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1967-1969 PERFORMANCE OF CORN HYBRIDS IN ILLINOIS



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PERFORMANCE OF CORN HYBRIDS IN ILLINOIS, 1967-1969

CORN YIELDS IN ILLINOIS in 1969 are expected to average 97 bushels per acre, three bushels less than the record set in 1967. An erratic weather pattern over the state resulted in a myriad of difficulties. Late spring rains in northern, southern, and western areas of the state interfered with fertilizer applications, and prevented timely cultivation for weed control. East Central Illinois had a dry season. The deep, fertile soils of this region have a great capacity to hold water and carried the corn crop through with little or no yield reduction.

There were occasional fields that had poor pollination. The corn ears produced had scattered grains. The exact cause for the poor pollination is not known, however extra high populations causing light, nutrient, and moisture stress has been attributed the major influence. Greater care is needed when selecting hybrids for tolerance to the intended population.

PLAN OF THE TESTS

Selection of entries. Each year all producers of hybrid seed corn in Illinois and surrounding states are invited to enter hybrids in the Illinois performance trials. To finance this testing program, a fee is charged for each hybrid entered by seed companies. Most of these hybrids are commercially available, but seed companies occasionally enter experimental hybrids for testing.

Number and location of tests. In 1969, 18 major tests were carried on at 11 locations in the state (see map on page 7). These sites were chosen to represent major soil and climatic areas of the state.

Hybrids. This year over 350 hybrids were tested, including entries from 43 companies. The seed companies supplied seed of their entries.

Field-plot design. Each test was set up in either randomized complete block or lattice designs. These arrangements are practical and efficient and give each hybrid an equal chance to show its merits.

Planting methods. All trials were planted by machine except those at Woodstock and Augusta, which were planted by hand to obtain an earlier planting. All test fields except those at DeKalb, Elwood, Stanford, Urbana, Brownstown, and Carbondale were part of larger

corn fields and were surrounded by farmers' corn. Plots were kept small to avoid differences due to soil variation. Each individual plot was three rows, 26 feet long. The center row of each plot was harvested to check performance. All plots were overplanted 30 percent and later thinned to desired stand.

Fertilization. In general, all test fields were at a high level of fertility. Additional fertilizer was plowed down or side-dressed as needed to assure top yields.

Method of harvest. All plots were harvested mechanically with a self-propelled corn-head combine. Shelled corn from each plot was collected, weighed, and tested for moisture percentage. No allowance was made for shelled corn that might have been lost in harvest.

MEASURING PERFORMANCE

Two- and three-year summaries are presented in this circular. At least two-years' data are needed to properly judge performance. The hybrids are listed in each table in order of their average grain moisture at harvest. This arrangement is intended to reduce the emphasis often placed on yield alone and to call attention to the importance of proper maturity. It sometimes happens that hybrids too late in maturity for

Table 1.—General Information: Illinois Hybrid Corn Tests, 1969

| Field, county, location, and number of entries | Date planted | Date harvested | Aver. acre yield | Moisture in grain | Erect plants | Aver. popula- tion |
|---|-----------------|-------------------|------------------------|-------------------------|---------------------|--------------------------|
| 40-inch rows, 18,000 plants per acre | | | | | | |
| Woodstock: McHenry, Ex. N, 49..... | May 15 | Nov. 10 | <i>bu.</i> 123 | <i>perct.</i> 25.8 | <i>perct.</i> 99 | 18,000 |
| Augusta: Hancock, WC, 42..... | June 11 | Nov. 13 | 100 | 26.3 | 90 | 18,000 |
| Urbana: Champaign, EC, 72..... | May 6 | Oct. 20 | 155 | 23.6 | 97 | 17,997 |
| Brownstown: Fayette, S, 42..... | May 6 | Oct. 3 | 115 | 20.9 | 71 | 18,000 |
| 30-inch rows, 18,000 plants per acre | | | | | | |
| DeKalb: DeKalb, N, 56..... | May 16 | Nov. 6 | 118 | 27.8 | 100 | 17,936 |
| Greenfield: Macoupin, WSC, 49..... | May 7 | Oct. 24 | 159 | 16.2 | 75 | 17,932 |
| Carbondale: Jackson, Ex. S, 36..... | May 13 | Sept. 31 | 65 | 19.1 | 58 | 17,986 |
| Dixon Springs: Pope, Ex. S, 42..... | May 14 | Oct. 8 | 143 | 15.2 | 76 | 17,964 |
| 30-inch rows, 22,000 plants per acre | | | | | | |
| Brownstown: Fayette, S, 42..... | May 6 | Oct. 3 | 131 | 20.9 | 67 | 21,820 |
| Carbondale: Jackson, Ex. S, 36..... | May 13 | Sept. 31 | 80 | 18.6 | 71 | 21,377 |
| 30-inch rows, 24,000 plants per acre | | | | | | |
| DeKalb: DeKalb, N, 81..... | May 16 | Oct. 29 | 136 | 27.6 | 91 | 23,682 |
| Elwood: Will, ENC, 56..... | May 21 | Nov. 11 | 121 | 23.4 | 89 | 23,476 |
| Stanford: McLean, C, 64..... | May 6 | Oct. 23 | 187 | 19.2 | 90 | 23,690 |
| Urbana: Champaign, EC, 100..... | May 1 | Oct. 6 | 146 | 23.3 | 93 | 23,920 |
| Greenfield: Macoupin, WSC, 56..... | May 7 | Oct. 25 | 156 | 16.7 | 72 | 23,722 |
| Dixon Springs: Pope, Ex. S, 49..... | May 14 | Oct. 8 | 149 | 14.9 | 84 | 23,122 |
| 28-inch rows, 18,000 plants per acre | | | | | | |
| Galesburg: Knox, WNC, 64..... | April 29 | Oct. 21 | 163 | 20.0 | 93 | 17,885 |
| 28-inch rows, 24,000 plants per acre | | | | | | |
| Galesburg: Knox, WNC, 90..... | April 29 | Oct. 22 | 177 | 18.7 | 93 | 23,598 |

a given area are entered in the tests. While such hybrids often are high in yield, their high moisture content might make them unsafe choices for use unless proper drying or storage facilities are available.

Yield of grain. Shelled-corn weight and moisture percentage were measured for each plot of a hybrid and converted to yields of No. 2 shelled corn (15.5 percent moisture). An electronic moisture tester was used for all moisture readings.

Erect plants. The number of erect plants in each plot of a hybrid was counted at harvest time. Any plant leaning at an angle of more than 45 degrees or broken below the ear was considered lodged. Plants broken above the ear were considered erect.

Stand. In late June, plants in all plots on all fields were counted and the percent of stand was computed by comparing this number with the number of kernels planted. Plots with over 100 percent stand were thinned at this time. Stand differences may be caused by failure to germinate or by disease, insect injury, or cultivation damage.

Plants per acre. Plants per acre was calculated for each plot by using the percent stand obtained from plant counts. Differences in plants per acre are caused by the same factors that cause differences in percent stand.

Comparing hybrids. In any test of plant material, it is impossible to measure performance exactly. Samples may vary, soils may not be uniform, and many other conditions may produce variability. **Results of repeated tests, like those reported in this circular, are more reliable than those of a single year or a single strip test.** In general, a yield difference of a few bushels per acre is not significant in these tests. When one hybrid consistently outyields another at several test locations and over several years of testing, the chances are good that this difference is *real* and should be a consideration in choosing a hybrid. But yield alone is not enough. Consider also the grain moisture content, percentage of erect plants, percent stand, or plants per acre in comparing hybrids.

As an aid to comparing hybrids, certain statistical tests have been devised. D. B. Duncan¹ has outlined an approach to the problem of multiple comparisons when only two means are compared among a set of hybrid means. Certain factors not accounted for in previous tests of this type are included in Bayes L.S.D. This test is applied in the same manner as previous statistical tests used in these circulars. When two

¹Duncan, D. B., "A Bayesian Approach to Multiple Comparisons," *Technometrics*, 7:171-222, 1965.

hybrids in a trial are compared, and the difference between them is greater than the tabulated L.S.D. value, then the hybrids are said to be "significantly different."

GROWING CONDITIONS ON 1969 TEST FIELDS

Extreme Northern Illinois: Woodstock. This test field represents the cool, humid area in northeastern Illinois. The test plot is on land operated by the Hughes Farms and Seed Co. The soil type is Proctor silt loam, a fertile, deep, well-drained, dark prairie soil. This plot was in a field of second-year corn.

Northern Illinois: DeKalb. This test is on the University's Northern Illinois Research Center near Shabbona in DeKalb County. R. E. Bell is field manager of the research center. The soil type is Flanagan silt loam, a dark-brown, adequately drained soil of high fertility. The rotation used is a corn-corn-oats-clover rotation. The high planting rate test was in first-year corn. The low planting rate was in second-year corn. The field was wet and cold at planting time and high-population stands were reduced on some of the hybrids.

West North-Central Illinois: Galesburg. This test is located on the Hawkinson Farms, operated by Harold and Dave Hawkinson. The test field represents the highly fertile, heavy-textured, Sable silty clay loam of the area. The plot was in a field of fifth-year corn. Cold, wet weather in early May reduced some of the high-population stands but ideal conditions later in the growing season resulted in very good yields.

East North-Central Illinois: Elwood. This plot was moved from the Ashkum area to the Elwood Research Center just before planting season so a number of the hybrids that were entered in this trial may be higher in moisture than they normally would have been had the plot remained in the Ashkum area. The Elwood field is in Will County and Dale Harshbarger is field manager. The soil is a Drummer silty clay loam.

West-Central Illinois: Augusta. This test is located on the William Finney farm, west of Augusta in Hancock County. The soil is Harrison silt loam, a moderately well-drained, dark grayish-brown prairie soil. The area was wet all spring causing a delay in planting. Adequate rainfall throughout the growing season resulted in good corn yields in spite of the June planting.

Central Illinois: Stanford. During the past three years, this

field has been located on a farm operated by Howard Logsdon in the western part of McLean County. The soil is a deep, well-drained, fertile Muscatine silt loam. This area had almost ideal growing conditions in 1969 and excellent corn yields were obtained.

East-Central Illinois: Urbana. This test is located on the Agronomy South Farm of the University of Illinois at Urbana in Champaign County. M. G. Oldham is the farm manager. Fields on which the test plots were grown are level, heavy-textured Drummer silty clay loam. The conventional 40-inch trial and 30-inch trial were in the first year of corn of a corn-corn-oats-alfalfa rotation.

West South-Central Illinois: Greenfield. This test represents the moderately poorly drained, level soils of western south-central Illinois. The soil type is Herrick silt loam. It is located on the C. H. Ross, Jr. farm northeast of Greenfield in Macoupin County. A dry cloddy seedbed reduced some high population stands and reduced maximum yields of an above average growing season.

Southern Illinois: Brownstown. This test is located on the University's Brownstown Experiment Field in Fayette County. The soil is Cisne silt loam, a poorly drained, gray prairie soil with a well-developed claypan. Natural fertility of the soil is not high, but good fertilization practices and crop rotations have brought the yielding capacity of the field up to a moderately high level. P. E. Johnson was farm manager. He has since retired.

Extreme Southern Illinois Bottomland: Dixon Springs. This test was located at the Dixon Springs Agricultural Center in Pope County. The test plot is on an area of Sharon silt loam, which is a

Table 2. — Growing Season Rainfall

| Field | May | June | July | August |
|--------------------|------|------|---------------|--------|
| | | | <i>inches</i> | |
| Woodstock..... | 2.82 | 9.18 | 3.60 | .46 |
| DeKalb..... | 3.38 | 5.79 | 1.00 | .95 |
| Galesburg..... | 4.51 | 4.74 | 7.23 | 3.87 |
| Elwood..... | 3.74 | 6.27 | 6.32 | .50 |
| Augusta..... | 4.61 | 5.06 | 8.80 | .57 |
| Stanford..... | 1.77 | 1.74 | 2.60 | 2.96 |
| Urbana..... | 1.47 | 1.85 | 1.68 | 2.90 |
| Greenfield..... | 1.67 | 4.24 | 6.77 | .86 |
| Brownstown..... | 3.19 | 4.05 | 4.98 | 1.60 |
| Carbondale..... | 2.96 | 5.39 | 2.82 | 0.00 |
| Dixon Springs..... | 2.81 | 9.10 | 2.81 | 2.22 |

light-colored moderately well-drained to well-drained, medium-textured bottomland soil. Fertility of this field is high. G. E. McKibben is cooperating agronomist. The yields on this field were very good although the corn was under water for a few days during the growing season.

Extreme Southern Illinois Upland: Carbondale. Since the Dixon Springs test is conducted on bottomland, a test at Carbondale has been included to represent a typical upland area in southern Illinois. This test was carried on at the Southern Illinois University and University of Illinois Agronomy Research Center, where Roy Browning is superintendent. The soil types are classified as Weir and Stoy silt loams, which are rather shallow, silty soils over claypan. Very heavy rains following corn emergence eroded the loose topsoil of the field and poor stands were evident in the high population trial. Otherwise it was about a normal growing season for that area.

SOURCES OF SEED

| | | |
|----------------------------|--------------------------------------|---|
| ACCO Seed..... | Anderson-Clayton..... | Belmond, Iowa |
| Ainsworth Hybrids..... | Ainsworth Seed Co..... | Mason City |
| ASGROW Hybrids..... | ASGROW Seed Co..... | 4244 Clinton Ave., Des Moines, Iowa |
| Bear Hybrids..... | Bear Hybrid Corn Co..... | Box 628, Decatur |
| Blaney Hybrids..... | Blaney Farm, Inc..... | R. R. 3, Madison, Wis. |
| Bo-Jac Hybrids..... | Bo-Jac Hybrid Corn Co..... | Mt. Pulaski |
| Burgdorf's Hybrids..... | Burgdorf's Seed Co..... | 5101 W. Broadway, Evansville, Ind. |
| C.I. Seed..... | Central Illinois Seed Inc..... | R. R. 6, Springfield |
| Cornelius Hybrids..... | Cornelius Seed Corn Co..... | Bellevue, Iowa |
| Corn King Hybrids..... | Malcolm H. Grieve..... | Pierson, Iowa |
| Dittmer Hybrids..... | Dittmer Seeds..... | Carthage |
| Dockendorff Hybrids..... | Max Dockendorff..... | Danville, Iowa |
| Excel Hybrids..... | Excel Seed Co..... | Plainview, Texas |
| Farmers Union Hybrids..... | Farmers Union Seed Co..... | Cedar Falls, Iowa |
| Frey Hybrids..... | Frey Hybrid Corn Co., Inc..... | Gilman |
| Gutwein Hybrids..... | Fred Gutwein & Sons..... | Francesville, Ind. |
| Hoblit Hybrids..... | Hoblit Seed Co..... | Atlanta |
| Holden Hybrids..... | Holden Foundation Hybrids..... | Williamsburg, Iowa |
| Hughes Hybrids..... | Hughes Hybrids, Inc..... | Woodstock |
| Lewis Hybrids..... | Frank W. Lewis & Son Seed Farms..... | Ursa |
| McAllister Hybrids..... | McAllister Seed Farms..... | Mount Pleasant, Iowa |
| Migro Hybrids..... | Midwest Seed Growers Assn., Inc..... | Mitchell, Ind. |
| Moews Hybrids..... | Moews Seed Co..... | Granville |
| Northrup-King Hybrids..... | Northrup, King & Co..... | 1500 Jackson St., N.E. Minne- apolis, Minn. |
| Null Hybrids..... | Null Seed Farms..... | R. R. 1, Colchester |

| | | |
|-----------------------------|---|---------------------------|
| Pioneer Hybrids..... | Pioneer Hi-Bred Corn Co. of Illinois..... | Princeton |
| Pocklington Hybrids..... | Pocklington Bros..... | R. R. 2, Girard |
| Prairie Stream Hybrids..... | Prairie Stream Farm, Inc..... | Frankfort, Ind. |
| Princeton Hybrids..... | Princeton Farms..... | Box 319, Princeton, Ind. |
| Schenk's Hybrids..... | Charles H. Schenk & Sons, Inc..... | Vincennes, Ind. |
| Sieben Hybrids..... | Sieben Hybrids..... | Geneseo |
| Stewart Hybrids..... | Stewart Hybrids Inc..... | Princeville |
| Stone Hybrids..... | Stone Seed Co..... | Pleasant Plains |
| Stull Hybrids..... | Stull Brothers, Inc..... | Sebree, Ky. |
| Super-Crost Hybrids..... | Edw. J. Funk & Sons..... | Kentland, Ind. |
| Taylor-Evans Hybrids..... | Taylor-Evans Seed Co..... | Tulia, Texas |
| Todd Hybrids..... | Todd Hybrid Corn Co..... | Burlington, Ind. |
| Tracy Hybrids..... | Tracy Seed Farms..... | R. R. 1, Janesville, Wis. |
| Trisler Hybrids..... | Trisler Seed Co..... | Fairmount |
| Van Horn Hybrids..... | Van Horn Hybrids, Inc..... | Cerro Gordo |
| Victor Hybrids..... | Polo Seed Co..... | Polo |
| Whisnand Hybrids..... | Whisnand Hybrid Corn Co..... | R. R. 3, Arcola |



Location of 1969 test fields.

Table 3. — Extreme Northern Illinois: Woodstock
(Planted at 18,000 plants per acre in 40-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 3773..... | 115 | 26.0 | 95 | 18000 |
| HUGHES SLX20..... | 109 | 28.1 | 94 | 18000 |
| CORNELIUS C-365X..... | 115 | 28.2 | 96 | 17900 |
| MOEWS SUPR MAIZ 327..... | 115 | 28.5 | 93 | 17800 |
| NORTHROP-KING PX50..... | 116 | 28.8 | 91 | 17800 |
| PIONEER 3567..... | 117 | 32.0 | 97 | 17800 |
| PIONEER 3519..... | 118 | 33.8 | 97 | 17900 |
| AV. OF ALL ENTRIES 1967-1969.. | 107 | 29.5 | 96 | 17641 |
| L.S.D..... | N.S. | 1.9 | N.S. | N.S. |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| CORNELIUS 333X..... | 119 | 24.5 | 94 | 17800 |
| MOEWS SM229 (2281)..... | 123 | 25.2 | 98 | 18000 |
| PIONEER 3773..... | 126 | 25.5 | 98 | 17900 |
| MOEWS SM239 (3339)..... | 106 | 25.6 | 94 | 17900 |
| CORN KING 1122..... | 127 | 25.7 | 97 | 18000 |
| HUGHES SLX20..... | 116 | 25.7 | 96 | 17900 |
| NORTHROP-KING PX50..... | 126 | 26.1 | 96 | 17900 |
| HUGHES SLX18..... | 114 | 26.1 | 99 | 17700 |
| CORNELIUS C-365X..... | 117 | 26.5 | 98 | 18000 |
| MOEWS SUPR MAIZ 327..... | 123 | 26.6 | 97 | 17800 |
| NORTHROP-KING PX580..... | 123 | 26.7 | 97 | 17900 |
| NORTHROP-KING PX47..... | 129 | 26.8 | 97 | 17700 |
| PIONEER 3561..... | 107 | 28.0 | 97 | 18000 |
| PIONEER 3570..... | 125 | 28.1 | 99 | 18000 |
| PIONEER 3567..... | 130 | 28.8 | 100 | 17900 |
| PIONEER 3519..... | 132 | 31.8 | 98 | 18000 |
| AV. OF ALL ENTRIES 1968-1969.. | 118 | 26.9 | 97 | 17877 |
| L.S.D..... | 11 | 1.5 | 6 | N.S. |

Table 4. — Northern Illinois: DeKalb
(Planted at 18,000 plants per acre in 30-inch rows)*

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| ----- | | | | |
| SUMMARY 1967-1969 | | | | |
| | | BU. | PERCT. | PERCT. |
| HOLDEN 013..... | 129 | 27.4 | 94 | 18000 |
| BLANEY DOUBLE A..... | 124 | 28.0 | 96 | 17500 |
| CORNELIUS 373X..... | 120 | 28.2 | 97 | 17200 |
| BLANEY B-601..... | 124 | 29.4 | 98 | 17700 |
| FARMERS UNION SX55A..... | 124 | 29.6 | 96 | 18000 |
| MIGRO M540..... | 126 | 30.2 | 95 | 17300 |
| PIONEER 3548 (X2193)..... | 134 | 30.3 | 97 | 17300 |
| NORTHROP-KING PX50..... | 119 | 30.4 | 96 | 17900 |
| MC ALLISTER SX66..... | 123 | 30.6 | 98 | 18000 |
| MC ALLISTER TX303..... | 116 | 30.7 | 97 | 18000 |
| MOEWS SUPR MAIZ 327..... | 122 | 31.0 | 96 | 17600 |
| PIONEER 3567..... | 121 | 32.8 | 96 | 16300 |
| PIONEER 3376 (X1002)..... | 127 | 33.9 | 97 | 17300 |
| ACCO UNI-CROSS 6000..... | 117 | 35.3 | 94 | 17500 |
| AV. OF ALL ENTRIES 1967-1969.. | 115 | 30.4 | 95 | 17239 |
| L.S.D..... | 14 | 2.4 | N.S. | N.S. |
| ----- | | | | |
| SUMMARY 1968-1969 | | | | |
| | | BU. | PERCT. | PERCT. |
| NORTHROP-KING PX580..... | 132 | 25.1 | 96 | 17400 |
| FARMERS UNION SX55A..... | 132 | 25.3 | 95 | 18000 |
| BLANEY DOUBLE A..... | 130 | 25.3 | 95 | 17600 |
| CORNELIUS 373X..... | 121 | 25.6 | 96 | 16800 |
| HOLDEN 013..... | 134 | 25.8 | 93 | 18000 |
| MOEWS SM239 (3339)..... | 122 | 25.8 | 97 | 18000 |
| NORTHROP-KING PX47..... | 127 | 26.1 | 94 | 17800 |
| PIONEER 3505..... | 130 | 26.4 | 93 | 18000 |
| BLANEY B-601..... | 136 | 26.6 | 98 | 18000 |
| NORTHROP-KING PX50..... | 130 | 26.8 | 96 | 17700 |
| PIONEER 3548 (X2193)..... | 147 | 27.0 | 97 | 17400 |
| PIONEER 3570..... | 124 | 27.2 | 99 | 16700 |
| SIEBEN 51-SX..... | 121 | 27.5 | 99 | 17100 |
| MC ALLISTER TX303..... | 120 | 27.6 | 96 | 18000 |
| MIGRO M540..... | 133 | 27.7 | 94 | 17900 |
| ACCO UNI-CROSS 3600..... | 134 | 28.0 | 96 | 17700 |
| PIONEER X2066..... | 133 | 28.1 | 100 | 17800 |
| PIONEER 3567..... | 134 | 29.1 | 95 | 18000 |
| MC ALLISTER SX66..... | 129 | 29.1 | 97 | 18000 |
| MOEWS SUPR MAIZ 327..... | 124 | 30.7 | 95 | 18000 |
| PIONEER 3365..... | 117 | 31.8 | 98 | 16600 |
| PIONEER 3376 (X1002)..... | 139 | 31.9 | 96 | 18000 |
| ACCO UNI-CROSS 6000..... | 123 | 33.5 | 92 | 17400 |
| AV. OF ALL ENTRIES 1968-1969.. | 122 | 27.6 | 94 | 17568 |
| L.S.D..... | 15 | 2.8 | N.S. | N.S. |
| ----- | | | | |

* Planted in 40-inch rows in 1967 and 1968.

Table 4a. — Northern Illinois: DeKalb, Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| HOLDEN 001 | 151 | 26.3 | 97 | 23400 |
| HUGHES SLX317..... | 127 | 26.3 | 91 | 23900 |
| HUGHES SLX20..... | 144 | 26.9 | 91 | 23800 |
| FARMERS UNION SX55A..... | 143 | 27.0 | 92 | 24000 |
| BLANEY B-601..... | 141 | 27.0 | 93 | 23900 |
| TODD M55..... | 127 | 27.3 | 96 | 24000 |
| BLANEY DOUBLE A..... | 141 | 27.6 | 90 | 23900 |
| PIONEER X2066..... | 138 | 28.0 | 96 | 24000 |
| MC ALLISTER TX303..... | 129 | 28.1 | 86 | 23600 |
| BO-JAC X2E..... | 142 | 28.3 | 93 | 23900 |
| CORNELIUS C-36SX..... | 133 | 28.4 | 89 | 23800 |
| NORTHROP-KING PX50..... | 146 | 28.6 | 92 | 23700 |
| MOEWS SUPR MAIZ 327..... | 131 | 28.6 | 88 | 24000 |
| BO-JAC X30E..... | 134 | 29.2 | 87 | 23700 |
| MC ALLISTER SX66..... | 144 | 30.7 | 93 | 24000 |
| PIONEER 3567..... | 146 | 30.8 | 88 | 24000 |
| ACCO UNI-CROSS 3600..... | 138 | 31.5 | 92 | 23900 |
| AV. OF ALL ENTRIES 1967-1969.. | 127 | 26.2 | 91 | 23656 |
| L.S.D..... | 15 | 1.9 | N.S. | N.S. |

Table 4a. — DeKalb, Increased Planting Rate, continued

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| BLANEY B-401..... | 139 | 21.4 | 94 | 23800 |
| GUTWEIN 19..... | 117 | 22.2 | 96 | 22900 |
| HUGHES SLX20..... | 150 | 23.7 | 93 | 23700 |
| MOEWS 3381..... | 144 | 23.7 | 92 | 23700 |
| HOLDEN 001..... | 159 | 23.9 | 97 | 24000 |
| BLANEY B-601..... | 142 | 24.4 | 92 | 23800 |
| FARMERS UNION SX55A..... | 147 | 24.5 | 91 | 24000 |
| SUPER-CROST S-27..... | 143 | 24.6 | 90 | 23400 |
| SUPER-CROST S-33..... | 130 | 24.8 | 96 | 23600 |
| TRACY 206 SX..... | 142 | 25.1 | 93 | 23600 |
| BLANEY DOUBLE A..... | 142 | 25.2 | 88 | 24000 |
| HUGHES SLX317..... | 120 | 25.6 | 91 | 23800 |
| NORTHROP-KING PX50..... | 151 | 26.0 | 92 | 24000 |
| CORNELIUS C-365X..... | 132 | 26.4 | 87 | 23800 |
| MC ALLISTER TX303..... | 126 | 26.5 | 86 | 24000 |
| PIONEER X2066..... | 151 | 26.6 | 95 | 24000 |
| BO-JAC X2E..... | 135 | 26.6 | 94 | 23800 |
| TODD M55..... | 124 | 26.6 | 96 | 24000 |
| BO-JAC X30E..... | 140 | 26.8 | 90 | 23600 |
| ACCO U-530..... | 138 | 26.9 | 88 | 24000 |
| PIONEER 3560..... | 133 | 27.0 | 93 | 23700 |
| MOEWS SUPR MAIZ 327..... | 126 | 27.2 | 85 | 24000 |
| PIONEER 3570..... | 142 | 27.3 | 95 | 23600 |
| SIEBEN 51-SX..... | 152 | 27.5 | 95 | 24000 |
| SUPER-CROST 593..... | 147 | 28.3 | 92 | 24000 |
| PIONEER 3561..... | 134 | 28.4 | 92 | 23300 |
| BO-JAC X4 (X44)..... | 122 | 28.4 | 94 | 23200 |
| MC ALLISTER SX66..... | 153 | 28.6 | 93 | 23900 |
| POCKLINGTON P-442..... | 147 | 28.7 | 96 | 23900 |
| CORNELIUS 373X..... | 139 | 28.7 | 94 | 23900 |
| ACCO UNI-CROSS 5200..... | 137 | 28.9 | 90 | 23400 |
| PIONEER 3567..... | 153 | 29.0 | 92 | 24000 |
| PIONEER 3365..... | 138 | 29.2 | 90 | 23900 |
| POCKLINGTON P-692..... | 133 | 30.1 | 96 | 23400 |
| ACCO UNI-CROSS 3600..... | 148 | 30.2 | 93 | 24000 |
| PIONEER 3505..... | 120 | 30.7 | 92 | 24000 |
| POCKLINGTON P-440..... | 115 | 34.9 | 90 | 23700 |
| AV. OF ALL ENTRIES 1968-1969.. | 133 | 26.4 | 92 | 23678 |
| L.S.D..... | 15 | 2.6 | N.S. | N.S. |

Table 5. — West North-Central Illinois: Galesburg
(Planted at 18,000 plants per acre in 28-inch rows)*

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 3505..... | 141 | 21.2 | 96 | 17700 |
| PIONEER 3376 (X1002)..... | 162 | 23.1 | 97 | 18000 |
| HOBLIT XR-446..... | 154 | 23.2 | 94 | 18000 |
| WHISNAND 874..... | 143 | 23.5 | 92 | 18000 |
| PIONEER X1319..... | 156 | 24.2 | 98 | 18000 |
| PIONEER 3306..... | 148 | 24.3 | 95 | 17900 |
| PIONEER 3304..... | 149 | 24.7 | 97 | 18000 |
| IOWA-MISSOURI SX17..... | 159 | 25.3 | 98 | 18000 |
| MC ALLISTER SX300..... | 150 | 25.4 | 97 | 17700 |
| CORN KING 1155..... | 145 | 25.9 | 96 | 18000 |
| ASGROW IXL9 (5S570)..... | 159 | 26.3 | 98 | 17700 |
| AV. OF ALL ENTRIES 1967-1969.. | 142 | 23.9 | 93 | 17829 |
| L.S.D..... | 16 | 1.0 | N.S. | N.S. |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 3505..... | 143 | 19.2 | 95 | 18000 |
| NORTHROP-KING PX50..... | 130 | 19.3 | 92 | 17800 |
| PIONEER 3365..... | 135 | 20.6 | 93 | 18000 |
| PIONEER 3376 (X1002)..... | 166 | 21.4 | 97 | 18000 |
| MOEWS 5281..... | 139 | 21.5 | 91 | 17700 |
| HOBLIT XR-446..... | 158 | 21.9 | 93 | 18000 |
| ILL. ALEXHO 748 X R802A..... | 157 | 21.9 | 93 | 17500 |
| WHISNAND 874..... | 138 | 22.0 | 90 | 18000 |
| PIONEER 3304..... | 143 | 22.4 | 95 | 18000 |
| PIONEER 3306..... | 157 | 22.6 | 94 | 17900 |
| BEAR UNICORN X6949..... | 154 | 22.8 | 91 | 16700 |
| PIONEER X1319..... | 147 | 22.9 | 97 | 18000 |
| AINSWORTH 6507..... | 163 | 23.1 | 90 | 17600 |
| BEAR UNICORN X8236..... | 151 | 23.2 | 88 | 18000 |
| BEAR UNICORN X872..... | 171 | 23.8 | 97 | 17800 |
| MOEWS 7291..... | 148 | 23.9 | 90 | 18000 |
| IOWA-MISSOURI SX17..... | 157 | 24.0 | 97 | 18000 |
| CORN KING 1155..... | 137 | 24.4 | 95 | 18000 |
| MC ALLISTER SX6827..... | 154 | 24.7 | 93 | 17500 |
| ACCO 933..... | 139 | 24.7 | 86 | 18000 |
| MOEWS 7281..... | 159 | 24.9 | 93 | 17900 |
| MC ALLISTER SX300..... | 149 | 24.9 | 96 | 17500 |
| ASGROW IXL9 (5S570)..... | 153 | 25.5 | 96 | 18000 |
| AV. OF ALL ENTRIES 1968-1969.. | 142 | 22.4 | 92 | 17814 |
| L.S.D..... | 18 | 1.2 | 7 | 780 |

* Planted in 38-inch rows in 1967 and 1968.

Table 5a. — West North-Central Illinois: Galesburg,
 Increased Planting Rate
 (Planted at 24,000 plants per acre in 28-inch rows)*

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| DOCKENDORFF D12..... | 161 | 21.0 | 95 | 24000 |
| NORTHROP-KING PX50..... | 155 | 21.5 | 90 | 23600 |
| MC ALLISTER SX66..... | 160 | 22.1 | 94 | 23200 |
| PIONEER 3505..... | 149 | 22.1 | 92 | 23700 |
| MIGRO M540..... | 146 | 22.6 | 90 | 23600 |
| DOCKENDORFF 307..... | 158 | 22.7 | 95 | 23800 |
| BEAR UNICORN X4153..... | 154 | 22.8 | 91 | 23800 |
| PIONEER 3376 (X1002)..... | 166 | 23.2 | 97 | 23900 |
| BD-JAC X20..... | 155 | 23.3 | 94 | 23900 |
| PIONEER 3206..... | 143 | 23.4 | 92 | 23900 |
| PIONEER 3306..... | 143 | 23.7 | 96 | 23800 |
| MIGRO M44SX..... | 157 | 23.9 | 96 | 24000 |
| BD-JAC X2..... | 157 | 23.9 | 93 | 23600 |
| PIONEER 3300..... | 153 | 24.3 | 93 | 23200 |
| WHISNAND 874..... | 152 | 24.3 | 87 | 24000 |
| PIONEER X1319..... | 158 | 24.7 | 97 | 23500 |
| AV. OF ALL ENTRIES 1967-1969.. | 148 | 23.3 | 92 | 23789 |
| L.S.D..... | 16 | 1.2 | 6 | N.S. |

Table 5a. — Galesburg, Increased Planting Rate, continued

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| LEWIS X16..... | 150 | 17.8 | 93 | 23800 |
| DOCKENDORFF D12..... | 158 | 18.8 | 92 | 24000 |
| BLANEY B-601..... | 149 | 18.8 | 91 | 23200 |
| NORTHROP-KING PX50..... | 156 | 19.1 | 94 | 23700 |
| BLANEY DOUBLE A..... | 136 | 19.2 | 92 | 24000 |
| MC ALLISTER SX6832..... | 153 | 19.6 | 88 | 23800 |
| MC ALLISTER SX66..... | 158 | 19.8 | 93 | 23400 |
| PIONEER 3505..... | 146 | 20.1 | 89 | 23500 |
| SIEBEN 51-SX..... | 146 | 20.1 | 93 | 24000 |
| MOEWS 6391..... | 166 | 20.5 | 92 | 24000 |
| MC ALLISTER SX6841..... | 156 | 20.6 | 91 | 23700 |
| SUPER-CROST 593..... | 151 | 20.6 | 94 | 23900 |
| BEAR UNICORN X4153..... | 151 | 20.6 | 90 | 23700 |
| POCKLINGTON P-442..... | 142 | 20.7 | 89 | 23000 |
| MC ALLISTER TX-747..... | 156 | 21.1 | 92 | 23900 |
| DOCKENDORFF 307..... | 152 | 21.1 | 93 | 23800 |
| MIGRO M540..... | 136 | 21.1 | 87 | 23400 |
| PIONEER 3376 (X1002)..... | 175 | 21.3 | 96 | 23900 |
| PIONEER 3306..... | 155 | 21.4 | 96 | 23600 |
| BO-JAC X20..... | 155 | 21.5 | 94 | 23900 |
| PIONEER 3206..... | 142 | 21.6 | 92 | 23800 |
| BO-JAC X2..... | 154 | 21.9 | 92 | 23300 |
| BEAR UNICORN X410..... | 150 | 22.0 | 91 | 24000 |
| MIGRO M445X..... | 151 | 22.1 | 95 | 24000 |
| SUPER-CROST S-75..... | 134 | 22.1 | 92 | 23200 |
| WHISNAND 874..... | 155 | 22.4 | 87 | 24000 |
| POCKLINGTON P-742..... | 137 | 22.4 | 88 | 24000 |
| PIONEER 3300..... | 159 | 22.5 | 92 | 23600 |
| MC ALLISTER MX-6301..... | 156 | 22.5 | 94 | 23800 |
| ACCO UNI-CROSS 8500..... | 166 | 22.6 | 93 | 24000 |
| PIONEER X1319..... | 150 | 22.7 | 95 | 24000 |
| SUPER-CROST S-69..... | 159 | 22.9 | 93 | 23600 |
| NULL N-105..... | 143 | 23.0 | 90 | 23700 |
| MC ALLISTER SX6883..... | 162 | 23.4 | 91 | 23700 |
| MC ALLISTER SX6827..... | 167 | 24.3 | 90 | 23700 |
| AV. OF ALL ENTRIES 1968-1969.. | 148 | 21.5 | 91 | 23764 |
| L.S.D..... | 17 | 1.0 | 5 | N.S. |

Table 6. — East North-Central Illinois: Elwood,
Increased Planting Rate*
(Planted at 24,000 plants per acre in 30-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| GUTWEIN 20..... | 122 | 22.5 | 94 | 22800 |
| BO-JAC X2E..... | 125 | 22.8 | 93 | 23700 |
| MC ALLISTER SX66..... | 126 | 24.0 | 93 | 24000 |
| ACCO UNI-CROSS 5200..... | 115 | 26.1 | 88 | 23800 |
| VAN HORN CAP 43..... | 133 | 26.3 | 82 | 23400 |
| SUPER-CROST S-75..... | 123 | 27.3 | 94 | 23500 |
| PIONEER 3304..... | 127 | 28.1 | 90 | 23800 |
| PIONEER 3306..... | 110 | 28.1 | 95 | 23800 |
| PIONEER 3376 (X1002)..... | 126 | 28.4 | 92 | 24000 |
| AV. OF ALL ENTRIES 1967-1969.. | 114 | 26.3 | 89 | 23694 |
| L.S.D..... | 12 | 1.5 | 6 | 880 |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| BO-JAC X2E..... | 127 | 20.8 | 93 | 23500 |
| GUTWEIN 20..... | 119 | 20.8 | 94 | 22200 |
| BO-JAC X22EL..... | 125 | 21.0 | 92 | 23800 |
| PICNEER 3567..... | 125 | 21.3 | 92 | 23600 |
| BLANEY B-601..... | 122 | 21.4 | 94 | 23500 |
| MC ALLISTER SX66..... | 129 | 21.6 | 92 | 24000 |
| BLANEY DOUBLE A..... | 122 | 22.0 | 91 | 24000 |
| MOEWS 6391..... | 123 | 22.9 | 89 | 23900 |
| SUPER-CROST 593..... | 135 | 23.2 | 91 | 23400 |
| FREY F60..... | 114 | 23.5 | 84 | 23600 |
| PIONEER X4192..... | 135 | 23.7 | 95 | 23200 |
| VAN HORN CAP 43..... | 132 | 23.7 | 84 | 23200 |
| SUPER-CROST S-69..... | 131 | 23.8 | 91 | 24000 |
| ACCO UNI-CROSS 5200..... | 112 | 23.8 | 87 | 23700 |
| PIONEER 3306..... | 120 | 23.9 | 93 | 23700 |
| PIONEER 3376 (X1002)..... | 138 | 24.0 | 93 | 24000 |
| PIONEER 3365..... | 120 | 24.0 | 90 | 24000 |
| SUPER-CROST S-75..... | 123 | 24.2 | 95 | 23200 |
| PIONEER 3561..... | 117 | 24.2 | 91 | 24000 |
| PIONEER 3304..... | 128 | 24.5 | 88 | 23700 |
| PIONEER X1319..... | 124 | 25.0 | 96 | 23800 |
| MC ALLISTER MX-6301..... | 129 | 25.3 | 92 | 24000 |
| BEAR UNICORN X8323..... | 122 | 25.3 | 89 | 23900 |
| MC ALLISTER SX6883..... | 114 | 25.6 | 88 | 24000 |
| AINSWORTH 7387..... | 113 | 25.6 | 83 | 23600 |
| AV. OF ALL ENTRIES 1968-1969.. | 116 | 23.5 | 90 | 23590 |
| L.S.D..... | 18 | 1.1 | 7 | N.S. |

* 1967 and 1968 trials conducted at Ashkum.

Table 7. West-Central Illinois: Augusta
(Planted at 18,000 plants per acre in 40-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| ----- | | | | |
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| DITTMER D803..... | 126 | 21.9 | 95 | 17700 |
| PIONEER 3220..... | 127 | 22.7 | 94 | 18000 |
| AINSWORTH X-9..... | 135 | 22.8 | 96 | 17900 |
| BO-JAC X9..... | 130 | 23.2 | 94 | 18000 |
| MC ALLISTER SX6509..... | 129 | 23.6 | 89 | 17500 |
| PIONEER X1319..... | 129 | 23.6 | 97 | 16900 |
| ACCO UNI-CROSS 8500..... | 127 | 23.7 | 94 | 17700 |
| PIONFER 3376 (X1002)..... | 137 | 23.8 | 96 | 18000 |
| PIONEER 310..... | 126 | 23.8 | 89 | 18000 |
| PIONEER 3306..... | 128 | 23.9 | 93 | 17800 |
| ACCO 815..... | 123 | 24.1 | 89 | 17900 |
| PIONEER 3307..... | 126 | 24.9 | 95 | 18000 |
| AV. OF ALL ENTRIES 1967-1969.. | 123 | 23.6 | 93 | 17796 |
| L.S.D..... | N.S. | 0.8 | 5 | N.S. |
| ----- | | | | |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 3505..... | 123 | 21.3 | 86 | 18000 |
| DITTMER D803..... | 122 | 22.1 | 95 | 17600 |
| DITTMER D823..... | 118 | 22.7 | 93 | 18000 |
| LEWIS 701..... | 129 | 22.8 | 94 | 18000 |
| PIONEER X4192..... | 113 | 23.1 | 99 | 17400 |
| PIONEER 3220..... | 117 | 23.2 | 92 | 18000 |
| AINSWORTH X-9..... | 133 | 23.3 | 95 | 17900 |
| ACCO UNI-CROSS 8500..... | 120 | 23.5 | 94 | 18000 |
| PIONEER X1319..... | 124 | 23.8 | 97 | 18000 |
| PIONEER 310..... | 121 | 23.8 | 92 | 18000 |
| AINSWORTH 6507..... | 127 | 23.9 | 93 | 18000 |
| MC ALLISTER SX6509..... | 124 | 23.9 | 88 | 18000 |
| AINSWORTH 4487..... | 126 | 24.1 | 91 | 18000 |
| PIONEER 3306..... | 117 | 24.1 | 92 | 17700 |
| BO-JAC X9..... | 126 | 24.2 | 93 | 18000 |
| MOEWS SUPR MAIZ 738..... | 126 | 24.3 | 88 | 18000 |
| ACCO 815..... | 120 | 24.6 | 87 | 17900 |
| MC ALLISTER SX6827..... | 124 | 24.7 | 93 | 18000 |
| PIONEER 3376 (X1002)..... | 133 | 24.8 | 97 | 18000 |
| PIONEER 3307..... | 122 | 25.2 | 95 | 18000 |
| BO-JAC X7L (X77L)..... | 124 | 25.9 | 95 | 18000 |
| MOEWS 8281..... | 137 | 26.6 | 89 | 18000 |
| AV. OF ALL ENTRIES 1968-1969.. | 121 | 24.1 | 92 | 17910 |
| L.S.D..... | N.S. | 1.1 | 5 | N.S. |
| ----- | | | | |

Table 8. — Central Illinois: Stanford, Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| MOEWS SUPR MAIZ 327..... | 149 | 20.1 | 82 | 24000 |
| MOEWS SUPR MAIZ 337..... | 136 | 21.2 | 79 | 23500 |
| STEWART S-337..... | 143 | 21.4 | 83 | 23500 |
| MC ALLISTER SX66..... | 156 | 21.5 | 87 | 24000 |
| PIONEER 3376 (X1002)..... | 167 | 21.9 | 90 | 23300 |
| HOB LIT XR-336..... | 158 | 22.3 | 90 | 23200 |
| BO-JAC X20..... | 148 | 22.3 | 82 | 23500 |
| MOEWS SUPR MAIZ 44..... | 151 | 22.9 | 87 | 23900 |
| VAN HORN CAP 43..... | 151 | 22.9 | 69 | 23800 |
| ACCO UNI-CROSS 8500..... | 149 | 22.9 | 80 | 23800 |
| WHISNAND 874..... | 149 | 23.0 | 68 | 23300 |
| BO-JAC X707..... | 145 | 23.1 | 78 | 23600 |
| PIONEER 3306..... | 135 | 23.3 | 82 | 23500 |
| ASGRDW IXL9 (5S570)..... | 152 | 24.9 | 68 | 23700 |
| AV. OF ALL ENTRIES 1967-1969.. | 141 | 22.9 | 78 | 23573 |
| L.S.D..... | 21 | 0.9 | N.S. | N.S. |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| MOEWS SUPR MAIZ 327..... | 150 | 18.1 | 86 | 24000 |
| MC ALLISTER SX66..... | 162 | 19.2 | 95 | 23900 |
| STEWART S-337..... | 151 | 19.6 | 91 | 23300 |
| ACCO UNI-CROSS 5200..... | 151 | 20.0 | 94 | 22800 |
| MOEWS SUPR MAIZ 337..... | 148 | 20.1 | 95 | 23200 |
| BO-JAC X20..... | 152 | 20.2 | 90 | 23300 |
| BO-JAC X30..... | 144 | 20.2 | 94 | 23500 |
| PIONEER 3376 (X1002)..... | 174 | 20.4 | 92 | 23000 |
| VAN HORN CAP 43..... | 162 | 20.5 | 82 | 23700 |
| VAN HORN CAP 358..... | 152 | 20.5 | 90 | 23800 |
| HOB LIT XR-336..... | 165 | 20.6 | 98 | 22900 |
| STEWART SX-47..... | 174 | 20.8 | 89 | 23800 |
| BO-JAC X5 (X55)..... | 161 | 20.8 | 89 | 23000 |
| WHISNAND 874..... | 166 | 20.9 | 83 | 23000 |
| PIONEER 3306..... | 158 | 21.0 | 95 | 23300 |
| MOEWS SUPR MAIZ 44..... | 156 | 21.1 | 92 | 23900 |
| ACCO UNI-CROSS 8500..... | 163 | 21.2 | 85 | 23700 |
| BO-JAC X707..... | 160 | 21.3 | 91 | 23400 |
| MC ALLISTER MX-6301..... | 165 | 21.7 | 97 | 23700 |
| PIONEER X4196..... | 164 | 21.7 | 81 | 23200 |
| ACCO UNI-CROSS 6000..... | 156 | 21.7 | 82 | 23700 |
| ATNSWORTH 7387..... | 145 | 21.8 | 91 | 23900 |
| PIONEER 3196 (X2786)..... | 157 | 22.4 | 71 | 23100 |
| CENTRAL ILLINOIS C.I. 40..... | 172 | 22.7 | 89 | 23700 |
| ASGRDW IXL9 (5S570)..... | 170 | 23.2 | 81 | 23600 |
| PIONEER X1319..... | 147 | 23.3 | 97 | 23400 |
| AV. OF ALL ENTRIES 1968-1969.. | 154 | 21.1 | 89 | 23381 |
| L.S.D..... | 23 | 1.1 | 8 | N.S. |

Table 9. — East-Central Illinois: Urbana
(Planted at 18,000 plants per acre in 40-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|---------------------------------|---------------------|-------------------|-----------------|--------------------|
| ----- | | | | |
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| BEAR 876..... | 141 | 23.9 | 97 | 17600 |
| FARMERS UNION 007..... | 132 | 24.8 | 93 | 17500 |
| FREY F60..... | 136 | 24.9 | 95 | 17900 |
| BO-JAC X707..... | 134 | 24.9 | 96 | 17300 |
| WHISNAND 874..... | 133 | 25.6 | 95 | 17800 |
| AINSWORTH X-9..... | 156 | 25.7 | 100 | 17700 |
| BEAR UNICORN X6393..... | 141 | 25.9 | 96 | 17900 |
| HOB LIT XR-446..... | 156 | 26.2 | 99 | 17900 |
| PIONEER X4196..... | 171 | 26.6 | 99 | 17700 |
| PIONEER 3306..... | 127 | 26.7 | 98 | 17400 |
| BEAR UNICORN X872..... | 162 | 27.1 | 99 | 17800 |
| MOEWS 7371..... | 143 | 27.1 | 93 | 17800 |
| ASGROW IXL9 (5S570)..... | 155 | 27.5 | 99 | 17700 |
| VAN HORN CAP 43..... | 147 | 28.6 | 98 | 18000 |
| AV. OF ALL ENTRIES 1967-1969.. | 132 | 26.5 | 97 | 17770 |
| L.S.D..... | 12 | 2.0 | 4 | N.S. |
| ----- | | | | |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| FARMERS UNION 007..... | 133 | 22.7 | 92 | 17700 |
| TRISLER T-18..... | 121 | 22.7 | 95 | 18000 |
| FREY F58..... | 134 | 22.8 | 98 | 18000 |
| TRISLER T-327..... | 133 | 22.9 | 99 | 18000 |
| PIONEER 3376 (X1002)..... | 162 | 23.0 | 100 | 18000 |
| BO-JAC X707..... | 136 | 23.3 | 96 | 17200 |
| CENTRAL ILLINOIS C.I. 2304..... | 146 | 23.4 | 97 | 17900 |
| FREY F60..... | 145 | 23.4 | 96 | 17800 |
| AINSWORTH X-9..... | 165 | 23.6 | 100 | 18000 |
| PIONEER 3369A..... | 164 | 23.6 | 98 | 18000 |
| HOB LIT XR-446..... | 152 | 23.7 | 98 | 17900 |
| BEAR UNICORN X8236..... | 148 | 23.7 | 92 | 18000 |
| ACCO UNI-CROSS 8500..... | 143 | 23.8 | 97 | 17800 |
| MOEWS 7371..... | 153 | 24.0 | 92 | 18000 |
| BEAR UNICORN X6393..... | 146 | 24.0 | 97 | 17900 |
| WHISNAND 874..... | 131 | 24.2 | 95 | 17800 |
| PIONEER X4196..... | 175 | 24.4 | 98 | 18000 |
| PIONEER 3306..... | 143 | 24.5 | 100 | 17900 |
| MOEWS 7291..... | 154 | 24.6 | 98 | 17900 |
| ACCO UNI-CROSS 6000..... | 144 | 24.6 | 96 | 18000 |
| BEAR UNICORN X872..... | 165 | 24.7 | 99 | 18000 |
| POCKLINGTON P-741..... | 143 | 24.7 | 98 | 18000 |
| VAN HORN CAP 43..... | 154 | 24.8 | 98 | 17900 |
| POCKLINGTON P-715..... | 143 | 25.0 | 98 | 17600 |
| BEAR 876..... | 140 | 25.0 | 97 | 17900 |
| PIONEER 3196 (X2786)..... | 163 | 25.1 | 97 | 17600 |
| MOEWS 7281..... | 139 | 25.1 | 99 | 18000 |
| POCKLINGTON P-818..... | 152 | 25.2 | 97 | 17700 |
| ASGROW IXL9 (5S570)..... | 158 | 26.0 | 98 | 18000 |
| TRISLER T-940..... | 138 | 26.5 | 99 | 18000 |
| POCKLINGTON P-892..... | 137 | 26.5 | 95 | 17900 |
| AV. OF ALL ENTRIES 1968-1969.. | 140 | 24.2 | 97 | 17930 |
| L.S.D..... | 16 | 1.5 | 6 | 400 |

Table 9a. — East-Central Illinois: Urbana,
Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| TODD M55..... | 129 | 21.1 | 99 | 23100 |
| LEWIS X16..... | 160 | 22.1 | 99 | 23000 |
| MIGRO M540..... | 143 | 23.2 | 96 | 23300 |
| MC ALLISTER SX66..... | 149 | 23.4 | 97 | 22800 |
| BEAR 671..... | 140 | 24.0 | 94 | 23500 |
| PIONEER X4192..... | 145 | 24.8 | 99 | 23500 |
| GUTWEIN 167..... | 147 | 24.9 | 97 | 23200 |
| PRINCETON SX-606..... | 152 | 25.0 | 98 | 23800 |
| ACCO UNI-CROSS 5200..... | 150 | 25.0 | 98 | 23200 |
| FREY FX55..... | 135 | 25.5 | 95 | 23500 |
| PIONEER 3376 (X1002)..... | 157 | 25.7 | 98 | 23200 |
| WHISNAND 874..... | 146 | 25.9 | 93 | 23300 |
| MDEWS 7371..... | 142 | 25.9 | 79 | 22500 |
| BEAR UNICORN X8333..... | 155 | 26.0 | 89 | 23000 |
| PRINCETON SX-690..... | 149 | 26.3 | 99 | 23100 |
| PIONEER 3306..... | 135 | 26.3 | 100 | 23500 |
| MC ALLISTER SX6584..... | 154 | 26.8 | 100 | 23100 |
| MIGRO M44SX..... | 139 | 27.0 | 98 | 23500 |
| VAN HORN CAP 43..... | 143 | 27.2 | 95 | 23300 |
| WHISNAND 871..... | 148 | 28.0 | 95 | 23400 |
| AV. OF ALL ENTRIES 1967-1969.. | 143 | 25.3 | 97 | 23226 |
| L.S.D..... | 18 | 1.4 | 5 | 1200 |

Table 9a. — Urbana, Increased Planting Rate, continued

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| TODD M55..... | 119 | 19.7 | 99 | 23600 |
| BO-JAC X2E..... | 137 | 20.3 | 97 | 23800 |
| LEWIS X16..... | 155 | 20.9 | 98 | 23900 |
| MC ALLISTER SX66..... | 142 | 21.3 | 98 | 23500 |
| MIGRO M540..... | 143 | 21.6 | 97 | 23900 |
| GUTWEIN 167..... | 146 | 21.8 | 96 | 23900 |
| PRINCETON SX-606..... | 155 | 21.9 | 99 | 24000 |
| ACCO UNI-CROSS 5200..... | 150 | 21.9 | 97 | 23300 |
| VAN HORN CAP 368..... | 144 | 22.3 | 92 | 23800 |
| BEAR 671..... | 124 | 22.5 | 92 | 24000 |
| SUPER-CROST S-69..... | 148 | 22.8 | 99 | 23900 |
| MOEWS 7371..... | 133 | 22.9 | 70 | 23200 |
| PIONEER X4196..... | 136 | 23.0 | 93 | 23900 |
| PIONEER X4192..... | 144 | 23.1 | 99 | 24000 |
| SUPER-CROST 593..... | 142 | 23.1 | 97 | 24000 |
| SCHENK SS-X5..... | 144 | 23.2 | 97 | 24000 |
| SCHENK SS-77A..... | 124 | 23.3 | 92 | 24000 |
| WHISNAND 874..... | 144 | 23.5 | 90 | 23600 |
| PIONEER 3369A..... | 173 | 23.6 | 97 | 24000 |
| PRINCETON SX-690..... | 150 | 23.7 | 99 | 23700 |
| PIONEER 3306..... | 135 | 23.7 | 100 | 23900 |
| BEAR UNICORN X8333..... | 151 | 23.8 | 87 | 24000 |
| VAN HORN CAP 43..... | 140 | 23.8 | 93 | 24000 |
| PRINCETON SX-836..... | 154 | 23.9 | 95 | 24000 |
| FREY FX55..... | 133 | 23.9 | 94 | 24000 |
| BO-JAC X5 (X55)..... | 162 | 24.2 | 97 | 23600 |
| PIONEER 3376 (X1002)..... | 153 | 24.2 | 98 | 24000 |
| POCKLINGTON P-715..... | 147 | 24.2 | 91 | 23300 |
| AINSWORTH 7387..... | 146 | 24.3 | 97 | 23800 |
| POCKLINGTON P-742..... | 128 | 24.3 | 93 | 24000 |
| SUPER-CROST S-75..... | 157 | 24.6 | 99 | 23900 |
| BEAR UNICORN X8236..... | 137 | 24.6 | 88 | 22900 |
| MIGRO M44SX..... | 135 | 24.7 | 98 | 23500 |
| MC ALLISTER SX6584..... | 150 | 25.6 | 99 | 23600 |
| WHISNAND 871..... | 148 | 25.6 | 94 | 24000 |
| GUTWEIN 87A..... | 160 | 25.7 | 98 | 23400 |
| HOLDEN 033..... | 146 | 25.7 | 99 | 23800 |
| MC ALLISTER SX6883..... | 142 | 25.7 | 97 | 23500 |
| POCKLINGTON P-741..... | 137 | 25.7 | 97 | 23800 |
| POCKLINGTON P-892..... | 135 | 25.7 | 86 | 24000 |
| BO-JAC X7L (X77L)..... | 169 | 26.9 | 96 | 24000 |
| PIONEER X1319..... | 136 | 27.5 | 100 | 24000 |
| AV. OF ALL ENTRIES 1968-1969.. | 142 | 23.4 | 97 | 23706 |
| L.S.D..... | 20 | 1.5 | 6 | 1000 |

Table 10. — West South-Central Illinois: Greenfield
(Planted at 18,000 plants per acre in 30-inch rows)*

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| ----- | | | | |
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| VAN HORN CAP 141..... | 141 | 19.0 | 85 | 18000 |
| PIONEER 3306..... | 146 | 19.3 | 79 | 18000 |
| AINSWORTH X 9..... | 143 | 19.4 | 78 | 18000 |
| PIONEER 3300..... | 151 | 20.7 | 87 | 17600 |
| WHISNAND 851..... | 144 | 21.3 | 81 | 17600 |
| AV. OF ALL ENTRIES 1967-1969.. | 134 | 20.3 | 79 | 17823 |
| L.S.D..... | N.S. | 0.8 | N.S. | N.S. |
| ----- | | | | |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| VAN HORN CAP 141..... | 135 | 17.0 | 82 | 18000 |
| AINSWORTH X-9..... | 134 | 17.5 | 74 | 18000 |
| PIONEER 3376 (X1002)..... | 162 | 17.6 | 87 | 18000 |
| PIONEER 3306..... | 151 | 17.6 | 82 | 18000 |
| VAN HORN CAP 358..... | 139 | 18.0 | 88 | 18000 |
| PIONEER X4196..... | 138 | 18.3 | 75 | 18000 |
| AINSWORTH 6507..... | 150 | 18.5 | 86 | 18000 |
| PIONEER 3369A..... | 133 | 18.5 | 80 | 15900 |
| BEAR UNICORN X8333..... | 144 | 19.2 | 85 | 18000 |
| LEWIS 824..... | 121 | 19.4 | 82 | 18000 |
| PIONEER 3300..... | 140 | 19.5 | 89 | 17400 |
| WHISNAND 851..... | 136 | 19.7 | 80 | 17400 |
| POCKLINGTON P-892..... | 135 | 20.5 | 76 | 17900 |
| AV. OF ALL ENTRIES 1968-1969.. | 133 | 18.6 | 82 | 17734 |
| L.S.D..... | 17 | 1.0 | 14 | 1300 |
| ----- | | | | |

* Planted in 40-inch rows in 1967 and 1968.

Table 10a. — West South-Central Illinois: Greenfield,
Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| ----- | | | | |
| SUMMARY 1967-1969 | | | | |
| ----- | | | | |
| | BU. | PERCT. | PERCT. | |
| BEAR 671..... | 147 | 18.5 | 69 | 23900 |
| VAN HORN CAP 43..... | 151 | 19.4 | 59 | 23700 |
| BO-JAC X20..... | 154 | 19.5 | 79 | 24000 |
| MOEWS 7372..... | 138 | 19.5 | 61 | 24000 |
| WHISNAND 874..... | 126 | 19.9 | 64 | 24000 |
| PIONEER 3300..... | 144 | 20.2 | 61 | 24000 |
| PIONEER 310..... | 134 | 20.5 | 70 | 24000 |
| AV. OF ALL ENTRIES 1967-1969.. | 136 | 20.2 | 90 | 23793 |
| L.S.D..... | 15 | 2.1 | 11 | N.S. |
| ----- | | | | |
| SUMMARY 1968-1969 | | | | |
| ----- | | | | |
| | BU. | PERCT. | PERCT. | |
| BEAR 671..... | 133 | 17.0 | 82 | 23800 |
| PIONEER 3376 (X1002)..... | 145 | 17.2 | 84 | 24000 |
| BEAR UNICORN X4686..... | 140 | 17.4 | 74 | 24000 |
| VAN HORN CAP 43..... | 149 | 17.5 | 68 | 23500 |
| POCKLINGTON P-442..... | 120 | 17.5 | 76 | 23100 |
| MOEWS 7372..... | 125 | 17.7 | 72 | 24000 |
| BO-JAC X20..... | 146 | 17.8 | 84 | 24000 |
| BO-JAC X5 (X55)..... | 140 | 17.9 | 74 | 23600 |
| WHISNAND 874..... | 122 | 18.4 | 72 | 24000 |
| PIONEER 3369A..... | 151 | 18.6 | 87 | 24000 |
| PIONEER 3300..... | 132 | 19.1 | 79 | 24000 |
| PIONEER 310..... | 120 | 19.1 | 76 | 24000 |
| POCKLINGTON P-741..... | 130 | 19.9 | 81 | 22100 |
| AV. OF ALL ENTRIES 1968-1969.. | 132 | 18.7 | 77 | 23640 |
| L.S.D..... | 15 | N.S. | 14 | 1800 |
| ----- | | | | |

Table 11. — Southern Illinois: Brownstown
(Planted at 18,000 plants per acre in 40-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT. PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|------------------|--------------------|
| ----- | | | | |
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 3306..... | 120 | 22.5 | 84 | 17800 |
| BO-JAC X1A..... | 132 | 23.4 | 80 | 18000 |
| PIONEER 310..... | 114 | 23.5 | 80 | 18000 |
| PIONEER 3304..... | 125 | 23.7 | 89 | 17900 |
| PIONEER 8001 (X8001)..... | 135 | 23.8 | 86 | 18000 |
| BEAR 876..... | 117 | 24.0 | 78 | 18000 |
| PIONEER 3300..... | 135 | 24.2 | 86 | 18000 |
| AV. OF ALL ENTRIES 1967-1969.. | 118 | 23.5 | 81 | 17849 |
| L.S.D..... | 11 | 1.3 | N.S. | N.S. |
| ----- | | | | |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 3306..... | 106 | 22.1 | 79 | 17800 |
| VAN HORN CAP 378..... | 103 | 22.2 | 78 | 18000 |
| AINSWORTH 6507..... | 127 | 22.6 | 82 | 18000 |
| PIONEER 3376 (X1002)..... | 121 | 22.6 | 84 | 18000 |
| PIONEER 8001 (X8001)..... | 126 | 23.0 | 82 | 18000 |
| BO-JAC X1A..... | 119 | 23.0 | 84 | 18000 |
| PIONEER 3369A..... | 119 | 23.0 | 76 | 18000 |
| PIONEER 3304..... | 114 | 23.5 | 85 | 17800 |
| BEAR UNICORN X6393..... | 105 | 23.5 | 81 | 18000 |
| PIONEER 3300..... | 124 | 23.6 | 80 | 18000 |
| WHISNAND 851..... | 108 | 23.6 | 86 | 18000 |
| PIONEER 310..... | 100 | 23.6 | 74 | 18000 |
| BEAR 876..... | 97 | 23.6 | 70 | 18000 |
| MOEWS 7691W..... | 110 | 24.1 | 63 | 18000 |
| BO-JAC X7L (X77L)..... | 129 | 24.2 | 90 | 18000 |
| POCKLINGTON P-892..... | 104 | 24.4 | 69 | 17900 |
| BO-JAC X7 (X77)..... | 117 | 24.5 | 81 | 17700 |
| AV. OF ALL ENTRIES 1968-1969.. | 108 | 23.3 | 78 | 17817 |
| L.S.D..... | 12 | 1.2 | 15 | N.S. |
| ----- | | | | |

Table 11a. — Southern Illinois: Brownstown,
Increased Planting Rate
(Planted at 22,000 plants per acre in 30-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|-----------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| MOEWS SUPR MAIZ 44..... | 123 | 22.8 | 76 | 22000 |
| VAN HORN CAP 540..... | 117 | 23.1 | 74 | 22000 |
| MOEWS 6378..... | 139 | 23.3 | 82 | 21600 |
| WHISNAND 851M..... | 126 | 23.4 | 79 | 21900 |
| PIONEER 3306..... | 123 | 23.8 | 85 | 21900 |
| WHISNAND 871..... | 133 | 24.3 | 67 | 22000 |
| PIONEER 3304..... | 125 | 24.4 | 89 | 22000 |
| PIONEER 8001 (X8001)..... | 129 | 24.5 | 75 | 22000 |
| PIONEER 310..... | 110 | 24.6 | 69 | 21900 |
| AV. OF ALL ENTRIES 1967-1969.. | 120 | 23.6 | 77 | 21863 |
| L.S.D..... | 16 | 1.2 | 9 | N.S. |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 3376 (X1C02)..... | 129 | 21.7 | 86 | 22000 |
| TAYLOR-EVANS CASHMAKER..... | 110 | 22.2 | 77 | 22000 |
| MOEWS SUPR MAIZ 44..... | 109 | 22.4 | 76 | 22000 |
| PIONEER 3369A..... | 133 | 22.5 | 75 | 22000 |
| TAYLOR-EVANS TE BONUSMAKER S..... | 118 | 22.5 | 69 | 21900 |
| WHISNAND 851M..... | 115 | 22.5 | 74 | 21800 |
| VAN HORN CAP 540..... | 107 | 22.5 | 70 | 22000 |
| BEAR UNICORN X4153..... | 104 | 22.7 | 66 | 22000 |
| MOEWS 6378..... | 131 | 23.1 | 79 | 21400 |
| PIONEER 3306..... | 124 | 23.1 | 84 | 22000 |
| BEAR UNICORN X6706..... | 120 | 23.2 | 70 | 21400 |
| BO-JAC X5 (X55)..... | 113 | 23.2 | 68 | 22000 |
| PIONEER 3304..... | 124 | 23.3 | 86 | 22000 |
| PIONEER 8001 (X8001)..... | 130 | 23.4 | 69 | 22000 |
| WHISNAND 871..... | 123 | 23.4 | 60 | 22000 |
| PIONEER 310..... | 107 | 23.7 | 63 | 21400 |
| BO-JAC X7L (X77L)..... | 129 | 24.2 | 76 | 22000 |
| PIONEER X1319..... | 133 | 25.0 | 92 | 22000 |
| AV. OF ALL ENTRIES 1968-1969.. | 116 | 23.4 | 74 | 21900 |
| L.S.D..... | 16 | 1.1 | 13 | N.S. |

Table 12. — Extreme Southern Illinois Bottomland: Dixon Springs
(Planted at 18,000 plants per acre in 30-inch rows)*

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| ----- | | | | |
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| AINSWORTH X 9..... | 150 | 19.7 | 89 | 18000 |
| PIONEER 3306..... | 149 | 19.7 | 92 | 17200 |
| PIONEER 310..... | 136 | 19.7 | 88 | 17500 |
| PIONEER 8001 (X8001)..... | 121 | 20.0 | 82 | 18000 |
| TAYLOR-EVANS E20YA..... | 141 | 20.9 | 90 | 17500 |
| PIONEER 10873..... | 132 | 21.1 | 87 | 17900 |
| PRINCETON 920-A..... | 130 | 21.2 | 84 | 17700 |
| AV. OF ALL ENTRIES 1967-1969.. | 132 | 20.4 | 87 | 17559 |
| L.S.D..... | 17 | 1.0 | 12 | N.S. |
| ----- | | | | |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 310..... | 136 | 18.5 | 87 | 18000 |
| MOEWS 8781W..... | 155 | 18.8 | 83 | 17400 |
| BURGDORFS B-837Y..... | 125 | 18.8 | 90 | 18000 |
| PIONEER 3306..... | 153 | 19.0 | 90 | 16800 |
| PIONEER 3376 (X1C02)..... | 132 | 19.1 | 88 | 16300 |
| BEAR UNICORN X6393..... | 133 | 19.2 | 91 | 18000 |
| BO-JAC X7L (X77L)..... | 130 | 19.4 | 85 | 17400 |
| WHISNAND 851..... | 127 | 19.4 | 85 | 17300 |
| PIONEER 8001 (X8001)..... | 120 | 19.4 | 73 | 17900 |
| PIONEER 3369A..... | 140 | 19.7 | 90 | 17200 |
| PRINCETON 990-B..... | 126 | 19.7 | 76 | 17800 |
| AINSWORTH X 9..... | 148 | 19.8 | 87 | 18000 |
| PRINCETON 920-A..... | 131 | 19.9 | 83 | 18000 |
| TAYLOR-EVANS E20YA..... | 148 | 20.4 | 89 | 18000 |
| PIONEER 10873..... | 122 | 20.5 | 84 | 18000 |
| AV. OF ALL ENTRIES 1968-1969.. | 132 | 19.4 | 88 | 17486 |
| L.S.D..... | 25 | 2.5 | 14 | 1100 |
| ----- | | | | |

* Planted in 40-inch rows in 1967 and 1968.

Table 12a. — Extreme Southern Illinois Bottomland:
Dixon Springs, Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)*

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|-----------------------------------|---------------------|-------------------|-----------------|--------------------|
| ----- | | | | |
| SUMMARY 1967,1969 | | | | |
| ----- | | | | |
| | BU. | PERCT. | PERCT. | |
| WHISNAND 874..... | 147 | 17.7 | 74 | 22300 |
| TAYLOR-EVANS TE BONUSMAKER S..... | 121 | 17.7 | 81 | 22700 |
| PIONEER 3306..... | 151 | 17.8 | 90 | 23300 |
| BEAR 871..... | 158 | 18.0 | 75 | 22700 |
| WHISNAND 871..... | 139 | 18.4 | 78 | 24000 |
| SCHENK SS-77A..... | 132 | 18.6 | 81 | 23000 |
| PRINCETON SX-809..... | 151 | 18.7 | 82 | 23100 |
| BURGDORFS B-84SX..... | 138 | 18.8 | 82 | 23000 |
| PIONEER 310..... | 154 | 19.0 | 93 | 23300 |
| SCHENK S-73A..... | 137 | 19.0 | 83 | 23200 |
| BEAR 876..... | 145 | 19.8 | 79 | 22800 |
| PIONEER 10873..... | 156 | 20.9 | 76 | 23900 |
| AV. OF ALL ENTRIES 1967,1969.. | 143 | 19.6 | 84 | 23095 |
| L.S.D..... | 31 | 1.2 | 13 | N.S. |

* Trial discarded in 1968 because of flooding.

Table 13. — Extreme Southern Illinois Upland: Carbondale
(Planted at 18,000 plants per acre in 30-inch rows)*

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|--------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| AINSWORTH X-9..... | 87 | 19.5 | 71 | 16900 |
| PIONEER 8001 (X8001)..... | 88 | 20.2 | 82 | 17000 |
| PIONEER X2473..... | 81 | 20.2 | 90 | 17300 |
| BEAR UNICORN X8333..... | 88 | 20.6 | 64 | 17900 |
| BEAR UNICORN X6716..... | 86 | 21.1 | 73 | 18000 |
| PIONEER 321..... | 77 | 21.2 | 77 | 16000 |
| PIONEER 10873..... | 80 | 22.3 | 75 | 17400 |
| PIONEER 309B..... | 80 | 24.5 | 79 | 15100 |
| AV. OF ALL ENTRIES 1967-1969.. | 79 | 21.4 | 74 | 16843 |
| L.S.D..... | N.S. | 1.4 | 12 | 1000 |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| PIONEER 3376 (X1002)..... | 65 | 18.4 | 71 | 18000 |
| AINSWORTH X-9..... | 62 | 18.9 | 58 | 16700 |
| PIONEER X2473..... | 53 | 18.9 | 87 | 17000 |
| BEAR UNICORN X6135..... | 59 | 19.0 | 43 | 18000 |
| PIONEER 8001 (X8001)..... | 63 | 19.1 | 77 | 16600 |
| PIONEER 3369A..... | 70 | 19.6 | 66 | 18000 |
| BEAR UNICORN X8333..... | 60 | 19.6 | 52 | 18000 |
| ACCO 956..... | 72 | 20.4 | 77 | 15500 |
| BEAR UNICORN X6716..... | 59 | 20.5 | 65 | 18000 |
| PIONEER 321..... | 49 | 20.8 | 67 | 15000 |
| POCKLINGTON P-892..... | 55 | 21.2 | 71 | 16300 |
| BEAR UNICORN X8236..... | 65 | 21.3 | 60 | 18000 |
| MOEWS 8283..... | 68 | 21.4 | 65 | 18000 |
| PIONEER 10873..... | 50 | 21.6 | 68 | 17400 |
| WHISNAND 851..... | 63 | 22.1 | 67 | 16100 |
| MOEWS 7281..... | 62 | 22.7 | 64 | 17000 |
| PIONEER 309B..... | 58 | 23.2 | 73 | 14300 |
| AV. OF ALL ENTRIES 1968-1969.. | 59 | 20.4 | 66 | 16678 |
| L.S.D..... | N.S. | 2.2 | 19 | 1400 |

* Planted in 40-inch rows in 1967 and 1968.

Table 13a. — Extreme Southern Illinois Upland: Carbondale,
Increased Planting Rate
(Planted at 22,000 plants per acre in 30-inch rows)

| ENTRY | TOTAL ACRE YIELD | GRAIN MOISTURE | ERECT PLANTS | PLANTS PER ACRE |
|-----------------------------------|---------------------|-------------------|-----------------|--------------------|
| SUMMARY 1967-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| MOEWS 7372..... | 95 | 19.7 | 69 | 21600 |
| PRINCETON SX-803..... | 87 | 20.1 | 90 | 18700 |
| WHISNAND 874..... | 94 | 20.2 | 72 | 22000 |
| PIONEER 310..... | 89 | 20.7 | 84 | 20500 |
| TAYLOR-EVANS TE BONUSMAKER S..... | 81 | 20.8 | 78 | 21000 |
| PRINCETON SX-690..... | 80 | 20.8 | 79 | 21000 |
| WHISNAND 871..... | 92 | 20.9 | 74 | 21500 |
| PIONEER 3306..... | 86 | 21.0 | 87 | 20900 |
| PIONEER 10873..... | 89 | 21.2 | 67 | 22000 |
| PIONEER 8001 (X8001)..... | 87 | 21.2 | 78 | 21500 |
| PIONEER 3196 (X2786)..... | 83 | 21.3 | 70 | 21900 |
| PIONEER 309B..... | 85 | 22.0 | 86 | 20400 |
| PIONEER X2473..... | 92 | 23.0 | 91 | 21000 |
| AV. OF ALL ENTRIES 1967-1969.. | 85 | 20.7 | 77 | 21042 |
| L.S.D..... | N.S. | 2.1 | 11 | 1200 |
| SUMMARY 1968-1969 | | | | |
| | BU. | PERCT. | PERCT. | |
| MOEWS 7372..... | 77 | 19.2 | 56 | 21500 |
| PRINCETON SX-803..... | 72 | 19.3 | 86 | 20000 |
| WHISNAND 874..... | 69 | 19.3 | 64 | 22000 |
| TAYLOR-EVANS CASHMAKER..... | 70 | 19.5 | 64 | 19200 |
| PRINCETON SX-836..... | 62 | 19.7 | 77 | 21500 |
| PRINCETON SX-690..... | 59 | 19.7 | 72 | 21300 |
| PIONEER 3376 (X1002)..... | 53 | 19.7 | 74 | 22000 |
| PIONEER 3369A..... | 72 | 19.8 | 66 | 21100 |
| WHISNAND 871..... | 71 | 19.9 | 72 | 21300 |
| PIONEER 310..... | 71 | 20.0 | 82 | 19900 |
| PIONEER 10873..... | 68 | 20.0 | 63 | 22000 |
| PIONEER 3306..... | 67 | 20.2 | 84 | 21800 |
| PIONEER 309B..... | 65 | 20.3 | 83 | 21600 |
| TAYLOR-EVANS TE BONUSMAKER S..... | 77 | 20.6 | 76 | 20900 |
| PIONEER 8001 (X8001)..... | 62 | 20.7 | 73 | 21400 |
| PIONEER 3196 (X2786)..... | 61 | 21.0 | 58 | 21800 |
| PIONEER X2473..... | 76 | 23.1 | 90 | 20500 |
| AV. OF ALL ENTRIES 1968-1969.. | 62 | 20.2 | 72 | 21097 |
| L.S.D..... | N.S. | N.S. | 16 | 1800 |