1-1-1980

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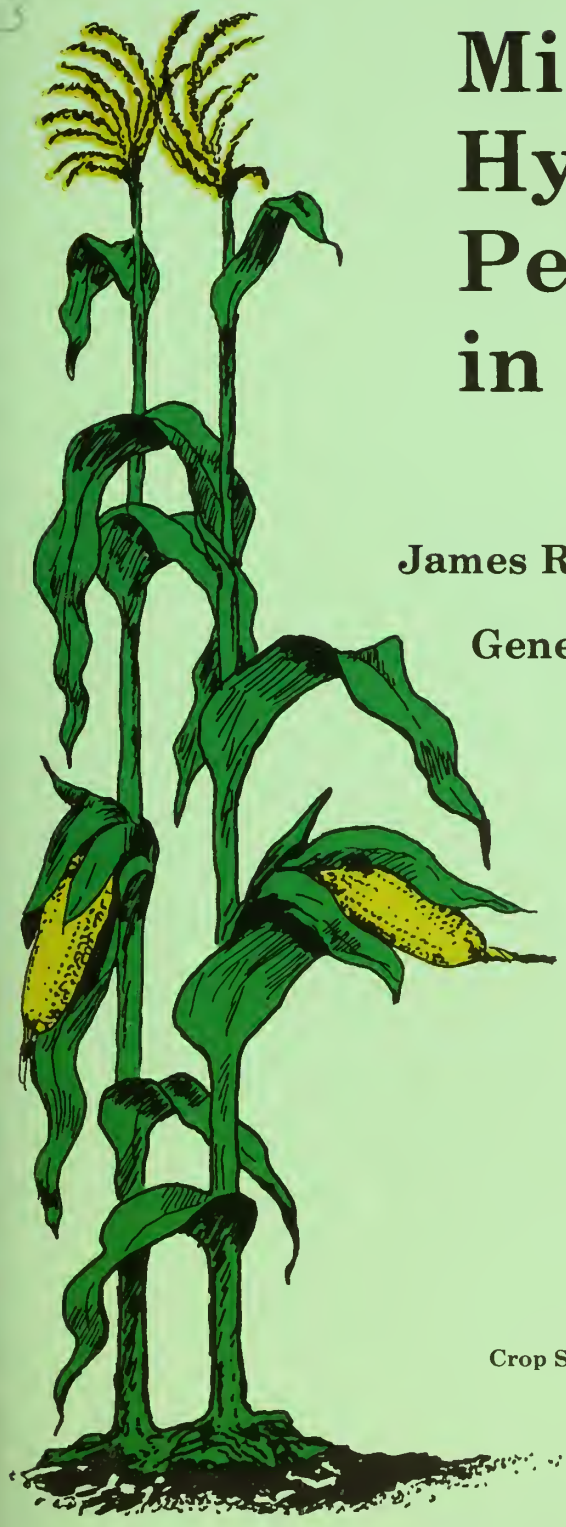
Bulletin 883 January 1980



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By
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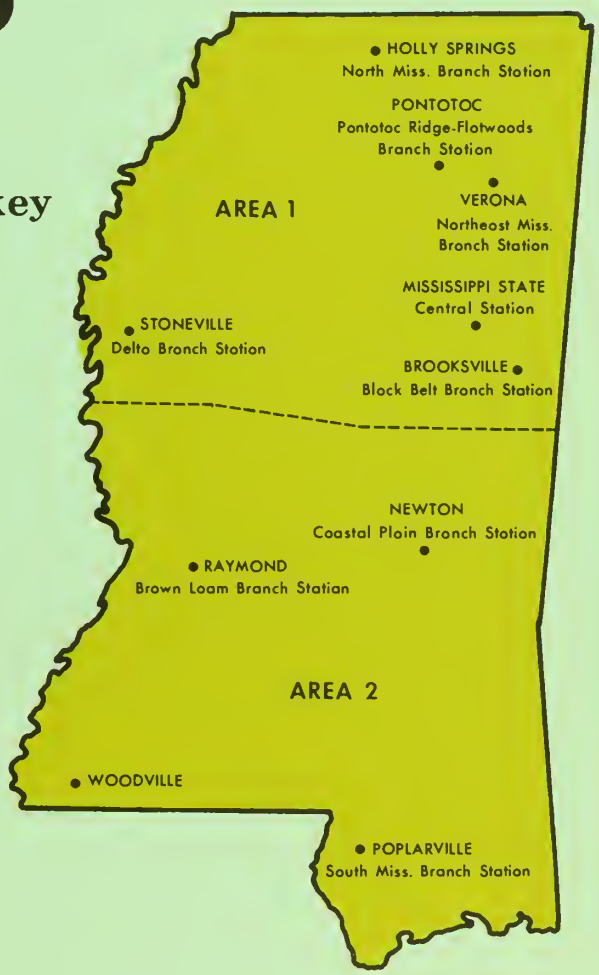


Crop Science and Engineering Research Laboratory
Delta States Area
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U.S. Department of Agriculture
Mississippi State, MS 39762
in cooperation with

MAFES MISSISSIPPI AGRICULTURAL & FORESTRY EXPERIMENT STATION
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**The test reported in Wilkinson County was on a private farm through the cooperation of T. O. Whitaker, RFD 4, Woodville, and John Dale, county agent.**

# Mississippi Hybrid Corn Performance Trials in 1979

Trials are conducted annually in Mississippi to provide farmers, seedsmen, county agents and other interested persons with information on the performance of commercially available corn hybrids. Results of the trials are provided for use by corn producers in selecting hybrids suited to their area. New hybrids may be compared with familiar hybrids and with check hybrids (Dixie 55 and Miss. 6131), which are included in all tests. Seed of Dixie 55 may be commercially available. Seed of Miss. 6131 are not commercially available.

Corn hybrids respond differently to variations in environment, and a given hybrid is not always the best under all conditions. Therefore, it is suggested that corn producers grow two or more good hybrids each year. This practice also reduces the chances for spread of a disease or insect infestation through the total corn acreage.

The yield of harvestable, good-quality grain (or silage) determines the desirability of corn hybrids. However, attributes other than yield may be extremely important in some instances. For example, resistance to a particular disease should be the prime consideration in areas where the disease occurs. That is, hybrids selected should be from those known to have resistance to diseases found in a geographic area.

All producers and/or distributors of seed corn are eligible to enter hybrids in these tests. The producers designate the hybrids they want entered in each area. Hybrids must be submitted for entry to the Mississippi Agricultural and Forestry Experiment Station by Feb. 15. A nominal fee is charged for each hybrid tested in each area to help defray costs of the test.

Three or more tests were located in each area. Trials were conducted at 10 locations in 1978 (Table 1).

The best guide to the desirability of a hybrid is its performance over a period of years at a number of locations. Therefore, three-year summaries are reported for each area.

Table 1. Location, number of entries and dates of planting and harvest of hybrid corn performance trials in Mississippi, 1979.

| County | Location | No. of entries | Planting date | Harvest date |
|---|---|---|---|---|
| Marshall | Holly Springs | 41 | May 9 | Oct. 1 |
| Pontotoc | Pontotoc | 41 | April 20 | Oct. 2 |
| Lee | Verona | 41 | May 18 | Oct. 3 |
| Noxubee | Brooksville | 41 | May 2 | Sept. 28 |
| Oktibbeha | Mississippi State | 41 | May 1 | Oct. 11 |
| Washington | Stoneville | 41 | March 28 | Sept. 7 |
| Newton | Newton | 47 | March 29 & April 19 | -------- |
| Hinds | Raymond | 47 | March 20 | Aug. 30 |
| Wilkinson | Woodville | 47 | March 21 | Aug. 29 |
| Pearl River | Poplarville | 47 | March 8 | Aug. 9 |

## Materials and Methods

The major changes initiated in the 1978 trials were continued---i.e., dividing the state into Area I and Area II and testing at populations of 16,000 and 22,000 plants per acre. A randomized complete-block experimental design with three replications at each population level was used at all locations. Each plot consisted of two rows, 38 or 40 inches apart and 200 inches long. All tests were overplanted and later thinned to either 16,000 or 22,000 plants per acre. Fertilizer was applied by each cooperator as he thought necessary, and weeds were controlled by cultivation and herbicides.

All tests were harvested with a mechanicial picker-sheller. Grain harvested from each plot was weighed, and moisture content was determined. All weights were converted to bushels per acre at 15.5% moisture.

# *Test Results Area 1*

Variability within the Stoneville tests and the high plant population test at Brooksville was so great that differences among the hybrids could not be detected. Therefore, these results are not included in this report. The planting at Pontotoc for the 16,000 plants per acre test was not thinned and these results also are not included in this summary. Root lodging was abnormally high at most locations because of the wind associated with the remnants of hurricane Frederick.

Average yields of the 41 hybrids grown at 16,000 plants per acre were 64, 43, 50 and 74 bu/A at Holly Springs, Verona, Mississippi State and Brooksville, respectively. Average yields over these four locations ranged from 48 to 74 bu/A (Table 2). Root lodging varied from 6 to 43%, and the range in stalk breakage was from 7 to 28%.

The 41 hybrids averaged 56, 43, 56 and 57 bu/A when grown at 22,000 plants per acre at Holly Springs, Verona, Pontotoc and Mississippi State, respectively. Yields over the four locations ranged from 44 to 75 bu/A (Table 3). Root lodging ranged from 9 to 48%,and stalk lodging ranged from 7 to 33%.

The three-year average yields of the 19 hybrids that have been tested at 16,000 plants/A for three years ranged from 63 to 97 with an average of 83 bu/A (Table 4). The older "check" hybrids (Dixie 55 and Miss. 6131) had the highest percentage of stalk lodging.

The three-year average yields of the 28 hybrids that have been tested for two years at 22,000 plants/A ranged from 63 to 85 bu/A (Table 5).

# *Test Results Area 2*

We planted the test at Newton twice but did not harvest the corn because the wind associated with hurricane Frederick flattened the corn. The high plant population portion of the test at Woodville was not harvested.

Average yields of the 47 hybrids grown at 16,000 plants/A were 78, 68 and 82 bu/A at Raymond, Poplarville and Woodville, respectively. Average yields over these the locations ranged from 60 to 94 bu/A (Table 6). Root lodging ranged from 3 to 43%, and stalk lodging varied from 4 to 24%.

Data on performance at the 22,000 plant population level were obtained only at Poplarville and Raymond (Table 7). The highest-yielding hybrid produced 86 bu/A compared to only 52 bu/A for the lowest-yielding entry in the test. Root lodging was higher (7 - 64%) than stalk lodging (4 - 27%).

The three-year average yields of the 28 hybrids that have been tested for three years at 16,000 plants per acre ranged from 56 to 80 bu/A (Table 8).

The three-year average yields of the 32 hybrids that have been tested for two years at 22,000 plants per acre ranged from 60 to 90 bu/A (Table 9). Root and stalk lodging varied from 7 - 45% and 6 - 35% respectively.

Table 2. Summary of performance of 41 hybrids grown at four locations (Holly Springs, Brooksville, Verona and Mississippi State) at 16,000 plants per acre in the 1979 Mississippi hybrid corn performance trials.

| Hybrid No. | Brand | Yield | Lodging root | Lodging stalk | Ear height | Days to mid silk* | Moisture | Stand |
|---|---|---|---|---|---|---|---|---|
| | | bu/A | % | % | cm | no. | % | % |
| 3145 | Pioneer | 73.9 | 14 | 8 | 177 | 73 | 20.3 | 98 |
| MSX84aa | McCurdy | 65.7 | 10 | 14 | 101 | 69 | 19.0 | 89 |
| G-4740 | Funk's | 64.8 | 12 | 21 | 94 | 75 | 20.9 | 97 |
| RA1502 | Ring Around | 64.2 | 7 | 13 | 102 | 76 | 19.6 | 96 |
| 3179 | Pioneer | 63.7 | 25 | 12 | 107 | 70 | 19.5 | 95 |
| 3147 | Pioneer | 63.6 | 23 | 15 | 107 | 71 | 20.4 | 94 |
| 19 | Coker | 63.0 | 18 | 12 | 98 | 69 | 18.5 | 96 |
| 3369A | Pioneer | 62.4 | 19 | 9 | 161 | 71 | 18.7 | 95 |
| G-4709 | Funk's | 61.4 | 26 | 11 | 99 | 73 | 20.5 | 94 |
| G-4776 | Funk's | 60.5 | 21 | 8 | 110 | 76 | 20.1 | 97 |
| XL394 | DeKalb | 59.5 | 29 | 14 | 118 | 76 | 20.1 | 99 |
| 77-59 | McCurdy | 59.5 | 15 | 12 | 102 | 77 | 20.2 | 94 |
| 9997 | Wilstar | 59.3 | 18 | 14 | 98 | 77 | 20.4 | 92 |
| G-4848 | Funk's | 59.3 | 15 | 7 | 99 | 76 | 20.9 | 95 |
| 56 | Coker | 59.0 | 9 | 19 | 111 | 76 | 20.1 | 98 |
| G-4880W | Funk's | 58.8 | 14 | 11 | 117 | 69 | 20.4 | 95 |
| XL72b | DeKalb | 58.6 | 72 | 11 | 93 | 75 | 19.0 | 95 |
| 55 | Dixie | 58.3 | 16 | 23 | 184 | 75 | 20.2 | 93 |
| T1189 | Trojan | 58.1 | 6 | 16 | 155 | 75 | 19.9 | 92 |
| XL72AA | DeKalb | 58.0 | 29 | 8 | 99 | 70 | 19.3 | 93 |
| PX95 | Northrup King | 58.0 | 28 | 13 | 114 | 76 | 20.4 | 90 |
| PX87 | Northrup King | 57.7 | 9 | 11 | 98 | 73 | 20.3 | 92 |
| RA2601 | Ring Around | 57.5 | 27 | 9 | 96 | 68 | 21.3 | 89 |
| XL390B | DeKalb | 57.5 | 15 | 11 | 177 | 67 | 19.9 | 91 |
| 22 | Coker | 56.9 | 17 | 10 | 99 | 71 | 19.7 | 93 |
| G-4574 | Funk's | 56.6 | 27 | 12 | 102 | 76 | 19.1 | 94 |
| 77 | Coker | 56.3 | 26 | 12 | 124 | 73 | 20.8 | 92 |
| RA3602 | Ring Around | 56.2 | 15 | 14 | 110 | 69 | 19.8 | 91 |
| G-4611 | Funk's | 56.0 | 29 | 11 | 102 | 70 | 19.7 | 90 |
| PX707 | Northrup King | 54.5 | 28 | 9 | 159 | 77 | 20.0 | 98 |
| 6131 | Miss | 54.5 | 28 | 28 | 123 | 73 | 19.2 | 92 |
| USS1010 | Agri-Chemicals | 54.0 | 26 | 10 | 163 | 74 | 19.3 | 92 |
| PX79 | Northrup King | 53.8 | 35 | 10 | 102 | 69 | 19.1 | 95 |
| G-4507 | Funk's | 53.1 | 31 | 17 | 101 | 70 | 19.3 | 95 |
| XL78 | DeKalb | 52.1 | 18 | 17 | 91 | 76 | 19.6 | 91 |
| G-795W | Funk's | 51 | 21 | 25 | 164 | 68 | 19.9 | 97 |
| TXS114 | Trojan | 50.9 | 8 | 22 | 92 | 74 | 17.9 | 95 |
| PX723 | Northrup King | 50.4 | 24 | 10 | 109 | 76 | 19.7 | 104 |
| TXS115A | Trojan | 50.1 | 22 | 15 | 101 | 69 | 18.8 | 92 |
| TXS119A | Trojan | 48.1 | 15 | 13 | 92 | 70 | 19.0 | 99 |
| XL80 | DeKalb | 47.5 | 43 | 9 | 92 | 74 | 19.7 | 89 |
| Mean | | 57.7 | 20 | 13 | 116 | 73 | 19.8 | 94 |

CV = 17.12%
LSD (.05) = 13.1 bu/A

*Data for Mississippi State Only

Table 3. Summary of performance of 41 hybrids grown at four locations (Holly Springs, Pontotoc, Mississippi State and Verona) at 22,000 plants per acre in the 1979 Mississippi hybrid corn performance trials.

| Hybrid No. | Brand | Yield | Lodging root | Lodging stalk | Ear height | Days to mid silk* | Moisture | Stand |
|---|---|---|---|---|---|---|---|---|
| | | bu/A | % | % | cm | no. | % | % |
| 3145 | Pioneer | 74.5 | 10 | 15 | 118 | 72 | 19.3 | 92 |
| RA1502 | Ring Around | 70.2 | 16 | 22 | 104 | 69 | 18.5 | 98 |
| 3147 | Pioneer | 65.6 | 22 | 27 | 112 | 75 | 18.8 | 91 |
| G-4740 | Funk's | 63.5 | 19 | 22 | 98 | 73 | 20.2 | 92 |
| MSX84aa | McCurdy | 63.0 | 9 | 18 | 104 | 72 | 19.0 | 95 |
| 22 | Coker | 62.6 | 10 | 13 | 107 | 70 | 19.2 | 95 |
| 3369A | Pioneer | 61.1 | 20 | 19 | 105 | 77 | 17.6 | 90 |
| XL394 | DeKalb | 60.9 | 25 | 13 | 126 | 77 | 20.2 | 92 |
| G-4776 | Funk's | 60.4 | 22 | 16 | 121 | 69 | 18.7 | 95 |
| XL390B | DeKalb | 60.2 | 18 | 14 | 114 | 73 | 19.5 | 87 |
| PX95 | Northrup King | 59.7 | 28 | 13 | 121 | 74 | 18.9 | 93 |
| G-4709 | Funk's | 59.6 | 23 | 18 | 107 | 72 | 19.0 | 93 |
| 3179 | Pioneer | 58.4 | 17 | 24 | 113 | 70 | 18.5 | 95 |
| XL72b | DeKalb | 57.7 | 15 | 17 | 99 | 70 | 18.0 | 94 |
| TXS115A | Trojan | 57.7 | 23 | 23 | 107 | 70 | 18.3 | 93 |
| PX707 | Northrup King | 57.3 | 23 | 14 | 114 | 73 | 18.8 | 96 |
| T1189 | Trojan | 57.2 | 13 | 32 | 96 | 73 | 18.9 | 95 |
| PX87 | Northrup King | 56.7 | 19 | 13 | 101 | 75 | 19.5 | 90 |
| 19 | Coker | 56.7 | 20 | 23 | 105 | 67 | 17.2 | 94 |
| 77-59 | McCurdy | 55.5 | 33 | 13 | 102 | 77 | 18.9 | 95 |
| 56 | Coker | 55.1 | 15 | 19 | 112 | 70 | 19.0 | 92 |
| PX79 | Northrup King | 54.6 | 30 | 11 | 107 | 74 | 18.0 | 94 |
| PX723 | Northrup King | 54.2 | 25 | 11 | 114 | 70 | 24.0 | 92 |
| 9997 | Wilstar | 53.6 | 21 | 17 | 100 | 75 | 20.2 | 85 |
| G-4507 | Funk's | 53.4 | 24 | 16 | 105 | 75 | 18.6 | 90 |
| 6131 | Miss | 53.4 | 39 | 28 | 127 | 79 | 19.3 | 91 |
| G-4574 | Funk's | 53.3 | 25 | 20 | 108 | 76 | 18.5 | 91 |
| G-4611 | Funk's | 52.6 | 23 | 20 | 109 | 77 | 18.3 | 91 |
| RA2601 | Ring Around | 52.6 | 25 | 16 | 102 | 70 | 20.5 | 86 |
| G-795W | Funk's | 52.4 | 28 | 25 | 113 | 69 | 18.9 | 91 |
| G-4880W | Funk's | 52.2 | 13 | 19 | 115 | 76 | 19.6 | 89 |
| USS1010 | Agri-Chemicals | 52.1 | 29 | 16 | 105 | 72 | 17.9 | 92 |
| RA3602 | Ring Around | 51.9 | 28 | 16 | 115 | 77 | 19.5 | 87 |
| XL72AA | DeKalb | 51.6 | 26 | 17 | 102 | 67 | 18.0 | 93 |
| 55 | Dixie | 51.1 | 38 | 27 | 136 | 67 | 17.8 | 91 |
| XL78 | DeKalb | 50.6 | 13 | 22 | 96 | 77 | 18.5 | 93 |
| XL80 | DeKalb | 49.6 | 48 | 9 | 99 | 68 | 19.0 | 95 |
| 77 | Coker | 49.4 | 31 | 14 | 126 | 74 | 19.6 | 86 |
| TSX114 | Trojan | 48.9 | 13 | 33 | 102 | 73 | 18.7 | 90 |
| TXS119A | Trojan | 46.7 | 12 | 18 | 100 | 72 | 18.2 | 92 |
| G-4848 | Funk's | 43.9 | 22 | 7 | 98 | 77 | 20.1 | 90 |
| Mean | | 56.1 | 22 | 18 | 109 | 73 | 19.0 | 92 |

CV = 19.99%
LSD (.05) = 14.7 bu/A

*Data for Mississippi State Only

Table 4. Three-year (1977-79) average performance of 19 hybrids grown in Area I at 16,000 plants per acre in the Mississippi hybrid corn corn performance trials.

| Hybrid | Brand | Yield | Lodging root | Lodging stalk | Ear height | Days to mid silk | Moisture | Stand |
|---|---|---|---|---|---|---|---|---|
| no. | | bu/A | % | % | cm | no. | % | % |
| 3146 | Pioneer | 97.2 | 9 | 12 | 127 | 76 | 18.2 | 94 |
| 9997 | Wilstar | 94.8 | 7 | 11 | 116 | 75 | 18.4 | 95 |
| XL394 | DeKalb | 94.2 | 11 | 11 | 132 | 77 | 18.5 | 99 |
| 3145 | Pioneer | 93.4 | 5 | 7 | 125 | 74 | 18.1 | 93 |
| 55 | Dixie | 89.2 | 9 | 27 | 149 | 78 | 18.4 | 89 |
| G-4880W | Funk's | 88.6 | 6 | 11 | 128 | 78 | 18.2 | 99 |
| 6131 | Miss | 87.4 | 12 | 36 | 145 | 78 | 17.4 | 95 |
| 77 | Coker | 85.7 | 10 | 14 | 145 | 78 | 18.1 | 95 |
| 22 | Coker | 84.1 | 6 | 8 | 123 | 73 | 16.6 | 94 |
| G-795W | Funk's | 83.3 | 9 | 21 | 123 | 76 | 18.1 | 95 |
| 3369A | Pioneer | 82.4 | 6 | 9 | 112 | 73 | 16.2 | 95 |
| 56 | Coker | 81.6 | 4 | 14 | 124 | 77 | 18.1 | 96 |
| G-4776 | Funk's | 80.4 | 7 | 8 | 128 | 75 | 17.7 | 96 |
| XL72b | DeKalb | 79.7 | 4 | 9 | 103 | 73 | 16.9 | 92 |
| G-4611 | Funk's | 76.9 | 15 | 11 | 114 | 73 | 17.1 | 89 |
| TXS114 | Trojan | 75.4 | 3 | 17 | 115 | 74 | 15.7 | 94 |
| G-4507 | Funk's | 71.4 | 10 | 14 | 118 | 73 | 16.9 | 97 |
| TXS115A | Trojan | 70.1 | 9 | 13 | 115 | 72 | 16.6 | 93 |
| TXS119A | Trojan | 62.7 | 5 | 11 | 111 | 72 | 16.3 | 97 |
| Mean | | 83.1 | 8 | 14 | 124 | 75 | 17.5 | 95 |

Table 5. Two-year (1978-79) average performance of 28 hybrids grown in Area I at 22,000 plants per acre in the Mississippi hybrid corn performance trials.

| Hybrid | Brand | Yield | Lodging root | Lodging stalk | Ear height | Days to mid silk | Moisture | Stand |
|---|---|---|---|---|---|---|---|---|
| no. | | bu/A | % | % | cm | no. | % | % |
| 3145 | Pioneer | 84.6 | 6 | 11 | 128 | 76 | 17.7 | 96 |
| MSX84aa | McCurdy | 82.7 | 5 | 17 | 116 | 73 | 17.4 | 94 |
| 3147 | Pioneer | 80.1 | 12 | 19 | 123 | 75 | 17.1 | 92 |
| 9997 | Wilstar | 79.4 | 14 | 15 | 113 | 75 | 18.4 | 90 |
| RA 1502 | Ring Around | 79.4 | 9 | 20 | 113 | 73 | 17.2 | 95 |
| XL72b | DeKalb | 77.0 | 9 | 12 | 107 | 73 | 16.5 | 97 |
| XL78 | DeKalb | 76.5 | 8 | 16 | 106 | 73 | 17.1 | 94 |
| G-4776 | Funk's | 76.4 | 12 | 14 | 131 | 77 | 17.4 | 97 |
| 3179 | Pioneer | 76.0 | 12 | 25 | 125 | 76 | 16.9 | 96 |
| 22 | Coker | 75.8 | 6 | 15 | 116 | 75 | 17.2 | 96 |
| XL394 | DeKalb | 74.3 | 21 | 13 | 137 | 77 | 18.2 | 94 |
| G-4507 | Funk's | 74.3 | 11 | 16 | 113 | 74 | 17.2 | 95 |
| TXS115A | Trojan | 73.9 | 16 | 18 | 116 | 73 | 16.6 | 92 |
| G-4709 | Funk's | 73.8 | 15 | 16 | 115 | 74 | 17.4 | 94 |
| 3369A | Pioneer | 73.7 | 11 | 25 | 115 | 72 | 16.5 | 90 |
| RA 2601 | Ring Around | 73.1 | 16 | 21 | 119 | 76 | 17.9 | 91 |
| PX95 | Northrup King | 72.3 | 17 | 10 | 134 | 76 | 17.4 | 92 |
| 56 | Coker | 70.8 | 8 | 15 | 125 | 77 | 17.7 | 95 |
| PX723 | Northrup King | 70.5 | 16 | 15 | 126 | 75 | 19.9 | 92 |
| G-4574 | Funk's | 70.1 | 14 | 20 | 119 | 72 | 16.8 | 94 |
| G-4611 | Funk's | 69.9 | 15 | 18 | 119 | 75 | 17.2 | 93 |
| G-4880W | Funk's | 69.6 | 8 | 16 | 126 | 78 | 17.8 | 92 |
| TXS114 | Trojan | 66.9 | 7 | 24 | 111 | 75 | 17.2 | 91 |
| 55 | Dixie | 65.6 | 22 | 25 | 144 | 77 | 16.9 | 92 |
| G-795W | Funk's | 65.6 | 18 | 24 | 124 | 77 | 17.6 | 93 |
| TXS119A | Trojan | 65.3 | 7 | 16 | 109 | 75 | 16.7 | 95 |
| 6131 | Miss | 64.7 | 22 | 20 | 133 | 77 | 18.1 | 94 |
| 77 | Coker | 62.7 | 20 | 14 | 142 | 77 | 17.9 | 91 |
| Mean | | 72.8 | 13 | 18 | 122 | 75 | 17.4 | 94 |

Table 6. Summary of performance of 47 hybrids grown at three locations (Poplarvill Raymond and Woodville) at 16,000 plants per acre in the 1979 Mississippi hybrid corn performance trials.

| Hybrid | Brand | Yield | Lodging root | Lodging stalk | Ear height | Mois-ture | Stan |
|---|---|---|---|---|---|---|---|
| no. | | bu/A | % | % | cm. | % | % |
| XL395a | DeKalb | 93.6 | 21 | 7 | 109 | 20.4 | 101 |
| 3147 | Pioneer | 86.8 | 14 | 11 | 113 | 17.8 | 98 |
| UCl2052 | Paymaster | 86.2 | 33 | 10 | 108 | 20.0 | 100 |
| UC8951 | Paymaster | 85.5 | 5 | 5 | 105 | 18.1 | 100 |
| MSX84aa | McCurdy | 84.5 | 5 | 11 | 104 | 17.6 | 98 |
| XA730C | Pioneer | 83.8 | 14 | 10 | 100 | 17.4 | 100 |
| G-4848 | Funk's | 83.6 | 12 | 5 | 97 | 20.8 | 97 |
| PX95 | Northrup King | 83.6 | 9 | 6 | 116 | 18.9 | 97 |
| 3369A | Pioneer | 82.6 | 5 | 6 | 92 | 17.9 | 99 |
| PX87 | Northrup King | 82.4 | 3 | 8 | 96 | 18.2 | 98 |
| 3145 | Pioneer | 82.3 | 6 | 5 | 104 | 18.0 | 99 |
| 67-14 | McCurdy | 82.3 | 35 | 15 | 102 | 20.0 | 98 |
| 76-25 | McCurdy | 82.0 | 14 | 10 | 125 | 20.5 | 99 |
| RA1502 | Ring Around | 81.9 | 1 | 4 | 98 | 17.0 | 100 |
| G-4740 | Funk's | 81.5 | 3 | 7 | 89 | 18.9 | 99 |
| 55 | Dixie | 80.5 | 26 | 24 | 129 | 18.4 | 99 |
| 19 | Coker | 79.2 | 4 | 4 | 98 | 17.0 | 98 |
| 3040 | Pioneer | 78.4 | 19 | 8 | 105 | 20.1 | 99 |
| X5407 | Pioneer | 77.8 | 16 | 5 | 93 | 17.1 | 99 |
| XL80b | DeKalb | 77.7 | 26 | 10 | 94 | 18.7 | 98 |
| G-4709 | Funk's | 77.3 | 12 | 10 | 102 | 18.0 | 97 |
| 3030 | Pioneer | 77.2 | 20 | 13 | 104 | 19.7 | 100 |
| G-4574 | Funk's | 77.0 | 14 | 9 | 101 | 18.0 | 97 |
| 22 | Coker | 76.8 | 4 | 11 | 97 | 18.0 | 97 |
| MSX86A | McCurdy | 76.6 | 5 | 8 | 89 | 18.1 | 95 |
| XL390B | DeKalb | 76.2 | 9 | 18 | 116 | 18.1 | 99 |
| 77 | Coker | 74.6 | 17 | 9 | 127 | 19.1 | 100 |
| PX707 | Northrup King | 74.2 | 16 | 11 | 104 | 16.4 | 98 |
| RA2601 | Ring Around | 73.1 | 19 | 10 | 102 | 19.9 | 95 |
| T1189 | Trojan | 72.7 | 6 | 10 | 93 | 16.8 | 97 |
| TXS115A | Trojan | 72.4 | 5 | 5 | 103 | 16.6 | 99 |
| G-4880W | Funk's | 71.4 | 10 | 7 | 108 | 20.0 | 99 |
| XL394 | DeKalb | 71.1 | 30 | 10 | 103 | 18.6 | 97 |
| G-4776 | Funk's | 71.1 | 16 | 14 | 103 | 18.5 | 100 |
| G-795W | Funk's | 69.9 | 25 | 13 | 114 | 18.4 | 101 |
| G-5945 | Funk's | 69.0 | 29 | 10 | 114 | 19.9 | 97 |
| G-4949A | Funk's | 68.8 | 22 | 18 | 120 | 19.4 | 97 |
| TXS114 | Trojan | 68.3 | 2 | 13 | 97 | 16.7 | 98 |
| 9997 | Wilstar | 67.8 | 28 | 14 | 96 | 19.9 | 93 |
| RA3602 | Ring Around | 67.0 | 9 | 7 | 104 | 17.0 | 95 |
| XL80 | DeKalb | 65.9 | 26 | 13 | 92 | 18.2 | 98 |
| TXS119A | Trojan | 65.7 | 7 | 6 | 92 | 17.0 | 99 |
| PX79 | Northrup King | 64.8 | 9 | 3 | 98 | 16.6 | 99 |
| 6131 | Miss | 62.2 | 43 | 25 | 123 | 18.2 | 102 |
| PX723 | Northrup King | 61.1 | 12 | 10 | 101 | 16.5 | 92 |
| 56 | Coker | 61.0 | 13 | 11 | 107 | 19.0 | 99 |
| USS2010 | Agri-Chemicals | 60.4 | 5 | 9 | 86 | 16.9 | 98 |
| Mean | | 75.8 | 15 | 10 | 104 | 18.3 | 98 |

CV = 13.62%
LSD(.05) = 14.6 bu/A

Table 7. Summary of performance of 47 hybrids grown at two locations (Poplarville and Raymond) at 22,000 plants per acre in the 1979 Mississippi hybrid corn performance trials.

| Hybrid | Brand | Yield | Lodging | | Ear | Mois- | Stand |
|---|---|---|---|---|---|---|---|
| | | | Root | Stalk | Height | ture | |
| no. | | bu/A | % | % | cm. | % | % |
| MSX84aa | McCurdy | 86.4 | 9 | 9 | 96 | 17.5 | 97 |
| G-4740 | Funk's | 85.9 | 15 | 7 | 93 | 19.9 | 99 |
| UCl2052 | Paymaster | 84.9 | 59 | 8 | 102 | 20.7 | 99 |
| UC8951 | Paymaster | 84.2 | 8 | 9 | 100 | 16.7 | 99 |
| 3147 | Pioneer | 82.9 | 16 | 7 | 105 | 18.3 | 95 |
| 19 | Coker | 82.8 | 20 | 8 | 99 | 16.6 | 100 |
| PX87 | Northrup King | 82.7 | 9 | 13 | 92 | 18.4 | 96 |
| 3145 | Pioneer | 81.3 | 11 | 11 | 98 | 18.7 | 97 |
| 3040 | Pioneer | 79.5 | 33 | 10 | 105 | 18.5 | 99 |
| XL395a | DeKalb | 79.1 | 25 | 7 | 102 | 20.4 | 96 |
| G-4709 | Funk's | 77.6 | 24 | 9 | 97 | 17.2 | 97 |
| RA1502 | Ring Around | 77.1 | 13 | 15 | 89 | 18.1 | 98 |
| MSX86A | McCurdy | 77.0 | 23 | 12 | 102 | 19.0 | 98 |
| TXS115A | Trojan | 76.8 | 25 | 12 | 98 | 16.6 | 100 |
| PX707 | Northrup King | 75.9 | 31 | 15 | 103 | 18.7 | 91 |
| XA730C | Pioneer | 75.3 | 18 | 9 | 95 | 17.7 | 100 |
| 76-25 | McCurdy | 75.1 | 30 | 21 | 120 | 19.8 | 100 |
| RA2601 | Ring Around | 74.9 | 36 | 13 | 101 | 19.8 | 94 |
| T1189 | Trojan | 74.8 | 7 | 25 | 89 | 17.8 | 96 |
| PX95 | Northrup King | 73.5 | 13 | 12 | 118 | 18.7 | 95 |
| 9997 | Wilstar | 73.2 | 34 | 11 | 105 | 20.7 | 91 |
| 67-14 | McCurdy | 72.1 | 55 | 19 | 95 | 20.0 | 96 |
| XL394 | DeKalb | 72.1 | 37 | 8 | 104 | 18.4 | 95 |
| X5407 | Pioneer | 70.4 | 17 | 11 | 88 | 16.2 | 99 |
| XL80b | DeKalb | 70.4 | 41 | 12 | 88 | 17.6 | 95 |
| 3369A | Pioneer | 69.9 | 10 | 12 | 90 | 16.3 | 96 |
| TXS114 | Trojan | 69.3 | 14 | 24 | 89 | 16.4 | 100 |
| G-4949A | Funk's | 68.7 | 35 | 14 | 105 | 20.5 | 99 |
| G-4574 | Funk's | 68.6 | 28 | 19 | 97 | 17.4 | 95 |
| XL390B | DeKalb | 68.5 | 25 | 18 | 112 | 18.8 | 97 |
| G-4848 | Funk's | 68.5 | 30 | 4 | 93 | 20.8 | 90 |
| PX723 | Northrup King | 68.1 | 38 | 9 | 107 | 17.9 | 97 |
| 56 | Coker | 67.6 | 14 | 20 | 109 | 18.9 | 94 |
| 22 | Coker | 66.5 | 11 | 17 | 97 | 18.6 | 98 |
| PX79 | Northrup King | 64.8 | 25 | 6 | 95 | 17.7 | 99 |
| G-795W | Funk's | 64.0 | 47 | 17 | 104 | 18.4 | 95 |
| G-5945 | Funk's | 64.0 | 43 | 13 | 110 | 19.6 | 96 |
| 55 | Dixie | 63.0 | 33 | 27 | 121 | 19.2 | 94 |
| 3030 | Pioneer | 62.8 | 35 | 10 | 116 | 19.8 | 94 |
| TXS119A | Trojan | 62.5 | 13 | 15 | 95 | 16.9 | 91 |
| G-4776 | Funk's | 62.2 | 19 | 17 | 104 | 18.0 | 96 |
| 6131 | Miss | 60.2 | 64 | 16 | 129 | 18.3 | 95 |
| G-4880W | Funk's | 59.7 | 35 | 8 | 100 | 19.0 | 96 |
| USS2010 | Agri-Chemicals | 59.5 | 15 | 15 | 83 | 18.4 | 95 |
| 77 | Coker | 59.0 | 39 | 11 | 124 | 20.7 | 96 |
| RA3602 | Ring Around | 57.8 | 18 | 13 | 105 | 18.3 | 87 |
| XL80 | DeKalb | 52.0 | 68 | 18 | 90 | 17.6 | 93 |
| Mean | | 71.5 | 27 | 13 | 101 | 18.5 | 96 |

CV = 14.27%
LSD(.05) = 13.9 bu/A

Table 8. Three-year (1977-79) average performance of 24 hybrids grown in Area II at 16,000 plants per acre in the Mississippi hybrid corn performance trials.

| Hybrid | Brand | Yield | Lodging | | Ear | Mois- | Stand |
|---|---|---|---|---|---|---|---|
| | | | root | stalk | height | ture | |
| no. | | bu/A | % | % | cm. | % | % |
| UC12052 | Paymaster | 79.5 | 14 | 4 | 108 | 20.5 | 94 |
| 3147 | Pioneer | 73.8 | 5 | 13 | 104 | 19.0 | 96 |
| RA1502 | Ring Around | 72.7 | 0 | 3 | 96 | 18.3 | 96 |
| PX95 | Northrup King | 71.2 | 3 | 5 | 117 | 20.0 | 96 |
| 3030 | Pioneer | 71.2 | 10 | 9 | 106 | 20.2 | 97 |
| 3145 | Pioneer | 70.2 | 3 | 9 | 103 | 19.1 | 95 |
| 55 | Dixie | 69.7 | 13 | 21 | 128 | 19.7 | 94 |
| 22 | Coker | 68.7 | 2 | 14 | 99 | 16.5 | 94 |
| 77 | Coker | 68.5 | 7 | 7 | 124 | 19.3 | 96 |
| RA2601 | Ring Around | 67.8 | 10 | 10 | 101 | 20.8 | 92 |
| 3369A | Pioneer | 66.9 | 2 | 11 | 87 | 17.9 | 95 |
| XL394 | DeKalb | 66.8 | 16 | 8 | 113 | 19.6 | 96 |
| G-4949A | Funk's | 65.0 | 12 | 9 | 118 | 19.4 | 95 |
| G-5945 | Funk's | 63.4 | 16 | 8 | 119 | 19.6 | 94 |
| TXS114 | Trojan | 63.3 | 1 | 19 | 98 | 16.5 | 93 |
| G-4880W | Funk's | 63.3 | 5 | 7 | 106 | 19.4 | 97 |
| G-795W | Funk's | 62.9 | 15 | 16 | 108 | 19.2 | 96 |
| 9997 | Wilstar | 61.6 | 13 | 15 | 99 | 20.7 | 94 |
| PX79 | Northrup King | 60.7 | 4 | 9 | 98 | 17.0 | 94 |
| TXS115A | Trojan | 60.1 | 3 | 12 | 100 | 16.0 | 93 |
| G-4776 | Funk's | 58.8 | 6 | 12 | 114 | 17.1 | 94 |
| 56 | Coker | 57.0 | 6 | 12 | 110 | 19.5 | 95 |
| TXS119A | Trojan | 56.7 | 3 | 9 | 94 | 17.4 | 95 |
| 6131 | Miss | 55.9 | 18 | 23 | 122 | 19.1 | 95 |
| MEAN | | 65.8 | 8 | 11 | 107 | 18.8 | 95 |

Table 9. Two-year (1978-79) average performance of 32 hybrids grown in Area II at 22,000 plants per acre in the Mississippi hybrid corn performance trials.

| Hybrid no. | Brand | Yield bu/A | Lodging root % | Lodging stalk % | Ear height cm. | Moisture % | Stand % |
|---|---|---|---|---|---|---|---|
| 3147 | Pioneer | 89.8 | 15 | 8 | 107 | 17.8 | 91 |
| UC12052 | Paymaster | 89.2 | 37 | 6 | 111 | 20.0 | 92 |
| 3145 | Pioneer | 83.7 | 7 | 12 | 104 | 17.9 | 93 |
| 3040 | Pioneer | 83.0 | 25 | 9 | 114 | 18.7 | 94 |
| XL394 | DeKalb | 81.7 | 27 | 12 | 116 | 18.7 | 92 |
| 22 | Coker | 81.5 | 10 | 18 | 107 | 17.8 | 94 |
| RA1502 | Ring Around | 80.8 | 9 | 14 | 99 | 17.3 | 94 |
| RA2601 | Ring Around | 80.8 | 21 | 21 | 109 | 19.3 | 92 |
| G-4574 | Funk's | 79.9 | 18 | 23 | 108 | 17.0 | 91 |
| 67-14 | McCurdy | 79.8 | 33 | 25 | 102 | 19.0 | 89 |
| 3369A | Pioneer | 79.3 | 9 | 18 | 98 | 16.3 | 93 |
| TXS115A | Trojan | 78.7 | 16 | 16 | 105 | 16.3 | 92 |
| G-4709 | Funk's | 78.4 | 21 | 11 | 105 | 17.1 | 94 |
| TXS114 | Trojan | 77.2 | 10 | 21 | 99 | 16.4 | 93 |
| 9997 | Wilstar | 77.1 | 26 | 13 | 109 | 19.4 | 90 |
| 3030 | Pioneer | 76.5 | 25 | 10 | 124 | 19.6 | 92 |
| 76-25 | McCurdy | 76.4 | 17 | 21 | 131 | 19.3 | 97 |
| PX95 | Northrup King | 76.2 | 8 | 20 | 125 | 17.8 | 91 |
| PX723 | Northrup King | 76.2 | 23 | 17 | 122 | 17.3 | 91 |
| G-4949A | Funk's | 73.0 | 26 | 12 | 115 | 19.4 | 96 |
| G-795W | Funk's | 72.9 | 28 | 20 | 113 | 17.9 | 92 |
| G-4776 | Funk's | 72.1 | 11 | 19 | 117 | 17.8 | 93 |
| 77 | Coker | 71.2 | 24 | 14 | 136 | 19.4 | 93 |
| RA3602 | Ring Around | 70.7 | 10 | 22 | 112 | 17.8 | 86 |
| 55 | Dixie | 70.2 | 21 | 34 | 129 | 18.4 | 91 |
| PX79 | Northrup King | 70.0 | 19 | 12 | 107 | 17.1 | 94 |
| 56 | Coker | 68.2 | 8 | 24 | 118 | 18.7 | 91 |
| XL80 | DeKalb | 66.4 | 45 | 13 | 95 | 17.0 | 91 |
| G-4880W | Funk's | 64.5 | 23 | 10 | 111 | 18.8 | 94 |
| TXS119A | Trojan | 63.3 | 9 | 18 | 99 | 16.6 | 89 |
| G-5945 | Funk's | 62.4 | 32 | 19 | 123 | 18.4 | 92 |
| 6131 | Miss | 60.1 | 36 | 35 | 136 | 17.0 | 91 |
| MEAN | | 75.5 | 20 | 17 | 113 | 18.0 | 92 |

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