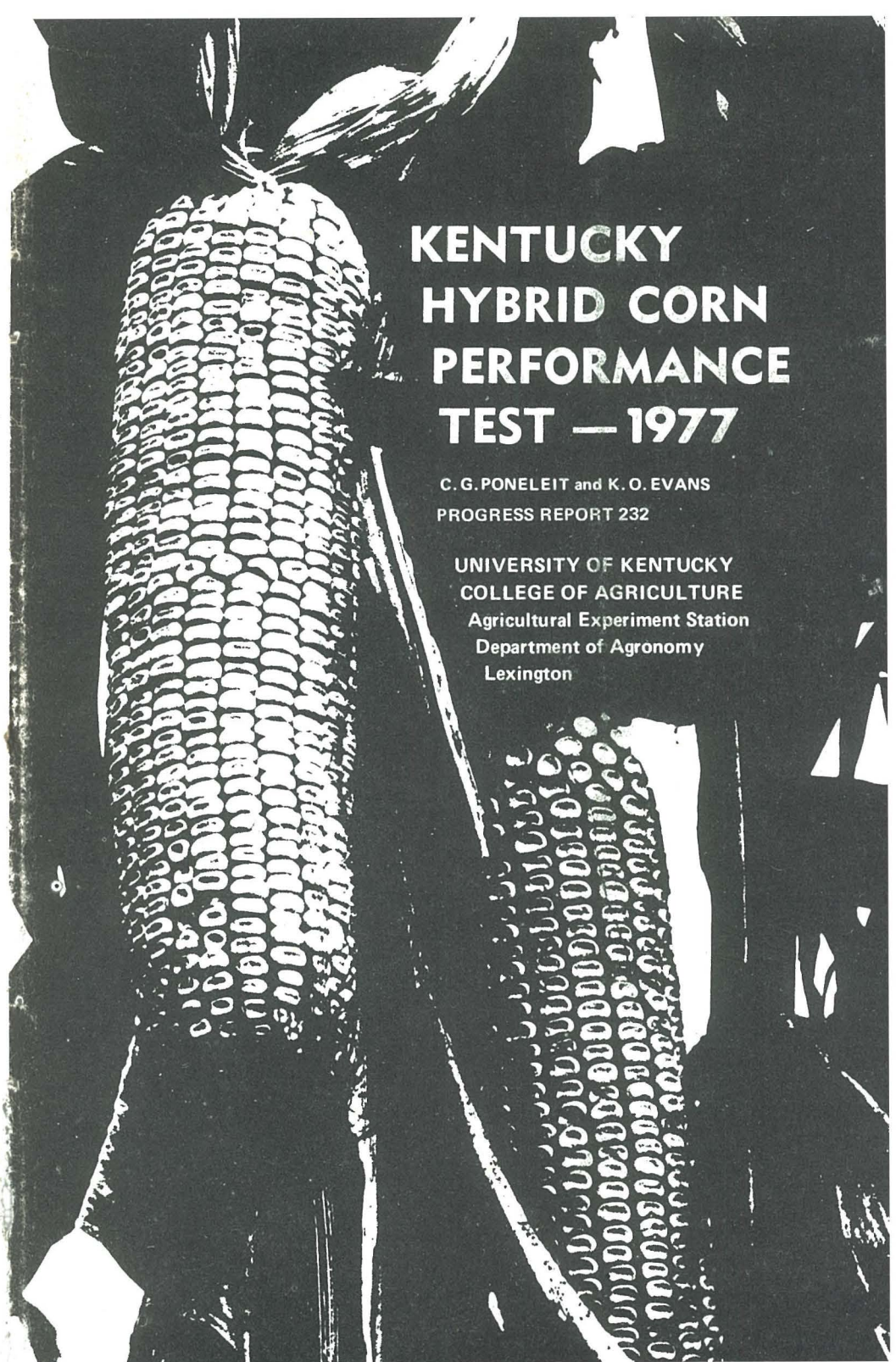


TABLE 15.—CORN VIRUS TEST, NORMAL POPULATION, HODGENVILLE, KY., 1977

| HYBRID                  | 3-YR<br>YIELD<br>BU/AC | 2-YR<br>YIELD<br>BU/AC | 1977 RESULTS   |                |                |
|-------------------------|------------------------|------------------------|----------------|----------------|----------------|
|                         |                        |                        | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND |
| <b>YELLOW</b>           |                        |                        |                |                |                |
| RING AROUND RA 2601     |                        | 169.1                  | 22.5           | 92.9           | 23.1           |
| PICNEER BRAND 3147      |                        | 156.0                  | 19.6           | 78.6           | 33.9           |
| NORTHROP-KING PX715     |                        | 151.0                  | 19.7           | 83.8           | 24.4           |
| FUNK'S G4848            |                        | 149.9                  | 22.7           | 93.8           | 9.1            |
| ACCO UC 9792            |                        | 147.8                  | 21.1           | 75.7           | 33.6           |
| NORTHROP-KING PX95      |                        | 145.2                  | 20.0           | 87.1           | 34.1           |
| NORTHROP-KING PX91      |                        | 144.5                  | 18.6           | 88.1           | 27.1           |
| FUNK'S EXP 28236        |                        | 139.0                  | 19.9           | 87.6           | 32.4           |
| DEKALB XL394            |                        | 134.7                  | 20.2           | 91.9           | 23.8           |
| PICNEER BRAND 3364      |                        | 133.4                  | 19.1           | 90.0           | 33.0           |
| BO-JAC X69              |                        | 132.4                  | 17.3           | 87.6           | 20.2           |
| SECURITY S5120A         |                        | 128.3                  | 19.2           | 86.7           | 25.4           |
| SEED KEM SKX-68         |                        | 127.7                  | 18.6           | 87.6           | 7.1            |
| FUNK'S EXP 28189        |                        | 127.5                  | 21.2           | 90.0           | 39.7           |
| FUNK'S G4776            |                        | 127.3                  | 20.8           | 80.0           | 13.3           |
| WILSTAR 9990            |                        | 126.1                  | 20.4           | 81.9           | 35.2           |
| VIRUS-SUSCEPTIBLE CHECK |                        | 126.1                  | 18.4           | 85.6           | 2.5            |
| HULTING X990            |                        | 124.5                  | 17.8           | 78.6           | 38.1           |
| SECURITY S5125          |                        | 124.1                  | 22.8           | 79.0           | 19.1           |
| ASGROW RX 115A          |                        | 123.1                  | 18.4           | 86.2           | 40.0           |
| KENTUCKY 105            |                        | 122.2                  | 19.0           | 82.4           | 35.9           |
| BO-JAC X83              |                        | 121.2                  | 19.5           | 78.1           | 26.8           |
| ACCO UC 8951            |                        | 120.5                  | 18.9           | 88.6           | 18.4           |
| WILSTAR 9997            |                        | 120.4                  | 22.5           | 75.2           | 34.6           |
| PRINCETON SX 840        |                        | 119.0                  | 19.2           | 82.9           | 17.3           |
| S S HYBRIDS 6400        |                        | 118.8                  | 17.0           | 70.0           | 6.8            |
| HULTING EXP 74174       |                        | 118.7                  | 19.3           | 80.0           | 35.7           |
| GOLDEN ACRES T-E 6947   |                        | 117.5                  | 20.1           | 87.1           | 32.9           |
| RING AROUND RA3602      |                        | 116.3                  | 19.7           | 89.0           | 25.8           |
| PICNEER BRAND 3145      |                        | 115.3                  | 19.6           | 81.0           | 16.4           |
| BO-JAC X923             |                        | 113.9                  | 17.9           | 83.3           | 23.5           |
| STEWART S3276           |                        | 113.8                  | 18.6           | 84.2           | 25.1           |
| SO.STATES S5760         |                        | 113.1                  | 17.7           | 88.1           | 23.3           |
| FUNK'S EXP 27970        |                        | 112.4                  | 23.1           | 74.3           | 25.6           |
| MUNCY CHIEF MDM702      |                        | 110.4                  | 19.7           | 78.6           | 29.5           |
| P-A-G EXP 246006        |                        | 109.7                  | 18.0           | 78.6           | 15.7           |
| DEKALB XL72B            |                        | 107.5                  | 18.8           | 73.8           | 16.6           |
| RUFF'S MCM R434         |                        | 107.4                  | 17.9           | 85.7           | 31.3           |
| MIGRC M-5045            |                        | 107.2                  | 17.9           | 83.8           | 19.6           |
| VORIS SEEDS V2502       |                        | 104.2                  | 18.0           | 85.2           | 20.7           |
| NORTHROP-KING PX737     |                        | 103.9                  | 20.4           | 82.4           | 33.5           |
| MIGRC M-600A            |                        | 103.5                  | 18.7           | 84.3           | 21.7           |
| PICNEER BRAND 3179      |                        | 95.8                   | 19.1           | 76.7           | 44.4           |
| P-A-G SX 17A            |                        | 95.8                   | 19.6           | 76.7           | 25.6           |
| PREMIER 633A            |                        | 95.4                   | 18.6           | 80.0           | 25.5           |
| MUNCY CHIEF MDM803      |                        | 95.2                   | 18.1           | 79.5           | 29.2           |
| FUNK'S G4525            |                        | 91.4                   | 17.2           | 89.6           | 54.1           |
| TRCJAN MDM 116          |                        | 89.8                   | 18.6           | 86.2           | 25.0           |
| FUNK'S EXP 27792        |                        | 78.8                   | 21.4           | 78.1           | 46.6           |
| KAES VIRUS SYN (YELLOW) |                        | 71.2                   | 19.2           | 69.5           | 67.2           |
| <b>YELLOW AVERAGE</b>   |                        | <b>119.2</b>           | <b>19.4</b>    | <b>83.0</b>    | <b>27.5</b>    |
| <b>WHITE</b>            |                        |                        |                |                |                |
| ZIMMELMAN Z52W          |                        | 143.5                  | 19.4           | 80.0           | 36.5           |
| SEED KEM SK72AW         |                        | 134.9                  | 20.0           | 88.6           | 45.2           |
| STURDY GROW SG937W      |                        | 127.0                  | 19.8           | 84.6           | 57.0           |
| SEED KEM SK-71AW        |                        | 118.9                  | 19.6           | 91.9           | 39.3           |
| ZIMMERMAN Z11W          |                        | 117.7                  | 20.0           | 79.0           | 35.8           |
| FUNK'S G4747W           |                        | 116.9                  | 19.8           | 79.0           | 45.3           |
| RING AROUND RA2602W     |                        | 112.9                  | 14.4           | 78.6           | 29.1           |
| SO.STATES S5950W        |                        | 112.7                  | 20.0           | 77.6           | 42.8           |
| PRINCETON SX 910        |                        | 111.6                  | 20.1           | 83.3           | 50.1           |
| KENTUCKY 5921W          |                        | 103.8                  | 20.2           | 84.8           | 48.9           |
| STURDY GROW SG957W      |                        | 92.1                   | 18.9           | 83.8           | 68.0           |
| KAES VIRUS SYN (WHITE)  |                        | 83.4                   | 19.2           | 87.1           | 43.0           |
| <b>WHITE AVERAGE</b>    |                        | <b>114.6</b>           | <b>19.7</b>    | <b>83.2</b>    | <b>45.1</b>    |
| <b>GRAND AVERAGE</b>    |                        | <b>118.4</b>           | <b>19.4</b>    | <b>83.0</b>    | <b>30.8</b>    |



# KENTUCKY HYBRID CORN PERFORMANCE TEST — 1977

C. G. PONELEIT and K. O. EVANS  
PROGRESS REPORT 232

UNIVERSITY OF KENTUCKY  
COLLEGE OF AGRICULTURE  
Agricultural Experiment Station  
Department of Agronomy  
Lexington

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TABLE 14.—CORN VIRUS TEST, NORMAL POPULATION, HENDERSON, KY., 1977

| HYBRID                  | 77-78      | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LOGGED | VIRUS<br>RATING |
|-------------------------|------------|----------------|----------------|----------------|-------------------|-----------------|
| <b>YELLOW</b>           |            |                |                |                |                   |                 |
| 1) PICNEER BRAND 3147   | (1)        | 129.4          | 19.9           | 80.5           | 15.7              | 0.7             |
| FUNK'S EXP 27970        |            | 115.8          | 20.6           | 74.8           | 14.1              | 0.3             |
| 2) FUNK'S G4848         | (2)        | 108.7          | 20.9           | 89.0           | 6.4               | 0.3             |
| 3) ASGROW RX 115A       | (3)        | 108.1          | 18.5           | 80.0           | 12.8              | 1.0             |
| 4) DEKALB XL394         | (6)        | 107.3          | 20.3           | 90.5           | 11.1              | 0.3             |
| FUNK'S EXP 28189        |            | 104.8          | 20.9           | 87.1           | 15.5              | 0.7             |
| FUNK'S G4525            |            | 101.9          | 16.9           | 88.1           | 18.1              | 0.3             |
| 5) SECURITY SS125       | (5)        | 101.1          | 22.4           | 73.8           | 19.6              | 1.0             |
| FUNK'S EXP 28236        |            | 97.6           | 20.5           | 86.7           | 8.8               | 0.7             |
| 7) PICNEER BRAND 3364   | (10)       | 96.0           | 17.8           | 71.0           | 10.9              | 0.3             |
| KENTUCKY 105            |            | 95.1           | 17.9           | 86.7           | 35.1              | 1.0             |
| 8) PICNEER BRAND 3179   | (4)        | 94.8           | 18.9           | 79.0           | 22.6              | 0.7             |
| 9) ACCO UC 8951         |            | 92.9           | 19.7           | 74.8           | 24.2              | 1.0             |
| BO-JAC X83              |            | 90.7           | 17.8           | 81.9           | 21.8              | 1.3             |
| MUNCY CHIEF MDM702      |            | 89.9           | 19.1           | 84.0           | 18.0              | 1.0             |
| 12) NORTHRUP-KING PX95  | (8)        | 89.4           | 17.5           | 75.7           | 11.9              | 1.0             |
| NORTHRUP-KING PX737     |            | 89.1           | 19.0           | 72.4           | 42.3              | 1.0             |
| SEED KEM SKX-68         | (7)        | 85.4           | 16.3           | 81.9           | 35.9              | 0.0             |
| SECURITY SS120A         | (12)       | 84.1           | 19.0           | 86.7           | 18.8              | 0.7             |
| VIRUS-SUSCEPTIBLE CHECK |            | 83.0           | 18.9           | 72.7           | 24.9              | 1.3             |
| BO-JAC X69              |            | 82.9           | 17.0           | 81.0           | 16.7              | 0.7             |
| BO-JAC X923             |            | 82.4           | 18.2           | 83.8           | 28.5              | 1.0             |
| SO STATES SS760         |            | 82.1           | 19.3           | 78.6           | 13.5              | 0.7             |
| RUFF'S MDM R434         |            | 82.0           | 17.1           | 78.1           | 22.1              | 1.0             |
| FUNK'S G4776            |            | 81.7           | 19.3           | 74.8           | 15.9              | 0.7             |
| PICNEER BRAND 2145      |            | 81.1           | 19.9           | 83.3           | 10.3              | 0.7             |
| STEWART S3276           |            | 80.6           | 19.9           | 74.3           | 16.6              | 0.3             |
| MIGRO M-600A            |            | 80.5           | 17.7           | 74.8           | 32.4              | 1.0             |
| GOLDEN ACRES T-E 6947   | (13) (15b) | 80.4           | 19.5           | 87.6           | 16.7              | 1.0             |
| ACCO UC 9792            |            | 79.5           | 19.4           | 76.7           | 18.4              | 1.0             |
| TRCIAN MDM 116          |            | 78.2           | 18.7           | 84.8           | 28.4              | 0.3             |
| MUNCY CHIEF MDM803      | (14)       | 77.1           | 18.0           | 84.8           | 22.7              | 1.3             |
| HULTING EXP 74174       |            | 75.5           | 18.2           | 81.0           | 20.2              | 1.0             |
| P-A-G SX 17A            |            | 72.8           | 18.6           | 68.6           | 46.8              | 1.0             |
| FUNK'S EXP 27792        |            | 72.6           | 21.0           | 68.6           | 40.4              | 0.7             |
| KAES VIRUS SYN (YELLOW) |            | 72.0           | 19.2           | 82.9           | 36.7              | 1.0             |
| VORIS SEEDS V2502       | (15a)      | 70.6           | 18.8           | 74.3           | 18.0              | 0.7             |
| DEKALB XL72B            |            | 70.0           | 18.3           | 72.9           | 16.0              | 0.7             |
| NORTHRUP-KING PX715     |            | 69.4           | 19.0           | 80.0           | 21.3              | 0.7             |
| WILSTAR 9990            |            | 69.3           | 19.1           | 76.7           | 30.2              | 1.0             |
| RING AROUND RA3602      |            | 69.1           | 19.7           | 86.2           | 23.8              | 1.0             |
| PREMIER 633A            |            | 68.6           | 17.7           | 71.0           | 24.6              | 1.3             |
| RING AROUND RA 2601     |            | 68.4           | 22.3           | 75.7           | 30.2              | 1.0             |
| MIGRO M-5045            |            | 67.7           | 16.4           | 83.3           | 21.7              | 1.0             |
| NORTHRUP-KING PX91      |            | 67.0           | 18.2           | 87.1           | 17.6              | 0.7             |
| P-A-G EXP 246006        |            | 66.9           | 17.8           | 78.1           | 29.6              | 1.0             |
| HULTING X990            |            | 59.8           | 17.3           | 72.4           | 18.6              | 1.0             |
| PRINCETON SX 840        |            | 57.3           | 19.6           | 71.4           | 34.5              | 2.0             |
| WILSTAR 9997            |            | 57.2           | 21.1           | 60.5           | 30.3              | 1.7             |
| S S HYBRIDS 6400        |            | 42.2           | 19.0           | 52.4           | 40.7              | 2.0             |
| <b>YELLOW AVERAGE</b>   |            | <b>82.6</b>    | <b>19.0</b>    | <b>78.2</b>    | <b>22.7</b>       | <b>0.9</b>      |
| <b>WHITE</b>            |            |                |                |                |                   |                 |
| ZIMMERMAN Z11W          | (9)        | 110.6          | 19.7           | 91.4           | 7.1               | 0.3             |
| PRINCETON SX 910        |            | 95.7           | 19.0           | 90.5           | 15.3              | 0.7             |
| SEED KEM SK-71AW        |            | 92.1           | 19.4           | 84.8           | 12.4              | 0.3             |
| SEED KEM SK72AW         |            | 88.3           | 19.3           | 87.1           | 12.1              | 0.7             |
| SO STATES SS950W        |            | 86.5           | 20.2           | 76.2           | 21.9              | 1.0             |
| STURDY GROW SG957W      |            | 85.3           | 18.1           | 80.0           | 11.9              | 0.7             |
| STURDY GROW SG937W      |            | 82.9           | 19.3           | 85.2           | 10.7              | 0.7             |
| RING AROUND RA2602W     | (11)       | 82.7           | 19.5           | 66.7           | 21.9              | 1.0             |
| FUNK'S G4747W           |            | 79.0           | 20.8           | 77.6           | 9.8               | 0.7             |
| ZIMMERMAN Z52W          |            | 77.0           | 20.0           | 81.4           | 18.7              | 1.0             |
| KAES VIRUS SYN (WHITE)  |            | 68.7           | 19.1           | 92.4           | 21.5              | 0.3             |
| KENTUCKY 5921W          |            | 65.8           | 18.2           | 76.7           | 32.7              | 0.7             |
| <b>WHITE AVERAGE</b>    |            | <b>84.6</b>    | <b>19.4</b>    | <b>82.5</b>    | <b>16.3</b>       | <b>0.7</b>      |
| <b>GRAND AVERAGE</b>    |            | <b>83.0</b>    | <b>19.0</b>    | <b>79.0</b>    | <b>21.5</b>       | <b>0.8</b>      |

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TABLE 13.—ANNUAL SUMMARY, HIGH POPULATION, PRINCETON, KY.

| HYBRID                | AVERAGE YIELD<br>3-YR | YIELD<br>2-YR | YIELD<br>BU/AC | AVG %<br>MOIST | TOTAL %<br>LODGED |
|-----------------------|-----------------------|---------------|----------------|----------------|-------------------|
| <b>YELLOW</b>         |                       |               |                |                |                   |
| FUNK'S G4520          |                       | 165.0         | 184.4          | 18.2           | 30.8              |
| HULTING X880          | 167.1                 | 185.2         | 181.1          | 17.3           | 54.6              |
| DEKALB XL78           | 147.8                 | 168.5         | 179.0          | 18.0           | 33.3              |
| MASON 7766            | 135.7                 | 159.2         | 172.9          | 18.0           | 34.0              |
| TROJAN TXS 113        | 136.8                 | 164.1         | 167.9          | 18.7           | 18.0              |
| SECURITY SS115        |                       | 155.1         | 167.1          | 17.4           | 20.2              |
| MIGRO M-7072          |                       | 156.1         | 165.3          | 17.6           | 54.3              |
| PREMIER 64L-I         |                       | 155.0         | 165.0          | 18.1           | 22.1              |
| DEKALB XL72B          | 145.2                 | 152.3         | 162.0          | 18.7           | 21.7              |
| RING AROUND RA1502    |                       | 172.1         | 161.8          | 18.2           | 25.3              |
| FUNK'S G4525          |                       | 153.4         | 161.4          | 18.1           | 36.7              |
| BO-JAC X622A          |                       | 165.4         | 161.0          | 19.2           | 53.2              |
| ADLERS 62X            | 141.2                 | 163.0         | 159.5          | 18.2           | 42.1              |
| SUPER CROST S67       |                       | 148.6         | 158.8          | 18.1           | 27.7              |
| ACCO UC 8951          |                       |               | 158.4          | 18.4           | 61.9              |
| BO-JAC X57            |                       | 161.8         | 157.7          | 17.7           | 54.7              |
| MIGRO M-7074          |                       | 171.2         | 157.7          | 18.2           | 19.9              |
| FUNK'S G4507          |                       | 158.4         | 154.7          | 17.8           | 70.5              |
| DEKALB XL65A          |                       | 147.0         | 153.1          | 17.9           | 30.8              |
| GOLDEN ACRES T-E 6968 |                       | 152.5         | 151.0          | 17.9           | 29.3              |
| MIGRO M-EXP-3416      |                       | 170.8         | 150.8          | 18.5           | 38.0              |
| HULTING X980          | 138.5                 | 157.7         | 150.0          | 18.0           | 43.0              |
| MUNCY CHIEF H764      | 121.2                 | 139.9         | 149.7          | 18.1           | 42.6              |
| COKER 16              | 132.0                 | 150.9         | 148.4          | 17.7           | 27.7              |
| SEED KEM SKX-86       | 130.5                 | 154.4         | 147.0          | 17.1           | 26.1              |
| SEED KEM SKX-66       | 126.7                 | 143.3         | 144.7          | 17.9           | 41.1              |
| FUNK'S G4776          |                       | 150.8         | 142.5          | 18.9           | 22.2              |
| SUPER CROST 6880      |                       | 148.6         | 142.1          | 17.8           | 45.5              |
| PIONEER BRAND 3535    | 129.8                 | 148.5         | 141.0          | 17.4           | 28.1              |
| ASGROW RX 100         | 139.2                 | 156.1         | 140.6          | 18.2           | 26.2              |
| NORTHROP-KING PX76    | 127.4                 | 146.1         | 140.3          | 17.5           | 30.5              |
| BO-JAC X56            | 142.1                 | 157.0         | 139.8          | 17.7           | 64.3              |
| PIONEER BRAND 3369A   |                       | 150.4         | 139.6          | 17.8           | 38.8              |
| HULTING X770          | 115.5                 | 144.0         | 138.8          | 17.3           | 56.4              |
| GOLDEN ACRES T-E 6992 |                       | 152.6         | 138.4          | 18.6           | 60.7              |
| PREMIER 695-I         |                       | 161.5         | 135.4          | 19.0           | 13.7              |
| TROJAN TXS 115A       | 136.6                 | 152.4         | 134.6          | 17.7           | 62.0              |
| WILSTAR 7770          |                       | 143.1         | 132.7          | 18.0           | 26.8              |
| PIONEER BRAND 3145    |                       | 151.6         | 132.5          | 19.6           | 17.2              |
| BO-JAC X7L            | 138.1                 | 151.4         | 131.2          | 18.7           | 57.8              |
| FUNK'S G4737          |                       | 151.0         | 130.9          | 19.0           | 65.9              |
| MIGRO M-0601          |                       | 151.0         | 129.7          | 19.0           | 34.7              |
| STEWART SX 77         |                       | 153.7         | 126.5          | 18.0           | 48.3              |
| ACCO UC 9451          | 116.8                 | 141.5         | 125.3          | 18.9           | 59.3              |
| MIGRO M-6666          |                       | 137.5         | 119.5          | 17.8           | 33.1              |
| HULTING X990          |                       | 134.4         | 119.1          | 17.9           | 56.7              |
| SUPER CROST S85       | 122.3                 | 135.6         | 118.0          | 19.0           | 61.3              |
| GOLDEN HARVEST H2666  |                       | 132.0         | 118.0          | 19.0           | 51.6              |
| PIONEER BRAND 3147    |                       | 143.7         | 117.3          | 19.0           | 40.5              |
| P-A-G SX 98           |                       |               | 116.0          | 18.0           | 39.6              |
| NORTHROP-KING PX74    | 133.7                 | 145.2         | 114.5          | 17.6           | 67.6              |
| TROJAN TXS 114        | 133.6                 | 148.7         | 113.8          | 17.5           | 31.4              |
| NORTHROP-KING PX65    | 113.4                 | 129.3         | 112.3          | 17.4           | 55.6              |
| GOLDEN HARVEST H2650  |                       | 146.2         | 112.0          | 18.1           | 65.6              |
| ZIMMERMAN Z24Y        |                       | 139.2         | 110.9          | 18.1           | 45.2              |
| KENTUCKY 105          |                       | 135.7         | 110.8          | 18.8           | 55.5              |
| SUPER CROST 7772      | 116.4                 | 123.9         | 109.7          | 19.1           | 60.1              |
| TROJAN TX 119A        |                       | 139.2         | 109.5          | 17.8           | 38.6              |
| DEKALB XL72AA         |                       | 137.8         | 106.9          | 19.2           | 62.0              |
| NORTHROP-KING PX675   |                       | 121.7         | 102.4          | 18.1           | 51.8              |
| NORTHROP-KING PX79    | 123.9                 | 134.2         | 101.0          | 18.1           | 48.5              |
| RING AROUND RA3502    |                       | 128.1         | 100.4          | 18.4           | 59.6              |
| <b>YELLOW AVERAGE</b> | <b>132.5</b>          | <b>150.1</b>  | <b>139.1</b>   | <b>18.2</b>    | <b>42.6</b>       |
| <b>WHITE</b>          |                       |               |                |                |                   |
| FR802W X CI66         |                       |               | 128.7          | 19.1           | 51.0              |
| KENTUCKY 5921W        |                       |               | 97.1           | 18.0           | 61.7              |
| <b>WHITE AVERAGE</b>  |                       |               | <b>112.9</b>   | <b>18.5</b>    | <b>56.4</b>       |
| <b>GRAND AVERAGE</b>  | <b>132.5</b>          | <b>150.1</b>  | <b>138.3</b>   | <b>18.2</b>    | <b>43.0</b>       |

## LOCATIONS OF THE 1977 KENTUCKY HYBRID CORN PERFORMANCE TEST



(Locations identified in Table 2.)

### ACKNOWLEDGMENTS

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TABLE 11.—THREE-YEAR SUMMARY, NORMAL POPULATION, 1975-1976 AND 1977 ALL NON-VIRUS LOCATIONS,

| HYBRID                | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
|-----------------------|----------------|----------------|----------------|-------------------|
| <b>YELLOW</b>         |                |                |                |                   |
| DENNIS 37             | 153.6          | 18.8           | 88.2           | 15.2              |
| ZIMMERMAN Z24Y        | 152.5          | 19.0           | 91.5           | 15.0              |
| PIONEER BRAND 3369A   | 152.1          | 19.1           | 85.7           | 15.1              |
| VORIS SEEDS V2532     | 149.4          | 18.8           | 88.8           | 17.1              |
| MIGRO M-7072          | 149.2          | 19.4           | 89.9           | 13.6              |
| NORTHROP-KING PX79    | 147.8          | 18.6           | 89.6           | 14.0              |
| BO-JAC X83            | 145.9          | 19.3           | 85.6           | 16.4              |
| HULTING X880          | 145.2          | 19.3           | 84.9           | 16.4              |
| PICNEER BRAND 3161    | 144.9          | 20.0           | 87.6           | 13.6              |
| PIONEER BRAND 3368A   | 143.9          | 19.4           | 85.8           | 15.0              |
| S S HYBRIDS 86        | 143.8          | 19.4           | 85.1           | 14.4              |
| HULTING X980          | 142.1          | 20.3           | 88.4           | 16.2              |
| NORTHROP-KING PX74    | 142.1          | 18.5           | 86.4           | 18.0              |
| FUNK'S G4507          | 141.9          | 18.9           | 86.7           | 18.9              |
| COKER 16              | 141.9          | 19.0           | 86.9           | 10.4              |
| SUPER CRCST 5440      | 141.1          | 18.5           | 86.9           | 13.3              |
| SO STATES SS775       | 140.4          | 19.1           | 86.8           | 11.6              |
| ADLERS 87X            | 140.4          | 19.9           | 87.3           | 14.9              |
| VORIS SEEDS V2642     | 140.2          | 19.9           | 86.5           | 18.0              |
| GOLDEN HARVEST H2666  | 138.2          | 19.8           | 85.6           | 15.4              |
| DEKALB XL78           | 138.0          | 20.0           | 90.0           | 13.1              |
| GUTWEIN 86            | 136.3          | 18.6           | 87.9           | 17.4              |
| TRCJAN TXS 114        | 134.1          | 18.8           | 84.2           | 17.9              |
| DEKALB XL80           | 134.0          | 20.1           | 83.9           | 14.1              |
| GOLDEN ACRES T-E 6968 | 133.5          | 19.1           | 88.4           | 11.1              |
| TRCJAN TXS 115A       | 132.6          | 18.8           | 81.8           | 14.8              |
| SEED KEM SKX-86       | 132.5          | 19.3           | 88.1           | 11.5              |
| P-A-G SX 98           | 131.8          | 19.9           | 80.3           | 15.2              |
| DEKALB XL72B          | 130.9          | 19.1           | 77.2           | 10.1              |
| MASON 8869            | 125.1          | 19.9           | 82.9           | 13.3              |
| FUNK'S G4628          | 122.5          | 19.9           | 79.0           | 19.0              |
| MUNCY CHIEF SX878     | 119.3          | 20.3           | 79.0           | 24.1              |
| <b>YELLOW AVERAGE</b> | <b>139.6</b>   | <b>19.3</b>    | <b>86.0</b>    | <b>15.0</b>       |
| <b>WHITE</b>          |                |                |                |                   |
| ZIMMERMAN Z52H        | 150.5          | 21.6           | 88.6           | 16.8              |
| ZIMMERMAN Z11H        | 146.3          | 21.7           | 89.6           | 19.5              |
| FUNK'S G4747W         | 144.1          | 21.7           | 88.2           | 19.0              |
| PRINCETON SX 910      | 142.5          | 21.9           | 84.4           | 16.7              |
| GOLDEN HARVEST H2666W | 139.1          | 21.5           | 79.6           | 16.9              |
| PICNEER BRAND 511A    | 131.0          | 21.8           | 88.2           | 26.8              |
| DEKALB XL390A         | 130.2          | 20.8           | 77.7           | 16.0              |
| <b>WHITE AVERAGE</b>  | <b>140.5</b>   | <b>21.6</b>    | <b>85.2</b>    | <b>18.8</b>       |
| <b>GRAND AVERAGE</b>  | <b>139.8</b>   | <b>19.7</b>    | <b>85.8</b>    | <b>15.7</b>       |

TABLE 12.—ANNUAL SUMMARY, EARLY HYBRIDS, PRINCETON, KY.

| HYBRID               | YIELD<br>BU/AC | AVG %<br>MOIST | TOTAL %<br>LODGED |
|----------------------|----------------|----------------|-------------------|
| PICNEER BRAND 3535   | 166.4          | 16.9           | 40.5              |
| DEKALB XL43A         | 166.0          | 17.1           | 43.8              |
| BO-JAC X36           | 160.0          | 16.7           | 47.2              |
| STEWART S 349        | 156.0          | 17.9           | 65.3              |
| STEWART SX 54        | 153.5          | 18.0           | 18.0              |
| FUNK'S G4449         | 148.8          | 17.4           | 64.8              |
| PICNEER BRAND 3780   | 145.6          | 16.3           | 65.5              |
| NORTHROP-KING PX65   | 142.3          | 16.9           | 64.8              |
| COLBERT C43          | 142.2          | 17.3           | 70.8              |
| BO-JAC X193          | 139.7          | 16.8           | 68.3              |
| SO STATES SS522      | 134.7          | 17.0           | 83.9              |
| FUNK'S G4321A        | 134.6          | 17.1           | 70.4              |
| ADLERS 28X           | 131.1          | 17.2           | 81.9              |
| ASGROW RX60          | 123.2          | 17.5           | 71.3              |
| MIGRO M-0301         | 119.2          | 17.4           | 83.5              |
| MIGRO M-2022X        | 117.6          | 17.4           | 81.2              |
| PUFF'S R122          | 114.0          | 17.7           | 48.2              |
| P-A-G SX297          | 114.0          | 17.1           | 73.8              |
| VORIS 2422           | 113.0          | 17.6           | 96.5              |
| GOLDEN HARVEST H2500 | 111.1          | 17.2           | 72.9              |
| STEWART SX 3734      | 110.3          | 17.6           | 70.3              |
| TRCJAN TXS 105A      | 109.1          | 17.2           | 77.7              |
| SUPER CRCST 2350     | 104.6          | 16.5           | 54.1              |
| NORTHROP-KING PX46   | 97.8           | 17.0           | 50.6              |
| ASGROW RX2345        | 97.4           | 17.5           | 95.7              |
| SO STATES SS450      | 86.7           | 17.7           | 80.8              |
| <b>GRAND AVERAGE</b> | <b>128.4</b>   | <b>17.2</b>    | <b>67.0</b>       |

TABLE 10.—TWO-YEAR SUMMARY, NORMAL POPULATION, IN ALL NON-VIRUS LOCATIONS, 1977

| HYBR ID               | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
|-----------------------|----------------|----------------|----------------|-------------------|
| YELLOW                |                |                |                |                   |
| PIONEER BRAND 3184    | 160.6          | 20.3           | 88.8           | 10.7              |
| CENNIS 37             | 160.3          | 18.6           | 89.6           | 19.0              |
| STEWART SX 77         | 158.5          | 19.2           | 84.1           | 14.6              |
| ZIMMERMAN Z24Y        | 157.6          | 19.1           | 93.7           | 19.8              |
| PIONEER BRAND 3369A   | 156.4          | 18.7           | 86.1           | 20.5              |
| VORIS SEEDS V2532     | 154.0          | 18.7           | 91.0           | 23.0              |
| FUNK'S G4848          | 153.9          | 22.7           | 85.2           | 16.1              |
| P-A-G SX 17A          | 152.6          | 18.6           | 88.0           | 28.1              |
| FUNK'S G4520          | 152.1          | 18.9           | 88.2           | 17.0              |
| MIGRO M-7072          | 152.0          | 19.1           | 92.0           | 17.3              |
| SO. STATES SS727      | 152.0          | 19.0           | 91.2           | 19.9              |
| NORTHROP-KING PX79    | 151.5          | 18.5           | 90.7           | 18.0              |
| PIONEER BRAND 3161    | 150.9          | 20.0           | 89.3           | 16.6              |
| NORTHROP-KING PX74    | 150.4          | 18.6           | 89.8           | 24.7              |
| COKER 16              | 149.7          | 18.7           | 87.9           | 12.8              |
| BO-JAC X83            | 149.1          | 18.9           | 86.7           | 16.0              |
| S S HYBRIDS 86        | 148.7          | 19.0           | 88.9           | 17.8              |
| HULTING X980          | 148.1          | 20.0           | 88.8           | 22.0              |
| HULTING X880          | 148.0          | 19.3           | 85.1           | 21.4              |
| PIONEER BRAND 3368A   | 147.9          | 19.0           | 89.9           | 20.4              |
| PREMIER SX633         | 147.8          | 18.6           | 86.3           | 20.2              |
| ASGROW RX 90          | 147.7          | 18.7           | 88.6           | 22.7              |
| TROJAN TXS 119        | 147.3          | 19.8           | 86.1           | 22.6              |
| SO. STATES SS775      | 146.7          | 18.6           | 90.9           | 14.3              |
| TROJAN TXS 114        | 146.3          | 18.7           | 85.1           | 19.9              |
| NORTHROP-KING PX675   | 146.0          | 18.2           | 88.4           | 18.5              |
| FUNK'S G4507          | 145.7          | 18.9           | 89.3           | 25.1              |
| WILSTAR 6663          | 145.5          | 19.0           | 84.5           | 23.4              |
| SUPER CROST 5440      | 144.9          | 18.3           | 86.1           | 17.4              |
| ADLERS 87X            | 144.5          | 19.5           | 87.7           | 19.1              |
| GOLDEN HARVEST H2666  | 143.8          | 19.6           | 86.6           | 20.2              |
| VORIS SEEDS V2642     | 143.7          | 19.6           | 87.1           | 25.3              |
| MCNAIR X194           | 143.3          | 19.4           | 85.3           | 19.6              |
| DEKALB XL72AA         | 143.1          | 18.5           | 86.9           | 21.5              |
| DEKALB XL78           | 141.8          | 19.5           | 91.8           | 16.5              |
| DEKALB XL80           | 140.6          | 19.9           | 83.6           | 14.0              |
| GUTWEIN 86            | 140.4          | 18.2           | 90.4           | 19.9              |
| GOLDEN ACRES T-E 6968 | 140.4          | 19.9           | 91.5           | 12.6              |
| COKER 18              | 140.0          | 20.2           | 89.6           | 23.8              |
| TROJAN TXS 115A       | 139.6          | 18.9           | 84.8           | 19.4              |
| SEED KEM SKX-86       | 139.4          | 18.8           | 90.6           | 14.9              |
| PREMIER 688           | 138.7          | 19.9           | 83.2           | 22.3              |
| DEKALB XL72B          | 137.1          | 18.6           | 78.3           | 12.4              |
| SECURITY SS112        | 137.1          | 18.5           | 73.7           | 16.7              |
| MUNCY CHIEF SX808B    | 134.9          | 19.8           | 85.9           | 19.4              |
| MASON 8869            | 133.3          | 19.4           | 84.7           | 17.8              |
| SEED KEM SKX-76       | 133.2          | 18.7           | 86.8           | 20.7              |
| P-A-G SX 98           | 132.1          | 19.5           | 79.7           | 20.5              |
| GOLDEN HARVEST H2650  | 129.5          | 19.9           | 82.0           | 24.4              |
| MUNCY CHIEF SX878     | 126.6          | 19.9           | 83.2           | 29.5              |
| FUNK'S G4628          | 122.6          | 19.5           | 77.8           | 24.8              |
| C'S GOLD SX550C       | 118.6          | 19.5           | 77.4           | 23.0              |
| YELLOW AVERAGE        | 144.5          | 19.2           | 86.7           | 19.6              |
| WHITE                 |                |                |                |                   |
| ZIMMERMAN Z52W        | 157.1          | 21.2           | 90.3           | 20.6              |
| ZIMMERMAN Z11W        | 153.4          | 21.6           | 91.5           | 24.6              |
| SO. STATES SS950W     | 153.3          | 21.0           | 87.7           | 20.8              |
| PRINCETON SX 910      | 146.8          | 21.6           | 85.7           | 21.3              |
| FUNK'S G4747W         | 146.4          | 21.3           | 89.7           | 24.5              |
| GOLDEN HARVEST H2660W | 144.3          | 21.2           | 78.5           | 21.1              |
| DEKALB XL390A         | 137.9          | 20.5           | 81.8           | 21.1              |
| PIONEER BRAND 511A    | 135.5          | 21.5           | 88.4           | 31.7              |
| WHITE AVERAGE         | 146.8          | 21.2           | 86.7           | 23.2              |
| GRAND AVERAGE         | 144.9          | 19.5           | 86.7           | 20.1              |

## Kentucky Hybrid Corn Performance Test 1977

By C.G. Poneleit and K.O. Evans

The objective of the Kentucky Hybrid Corn Performance Test is to provide unbiased performance estimates of hybrid seed corn sold in Kentucky. Every effort has been made to conduct the test in an unbiased manner according to accepted agronomic practices.

### PRESENTATION OF DATA

Complete 1977 data are presented for the normal population test at each location. Two-year and three-year averages for yield are included in each of the single-location tables. Readers are encouraged to consider these multiple year averages and the averages over locations (Tables 9, 10, and 11) since these are better estimates of a hybrid's relative yield ability than data gathered at one location in one year.

Comparisons between yields or other characters of any two or more hybrids should be made only with data from one table at a time. The testing procedures do not provide a suitable comparison between a hybrid grown at one location and population with another hybrid grown at a different location and population.

### TESTING PROCEDURE

#### SELECTION OF HYBRIDS

The hybrids chosen for testing are those most likely to be available for sale in 1978. Seed of each commercial hybrid (Table 1) was obtained from dealer stocks in Kentucky whenever possible.

Those hybrids grown in the corn virus test and high population tests are indicated in column 2 of Table 1. The hybrid corn companies were asked to nominate those hybrids known to have

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virus resistance for inclusion in the virus test. Hybrids grown in the high population early hybrid tests were also suggested by the parent company.

## LOCATION OF TESTS

The map on page 3 shows the location for each test. The Lexington and Princeton locations had normal, high population and early hybrid tests, while all other locations had only the normal population. Data from the high population and early hybrid tests at Lexington and the normal population test at Quick-sand are not available at this time and will be presented in a separate publication at a later date. The Henderson and Hodgenville sites are specifically chosen for the presence of corn virus.

## CULTURAL PRACTICES

The seedbed at each location except Elizabethtown and Franklin was prepared by conventional tillage methods. Fertilizer was applied as indicated by soil tests. The tests at Elizabethtown and Franklin were planted in a fescue/red clover sod and in stalk-land, respectively, using recommended no-tillage practices. All test areas were treated with herbicide and supplemented by post-emergence cultivation when necessary. Furadan was applied in the row at planting. Table 2 shows the specific treatment for each location.

## EXPERIMENTAL DESIGN

Uncontrollable variability of soil types, fertility, and other factors was sampled by using three replications of a lattice design. Yields presented in Tables 3 through 15 are adjusted for block and replication differences when shown applicable by statistical analyses.

The high population and early hybrid tests were planted as four replications of an 8 X 8 lattice and RCB, respectively, in which plant densities were confounded with replications. These tests were designed to evaluate a new testing procedure that should provide more detailed information on hybrid responses to increased plant population. Since these tests are new and are being

TABLE 9 (continued)

| HYBRID                | 1977 RESULTS   |                |                |                   |
|-----------------------|----------------|----------------|----------------|-------------------|
|                       | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                |                |                |                   |
| DENNIS 69             | 127.9          | 18.1           | 88.9           | 46.9              |
| DEKALB XL72B          | 127.8          | 17.1           | 77.6           | 22.4              |
| PREMIER 688           | 127.7          | 18.2           | 81.2           | 38.8              |
| WILSTAR 6663          | 127.0          | 18.0           | 79.2           | 41.2              |
| MCNAIR X194           | 126.4          | 17.9           | 79.9           | 35.2              |
| FUNK'S G4507          | 126.4          | 17.9           | 88.9           | 49.3              |
| DEKALB XL78           | 126.2          | 18.2           | 91.6           | 28.7              |
| GOLDEN HARVEST H2666  | 126.0          | 18.0           | 84.5           | 37.8              |
| COKER 18              | 125.2          | 18.9           | 90.1           | 41.0              |
| ASGROW RX 90          | 125.2          | 17.5           | 86.4           | 45.0              |
| MUNCY CHIEF SX808B    | 123.7          | 18.3           | 82.2           | 35.1              |
| GOLDEN ACRES T-E 6968 | 123.4          | 17.7           | 87.5           | 21.8              |
| GUTWEIN 86            | 122.3          | 17.3           | 88.5           | 30.9              |
| DEKALB XL72AA         | 122.1          | 17.9           | 86.1           | 42.5              |
| TROJAN TX 119A        | 122.0          | 17.5           | 89.8           | 31.7              |
| NORTHROP-KING PX76    | 120.4          | 17.7           | 87.2           | 26.8              |
| GUTWEIN 62A           | 120.4          | 18.1           | 86.3           | 37.0              |
| SEED KEM SKX-86       | 120.1          | 17.6           | 88.8           | 26.8              |
| O'S GOLD SX5500       | 120.1          | 18.1           | 84.2           | 38.3              |
| SO. STATES SS730P     | 119.6          | 17.6           | 84.7           | 36.4              |
| MIGRO M-0701EP        | 119.0          | 17.1           | 86.2           | 30.0              |
| ASGROW RX 101         | 118.2          | 17.8           | 85.5           | 34.6              |
| HULTING X770          | 118.1          | 16.9           | 81.4           | 41.7              |
| PIONEER BRAND 3334A   | 117.7          | 18.2           | 83.1           | 31.1              |
| RING AROUND RA1501    | 117.6          | 17.5           | 85.6           | 36.4              |
| P-A-G SX 98           | 117.1          | 18.0           | 77.1           | 35.2              |
| SO. STATES SS793      | 116.9          | 17.8           | 85.4           | 43.7              |
| MASON 8869            | 116.7          | 18.9           | 81.3           | 31.9              |
| DEKALB XL75A          | 116.6          | 18.1           | 84.4           | 36.4              |
| RUFF'S R287           | 115.6          | 18.0           | 80.2           | 36.6              |
| MUNCY CHIEF SX878     | 115.1          | 18.3           | 83.2           | 45.4              |
| PREMIER SX633         | 115.0          | 17.4           | 81.6           | 38.9              |
| GOLDEN ACRES T-E 6980 | 114.8          | 18.3           | 79.2           | 30.1              |
| GOLDEN HARVEST H2650  | 114.2          | 18.4           | 82.3           | 42.9              |
| KENTUCKY 105          | 111.5          | 18.5           | 91.8           | 50.2              |
| SEED KEM SKX98        | 110.9          | 18.3           | 82.9           | 35.8              |
| P-A-G 357             | 109.0          | 17.6           | 86.4           | 51.2              |
| P-A-G 314             | 107.6          | 17.3           | 75.2           | 37.3              |
| HULTING X8800         | 107.0          | 18.2           | 74.3           | 42.5              |
| FUNK'S G4628          | 103.0          | 17.9           | 73.1           | 42.4              |
| MUNCY CHIEF SX777     | 97.4           | 17.3           | 71.8           | 35.1              |
| SECURITY SS112        | 94.6           | 17.0           | 57.1           | 33.7              |
| YELLOW AVERAGE        | 128.5          | 17.9           | 85.5           | 35.2              |
| WHITE                 |                |                |                |                   |
| ZIMMERMAN Z52W        | 138.8          | 19.0           | 88.7           | 38.5              |
| ZIMMERMAN Z11W        | 126.4          | 19.3           | 88.4           | 45.8              |
| PRINCETON SX 910      | 125.4          | 19.1           | 87.0           | 39.8              |
| SO. STATES SS950W     | 125.4          | 18.5           | 83.2           | 37.2              |
| ZIMMERMAN Z19W        | 124.6          | 18.5           | 86.7           | 42.4              |
| GOLDEN HARVEST H2660W | 119.9          | 18.8           | 70.2           | 36.5              |
| FUNK'S G4747W         | 117.8          | 19.3           | 85.8           | 41.8              |
| PIONEER BRAND 511A    | 112.2          | 19.2           | 91.4           | 49.8              |
| DEKALB XL390A         | 107.1          | 19.0           | 81.7           | 37.6              |
| WHITE AVERAGE         | 122.0          | 19.0           | 84.8           | 41.1              |
| GRAND AVERAGE         | 127.9          | 18.0           | 85.4           | 35.7              |

TABLE 9.—ANNUAL SUMMARY, NORMAL POPULATION,  
ALL NON-VIRUS LOCATIONS, 1977

| HYBRID                | 1977 RESULTS   |                |                |                   |
|-----------------------|----------------|----------------|----------------|-------------------|
|                       | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LOGDGE |
| YELLOW                |                |                |                |                   |
| STEWART SX 77         | 155.4          | 18.1           | 90.0           | 27.0              |
| PIONEER BRAND 3184    | 152.0          | 19.1           | 91.2           | 20.3              |
| PIONEER BRAND 3369A   | 149.9          | 17.6           | 87.3           | 32.2              |
| COLBERT 310           | 149.5          | 17.6           | 88.3           | 39.7              |
| HOBBLIT XR441A        | 148.4          | 18.2           | 88.8           | 29.6              |
| COKER 22              | 144.5          | 18.6           | 91.7           | 25.3              |
| S S HYBRIDS 5100      | 143.5          | 17.3           | 84.7           | 35.9              |
| S S HYBRIDS 6400      | 142.6          | 17.1           | 81.8           | 24.2              |
| DENNIS 37             | 141.1          | 17.4           | 87.5           | 36.9              |
| ZIMMERMAN Z24Y        | 141.0          | 18.1           | 92.2           | 33.9              |
| RING AROUND RA1502    | 140.9          | 18.2           | 85.6           | 33.4              |
| MIGRO M-7072          | 140.2          | 17.7           | 90.7           | 31.0              |
| PIONEER BRAND 3161    | 140.1          | 18.1           | 87.1           | 29.1              |
| ACCO UC 9792          | 139.6          | 18.8           | 87.3           | 29.9              |
| VORIS SEEDS V2642     | 139.3          | 18.0           | 87.0           | 40.8              |
| ZIMMERMAN Z20Y        | 139.1          | 18.5           | 90.5           | 41.8              |
| COKER 16              | 138.3          | 17.6           | 87.6           | 22.0              |
| TROJAN TXS 119        | 138.2          | 18.4           | 84.8           | 36.5              |
| FUNK'S G4848          | 137.6          | 20.6           | 87.9           | 29.6              |
| PIONEER BRAND 3368A   | 137.4          | 17.9           | 87.7           | 28.8              |
| S S HYBRIDS 86        | 137.0          | 17.9           | 84.9           | 32.2              |
| SECURITY 5711         | 136.8          | 17.2           | 86.6           | 34.4              |
| ADLERS 87X            | 136.3          | 18.0           | 87.0           | 32.6              |
| BO-JAC X923           | 136.3          | 18.5           | 89.1           | 33.0              |
| ACCO UC 8951          | 136.2          | 18.5           | 88.5           | 41.4              |
| SUPER CROST 6800      | 135.9          | 17.5           | 86.1           | 39.0              |
| WILSTAR 7771          | 135.9          | 17.8           | 87.2           | 26.0              |
| GUTWEIN 72            | 135.9          | 18.1           | 89.2           | 32.8              |
| FUNK'S G4636          | 135.3          | 18.5           | 87.2           | 26.1              |
| ADLERS 62X            | 135.1          | 17.8           | 91.1           | 36.3              |
| BO-JAC X83            | 135.1          | 18.1           | 82.8           | 28.4              |
| DEKALB XL80           | 134.4          | 18.2           | 89.3           | 23.7              |
| NORTHROP-KING PX79    | 134.1          | 17.4           | 89.8           | 36.3              |
| COLBERT 315           | 133.3          | 17.4           | 90.5           | 29.8              |
| DENNIS 31             | 133.2          | 17.7           | 82.5           | 52.1              |
| GOLDEN HARVEST H2775  | 132.7          | 19.4           | 84.8           | 24.2              |
| HULTING X980          | 132.7          | 18.7           | 83.2           | 33.6              |
| GOLDEN ACRES T-E 6995 | 132.1          | 17.1           | 86.9           | 37.5              |
| SO.STATES SS775       | 132.1          | 17.6           | 89.1           | 25.5              |
| MIGRO M-0505          | 131.9          | 17.6           | 88.3           | 41.0              |
| SEED KEM SKX-76       | 131.8          | 17.6           | 87.4           | 36.0              |
| VORIS SEEDS V2532     | 131.8          | 17.5           | 88.9           | 46.9              |
| SO.STATES SS727       | 131.4          | 17.7           | 90.4           | 39.0              |
| TROJAN TXS 115A       | 131.3          | 17.8           | 88.5           | 35.5              |
| FUNK'S G4574          | 131.3          | 17.7           | 89.4           | 43.6              |
| BO-JAC X56            | 131.0          | 17.5           | 86.0           | 40.0              |
| TROJAN TXS 114        | 130.9          | 17.8           | 86.7           | 38.6              |
| NORTHROP-KING PX675   | 130.8          | 17.3           | 86.1           | 35.7              |
| HULTING X880          | 130.4          | 17.9           | 85.1           | 37.0              |
| NORTHROP-KING PX74    | 129.6          | 17.8           | 88.2           | 47.5              |
| TROJAN T1120          | 129.5          | 17.3           | 90.7           | 24.5              |
| FUNK'S G4520          | 129.4          | 17.8           | 87.9           | 33.0              |
| RUFF'S R334           | 129.2          | 17.8           | 86.3           | 37.2              |
| STEWART SX 70         | 129.0          | 18.0           | 80.5           | 40.3              |
| PREMIER 655           | 128.9          | 17.2           | 83.3           | 27.6              |
| P-A-G SX 17A          | 128.8          | 17.7           | 84.2           | 53.2              |
| SUPER CROST 5440      | 128.1          | 17.2           | 87.3           | 32.0              |
| BO-JAC X56B           | 128.1          | 17.7           | 82.9           | 37.5              |
| PRINCETON SX 840      | 128.0          | 18.1           | 87.1           | 18.2              |

(continued)

evaluated for usefulness in hybrid testing, only a portion of the results is presented. For the high population tests an estimate of the yields at 23,000 plants per acre, which is equally precise as previous years' high population tests, is presented in Table 12. The early hybrid data, Table 13, are averages over the four plant densities (27,500 plants per acre).

#### PLANTING

All plots were planted with a two-row, no-till planter modified for small plot work. The planter boxes were replaced by special planting cones which allowed planting of a specified number of kernels per plot. Each plot consisted of two rows 38 inches apart and 22 feet long. Each normal population, conventional tillage test was planted at the rate of 22,000 kernels per acre, each normal population, no-till test was planted at 25,000 kernels per acre. Final stands were expected to be between 19,000 and 20,000 plants per acre if average stand losses occurred. The high population and early hybrid tests were planted at rates of 20,000, 25,000, 30,000 and 35,000 kernels per acre.

#### HARVESTING

All plots were harvested with a modified two-row self-propelled corn combine. Both rows of each two-row plot were picked, shelled, and the grain collected in a metal container. The grain weight and moisture content of each plot were then measured with a portable scale and moisture meter. Yields were calculated and adjusted to No. 2 corn at 15.5% moisture. Dropped ears were not gleaned from the plots. The number of plants were recorded immediately prior to harvest.

#### CORN VIRUS

Two corn virus diseases occur in Kentucky: maize dwarf mosaic virus (MDM) and maize chlorotic dwarf virus (MCD). Both overwinter in Johnsongrass and are usually present as a virus complex. Preliminary laboratory tests of Johnsongrass rhizomes indicated the presence of MDM and MCD at the Henderson location and MCD at the Hodgenville location. During the growing

season, symptoms of MDM and MCD appeared on plants at the Henderson location but no virus symptoms were observed on plants at the Hodgenville location.

Visual ratings of virus symptoms were made at the Henderson location and are included with yield and other data in Table 14. Even though the virus did little apparent damage to the hybrids at the Hodgenville location the yield data are presented in Table 15 and may be used to compare the yield potential of these potentially virus-resistant hybrids under non-virus conditions. The virus ratings in Table 14 were made as follows:

0 - No visual virus symptoms

1 - Up to 10% of the plants exhibited some virus symptoms

2 - 10-50% of the plants exhibited some virus symptoms

3 - More than 50% of the plants exhibited some virus symptoms

Three virus-susceptible check hybrids were included in the virus tests. Their performance data are listed in Tables 14 and 15 as Susceptible Checks.

TABLE 1.—HYBRIDS TESTED IN 1977

| HYBRID   | TEST*       | COLOR  | CROSS** | SOURCE OF HYBRID                     |
|----------|-------------|--------|---------|--------------------------------------|
| A.C.C.O. | UC 8951 ABC | Yellow | 2X      | ACCO Seed, Div. of Anderson,         |
|          | UC 9792 AC  | Yellow | 2X      | Clayton & Co. P.O. Box 9             |
|          | UC 9451 B   | Yellow | 2X      | Belmond, Ia 50421                    |
| Adlers   | 62X AB      | Yellow | 2X      | Adlers Seeds Inc.                    |
|          | 87X A       | Yellow | 2X      | Route # 1<br>Sharpsville, Ind. 46068 |
| Asgrow   | RX 90 A     | Yellow | 2X      | Asgrow Seed Co.                      |
|          | RX 100 B    | Yellow | 2X      | P.O. Box 1059                        |
|          | RX 101 A    | Yellow | 3X      | 9001 Hickman Rd.                     |
|          | RX 115A C   | Yellow | 2X      | Des Moines, Ia 50053                 |
| Bo-Jac   | X7L B       | Yellow | 2X      | Bo-Jac Hybrid Corn Co.               |
|          | X56 AB      | Yellow | 2X      | R.R. # 2                             |
|          | X57 B       | Yellow | 2X      | Mount Pulaski, Ill. 62548            |
|          | X83 AC      | Yellow | 2X      |                                      |
|          | X56B A      | Yellow | 2X(Mod) |                                      |
|          | X622A B     | Yellow | 2X      |                                      |
|          | X923 AC     | Yellow | 3X      |                                      |
|          | X69 C       | Yellow | 2X      |                                      |
| Coker    | 16 AB       | Yellow | 2X(Mod) | Coker's Pedigreed Seed Co.           |
|          | 18 A        | Yellow | 2X      | P.O. Box 340                         |
|          | 22 A        | Yellow | 3X      | Hartsville, SC 29550                 |
| Colbert  | 310 A       | Yellow | 2X      | Colbert Farms                        |
|          | 315 A       | Yellow | 2X      | R.R. # 2<br>Washington, Ind. 47501   |

(continued)

TABLE 8 (continued)

| HYBRID                | 3-YR  |       | 2-YR  |       | 1977 RESULTS |             |               |
|-----------------------|-------|-------|-------|-------|--------------|-------------|---------------|
|                       | YIELD | BU/AC | YIELD | BU/AC | YIELD        | AVG % MOIST | AVG % TOTAL % |
| YELLOW                |       |       |       |       |              |             |               |
| MIGRO M-0505          |       |       | 126.2 |       | 18.9         | 93.8        | 47.8          |
| SO. STATES SS795      |       |       | 125.7 |       | 18.7         | 89.5        | 60.8          |
| STEWART SX 77         |       | 146.4 | 125.5 |       | 18.4         | 89.0        | 21.5          |
| O'S GOLD SX5500       |       | 124.6 | 124.9 |       | 18.9         | 86.7        | 36.2          |
| NORTHROP-KING PX79    | 152.1 | 142.3 | 124.7 |       | 18.4         | 92.9        | 34.3          |
| MUNCY CHIEF SX8088    |       | 138.9 | 124.4 |       | 19.5         | 80.0        | 29.5          |
| WILSTAR 7771          |       |       | 124.2 |       | 19.4         | 91.9        | 30.0          |
| DEKALB XL80           | 146.5 | 141.4 | 124.2 |       | 19.0         | 92.9        | 22.9          |
| DEKALB XL72B          | 141.0 | 136.6 | 123.5 |       | 18.1         | 78.1        | 25.8          |
| P-A-G 314             |       |       | 123.5 |       | 18.0         | 78.1        | 44.8          |
| FUNK'S G4848          |       | 150.1 | 122.2 |       | 21.6         | 84.3        | 42.4          |
| ASGROW RX 101         |       |       | 122.2 |       | 19.0         | 90.5        | 35.2          |
| DEKALB XL75A          |       |       | 122.1 |       | 19.1         | 86.2        | 18.3          |
| MUNCY CHIEF SX777     |       |       | 122.0 |       | 18.4         | 72.4        | 29.2          |
| PRINCETON SX 840      |       |       | 121.8 |       | 18.6         | 85.2        | 16.4          |
| VORIS SEEDS V2642     | 144.5 | 139.7 | 121.3 |       | 19.5         | 89.0        | 59.7          |
| ASGROW RX 90          |       | 144.5 | 121.1 |       | 19.3         | 89.5        | 66.7          |
| GUTWEIN 62A           |       |       | 121.0 |       | 18.7         | 88.1        | 38.6          |
| MCNAIR X194           |       | 145.5 | 120.8 |       | 19.2         | 77.6        | 23.2          |
| HULTING X770          |       |       | 120.2 |       | 18.4         | 89.5        | 46.1          |
| BO-JAC X568           |       |       | 120.2 |       | 19.5         | 87.1        | 43.2          |
| HULTING X8800         |       |       | 119.0 |       | 19.1         | 75.2        | 60.3          |
| S S HYBRIDS 86        | 147.8 | 142.1 | 118.8 |       | 19.0         | 83.3        | 31.1          |
| P-A-G SX 17A          |       |       | 146.0 |       | 18.4         | 87.6        | 63.5          |
| MASON 8869            | 135.6 | 132.1 | 116.2 |       | 20.2         | 85.2        | 36.0          |
| S S HYBRIDS 5100      |       |       | 115.2 |       | 18.8         | 90.0        | 62.7          |
| DEKALB XL78           | 142.8 | 139.2 | 115.0 |       | 18.5         | 93.8        | 35.8          |
| SECURITY SS112        |       |       | 150.4 |       | 18.5         | 64.2        | 49.6          |
| VORIS SEEDS V2532     | 150.6 | 144.6 | 113.5 |       | 18.7         | 91.4        | 60.2          |
| FUNK'S G4520          |       |       | 142.9 |       | 18.9         | 87.6        | 47.2          |
| NORTHROP-KING PX74    | 140.6 | 141.6 | 111.8 |       | 19.0         | 92.9        | 58.5          |
| P-A-G SX 98           | 143.8 | 137.9 | 111.5 |       | 18.2         | 74.3        | 49.6          |
| SEED KEM SKX-86       | 137.2 | 132.1 | 110.9 |       | 18.2         | 92.4        | 25.4          |
| KENTUCKY 105          |       |       | 110.6 |       | 20.7         | 91.9        | 71.2          |
| FUNK'S G4574          |       |       | 110.5 |       | 18.7         | 92.9        | 48.1          |
| PREMIER 688           |       | 136.6 | 109.9 |       | 20.3         | 80.5        | 63.0          |
| SEED KEM SKX98        |       |       | 108.6 |       | 19.9         | 86.2        | 46.9          |
| RING AROUND RA1501    |       |       | 107.3 |       | 18.3         | 91.0        | 52.6          |
| RUFF'S R287           |       |       | 101.1 |       | 19.0         | 80.5        | 31.8          |
| P-A-G 357             |       |       | 97.9  |       | 18.7         | 90.0        | 50.5          |
| FUNK'S G4507          | 136.9 | 128.5 | 92.1  |       | 18.6         | 91.0        | 66.7          |
| FUNK'S G4628          | 129.4 | 119.9 | 83.8  |       | 19.3         | 75.7        | 45.1          |
| YELLOW AVERAGE        | 148.3 | 146.6 | 129.7 |       | 18.9         | 88.2        | 37.1          |
| WHITE                 |       |       |       |       |              |             |               |
| ZIMMERMAN Z19W        |       |       | 154.0 |       | 18.0         | 87.6        | 44.2          |
| ZIMMERMAN Z52W        | 163.0 | 169.7 | 153.9 |       | 19.1         | 93.3        | 44.9          |
| GOLDEN HARVEST H2660W | 146.4 | 150.4 | 151.5 |       | 20.1         | 77.1        | 48.2          |
| SO. STATES SS950W     |       |       | 147.0 |       | 19.1         | 87.6        | 37.0          |
| PRINCETON SX 910      | 149.4 | 151.2 | 129.1 |       | 20.1         | 88.6        | 47.7          |
| FUNK'S G4747W         | 143.3 | 142.9 | 123.7 |       | 20.2         | 87.6        | 58.1          |
| ZIMMERMAN Z11W        | 144.8 | 140.1 | 116.9 |       | 20.2         | 93.8        | 56.9          |
| PIONEER BRAND 511A    | 132.4 | 129.7 | 111.6 |       | 20.5         | 91.0        | 42.0          |
| DEKALB XL390A         | 143.2 | 135.7 | 100.1 |       | 19.9         | 81.4        | 60.8          |
| WHITE AVERAGE         | 146.1 | 147.1 | 132.0 |       | 19.7         | 87.7        | 48.9          |
| GRAND AVERAGE         | 147.9 | 146.6 | 129.9 |       | 19.0         | 88.1        | 38.1          |



TABLE 8.--ANNUAL SUMMARY, NORMAL POPULATION, LEXINGTON, KY.

| HYBRID                | 3-YR<br>YIELD<br>BU/AC | 2-YR<br>YIELD<br>BU/AC | 1977 RESULTS   |                |                |                   |
|-----------------------|------------------------|------------------------|----------------|----------------|----------------|-------------------|
|                       |                        |                        | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                        |                        |                |                |                |                   |
| PIONEER BRAND 3184    |                        | 172.0                  | 169.3          | 21.2           | 94.8           | 22.0              |
| COKER 18              |                        | 171.8                  | 165.3          | 18.9           | 91.4           | 36.0              |
| TROJAN TXS 115A       | 153.9                  | 157.1                  | 160.6          | 19.1           | 95.7           | 17.4              |
| FUNK'S G4636          |                        |                        | 158.0          | 19.2           | 91.9           | 20.7              |
| COLBERT 315           |                        |                        | 157.0          | 17.6           | 95.2           | 24.5              |
| GOLDEN HARVEST H2775  |                        |                        | 153.7          | 19.6           | 85.7           | 26.8              |
| PIONEER BRAND 3368A   | 152.4                  | 155.6                  | 151.9          | 18.5           | 93.8           | 18.8              |
| MIGRO M-7072          | 159.2                  | 156.2                  | 150.4          | 19.2           | 96.2           | 22.4              |
| NORTHROP-KING PX675   |                        | 155.1                  | 148.4          | 17.8           | 90.5           | 18.6              |
| PIONEER BRAND 3334A   |                        |                        | 148.3          | 19.8           | 89.0           | 15.1              |
| DENNIS 37             | 163.4                  | 163.5                  | 147.6          | 17.5           | 87.6           | 18.5              |
| SO. STATES SS775      | 155.9                  | 153.6                  | 147.3          | 18.5           | 95.7           | 20.5              |
| COLBERT 310           |                        |                        | 146.7          | 18.4           | 95.7           | 46.4              |
| ACCO UC 9792          |                        |                        | 146.5          | 20.5           | 87.1           | 21.7              |
| PICNEER BRAND 3161    | 154.1                  | 155.5                  | 145.5          | 19.2           | 87.6           | 38.9              |
| ZIMMERMAN Z24Y        | 157.8                  | 157.4                  | 144.1          | 18.8           | 94.2           | 38.4              |
| BO-JAC X56            |                        |                        | 143.8          | 18.1           | 89.0           | 36.9              |
| COKER 16              | 151.5                  | 150.9                  | 143.5          | 19.0           | 90.0           | 21.7              |
| BO-JAC X923           |                        |                        | 142.5          | 19.9           | 92.4           | 22.1              |
| HOB LIT XR441A        |                        |                        | 142.4          | 18.9           | 92.4           | 27.8              |
| HULTING X980          | 156.6                  | 155.4                  | 142.4          | 19.5           | 85.7           | 37.0              |
| SUPER CROST 5440      | 154.6                  | 150.6                  | 142.2          | 18.8           | 89.5           | 39.5              |
| TROJAN TXS 114        | 153.4                  | 151.8                  | 141.5          | 18.3           | 85.7           | 44.6              |
| S S HYBRIDS 6400      |                        |                        | 141.4          | 17.6           | 90.0           | 15.7              |
| DEKALB XL72AA         |                        | 157.6                  | 141.0          | 19.2           | 91.4           | 53.7              |
| ACCO UC 8951          |                        |                        | 140.8          | 19.0           | 90.0           | 66.0              |
| GOLDEN HARVEST H2650  |                        | 146.9                  | 139.7          | 18.8           | 82.9           | 21.7              |
| HULTING X880          | 152.8                  | 149.7                  | 139.7          | 18.5           | 91.0           | 27.7              |
| PREMIER 655           |                        |                        | 137.6          | 18.1           | 84.3           | 13.5              |
| PICNEER BRAND 3369A   | 150.6                  | 153.3                  | 137.3          | 19.0           | 88.1           | 33.4              |
| ADLERS 62X            |                        |                        | 137.3          | 19.0           | 92.9           | 53.6              |
| GOLDEN ACRES T-E 6995 |                        |                        | 137.1          | 18.0           | 91.4           | 30.0              |
| GUTWEIN 72            |                        |                        | 136.7          | 18.4           | 92.4           | 11.1              |
| DENNIS 69             |                        |                        | 135.9          | 19.9           | 97.1           | 63.1              |
| COKER 22              |                        |                        | 135.5          | 19.7           | 87.6           | 16.7              |
| BO-JAC X83            | 154.1                  | 151.4                  | 135.2          | 19.3           | 79.0           | 16.0              |
| GUTWEIN 86            | 151.5                  | 152.2                  | 134.8          | 18.7           | 94.3           | 26.2              |
| WILSTAR 6663          |                        | 152.4                  | 134.6          | 19.8           | 81.0           | 47.1              |
| DENNIS 31             |                        |                        | 132.9          | 18.4           | 84.3           | 43.0              |
| ZIMMERMAN Z20Y        |                        |                        | 132.6          | 19.2           | 91.9           | 47.6              |
| NORTHROP-KING PX76    |                        |                        | 132.3          | 18.1           | 90.5           | 20.8              |
| STEWART SX 70         |                        |                        | 132.1          | 19.3           | 83.8           | 59.8              |
| SO. STATES SS727      |                        | 147.5                  | 131.1          | 18.9           | 94.8           | 52.3              |
| SO. STATES SS730P     |                        |                        | 131.0          | 20.0           | 85.7           | 40.6              |
| GOLDEN ACRES T-E 6980 |                        |                        | 130.7          | 18.9           | 83.3           | 22.3              |
| PREMIER SX633         |                        | 157.4                  | 130.0          | 18.1           | 85.7           | 31.7              |
| GOLDEN HARVEST H2666  | 145.8                  | 144.6                  | 129.8          | 19.3           | 91.9           | 33.9              |
| TROJAN T1120          |                        |                        | 129.6          | 17.8           | 91.4           | 16.3              |
| TROJAN TXS 119        |                        | 146.0                  | 129.6          | 19.5           | 88.1           | 33.5              |
| MIGRO M-0701EP        |                        |                        | 129.3          | 17.7           | 91.4           | 34.0              |
| GOLDEN ACRES T-E 6968 | 141.9                  | 138.6                  | 128.9          | 18.7           | 92.9           | 31.1              |
| SECURITY S711         |                        |                        | 128.3          | 18.5           | 88.1           | 35.0              |
| TROJAN TX 119A        |                        |                        | 127.7          | 19.2           | 92.4           | 42.7              |
| RING AROUND RA1502    |                        |                        | 127.7          | 18.6           | 87.1           | 32.6              |
| ADLERS 87X            | 151.2                  | 141.7                  | 127.4          | 19.2           | 86.2           | 36.9              |
| MUNCY CHIEF SX878     | 136.4                  | 138.3                  | 127.3          | 20.6           | 86.2           | 59.3              |
| SUPER CROST 6800      |                        |                        | 127.1          | 18.2           | 90.5           | 42.7              |
| RUFF'S R334           |                        |                        | 126.7          | 18.7           | 85.2           | 23.8              |
| SEED KEM SKX-76       |                        | 133.6                  | 126.6          | 19.0           | 91.9           | 46.1              |

(continued)

TABLE 1 (continued)

| HYBRID         | TEST*       | COLOR | CROSS* | SOURCE OF HYBRID             |
|----------------|-------------|-------|--------|------------------------------|
| DeKalb         | XL 65A      | B     | Yellow | 2X(Mod) DeKalb Ag. Research  |
|                | XL 72AA     | AB    | Yellow | 2X                           |
|                | XL 72B      | ABC   | Yellow | 2X DeKalb, Ill.60015         |
|                | XL 75A      | A     | Yellow | 2X(Mod)                      |
|                | XL 78       | AB    | Yellow | 2X                           |
|                | XL 80       | A     | Yellow | 2X                           |
|                | XL 390A     | A     | White  | 3X                           |
|                | XL 394      | C     | Yellow | 3X                           |
| Dennis         | DS 31       | A     | Yellow | 2X Dennis Hybrid Corp.       |
|                | DS 37       | A     | Yellow | 2X P.O. Box 487              |
|                | DS 69       | A     | Yellow | 2X Windfall, Ind. 46076      |
| Funk's         | G-4507      | AB    | Yellow | 2X Funk's Seeds Internat'l   |
|                | G-4520      | AB    | Yellow | 2X 1300 Washington St.       |
|                | G-4525      | BC    | Yellow | 2X Bloomington, Ill.61701    |
|                | G-4574      | A     | Yellow | 3X                           |
|                | G-4628      | A     | Yellow | 2X                           |
|                | G-4636      | A     | Yellow | 2X                           |
|                | G-4737      | B     | Yellow | 2X                           |
|                | G-4776      | BC    | Yellow | Sp X                         |
|                | G-4848      | AC    | Yellow | 2X                           |
|                | G-4747W     | AC    | White  | Sp X                         |
|                | Exp. 27792  | C     | Yellow | Sp X                         |
|                | " 28189     | C     | Yellow | Sp X                         |
|                | " 28236     | C     | Yellow | Sp X                         |
| Golden Acres   | T-E 6968    | AB    | Yellow | 2X Taylor-Evans Seed Co.     |
|                | T-E 6980    | A     | Yellow | 2X P.O.Box 68                |
|                | T-E 6995    | A     | Yellow | 2X Tulia, Tx. 79088          |
|                | T-E 6947    | C     | Yellow | 2X                           |
|                | T-E 6992    | AB    |        |                              |
| Golden Harvest | H2650       | AB    | Yellow | 2X Columbiana Seed Co.       |
|                | H2666       | AB    | Yellow | 2X Eldred, Ill. 62027        |
|                | H2775       | A     | Yellow | 2X                           |
|                | H2660W      | A     | White  | 2X                           |
| Gutwein        | 62A         | A     | Yellow | 2X Fred Gutwein & Sons, Inc. |
|                | 72          | A     | Yellow | 2X Rt # 1, Box 40            |
|                | 86          | A     | Yellow | 2X Francesville, Ind.47946   |
| Hoblit         | XR441A      | A     | Yellow | 2X Hoblit Seed Co.           |
|                |             |       |        | Atlanta, Ill.61723           |
| Hulting        | X770        | AB    | Yellow | 2X Hulting Hybrids, Div.     |
|                | X880        | AB    | Yellow | 2X of Ferry Morse Seeds      |
|                | X980        | AB    | Yellow | 2X P.O. Box 24               |
|                | X8800       | A     | Yellow | 2X Geneseo, Ill.61254        |
|                | Exp. 74-174 | C     | Yellow | 2X                           |
|                | X990        | BC    | Yellow | 2X                           |
| Mason          | 7766        | B     | Yellow | 2X Mason Hybrid Corn Co.     |
|                | 8869        | A     | Yellow | 2X Route # 1                 |
|                |             |       |        | Princeton, Ky.42445          |
| McNair         | X194        | A     | Yellow | 2X McNair Seed Co.           |
|                |             |       |        | P.O.Box 706                  |
|                |             |       |        | Laurinburg, N.C.28352        |

(continued)

TABLE 1 (continued)

| HYBRID        | TEST*      | COLOR  | CROSS ** | SOURCE OF HYBRID                       |
|---------------|------------|--------|----------|--|
| Migro         | M-7072     | AB     | Yellow   | 2X Migro Hybrids                       |
|               | M-0701EP   | A      | Yellow   | 2X P.O.Box 7                           |
|               | M-0505     | A      | Yellow   | 2X Mitchell, Ind.47446                 |
|               | M-5045     | C      | Yellow   | 4X                                     |
|               | M-600A     | C      | Yellow   | 2X(Mod)                                |
|               | M-7074     | B      | Yellow   | 2X                                     |
|               | M-6666     | B      | Yellow   | 2X                                     |
|               | M-0601     | B      | Yellow   | 2X                                     |
|               | M-Exp-3416 | B      | Yellow   | 2X                                     |
| Muncy Chief   | SX777      | A      | Yellow   | 2X Muncy Chief Hybrids                 |
|               | SX808B     | A      | Yellow   | 2X Market & High Sts.                  |
|               | SX878      | A      | Yellow   | 2X Muncy, Pa.17756                     |
|               | H764       | B      | Yellow   | 4X                                     |
|               | MDM 702    | C      | Yellow   | 4X                                     |
|               | MDM 803    | C      | Yellow   | 2X                                     |
| Northrup-King | PX74       | AB     | Yellow   | 2X Northrup-King & Co.                 |
|               | PX76       | AB     | Yellow   | 2X 1500 Jackson St.N.W.                |
|               | PX79       | AB     | Yellow   | 2X Minneapolis, Minn.55402             |
|               | PX91       | C      | Yellow   | 2X                                     |
|               | PX95       | C      | Yellow   | 2X                                     |
|               | PX65       | B      | Yellow   | 2X                                     |
|               | PX675      | AB     | Yellow   | 3X                                     |
|               | PX715      | C      | Yellow   | 3X                                     |
|               | PX737      | C      | Yellow   | 3X                                     |
|               | O's Gold   | SX5500 | A        | Yellow                                 |
|               |            |        |          |  |
| P.A.G.        | SX17A      | AC     | Yellow   | 2X P.A.G. Seeds                        |
|               | SX98       | AB     | Yellow   | 2X P.O.Box 9480                        |
|               | 314        | A      | Yellow   | 2X Dept.16                             |
|               | 357        | A      | Yellow   | 2X Minneapolis, Minn.55440             |
|               | Exp.246006 | C      | Yellow   |  |
| Pioneer Brand | 3145       | BC     | Yellow   | 2X(Mod) Pioneer Hi-Bred, Inc.          |
|               | 3147       | BC     | Yellow   | 2X(Mod) 221 N. Main St.                |
|               | 3161       | A      | Yellow   | 3X(Mod) Tipton, Ind.46072              |
|               | 3179       | C      | Yellow   | 2X(mod)                                |
|               | 3184       | A      | Yellow   | 2X                                     |
|               | 3334A      | A      | Yellow   | 2X(Mod)                                |
|               | 3364       | C      | Yellow   | 2X(Mod)                                |
|               | 3368A      | A      | Yellow   | 2X(Mod)                                |
|               | 3369A      | AB     | Yellow   | 2X                                     |
|               | 511A       | A      | White    | 4X                                     |
|               | 3535       | B      | Yellow   | 2X                                     |
| Premier       | SX633      | A      | Yellow   | 2X Premier Hybrids                     |
|               | SX655      | A      | Yellow   | 2X Route 15, Box 223X                  |
|               | SX688      | A      | Yellow   | 2X Acton, Ind.46259                    |
|               | 633A       | C      | Yellow   |  |
|               | SX64L-I    | B      | Yellow   | 2X(Mod)                                |
|               | SX695-I    | B      | Yellow   | 2X(Mod)                                |
| Princeton     | SX840      | AC     | Yellow   | 2X Princeton Farms                     |
|               | SX910      | AC     | White    | 2X P.O.Box 319<br>Princeton, Ind.47670 |

(continued)

TABLE 7 (continued)

| HYBRID                | 3-YR           | 2-YR           | 1977 RESULTS   |                |                |                   |
|-----------------------|----------------|----------------|----------------|----------------|----------------|-------------------|
|                       | YIELD<br>BU/AC | YIELD<br>BU/AC | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                |                |                |                |                |                   |
| PREMIER 655           |                |                | 116.9          | 16.6           | 79.1           | 12.3              |
| SO. STATES SS795      |                |                | 116.8          | 17.0           | 84.6           | 9.1               |
| NORTHROP-KING PX76    |                |                | 115.9          | 17.9           | 90.6           | 6.7               |
| BO-JAC X923           |                |                | 115.0          | 17.3           | 83.3           | 14.7              |
| WILSTAR 7771          |                |                | 114.2          | 17.4           | 86.3           | 4.4               |
| SUPER CROST 5440      | 85.0           | 92.1           | 113.9          | 17.3           | 81.6           | 8.0               |
| HULTING X8800         |                |                | 113.8          | 17.2           | 71.8           | 8.3               |
| S.S. HYBRIDS 6400     |                |                | 113.3          | 16.9           | 69.2           | 7.3               |
| GUTWEIN 62A           |                |                | 113.0          | 17.6           | 76.5           | 4.5               |
| ASGROW RX 101         |                |                | 112.9          | 17.7           | 82.9           | 10.4              |
| GOLDEN HARVEST H2666  | 89.7           | 95.2           | 112.1          | 17.2           | 76.1           | 11.7              |
| DEKALB XL75A          |                |                | 111.9          | 17.7           | 78.2           | 8.7               |
| PREMIER 688           |                | 83.1           | 111.6          | 16.5           | 76.9           | 16.0              |
| KENTUCKY 105          |                |                | 111.4          | 16.8           | 88.9           | 22.8              |
| P-A-G SX 98           | 89.7           | 97.9           | 111.4          | 18.2           | 76.9           | 11.8              |
| MIGRO M-7072          | 95.0           | 100.6          | 110.8          | 17.1           | 85.9           | 13.3              |
| MIGRO M-0505          |                |                | 110.3          | 17.4           | 87.6           | 8.9               |
| RING AROUND RA1501    |                |                | 109.4          | 16.5           | 81.6           | 10.2              |
| DEKALB XL72B          | 94.5           | 100.5          | 109.1          | 16.6           | 74.4           | 7.3               |
| DEKALB XL78           | 81.8           | 80.5           | 109.0          | 19.2           | 88.9           | 9.0               |
| HULTING X880          | 93.1           | 96.7           | 108.0          | 17.1           | 80.3           | 11.7              |
| PIONEER BRAND 3184    |                | 91.5           | 107.0          | 17.5           | 88.9           | 4.9               |
| MIGRO M-0701EP        |                |                | 105.8          | 16.3           | 84.6           | 5.6               |
| MUNCY CHIEF SX878     | 87.9           | 92.0           | 105.7          | 17.3           | 79.9           | 24.7              |
| BO-JAC X56B           |                |                | 105.2          | 17.3           | 74.8           | 6.2               |
| SO. STATES SS775      | 90.2           | 92.2           | 104.8          | 15.9           | 86.8           | 6.4               |
| DEKALB XL72AA         |                | 106.1          | 103.7          | 17.5           | 80.3           | 5.4               |
| PIONEER BRAND 3334A   |                |                | 103.6          | 18.0           | 77.8           | 30.2              |
| MASON 8869            | 88.7           | 90.1           | 103.3          | 18.3           | 79.5           | 16.5              |
| SEED KEM SKX98        |                |                | 103.1          | 17.6           | 78.6           | 15.1              |
| SEED KEM SKX-76       |                | 90.1           | 102.9          | 16.6           | 78.2           | 12.4              |
| FUNK'S G4636          |                |                | 100.1          | 17.2           | 85.5           | 8.0               |
| GOLDEN ACRES T-E 6968 | 91.3           | 94.7           | 99.9           | 17.1           | 84.6           | 6.1               |
| COKER 18              |                | 91.5           | 96.6           | 17.4           | 81.2           | 21.1              |
| PREMIER SX633         |                | 88.6           | 93.2           | 16.6           | 85.0           | 3.4               |
| P-A-G 314             |                |                | 91.1           | 16.6           | 67.1           | 5.6               |
| MUNCY CHIEF SX808B    |                | 85.5           | 90.6           | 17.3           | 75.6           | 24.6              |
| MUNCY CHIEF SX777     |                |                | 85.2           | 17.2           | 73.1           | 10.7              |
| GOLDEN ACRES T-E 6980 |                |                | 83.6           | 17.4           | 74.4           | 11.5              |
| P-A-G 357             |                |                | 83.6           | 16.9           | 75.2           | 14.4              |
| FUNK'S G4628          | 86.9           | 93.0           | 80.3           | 18.0           | 67.5           | 8.4               |
| SECURITY SS112        |                | 96.1           | 80.0           | 16.2           | 50.4           | 4.3               |
| YELLOW AVERAGE        | 96.0           | 101.2          | 121.0          | 17.3           | 82.4           | 10.7              |
| WHITE                 |                |                |                |                |                |                   |
| ZIMMERMAN Z19W        |                |                | 139.9          | 18.4           | 82.9           | 13.4              |
| ZIMMERMAN Z52W        | 98.0           | 104.2          | 130.3          | 18.6           | 90.2           | 9.1               |
| PIONEER BRAND 511A    | 90.6           | 97.2           | 130.2          | 18.8           | 86.8           | 22.2              |
| FUNK'S G4747W         | 103.7          | 113.6          | 123.6          | 18.8           | 85.9           | 14.0              |
| ZIMMERMAN Z11W        | 81.6           | 89.2           | 122.3          | 18.6           | 85.5           | 15.5              |
| GOLDEN HARVEST H2660W | 92.4           | 104.0          | 115.5          | 18.8           | 68.8           | 9.8               |
| PRINCETON SX 910      | 86.0           | 91.6           | 101.6          | 19.4           | 74.4           | 12.0              |
| SO. STATES SS950W     |                |                | 103.5          | 19.4           | 77.4           | 12.0              |
| DEKALB XL390A         | 89.8           | 99.2           | 94.2           | 18.1           | 76.9           | 10.6              |
| WHITE AVERAGE         | 91.7           | 100.3          | 117.0          | 18.8           | 81.0           | 13.2              |
| GRAND AVERAGE         | 95.2           | 101.1          | 120.7          | 17.4           | 82.3           | 10.9              |

TABLE 7.—ANNUAL SUMMARY, NORMAL POPULATION, NO-TILL, ELIZABETHTOWN, KY.

| HYBRID                | 3-YR<br>YIELD<br>BU/AC | 2-YR<br>YIELD<br>BU/AC | 1977 RESULTS   |                |                |                   |
|-----------------------|------------------------|------------------------|----------------|----------------|----------------|-------------------|
|                       |                        |                        | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                        |                        |                |                |                |                   |
| STEWART SX 77         |                        | 136.3                  | 173.2          | 18.0           | 92.3           | 7.9               |
| PIONEER BRAND 3161    | 102.8                  | 114.7                  | 161.6          | 17.8           | 89.7           | 7.1               |
| ACCO UC 9792          |                        |                        | 159.5          | 18.2           | 91.0           | 6.7               |
| PIONEER BRAND 3369A   | 102.8                  | 112.6                  | 151.2          | 17.4           | 84.6           | 14.1              |
| GOLDEN HARVEST H2775  |                        |                        | 149.4          | 18.8           | 89.3           | 6.8               |
| COKER 22              |                        |                        | 147.8          | 18.0           | 94.9           | 13.0              |
| NORTRUP-KING PX74     | 95.9                   | 108.5                  | 145.6          | 17.4           | 85.9           | 21.6              |
| GUTWEIN 72            |                        |                        | 144.3          | 18.2           | 88.9           | 3.9               |
| S S HYBRIDS 5100      |                        |                        | 143.2          | 16.8           | 87.6           | 6.3               |
| FUNK'S G4848          |                        | 116.3                  | 142.6          | 21.0           | 84.6           | 8.7               |
| DEKALB XL80           | 91.2                   | 98.8                   | 141.8          | 17.5           | 78.6           | 10.2              |
| DENNIS 37             | 100.9                  | 109.0                  | 141.3          | 16.7           | 79.1           | 10.9              |
| DENNIS 31             |                        |                        | 141.1          | 16.9           | 79.9           | 31.5              |
| RING AROUND RA1502    |                        |                        | 141.0          | 17.5           | 81.6           | 9.6               |
| FUNK'S G4574          |                        |                        | 140.5          | 16.8           | 85.0           | 12.5              |
| COLBERT 315           |                        |                        | 140.0          | 17.7           | 84.6           | 9.6               |
| HULTING X980          | 103.4                  | 111.9                  | 138.4          | 18.0           | 81.2           | 8.1               |
| ADLERS 62X            |                        |                        | 137.9          | 17.4           | 86.3           | 6.0               |
| ZIMMERMAN Z20Y        |                        |                        | 136.2          | 18.2           | 88.0           | 19.4              |
| BO-JAC X83            | 103.9                  | 109.2                  | 135.0          | 17.2           | 82.5           | 8.8               |
| ZIMMERMAN Z24Y        | 105.0                  | 113.2                  | 134.4          | 16.8           | 91.9           | 16.3              |
| FUNK'S G4507          | 101.3                  | 109.0                  | 133.6          | 17.7           | 84.6           | 10.2              |
| TROJAN TXS 114        | 100.7                  | 114.5                  | 133.6          | 16.9           | 81.6           | 12.5              |
| SO.STATES SS727       |                        | 119.3                  | 132.8          | 17.1           | 88.9           | 6.2               |
| ASGROW RX 90          |                        | 98.1                   | 132.8          | 16.4           | 86.8           | 6.5               |
| WILSTAR 6663          |                        | 102.5                  | 130.7          | 17.4           | 76.1           | 2.5               |
| NORTRUP-KING PX675    |                        | 103.2                  | 130.5          | 16.9           | 85.5           | 14.6              |
| S S HYBRIDS 86        | 104.0                  | 109.3                  | 130.4          | 16.7           | 90.6           | 7.6               |
| GOLDEN ACRES T-E 6995 |                        |                        | 130.3          | 17.0           | 83.8           | 5.7               |
| RUFF'S R334           |                        |                        | 130.0          | 18.0           | 81.6           | 16.3              |
| DENNIS 69             |                        |                        | 129.8          | 16.7           | 79.1           | 17.0              |
| NORTRUP-KING PX79     | 105.2                  | 114.7                  | 129.7          | 16.6           | 84.2           | 9.7               |
| SECURITY S711         |                        |                        | 129.1          | 16.7           | 85.9           | 6.0               |
| SEED KEM SKX-86       | 99.2                   | 110.3                  | 129.0          | 16.2           | 85.0           | 14.6              |
| COKER 16              | 95.7                   | 102.1                  | 128.9          | 16.8           | 89.7           | 11.0              |
| TROJAN T1120          |                        |                        | 128.9          | 16.8           | 91.0           | 5.1               |
| MCNAIR X194           |                        | 107.4                  | 127.5          | 17.6           | 79.9           | 8.6               |
| SUPER CROST 6800      |                        |                        | 127.5          | 17.8           | 87.6           | 16.6              |
| PIONEER BRAND 3368A   | 94.9                   | 104.3                  | 127.1          | 17.9           | 83.8           | 14.0              |
| COLBERT 310           |                        |                        | 126.9          | 17.3           | 86.3           | 11.4              |
| BO-JAC X56            |                        |                        | 126.7          | 16.7           | 82.9           | 7.7               |
| RUFF'S R287           |                        |                        | 125.9          | 16.6           | 82.5           | 8.2               |
| HOBBLIT XR441A        |                        |                        | 125.6          | 17.9           | 84.2           | 5.0               |
| ACCO UC 8951          |                        |                        | 125.1          | 18.0           | 89.7           | 8.1               |
| GOLDEN HARVEST H2650  |                        | 103.4                  | 124.8          | 18.2           | 78.2           | 12.0              |
| D'S GOLD SX5500       |                        | 89.9                   | 124.4          | 18.0           | 77.4           | 10.3              |
| SO.STATES SS730P      |                        |                        | 124.3          | 16.0           | 83.3           | 6.2               |
| STEWART SX 70         |                        |                        | 124.2          | 17.6           | 75.6           | 7.9               |
| PRINCETON SX 840      |                        |                        | 123.9          | 17.7           | 85.0           | 5.0               |
| VORIS SEEDS V2532     | 100.8                  | 101.8                  | 122.8          | 16.6           | 80.3           | 7.9               |
| ADLERS 87X            | 106.8                  | 112.1                  | 122.6          | 17.0           | 81.2           | 11.7              |
| P-A-G SX 17A          |                        | 99.2                   | 120.1          | 17.1           | 81.6           | 22.4              |
| FUNK'S G4520          |                        | 88.2                   | 119.8          | 18.2           | 83.3           | 5.0               |
| VORIS SEEDS V2642     | 101.7                  | 106.9                  | 119.4          | 17.8           | 80.3           | 10.3              |
| TROJAN TXS 119        |                        | 98.3                   | 119.2          | 18.1           | 81.2           | 13.4              |
| HULTING X770          |                        |                        | 118.5          | 15.6           | 79.1           | 9.2               |
| TROJAN TXS 115A       | 87.9                   | 91.3                   | 118.0          | 16.9           | 86.3           | 6.5               |
| GUTWEIN 86            | 94.9                   | 97.7                   | 118.0          | 17.4           | 87.2           | 10.3              |
| TROJAN TX 119A        |                        |                        | 117.8          | 16.7           | 90.2           | 10.6              |

(continued)

TABLE 1 (continued)

| HYBRID      | TEST*   | COLOR | CROSS** | SOURCE OF HYBRID |                            |
|-------------|---------|-------|---------|------------------|----------------------------|
| Ring Around | RA1501  | A     | Yellow  | 2X               | Ring Around Products, Inc. |
|             | RA1502  | AB    | Yellow  | 2X               | Research Division          |
|             | RA2601  | C     | Yellow  | 2X(Mod)          | P.O.Box 1629               |
|             | RA3602  | C     | Yellow  | 3X               | Plainview, Tx.79072        |
|             | RA2602W | C     | White   | 2X(Mod)          |                            |
|             | RA3502  | B     | Yellow  | 3X               |                            |
| Ruff's      | R-287   | A     | Yellow  | 3X               | Ruff's Seed Farms          |
|             | R-334   | A     | Yellow  | 2X               |                            |
| MDM         | R-434   | C     | Yellow  | 2X               | Amanda, Ohio 43102         |
| Security    | SS112   | A     | Yellow  | 2X               | Security Seed Co.          |
|             | S7111   | A     | Yellow  |                  | P.O.Box 630                |
|             | S120-A  | C     | Yellow  | 2X(Mod)          | Williamsburg, Ia.52361     |
|             | SS115   | B     | Yellow  | 2X(Mod)          |                            |
|             | SS125   | C     | Yellow  | 2X               |                            |
| Seed Kem    | SKX 76  | A     | Yellow  | 2X               | Seed Kem, Inc.             |
|             | SKX 86  | AB    | Yellow  | 2X               | 526 N.W. Fourth St.        |
|             | SKX 98  | A     | Yellow  | 2X               | Evansville, Ind.47701      |
|             | SKX 68  | C     | Yellow  | 2X               |                            |
|             | SK 71AW | C     | White   | 2X(Mod)          |                            |
|             | SK 72AW | C     | White   | 2X(Mod)          |                            |
|             | SKX 66  | B     | Yellow  | 2X               |                            |
| SS Hybrids  | JX 86   | A     | Yellow  | 2X               | S. S. Hybrids              |
|             | 5100    | A     | Yellow  | 2X               | P.O. Box 54                |
|             | 6400    | AC    | Yellow  | 2X               | Camden, Ind. 46917         |
| So.States   | SS727   | A     | Yellow  | 2X               | Southern States Coop, Inc. |
|             | SS730-P | A     | Yellow  | 2X(Mod)          | 2600 Durham St.            |
|             | SS775   | A     | Yellow  | 2X               | Richmond, Va.23220         |
|             | SS795   | A     | Yellow  | 3X               |                            |
|             | SS950W  | AC    | White   | 3X               |                            |
|             | SS760   | C     | Yellow  | 2X               |                            |
| Stewarts    | SX 70   | A     | Yellow  | 2X               | Stewart Hybrids            |
|             | SX 77   | AB    | Yellow  | 2X               |                            |
|             | S-3276  | C     | Yellow  |                  | Princeville, Ill.61559     |
| Sturdy Grow | SG937W  | C     | White   |                  | Sturdy Grow Hybrid Seed    |
|             | SG957W  | C     | White   |                  | P.O.Box 94                 |
|             |         |       |         |                  | Arcola, Ill.61910          |
| Super Crost | 5440    | A     | Yellow  | 2X               | Edw.J.Funk & Sons, Inc.    |
|             | 6800    | A     | Yellow  | 2X(Mod)          | P.O.Box 67                 |
|             | 7772    | B     | Yellow  | 2X(Mod)          | Kentland, Ind.47951        |
|             | 6880    | B     | Yellow  | 2X(Mod)          |                            |
|             | S67     | B     | Yellow  | 2X(Mod)          |                            |
|             | S85     | B     | Yellow  | 2X(Mod)          |                            |
| Trojan      | TXS114  | AB    | Yellow  | 2X               | Pfizer Genetics, Inc.      |
|             | TXS115A | AB    | Yellow  | 2X               | P.O.Box 367                |
|             | TXS119  | A     | Yellow  | 2X               | Windfall, Ind.46076        |
|             | TX 119A | AB    | Yellow  | 3X               |                            |
|             | T 1120  | A     | Yellow  | 2X               |                            |
|             | MDM 116 | C     | Yellow  | 2X               |                            |
|             | TXS 113 | B     | Yellow  | 2X               |                            |

(continued)

TABLE 1 (continued)

| HYBRID    | TEST*      | COLOR | CROSS** | SOURCE OF HYBRID |   |
|-----------|------------|-------|---------|------------------|---|
| Vorix     | V2532      | A     | Yellow  | 2X               | Vorix Seeds, Inc.<br>Box 457<br>Windfall, Ind. 46076                                |
|           | V2642      | A     | Yellow  | 2X               |   |
|           | V2502      | C     | Yellow  | 2X               |   |
| Wilstar   | 6663       | A     | Yellow  | 2X               | Helena Chemical Co.<br>Wilstar Seeds<br>P.O. Box 1393<br>Des Moines, Ia. 50303      |
|           | 7771       | A     | Yellow  | 2X               |   |
|           | 7770       | B     | Yellow  | 2X               |   |
|           | 9990       | C     | Yellow  | 2X               |   |
|           | 9997       | C     | Yellow  | 2X               |   |
| Zimmerman | Z20Y       | A     | Yellow  | 2X               | Zimmerman's Hybrids Inc<br>Route 2<br>Evansville, Ind. 47712                        |
|           | Z24Y       | AB    | Yellow  | 2X               |   |
|           | Z11W       | AC    | White   | 2X               |   |
|           | Z19W       | A     | White   | 2X               |   |
|           | Z52W       | AC    | White   | 3X               |   |
| K.A.E.S.  | Ky 105     | ABC   | Yellow  | 4X               | Kentucky Agricultural<br>Experiment Station<br>Univ. of Ky.<br>Lexington, Ky. 40506 |
|           | Ky 5921W   | BC    | White   | 4X               |   |
|           | Virus SynW | C     | White   | Syn              |   |
|           | Virus SynY | C     | Yellow  | Syn              |   |
|           | 802WXCI66  | B     | White   | 2X               |   |

\* A = Performance Test-Normal Population, B = Performance Test-High Population, C = Virus Test-Normal Population.

\*\* 2X = Single Cross, 2X(Mod) = Modified Single Cross, 3X = Three-way Cross, 4X = Double Cross, SpX = Special Cross, Syn = Synthetic.

*M. C. Cardy*

TABLE 6 (continued)

| HYBRID                | 3-YR           |                | 2-YR           |                | 1977 RESULTS   |                |                   |
|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|
|                       | YIELD<br>BU/AC | YIELD<br>BU/AC | YIELD<br>BU/AC | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                |                |                |                |                |                |                   |
| TROJAN T1120          |                |                | 113.3          | 17.3           | 93.2           |                | 3.7               |
| HULTING X880          | 115.2          | 124.8          | 113.2          | 17.0           | 80.3           |                | 10.4              |
| RUFF'S R287           |                |                | 112.9          | 16.7           | 71.8           |                | 14.3              |
| DEKALB XL78           | 108.5          | 122.5          | 112.7          | 18.0           | 88.0           |                | 11.7              |
| COLBERT 315           |                |                | 112.6          | 16.3           | 81.2           |                | 7.3               |
| GOLDEN ACRES T-E 6995 |                |                | 112.6          | 15.6           | 81.2           |                | 14.8              |
| DEKALB XL75A          |                |                | 112.5          | 18.1           | 88.5           |                | 16.1              |
| DEKALB XL72B          | 103.9          | 113.6          | 111.7          | 16.8           | 75.2           |                | 13.6              |
| PRINCETON SX 840      |                |                | 111.2          | 18.8           | 86.3           |                | 7.8               |
| NORTHRUP-KING PX675   |                | 120.2          | 111.0          | 16.8           | 78.2           |                | 13.2              |
| SEED KEM SKX-86       | 112.8          | 121.7          | 111.0          | 18.4           | 80.8           |                | 11.7              |
| SO. STATES SS730P     |                |                | 111.0          | 16.5           | 80.3           |                | 11.1              |
| SEED KEM SKX98        |                |                | 110.8          | 17.9           | 75.6           |                | 7.1               |
| PIONEER BRAND 3368A   | 111.4          | 121.7          | 109.9          | 17.5           | 84.2           |                | 14.0              |
| WILSTAR 6663          |                | 124.3          | 109.0          | 18.0           | 75.2           |                | 13.0              |
| FUNK'S G4636          |                |                | 108.9          | 18.3           | 81.2           |                | 12.9              |
| MUNCY CHIEF SX878     | 99.5           | 108.7          | 107.5          | 18.5           | 81.6           |                | 21.9              |
| TRCJAN TX 119A        |                |                | 107.5          | 16.6           | 85.5           |                | 11.9              |
| SECURITY SS112        |                |                | 107.1          | 16.4           | 58.1           |                | 14.9              |
| P-A-G SX 98           |                | 121.0          | 106.1          | 17.7           | 73.1           |                | 14.9              |
| HULTING X980          | 116.4          | 117.9          | 105.5          | 19.2           | 81.6           |                | 13.5              |
| GOLDEN ACRES T-E 6980 | 116.7          | 122.5          | 105.5          | 18.3           | 73.9           |                | 15.1              |
| NORTHRUP-KING PX76    |                |                | 104.8          | 16.7           | 81.2           |                | 7.1               |
| O'S GOLD SX5500       |                |                | 103.0          | 18.5           | 75.2           |                | 27.0              |
| DEKALB XL80           |                | 99.8           | 100.1          | 18.6           | 91.0           |                | 12.2              |
| MIGRO M-0505          | 98.3           | 104.9          | 99.8           | 16.5           | 85.0           |                | 22.1              |
| PIONEER BRAND 3161    |                |                | 98.5           | 18.4           | 76.9           |                | 11.0              |
| COKER 18              | 110.4          | 106.2          | 98.0           | 19.6           | 87.6           |                | 38.9              |
| P-A-G 214             |                | 110.6          | 96.9           | 16.9           | 74.4           |                | 12.7              |
| HULTING X8800         |                |                | 96.7           | 18.4           | 70.5           |                | 16.3              |
| HULTING X770          |                |                | 95.7           | 16.8           | 67.1           |                | 17.8              |
| GOLDEN ACRES T-E 6968 |                |                | 94.8           | 17.5           | 74.4           |                | 7.6               |
| P-A-G 357             | 109.3          | 114.2          | 93.1           | 16.6           | 82.9           |                | 26.8              |
| PREMIER SX633         |                |                | 92.8           | 17.6           | 75.2           |                | 20.2              |
| NORTHRUP-KING PX74    |                | 104.4          | 92.4           | 17.1           | 79.1           |                | 16.0              |
| MUNCY CHIEF SX777     | 104.3          | 115.7          | 92.0           | 16.0           | 64.1           |                | 6.1               |
| KENTUCKY 105          |                |                | 91.7           | 16.2           | 91.9           |                | 29.4              |
| BO-JAC X56            |                |                | 91.4           | 16.8           | 83.3           |                | 18.8              |
| GOLDEN HARVEST H2650  |                |                | 87.2           | 17.5           | 70.9           |                | 20.0              |
| TROJAN TXS 114        |                | 102.1          | 86.8           | 18.3           | 81.2           |                | 9.6               |
| FUNK'S G4628          | 105.2          | 115.4          | 81.6           | 15.8           | 71.8           |                | 21.2              |
| SO. STATES SS795      | 97.2           | 100.8          | 81.4           | 18.1           | 65.4           |                | 11.0              |
| YELLOW AVERAGE        |                |                |                |                |                |                |                   |
|                       | 113.5          | 123.2          | 119.8          | 17.6           | 81.3           |                | 14.0              |
| WHITE                 |                |                |                |                |                |                |                   |
| ZIMMERMAN Z52W        | 119.4          | 130.9          | 145.6          | 19.8           | 79.1           |                | 22.2              |
| ZIMMERMAN Z11W        | 117.5          | 121.0          | 122.1          | 18.4           | 82.9           |                | 25.7              |
| SO. STATES SS950W     |                | 118.1          | 121.6          | 18.1           | 81.2           |                | 23.4              |
| ZIMMERMAN Z19W        |                |                | 104.4          | 18.3           | 78.6           |                | 33.9              |
| PIONEER BRAND 511A    | 95.3           | 99.8           | 98.2           | 18.5           | 85.9           |                | 47.1              |
| FUNK'S G4747W         | 102.4          | 107.8          | 98.2           | 19.4           | 85.0           |                | 16.6              |
| DEKALB XL390A         | 101.1          | 105.6          | 94.5           | 19.6           | 69.7           |                | 22.8              |
| PRINCETON SX 910      | 98.5           | 98.6           | 91.0           | 18.7           | 84.6           |                | 24.0              |
| GOLDEN HARVEST H2660W | 102.7          | 99.0           | 83.9           | 18.9           | 60.7           |                | 27.9              |
| WHITE AVERAGE         |                |                |                |                |                |                |                   |
|                       | 105.3          | 110.0          | 106.6          | 18.9           | 78.6           |                | 27.1              |
| GRAND AVERAGE         |                |                |                |                |                |                |                   |
|                       | 112.0          | 121.5          | 118.7          | 17.7           | 81.1           |                | 15.1              |

TABLE 6.—ANNUAL SUMMARY, NORMAL POPULATION, NO-TILL, FRANKLIN, KY.

| HYBRID               | 3-YR           | 2-YR           | YIELD          | 1977 RESULTS   | TOTAL |
|----------------------|----------------|----------------|----------------|----------------|-------|
|                      | YIELD<br>BU/AC | YIELD<br>BU/AC | YIELD<br>BU/AC | AVG %<br>MOIST |       |
| YELLOW               |                |                |                |                |       |
| PIONEER BRAND 3184   | 148.7          | 170.7          | 19.5           | 83.3           | 2.2   |
| ADLERS 62X           | 134.3          | 156.9          | 17.2           | 95.7           | 20.4  |
| SEED KEM SKX-76      | 155.2          | 173.9          | 17.9           | 83.8           | 14.3  |
| HOBBIT XR441A        | 154.0          | 169.9          | 16.9           | 79.9           | 5.8   |
| BO-JAC X56B          | 152.1          | 173.3          | 17.3           | 79.5           | 12.6  |
| COLBERT 310          | 149.5          | 177.7          | 17.7           | 77.4           | 4.8   |
| PREMIER 655          | 134.0          | 147.9          | 16.6           | 82.5           | 17.2  |
| TRJAN TXS 115A       | 139.5          | 146.4          | 19.4           | 88.9           | 9.8   |
| GUTWEIN 62A          | 145.1          | 151.1          | 15.1           | 88.0           | 18.7  |
| SUPER CROST 5440     | 144.2          | 144.2          | 17.5           | 90.6           | 10.9  |
| MIGRO M-7072         | 143.8          | 143.8          | 16.4           | 82.1           | 13.0  |
| SECURITY 5711        | 143.0          | 143.0          | 17.1           | 91.5           | 15.4  |
| SO-STATES S5727      | 140.9          | 142.6          | 15.8           | 86.3           | 7.4   |
| FUNK'S G4520         | 142.1          | 142.1          | 16.0           | 82.1           | 14.1  |
| PIONEER BRAND 3369A  | 131.7          | 140.6          | 16.9           | 80.8           | 12.4  |
| SUPER CROST 6800     | 134.0          | 140.2          | 18.5           | 83.8           | 8.6   |
| S S HYBRIDS 6400     | 135.7          | 135.7          | 16.7           | 88.0           | 12.3  |
| VORIS SEEDS V2642    | 126.1          | 135.7          | 18.6           | 79.5           | 21.6  |
| ZIMMERMAN 220Y       | 135.7          | 135.7          | 18.6           | 85.9           | 16.5  |
| STEMART SX 77        | 138.6          | 135.7          | 18.6           | 85.9           | 13.4  |
| BO-JAC X923          | 133.4          | 133.4          | 17.9           | 86.3           | 14.8  |
| NORTHRUP-KING PX79   | 132.3          | 132.3          | 17.3           | 93.2           | 16.3  |
| FUNK'S G4574         | 132.0          | 132.0          | 17.6           | 86.8           | 23.3  |
| WILSTAR 7771         | 131.9          | 131.9          | 17.2           | 73.1           | 10.0  |
| FUNK'S G4507         | 131.7          | 131.7          | 17.7           | 91.9           | 10.1  |
| RING AROUND RA1502   | 129.6          | 131.6          | 18.2           | 84.2           | 7.0   |
| PREMIER 688          | 117.8          | 131.5          | 18.2           | 78.6           | 16.0  |
| DENNIS 37            | 128.3          | 131.1          | 18.2           | 91.0           | 18.8  |
| DEKALB XL72AA        | 136.7          | 130.3          | 16.6           | 84.6           | 6.9   |
| ACCO UC 9792         | 129.2          | 129.2          | 17.9           | 81.6           | 15.6  |
| S S HYBRIDS 86       | 116.9          | 128.6          | 17.5           | 74.8           | 14.3  |
| P-A-G SX 17A         | 131.9          | 128.5          | 16.3           | 86.3           | 34.5  |
| CONER 22             | 129.8          | 128.4          | 17.2           | 90.6           | 13.1  |
| MCNAIR X194          | 127.2          | 127.2          | 17.8           | 73.5           | 11.7  |
| ACCO UC 8951         | 117.2          | 126.6          | 21.3           | 90.6           | 18.9  |
| FUNK'S G4848         | 117.2          | 125.5          | 17.1           | 78.6           | 15.2  |
| DENNIS 31            | 132.5          | 125.5          | 18.6           | 91.0           | 27.1  |
| ZIMMERMAN 224Y       | 129.9          | 124.3          | 18.0           | 84.2           | 13.2  |
| TRJAN TXS 119        | 124.0          | 124.0          | 18.8           | 78.2           | 15.8  |
| GUTWEIN 72           | 123.7          | 123.7          | 17.9           | 79.5           | 11.2  |
| PIONEER BRAND 3334A  | 123.0          | 123.0          | 17.6           | 84.2           | 10.2  |
| ASGROW RX 90         | 122.7          | 122.7          | 16.7           | 84.2           | 22.0  |
| BO-JAC X83           | 122.4          | 122.4          | 18.4           | 82.9           | 15.0  |
| VORIS SEEDS V2532    | 119.8          | 122.7          | 17.2           | 83.0           | 16.0  |
| ASGROW RX 101        | 132.6          | 121.7          | 17.7           | 76.5           | 13.8  |
| RUFF'S R334          | 121.1          | 121.1          | 16.5           | 84.6           | 12.1  |
| ADLERS 87X           | 120.7          | 119.4          | 17.7           | 81.2           | 13.1  |
| DENNIS 69            | 119.4          | 119.4          | 16.4           | 81.2           | 12.9  |
| RING AROUND RA1501   | 119.5          | 118.3          | 17.1           | 83.5           | 8.1   |
| MUNGY CHIEF S4808B   | 120.7          | 117.2          | 18.9           | 77.4           | 20.0  |
| MASON 8869           | 115.6          | 115.6          | 18.9           | 71.4           | 9.5   |
| GOLDEN HARVEST H2775 | 115.1          | 115.1          | 19.2           | 69.2           | 7.9   |
| STEMART SX 70        | 114.8          | 114.8          | 17.8           | 74.8           | 7.8   |
| SO-STATES S5775      | 128.5          | 114.7          | 17.9           | 83.8           | 7.2   |
| MIGRO M-0701EP       | 120.6          | 114.5          | 17.2           | 84.6           | 9.0   |
| CONER 16             | 113.7          | 113.7          | 18.2           | 81.6           | 9.5   |
| GOLDEN HARVEST H2666 | 121.3          | 113.5          | 18.2           | 77.8           | 10.4  |
| S S HYBRIDS 5100     | 113.5          | 113.5          | 16.9           | 67.9           | 8.5   |

(continued)

TABLE 2.—AGRONOMIC INFORMATION PERTAINING TO 1977 TEST LOCATIONS

| Location and Cooperator   | Soil Type  | Fertilizer                      |      | Herbicide          | Insecticide               | Planting |  | Harvest                               | Comments |
|---|------------|---------------------------------|------|--------------------|---------------------------|----------|--|---------------------------------------|----------|
|   |            | lb/A                            |      |                    |                           | Date     | Date                                     |                                       |          |
| (1) Mayfield, Ky<br>Berthal Johnson   | Collins    | N-                              | 150  | Aatrex             | Furadan<br>18 lb/A        | May 9    | Oct. 19,<br>20 & 21                      | Wind uprooted<br>this test            |          |
|   | Silt Loam  | P <sub>2</sub> O <sub>5</sub> - | 120  | and                |                           |          |  |                                       |          |
|   |            | K <sub>2</sub> O-               | 72   | Eradicane          |                           |          |  |                                       |          |
| (2) Princeton, Ky.<br>Western Ky.<br>Substation                                   | Huntington | N-                              | 150  | Princep            | Furadan<br>18 lb/A        | May 10   | Oct. 24,<br>27, 28, 29,<br>30, 31        | Nov. 1 & 2                            |          |
|   | & Lindside | P <sub>2</sub> O <sub>5</sub> - | None | and                |                           |          |  |                                       |          |
|   | Silt Loam  | K <sub>2</sub> O-               | 60   | Eradicane          |                           |          |  |                                       |          |
| (3) Henderson, Ky.<br>Jay Beasley   | Huntington | N-                              | 125  | Sutan <sup>+</sup> | No insecticide<br>applied | May 12   | Oct. 17<br>and 18                        | Corn Viruses                          |          |
|   | Fine Sandy | P <sub>2</sub> O <sub>5</sub> - | None |                    |                           |          |  |                                       |          |
|   | Loam       | K <sub>2</sub> O-               | None |                    |                           |          |  |                                       |          |
| (4) Hartford, Ky.<br>Dane Milligan  | Melvin     | N-                              | 200  | Aatrex             | Furadan<br>18 lb/A        | May 11   | Oct. 14<br>and 15                        | Rainfall-May<br>-Oct. 11; 26.4"       |          |
|   | Silt Loam  | P <sub>2</sub> O <sub>5</sub> - | 92   | and                |                           |          |  |                                       |          |
|   |            | K <sub>2</sub> O-               | 120  | Eradicane          |                           |          |  |                                       |          |
| (5) Franklin, Ky.<br>Robert(Bob) Wade   | Pembroke   | N-                              | 150  | Aatrex,            | Furadan<br>18 lb/A        | Apr. 27  | Oct. 11,<br>12, & 13                     | No-till<br>Fescue sod &<br>Red Clover |          |
|   | Silt Loam  | P <sub>2</sub> O <sub>5</sub> - | 80   | Lasso and          |                           |          |  |                                       |          |
|   |            | K <sub>2</sub> O-               | 80   | Paraquat           |                           |          |  |                                       |          |
| (6) Elizabethtown, Ky.<br>J.A. Buchanan, Owner<br>Chas. & Tom Skees-<br>Producers | Crider     | N-                              | 150  | Aatrex,            | Furadan<br>18 lb/A        | Apr. 26  | Oct. 4, 5,<br>6, & 7                     | No-till<br>Old Stalks                 |          |
|   | Silt Loam  | P <sub>2</sub> O <sub>5</sub> - | 80   | Princep and        |                           |          |  |                                       |          |
|   |            | K <sub>2</sub> O-               | 80   | Paraquat           |                           |          |  |                                       |          |
| (7) Hodgenville, Ky.<br>Frankie Weller  | Pembroke   | N-                              | 125  | Aatrex             | No insecticide<br>applied | May 23   | Nov. 15<br>& 18                          | No apparent<br>Virus Infection        |          |
|   | Silt Loam  | P <sub>2</sub> O <sub>5</sub> - | 60   | and                |                           |          |  |                                       |          |
|   |            | K <sub>2</sub> O-               | None | Eradicane          |                           |          |  |                                       |          |
| (8) Lexington, Ky.<br>K.A.E.S.<br>Spindletop Farm                                 | Lanton     | N-                              | 150  | Princep            | Furadan<br>18 lb/A        | May 16   | Nov. 19<br>Dec. 16<br>& 19               |                                       |          |
|   | Silt Loam  | P <sub>2</sub> O <sub>5</sub> - | None | and                |                           |          |  |                                       |          |
|   |            | K <sub>2</sub> O-               | 100  | Eradicane          |                           |          |  |                                       |          |
| (9) Quicksand, Ky.<br>Robinson<br>Substation                                      | Philo      | N-                              | 202  | Aatrex             | Furadan<br>18 lb/A        | May 18   | Data to be<br>presented at<br>later date | Fungus<br>diseases<br>present         |          |
|   | Silt Loam  | P <sub>2</sub> O <sub>5</sub> - | 102  | and                |                           |          |  |                                       |          |
|   |            | K <sub>2</sub> O-               | 102  | Eradicane          |                           |          |  |                                       |          |

TABLE 3.—ANNUAL SUMMARY, NORMAL POPULATION, MAYFIELD, KY.

| HYBRID                | 3-YR           | 2-YR           | 1977 RESULTS   |                |                |                   |
|-----------------------|----------------|----------------|----------------|----------------|----------------|-------------------|
|                       | YIELD<br>BU/AC | YIELD<br>BU/AC | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                |                |                |                |                |                   |
| STEWART SX 77         |                | 173.1          | 173.8          | 17.7           | 89.0           | 83.6              |
| NORTHROP-KING PX74    | 150.0          | 175.5          | 168.4          | 17.1           | 86.2           | 94.2              |
| TROJAN TXS 119        |                | 173.3          | 159.9          | 17.8           | 83.8           | 89.1              |
| PIONEER BRAND 3368A   | 161.7          | 177.5          | 153.6          | 17.7           | 89.5           | 80.4              |
| TRCJAN T1120          |                |                | 151.1          | 17.6           | 82.4           | 79.7              |
| P-A-G 357             |                |                | 149.8          | 17.2           | 85.7           | 97.2              |
| DENNIS 31             |                |                | 149.1          | 17.3           | 82.4           | 88.7              |
| MIGRO M-7072          | 155.2          | 167.9          | 147.9          | 17.1           | 88.1           | 77.0              |
| WILSTAR 7771          |                |                | 147.9          | 17.5           | 82.4           | 66.6              |
| SO. STATES SS775      | 148.3          | 167.2          | 147.4          | 17.5           | 81.0           | 92.4              |
| COKE 16               | 153.6          | 169.1          | 146.9          | 16.2           | 88.1           | 61.0              |
| S S HYBRIDS 86        | 141.6          | 153.3          | 146.2          | 17.8           | 85.2           | 80.2              |
| DEKALB XL80           | 134.4          | 155.0          | 145.4          | 17.8           | 91.4           | 55.0              |
| FUNK'S G4636          |                |                | 144.6          | 18.4           | 89.5           | 76.1              |
| SUPER CROST 6800      |                |                | 143.7          | 17.0           | 81.0           | 96.5              |
| RUFF'S R287           |                |                | 141.0          | 17.5           | 80.0           | 85.3              |
| HULTING X980          | 147.5          | 165.2          | 140.9          | 18.5           | 82.9           | 74.1              |
| BO-JAC X56            |                |                | 139.8          | 18.2           | 85.2           | 95.3              |
| PICNEER BRAND 3184    |                | 160.2          | 139.5          | 18.2           | 94.3           | 64.8              |
| COLBERT 310           |                |                | 139.3          | 17.5           | 86.2           | 89.0              |
| SECURITY S711         |                |                | 138.6          | 16.6           | 83.8           | 98.9              |
| NORTHROP-KING PX79    | 153.0          | 167.8          | 138.4          | 17.3           | 84.3           | 96.5              |
| SEED KEM SKX-76       |                | 138.7          | 137.9          | 17.4           | 84.3           | 91.8              |
| HULTING X880          | 137.0          | 157.6          | 137.6          | 18.3           | 84.8           | 98.4              |
| DEKALB XL72B          | 132.5          | 147.8          | 136.7          | 16.7           | 81.0           | 64.3              |
| FUNK'S G4507          | 139.5          | 154.5          | 136.4          | 17.6           | 85.7           | 95.5              |
| ASGROW RX 90          |                | 161.0          | 136.3          | 17.4           | 83.3           | 96.0              |
| ADLERS 87X            | 152.6          | 169.7          | 136.1          | 18.6           | 86.7           | 83.7              |
| VORIS SEEDS V2642     | 145.8          | 156.3          | 131.4          | 18.3           | 87.1           | 87.6              |
| RUFF'S R334           |                |                | 130.6          | 17.3           | 84.3           | 89.7              |
| WILSTAR 6663          |                | 150.6          | 130.4          | 17.3           | 82.0           | 93.0              |
| VORIS SEEDS V2532     | 141.2          | 148.6          | 129.2          | 17.2           | 84.8           | 99.4              |
| S S HYBRIDS 6400      |                |                | 128.9          | 16.4           | 82.4           | 84.1              |
| S S HYBRIDS 5100      |                |                | 128.0          | 17.0           | 86.7           | 90.7              |
| ZIMMERMAN Z24Y        | 155.4          | 160.1          | 127.7          | 17.8           | 89.5           | 91.5              |
| DENNIS 69             |                |                | 126.6          | 18.0           | 89.0           | 95.2              |
| TROJAN TX 119A        |                |                | 126.5          | 16.9           | 86.7           | 70.3              |
| FUNK'S G4520          |                | 156.9          | 126.2          | 17.0           | 90.5           | 87.5              |
| ACCO UC 8951          |                |                | 125.7          | 18.0           | 85.2           | 91.7              |
| ADLERS 62X            |                |                | 124.1          | 17.6           | 87.6           | 88.2              |
| PREMIER 688           |                | 150.0          | 123.9          | 18.0           | 80.5           | 88.8              |
| SUPER CROST 5440      | 137.7          | 148.6          | 121.0          | 17.0           | 83.8           | 79.8              |
| HOBBLIT XR441A        |                |                | 120.3          | 17.3           | 88.6           | 92.6              |
| ZIMMERMAN Z20Y        |                |                | 120.2          | 17.6           | 91.4           | 92.1              |
| HULTING X770          |                |                | 119.9          | 16.2           | 80.0           | 97.5              |
| GOLDEN HARVEST H2775  |                |                | 118.6          | 18.0           | 89.0           | 59.2              |
| GOLDEN ACRES T-E 6968 | 122.7          | 142.9          | 117.5          | 16.8           | 92.4           | 56.1              |
| DENNIS 37             | 140.0          | 156.0          | 117.2          | 17.1           | 84.9           | 89.9              |
| O'S GOLD SX5500       |                | 135.8          | 116.6          | 17.4           | 87.1           | 82.6              |
| FUNK'S G4628          | 132.3          | 142.7          | 116.4          | 16.6           | 71.0           | 88.5              |
| DEKALB XL78           | 139.5          | 145.6          | 116.3          | 17.4           | 87.1           | 81.4              |
| BO-JAC X83            | 143.2          | 150.8          | 116.0          | 17.9           | 82.9           | 84.8              |
| SO. STATES SS727      |                | 149.9          | 115.8          | 17.5           | 83.3           | 90.0              |
| STEWART SX 70         |                |                | 115.7          | 17.3           | 78.6           | 90.1              |
| NORTHROP-KING PX675   |                | 149.9          | 115.6          | 17.2           | 84.3           | 91.8              |
| RING AROUND RAI502    |                |                | 115.0          | 17.4           | 82.9           | 90.1              |
| FUNK'S G4848          |                | 151.6          | 114.5          | 18.7           | 83.3           | 72.4              |
| P-A-G SX 17A          |                | 148.5          | 111.6          | 18.1           | 75.2           | 87.3              |
| GOLDEN ACRES T-E 6995 |                |                | 111.4          | 17.4           | 88.1           | 98.9              |

(continued)

TABLE 5 (continued)

| HYBRID                | 3-YR           | 2-YR           | 1977 RESULTS   |                |                |                   |
|-----------------------|----------------|----------------|----------------|----------------|----------------|-------------------|
|                       | YIELD<br>BU/AC | YIELD<br>BU/AC | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                |                |                |                |                |                   |
| DENNIS 31             |                |                | 143.9          | 17.8           | 84.3           | 52.2              |
| ASGROW RX 90          |                | 150.4          | 143.8          | 17.1           | 87.1           | 12.6              |
| GOLDEN ACRES T-E 6995 |                |                | 143.7          | 17.6           | 85.7           | 18.2              |
| DENNIS 69             |                |                | 143.4          | 18.9           | 92.4           | 36.0              |
| PREMIER 688           |                | 139.3          | 142.4          | 18.4           | 87.1           | 15.9              |
| SEED KEM SKX-76       |                | 131.5          | 142.4          | 17.3           | 85.7           | 10.4              |
| FUNK'S G4520          |                | 145.2          | 142.2          | 17.4           | 89.0           | 25.2              |
| BO-JAC X56B           |                |                | 141.9          | 17.7           | 89.5           | 12.1              |
| HULTING X980          | 157.7          | 156.9          | 141.8          | 19.4           | 83.8           | 21.6              |
| COLBERT 315           |                |                | 141.2          | 19.2           | 94.8           | 16.3              |
| FUNK'S G4574          |                |                | 140.8          | 17.8           | 91.4           | 19.2              |
| SECURITY S711         |                |                | 140.6          | 16.9           | 91.9           | 9.3               |
| MASON 8869            | 141.2          | 143.3          | 140.5          | 18.7           | 85.2           | 13.7              |
| RUFF'S R334           |                |                | 140.3          | 18.5           | 92.9           | 23.3              |
| SEED KEM SKX-86       | 149.2          | 147.8          | 140.3          | 17.6           | 93.8           | 10.6              |
| TROJAN TXS 115A       | 139.5          | 142.6          | 139.8          | 18.3           | 85.7           | 23.9              |
| PICNEER BRAND 3368A   | 151.0          | 143.6          | 138.9          | 17.9           | 87.1           | 22.6              |
| GUTWEIN 62A           |                |                | 138.4          | 18.0           | 91.0           | 16.7              |
| MIGRO M-0701EP        |                |                | 137.2          | 16.4           | 90.5           | 25.8              |
| SO. STATES SS775      | 137.8          | 141.4          | 136.6          | 17.6           | 95.7           | 6.5               |
| MCNAIR X194           |                | 149.0          | 134.5          | 18.0           | 80.5           | 21.1              |
| S S HYBRIDS 86        | 152.8          | 150.7          | 134.2          | 18.6           | 83.3           | 16.6              |
| DEKALB XL80           | 145.2          | 143.5          | 134.1          | 18.4           | 91.9           | 6.1               |
| ADLERS 62X            |                |                | 133.7          | 17.0           | 92.4           | 13.9              |
| O'S GOLD SX5500       |                | 132.4          | 133.2          | 18.7           | 88.6           | 23.4              |
| HULTING X880          | 156.5          | 149.8          | 132.7          | 18.0           | 83.8           | 9.2               |
| GOLDEN HARVEST H2775  |                |                | 131.8          | 20.0           | 84.3           | 4.0               |
| PIONEER BRAND 3334A   |                |                | 131.6          | 18.5           | 86.7           | 8.7               |
| HULTING X770          |                |                | 130.1          | 17.5           | 86.7           | 25.8              |
| KENTUCKY 105          |                |                | 129.8          | 20.0           | 91.0           | 27.1              |
| NORTHROP-KING PX675   |                | 138.6          | 129.3          | 17.2           | 91.9           | 11.1              |
| P-A-G 314             |                |                | 128.3          | 17.1           | 78.6           | 9.5               |
| HULTING X8800         |                |                | 125.7          | 18.3           | 81.4           | 17.5              |
| P-A-G 357             |                |                | 125.3          | 17.9           | 92.4           | 42.9              |
| SEED KEM SKX98        |                |                | 119.5          | 19.3           | 83.3           | 16.4              |
| FUNK'S G4628          | 130.8          | 130.9          | 118.5          | 18.8           | 72.9           | 24.1              |
| PREMIER SX633         |                | 145.2          | 117.3          | 17.6           | 80.5           | 17.6              |
| TROJAN T1120          |                |                | 116.8          | 17.8           | 90.5           | 6.3               |
| SECURITY SS112        |                | 140.2          | 113.2          | 17.4           | 54.8           | 15.9              |
| TROJAN TX 119A        |                |                | 109.9          | 17.8           | 92.4           | 11.8              |
| ZIMMERMAN Z24Y        |                |                | 108.7          | 17.8           | 75.7           | 17.3              |
| RUFF'S R287           |                |                | 104.2          | 18.1           | 83.8           | 24.7              |
| YELLOW AVERAGE        | 154.7          | 154.8          | 147.8          | 18.1           | 87.8           | 15.3              |
| WHITE                 |                |                |                |                |                |                   |
| PRINCETON SX 910      | 167.3          | 172.6          | 174.5          | 20.6           | 90.0           | 20.1              |
| ZIMMERMAN Z11W        | 171.8          | 173.3          | 170.8          | 20.3           | 91.9           | 12.5              |
| ZIMMERMAN Z52W        | 165.9          | 165.9          | 159.8          | 19.6           | 90.0           | 18.6              |
| SO. STATES SS950W     |                | 161.3          | 152.9          | 19.2           | 90.0           | 15.3              |
| ZIMMERMAN Z19W        |                |                | 152.4          | 19.7           | 90.5           | 21.0              |
| GOLDEN HARVEST H2660W | 145.9          | 155.2          | 146.5          | 19.9           | 75.7           | 19.2              |
| PIONEER BRAND 511A    | 146.8          | 146.9          | 142.1          | 21.1           | 96.2           | 33.4              |
| FUNK'S G4747W         | 148.1          | 152.4          | 136.6          | 19.7           | 81.0           | 12.2              |
| DEKALB XL390A         | 145.1          | 154.4          | 134.0          | 19.4           | 86.2           | 20.5              |
| WHITE AVERAGE         | 156.5          | 159.7          | 152.2          | 20.0           | 87.9           | 19.2              |
| GRAND AVERAGE         | 155.0          | 155.5          | 148.2          | 18.3           | 87.8           | 15.6              |

TABLE 5.—ANNUAL SUMMARY, NORMAL POPULATION, HARTFORD, KY.

| HYBRID                | 3-YR           |                | 2-YR           |                | 1977 RESULTS   |                   |  |
|-----------------------|----------------|----------------|----------------|----------------|----------------|-------------------|--|
|                       | YIELD<br>BU/AC | YIELD<br>BU/AC | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |  |
| YELLOW                |                |                |                |                |                |                   |  |
| TROJAN TXS 114        | 166.9          | 185.4          | 194.9          | 18.1           | 98.1           | 15.6              |  |
| GUTWEIN 72            |                |                | 194.6          | 17.5           | 98.1           | 15.1              |  |
| VORIS SEEDS V2532     | 172.8          | 175.0          | 181.8          | 17.6           | 95.2           | 23.3              |  |
| DENNIS 37             | 174.9          | 177.6          | 179.6          | 17.1           | 94.8           | 15.3              |  |
| MUNCY CHIEF SX808B    |                | 152.5          | 179.4          | 19.8           | 95.7           | 13.0              |  |
| S S HYBRIDS 6400      |                |                | 179.2          | 16.9           | 87.6           | 10.3              |  |
| PIONEER BRAND 3161    | 160.3          | 169.0          | 178.9          | 18.2           | 91.9           | 4.2               |  |
| VORIS SEEDS V2642     | 155.4          | 167.1          | 174.5          | 18.0           | 93.2           | 16.7              |  |
| MIGRO M-0505          |                |                | 173.2          | 18.1           | 85.7           | 7.0               |  |
| S S HYBRIDS 5100      |                |                | 170.5          | 17.1           | 91.9           | 15.5              |  |
| COKER 18              |                | 178.1          | 169.8          | 20.0           | 92.9           | 13.8              |  |
| PRINCETON SX 840      |                |                | 169.7          | 19.4           | 87.6           | 1.0               |  |
| DEKALB XL72B          | 155.7          | 160.5          | 169.4          | 16.8           | 79.5           | 8.1               |  |
| PIONEER BRAND 3369A   | 163.9          | 161.6          | 166.5          | 18.4           | 86.2           | 9.3               |  |
| P-A-G SX 17A          |                | 171.7          | 164.2          | 17.7           | 87.1           | 43.9              |  |
| BO-JAC X923           |                |                | 163.3          | 20.5           | 94.3           | 17.7              |  |
| ZIMMERMAN Z20Y        |                |                | 163.1          | 18.7           | 96.2           | 14.3              |  |
| STEWART SX 77         |                | 158.8          | 162.3          | 18.9           | 91.9           | 8.2               |  |
| DEKALB XL72AA         |                | 163.7          | 161.1          | 17.4           | 87.6           | 9.3               |  |
| ADLERS 87X            | 153.1          | 161.1          | 161.1          | 18.0           | 91.4           | 11.0              |  |
| HOBBLIT XR441A        |                |                | 161.1          | 19.3           | 91.9           | 15.8              |  |
| ZIMMERMAN Z24Y        | 164.3          | 171.0          | 160.1          | 17.9           | 91.4           | 9.9               |  |
| RING AROUND RA1502    |                |                | 160.1          | 19.2           | 85.2           | 18.0              |  |
| PIONEER BRAND 3184    |                | 161.3          | 158.2          | 19.7           | 90.5           | 2.5               |  |
| MIGRO M-7072          | 161.9          | 161.6          | 157.8          | 17.6           | 88.6           | 12.3              |  |
| BO-JAC X56            |                |                | 157.5          | 17.1           | 85.2           | 14.1              |  |
| ACCO UC 8951          |                |                | 157.5          | 18.8           | 87.1           | 8.6               |  |
| ASGROW RX 101         |                |                | 156.9          | 16.7           | 86.7           | 11.0              |  |
| DEKALB XL78           | 153.8          | 150.5          | 155.7          | 18.6           | 94.3           | 6.0               |  |
| COKER 16              | 154.4          | 160.1          | 155.7          | 18.3           | 85.2           | 9.0               |  |
| SO STATES SS727       |                | 168.3          | 155.7          | 17.6           | 90.5           | 9.5               |  |
| NORTHROP-KING PX79    | 159.7          | 154.6          | 155.5          | 16.9           | 92.4           | 9.1               |  |
| GOLDEN HARVEST H2666  | 157.4          | 160.2          | 155.1          | 18.9           | 88.1           | 22.7              |  |
| COLBERT 310           |                |                | 154.4          | 17.7           | 86.7           | 12.7              |  |
| WILSTAR 6663          |                | 159.7          | 154.3          | 17.2           | 79.0           | 15.1              |  |
| TROJAN TXS 119        |                | 156.0          | 153.0          | 17.9           | 89.0           | 16.2              |  |
| P-A-G SX 98           | 147.4          | 142.7          | 152.7          | 19.3           | 75.2           | 8.8               |  |
| COKER 22              |                |                | 152.5          | 19.9           | 88.6           | 7.1               |  |
| WILSTAR 7771          |                |                | 152.3          | 17.5           | 91.9           | 11.9              |  |
| FUNK'S G4507          | 156.1          | 156.4          | 152.1          | 17.8           | 90.5           | 28.7              |  |
| ACCO UC 9792          |                |                | 151.0          | 19.7           | 90.5           | 6.4               |  |
| SUPER CROST 6800      |                |                | 149.7          | 17.4           | 91.0           | 13.6              |  |
| SO STATES SS795       |                |                | 149.4          | 17.4           | 90.5           | 18.0              |  |
| FUNK'S G4848          |                | 161.7          | 148.8          | 21.5           | 89.0           | 10.2              |  |
| GUTWEIN 86            | 164.5          | 164.0          | 148.7          | 16.4           | 87.6           | 11.2              |  |
| PREMIER 655           |                |                | 148.6          | 17.1           | 87.6           | 16.7              |  |
| NORTHROP-KING PX74    | 158.8          | 161.2          | 148.1          | 17.8           | 95.2           | 18.0              |  |
| DEKALB XL75A          |                |                | 147.6          | 17.6           | 85.7           | 10.2              |  |
| STEWART SX 70         |                |                | 147.5          | 18.0           | 83.8           | 19.6              |  |
| FUNK'S G4636          |                |                | 147.4          | 19.0           | 81.0           | 12.6              |  |
| GOLDEN ACRES T-E 6968 | 151.1          | 153.5          | 147.1          | 17.8           | 85.7           | 6.7               |  |
| BO-JAC X83            | 160.9          | 156.9          | 147.0          | 18.4           | 86.7           | 11.2              |  |
| MUNCY CHIEF SX878     | 138.4          | 147.4          | 146.6          | 17.6           | 85.7           | 17.3              |  |
| NORTHROP-KING PX76    |                |                | 145.7          | 18.0           | 83.8           | 12.8              |  |
| RING AROUND RA1501    |                |                | 144.6          | 17.4           | 87.1           | 7.2               |  |
| GOLDEN ACRES T-E 6980 |                |                | 144.4          | 19.3           | 81.0           | 14.2              |  |
| GOLDEN HARVEST H2650  |                | 146.3          | 144.3          | 19.4           | 85.2           | 38.0              |  |
| SUPER CROST 5440      | 157.0          | 152.8          | 144.3          | 18.0           | 88.1           | 9.2               |  |
| SO STATES SS730P      |                |                | 144.0          | 17.7           | 82.9           | 10.1              |  |

(continued)

TABLE 3 (continued)

| HYBRID                | 3-YR           |                | 2-YR           |                | 1977 RESULTS   |                   |  |
|-----------------------|----------------|----------------|----------------|----------------|----------------|-------------------|--|
|                       | YIELD<br>BU/AC | YIELD<br>BU/AC | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |  |
| YELLOW                |                |                |                |                |                |                   |  |
| MIGRO M-0505          |                |                | 111.1          | 16.8           | 83.8           | 94.3              |  |
| FUNK'S G4574          |                |                | 110.6          | 17.0           | 87.1           | 90.7              |  |
| BO-JAC X56B           |                |                | 109.5          | 17.4           | 78.1           | 93.1              |  |
| COKER 22              |                |                | 108.7          | 18.8           | 89.5           | 82.7              |  |
| PIONEER BRAND 3369A   | 144.7          | 150.4          | 106.8          | 17.2           | 87.1           | 96.1              |  |
| PREMIER SX633         |                | 147.4          | 105.4          | 16.7           | 80.0           | 95.9              |  |
| MIGRO M-0701EP        |                |                | 105.1          | 17.1           | 77.6           | 83.8              |  |
| MCNAIR X194           |                | 143.8          | 105.0          | 16.9           | 81.9           | 88.4              |  |
| SEED KEM SKX98        |                |                | 104.3          | 17.9           | 87.1           | 84.4              |  |
| BO-JAC X923           |                |                | 103.8          | 16.6           | 84.3           | 77.5              |  |
| PIONEER BRAND 3334A   |                |                | 102.4          | 17.0           | 73.8           | 86.4              |  |
| SO STATES SS795       |                |                | 101.6          | 17.7           | 87.6           | 92.3              |  |
| ACCO UC 9792          |                |                | 101.4          | 17.5           | 87.1           | 80.1              |  |
| PIONEER BRAND 3161    | 141.1          | 145.4          | 101.3          | 17.6           | 82.9           | 76.2              |  |
| MUNCY CHIEF SX808B    |                | 139.8          | 100.2          | 17.4           | 77.1           | 83.7              |  |
| GOLDEN HARVEST H2666  | 132.4          | 137.4          | 99.3           | 16.8           | 83.8           | 94.2              |  |
| P-A-G SX 98           | 133.3          | 139.4          | 99.1           | 17.6           | 81.4           | 85.6              |  |
| DEKALB XL72AA         |                | 135.1          | 98.0           | 17.7           | 83.8           | 97.2              |  |
| COKER 18              |                | 140.5          | 97.2           | 19.0           | 91.0           | 90.1              |  |
| GUTWEIN 62A           |                |                | 96.9           | 17.5           | 83.3           | 89.8              |  |
| ASGROW RX 101         |                |                | 95.6           | 17.7           | 83.3           | 92.5              |  |
| P-A-G 314             |                |                | 94.8           | 17.0           | 73.3           | 89.6              |  |
| TROJAN TXS 114        | 106.7          | 131.5          | 93.8           | 17.2           | 84.3           | 93.7              |  |
| GOLDEN ACRES T-E 6980 |                |                | 93.2           | 17.6           | 78.1           | 87.2              |  |
| PRINCETON SX 840      |                |                | 92.5           | 16.9           | 86.7           | 70.4              |  |
| NORTHROP-KING PX76    |                |                | 91.8           | 17.7           | 86.2           | 83.2              |  |
| RING AROUND RA1501    |                |                | 90.0           | 17.8           | 78.6           | 88.7              |  |
| PREMIER 655           |                |                | 89.8           | 17.2           | 82.4           | 84.3              |  |
| GUTWEIN 72            |                |                | 87.6           | 18.1           | 88.1           | 97.8              |  |
| SEED KEM SKX-86       | 115.2          | 125.0          | 86.2           | 16.6           | 88.6           | 81.7              |  |
| COLBERT 315           |                |                | 84.6           | 16.8           | 92.9           | 89.7              |  |
| DEKALB XL75A          |                |                | 83.6           | 16.9           | 74.3           | 89.0              |  |
| HULTING X8800         |                |                | 82.2           | 17.8           | 65.2           | 88.3              |  |
| SO STATES SS730P      |                |                | 81.1           | 17.6           | 83.8           | 95.6              |  |
| MASON 8869            | 117.5          | 125.5          | 80.3           | 18.6           | 79.5           | 86.1              |  |
| KENTUCKY 105          |                |                | 79.2           | 18.6           | 91.9           | 95.4              |  |
| MUNCY CHIEF SX777     |                |                | 76.7           | 16.4           | 72.4           | 86.8              |  |
| TROJAN TXS 115A       | 110.9          | 118.1          | 74.1           | 17.4           | 88.1           | 91.1              |  |
| GUTWEIN 86            | 125.6          | 136.0          | 73.2           | 17.2           | 84.3           | 83.5              |  |
| GOLDEN HARVEST H2650  |                | 119.2          | 70.3           | 17.1           | 85.7           | 87.8              |  |
| MUNCY CHIEF SX878     | 105.4          | 116.9          | 69.4           | 17.6           | 78.1           | 86.0              |  |
| SECURITY SS112        |                | 128.7          | 67.3           | 16.0           | 58.1           | 86.4              |  |
| YELLOW AVERAGE        | 137.4          | 149.2          | 116.2          | 17.4           | 83.9           | 86.4              |  |
| WHITE                 |                |                |                |                |                |                   |  |
| DEKALB XL390A         | 141.5          | 154.2          | 123.8          | 17.5           | 86.7           | 80.0              |  |
| PRINCETON SX 910      | 139.4          | 144.6          | 110.7          | 18.6           | 90.5           | 91.0              |  |
| ZIMMERMAN Z52W        |                | 144.3          | 97.6           | 18.2           | 84.3           | 85.2              |  |
| ZIMMERMAN Z11W        |                | 141.0          | 93.8           | 18.3           | 85.2           | 90.5              |  |
| FUNK'S G4747W         |                | 134.2          | 81.2           | 18.0           | 86.7           | 93.9              |  |
| PIONEER BRAND 511A    | 133.8          | 144.4          | 80.2           | 17.3           | 91.0           | 92.7              |  |
| SO STATES SS950W      |                | 130.6          | 71.4           | 17.2           | 75.7           | 95.5              |  |
| GOLDEN HARVEST H2660W | 122.2          | 128.7          | 71.4           | 17.2           | 66.7           | 84.5              |  |
| ZIMMERMAN Z19W        |                |                | 61.9           | 17.5           | 86.2           | 92.5              |  |
| WHITE AVERAGE         | 136.6          | 143.6          | 88.0           | 17.8           | 83.7           | 89.5              |  |
| GRAND AVERAGE         | 137.3          | 148.5          | 113.9          | 17.5           | 83.9           | 86.7              |  |

TABLE 4.—ANNUAL SUMMARY, NORMAL POPULATION, PRINCETON, KY.

| HYBRID                | 3-YR<br>YIELD<br>BU/AC | 2-YR<br>YIELD<br>BU/AC | 1977 RESULTS   |                |                |                   |
|-----------------------|------------------------|------------------------|----------------|----------------|----------------|-------------------|
|                       |                        |                        | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                        |                        |                |                |                |                   |
| PICNEER BRAND 3369A   | 164.5                  | 181.4                  | 195.2          | 17.7           | 88.6           | 26.4              |
| COKER 22              |                        |                        | 194.1          | 18.1           | 99.0           | 19.3              |
| S S HYBRIDS 5100      |                        |                        | 190.7          | 17.5           | 84.3           | 31.3              |
| HOBLIT XR441A         |                        |                        | 185.7          | 18.1           | 91.9           | 30.9              |
| COLBERT 310           |                        |                        | 177.7          | 17.7           | 95.2           | 74.1              |
| MIGRO M-0505          |                        |                        | 171.1          | 18.2           | 93.8           | 66.0              |
| FUNK'S G4848          |                        | 168.6                  | 171.0          | 19.3           | 95.7           | 28.5              |
| RING AROUND RA1502    |                        |                        | 170.1          | 18.3           | 92.4           | 43.1              |
| PIONEER BRAND 3184    |                        | 170.3                  | 167.1          | 18.7           | 95.7           | 25.5              |
| COLBERT 315           |                        |                        | 164.5          | 16.6           | 94.3           | 31.6              |
| S S HYBRIDS 86        | 157.5                  | 171.8                  | 164.1          | 17.8           | 91.9           | 43.6              |
| STEWART SX 77         |                        |                        | 164.3          | 16.2           | 91.9           | 27.4              |
| DEKALB XL80           | 144.2                  | 159.8                  | 160.8          | 17.7           | 90.0           | 36.0              |
| BO-JAC X923           |                        |                        | 159.6          | 18.8           | 94.3           | 51.0              |
| GOLDEN ACRES T-E 6995 |                        |                        | 157.6          | 17.2           | 91.0           | 57.1              |
| ZIMMERMAN Z24Y        | 156.1                  | 161.3                  | 155.5          | 18.6           | 94.8           | 34.2              |
| PICNEER BRAND 3161    | 149.5                  | 169.7                  | 155.1          | 17.5           | 93.8           | 37.5              |
| BO-JAC X83            | 150.7                  | 162.5                  | 154.8          | 17.3           | 82.9           | 34.8              |
| FUNK'S G4574          |                        |                        | 153.2          | 18.1           | 93.3           | 68.0              |
| FUNK'S G4636          |                        |                        | 152.7          | 19.1           | 94.3           | 26.5              |
| S S HYBRIDS 6400      |                        |                        | 152.4          | 17.8           | 81.0           | 19.5              |
| GOLDEN ACRES T-E 6968 | 137.7                  | 154.9                  | 152.0          | 18.3           | 95.2           | 23.2              |
| HULTING X880          | 155.7                  |                        | 160.8          | 18.4           | 90.5           | 64.6              |
| PREMIER SX633         |                        |                        | 179.6          | 15.4           | 17.7           | 82.9              |
| ADLERS 87X            | 136.0                  | 149.9                  | 151.2          | 17.4           | 95.2           | 39.0              |
| ACCO UC 9792          |                        |                        | 150.0          | 18.7           | 86.2           | 49.1              |
| NORTHROP-KING PX675   |                        | 155.2                  | 150.0          | 17.8           | 86.2           | 64.8              |
| PRINCETON SX 840      |                        |                        | 149.1          | 17.1           | 91.4           | 8.3               |
| VORIS SEEDS V2642     | 142.7                  | 156.4                  | 148.8          | 16.3           | 88.6           | 57.8              |
| DEKALB XL78           | 146.0                  |                        | 152.6          | 14.8           | 97.1           | 28.1              |
| TROJAN TXS 115A       | 141.1                  | 152.4                  | 147.1          | 18.5           | 92.4           | 64.2              |
| PREMIER 688           |                        | 152.2                  | 146.9          | 17.4           | 83.3           | 32.8              |
| ZIMMERMAN Z20Y        |                        |                        | 146.5          | 18.6           | 95.7           | 60.7              |
| GOLDEN HARVEST H2666  | 151.1                  | 161.5                  | 146.3          | 17.6           | 89.0           | 53.9              |
| KENTUCKY 105          |                        |                        | 146.2          | 18.6           | 95.2           | 55.1              |
| WILSTAR 7771          |                        |                        | 144.7          | 18.2           | 97.6           | 33.1              |
| TROJAN TXS 119        |                        | 161.5                  | 143.8          | 18.5           | 89.6           | 50.7              |
| MCNAIR X194           |                        | 149.4                  | 143.5          | 17.9           | 86.2           | 58.1              |
| MASON 8869            | 131.2                  | 146.3                  | 143.2          | 18.9           | 86.7           | 29.6              |
| SEED KEM SKX-86       | 139.0                  | 149.9                  | 143.1          | 18.4           | 92.4           | 16.9              |
| PIONEER BRAND 3368A   | 140.9                  | 151.3                  | 143.0          | 18.2           | 87.6           | 23.2              |
| TROJAN TX 119A        |                        |                        | 142.8          | 18.0           | 91.9           | 43.0              |
| SO. STATES SS775      | 144.2                  | 156.0                  | 141.9          | 18.1           | 91.9           | 20.3              |
| COKER 16              | 136.6                  | 149.1                  | 141.3          | 16.9           | 91.0           | 19.5              |
| ACCO UC 8951          |                        |                        | 141.1          | 18.7           | 88.6           | 55.0              |
| SECURITY S711         |                        |                        | 140.2          | 18.2           | 88.1           | 44.2              |
| STEWART SX 70         |                        |                        | 139.8          | 18.0           | 86.2           | 56.8              |
| BO-JAC X56B           |                        |                        | 137.7          | 17.2           | 88.1           | 57.8              |
| TROJAN T1120          |                        |                        | 137.6          | 16.8           | 95.7           | 35.9              |
| FUNK'S G4628          | 130.6                  | 137.4                  | 137.3          | 19.0           | 79.5           | 67.1              |
| RING AROUND RA1501    |                        |                        | 136.1          | 17.8           | 90.0           | 51.8              |
| TROJAN TXS 114        | 134.3                  | 150.1                  | 134.6          | 17.9           | 89.0           | 55.7              |
| MUNCY CHIEF SX878     | 108.6                  | 121.9                  | 134.3          | 18.0           | 87.6           | 63.2              |
| FUNK'S G4520          |                        | 162.5                  | 133.0          | 18.1           | 90.5           | 25.8              |
| NORTHROP-KING PX76    |                        |                        | 132.1          | 17.9           | 91.0           | 30.4              |
| GOLDEN ACRES T-E 6980 |                        |                        | 131.2          | 18.0           | 84.8           | 30.4              |
| PREMIER 655           |                        |                        | 131.0          | 16.6           | 89.0           | 21.4              |
| P-A-G SX 17A          |                        | 158.2                  | 130.7          | 18.5           | 87.1           | 67.5              |
| MUNCY CHIEF SX808B    |                        | 133.0                  | 130.4          | 17.0           | 87.1           | 39.7              |

(continued)

TABLE 4 (continued)

| HYBRID                | 3-YR<br>YIELD<br>BU/AC | 2-YR<br>YIELD<br>BU/AC | 1977 RESULTS   |                |                |                   |
|-----------------------|------------------------|------------------------|----------------|----------------|----------------|-------------------|
|                       |                        |                        | YIELD<br>BU/AC | AVG %<br>MOIST | AVG %<br>STAND | TOTAL %<br>LODGED |
| YELLOW                |                        |                        |                |                |                |                   |
| MIGRO M-7072          | 144.3                  | 155.3                  | 129.9          | 17.5           | 94.8           | 50.4              |
| DENNIS 37             | 158.5                  | 163.0                  | 129.6          | 18.0           | 87.6           | 68.1              |
| GUTWEIN 72            |                        |                        | 128.3          | 18.2           | 88.1           | 57.7              |
| GOLDEN HARVEST H2775  |                        |                        | 127.7          | 20.5           | 91.4           | 40.5              |
| HULTING X980          | 132.6                  | 144.8                  | 126.9          | 17.3           | 84.3           | 47.4              |
| BO-JAC X56            |                        |                        | 126.8          | 18.4           | 90.0           | 67.2              |
| RUFF'S R334           |                        |                        | 126.7          | 17.9           | 89.0           | 57.9              |
| SO. STATES SS795      |                        |                        | 126.5          | 18.0           | 94.8           | 70.9              |
| SO. STATES SS730P     |                        |                        | 126.2          | 17.5           | 91.9           | 54.9              |
| SUPER CROST 6800      |                        | 128.9                  | 125.3          | 18.4           | 84.3           | 52.2              |
| COKER 18              |                        |                        | 124.5          | 18.8           | 96.7           | 46.2              |
| NORTHROP-KING PX79    | 127.6                  | 140.4                  | 124.5          | 17.8           | 91.9           | 52.0              |
| HULTING X770          |                        |                        | 124.2          | 16.8           | 86.2           | 54.0              |
| SEED KEM SKX-76       |                        | 132.6                  | 124.2          | 18.2           | 94.8           | 40.8              |
| GUTWEIN 86            | 130.6                  | 143.1                  | 123.3          | 17.1           | 89.5           | 32.9              |
| MIGRO M-0701EP        |                        |                        | 122.2          | 17.6           | 88.6           | 58.0              |
| DEKALB XL75A          |                        |                        | 122.0          | 19.0           | 93.3           | 76.1              |
| P-A-G SX 98           | 128.3                  | 131.8                  | 121.7          | 17.3           | 81.4           | 40.4              |
| VORIS SEEDS V2532     | 149.7                  | 154.1                  | 120.9          | 17.8           | 93.3           | 74.9              |
| SEED KEM SKX98        |                        |                        | 119.4          | 17.4           | 86.7           | 44.8              |
| GOLDEN HARVEST H2650  |                        | 129.7                  | 119.0          | 19.6           | 91.0           | 77.6              |
| O'S GOLD SX5500       |                        |                        | 126.7          | 118.2          | 17.4           | 90.5              |
| DEKALB XL72B          | 123.3                  |                        | 132.0          | 116.6          | 17.5           | 77.6              |
| FUNK'S G4507          | 137.0                  | 139.8                  | 112.5          | 18.2           | 89.5           | 84.7              |
| DENNIS 69             |                        |                        | 112.4          | 18.6           | 94.3           | 57.2              |
| NORTHROP-KING PX74    | 140.7                  | 148.0                  | 111.4          | 18.4           | 90.0           | 76.6              |
| P-A-G 314             |                        |                        | 110.9          | 18.1           | 79.5           | 61.2              |
| SO. STATES SS727      |                        | 139.5                  | 109.5          | 18.3           | 93.3           | 60.6              |
| RUFF'S R287           |                        |                        | 108.6          | 19.9           | 82.9           | 55.1              |
| ADLERS 62X            |                        |                        | 108.5          | 18.5           | 91.9           | 35.9              |
| GUTWEIN 62A           |                        |                        | 106.8          | 17.3           | 89.0           | 53.6              |
| DENNIS 31             |                        |                        | 106.6          | 18.6           | 85.2           | 69.9              |
| P-A-G 357             |                        |                        | 104.6          | 18.4           | 91.9           | 75.6              |
| HULTING X8800         |                        |                        | 104.4          | 18.6           | 81.4           | 64.4              |
| WILSTAR 6663          |                        | 135.6                  | 103.0          | 18.3           | 81.0           | 75.5              |
| SUPER CROST 5440      | 129.0                  | 134.8                  | 102.2          | 17.2           | 92.9           | 45.6              |
| ASGROW RX 101         |                        |                        | 100.0          | 17.7           | 93.3           | 44.7              |
| MUNCY CHIEF SX777     |                        |                        | 99.7           | 18.2           | 72.9           | 60.3              |
| DEKALB XL72AA         |                        | 129.9                  | 98.5           | 19.0           | 89.0           | 82.6              |
| PICNEER BRAND 3334A   |                        |                        | 96.4           | 18.3           | 87.1           | 35.8              |
| ASGROW RX 90          |                        | 138.3                  | 94.3           | 18.1           | 87.6           | 66.3              |
| SECURITY SS112        |                        |                        | 126.8          | 85.4           | 17.2           | 56.7              |
| YELLOW AVERAGE        | 140.9                  | 149.8                  | 136.1          | 18.0           | 89.3           | 47.9              |
| WHITE                 |                        |                        |                |                |                |                   |
| SO. STATES SS950W     |                        | 175.8                  | 164.3          | 17.7           | 87.1           | 39.7              |
| GOLDEN HARVEST H2660W | 149.1                  | 161.2                  | 150.6          | 18.3           | 72.4           | 29.3              |
| PRINCETON SX 910      | 145.1                  | 156.0                  | 145.7          | 17.2           | 93.8           | 44.3              |
| ZIMMERMAN Z52W        | 145.2                  | 160.4                  | 145.4          | 18.4           | 95.2           | 51.3              |
| FUNK'S G4747W         | 146.9                  | 156.4                  | 143.5          | 19.7           | 88.6           | 56.2              |
| ZIMMERMAN Z19W        |                        |                        | 135.2          | 18.9           | 94.3           | 49.6              |
| ZIMMERMAN Z11W        | 138.1                  | 152.0                  | 132.2          | 19.9           | 91.0           | 73.7              |
| PIONEER BRAND 511A    | 121.6                  | 131.0                  | 110.4          | 19.1           | 96.7           | 61.7              |
| DEKALB XL390A         | 120.2                  | 130.4                  | 96.0           | 19.2           | 89.5           | 30.9              |
| WHITE AVERAGE         | 138.0                  | 152.9                  | 135.9          | 18.7           | 89.8           | 48.5              |
| GRAND AVERAGE         | 140.4                  | 150.2                  | 136.1          | 18.1           | 89.4           | 48.0              |