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University of Tennessee Agricultural Experiment Station

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Research Report

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Performance of Corn Hybrids in 1980

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UNIV. OF TENN.

Charles R. Graves

department of plant
& soil science

PERFORMANCE OF CORN HYBRIDS IN 1980^{1/}

Charles R. Graves^{2/}

The 1980 medium-season state corn hybrid tests were conducted at seven locations, and full-season and early-maturing at four locations. Twenty-four new hybrids were evaluated at Knoxville. The test at Ames Plantation, Jackson and Milan were harvested with a picker-sheller. All other tests were harvested by hand. The test at Waverly under virus conditions was not harvested due to the severe drought and stand problems at this location in 1980. The Martin data will not be reported in this report due to late harvest.

Hybrids yields were very low at Spring Hill, Jackson and Ames Plantation due to dry weather during the growing season. All locations were affected by the drought to some degree. The corn yields at Springfield were good due to the corn being grown on a soil with a high water supplying capacity. The tests at Knoxville were irrigated twice during silking and tasseling. The test at Crossville was irrigated once when the corn was about two feet high. Without irrigation at these two locations the hybrid yields would have been very low.

The leading hybrids in 1980 in the medium-season test were Pioneer brand 3147 (a full-season hybrid included as a check), Pioneer brand 3320, McCurdy 7978, McCurdy 8150, Pioneer brand 3369A, DeKalb XL72A and DeKalb XL72BB. The leading hybrids at Crossville were Pioneer brand 3320, DeKalb XL74A, Asgrow RX909, Pioneer brand 3147 and McCurdy 8150.

The leading hybrids in the full-season test, excluding the Spring Hill data due to a very high C.V., were Pioneer brand 3147, Pioneer brand 3160, and USS 2315. All yields for the full-season test were low except for Knoxville where the test was irrigated twice.

The leading early-maturing hybrids for 1980 were McCurdy 7440, O's Gold SX3344, McCurdy 84aa, P.A.G. SX333 and Zimmerman Z-24Y.

The grain of hybrids grown at Knoxville and Milan was analyzed for crude protein by the UT forage testing lab in Nashville. All grain was dried to 11 to 12 percent moisture before testing for protein.

The hybrids in the medium-season test with the highest crude grain protein were T-R 2020W, T-R 2051W (Experimentals), DeKalb XL390B, Funk G-4525A, Asgrow RX962W, and Asgrow RX112. The full-season hybrids with the highest crude grain protein were N.K. PX95, Asgrow RX140A, DeKalb Ex.9696, RA 2602W, Zimmerman Z-11W and Golden Harvest H-2660W. In the early maturing group DeKalb XL55A, N.K. PX664, FFR 717C and RA 1502 hybrids produced grain with the highest crude protein.

^{1/} These results will be included in the 1980 Bulletin 600, "Performance of Field Crop Varieties", which will be available in early 1981.

^{2/} Associate Professor of Plant and Soil Science.

The Recommended Corn Varieties for 1980 are as Follows:

| Maturity Group | Grain Color | Hybrid | Tolerance ^{1/} to Corn Virus Complex | Erect Plants % | Yield ^{3/} Bu/A |
|----------------|-------------|-----------------------------|--|----------------------|-----------------------------|
| | | | | | |
| Early-Season | Yellow | Zimmerman Z-24Y | Low | 94 | 126 |
| | | McCurdy 84aa | Low | 91 | 124 |
| | | McCurdy MSX7570 | Low | 94 | 123 |
| | | Funk G-4507 | Low | 90 | 119 |
| | | FFR 744C | Low | 92 | 117 |
| | | DeKalb XL72AA ^{2/} | Low | 94 | 116 |
| | | FFR 707C ^{2/} | High | 95 | 116 |
| | | Trojan TXS 114 | Low | -- | --- |
| Medium-Season | Yellow | P.A.G. 314 | Low | -- | --- |
| | | Pioneer brand 3184 | Medium | 96 | 132 |
| | | DeKalb XL72BB | Med-High | 95 | 132 |
| | | Pioneer brand 3311 | Low | 94 | 128 |
| | | Pioneer brand 3369A | Low | 93 | 126 |
| | | DeKalb XL80 | Low | 91 | 126 |
| | | Asgrow RX114 | Med-Low | 92 | 126 |
| | | N.K. PX79 | Med-Low | 92 | 124 |
| | | Golden Acres T.E. 6995 | Low | 93 | 122 |
| | | RA 1502 | Low | 95 | 122 |
| | | Funk G-4520 ^{2/} | Low | 95 | 121 |
| | | Funk G-4776 | Med | 98 | 119 |
| | | Princeton SX840 | Low | 94 | 119 |
| | | DeKalb XL72B ^{1/} | High | 93 | 117 |
| | | FFR 799C | Low | -- | --- |
| | | P.A.G. SX17A | Medium | -- | --- |
| Full-Season | White | DeKalb XL390B | Low | -- | --- |
| | | Pioneer brand 3147 | Med-High | 90 | 145 |
| | | Funk G-4848 | Medium | 98 | 144 |
| | | DeKalb XL394 | High | 98 | 141 |
| | | Pioneer brand 3145 | High | 99 | 131 |
| | | N.K. PX723 | Med-High | 97 | 131 |
| | | Paymaster UC9792 | Low | 93 | 131 |
| | | McNair X-300 | Low | 96 | 125 |
| | | Tenn. 608 ^{2/4/} | High | -- | --- |
| | Yellow | Princeton SX910 | Med-High | 87 | 136 |
| | | Zimmerman Z-11W | Med-High | 85 | 134 |
| | | FFR 929W | Medium | 96 | 131 |
| | | Golden Harvest H-2660W | Medium | 93 | 128 |
| | | RA 2602W | Medium | 85 | 126 |

^{1/} Hybrids rated lower than medium-high are not recommended under heavy virus conditions (DeKalb XL72B recommended only under virus conditions).

^{2/} Present plans indicate that this hybrid will not be recommended after this year.

^{3/} The medium-season hybrids are 3 year averages (1977-79) and the full-season yields and lodging are adjusted 3 year averages using a hybrid common to both test.

^{4/} Not recommended for grain production under corn virus conditions.

Table 1. Corn: Yield of 40 medium-season hybrids evaluated at five locations in 1980

| Color | Cross | Hybrid | 1/ Avg. | 2/ Greene- ville | 3/ Knox- ville | 4/ Spring- field | 5/ Milan | 6/ Spring Hill |
|------------------|-------|---------------------|------------|------------------------|----------------------|------------------------|-------------|----------------------|
| Bushels per acre | | | | | | | | |
| y | 2X | Pioneer brand 3147 | 117 | 90 | 121 | 155 | 101 | 44 |
| y | 3X | Pioneer brand 3320 | 111 | 85 | 122 | 131 | 106 | 43 |
| y | 2X | McCurdy 7978 | 109 | 81 | 106 | 132 | 117 | 42 |
| y | 2X | McCurdy 8150 | 109 | 80 | 107 | 134 | 115 | 54 |
| y | 2X | Pioneer brand 3369A | 109 | 78 | 114 | 131 | 112 | 48 |
| y | M2X | DeKalb XL74A | 108 | 85 | 116 | 128 | 104 | 45 |
| y | 3X | DeKalb XL72BB | 107 | 82 | 113 | 118 | 117 | 34 |
| w | 3X | T-R 2051W// | 107 | 81 | 114 | 137 | 97 | 25 |
| y | 2X | Paymaster UC8951 | 106 | 84 | 105 | 122 | 114 | 43 |
| w | 2X | Asgrow RX962W | 104 | 71 | 117 | 148 | 82 | 22 |
| y | 2X | Zimmerman Z-22Y | 104 | 75 | 106 | 122 | 112 | 41 |
| y | 3X | Trojan TXS 115A | 102 | 83 | 99 | 127 | 101 | 50 |
| y | 2X | Coker 19 | 102 | 77 | 96 | 134 | 103 | 47 |
| y | 2X | O's Gold SX5509 | 102 | 68 | 106 | 126 | 109 | 50 |
| y | 2X | T.E. 6995 | 102 | 72 | 103 | 124 | 107 | 45 |
| y | 2X | Aztec SX640 | 101 | 67 | 93 | 133 | 113 | 56 |
| y | 2X | Asgrow RX909 | 101 | 78 | 100 | 121 | 104 | 42 |
| y | SP3X | Funk G-4657 | 100 | 73 | 111 | 115 | 103 | 46 |
| y | 2X | RA 1502 | 100 | 74 | 104 | 124 | 98 | 56 |
| y | 3X | Golden Harvest 2745 | 100 | 78 | 102 | 114 | 104 | 46 |
| y | 2X | DeKalb XL71 | 100 | 70 | 106 | 128 | 94 | 48 |
| w | 3X | DeKalb XL390B | 99 | 56 | 104 | 152 | 84 | 38 |
| y | 2X | Aztec SX644 | 99 | 67 | 97 | 124 | 109 | 62 |
| y | 2X | Pioneer brand 3184 | 99 | 80 | 104 | 126 | 87 | 48 |
| y | 2X | Pioneer brand X7448 | 99 | 76 | 102 | 120 | 96 | 52 |
| y | 2X | DeKalb XL72B | 98 | 73 | 106 | 120 | 95 | 43 |
| y | 2X | N.K. PX79 | 97 | 66 | 101 | 134 | 88 | 20 |
| y | 2X | Princeton SX840 | 97 | 72 | 96 | 122 | 100 | 35 |
| y | 2X | DeKalb XL80 | 97 | 76 | 112 | 124 | 75 | 35 |
| w | 3X | T-R 2020W// | 97 | 71 | 106 | 126 | 84 | 35 |
| y | 2X | O's Gold SX5255 | 96 | 76 | 106 | 117 | 86 | 38 |
| y | 2X | RA 1604 | 96 | 71 | 104 | 112 | 97 | 40 |
| y | 3X | FFR 799C | 96 | 69 | 84 | 125 | 105 | 47 |
| y | M2X | Funk G-4606 | 95 | 70 | 95 | 124 | 92 | 37 |
| y | 2X | O's Gold SX5353 | 96 | 74 | 99 | 120 | 89 | 51 |
| y | 2X | P.A.G. SX373 | 96 | 66 | 102 | 119 | 95 | 28 |
| y | 3X | Asgrow RX112 | 94 | 75 | 105 | 110 | 86 | 39 |
| y | 2X | T.E. 6945 | 93 | 66 | 92 | 117 | 95 | 35 |
| y | 2X | Funk G-4525A | 93 | 76 | 102 | 104 | 80 | 32 |
| y | 2X | RA 1504 | 91 | 66 | 95 | 116 | 86 | 61 |
| L.S.D. (.05) | | | 11.6 | 12.8 | 17.2 | 19.0 | 18.5 | 13.4 |
| C.V.% | | | 16.4 | 12.2 | 11.7 | 10.8 | 13.4 | 22.7 |
| Avg. | | | 101 | 75 | 104 | 125 | 99 | 43 |

1/ Spring Hill not included in average due to high C.V.

2/ Hermitage silt loam (2% to 5% slopes).

3/ Sequatchie loam (2% to 5% slopes).

4/ Huntington silt loam local alluvium (2% to 5% slopes).

5/ Collins silt loam (2% to 5% slopes)

6/ Maury silt loam (2% to 5% slopes)

7/ Experimental.

Table 2. Corn: Yields and other characteristics of 40 medium-season hybrids evaluated at four locations in 1980

| Color | Cross | Hybrid | Yield Bu/A | Erect Plants % | Grain Quality Rating ¹ / | Husk Cover Rating ¹ / | Ear ht. in. | Grain Moisture at Harvest % |
|--------------|-------|--------------------------|---------------|----------------------|---|--|-------------------|---|
| y | 2X | Pioneer brand 3147 | 117 | 86 | 4.0 | 3.7 | 53 | 18.3 |
| y | 2X | Pioneer brand 3320 | 111 | 100 | 2.7 | 2.8 | 45 | 18.2 |
| y | 2X | McCurdy 7978 | 109 | 98 | 3.0 | 2.7 | 50 | 18.1 |
| y | 2X | McCurdy 8150 | 109 | 98 | 2.8 | 2.0 | 54 | 19.1 |
| y | 2X | Pioneer brand 3369A | 109 | 99 | 2.7 | 3.8 | 46 | 16.4 |
| y | M2X | DeKalb XL74A | 108 | 99 | 4.7 | 4.0 | 50 | 18.4 |
| y | 3X | DeKalb XL72BB | 107 | 98 | 4.0 | 3.5 | 48 | 19.3 |
| w | 3X | T-R 2051W ² / | 107 | 94 | 2.8 | 2.3 | 55 | 20.4 |
| y | 2X | Paymaster UC8951 | 106 | 94 | 3.3 | 3.0 | 49 | 18.8 |
| w | 2X | Asgrow RX962W | 104 | 89 | 3.2 | 2.3 | 56 | 20.6 |
| y | 2X | Zimmerman Z-22Y | 104 | 95 | 3.7 | 2.3 | 46 | 18.1 |
| y | 2X | Trojan TXS 115A | 102 | 95 | 4.3 | 2.8 | 47 | 16.0 |
| y | 2X | Coker 19 | 102 | 96 | 4.7 | 3.2 | 46 | 15.9 |
| y | 2X | O's Gold SX5509 | 102 | 96 | 4.5 | 2.7 | 47 | 19.2 |
| y | 2X | T.E. 6995 | 102 | 94 | 4.5 | 3.7 | 45 | 15.6 |
| y | 2X | Aztec SX640 | 101 | 91 | 3.3 | 3.7 | 49 | 17.6 |
| y | 2X | Asgrow RX909 | 101 | 94 | 4.2 | 2.3 | 44 | 17.6 |
| y | SP3X | Funk G-4657 | 100 | 95 | 5.0 | 3.2 | 48 | 16.9 |
| y | 2X | RA 1502 | 100 | 95 | 3.3 | 2.8 | 45 | 18.2 |
| y | 3X | Golden Harvest 2745 | 100 | 90 | 2.3 | 2.7 | 51 | 18.6 |
| y | 2X | DeKalb XL71 | 100 | 95 | 3.3 | 3.7 | 45 | 18.2 |
| w | 3X | DeKalb XL390B | 99 | 91 | 5.0 | 2.5 | 55 | 18.7 |
| y | 2X | Aztec SX344 | 99 | 93 | 3.0 | 3.5 | 46 | 18.0 |
| y | 2X | Pioneer brand 3184 | 99 | 100 | 2.7 | 2.8 | 45 | 18.8 |
| y | 2X | Pioneer brand X7448 | 99 | 99 | 4.0 | 3.3 | 48 | 17.0 |
| y | 2X | DeKalb XL72B | 98 | 96 | 4.5 | 3.5 | 40 | 17.2 |
| y | 2X | N.K. PX79 | 97 | 98 | 5.3 | 4.0 | 47 | 14.9 |
| y | 2X | Princeton SX840 | 97 | 98 | 4.2 | 3.3 | 49 | 18.8 |
| y | 2X | DeKalb XL80 | 97 | 98 | 2.8 | 2.3 | 44 | 18.7 |
| w | 3X | T-R 2020W ² / | 97 | 86 | 3.2 | 2.7 | 51 | 21.6 |
| y | 2X | O's Gold SX5255 | 96 | 95 | 5.5 | 3.2 | 47 | 15.2 |
| y | 2X | RA 1604 | 96 | 96 | 4.5 | 3.0 | 47 | 19.3 |
| y | 3X | FFR 799C | 96 | 93 | 4.7 | 3.3 | 46 | 16.5 |
| y | M2X | Funk G-4606 | 95 | 95 | 4.7 | 4.2 | 44 | 16.2 |
| y | 2X | O's Gold SX5353 | 96 | 94 | 4.8 | 2.8 | 46 | 15.8 |
| y | 2X | P.A.G. SX373 | 96 | 95 | 3.3 | 3.0 | 48 | 18.2 |
| y | 3X | Asgrow RX112 | 94 | 95 | 2.7 | 2.5 | 47 | 19.2 |
| y | 2X | T.E. 6945 | 93 | 95 | 4.2 | 4.3 | 44 | 15.2 |
| y | 2X | Funk G-4525A | 93 | 97 | 3.7 | 2.8 | 42 | 14.8 |
| y | 2X | RA 1504 | 91 | 97 | 5.5 | 3.2 | 47 | 14.0 |
| L.S.D. (.05) | | | 11.6 | -- | --- | --- | -- | --- |
| C.V.% | | | 16.4 | -- | --- | --- | -- | --- |
| Avg. | | | 101 | -- | --- | --- | -- | --- |

¹/Rating was based on a scale of 1 through 9 with 1 being excellent and 9 poor.

²/Experimental.

Table 3. Corn: Yields and other characteristics of 21 medium season hybrids evaluated at four locations for two year (1979-80)

| Color | Cross | Hybrid | Avg. Bu/A | Erect Plants % | Grain Quality Rating ¹ / ₉ | Husk Cover Rating ¹ / ₉ | Ear ht. in. | Grain Moisture at Harvest % |
|-------|-------|---------------------|--------------|----------------------|--|---|-------------------|---|
| y | 2X | Pioneer brand 3147 | 131 | 89 | 4.1 | 4.2 | 56 | 22.5 |
| w | 2X | Asgrow RX962W | 122 | 90 | 3.0 | 2.2 | 60 | 23.4 |
| w | 3X | DeKalb XL390B | 120 | 91 | 4.4 | 2.6 | 60 | 22.1 |
| y | 2X | Pioneer brand 3184 | 118 | 98 | 2.8 | 4.1 | 49 | 21.6 |
| y | 3X | DeKalb XL72BB | 117 | 98 | 4.2 | 4.2 | 53 | 22.0 |
| y | 2X | McCurdy 7978 | 114 | 98 | 3.0 | 2.8 | 56 | 20.6 |
| y | 2X | DeKalb XL80 | 112 | 94 | 2.6 | 2.6 | 48 | 21.6 |
| y | 2X | Pioneer brand 3369A | 110 | 96 | 2.8 | 4.4 | 49 | 19.6 |
| y | 2X | O's Gold SX5509 | 110 | 93 | 4.1 | 3.3 | 51 | 22.1 |
| y | 2X | RA 1502 | 107 | 96 | 3.4 | 3.1 | 50 | 20.8 |
| y | 2X | Zimmerman Z-22Y | 106 | 94 | 3.6 | 3.1 | 49 | 21.0 |
| y | 2X | O's Gold SX5353 | 105 | 94 | 4.2 | 3.5 | 50 | 19.0 |
| y | 2X | N.K. PX79 | 104 | 97 | 4.8 | 3.9 | 51 | 18.6 |
| y | 2X | T.E. 6995 | 103 | 94 | 4.2 | 4.0 | 51 | 18.7 |
| y | 2X | DeKalb XL72B | 103 | 95 | 4.0 | 4.2 | 44 | 20.6 |
| y | 2X | Coker 19 | 103 | 93 | 4.4 | 3.6 | 48 | 18.9 |
| y | SP3X | Funk G-4657 | 102 | 94 | 4.5 | 3.5 | 50 | 20.0 |
| y | 3X | FFR 799C | 102 | 94 | 4.4 | 4.0 | 50 | 20.0 |
| y | 2X | T.E. 6945 | 101 | 95 | 4.2 | 4.6 | 47 | 18.8 |
| y | M2X | Funk G-4606 | 100 | 94 | 4.4 | 4.4 | 50 | 19.6 |
| y | 2X | Princeton SX840 | 98 | 96 | 4.3 | 3.6 | 53 | 21.8 |

¹/ Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 4. Corn: Yield and other characteristics of 40 medium-season hybrids evaluated at Crossville in 1980^{1/2/}

| Color | Cross | Hybrid | Yield Bu/A | Quality Rating | Grain Moisture at Harvest % |
|--------------|-------|---------------------------|---------------|-------------------|---|
| y | 2X | Pioneer brand 3320 | 115 | 2.0 | 21.5 |
| y | M2X | DeKalb XL74A | 104 | 6.0 | 23.6 |
| y | 2X | Asgrow RX909 | 103 | 5.0 | 21.6 |
| y | 2X | Pioneer brand 3147 | 102 | 4.0 | 28.6 |
| y | 2X | McCurdy 8150 | 102 | 2.5 | 24.3 |
| y | 2X | RA 1502 | 96 | 4.5 | 21.8 |
| y | 3X | Asgrow RX112 | 94 | 3.5 | 25.4 |
| y | 3X | DeKalb XL72BB | 94 | 3.5 | 27.8 |
| y | 2X | Aztec SX644 | 94 | 4.5 | 21.6 |
| y | 2X | Pioneer brand 3184 | 94 | 3.5 | 26.3 |
| y | 2X | Princeton SX840 | 93 | 4.5 | 27.7 |
| y | 2X | O's Gold SX5509 | 93 | 6.0 | 26.0 |
| y | 2X | Zimmerman Z-22Y | 93 | 4.0 | 21.0 |
| y | 2X | Paymaster UC8951 | 93 | 4.0 | 24.4 |
| y | 3X | Golden Harvest 2745 | 93 | 3.5 | 26.0 |
| y | 2X | McCurdy 7978 | 92 | 4.5 | 23.4 |
| y | 2X | O's Gold SX5353 | 90 | 3.5 | 21.4 |
| y | 2X | Aztec SX640 | 90 | 4.0 | 23.6 |
| y | 2X | RA 1504 | 89 | 4.5 | 21.2 |
| y | 2X | Pioneer brand 3369A | 88 | 5.5 | 20.6 |
| y | 2X | P.A.G. SX373 | 87 | 5.5 | 26.6 |
| y | 2X | T.E. 6945 | 86 | 3.5 | 20.0 |
| y | 2X | Funk G-4525A | 85 | 4.0 | 18.6 |
| y | 2X | DeKalb XL80 | 85 | 4.0 | 25.6 |
| y | 2X | Trojan TXS 115A | 85 | 4.5 | 20.9 |
| w | 3X | DeKalb XL390B | 84 | 4.0 | 29.4 |
| y | 2X | RA 1604 | 84 | 3.5 | 28.0 |
| w | 3X | T-R 2051W ^{3/} | 83 | 3.0 | 27.4 |
| y | M2X | Funk G-4606 | 83 | 3.5 | 23.4 |
| y | 2X | DeKalb XL72B | 81 | 4.5 | 23.4 |
| y | 3X | FFR 799C | 81 | 4.5 | 22.2 |
| y | 2X | O's Gold SX5255 | 80 | 4.5 | 22.1 |
| y | 2X | Pioneer brand X7448 | 80 | 6.0 | 22.2 |
| y | 2X | DeKalb XL71 | 79 | 4.0 | 24.6 |
| y | 2X | Coker 19 | 79 | 5.0 | 21.4 |
| y | 2X | T.E. 6995 | 79 | 4.5 | 19.8 |
| w | 2X | Asgrow RX962W | 78 | 4.5 | 28.6 |
| y | 2X | N.K. PX79 | 77 | 4.0 | 23.2 |
| y | SP3X | Funk G-4657 ^{3/} | 77 | 5.5 | 24.9 |
| w | 3X | T-R 2020W ^{3/} | 68 | 4.0 | 33.5 |
| L.S.D. (.05) | | | 17.0 | --- | --- |
| C.V.% | | | 13.8 | --- | --- |
| Avg. | | | 88 | --- | --- |

- ^{1/}Hartsells loam (2% to 5% slopes. Irrigated when corn was about 24 inches high.
^{2/}Husk cover rating and ear height measurements were not taken because these
^{3/}characteristics were affected too much by the severe drought.
 Experimental

Table 5. Yields of 40 full-season hybrids evaluated at four locations in 1980

| Color | Cross | Hybrid | Avg. ^{1/} | Knox- ^{2/} ville | Ames ^{3/} Plantation | ^{4/5/} Jackson | Spring ^{6/} Hill |
|------------------|-------|-------------------------|--------------------|------------------------------|----------------------------------|----------------------------|------------------------------|
| Bushels per acre | | | | | | | |
| y | M2X | Pioneer brand 3147 | 87 | 131 | 64 | 66 | 51 |
| y | M2X | Pioneer brand 3160 | 86 | 136 | 46 | 80 | 33 |
| y | M2X | USS 2315 | 81 | 116 | 61 | 61 | 20 |
| y | M2X | Funk G-4740 | 78 | 127 | 44 | 65 | 46 |
| w | M2X | RA 2602W | 75 | 132 | 39 | 50 | 19 |
| y | 2X | McCurdy 8230 | 75 | 111 | 46 | 70 | 39 |
| y | 2X | McCurdy 67-14 | 74 | 127 | 27 | 65 | 27 |
| w | 2X | Zimmerman Z-11W | 72 | 124 | 34 | 51 | 11 |
| y | 2X | Paymaster UC9792 | 72 | 108 | 44 | 64 | 31 |
| y | 2X | Coker 22 | 71 | 110 | 47 | 60 | 17 |
| w | 2X | Princeton SX910 | 71 | 116 | 31 | 60 | 12 |
| w | 2X | Zimmerman Z-52W | 70 | 121 | 34 | 54 | 9 |
| w | M2X | Funk G-4747-1 | 70 | 128 | 44 | 42 | 13 |
| y | 3X | DeKalb XL394 | 70 | 124 | 42 | 40 | 19 |
| y | 2X | USS 2020 | 70 | 120 | 31 | 60 | 25 |
| w | 3X | T-R 2010W ^{7/} | 69 | 122 | 35 | 52 | 26 |
| y | M2X | Funk G-4848-2 | 69 | 118 | 45 | 43 | 19 |
| w | SP2X | Princeton SP936 | 68 | 114 | 29 | 59 | 10 |
| w | 2X | P.A.G. SX70W | 67 | 110 | 40 | 50 | 15 |
| y | 3X | Asgrow RX140A | 67 | 109 | 31 | 59 | 7 |
| y | 3X | N.K. PX723 | 66 | 112 | 28 | 56 | 19 |
| y | 2X | Princeton SX870 | 66 | 106 | 34 | 60 | 17 |
| y | 3X | Golden Harvest H-2750A | 66 | 113 | 24 | 61 | 12 |
| y | 2X | Golden Harvest H-2775A | 66 | 109 | 25 | 63 | 9 |
| w | 3X | RA 3605W | 65 | 117 | 20 | 50 | 5 |
| y | 3X | Pioneer brand 3145 | 65 | 109 | 39 | 48 | 31 |
| y | 2X | N.K. PX87 | 65 | 113 | 30 | 44 | 22 |
| y | M2X | FFR 955C | 65 | 120 | 28 | 44 | 9 |
| y | M2X | Pioneer brand 3179 | 64 | 114 | 32 | 47 | 24 |
| y | 4X | T-7006 ^{7/} | 64 | 108 | 33 | 44 | 12 |
| y | 2X | FFR 915C | 64 | 113 | 26 | 58 | 22 |
| w | 3X | FFR 929C | 64 | 116 | 33 | 42 | 12 |
| w | 2X | Golden Harvest H-2660W | 63 | 115 | 29 | 45 | 13 |
| y | M2X | Funk G-4787W | 63 | 100 | 38 | 42 | 2 |
| y | 3X | N.K. PX707 | 63 | 95 | 38 | 55 | 14 |
| y | 3X | DeKalb XL82 | 62 | 103 | 34 | 46 | 17 |
| y | 3X | DeKalb Ex.9696 | 61 | 117 | 29 | 36 | 11 |
| y | 2X | T.E. 6995A | 56 | 101 | 26 | 41 | 20 |
| w | 2X | Pioneer brand 519 | 54 | 102 | 26 | 35 | 1 |
| y | 2X | N.K. PX95 | 50 | 93 | 21 | 35 | ; |
| L.S.D. (.05) | | | 12.8 | 16.9 | 14.3 | 17.8 | 1 |
| C.V.% | | | 23.3 | 10.6 | 29.1 | 27.2 | 5 |
| Avg. | | | 67.8 | 114.4 | 35.1 | 52.7 | 18.3 |

^{1/}Spring Hill data not included in average due to high C.V. and low yields.

^{2/}Sequatchie loam (2% to 5% slopes); Irrigated twice.

^{3/}Memphis silt loam (2% to 5% slopes).

^{4/}Memphis silt loam (0% to 2% slopes).

^{5/}Jackson yields based on 5 replications but when average was calculated only 4 replications used.

^{6/}Maury silt loam (2% to 5% slopes).

^{7/}An experimental.

Table 6. Yields and other characteristics of full-season hybrids evaluated at four locations in 1980

| Color | Cross | Hybrid | Yield Bu/A | Erect plants % | Grain quality Rating ^{1/} | Husk cover Rating ^{1/} | Ear ht. in. | Grain Moisture at Harvest % |
|--------------|-------|------------------------|---------------|----------------------|--|---------------------------------------|-------------------|---|
| y | M2X | Pioneer brand 3147 | 87 | 97 | 4.5 | 2.5 | 54 | 24.2 |
| y | M2X | Pioneer brand 3160 | 86 | 100 | 2.5 | 1.8 | 54 | 23.7 |
| y | M2X | USS 2315 | 81 | 99 | 3.0 | 2.0 | 52 | 23.3 |
| y | M2X | Funk G-4740 | 78 | 99 | 3.0 | 3.2 | 46 | 23.7 |
| w | M2X | RA 2602W | 75 | 97 | 3.0 | 1.8 | 58 | 25.2 |
| y | 2X | McCurdy 8230 | 75 | 96 | 2.5 | 2.5 | 55 | 26.6 |
| y | 2X | McCurdy 67-14 | 74 | 98 | 2.5 | 2.2 | 48 | 25.5 |
| w | 2X | Zimmerman Z-11W | 72 | 97 | 3.0 | 2.0 | 60 | 25.5 |
| y | 2X | Paymaster UC9792 | 72 | 94 | 2.0 | 1.8 | 52 | 24.0 |
| y | 2X | Coker 22 | 71 | 96 | 4.0 | 3.0 | 48 | 23.2 |
| w | 2X | Princeton SX910 | 71 | 96 | 3.0 | 2.0 | 58 | 24.9 |
| w | 2X | Zimmerman Z-52W | 70 | 98 | 3.0 | 3.0 | 56 | 25.7 |
| w | M2X | Funk G-4747-1 | 70 | 97 | 3.0 | 2.2 | 56 | 25.5 |
| y | 3X | DeKalb XL394 | 70 | 98 | 3.5 | 2.8 | 58 | 23.8 |
| y | 2X | USS 2020 | 70 | 96 | 4.0 | 2.2 | 49 | 22.8 |
| w | 3X | T-R 2010W | 69 | 97 | 2.5 | 1.8 | 54 | 23.7 |
| y | M2X | Funk G-4848-2 | 69 | 99 | 3.0 | 2.2 | 46 | 24.5 |
| w | SP2X | Princeton SP936 | 68 | 97 | 2.5 | 2.5 | 60 | 25.6 |
| w | 2X | P.A.G. SX70W | 67 | 91 | 3.0 | 2.5 | 54 | 23.7 |
| y | 3X | Asgrow RX140A | 67 | 98 | 2.5 | 1.8 | 56 | 25.8 |
| y | 3X | N.K. PX723 | 66 | 95 | 3.5 | 2.8 | 54 | 23.9 |
| y | 2X | Princeton SX870 | 66 | 96 | 4.5 | 2.0 | 47 | 23.6 |
| y | 3X | Golden Harvest H-2750A | 66 | 96 | 3.5 | 2.2 | 51 | 23.4 |
| y | 2X | Golden Harvest H-2775A | 66 | 96 | 2.5 | 2.0 | 48 | 24.5 |
| w | 3X | RA 3605W | 65 | 96 | 4.0 | 2.8 | 60 | 25.0 |
| y | 3X | Pioneer brand 3145 | 65 | 98 | 3.0 | 2.2 | 52 | 25.0 |
| y | 2X | N.K. PX87 | 65 | 97 | 5.0 | 2.8 | 49 | 23.0 |
| y | M2X | FFR 955C | 65 | 96 | 3.0 | 2.2 | 52 | 24.9 |
| y | M2X | Pioneer brand 3179 | 64 | 97 | 4.0 | 2.8 | 50 | 24.2 |
| y | 4X | T-7006 | 64 | 94 | 2.5 | 1.8 | 56 | 24.0 |
| y | 2X | FFR 915C | 64 | 95 | 3.0 | 2.2 | 50 | 24.2 |
| w | 3X | FFR 929W | 64 | 97 | 3.5 | 2.2 | 54 | 24.3 |
| w | 2X | Golden Harvest H-2660W | 63 | 94 | 3.5 | 2.2 | 56 | 25.0 |
| y | M2X | Funk G-4787W | 63 | 98 | 4.5 | 2.5 | 52 | 24.9 |
| y | 3X | N.K. PX707 | 63 | 96 | 4.5 | 2.5 | 52 | 22.3 |
| y | 3X | DeKalb XL82 | 62 | 96 | 4.5 | 2.5 | 53 | 24.0 |
| y | 3X | DeKalb Ex.9696 | 61 | 97 | 4.0 | 2.2 | 56 | 27.8 |
| y | 2X | T.E. 6995A | 56 | 98 | 5.0 | 3.2 | 48 | 19.4 |
| w | 2X | Pioneer brand 519 | 54 | 97 | 2.5 | 2.5 | 56 | 21.1 |
| y | 2X | N.K. PX95 | 50 | 98 | 5.5 | 2.5 | 56 | 24.8 |
| L.S.D. (.05) | | | 12.8 | -- | --- | --- | -- | --- |
| C.V.% | | | 23.3 | -- | --- | --- | -- | --- |

^{1/}Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 7. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations for 2 years (1979-80)

| Color | Cross | Hybrid | Yield Bu/A | Erect Plants % | Grain Quality Rating ^{1/} | Husk Cover ^{1/} Rating ^{1/} | Eat Ht. in. | Grain Moisture at Harvest % |
|-------|-------|------------------------|---------------|----------------------|--|---|-------------------|---|
| y | M2X | Pioneer brand 3147 | 105 | 83 | 4.4 | 3.6 | 54 | 24.0 |
| y | M2X | Funk G-4740 | 98 | 96 | 3.1 | 3.4 | 48 | 23.8 |
| y | 3X | DeKalb XL394 | 95 | 93 | 3.4 | 3.1 | 59 | 24.1 |
| y | M2X | Pioneer brand 3179 | 93 | 84 | 3.5 | 3.0 | 53 | 23.4 |
| y | 2X | Paymaster UC9792 | 93 | 87 | 2.0 | 2.6 | 54 | 23.9 |
| w | M2X | RA 2602W | 93 | 80 | 2.9 | 2.4 | 57 | 22.7 |
| w | 2X | Princeton SX910 | 92 | 79 | 2.8 | 3.0 | 59 | 24.3 |
| y | 2X | McCurdy 67-14 | 91 | | | | | |
| y | 3X | Pioneer brand 3145 | 90 | 96 | 2.9 | 2.7 | 54 | 24.8 |
| w | 2X | Zimmerman Z-11W | 88 | 79 | 2.6 | 2.8 | 58 | 24.4 |
| w | 2X | Golden Harvest H-2660W | 87 | 87 | 3.0 | 2.8 | 56 | 24.7 |
| y | 2X | Golden Harvest H-2775A | 87 | 89 | 3.0 | 2.8 | 50 | 23.8 |
| y | 3X | N.K. PX723 | 87 | 91 | 3.8 | 3.0 | 55 | 23.0 |
| y | 2X | Coker 22 | 85 | 91 | 4.1 | 3.5 | 50 | 23.0 |
| y | M2X | FFR 955C | 85 | 91 | 2.8 | 2.6 | 53 | 24.0 |
| y | 2X | FFR 915C | 84 | 91 | 2.9 | 2.7 | 52 | 23.4 |
| w | 3X | FFR 929W | 83 | 89 | 3.2 | 3.0 | 56 | 24.0 |
| y | 3X | Asgrow RX140A | 83 | 89 | 2.8 | 2.6 | 56 | 24.9 |
| y | 3X | Golden Harvest H-2750A | 79 | 87 | 3.2 | 2.9 | 51 | 23.0 |
| y | 2X | T.E. 6995A | 79 | 96 | 5.2 | 3.6 | 50 | 19.8 |
| w | 2X | P.A.G. SX70W | 75 | 79 | 3.0 | 2.8 | 54 | 23.6 |
| y | 2X | N.K. PX95 | 73 | 88 | 5.4 | 3.0 | 57 | 24.4 |

^{1/}Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 8. Corn: Yield of 20 early maturing hybrids evaluated at three locations in 1980

| Color | Cross | Hybrid | Avg. | Cross- ^{1/} ville | Knox- ^{2/} ville | Ames ^{3/} Plantation |
|------------------|-------|-----------------------|------|-------------------------------|------------------------------|----------------------------------|
| Bushels per acre | | | | | | |
| y | 2X | McCurdy 7440 | 93 | 114 | 118 | 48 |
| y | 2X | O's Gold SX3344 | 92 | 94 | 125 | 57 |
| y | 2X | McCurdy 84aa | 87 | 111 | 116 | 34 |
| y | 2X | P.A.G. SX333 | 85 | 99 | 110 | 46 |
| y | 2X | Zimmerman Z-24Y | 84 | 95 | 112 | 45 |
| y | 2X | RA 1502 | 83 | 103 | 98 | 48 |
| y | 2X | DeKalb XL72AA | 82 | 92 | 104 | 49 |
| y | 2X | Funk G-4507A | 82 | 93 | 110 | 42 |
| y | 2X | USS 1010 | 80 | 92 | 107 | 42 |
| y | 2X | McCurdy 7570 | 79 | 93 | 105 | 40 |
| y | 2X | Trojan TXS 114 | 79 | 100 | 106 | 32 |
| y | 2X | DeKalb XL70 | 79 | 92 | 108 | 37 |
| y | 2X | FFR 744C | 79 | 91 | 107 | 38 |
| y | 2X | O's Gold SX5500A | 78 | 92 | 104 | 36 |
| y | 2X | DeKalb XL67 | 78 | 100 | 104 | 28 |
| y | 2X | DeKalb XL55A | 78 | 95 | 110 | 28 |
| y | 2X | Golden Harvest H-2500 | 77 | 88 | 108 | 36 |
| y | 2X | FFR 788C | 76 | 103 | 98 | 27 |
| y | M2X | FFR 717C | 75 | 86 | 97 | 41 |
| y | 2X | N.K. PX664 | 73 | 89 | 101 | 30 |

^{1/}Hartsells loam (2% to 5% slopes).

^{2/}Sequatchie loam (2% to 5% slopes).

^{3/}Loring silt loam (2% to 5% slopes).

Table 9 Corn: Yield and other characteristics of early maturing hybrids evaluated in 1980

| Color | Cross | Hybrid | Yield Bu/A | Erect Plants % | Quality Rating ^{1/} | Husk Cover Rating ^{1/} | Plant ht. in. | Grain Moisture at Harvest |
|-------|-------|-----------------------|---------------|----------------------|---------------------------------|---------------------------------------|---------------------|------------------------------------|
| | | | | | | | | % |
| y | 2X | McCurdy 7440 | 93 | 95 | 4.5 | 5.0 | 48 | 18.6 |
| y | 2X | O's Gold SX3344 | 92 | 96 | 4.5 | 4.0 | 46 | 17.1 |
| y | 2X | McCurdy 84aa | 87 | 92 | 5.0 | 3.0 | 49 | 19.8 |
| y | 2X | P.A.G. SX333 | 85 | 94 | 5.5 | 3.5 | 46 | 16.9 |
| y | 2X | Zimmerman Z-24Y | 84 | 94 | 4.0 | 3.5 | 45 | 19.4 |
| y | 2X | RA 1502 | 83 | 94 | 7.0 | 3.0 | 45 | 17.6 |
| y | 2X | DeKalb XL72AA | 82 | 92 | 6.5 | 4.0 | 44 | 18.4 |
| y | 2X | Funk G-4507A | 82 | 97 | 5.5 | 4.5 | 46 | 18.4 |
| y | 2X | USS 1010 | 80 | 96 | 5.0 | 4.5 | 45 | 18.0 |
| y | 2X | McCurdy 7570 | 79 | 96 | 5.0 | 4.0 | 48 | 17.2 |
| y | 2X | Trojan TXS 114 | 79 | 95 | 6.0 | 4.5 | 45 | 17.7 |
| y | 2X | DeKalb XL70 | 79 | 94 | 5.0 | 4.5 | 52 | 17.5 |
| y | 2X | FFR 744C | 79 | 95 | 6.0 | 5.5 | 48 | 17.5 |
| y | 2X | O's Gold SX5500A | 78 | 94 | 6.0 | 3.5 | 44 | 17.1 |
| y | 2X | DeKalb XL67 | 78 | 92 | 4.5 | 4.0 | 49 | 17.3 |
| y | 2X | DeKalb XL55A | 78 | 91 | 3.0 | 6.5 | 43 | 16.5 |
| y | 2X | Golden Harvest H-2500 | 77 | 94 | 6.0 | 3.5 | 46 | 17.6 |
| y | 2X | FFR 788C | 76 | 90 | 4.5 | 4.0 | 44 | 18.7 |
| y | M2X | FFR 717C | 75 | 96 | 4.5 | 3.0 | 46 | 17.0 |
| y | 2X | N.K. PX664 | 73 | 97 | 5.5 | 3.5 | 44 | 16.9 |

^{1/} Rating was based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 10. Corn: Yields and other characteristics of early maturing hybrids evaluated for 2 years (1979-80)

| Color | Cross | Hybrid | Yield Bu/A | Erect Plants % | Grain Quality Rating ^{1/} | Husk Cover Rating ^{1/} | Ear ht. in. | Grain Moisture at Harvest |
|-------|-------|-----------------------|---------------|----------------------|--|---------------------------------------|-------------------|------------------------------------|
| | | | | | | | | % |
| y | 2X | McCurdy 84aa | 105 | 90 | 4.5 | 3.5 | 50 | 21.3 |
| y | 2X | O's Gold SX3344 | 105 | 93 | 4.2 | 4.3 | 48 | 18.8 |
| y | 2X | Zimmerman Z-24Y | 104 | 92 | 3.6 | 3.8 | 47 | 20.6 |
| y | 2X | P.A.G. SX333 | 98 | 90 | 4.6 | 3.7 | 49 | 18.6 |
| y | 2X | O's Gold SX5500A | 96 | 92 | 5.0 | 3.6 | 47 | 18.6 |
| y | 2X | McCurdy 7570 | 95 | 93 | 4.6 | 4.2 | 48 | 18.8 |
| y | 2X | Golden Harvest H-2500 | 93 | 93 | 5.0 | 4.2 | 49 | 19.5 |
| y | 2X | RA 1501 | 92 | 91 | 5.6 | 3.7 | 47 | 19.4 |
| y | 2X | DeKalb XL72AA | 92 | 92 | 5.8 | 3.8 | 47 | 19.6 |
| y | M2X | FFR 717C | 91 | 94 | 4.0 | 3.6 | 49 | 18.4 |

^{1/} Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 11. Corn: Yield and other characteristics of 24 extra hybrids evaluated at Knoxville in 1980^{1/}

| Color | Cross | Hybrid | Yield Bu/A | Erect Plants % | Grain Quality Rating ^{2/} | Husk Color ^{2/} Rating ^{2/} | Ear ht. in. | Grain Moisture at Harvest % |
|--------------|----------|--------------------|---------------|----------------------|--|---|-------------------|---|
| y | 2X 3/ | Pioneer brand 3147 | 136 | 97 | 4.0 | 3.5 | 58 | 21.0 |
| w | | HT-7W | 125 | 97 | 3.0 | 2.5 | 66 | 23.6 |
| y | 2X | Paymaster UC9451 | 125 | 100 | 2.0 | 3.5 | 44 | 21.0 |
| y | 2X | McCurdy 7787 | 124 | 100 | 4.5 | 3.5 | 44 | 23.0 |
| y | -- | Watson 572 | 124 | 100 | 3.5 | 3.5 | 57 | 20.2 |
| y | 2X | McCurdy 8225 | 122 | 95 | 2.0 | 2.5 | 59 | 23.4 |
| y | 2X | Beck's 88X | 121 | 98 | 5.0 | 4.5 | 50 | 23.2 |
| y | 2X | Paymaster UC9532 | 119 | 96 | 3.0 | 3.0 | 52 | 20.4 |
| y | 2X | Beck's 7319X | 118 | 100 | 4.0 | 2.5 | 55 | 20.6 |
| y | 2X | P.A.G. SX351 | 116 | 99 | 6.0 | 4.5 | 48 | 18.6 |
| y | -- | Watson 573 | 116 | 99 | 3.5 | 3.0 | 51 | 16.2 |
| y | 3X | McCurdy X890 | 116 | 96 | 3.0 | 2.5 | 60 | 21.4 |
| y | -- | Watson 574 | 113 | 96 | 3.0 | 2.5 | 52 | 22.8 |
| w | 3X | P.A.G. 644W | 113 | 96 | 3.5 | 3.0 | 67 | 22.0 |
| y | - | Watson 511 | 111 | 97 | 4.0 | 2.0 | 56 | 20.6 |
| y | 2X | Trojan T1230 | 111 | 96 | 3.5 | 2.5 | 51 | 22.4 |
| y | 2X | N.K. PX83 | 110 | 99 | 3.0 | 3.0 | 48 | 20.6 |
| y | 2X | Paymaster UC7951 | 110 | 99 | 4.0 | 3.5 | 55 | 20.0 |
| y | 3X | O's Gold TX311 | 109 | 92 | 5.5 | 3.0 | 53 | 19.1 |
| y | M2X | Beck's 77X | 108 | 99 | 3.0 | 4.0 | 44 | 19.4 |
| y | 2X | Paymaster UC8201 | 108 | 100 | 6.0 | 5.0 | 50 | 17.6 |
| y | 2X | Paymaster UC9902 | 106 | 100 | 5.0 | 2.0 | 62 | 23.2 |
| y | 2X | Beck's 58X | 102 | 97 | 5.5 | 6.0 | 44 | 15.6 |
| y | 2X | USS 2010 | 101 | 99 | 6.0 | 3.0 | 52 | 21.8 |
| L.S.D. (.05) | | | 12.2 | --- | --- | --- | --- | --- |
| C.V.% | | | 7.5 | --- | --- | --- | --- | --- |
| Avg. | | | 115.2 | --- | --- | --- | --- | --- |

^{1/}Sequatchie loam (2% to 5% slopes).

^{2/}Rating was based on a scale of 1 through 9 with 1 being excellent and 9 poor.

^{3/}Information not furnished.

Table 12. Corn: Percent crude protein in corn grain^{1/} of medium-season hybrids at two locations in 1980^{2/}

| Hybrid | Avg. | Knox-ville % crude protein | Milan |
|-------------------------|------|-------------------------------|-------|
| T-R 2020W ^{3/} | 11.2 | 11.1 | 11.3 |
| DeKalb XL390B | 11.2 | 11.6 | 10.8 |
| T-R 2051W ^{3/} | 11.0 | 10.9 | 11.1 |
| Funk G-4525A | 11.0 | 10.4 | 11.7 |
| Asgrow RX962W | 10.6 | 11.2 | 10.1 |
| Asgrow RX112A | 10.6 | 10.6 | 10.6 |
| DeKalb XL80 | 10.2 | 10.1 | 10.3 |
| DeKalb XL71 | 10.2 | 9.9 | 10.4 |
| O's Gold SX5255 | 10.2 | 10.4 | 10.0 |
| T.E. 6945 | 10.0 | 10.3 | 9.6 |
| O's Gold SX5509 | 9.6 | 10.0 | 9.3 |
| P.A.G. SX373 | 9.6 | 9.9 | 9.3 |
| RA 1604 | 9.6 | 9.7 | 9.6 |
| N.K. PX79 | 9.5 | 10.0 | 9.0 |
| Asgrow RX909 | 9.4 | 9.3 | 9.4 |
| Pioneer brand X7448 | 9.4 | 9.2 | 9.7 |
| DeKalb XL72B | 9.4 | 9.5 | 9.3 |
| Princeton SX840 | 9.2 | 9.3 | 9.1 |
| Pioneer brand 3320 | 9.2 | 8.9 | 9.5 |
| Funk G-4606 | 9.1 | 9.6 | 8.6 |
| DeKalb XL72BB | 9.0 | 9.3 | 8.8 |
| McCurdy 8150 | 9.0 | 9.0 | 9.1 |
| Aztec SX644 | 8.9 | 8.9 | 8.9 |
| Pioneer brand 3147 | 8.9 | 9.0 | 8.8 |
| Aztec SX640 | 8.7 | 8.6 | 8.8 |
| RA 1502 | 8.7 | 8.7 | 8.7 |
| RA 1504 | 8.6 | 8.3 | 9.0 |
| McCurdy 7978 | 8.6 | 8.9 | 8.4 |
| Paymaster UC8951 | 8.5 | 8.2 | 8.8 |
| O's Gold SX5353 | 8.4 | 8.5 | 8.2 |
| Zimmerman Z-22Y | 8.4 | 8.2 | 8.7 |
| Funk G-4657 | 8.4 | 8.7 | 8.2 |
| Golden Harvest 2745 | 8.4 | 8.7 | 8.1 |
| Trojan TXS 115A | 8.4 | 8.6 | 8.2 |
| Pioneer brand 3184 | 8.2 | 8.4 | 7.9 |
| FFR 799C | 8.2 | 8.6 | 7.9 |
| Coker 19 | 8.0 | 8.0 | 8.0 |
| Pioneer brand 3369A | 8.0 | 8.2 | 7.8 |
| DeKalb XL74A | 7.9 | 7.8 | 8.0 |
| T.E. 6995 | 7.8 | 7.5 | 8.1 |

^{1/} Grain samples were dried to 11 to 12% moisture.

^{2/} The correlation coefficients of percent grain protein between Knoxville and Milan was .86.

^{3/} Experimentals.

Table 13. Corn: Percent crude protein in corn grain of full-season hybrids at Knoxville in 1980^{1/}

| Hybrid | Crude Protein % | Hybrid | Crude Protein % |
|------------------------|-----------------|------------------------|-----------------|
| N.K. PX95 | 11.7 | P.A.G. SX70W | 9.9 |
| Asgrow RX140A | 11.2 | T.E. 6995A | 9.8 |
| DeKalb Ex.9696 | 11.1 | T7006 | 9.7 |
| RA 2602W | 10.9 | Princeton SX870 | 9.7 |
| Zimmerman Z-11W | 10.8 | FFR 915C | 9.6 |
| Golden Harvest H-2660W | 10.8 | FFR 955C | 9.6 |
| Pioneer brand 519 | 10.7 | McCurdy 8230 | 9.6 |
| Funk G-4787W | 10.7 | Golden Harvest H-2775A | 9.5 |
| Zimmerman Z-52W | 10.6 | Pioneer brand 3147 | 9.5 |
| T-R 2010W | 10.5 | DeKalb XL82 | 9.4 |
| Paymaster UC9792 | 10.5 | N.K. PX87 | 9.3 |
| Pioneer brand 3145 | 10.5 | Pioneer brand 3160 | 9.2 |
| Princeton SX910 | 10.5 | N.K. PX723 | 9.1 |
| Golden Harvest H-2750A | 10.4 | Coker 22 | 9.0 |
| FFR 929W | 10.1 | Funk G-4740 | 9.0 |
| Princeton SP936 | 10.1 | N.K. PX707 | 9.0 |
| USS 2020 | 10.1 | USS 2315 | 8.7 |
| RA 3605W | 10.0 | Pioneer brand 3179 | 8.6 |
| McCurdy 67-14 | 10.0 | DeKalb XL394 | 8.3 |
| Funk G-4747-1 | 10.0 | Funk G-4848-2 | 8.1 |

^{1/}Moisture of samples ranged from 11 to 12%.

Table 14. Corn: Percent crude protein in corn grain of early maturing hybrids at Knoxville in 1980^{1/}

| Hybrid | Crude Protein % | Hybrid | Crude Protein |
|----------------|-----------------|-----------------------|---------------|
| DeKalb XL55A | 10.8 | McCurdy 7570 | 8.3 |
| N.K. PX664 | 10.4 | Zimmerman Z-24Y | 8.2 |
| FFR 717C | 9.7 | DeKalb XL72AA | 8.1 |
| DeKalb XL67 | 9.3 | Golden Harvest H-2500 | 7.9 |
| RA 1502 | 8.9 | O's Gold SX3344 | 7.6 |
| FFR 788C | 8.9 | O's Gold SX5500A | 7.4 |
| McCurdy 84aa | 8.8 | P.A.G. SX333 | 7.4 |
| USS 1010 | 8.7 | Funk G-4507A | 7.4 |
| DeKalb XL70 | 8.7 | FFR 744C | 7.4 |
| Trojan TXS 114 | 8.6 | McCurdy 7440 | 7.1 |

^{1/}Moisture of grain ranged from 11 to 12%.

Table 15. Corn: Yield and mean virus reaction of selected hybrids grown in Humphreys County, under virus condition from 1977 through 1979

| Hybrid | Yield Bu/A | Erect Plants % | Diseased Plants % | Sev. Index | Mean sev. Index virus |
|------------------------|------------|----------------|-------------------|------------|-----------------------|
| FFR 707C | 109 | 74 | 22.6 | 2.2 | 1.5 |
| Pioneer brand 3147 | 108 | 70 | 41.4 | 3.3 | 2.0 |
| Pioneer brand 3179 | 105 | 64 | 53.8 | 3.1 | 2.2 |
| DeKalb XL394 | 100 | 73 | 26.7 | 2.4 | 1.6 |
| DeKalb XL72B | 98 | 73 | 23.1 | 2.7 | 1.5 |
| Funk G-4848 | 97 | 80 | 41.3 | 3.3 | 2.1 |
| Pioneer brand 3145 | 93 | 76 | 36.0 | 3.3 | 1.8 |
| Tenn. 505 | 89 | 60 | 37.8 | 3.0 | 2.0 |
| Tenn. 608 | 89 | 47 | 29.8 | 3.1 | 1.7 |
| Princeton SX910 | 86 | 62 | 51.5 | 3.6 | 2.5 |
| FFR 929W | 85 | 66 | 46.4 | 4.0 | 2.4 |
| RA 2602W | 82 | 60 | 51.1 | 4.3 | 2.8 |
| Golden Harvest H-2660W | 81 | 64 | 54.5 | 3.8 | 2.7 |
| RA 3602 | 75 | 52 | 56.0 | 4.3 | 3.1 |
| RA 2601 | 63 | 56 | 74.0 | 4.9 | 4.1 |
| Pioneer brand 3369A | 58 | 44 | 77.8 | 5.1 | 4.5 |