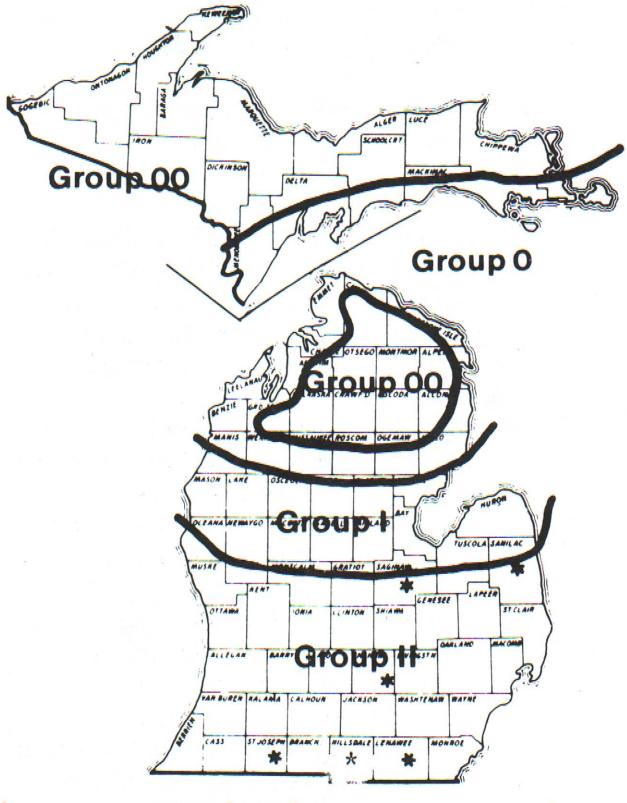
HEIGHT — Plant height, in inches, was measured at maturity from the soil surface to the tip of the main stem.

LODGING — Lodging scores reflect the erectness of the plants before harvest. Ratings are based on the following scale:

1. Almost all plants erect
2. All plants leaning slightly, or fewer than 25% of the plants down
3. All plants leaning moderately (45%), or 25% to 50% of the plants down
4. All plants leaning considerably, or 50% to 80% of the plants down
5. Almost all plants down

## Interpreting the Results

Tables 2-4 show results of 1991 soybean variety trials. Values given are the averages of all replications harvested at each location. The LSD (least significant difference) value is useful when comparing two varieties in the same table. Two varieties with the same genetic potential for yield may have different yields due to variation in soil fertility, compaction, and other environmental factors. If the difference is less than the LSD value, the difference between the varieties may be due to chance or minor environmental differences. However, if the difference between two varieties is greater than the LSD, there is a 95%, or better, probability that the performance is actually different. The CV value is an indicator of the degree of precision for a particular test. The lower the CV value, the more discriminating the test.




*Soybean Maturity Zones for Full-Season Varieties in Michigan, and Locations (*) of Trials.*

* Dept. of Agronomy, University of Arkansas

## Selecting a Variety

The primary consideration in selecting a variety is yield. When evaluating a variety, consider yield performance over several years, if available. Give preference to data obtained in the nearest variety trial. Use all trials in determining a variety's performance under various environmental conditions.

Considerations other than yield are also important in selecting a variety, and in some cases result in choosing a variety with only moderate performance. It is especially important to select a variety with proper maturity. From past weather data, farmers can determine the percent probability of the first fall frost. A general rule of thumb is to choose a variety that will mature (see maturity date definition) before the average date for 25% chance of the first killing frost in the fall. Farmers growing soybeans for the first time may wish to contact neighbors to determine what varieties mature before frost in their area. When large acreages of soybeans are planted, varieties of different maturities provide staggered maturity dates for a longer harvest season.

The degree of lodging varies among varieties. Lodged plants in variety trials are manually picked up and threshed, thus yield losses from lodging are not reflected in the yields reported. Lodging ratings should be used to evaluate potential harvest losses. Farmers who have experienced lodging in the past and have had harvest problems may select a more lodging-resistant variety. Alternately, a variety susceptible to lodging may be planted at a slightly lower population to increase standability. Evaluate lodging data over all locations to determine a variety's lodging characteristics.

Note seed size when selecting planting rates. Planting rates should be based on number of seeds per foot of row and not on pounds per acre.

Many diseases occur in soybean fields in Michigan. The diseases which contribute most significantly to yield reduction are seed and seedling diseases and those causing root and stem rots. Root rots of soybeans are generally recognized when plants turn yellow prematurely, wilt, or die. Less noticeable is the yield reduction that occurs when root rot destroys part of the root system, but causes no visible symptoms to above-ground parts. The fungi that cause root rots often survive in the soil for several years, even in the absence of a host plant. Once root rot fungi are established in a field, control is difficult, even with crop rotation.

The most important and widespread root disease is Phytophthora root rot. New varieties with resistance to several races of the fungus have been developed, but no variety is resistant to all races. Resistance of varieties to Phytophthora root rot, where known, are given in Table 2. Growers who have experienced losses due to this disease should increase their chance of success by using one of the multi-race resistant varieties.

It often benefits growers to select a few good varieties for planting each year. Yield determination and careful field evaluation during the growing season will add to the grower's knowledge of varietal performance and allow better selection.

More information about variety selection and cultural practices can be found in Extension Bulletin E-1549, "Soybean Production in Michigan," and E-2080, "Producing Soybeans in Narrow Rows."

## Using The Data

Table 2 presents multiple-environment averages from all tests in the Southern and Central Michigan regions since 1975. The column labeled (n) refers to the number of tests in which each variety was included. The column labeled Dev. (deviation) refers to the difference (in bushels per acre) between the mean yield of the variety and the mean yield of all varieties in those tests. The maturity check used for all varieties was Corsoy 79 (C79). A positive relative maturity value means that the variety matured later than the check and a negative value means that the variety matured earlier than the check. The value is the actual number of days in either direction.

Data presented in Tables 3 through 4 are from both regional and site-specific performance trials. Average yields for 1991, 90-91 and 89-91 are given. Maturity, height (in inches), and lodging scores are the 1991 regional averages. Maturity is expressed as + or - days when compared with the check variety (Corsoy 79). For 1991 yield data, starred (*) entries designate yields not significantly different from the highest yield for that location. Multiple-environment and multiple-year averages comprised of a greater number of tests (greater n) should be considered more reliable.

The presentation of data for the entries tested does not suggest approval nor endorsement of varieties by the authors or by those responsible for conducting the performance trials.

## Table 1. 1991 Michigan State University Soybean Variety Test, Site Information.

| County | Lenawee | Hillsdale | St. Joseph | Ingham | Saginaw | Sanilac |
|---|---|---|---|---|---|---|
| CES Dir.<br>Ag. Agent | A. Knisel<br>G. Wuethrich | W. Minner<br>D. Pratt | R. King<br>L. Kelley | M. Preston<br>L. Rhodes | J. Thews<br>S. Poindexter | M. Nagelkirk |
| Cooperator<br>City | D. Woods<br>Britton | R. Lennard<br>Reading | R. Gentz<br>Colon | MSU campus<br>E. Lansing | J. Hemker<br>St. Charles | D. Gerstenberger<br>Sandusky |
| Soil Type | Brookston<br>Clay Loam | Hoytville<br>Silty Clay Loam | Hillsdale<br>Sandy Loam | Capac<br>Loam | Sloan Ceresco<br>Clay Loam | Parkhill<br>Loam |
| Mgt. Group | 2.5c | 1c-1.5b | 3a | 2.5b | L-2c | 2.5c |
| Previous Crop | Soybeans | Corn | Corn | Corn | Corn | Corn |
| Fertilizer | 200#<br>0-14-40 | None | 180#<br>10-14-24 | 150#<br>6-24-24 | None | None |
| Planting Date | 5/13/91 | 5/10/91 | 5/28/91 | 5/15/91 | 5/18/91 | 6/7/91 |
| Harvest Date | 10/2/91 | 10/1/91 | 10/16/91 | 10/21/91 | 10/9/91 | 10/17/91 |

## Table 2. Performance Summary of Varieties Entered in the 1991 Michigan Trials.

(Data are averaged over all years that the variety was tested. Phytophthora resistance designations denote the following: Type 1a resistant to Races 1, 2 & 10; Type 1b resistant to Races 1 & 3-9; Type 1c resistant to 1-3 & 6-10; Type 1k resistant to Races 1-10; Type 3 resistant to Races 1-5, 8 & 9; Type 6 resistant to Races 1-4 & 10.)

| | | | Yield (bu/A) with deviation from mean | | | | | | Relative Maturity† | | Lodging Score | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Southern | | | Central | | | | | | |
| Brand/Entry | MG | Type | Yield | (n) | Dev. | Yield | (n) | Dev. | Southern | Central | So. | Ctr. |
| Public | | | | | | | | | | | | |
| ARCHER | I | 1a | 52.7 | 8 | -4.5 * | 55.4 | 6 | -1.7 NS | -3 | -2 | 1.9 | 2.2 |
| BELL | I | None | 53.7 | 4 | -2.5 NS | 55.6 | 3 | -3.4 NS | -2 | -1 | 2.3 | 2.3 |
| BSR 101 | I | 1a | 49.2 | 31 | 0.0 NS | 48.2 | 34 | 0.8 NS | -2 | 0 | 1.7 | 1.9 |
| BURLISON | II | 1b,3 | 54.2 | 19 | 1.4 NS | 58.4 | 15 | 1.9 NS | 8 | 7 | 2.0 | 2.4 |
| CENTURY 84 | II | None | 48.0 | 29 | -0.9 NS | 49.0 | 28 | 0.0 NS | 5 | 5 | 1.7 | 1.8 |
| CHAPMAN | II | None | 61.4 | 4 | 6.4 * | 60.2 | 3 | 1.3 NS | 6 | 3 | 1.9 | 1.7 |
| CONRAD | II | None | 53.2 | 24 | 2.1 * | 55.3 | 21 | 3.3 ** | 3 | 2 | 2.1 | 2.4 |
| CORSOY 79 | II | 1c | 45.1 | 44 | -1.2 NSL | 45.8 | 51 | 0.0 NSL | 0 | 0 | 2.5 | 2.4 |
| DIMON | II | None | 58.3 | 8 | 1.9 NS | 58.3 | 6 | 1.8 NS | -1 | -2 | 2.4 | 2.0 |
| E86237 (MSU Expt.) | | | 50.2 | 4 | 4.7 NS | 55.2 | 3 | -3.7 NSL | -2 | -6 | 2.4 | 2.0 |
| E86248 (MSU Expt.) | | | 52.8 | 4 | -3.4 NS | 59.3 | 3 | 0.4 NS | -1 | -2 | 1.7 | 2.8 |
| E86315 (MSU Expt.) | | | 56.3 | 4 | 0.1 NS | 57.5 | 3 | -1.4 NS | 2 | -1 | 1.7 | 2.0 |
| E88080 (MSU Expt.) | | | 58.6 | 4 | 2.3 NS | 59.4 | 3 | 0.4 NS | 5 | 2 | 1.8 | 2.0 |
| E90010 (MSU Expt.) | | | 44.6 | 4 | -11.7 ** | 47.5 | 3 | -11.4 * | -6 | -5 | 2.1 | 2.2 |
| E90029 (MSU Expt.) | | | 53.5 | 4 | -2.8 NS | 58.5 | 3 | -0.4 NS | 0 | -2 | 2.2 | 2.5 |
| E90070 (MSU Expt.) | | | 59.6 | 5 | 4.6 NS | 61.5 | 3 | 2.6 NS | 8 | 7 | 2.6 | 2.6 |
| ELGIN 87 | II | 1k | 53.7 | 28 | 2.7 ** | 51.6 | 28 | 2.4 * | 2 | 1 | 2.4 | 2.6 |
| HACK | II | 2a | 49.4 | 30 | 0.3 NSL | 50.0 | 29 | 1.3 NS | 3 | 3 | 1.7 | 1.7 |
| HARDIN | I | 1a | 45.8 | 37 | -1.3 NS | 47.7 | 43 | 1.0 NSL | -3 | -2 | 2.4 | 2.3 |
| HODGSON 78 | I | 1a | 42.5 | 46 | -3.3 **L | 43.7 | 54 | -1.8 * L | -7 | -7 | 1.9 | 1.9 |
| JACK | II | 1b | 58.0 | 4 | 3.1 * | 58.6 | 3 | -0.3 NS | 12 | 10 | 2.7 | 3.0 |
| KASOTA | I | 1c | 46.4 | 4 | -9.9 ** | 53.5 | 3 | -5.5 NS | -6 | -7 | 2.2 | 2.1 |
| KATO | I | 1a | 47.4 | 15 | -6.1 ** | 48.8 | 14 | -5.1 **L | -7 | -6 | 1.8 | 2.2 |
| KENWOOD | II | None | 56.0 | 19 | 3.2 * | 60.0 | 17 | 3.8 * | 2 | 1 | 2.4 | 3.1 |
| KUNITZ | III | 1k | 55.4 | 4 | -0.9 NS | 40.2 | 3 | -18.7 NS | 14 | 11 | 3.3 | 2.9 |
| PELLA 86 | III | 1a | 52.8 | 17 | 0.9 NS | 56.1 | 9 | 1.0 NS | 8 | 8 | 1.8 | 2.0 |
| PRESTON | II | None | 51.1 | 25 | 1.1 NSL | 48.9 | 23 | 0.4 NS | 6 | 4 | 2.1 | 2.3 |
| RESNIK | III | 1k | 55.4 | 16 | 3.6 * | 54.2 | 6 | -1.5 NS | 11 | 10 | 2.0 | 2.1 |
| SHERMAN | III | None | 57.1 | 16 | 3.9 NS | 56.1 | 6 | -0.9 NS | 13 | 12 | 2.8 | 3.3 |
| SIBLEY | I | 1a | 48.1 | 25 | -1.4 NS | 46.6 | 31 | -1.6 NSL | -6 | -6 | 2.1 | 2.0 |
| STURDY | II | 1a | 50.2 | 24 | 0.1 NS | 51.7 | 25 | 1.8 * | 0 | 1 | 1.8 | 2.1 |
| VINTON 81 | I | 1k | 41.8 | 12 | -7.9 **L | 44.5 | 12 | -6.6 ** | 0 | 1 | 2.0 | 1.9 |
| ZANE | III | None | 51.5 | 27 | 2.5 * | 52.1 | 22 | 1.3 NS | 7 | 5 | 2.1 | 2.3 |

(Cont'd)

*,** Statistically significant deviation (P<0.05 and 0.01), respectively. NS Not significant.
H Variety exhibits higher than average response in a highly productive environment.
L Variety exhibits lower than average response in a highly productive environment.
† Maturities are given in days relative to Corsoy 79. Average maturity for Corsoy 79 is September 23 in the Southern region and October 2 in the Central region.

## Table 2. (Continued) Performance Summary.

| Brand/Entry | MG | Type | Yield (bu/A) with deviation from mean: Southern Yield | (n) | Dev. | Central Yield | (n) | Dev. | Relative Maturity† Southern | Central | Lodging Score So. | Ctr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Asgrow Seed Company | | | | | | | | | | | | |
| A2234 | II | 1k | 52.0 | 20 | 0.2 NS | 54.0 | 16 | 2.2 * | -1 | 0 | 1.3 | 1.3 |
| A2396 | II | 1k | 61.9 | 8 | 4.8 ** | . | . | . | 2 | . | 1.6 | . |
| A2543 | II | 1k | 56.6 | 12 | 2.9 * | . | . | . | 5 | . | 1.1 | . |
| A2872 | II | 1k | 61.7 | 8 | 4.6 * | . | . | . | 7 | . | 1.6 | . |
| Callahan Seeds | | | | | | | | | | | | |
| 1170 | I | None | . | . | . | 56.1 | 11 | 0.5 NS | . | -5 | . | 1.3 |
| 1288 | II | None | 59.5 | 9 | 1.3 NSH | 58.0 | 7 | 0.4 NS | 3 | 3 | 1.5 | 1.8 |
| 1290 | II | None | 57.7 | 12 | 4.0 * | . | . | . | 7 | . | 1.5 | . |
| 1330 | II | None | 63.4 | 8 | 6.3 ** | . | . | . | 9 | . | 1.7 | . |
| 2200X | II | 1c | . | . | . | 59.7 | 3 | 0.8 NS | . | -1 | . | 2.2 |
| 2215X | II | 1a | . | . | . | 62.8 | 3 | 3.8 ** | . | -2 | . | 1.5 |
| 2232X | II | 1a | . | . | . | 64.8 | 3 | 5.8 * | . | -2 | . | 1.9 |
| 2244X | II | 1k | 57.8 | 4 | 1.6 NS | 60.5 | 3 | 1.5 NS | 2 | 1 | 2.1 | 2.3 |
| 2255X | II | None | 61.6 | 4 | 5.3 NS | 67.2 | 3 | 8.2 NS | 7 | 6 | 1.7 | 2.1 |
| 2292X | II | 1a | 56.6 | 4 | 0.5 NS | . | . | . | 7 | . | 2.1 | . |
| 2311X | III | 1k,a | 56.9 | 4 | 0.8 NS | . | . | . | 10 | . | 2.3 | . |
| 6180 | I | None | . | . | . | 50.3 | 29 | 1.8 * | . | -5 | . | 1.4 |
| 8252 | II | None | 56.0 | 20 | 4.2 ** | 57.9 | 19 | 4.6 ** | 4 | 3 | 1.9 | 2.1 |
| 9222X | II | None | . | . | . | 53.0 | 15 | 1.0 NS | . | 1 | . | 1.9 |
| 9270X | II | None | 55.5 | 16 | 3.6 **H | 56.1 | 15 | 4.2 ** | 6 | 5 | 1.4 | 1.5 |
| Countrymark Co-op Inc. | | | | | | | | | | | | |
| EXP 17292 | II | None | 53.8 | 4 | -2.3 NS | 60.4 | 3 | 1.5 NS | 6 | 3 | 1.3 | 1.5 |
| FFR 193 | I | None | 50.4 | 4 | -5.9 * | 59.3 | 3 | 0.4 NS | -4 | -4 | 1.4 | 1.3 |
| FFR 253 | II | 1k | 52.3 | 12 | -1.4 NS | 54.3 | 11 | -1.2 NS | 6 | 3 | 1.9 | 2.1 |
| FFR 299 | II | 1c | 57.6 | 4 | 1.4 NS | 56.4 | 3 | -2.6 NS | 11 | 9 | 2.2 | 2.8 |
| Dairyland Seed Company | | | | | | | | | | | | |
| DSR-170 | I | None | . | . | . | 55.7 | 11 | 0.1 NS | . | -6 | . | 1.9 |
| DSR-173 | I | None | . | . | . | 61.0 | 3 | 2.0 NS | . | -7 | . | 1.1 |
| DSR-217 | II | None | . | . | . | 65.0 | 3 | 6.0 NS | . | 2 | . | 2.2 |
| DSR-252 | II | None | . | . | . | 54.3 | 19 | 1.1 NS | . | 0 | . | 1.7 |
| DSR-262 | II | None | 56.3 | 20 | 4.5 ** | 57.2 | 9 | 2.1 NS | 7 | 6 | 2.4 | 2.5 |
| DSR-288 | II | None | 62.2 | 4 | 6.0 ** | 60.0 | 3 | 1.1 NS | 6 | 1 | 1.3 | 1.2 |
| DSR-290 | II | None | 55.8 | 16 | 4.0 ** | . | . | . | 7 | . | 1.9 | . |
| DSR-305 | III | None | 61.7 | 4 | 5.5 NS | . | . | . | 12 | . | 2.4 | . |
| DSR-317 | III | None | 49.3 | 19 | 1.8 NS | . | . | . | 12 | . | 2.7 | . |
| DeKalb Plant Genetics | | | | | | | | | | | | |
| CX259 | II | None | 58.3 | 8 | 1.2 NSH | 58.1 | 6 | 1.1 NS | 3 | 3 | 2.0 | 2.4 |
| CX267 | II | 1c | 58.8 | 4 | 2.6 NS | 60.1 | 3 | 1.2 NS | 6 | 4 | 2.3 | 2.1 |
| CX291 | II | 1k | 55.7 | 4 | -0.5 NS | . | . | . | 10 | . | 2.5 | . |
| CX298 | II | 1k | 53.4 | 16 | 1.6 NS | 53.3 | 6 | -2.4 NS | 9 | 9 | 1.9 | 2.1 |
| CX329 | III | 1k | 57.6 | 4 | 1.5 NS | . | . | . | 10 | . | 1.9 | . |
| CX366 | III | 1c | 52.4 | 4 | -3.7 ** | . | . | . | 13 | . | 2.1 | . |
| Diamond (ICI Seeds Inc.) | | | | | | | | | | | | |
| D210 | II | None | 59.0 | 8 | 1.8 NS | . | . | . | 3 | . | 1.9 | . |
| D200 | II | None | . | . | . | 59.6 | 3 | 0.7 NS | . | -3 | . | 2.3 |
| SC232 | II | None | . | . | . | 63.1 | 3 | 4.2 NS | . | 2 | . | 2.1 |
| SC291 | II | None | 61.5 | 8 | 4.4 * | . | . | . | 6 | . | 2.4 | . |
| Diehl Fields | | | | | | | | | | | | |
| DF-191 | I | None | . | . | . | 54.5 | 3 | -4.4 NS | . | -4 | . | 1.8 |
| DF-201 | II | 1c | 52.3 | 12 | 2.6 * | . | . | . | 6 | . | 2.1 | . |
| DF-231 | II | None | 58.1 | 5 | 1.6 NS | 59.7 | 6 | 2.6 NS | 3 | 4 | 1.7 | 1.8 |
| Funk's G Brand | | | | | | | | | | | | |
| G3185 | I | None | . | . | . | 55.6 | 11 | 0.0 NSL | . | -3 | . | 1.7 |
| G3197 | I | None | . | . | . | 48.0 | 23 | -0.2 NS | . | -4 | . | 1.3 |
| G3232 | II | None | 49.6 | 15 | 1.7 * | 51.2 | 6 | -1.0 NS | 6 | 6 | 2.2 | 2.4 |
| G3258 | II | None | 57.2 | 8 | 0.1 NS | 60.7 | 4 | 2.2 NS | 2 | 1 | 1.9 | 2.2 |
| G3311 | III | None | 61.8 | 4 | 5.6 NS | . | . | . | 13 | . | 2.1 | . |
| Golden Harvest | | | | | | | | | | | | |
| H-1170 | I | None | 49.9 | 20 | -1.8 NS | 52.0 | 21 | -0.3 NS | -5 | -5 | 1.6 | 1.5 |
| H-1208 | II | None | 55.3 | 4 | -1.0 NS | 60.7 | 3 | 1.8 NSL | 2 | 0 | 2.2 | 2.2 |
| H-1260 | II | None | 54.5 | 12 | 0.8 NS | 57.6 | 11 | 2.0 * | 4 | 2 | 1.7 | 1.9 |
| H-1271 | II | None | 61.4 | 4 | 5.2 NS | 67.4 | 3 | 8.4 * | 8 | 7 | 2.1 | 2.2 |
| H-1278 | II | None | 54.0 | 16 | 2.2 * | 53.7 | 15 | 1.8 NS | 8 | 7 | 1.6 | 1.7 |
| H-1303 | III | None | 58.5 | 8 | 1.3 NS | 56.5 | 6 | -0.5 NS | 10 | 9 | 2.6 | 2.9 |

(Cont'd)

*,** Statistically significant deviation (P<0.05 and 0.01), respectively. NS Not significant.
H Variety exhibits higher than average response in a highly productive environment.
L Variety exhibits lower than average response in a highly productive environment.
† Maturities are given in days relative to Corsoy 79. Average maturity for Corsoy 79 is September 23 in the Southern region and October 2 in the Central region.

## Table 2. (Continued) Performance Summary.

| Brand/Entry | MG | Type | Yield (bu/A) with deviation from mean: Southern Yield | (n) | Dev. | Central Yield | (n) | Dev. | Relative Maturity† Southern | Central | Lodging Score So. | Ctr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Great Lakes Hybrids | | | | | | | | | | | | |
| G62505 | II | None | 62.4 | 4 | 6.3 NS | . | . | . | 6 | . | 1.9 | . |
| GL2291 | II | None | . | . | . | 62.1 | 6 | 5.1 ** | . | 5 | . | 3.0 |
| GL2304 | II | None | . | . | . | 62.8 | 3 | 3.9 NS | . | 3 | . | 2.1 |
| GL2598 | II | None | 61.5 | 4 | 5.2 NS | 65.5 | 3 | 6.6 NS | 8 | 6 | 1.9 | 2.2 |
| Gries Seed Farm | | | | | | | | | | | | |
| GSF275 | II | None | 62.0 | 8 | 4.8 ** | 61.6 | 6 | 4.6 NS | 7 | 8 | 2.2 | 2.6 |
| GSF330 | III | None | 58.8 | 8 | 1.6 NS | 54.8 | 6 | -2.3 NS | 9 | 9 | 2.0 | 2.2 |
| Jacques Seed Company | | | | | | | | | | | | |
| J-181 | I | None | . | . | . | 51.8 | 16 | 1.3 NS | . | -5 | . | 1.5 |
| Kaiser-Estech | | | | | | | | | | | | |
| KE 156 | I | None | . | . | . | 52.9 | 21 | 2.0 NS | . | -4 | . | 1.5 |
| KE 220 | II | None | 57.6 | 4 | 1.4 NS | 60.4 | 3 | 3.7 NS | 5 | 5 | 1.9 | 2.7 |
| KE 310 | III | None | 54.7 | 19 | 3.3 * | . | . | . | 11 | . | 2.3 | . |
| King Agro, Inc. | | | | | | | | | | | | |
| GG1800 | I | None | . | . | . | 59.4 | 3 | 0.5 NS | . | -7 | . | 1.9 |
| GG2700 | II | None | 55.8 | 10 | 1.0 NS | 57.7 | 11 | 2.1 NS | 6 | 3 | 1.4 | 1.5 |
| KG100 | II | None | 57.6 | 7 | 3.0 NS | 52.5 | 15 | 0.6 NS | 9 | 6 | 2.3 | 1.9 |
| KG60 | 0 | None | . | . | . | 47.8 | 3 | -11.2 ** | . | -11 | . | 2.1 |
| Northrup King | | | | | | | | | | | | |
| s19-90 | I | 1c | 55.8 | 6 | -0.3 NS | 59.7 | 11 | 4.2 ** | -3 | -2 | 1.4 | 1.2 |
| s20-20 | II | 1c | 56.3 | 4 | 0.1 NS | 63.8 | 3 | 4.8 NS | -4 | -4 | 1.9 | 1.9 |
| s29-39 | II | 1c | 57.4 | 8 | 0.3 NS | . | . | . | 10 | . | 2.2 | . |
| X9127 | II | 1c | 58.5 | 4 | 2.4 NS | . | . | . | 10 | . | 2.3 | . |
| Northern Star | | | | | | | | | | | | |
| NS-2291 | II | None | 54.9 | 4 | -1.4 NS | 63.3 | 3 | 4.3 * | 0 | -1 | 1.5 | 1.5 |
| NS-2891 | II | None | 61.2 | 4 | 5.1 NS | . | . | . | 7 | . | 1.7 | . |
| Pioneer Hi-Bred International | | | | | | | | | | | | |
| 9171 | I | None | 52.2 | 5 | -4.2 NS | 57.0 | 6 | -0.1 NS | -7 | -8 | 1.2 | 1.2 |
| 9231 | II | None | 51.2 | 4 | -5.1 NS | 59.1 | 3 | 0.1 NS | -2 | -2 | 1.1 | 1.1 |
| 9273 | II | None | 61.2 | 8 | 4.1 ** | 60.8 | 6 | 3.8 * | 4 | 2 | 1.5 | 1.9 |
| 9301 | III | None | 53.6 | 16 | 1.8 NS | 56.2 | 6 | 0.5 NSH | 7 | 7 | 2.4 | 2.8 |
| 9341 | IV | None | 59.7 | 8 | 2.5 NS | 56.2 | 4 | -2.4 NS | 10 | 11 | 1.9 | 2.2 |
| Pro-Seed (Prosoy) | | | | | | | | | | | | |
| PS215 | II | None | . | . | . | 55.4 | 15 | 3.4 ** | . | 3 | . | 1.8 |
| PS228 | II | None | 56.6 | 4 | 0.4 NS | . | . | . | 5 | . | 2.5 | . |
| PS245 | II | None | 57.7 | 4 | 1.5 NS | 64.6 | 3 | 5.7 NS | 6 | 6 | 2.1 | 2.2 |
| PS321 | III | 1k | 60.4 | 8 | 3.3 NS | . | . | . | 10 | . | 2.3 | . |
| Renk Seed Company | | | | | | | | | | | | |
| RS-1992 | I | 1c | . | . | . | 58.0 | 3 | -0.9 NS | . | -5 | . | 1.9 |
| RS-2191 | II | None | . | . | . | 59.4 | 3 | 0.5 NS | . | 1 | . | 2.7 |
| RS-2292 | II | None | 54.9 | 4 | -1.3 NS | . | . | . | 0 | . | 2.3 | . |
| RS-2792 | II | None | 56.4 | 4 | 0.2 NS | . | . | . | 7 | . | 2.1 | . |
| Rupp Seeds | | | | | | | | | | | | |
| RS2308 | II | None | . | . | . | 55.8 | 16 | 2.9 ** | 2 | . | 1.8 | . |
| RS2323 | II | 1k | . | . | . | 52.0 | 15 | 0.0 NS | . | 1 | . | 1.7 |
| RS2444 | II | 1k | . | . | . | 57.4 | 6 | 0.3 NS | . | 3 | . | 1.7 |
| RS2503 | II | None | 58.4 | 8 | 1.2 NS | 56.3 | 3 | -2.7 NS | 8 | 7 | 2.3 | 2.5 |
| RS2525 | III | None | 59.8 | 4 | 3.6 NS | . | . | . | 14 | . | 2.3 | . |
| RS2544 | III | None | 47.9 | 23 | 0.5 NS | . | . | . | 12 | . | 2.4 | . |
| RS2585 | III | None | 63.8 | 4 | 7.7 * | . | . | . | 12 | . | 2.4 | . |
| Stine Seed Company | | | | | | | | | | | | |
| 3230 | III | 1a | 64.8 | 8 | 7.6 * | . | . | . | 13 | . | 2.4 | . |
| Saginaw Valley Seed | | | | | | | | | | | | |
| SVS181 | I | None | . | . | . | 64.0 | 3 | 5.1 * H | . | -7 | . | 1.9 |
| SVS183 | I | 1a | . | . | . | 56.3 | 6 | 5.7 * | . | -7 | . | 2.3 |
| Terra International | | | | | | | | | | | | |
| EX 299 | II | None | 60.9 | 4 | 2.6 NS | 62.5 | 4 | 1.6 NS | 9 | 10 | 2.2 | 2.3 |
| FLAG | I | None | . | . | . | 56.0 | 11 | 0.4 NSL | . | -7 | . | 1.5 |
| HURDLE | II | 1a | . | . | . | 49.5 | 23 | -0.9 NS | . | 2 | . | 1.7 |
| MEDALIST | II | None | 55.0 | 16 | 3.2 ** | 54.7 | 15 | 2.7 * | 4 | 4 | 1.9 | 2.0 |
| RUNNER III | I | None | . | . | . | 51.6 | 13 | 1.3 NS | . | -3 | . | 2.0 |
| SPRINT | II | None | 52.1 | 23 | 1.8 NS | 53.9 | 20 | 1.5 NS | 8 | 5 | 2.0 | 2.2 |
| WINNER | II | None | 55.0 | 12 | 1.3 NS | 57.8 | 11 | 2.2 NS | 3 | 2 | 1.7 | 2.0 |

*,** Statistically significant deviation (P<0.05 and 0.01), respectively. NS Not significant.
H Variety exhibits higher than average response in a highly productive environment.
L Variety exhibits lower than average response in a highly productive environment.
† Maturities are given in days relative to Corsoy 79. Average maturity for Corsoy 79 is September 23 in the Southern region and October 2 in the Central region.

## Table 3. Summary of Yields from the Southern Testing Region.

| Brand | Entry | All Southern Locations 1991 Avg. | 90-91 Avg. | 89-91 Avg. | 1991 Ingham County | 1991 Lenawee County | 1991 Hillsdale County | 1991 St.Joseph County | Maturity † (days) | Height (in) | Lodging Score |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Public | ARCHER | 50.5 | 52.7 | . | 61.5 | 58.5 | 32.1 | 49.8 | -3 | 35 | 2.3 |
| Public | BELL | 53.7 | . | . | 65.5 | 50.4 | 50.5 * | 48.5 | -2 | 32 | 2.2 |
| Public | BSR 101 | 51.6 | 53.6 | 50.7 | 61.6 | 57.7 | 35.8 | 51.4 | -2 | 33 | 2.0 |
| Public | BURLISON | 54.7 | 55.6 | 50.6 | 66.8 | 61.1 | 43.3 | 47.6 | 7 | 33 | 1.7 |
| Public | CENTURY 84 | 51.5 | 53.4 | 51.1 | 61.8 | 61.3 | 34.8 | 48.3 | 7 | 36 | 1.9 |
| Public | CHAPMAN | 61.4 * | . | . | 67.4 | 64.9 | 59.1 * | 54.1 * | 6 | 36 | 1.8 |
| Public | CONRAD | 56.7 | 56.6 | 54.3 | 74.2 * | 58.3 | 44.8 * | 49.7 | 2 | 34 | 1.8 |
| Public | CORSOY 79 | 49.7 | 53.3 | 49.9 | 55.0 | 54.7 | 41.2 | 48.0 | 0 | 40 | 2.7 |
| Public | DIMON | 57.6 | 58.3 | . | 74.2 * | 62.8 | 41.1 | 52.4 * | 2 | 30 | 1.7 |
| Public | E86237 | 50.2 | . | . | 58.6 | 55.8 | 36.6 | 49.7 | -5 | 34 | 2.0 |
| Public | E86248 | 51.1 | . | . | 67.3 | 52.5 | 39.6 | 45.0 | -1 | 35 | 2.4 |
| Public | E86315 | 53.3 | . | . | 69.0 | 53.3 | 43.1 | 47.6 | 0 | 33 | 1.6 |
| Public | E88080 | 58.6 * | . | . | 71.1 | 57.7 | 58.8 * | 46.7 | 4 | 37 | 1.8 |
| Public | E90010 | 44.6 | . | . | 54.8 | 47.7 | 33.3 | 42.5 | -6 | 34 | 2.1 |
| Public | E90029 | 53.5 | . | . | 61.2 | 62.2 | 41.6 | 48.8 | 0 | 39 | 2.2 |
| Public | E90070 | 62.2 * | . | . | 73.0 * | 70.1 * | 56.9 * | 48.9 | 9 | 35 | 2.5 |
| Public | ELGIN 87 | 58.4 * | 57.8 | 55.2 | 68.5 | 62.4 | 55.2 * | 47.3 | 3 | 33 | 2.6 |
| Public | HACK | 51.4 | 51.9 | 50.9 | 63.2 | 52.0 | 41.1 | 49.3 | 4 | 34 | 2.1 |
| Public | HARDIN | 52.9 | 52.5 | 50.1 | 56.6 | 54.9 | 51.4 * | 48.9 | -1 | 42 | 2.8 |
| Public | HODGSON 78 | 47.4 | 49.8 | 46.8 | 53.2 | 49.7 | 42.9 | 43.8 | -9 | 35 | 2.7 |
| Public | JACK | 58.0 * | . | . | 68.3 | 61.1 | 49.9 * | 52.7 * | 11 | 45 | 3.0 |
| Public | KASOTA | 46.4 | . | . | 57.9 | 46.9 | 38.4 | 42.4 | -6 | 31 | 2.2 |
| Public | KATO | 45.6 | 47.5 | . | 55.1 | 44.3 | 34.3 | 48.6 | -8 | 34 | 1.8 |
| Public | KENWOOD | 59.5 * | 57.6 | 55.9 | 67.4 | 64.0 | 51.7 * | 55.0 * | 2 | 36 | 2.5 |
| Public | KUNITZ | 55.4 | . | . | 55.7 | 59.4 | 64.5 * | 42.0 | 14 | 44 | 3.2 |
| Public | PELLA 86 | 57.5 | 57.4 | 53.3 | 63.0 | 62.6 | 53.3 * | 51.0 | 8 | 36 | 1.9 |
| Public | PRESTON | 54.8 | 54.7 | 51.6 | 63.0 | 59.0 | 50.1 * | 46.8 | 6 | 38 | 2.5 |
| Public | RESNIK | 63.5 * | 62.5 | 58.6 | 68.3 | 70.8 * | 65.2 * | 49.7 | 11 | 37 | 2.2 |
| Public | SHERMAN | 61.7 * | 58.9 | 54.4 | 71.6 * | 66.7 * | 59.8 * | 48.8 | 13 | 37 | 3.2 |
| Public | STURDY | 52.8 | 55.8 | 53.4 | 62.9 | 56.0 | 41.4 | 50.8 | -1 | 33 | 2.3 |
| Public | VINTON 81 | 46.2 | . | . | 52.8 | 42.9 | 48.1 * | 40.9 | 1 | 36 | 2.4 |
| Public | ZANE | 59.9 * | 60.9 | 56.7 | 68.6 | 60.6 | 59.0 * | 51.3 | 10 | 39 | 2.2 |
| Asgrow | A2234 | 52.7 | 55.9 | 52.8 | 67.0 | 54.8 | 44.1 | 44.9 | -2 | 29 | 1.1 |
| Asgrow | A2396 | 62.0 * | 61.9 | . | 74.6 * | 61.6 | 55.9 * | 55.9 * | 4 | 35 | 1.8 |
| Asgrow | A2543 | 56.4 | 58.8 | 56.6 | 72.8 * | 58.3 | 46.5 * | 48.2 | 3 | 28 | 1.2 |
| Asgrow | A2872 | 61.9 * | 61.7 | . | 68.0 | 67.9 * | 63.4 * | 48.3 | 8 | 36 | 1.8 |
| Callahan | 8252 | 62.4 * | 60.3 | 56.6 | 77.5 * | 63.7 | 55.4 * | 52.9 * | 5 | 34 | 1.8 |
| Callahan | 1288X | 56.7 | 58.2 | . | 70.1 | 65.0 * | 41.5 | 50.3 | 5 | 29 | 1.3 |
| Callahan | 1290X | 61.6 * | 61 | 57.7 | 76.2 * | 70.0 * | 47.4 * | 53.0 * | 6 | 35 | 1.7 |
| Callahan | 1330X | 62.9 * | 63.4 | . | 70.7 | 73.5 * | 54.3 * | 53.3 * | 11 | 35 | 1.5 |
| Callahan | 2244X | 57.8 * | . | . | 71.7 * | 57.3 | 47.4 * | 54.9 * | 2 | 35 | 2.1 |
| Callahan | 2255X | 61.5 * | . | . | 78.6 * | 57.4 | 53.4 * | 56.8 * | 7 | 34 | 1.7 |
| Callahan | 2292X | 56.6 | . | . | 61.5 | 67.6 * | 43.1 | 54.1 * | 7 | 37 | 2.1 |
| Callahan | 2311X | 56.9 | . | . | 60.9 | 67.8 * | 52.5 * | 46.5 | 10 | 40 | 2.3 |
| Callahan | 9270X | 59.7 * | 60.3 | 57.6 | 72.1 * | 67.8 * | 51.7 * | 47.4 | 7 | 33 | 1.7 |
| Countrymark | EXP 17292 | 53.8 | . | . | 64.5 | 59.0 | 40.8 | 51.1 | 4 | 36 | 1.4 |
| Countrymark | FFR 193 | 50.3 | . | . | 63.2 | 53.9 | 37.6 | 46.7 | -4 | 34 | 1.4 |
| Countrymark | FFR 253 | 55.5 | 56.8 | 52.3 | 61.9 | 59.7 | 50.0 * | 50.6 | 8 | 35 | 2.0 |
| Countrymark | FFR 299 | 57.6 | . | . | 57.5 | 63.1 | 60.2 * | 49.6 | 11 | 38 | 2.2 |
| Dairyland | DSR-262 | 56.4 | 58.2 | 55.2 | 63.9 | 63.9 | 49.5 * | 48.3 | 7 | 38 | 2.4 |
| Dairyland | DSR-288 | 62.2 * | . | . | 73.3 * | 66.8 * | 54.7 * | 54.1 * | 5 | 32 | 1.3 |
| Dairyland | DSR-290 | 61.4 * | 60.3 | 57.8 | 69.4 | 69.2 * | 60.6 * | 46.4 | 9 | 35 | 2.4 |
| Dairyland | DSR-305 | 61.7 * | . | . | 76.4 * | 67.5 * | 48.0 * | 54.7 * | 12 | 37 | 2.4 |
| Dairyland | DSR-317 | 55.5 | . | . | 66.9 | 56.9 | 53.9 * | 44.4 | 16 | 42 | 2.4 |
| Dekalb | CX259 | 57.8 * | 58.3 | . | 71.8 * | 62.5 | 48.2 * | 48.8 | 5 | 36 | 1.8 |
| Dekalb | CX267 | 58.8 * | . | . | 66.1 | 64.2 | 49.1 * | 55.9 * | 6 | 38 | 2.3 |
| Dekalb | CX291 | 55.7 | . | . | 56.6 | 66.7 * | 51.5 * | 47.9 | 10 | 41 | 2.5 |
| Dekalb | CX298 | 58.0 * | 59.3 | 55.6 | 73.0 * | 65.6 * | 46.8 * | 46.6 | 10 | 34 | 2.2 |
| Dekalb | CX329 | 57.6 | . | . | 61.2 | 67.1 * | 55.6 * | 46.4 | 10 | 36 | 1.9 |
| Dekalb | CX366 | 52.4 | . | . | 63.4 | 56.4 | 44.9 * | 44.9 | 13 | 40 | 2.1 |
| Diamond | D210 | 61.8 * | 59 | . | 69.4 | 65.4 * | 62.6 * | 49.8 | 5 | 36 | 1.9 |
| Diamond | SC291 | 61.6 * | 61.5 | . | 71.1 | 65.0 * | 58.6 * | 51.6 * | 8 | 38 | 2.5 |
| | | | | | | | | | | | (Cont'd) |
| Average | | 56.9 | 57.8 | 54.2 | 67.6 | 61.7 | 48.5 | 49.9 | 5 | 36 | 2.1 |
| LSD | | 6.0 | . | . | 7.1 | 8.5 | 20.5 | 5.6 | | | |

* Denotes a yield that is not significantly less than the highest yield in the column.
† Maturities are given in days relative to Corsoy 79. Corsoy 79 reached maturity on 9/15/91.

## Table 3. (Cont'd) Summary of Yields from the Southern Testing Region.

| Brand | Entry | All Southern Locations 1991 Avg. | 90-91 Avg. | 89-91 Avg. | 1991 Ingham County | 1991 Lenawee County | 1991 Hillsdale County | 1991 St.Joseph County | Maturity † (days) | Height (in) | Lodging Score |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Diehl Fields | DF-201 | 62.0 * | . | . | 69.0 | 66.1 * | 59.4 * | 53.4 * | 7 | 38 | 2.2 |
| Diehl Fields | DF-231 | 57.1 | 58.1 | . | 73.9 * | 61.3 | 40.6 | 52.6 * | 3 | 37 | 1.8 |
| Funk's G. | G3232 | 60.7 * | . | . | 68.4 | 66.8 * | 54.1 * | 53.3 * | 7 | 39 | 2.5 |
| Funk's G. | G3258 | 58.0 * | 57.2 | . | 69.3 | 66.1 * | 47.4 * | 49.4 | 4 | 35 | 1.9 |
| Funk's G. | G3311 | 61.8 * | . | . | 77.7 * | 61.3 | 58.3 * | 49.7 | 13 | 36 | 2.1 |
| G. Harvest | H-1170 | 52.1 | 54.6 | 50.7 | 66.2 | 52.4 | 40.5 | 49.3 | -5 | 32 | 1.8 |
| G. Harvest | H-1208 | 55.3 | . | . | 64.9 | 56.8 | 47.9 * | 51.5 | 2 | 38 | 2.2 |
| G. Harvest | H-1260 | 57.2 | 57.4 | 54.5 | 71.6 * | 58.5 | 48.8 * | 50.0 | 3 | 34 | 1.5 |
| G. Harvest | H-1271 | 61.4 * | . | . | 77.8 * | 57.8 | 54.6 * | 55.4 * | 8 | 37 | 2.1 |
| G. Harvest | H-1278 | 61.0 * | 60.2 | 55.7 | 74.2 * | 63.9 | 54.1 * | 51.9 * | 9 | 33 | 1.7 |
| G. Harvest | H-1303 | 60.0 * | 58.5 | . | 69.3 | 68.5 * | 54.3 * | 48.0 | 12 | 38 | 2.1 |
| Great Lakes | G62505 | 62.4 * | . | . | 77.2 * | 73.1 * | 44.0 | 55.2 * | 6 | 35 | 1.9 |
| Great Lakes | GL2598 | 61.4 * | . | . | 73.2 * | 60.6 | 54.8 * | 57.2 * | 8 | 40 | 1.9 |
| Gries Seed | GSF275 | 62.5 * | 62 | . | 77.6 * | 60.3 | 56.1 * | 56.0 * | 7 | 35 | 1.8 |
| Gries Seed | GSF330 | 55.8 | 58.8 | . | 68.4 | 61.3 | 49.8 * | 43.7 | 14 | 37 | 2.3 |
| Kaiser-Estech | KE 220 | 57.6 | . | . | 66.3 | 63.8 | 51.5 * | 48.9 | 5 | 34 | 1.9 |
| Kaiser-Estech | KE 310 | 57.9 * | 59.7 | 55.1 | 65.0 | 65.6 * | 48.9 * | 52.3 * | 11 | 37 | 2.3 |
| King Grain | GG 2700 | 60.1 * | . | . | 72.0 * | 62.4 | 54.7 * | 51.2 | 7 | 35 | 1.3 |
| King Grain | KG 100 | 58.3 * | 59.5 | 59.7 | 67.0 | 68.5 * | 53.0 * | 44.8 | 11 | 38 | 2.7 |
| Northrup King | s19-90 | 53.3 | . | . | 71.9 * | 56.2 | 37.4 | 47.7 | -4 | 33 | 1.6 |
| Northrup King | s20-20 | 56.3 | . | . | 67.9 | 57.2 | 45.8 * | 54.4 * | -4 | 34 | 1.9 |
| Northrup King | s29-39 | 54.2 | 57.4 | . | 63.4 | 68.8 * | 41.3 | 43.2 | 12 | 35 | 2.2 |
| Northrup King | X9127 | 58.5 * | . | . | 69.6 | 64.3 | 57.6 * | 42.5 | 9 | 34 | 2.2 |
| Northern Star | NS-2291 | 54.8 | . | . | 72.8 * | 52.7 | 41.9 | 52.0 * | 0 | 33 | 1.5 |
| Northern Star | NS-2891 | 61.2 * | . | . | 72.3 * | 69.8 * | 47.7 * | 54.9 * | 7 | 35 | 1.7 |
| Pioneer | 9171 | 50.5 | 52.2 | . | 70.7 | 45.5 | 31.6 | 54.1 * | -7 | 28 | 1.3 |
| Pioneer | 9231 | 51.1 | . | . | 67.3 | 56.4 | 30.8 | 50.1 | -2 | 29 | 1.1 |
| Pioneer | 9273 | 60.5 * | 61.2 | . | 71.9 * | 66.2 * | 49.6 * | 54.2 * | 7 | 32 | 1.5 |
| Pioneer | 9301 | 57.6 | 58.7 | 56 | 70.8 | 62.9 | 40.7 | 56.1 * | 8 | 41 | 2.7 |
| Pioneer | 9341 | 61.7 * | 59.7 | . | 74.4 * | 66.3 * | 56.4 * | 49.6 | 13 | 38 | 2.0 |
| Pro-Seed | PS228 | 56.6 | . | . | 67.6 | 66.0 * | 41.7 | 50.9 | 5 | 37 | 2.5 |
| Pro-Seed | PS245 | 57.7 | . | . | 67.7 | 66.0 * | 43.5 | 53.7 * | 6 | 38 | 2.1 |
| Pro-Seed | PS321 | 58.7 * | 60.4 | . | 63.8 | 72.6 * | 48.1 * | 50.3 | 13 | 39 | 2.1 |
| Renk Seeds | RS-2292 | 54.8 | . | . | 68.8 | 60.6 | 38.4 | 51.6 * | 0 | 34 | 2.3 |
| Renk Seeds | RS-2792 | 56.3 | . | . | 66.5 | 61.0 | 44.7 * | 53.2 * | 7 | 38 | 2.1 |
| Rupp Seeds | RS2503 | 57.1 | 58.4 | . | 65.8 | 68.7 * | 45.0 * | 48.9 | 8 | 34 | 2.3 |
| Rupp Seeds | RS2525 | 59.7 * | . | . | 67.6 | 67.6 * | 56.1 * | 47.7 | 14 | 40 | 2.2 |
| Rupp Seeds | RS2544 | 52.8 | . | . | 61.5 | 64.4 | 44.9 * | 40.3 | 12 | 42 | 2.1 |
| Rupp Seeds | RS2585 | 63.8 * | . | . | 73.8 * | 71.6 * | 57.0 * | 52.8 * | 12 | 37 | 2.4 |
| Stine Seeds | 3230 | 63.8 * | 64.8 | . | 72.4 * | 69.7 * | 62.7 * | 50.4 | 13 | 37 | 2.4 |
| Terra Int. | EX 299 | 58.9 * | . | . | 69.5 | 71.6 * | 40.0 | 54.6 * | 9 | 34 | 2.2 |
| Terra Int. | MEDALIST | 63.2 * | 60.7 | 56.3 | 74.7 * | 70.1 * | 55.4 * | 52.8 * | 6 | 38 | 2.5 |
| Terra Int. | SPRINT | 52.4 | 55.1 | 53.8 | 65.8 | 58.1 | 36.1 | 49.5 | 10 | 35 | 2.1 |
| Terra Int. | WINNER | 56.6 | 57.7 | 55 | 70.4 | 59.9 | 44.9 * | 51.3 | 4 | 35 | 1.8 |
| Average | | 56.9 | 57.8 | 54.2 | 67.6 | 61.7 | 48.5 | 49.9 | 5 | 36 | 2.1 |
| Maximum | | 63.8 | 64.8 | 59.7 | 78.6 | 73.5 | 65.2 | 57.2 | 16 | 45 | 3.2 |
| Minimum | | 44.6 | 47.5 | 46.8 | 52.8 | 42.9 | 30.8 | 40.3 | -9 | 28 | 1.1 |
| CV | | 13.4% | . | . | 6.7% | 8.7% | 26.9% | 7.1% | | | |
| LSD | | 6.0 | . | . | 7.1 | 8.5 | 20.5 | 5.6 | | | |

* Denotes a yield that is not significantly less than the highest yield in the column.
† Maturities are given in days relative to Corsoy 79. Corsoy 79 reached maturity on 9/15/91.

## Table 4. Summary of Yields From the Central Testing Regions.

| Brand | Entry | All Central Locations 1991 Avg. | 90-91 Avg. | 89-91 Avg. | 1991 Ingham County | 1991 Saginaw County | 1991 Sanilac County | Maturity† (days) | Height (in) | Lodging Score |
|---|---|---|---|---|---|---|---|---|---|---|
| Public | ARCHER | 56.5 | 55.4 | . | 61.5 | 59.6 | 48.5 * | -3 | 38 | 2.1 |
| Public | BELL | 55.6 | . | . | 65.5 | 57.2 | 44.0 | -1 | 35 | 2.3 |
| Public | BSR 101 | 56.9 | 54.1 | 55.6 | 61.6 | 58.4 | 50.9 * | -3 | 37 | 1.8 |
| Public | BURLISON | 55.9 | 56.9 | 56.5 | 66.8 | 59.6 | 41.4 | 8 | 39 | 2.1 |
| Public | CENTURY 84 | 54.9 | 52.7 | 53.2 | 61.8 | 57.0 | 45.9 | 7 | 42 | 2.0 |
| Public | CHAPMAN | 60.2 | . | . | 67.4 | 63.1 * | 50.0 * | 3 | 39 | 1.7 |
| Public | CONRAD | 64.1 * | 59.2 | 59.9 | 74.2 * | 66.5 * | 51.6 * | 1 | 38 | 1.9 |
| Public | CORSOY 79 | 57.1 | 56.0 | 53.4 | 55.0 | 63.7 * | 52.5 * | 0 | 44 | 2.8 |
| Public | DIMON | 58.5 | 58.3 | . | 74.2 * | 58.8 | 42.6 | -1 | 34 | 2.0 |
| Public | E86237 | 55.2 | . | . | 58.6 | 56.0 | 51.0 * | -6 | 39 | 2.0 |
| Public | E86248 | 59.3 | . | . | 67.3 | 60.0 | 50.6 * | -2 | 38 | 2.8 |
| Public | E86315 | 57.5 | . | . | 69.0 | 56.9 | 46.7 | -1 | 38 | 2.0 |
| Public | E88080 | 59.3 | . | . | 71.1 | 61.3 | 45.7 | 2 | 40 | 2.0 |
| Public | E90010 | 47.5 | . | . | 54.8 | 52.9 | 34.8 | -5 | 37 | 2.2 |
| Public | E90029 | 58.5 | . | . | 61.2 | 64.4 * | 49.9 * | -1 | 41 | 2.4 |
| Public | E90070 | 61.6 | . | . | 73.0 * | 60.7 | 50.9 * | 7 | 39 | 2.7 |
| Public | ELGIN 87 | 58.8 | 54.6 | 56.9 | 68.5 | 61.9 | 46.1 | -1 | 35 | 2.2 |
| Public | HACK | 59.5 | 56.5 | . | 63.2 | 64.4 * | 50.8 * | 4 | 40 | 2.6 |
| Public | HARDIN | 56.4 | 55.6 | 57.0 | 56.6 | 61.8 | 50.8 * | -1 | 47 | 2.7 |
| Public | HODGSON 78 | 52.1 | 55.2 | 55.8 | 53.2 | 59.7 | 43.3 | -8 | 39 | 2.7 |
| Public | JACK | 58.6 | 57.3 | 57.8 | 68.3 | 60.0 | 47.5 | 10 | 47 | 3.2 |
| Public | KASOTA | 53.5 | . | . | 57.9 | 54.0 | 48.5 * | -7 | 35 | 2.1 |
| Public | KATO | 51.1 | 49.7 | . | 55.1 | 49.4 | 48.8 * | -9 | 37 | 1.9 |
| Public | KENWOOD | 61.2 | 56.9 | 58.9 | 67.4 | 63.1 * | 53.2 * | -1 | 39 | 2.4 |
| Public | KUNITZ | 40.2 | . | . | 55.7 | 31.3 | 33.6 | 11 | 44 | 2.9 |
| Public | PELLA 86 | 56.3 | 56.0 | 55.2 | 63.0 | 58.1 | 47.7 | 5 | 40 | 2.0 |
| Public | PRESTON | 55.9 | . | . | 63.0 | 54.2 | 50.3 * | 3 | 43 | 2.9 |
| Public | RESNIK | 54.8 | 55.5 | 55.1 | 68.3 | 54.1 | 41.9 | 9 | 38 | 1.9 |
| Public | SHERMAN | 57.9 | 57.2 | 54.7 | 71.6 * | 57.8 | 44.3 | 12 | 37 | 3.0 |
| Public | SIBLEY | 54.7 | 53.4 | 54.8 | 58.3 | 58.1 | 47.6 | -5 | 36 | 2.7 |
| Public | STURDY | 56.9 | 56.6 | 58.1 | 62.9 | 61.8 | 45.9 | -1 | 37 | 2.3 |
| Public | VINTON 81 | 50.3 | . | . | 52.8 | 54.8 | 43.3 | -1 | 40 | 2.2 |
| Public | ZANE | 58.8 | 58.2 | 58.1 | 68.6 | 58.0 | 49.9 * | 8 | 43 | 2.1 |
| Asgrow | A2234 | 58.8 | 59.1 | 58.6 | 67.0 | 57.7 | 51.6 * | -3 | 33 | 1.1 |
| Callahan | 6180 | 58.5 | 57.2 | 58.2 | 62.5 | 65.0 * | 47.9 | -8 | 37 | 1.8 |
| Callahan | 8252 | 65.2 * | 60.7 | 60.2 | 77.5 * | 65.8 * | 52.4 * | 2 | 39 | 2.1 |
| Callahan | 1170X | 59.2 | 56.6 | 57.5 | 68.0 | 60.1 | 49.6 * | -6 | 32 | 1.3 |
| Callahan | 1288X | 58.0 | 56.9 | . | 70.1 | 53.1 | 50.9 * | 4 | 33 | 1.6 |
| Callahan | 2200X | 59.7 | . | . | 67.5 | 67.7 * | 43.9 | -1 | 36 | 2.2 |
| Callahan | 2215X | 62.8 * | . | . | 71.1 | 65.0 * | 52.2 * | -1 | 37 | 1.6 |
| Callahan | 2232X | 64.8 * | . | . | 72.8 * | 66.0 * | 55.5 * | -2 | 39 | 1.9 |
| Callahan | 2244X | 60.5 | . | . | 71.7 * | 62.8 | 46.9 | 1 | 38 | 2.3 |
| Callahan | 2255X | 67.1 * | . | . | 78.6 * | 72.4 * | 50.5 * | 6 | 39 | 2.1 |
| Callahan | 9222X | 61.1 | 58.5 | 58.2 | 61.8 | 67.3 * | 54.2 * | 0 | 41 | 2.6 |
| Callahan | 9270X | 61.0 | 59.4 | 61.0 | 72.1 * | 66.2 * | 44.6 | 5 | 37 | 1.9 |
| Countrymark | EXP 17292 | 60.4 | . | . | 64.5 | 63.1 * | 53.6 * | 3 | 44 | 1.4 |
| Countrymark | FFR 193 | 59.3 | . | . | 63.2 | 62.2 | 52.5 * | -3 | 40 | 1.3 |
| Countrymark | FFR 253 | 54.5 | 54.9 | 55.6 | 61.9 | 58.6 | 42.9 | 6 | 39 | 2.1 |
| Countrymark | FFR 299 | 56.4 | . | . | 57.5 | 60.8 | 50.8 * | 9 | 43 | 2.8 |
| Dairyland | DSR-170 | 57.9 | 56.0 | 57.1 | 67.6 | 62.5 | 43.5 | -6 | 37 | 2.3 |
| Dairyland | DSR-173 | 60.9 | . | . | 68.8 | 64.8 * | 49.3 * | -7 | 36 | 1.1 |
| Dairyland | DSR-217 | 64.9 * | . | . | 70.9 | 73.0 * | 51.0 * | 2 | 38 | 2.2 |
| Dairyland | DSR-252 | 60.9 | 56.7 | 56.6 | 68.7 | 65.0 * | 49.0 * | -1 | 36 | 2.0 |
| Dairyland | DSR-262 | 57.6 | 57.1 | 57.0 | 63.9 | 61.3 | 47.6 | 5 | 40 | 2.4 |
| Dairyland | DSR-288 | 60.0 | . | . | 73.3 * | 56.2 | 50.5 * | 1 | 35 | 1.2 |
| DeKalb | CX259 | 61.8 | 58.1 | . | 71.8 * | 66.5 * | 47.2 | 4 | 40 | 2.2 |
| Dekalb | CX267 | 60.1 | . | . | 66.1 | 65.1 * | 49.2 * | 4 | 39 | 2.1 |
| Dekalb | CX298 | 56.3 | 56.6 | 54.9 | 73.0 * | 50.2 | 43.6 | 9 | 36 | 2.1 |
| Diamond | D200 | 59.6 | . | . | 62.2 | 69.1 * | 47.6 | -3 | 41 | 2.3 |
| Diamond | SC232 | 63.1 * | . | . | 74.9 * | 61.9 | 52.6 * | 2 | 37 | 2.1 |
| Diehl Fields | DF-191 | 54.5 | . | . | 56.9 | 62.0 | 44.6 | -4 | 35 | 1.8 |
| Diehl Fields | DF-231 | 59.8 | 59.7 | . | 73.9 * | 62.2 | 43.4 | 4 | 38 | 1.8 |
| | | | | | | | | | | (Cont'd) |
| Average | | 58.9 | 57.1 | 57.2 | 67.0 | 61.5 | 48.2 | 1 | 39 | 2.1 |
| LSD(.05) | | 5.0 | . | . | 7.4 | 10.0 | 8.3 | | | |

* Denotes a yield that is not significantly less than the highest yield in the column.
† Maturities are given in days relative to Corsoy 79. Corsoy 79 reached maturity on 9/22/91.

## Table 4. (Cont'd) Summary of Yields From the Central Testing Regions.

| Brand | Entry | All Central Locations 1991 Avg. | 90-91 Avg. | 89-91 Avg. | 1991 Ingham County | 1991 Saginaw County | 1991 Sanilac County | Maturity† (days) | Height (in) | Lodging Score |
|---|---|---|---|---|---|---|---|---|---|---|
| Funk's G | G3185 | 57.1 | 55.0 | 56.2 | 61.9 | 60.2 | 49.3 * | -4 | 38 | 1.9 |
| Funk's G | G3197 | 58.1 | . | . | 68.0 | 59.5 | 46.9 | -6 | 33 | 1.4 |
| Funk's G | G3232 | 56.8 | . | . | 68.4 | 56.1 | 45.9 | 7 | 44 | 2.7 |
| Funk's G | G3258 | 62.8 * | 60.7 | . | 69.3 | 64.9 * | 54.1 * | 2 | 39 | 2.1 |
| G. Harvest | H-1170 | 58.0 | 54.8 | . | 66.2 | 63.2 * | 44.6 | -6 | 36 | 2.0 |
| G. Harvest | H-1208 | 60.7 | 56.4 | 58.2 | 64.9 | 61.6 | 55.6 * | 0 | 43 | 2.2 |
| G. Harvest | H-1260 | 62.5 * | . | . | 71.6 * | 62.9 | 52.9 * | 1 | 38 | 1.8 |
| G. Harvest | H-1271 | 67.4 * | 59.4 | 58.7 | 77.8 * | 68.8 * | 55.5 * | 6 | 42 | 2.2 |
| G. Harvest | H-1278 | 60.4 | . | . | 74.2 * | 60.8 | 46.2 | 10 | 36 | 1.9 |
| G. Harvest | H-1303 | 57.2 | 60.7 | 58.5 | 69.3 | 60.2 | 41.9 | 12 | 42 | 2.3 |
| Great Lakes | GL2291 | 63.3 * | | | 71.7 * | 65.5 * | 52.5 * | 4 | 44 | 2.8 |
| Great Lakes | GL2304 | 62.9 * | 62.1 | . | 72.3 * | 66.2 * | 50.0 * | 3 | 40 | 2.1 |
| Great Lakes | GL2598 | 65.5 * | . | . | 73.2 * | 71.7 * | 51.7 * | 6 | 43 | 2.2 |
| Gries Seed | GSF275 | 63.8 * | . | . | 77.6 * | 66.7 * | 47.0 | 7 | 38 | 2.0 |
| Gries Seed | GSF330 | 51.1 | 61.6 | . | 68.4 | 49.4 | 35.4 | 12 | 42 | 2.4 |
| Jacques | J-181 | 58.3 | 56.3 | 57.4 | 61.6 | 59.7 | 53.5 * | -7 | 35 | 1.8 |
| Kaiser-Estech | KE 156 | 59.4 | 58.3 | 58.7 | 64.5 | 67.3 * | 46.4 | -6 | 38 | 1.8 |
| Kaiser-Estech | KE 220 | 61.3 | . | . | 66.3 | 70.7 * | 47.0 | 5 | 40 | 2.7 |
| King Grain | GG1800 | 59.4 | . | . | 67.7 | 59.9 | 50.7 * | -7 | 37 | 1.9 |
| King Grain | GG2700 | 62.0 | 57.6 | 58.5 | 72.0 * | 62.4 | 51.6 * | 4 | 39 | 1.3 |
| King Grain | KG100 | 56.1 | 55.6 | 56.3 | 67.0 | 59.1 | 42.1 | 11 | 42 | 2.6 |
| King Grain | KG60 | 47.8 | . | . | 54.4 | 51.7 | 37.2 | -11 | 29 | 2.1 |
| Northrup King | S19-90 | 63.8 * | 62.1 | 61.0 | 71.9 * | 66.5 * | 53.0 * | -5 | 37 | 1.4 |
| Northrup King | S20-20 | 63.7 * | . | . | 67.9 | 67.1 * | 56.3 * | -4 | 40 | 1.9 |
| Northern Star | NS-2291 | 63.3 * | . | . | 72.8 * | 65.7 * | 51.3 * | -1 | 38 | 1.6 |
| Pioneer | 9171 | 61.4 | 57.0 | . | 70.7 | 63.8 * | 49.6 * | -7 | 33 | 1.3 |
| Pioneer | 9231 | 59.0 | . | . | 67.3 | 61.7 | 48.2 * | -2 | 33 | 1.1 |
| Pioneer | 9273 | 61.8 | 60.8 | . | 71.9 * | 68.2 * | 45.4 | 3 | 37 | 1.7 |
| Pioneer | 9301 | 61.1 | 60.7 | 59.1 | 70.8 | 63.8 * | 48.8 * | 8 | 44 | 3.0 |
| Pioneer | 9341 | 56.9 | 56.2 | . | 74.4 * | 58.0 | 38.5 | 12 | 40 | 2.0 |
| Pro-Seed | PS215 | 60.2 | 59.5 | 59.2 | 62.0 | 69.1 * | 50.1 * | 6 | 37 | 2.6 |
| Pro-Seed | PS245 | 64.6 * | . | . | 67.7 | 69.7 * | 56.4 * | 6 | 45 | 2.2 |
| Renk Seeds | RS-1992 | 58.0 | . | . | 65.6 | 61.2 | 47.2 | -5 | 37 | 1.9 |
| Renk Seeds | RS-2191 | 59.4 | . | . | 67.3 | 62.8 | 48.2 * | 1 | 39 | 2.7 |
| Rupp Seeds | RS2308 | 60.0 | . | . | 66.9 | 64.3 * | 48.8 * | -2 | 36 | 1.8 |
| Rupp Seeds | RS2323 | 59.7 | 56.9 | 57.1 | 70.8 | 59.3 | 49.0 * | 1 | 39 | 2.2 |
| Rupp Seeds | RS2444 | 61.1 | 57.4 | . | 72.3 * | 61.3 | 49.5 * | 6 | 38 | 1.8 |
| Rupp Seeds | RS2503 | 56.2 | . | . | 65.8 | 57.7 | 45.3 | 7 | 39 | 2.4 |
| Sag. Valley | SVS 181 | 64.0 * | . | . | 73.1 * | 67.0 * | 51.9 * | -7 | 37 | 1.9 |
| Sag. Valley | SVS 183 | 59.0 | . | . | 67.0 | 61.4 | 48.6 * | -7 | 37 | 2.3 |
| Terra Int. | EX 299 | 60.1 | . | . | 68.9 | 61.3 | 50.1 * | 10 | 39 | 2.0 |
| Terra Int. | FLAG | 57.3 | 55.4 | 56.4 | 66.9 | 58.1 | 46.8 | -8 | 35 | 1.8 |
| Terra Int. | HURDLE | 57.4 | 50.0 | 51.1 | 63.5 | 62.2 | 46.4 | 3 | 38 | 2.4 |
| Terra Int. | MEDALIST | 61.2 | 58.9 | 59.2 | 74.7 * | 62.8 | 46.1 | 6 | 40 | 2.7 |
| Terra Int. | RUNNER III | 60.8 | . | . | 69.3 | 67.4 * | 45.7 | -5 | 36 | 1.9 |
| Terra Int. | SPRINT | 60.3 | 59.3 | 58.0 | 65.8 | 65.7 * | 49.4 * | 8 | 41 | 2.7 |
| Terra Int. | WINNER | 62.8 * | 58.4 | 58.2 | 70.4 | 66.1 * | 52.0 * | 2 | 41 | 2.3 |
| Average | | 58.9 | 57.1 | 57.2 | 67.0 | 61.5 | 48.2 | 1 | 39 | 2.1 |
| Maximum | | 67.4 | 62.1 | 61.0 | 78.6 | 73.0 | 56.4 | 12 | 47 | 3.2 |
| Minimum | | 40.2 | 49.7 | 51.1 | 52.8 | 31.3 | 33.6 | -11 | 29 | 1.1 |
| CV | | 9.1% | . | . | 6.9% | 10.2% | 10.7% | | | |
| LSD(.05) | | 5.0 | . | . | 7.4 | 10.0 | 8.3 | | | |

* Denotes a yield that is not significantly less than the highest yield in the column.
† Maturities are given in days relative to Corsoy 79. Corsoy 79 reached maturity on 9/22/91.

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Major Revision 12:91-UP-KMF-Price 75¢, For Sale Only, File 22.22 (Field Crops/Soybeans)

O-19616

# Companies with Varieties Entered in 1991 Trials

| BRAND | COMPANY ADDRESS |
|---|---|
| ASGROW | Asgrow Seed Company<br>7000 Portage Road<br>Kalamazoo, MI 49001 |
| CALLAHAN | Callahan Seeds<br>1122 East 169th Street<br>Westfield, IN 46074 |
| COUNTRYMARK | Countrymark Co-op, Inc.<br>4565 Columbus Pike<br>Box 1206<br>Delaware, OH 43015 |
| DAIRYLAND | Dairyland Seed Co., Inc.<br>P.O. Box 958<br>3570 Hwy. H<br>West Bend, WI 53095 |
| DEKALB | Dekalb Plant Genetics<br>3100 Sycamore Road<br>Dekalb, IL 60115 |
| DIAMOND | ICI Seeds, Inc.<br>Rt. 2, Box 92A<br>Carroll, IA 51401 |
| DIEHL FIELDS | Diehl Fields<br>905 South Jackson<br>Dansville, MI 48819 |
| FUNK'S G BRAND | Ciba-Geigy Seed Division<br>12275 S Sherman Lake Dr.<br>Augusta, MI 49012 |
| GOLDEN HARVEST | Sommer Bros. Seed Co.<br>P.O. Box 248<br>Pekin, IL 61554 |
| GREAT LAKES HYBRIDS | Great Lakes Hybrids<br>9915 West M-21<br>Ovid, MI 48866 |
| GRIES SEED FARM | Gries Seed Farm, Inc.<br>2348 North Fifth Street<br>Fremont, OH 43420 |
| JACQUES | Jacques Seed Company<br>720 St. Croix Street<br>Prescott, WI 54021 |
| KAISER/ESTECH | Kaiser/Estech<br>7450 Riga Hwy.,<br>P.O. Box 8<br>Riga, MI 49276 |
| KING AGRO | King Agro, Inc.<br>P.O. Box 69<br>Blissfield, MI 49228 |
| NORTHERN STAR | Northern Star<br>Box 587<br>Mendon, MI 49072 |
| NORTHRUP KING | Northrup King Co.<br>5380 Knollwood Drive<br>Lewisburg, OH 45338 |
| PIONEER | Pioneer Hi-Bred Int., Inc.<br>1000 West Jefferson St.<br>Tipton, IN 46072 |
| PRO-SEED | Pro-Seed<br>236 Sugar Street<br>P.O. Box 55<br>Blissfield, MI 49228 |
| RENK | Renk Seed Company<br>6800 Wilburn Road<br>Sun Prairie, WI 53590 |
| RUPP SEEDS | Rupp Seeds, Inc.<br>17919 County Road B<br>Wauseon, OH 43567 |
| SAGINAW VALLEY SEEDS | Saginaw Valley Seed<br>6674 Janes Road<br>Saginaw, MI 48601 |
| STINE | Stine Seed Company<br>2225 Laredo Trail<br>Adel, IA 50003 |
| TERRA | Terra International, Inc.<br>600 Fourth Street<br>Sioux City, IA 51101 |