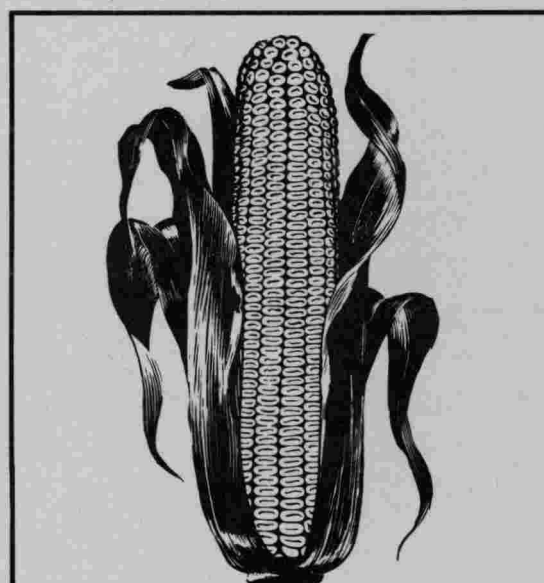
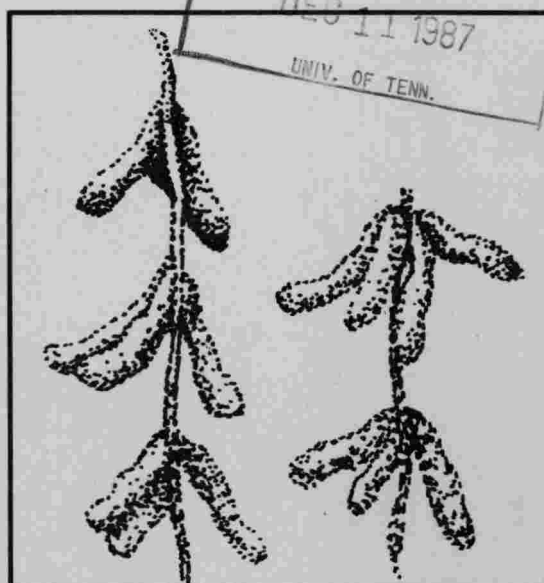


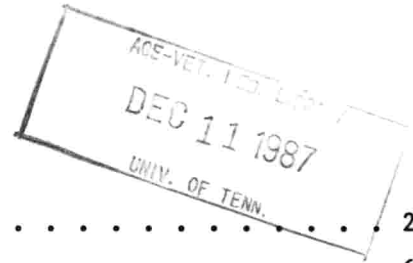
# 1986 Performance of Field Crop Varieties

Charles R. Graves



The University of Tennessee  
Agricultural Experiment Station  
Knoxville, Tennessee  
D. M. Gossett, Dean

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1986  
 PERFORMANCE  
 OF FIELD CROP VARIETIES  
 DATA FOR 1986 WITH SUMMARIES  
 OF  
 RESULTS FROM PREVIOUS YEARS  
 CORN-GRAIN SORGHUM-SUMMER ANNUALS-OATS  
 BARLEY-WHEAT-ALFALFA-SOYBEANS

by

Charles R. Graves  
 Professor of Plant and Soil Science

Personnel:

Charles R. Graves, Professor of Plant and Soil Science

Cooperators:

J. M. Anderson, Superintendent, Ames Plantation, Grand Junction

John Bradley, Superintendent, Milan Experiment Station, Milan

James F. Brown, Superintendent, West Tennessee Experiment Station, Jackson

Robert D. Freeland, Superintendent, Plateau Experiment Station, Crossville

Harry A. Henderson, Superintendent, Martin Experiment Station

Joe W. High, Jr., Superintendent, Middle Tennessee Experiment Station, Spring Hill

John Hodges III, Superintendent of Farms, Knoxville Experiment Station

Phil P. Hunter, Superintendent, Tobacco Experiment Station, Greeneville

Dennis O. Onks, Superintendent, Highland Rim Experiment Station, Springfield

B. N. Duck, Professor of Agronomy, University of Tennessee at Martin

B. Hathcock, Associate Professor of Agronomy, University of Tennessee at Martin

Gordon Percell, Senior Research Assistant, University of Tennessee, Jackson

Roy Thompson, Senior Research Assistant, University of Tennessee, Spring Hill

D. R. West, Associate Professor of Plant and Soil Science, Knoxville

David Kincer, Senior Research Assistant, Plant and Soil Science, Knoxville

Robert D. Miller, Assistant Professor of Tobacco Breeding, Greeneville.

Craig A. Miller, Senior Plot Man, Knoxville

M. Smith, Research Associate, Ames Plantation, Grand Junction

Vernon Reich, Associate Professor of Plant and Soil Science, Knoxville

Lawrence D. Young, Research Plant Pathologist, USDA-ARS, West Tennessee Experiment Station, Jackson

## RECOMMENDED CROP VARIETIES

### Listed Alphabetically

#### Corn Hybrids

Yellow-Early-Season: Pioneer brand 3389, Asgrow/O's Gold 2570, McCurdy 7676, FFR 788C, Pioneer brand 3358, FFR 747C, USS 7001, Super Crost 5438, Funk G-4522, Asgrow/O's Gold 3344, Beck's 65X, DeKalb-Pfizer DK-656, FFR 799C<sup>1</sup> and N.K. PX 79<sup>1</sup>.

Yellow-Medium-Season: DeKalb-Pfizer DK-748, DeKalb-Pfizer DK-689, Zimmerman Z-27y, Asgrow/O's Gold 5509, Funk G-4765, Coker 21, Pioneer brand 3320, McCurdy 8150, RA 1502, McCurdy 84AA, Beck's 85XA, SeedTec H-2686A, Funk G-4733, Pioneer brand 3184, Coker 19A<sup>1</sup> and FFR 848C<sup>1</sup>.

White-Medium-Season: Asgrow/O's Gold 2680W<sup>1</sup>.

Yellow-Full-Season: Pioneer brand 3165, DeKalb-Pfizer DK-789, Funk G-4858, GK 900, Pioneer brand 3147, Cargill 980, McCurdy 8172, Paymaster 8990, FFR 955C<sup>1</sup> and USS 2020<sup>1</sup>.

White-Full-Season: GK 927w, Zimmerman Z-14w, Zimmerman Z-11w, FFR 929w<sup>1</sup>, RA 2606w<sup>1</sup>, SeedTec H-2660w<sup>1</sup> and Princeton SX910<sup>1</sup>.

#### Cotton

Coker 208, DES 422, Deltapine 50, McNair 220, McNair 235, Stoneville 506, Stoneville 825 and Tifcot 56.

#### Oats

Fall-seeded - Southern States 76-30, Coker 716, and Cumberland.

#### Wheat

Auburn, Caldwell, Coker 747, Coker 916, Fillmore, Massey, Pioneer brand 2550, Scotty and Tyler.

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<sup>1</sup> Present plans indicate that these varieties will not be recommended after 1986.

Barley

Henry and Volbar.

Alfalfa

Apollo, Armor, Cimarron, Classic, Gladiator, Hi-phy, Liberty, Olympic, Pioneer brand 532, Saranac AR, Voris A77 and Williamsburg.

Red Clover

Kenstar, Redland II and Redman.

Soybeans

| Variety                 | Resistant to<br>cyst nematode<br>races | Variety            | Resistant to<br>cyst nematode<br>races |
|-------------------------|----------------------------------------|--------------------|----------------------------------------|
| Medium Maturity Group V |                                        |                    |                                        |
| Asgrow A5474            | 3,4                                    | TN 5-85            | 3                                      |
| Bedford                 | 3,4                                    | Bay                | None                                   |
| Coker 355               | 3,4                                    | Coker 425          | None                                   |
| Pioneer brand 9571      | 3,4                                    | Deltapine 105      | None                                   |
| Coker 485               | 3                                      | Essex              | None                                   |
| Forrest                 | 3                                      | FFR 561            | None                                   |
| Hartz 5171              | 3                                      | Pioneer brand 5482 | None                                   |
| Hartz 5252              | 3                                      | York <sup>1/</sup> | None                                   |
| Hartz 5370              | 3                                      | RA 502             | None                                   |
| Pioneer brand 9561      | 3                                      |                    |                                        |

## Late and Very Late Maturity Groups VI &amp; VII

|                    |     |                           |      |
|--------------------|-----|---------------------------|------|
| Asgrow A6520       | 3,4 | Hartz 7126                | 3    |
| Asgrow A6242       | 3,4 | Yield King                | 3    |
| Jeff <sup>1/</sup> | 3,4 | Coker 156                 | None |
| Centennial         | 3   | N.K. S69-96               | None |
| Hartz 6383R        | 3   | N.K. S72-60 <sup>1/</sup> | None |
| RA 604             | 3   |                           |      |

## Early Maturing Group IV

|                        |      |
|------------------------|------|
| Mitchell <sup>1/</sup> | None |
|------------------------|------|

Grain Sorghum

Bird Resistant: DeKalb-Pfizer BR64 and Savanna 5.

Non-Bird Resistant: Asgrow/O's Gold GS 712, Chaparral, Coker 7675DeKalb-Pfizer DK-64, DeKalb-Pfizer DK-42y, FFR 321DR, Funk G-1711, Funk G-522DR, Funk G-522A<sup>1</sup>, HT-126DR, Hy-performer 1330DR, P.A.G. 5572, Paymaster R1090, Penngrain yE, Pioneer brand 8333, Pioneer brand 8300, Stauffer S9740y, Topaz and T. E. Dinero.

Burley Tobacco

Burley 64, Clay 501, Co-op 313, Co-op 543, Ky 14, Ky 17, MS Bu. 21xKy 10, MS Ky 14xL8, R7-11, TN 86, and Va. 509.

Dark-Fire Cured Tobacco

Broad Leaf Madole, Black Mammoth, DF-300, DF 485, and DF-911.

Dark-Air Cured Tobacco

Ky 160 and OS 802.

Summer Annual recommendations are based on production when allowed to grow 20-40 inches before cutting or grazing.

Sorghum x Sudangrass crosses

DeKalb-Pfizer SX-17, DeKalb-Pfizer ST-6+, Funk HW 6986, Funk FP4, FFR 74A<sup>1</sup>, Haygrazer II, Summergrazer III, and Sordan 79.

Sudangrass

Trudan 8.

Millet

Gahi-1 and Millex 24.

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<sup>1</sup>Present plans indicate that these varieties will not be recommended after this year.

## The Recommended Corn Hybrids for 1987 are as Follows:

3 Year Average (1984-86)

Make yield comparisons only within a given maturity group because all maturity groups are not evaluated at the same locations.

| Maturity Group | Grain Color | Hybrid                                 | Tolerance <sup>2/</sup><br>to Corn Virus Complex |  | Erect Plants<br>% | Quality Rating<br>(1-9) | Moisture at Harvest<br>% | Yield<br>Bu/A |
|----------------|-------------|----------------------------------------|--------------------------------------------------|--|-------------------|-------------------------|--------------------------|---------------|
|                |             |                                        |                                                  |  |                   |                         |                          |               |
| Early-Maturing | Yellow      | Pioneer brand 3389                     | Med-Low                                          |  | 100               | 2.5                     | 20.6                     | 148           |
|                |             | Asgrow/O's Gold 2570                   | Low                                              |  | 99                | 2.9                     | 22.3                     | 147           |
|                |             | McCurdy 7676                           | Low                                              |  | 99                | 2.7                     | 21.9                     | 146           |
|                |             | FFR 788C                               | Low                                              |  | 100               | 3.4                     | 21.7                     | 143           |
|                |             | Pioneer brand 3358                     | Low                                              |  | 100               | 2.8                     | 21.6                     | 141           |
|                |             | FFR 747C                               | Low                                              |  | 100               | 2.3                     | 20.9                     | 139           |
|                |             | USS 7001                               | Low                                              |  | 100               | 3.4                     | 21.5                     | 138           |
|                |             | Super Crost 5438                       | Low                                              |  | 100               | 3.3                     | 21.4                     | 138           |
|                |             | Funk G-4522                            | Low                                              |  | 100               | 2.7                     | 21.6                     | 138           |
|                |             | Asgrow/O's Gold 3344                   | Med-Low                                          |  | 99                | 3.0                     | 20.9                     | 137           |
|                |             | Beck's 65X                             | Low                                              |  | 99                | 3.2                     | 21.2                     | 137           |
|                |             | DeKalb-Pfizer DK-656                   | Low                                              |  | 100               | 2.9                     | 21.4                     | 136           |
|                |             | FFR 799C <sup>1/4/</sup>               | Low                                              |  | -                 | -                       | -                        | -             |
|                |             | N.K. PX 791 <sup>1/</sup>              | Med-Low                                          |  | -                 | -                       | -                        | -             |
| Medium-Season  | Yellow      | DeKalb-Pfizer DK-748 <sup>3/</sup>     | Low                                              |  | -                 | -                       | -                        | -             |
|                |             | DeKalb-Pfizer DK-689                   | Med-High                                         |  | 97                | 2.6                     | 19.1                     | 158           |
|                |             | Zimmerman Z-27Y                        | Low                                              |  | 95                | 2.7                     | 20.4                     | 157           |
|                |             | Asgrow/O's Gold 5509                   | Low                                              |  | 93                | 3.4                     | 20.4                     | 153           |
|                |             | Funk G-4765                            | Low                                              |  | 95                | 3.5                     | 20.1                     | 152           |
|                |             | Coker 21                               | Low                                              |  | 93                | 3.6                     | 20.4                     | 151           |
|                |             | Pioneer brand 3320                     | Low                                              |  | 97                | 2.5                     | 18.7                     | 150           |
|                |             | McCurdy 8150                           | Low                                              |  | 94                | 3.1                     | 20.4                     | 150           |
|                |             | RA 1502                                | Low                                              |  | 93                | 3.2                     | 18.8                     | 150           |
|                |             | McCurdy 84AA                           | Low                                              |  | 91                | 3.5                     | 19.8                     | 149           |
|                |             | Beck's 85XA                            | Med                                              |  | 99                | 3.2                     | 20.1                     | 149           |
|                |             | SeedTec H-2686A                        | Low                                              |  | 94                | 3.4                     | 20.0                     | 149           |
|                |             | Funk G-4733                            | Med                                              |  | 96                | 2.5                     | 20.3                     | 148           |
|                |             | Pioneer brand 3184                     | Med-Low                                          |  | 98                | 3.5                     | 20.2                     | 147           |
|                |             | Coker 19A <sup>1/</sup>                | Low                                              |  | 96                | 3.8                     | 19.0                     | 143           |
|                |             | FFR 848C <sup>1/</sup>                 | Med                                              |  | 95                | 2.9                     | 18.7                     | 138           |
| Full-Season    | White       | Asgrow/O's Gold 2680W <sup>1/</sup>    | Med                                              |  | 90                | 3.8                     | 20.5                     | 136           |
|                | Yellow      | Pioneer brand 3165                     | Low                                              |  | 98                | 2.9                     | 22.2                     | 139           |
|                |             | DeKalb-Pfizer DK-789                   | Med-High                                         |  | 94                | 3.4                     | 24.2                     | 124           |
|                |             | Funk G-4858                            | Low                                              |  | 95                | 3.2                     | 23.7                     | 124           |
|                |             | GK 900                                 | Med-High                                         |  | 98                | 3.0                     | 22.4                     | 124           |
|                |             | Pioneer brand 3147                     | Med-High                                         |  | 93                | 4.0                     | 23.2                     | 124           |
|                |             | Cargill 980                            | Low                                              |  | 93                | 3.1                     | 23.2                     | 124           |
|                |             | McCurdy 8172                           | Med-Low                                          |  | 95                | 2.8                     | 23.5                     | 121           |
|                |             | Paymaster 8990                         | Low                                              |  | 94                | 2.9                     | 22.7                     | 119           |
|                |             | FFR 955C <sup>1/</sup>                 | Med-High                                         |  | 92                | 3.1                     | 22.6                     | 116           |
|                |             | USS 2020 <sup>1/4/</sup>               | Low                                              |  | -                 | -                       | -                        | -             |
|                | White       | GK 927W                                | Med-Low                                          |  | 88                | 3.3                     | 24.2                     | 123           |
|                |             | Zimmerman Z-14W                        | Med-High                                         |  | 93                | 2.9                     | 22.7                     | 123           |
|                |             | Zimmerman Z-11W                        | Med-High                                         |  | 90                | 2.9                     | 24.1                     | 122           |
|                |             | FFR 929W <sup>1/</sup>                 | Med                                              |  | 91                | 2.9                     | 24.3                     | 115           |
|                |             | RA 2606W <sup>1/4/</sup>               | Low                                              |  | -                 | -                       | -                        | -             |
|                |             | Golden Harvest H-2660W <sup>1/4/</sup> | Med                                              |  | -                 | -                       | -                        | -             |
|                |             | Princeton SX910 <sup>1/4/</sup>        | Med                                              |  | -                 | -                       | -                        | -             |

<sup>1/</sup>Present plans indicate that this hybrid will not be recommended after 1987. <sup>2/</sup>Hybrids rated lower than medium-high are not recommended under heavy virus conditions. <sup>3/</sup>Evaluated in 1984 as DK-747. <sup>4/</sup>Not evaluated in 1986.

## GRAIN SORGHUM

## Bird-resistant varieties

DeKalb BR64-A medium tall variety with an open type head. Medium in maturity. Anthracnose, MDMV (maize dwarf mosaic virus) and greenbug resistance with a brown pericarp.

Savanna 5-A tall variety with a tight head. Resistant to downy mildew and anthracnose. Brown pericarp and grain color.

## Non-bird resistant varieties

Asgrow/O's Gold GS 712-A tall variety with medium type heads. Red pericarp with a hetero-yellow endosperm. It is reported to be resistant to head smut and downy mildew. May lodge under some growing conditions that induce stalk rots.

Chaparral-A medium variety in plant height with medium-tight type heads. Red pericarp and hetero-yellow endosperm. Has resistance to head smut.

Coker 7675-A medium variety in plant height with tolerance to MDMV, anthracnose, downy mildew, head smut and charcoal rot. Red pericarp and hetero-yellow endosperm.

DeKalb DK-64-A medium-tall variety. Resistant to MDMV, anthracnose, downy mildew and rust. Red pericarp and hetero-yellow endosperm.

DeKalb-Pfizer DK-42y-A medium tall variety with medium type heads. This variety has a yellow endosperm and yellow grain color. DK-42y has been a little erratic in yield. It has performed better at Milan and Martin than it has at Springfield. This variety is medium early in maturity.

FFR 321-A medium variety in plant height, maturity and head type. Red pericarp with a hetero-yellow endosperm. It is reported to be resistant to anthracnose and downy mildew.

Funk G-1711-A medium-tall variety in plant height with medium-tight type heads. Red pericarp with hetero-yellow endosperm. Reported to be resistant to MDMV, head smut, Greenbug, anthracnose, and downy mildew.

Funk G-522A-A medium-tall variety with resistance to MDMV, head smut, and anthracnose. Red pericarp and hetero-yellow endosperm.

Funk G-522DR-A medium variety in plant height with resistance to MDMV, head smut, anthracnose and downy mildew. Red pericarp and hetero-yellow endosperm.

HT-126DR-A medium variety in plant height and maturity. Resistant to anthracnose, MDMV, head smut, and downy mildew. Red pericarp with a hetero-yellow endosperm.

Hy-Performer 1330DR-Tall with medium to open type head. Medium to late in maturity. Bronze pericarp with a hetero-yellow endosperm. Resistant to MDMV, head smut and anthracnose.

Paymaster R-1090-Medium-tall variety with medium to open type heads. Medium in maturity. Resistant to anthracnose. Red pericarp with yellow endosperm.

P.A.G. 5572-A medium-tall variety in plant height with medium-tight heads. Red pericarp with hetero-yellow endosperm. It is reported to be resistant to MDMV, head smut, and downy mildew.

Penngrain yE-Medium tall and medium maturing variety with a brown pericarp and yellow endosperm.

Pioneer brand 8333-A medium variety in plant height with an open type head. Has a yellow endosperm with bronze grain color. It is late maturing and has performed well at Milan under no-till and conventional seedbed.

Pioneer brand 8300-Medium-tall plant height with a medium-open type head. Has a yellow endosperm with yellow grain color and red pericarp. It is reported to have resistance to MDMV, head smut, anthracnose, and downy mildew.

Stauffer S9740y-Medium-tall plant height with a medium-type head. Has a cream color endosperm with a yellow pericarp and cream colored grain. It is reported to have moderate resistance to MDMV.

T.E. Dinero-Medium tall and medium maturing variety with resistance to MDMV, anthracnose and downy mildew. Red pericarp and hetero-yellow endosperm.

Topaz-A medium variety in plant height and maturity. Resistant to head smut and downy mildew. Red pericarp with a hetero-yellow endosperm.

#### SOYBEANS

Asgrow A5474-Resistant to races 3 and 4 of soybean cyst nematodes with resistance to phytophthora root-rot, bacterial pustule, wildfire, and target spot. Has white flowers, tawny pubescence, and brown pod wall. Maturity similar to Forrest (maturity group V).<sup>1</sup>

Asgrow A6242-Has purple flowers, tawny pubescence and seed with a black hila. A few inches shorter in plant height than Centennial and matures about 6 to 7 days earlier. Maturity group IV. A6242 is resistant to races 3 and 4 of soybean cyst nematode.

Asgrow A6520-Has purple flowers, tawny pubescence and seed with a black hila. Resistant to races 3 and 4 of the soybean cyst nematode. Maturity group VI.

Bay-Has purple flower, grey pubescence and seed with buff hila. Resistant to bacterial pustule. Maturity group V.

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<sup>1</sup>Varieties have been divided into 10 maturity groups, 00 through VII. Varieties recommended in Tennessee are from groups IV, V, VI and VII. Group IV is considered early, group V early to medium, group VI late, and group VII late to very late. The later these varieties of maturity groups V, VI, and VII are planted, the less pronounced is the difference of maturity among varieties.

Bedford-First soybean variety with resistance to race 4 soybean cyst nematode. Released by the USDA and several cooperating states, including Tennessee. Resistant to races 4 and 3, and moderately resistant to root-knot nematodes. Has white flowers, tawny pubescence, and yellow seed with black hila. Maturity group V.

Centennial-Matures (maturity group VI) about the same time as Pickett 71. Tall plants with tawny pubescence and purple flowers. Medium size seeds with yellow seed coat and black hila. Resistant to race 3 of the soybean cyst nematodes, the root-knot nematode (Meloidogyne incognita), the reniform nematode, and phytophthora rot. Seems to be too late for the Cumberland Plateau.

Coker 156-Has white flowers, grey pubescence and seed with a buff hila. Resistant to phytophthora rot resistance with no resistance to soybean cyst nematodes. Maturity group VI.

Coker 425-Has purple flowers, tawny pubescence and seed with a black hila. Similar to Essex in maturity, lodging resistance and a few inches shorter in plant height. Has no resistance to soybean cyst nematode. Maturity group V.

Coker 485-Has purple flowers, tawny pubescence and seed with a black hila. It is reported to have resistance to stem canker, southern root knot nematode, phytophthora rot and race 3 of the soybean cyst nematode. Taller than Essex about a week later in maturity (late Maturity group V).

Coker 355-Has purple flowers, grey pubescence and seed with black hila. Similar to Coker 485 in maturity and a few days later than Forrest. Similar to Forrest in plant height and standing ability. Resistance to race 3 and 4 of the soybean cyst nematode. Maturity group (late) V.

Deltapine 105-Has purple flowers, grey pubescence and seed with imperfect black hila. Tolerant to phytophthora root-rot, susceptible to soybean cyst nematodes. Has yielded well under soybean cyst nematode free conditions. Late maturity group V.

Essex-Early-maturing variety (maturity group V) which is short and stands well. Has purple flowers, grey pubescence, and a tawny pod wall. Has a high yield potential under good moisture conditions, but appears to be more sensitive to moisture stress than many of the other varieties evaluated. Has not performed well on fine-textured soils. Similar to Dare in seed size, quality, and shatter resistance.

FFR 561-Has white flower, grey pubescence and seed with a buff hila. Has no resistance to soybean cyst nematodes. Maturity group V.

Forrest-Selected from the cross Dyer X Bragg. Growth characteristics resemble Bragg (maturity group VII) but plants mature about three weeks earlier and a few days later than Dare (maturity group V). Resistant to root-knot and soybean cyst nematode race 3. Has good resistance to bacterial pustule, wildfire, target spot, and moderate resistance to phytophthora rot. Has white flowers and tawny pubescence. Seeds are yellow with a black hilum. Ideal pH range for Forrest is 6 to 6.5 and it has performed poorly on some soils at a pH of 7 or above.

Hartz 5171-Has white flowers, grey pubescence and seed with a dark buff hila. Resistant to race 3 of the soybean cyst nematode. Maturity group V.

Hartz 5252- Has purple flowers, tawny pubescence and seed with a black hila. Resistant to race 3 of the soybean cyst nematode. Maturity group V.

Hartz 6383R-Has purple flowers, grey pubescence and seed with an imperfect black hila. Resistant to race 3 of soybean cyst nematode. Maturity group VI.

Hartz 7126-Has purple flowers, tawny pubescence and seed with a black hilum. Resistant to race 3 of the soybean cyst nematode. Maturity group VII.

Hartz 5370-Has white flowers, tawny pubescence and seed with a black hila. Taller in plant height than Forrest with a slight tendency to lodge. Reported to be resistant to phytophthora rot, root knot nematode M. incognita, bacterial pustule and race 3 of the soybean cyst nematode. Mature on the late side of Maturity group V.

Jeff-Has purple flowers, tawny pubescence and seed with brown hila. Resistant to races 1,3 and 4 of the soybean cyst nematode. Has a tendency to lodge under certain conditions. Has not been a high yielder under soybean cyst nematode free conditions. Maturity group VI.

Mitchell-A high yielding early-maturing (maturity group IV) variety which has purple flowers, tawny pubescence, tan seed pod, and seed with brown hila. Will shatter under some adverse weather conditions.

N.K. S69-96-Has purple flowers, grey pubescence and seed with a buff hila. Has no resistance to soybean cyst nematodes. Maturity group VI.

N.K. S72-60-Has purple flowers, tawny pubescence and seed with a buff hila. Has no resistance to soybean cyst nematodes. Maturity group VII. This variety has a tendency to lodge more than S69-96.

Pioneer brand 9561-Has white flowers, tawny pubescence and seed with a black hila. Resistant to race 3 of the soybean cyst nematodes. Maturity group V.

Pioneer variety 5482-A few days later than Essex in maturity (group V). Has white flowers, tawny pubescence with black hila. Susceptible to soybean cyst nematodes and phytophthora root-rot. This variety has produced high yields under soybean cyst nematode free conditions.

Pioneer brand 9571-Has white flowers, tawny pubescence and seed with a black hila. It is reported to be tolerant to root knot nematode with resistance to race 3 and 4 of the soybean cyst nematode. Maturity group V.

RA 502-Has purple flowers, tawny pubescence and seed with a black hila. Has no resistance to soybean cyst nematodes. Maturity group V.

RA 604-Is in the early VI maturity group. RA 604 has tawny pubescence with purple flowers. Resistant to race 3 soybean cyst nematode, wildfire, phytophthora, bacterial pustule, target leaf spot, downy mildew and root-knot nematode.

TN 5-85-Has white flowers, grey pubescence and seed with a buff hila. Resistant to race 3 of soybean cyst nematode. Maturity group V.

Yield King 593-Has purple flowers, tawny pubescence and seed with a black hila. Tall growth habit with maturity similar to Centennial. Maturity group VI.

York-Matures at about the same time as Dare (maturity group V) and about 10 days later than Hill. Seeds are slightly off-round with a buff hilum and yellow seed coat. Has purple flowers and grey pubescence. Has good seed-holding qualities but not as good as Lee. Has very good resistance to lodging and has yielded well.

## OATS

### Fall-Seeded

Coker 716-Slightly superior to Coker 66-22 in winterhardiness, yield, test weight, and lodging resistance. Will not stand as well as Cumberland. Has been evaluated in previous years as Coker 70-16. Reported to have excellent resistance to soil-borne mosaic. Has yielded well in the state variety trials for several years.

Cumberland-A short, stiff-strawed variety of medium-late maturity. Slightly more winter-hardy than Blount. Has good lodging resistance.

Southern States 76-30-About two days earlier than Cumberland in maturity and a few inches higher in plant height. It has out-yielded Cumberland and Coker 716 in the state variety test with similar standing ability to Coker 716.

## BARLEY

Henry-An awnleted variety released from Virginia Agricultural Experiment Station in 1975. Heads about the same time as Volbar but matures about a week earlier. Very similar to Surry in maturity and test weight. Has averaged a few inches taller than Surry. Reported to be resistant to powdery mildew, leaf rust and scald.

Volbar-A winter-hardy, six-rowed, tall, rough-awned variety with maturity similar to Harrison and Jefferson. Has yielded well in the state variety test and has resisted lodging. Has slight tolerance to barley yellow dwarf virus disease.

## SOFT RED WINTER WHEAT

Auburn-A high yielding late maturing variety which is medium tall with good straw strength. Auburn has good resistance to powdery mildew, septoria leaf blotch and leaf rust. Auburn has excellent milling and good baking quality. Auburn has the H6 gene which confers excellent resistance to biotype A and B of the Hessian fly. This variety is not resistant to all races of Hessian fly.

Caldwell-An early variety with excellent soft wheat milling and baking quality. Is reported to be moderately resistant to barley yellow dwarf virus, take-all root rot and leaf rust. Has good resistance to septoria leaf blotch and powdery mildew. Has the H6 gene which confers resistance to the currently prevalent biotype B of Hessian fly. It is susceptible to other races of Hessian fly.

Coker 747-An early, white chaff variety with good winterhardiness and resistance to lodging. Is a few inches shorter with slightly stiffer straw than Arthur. Is resistant to soil-borne mosaic, and moderately resistant to leaf rust, stem rust, and powdery mildew. Not Hessian fly resistant.

Coker 916-A few days earlier than Coker 747. Is similar to Coker 747 in head type, lodging resistance and plant height. Has good resistance to leaf rust and powdery mildew. Not Hessian fly resistant.

Fillmore-A high-yielding, late-maturing variety with large heads and often fills 3 to 4 kernels per spikelet which suggested the name Fillmore. Fillmore has excellent milling and baking qualities. This variety is moderately resistant to the barley yellow dwarf virus and is resistant to septoria leaf blotch, leaf rust and powdery mildew. It has the H6 gene which confers resistance to biotype B of Hessian fly. Not resistant to all races.

Massey-This variety is white chaffed, awnleted, midtall and medium in maturity. It has good field tolerance to powdery mildew, stem rust and some races of Hessian fly. It is susceptible to leaf rust. This variety has done well at Greeneville in the presence of barley yellow dwarf virus disease. Massey is a Virginia release.

Pioneer brand 2550-An early variety about two inches shorter than Pioneer brand S76. Test weight is good but slightly lower than S76. This variety has very good leaf rust resistance, average stem rust, and powdery mildew. It is reported to have some resistance to barley yellow dwarf virus disease but not as good as S76. Pioneer brand 2550 has resistance to Hessian fly races A, C, and F but is susceptible to other races.

Scotty-This variety is beardless, midtall, and medium in maturity. Scotty has excellent resistance to powdery mildew and moderate resistance to leaf rust. It has some resistance to stem rust but is susceptible to several of the current races of Hessian fly.

Tyler-A high-yielding, medium to late maturing variety and is tall. Stems are white and are moderately stiff. Tyler has shown good resistance to mildew in the state variety test. Tyler is reported to be resistant to spindle streak mosaic virus, but is susceptible to leaf rust, stem rust and Hessian fly. Milling and baking characteristics are good. For consistent high yields, Tyler should probably be treated with a fungicide if leaf rust is a problem, because it is very susceptible to this disease.

## ALFALFA

Apollo-A winter-hardy variety with good recovery ability. Has high resistance to phytophthora root rot which is worse on poorly drained soil. In most cases, alfalfa would not be grown on these soils. However, alfalfa can be grown on poorly drained soils (such as Henry) if the surface water is controlled. Alfalfa cannot tolerate flooding for any period of time. Apollo has high resistance to bacterial wilt but this disease has not been a problem in Tennessee.

Cimarron-Flowers range from purple to light blue with a low frequency of white and yellow. Reported to be resistant to pea aphid and has intermediate resistance to the spotted alfalfa aphid. Is similar to Arc and Team in resistance to the alfalfa weevil. Reported to have high resistance to anthracnose and bacterial wilt diseases, and moderate resistance to phytophthora root rot, common leafspot, stem-phylum leafspot, and sclerotinia crown and stem rot diseases.

Classic-Is resistant to bacterial wilt and has moderate resistance to phytophthora root rot and the potato leafhopper. Has a low level of resistance to race 1 anthracnose.

Gladiator-Developed by Northrup, King & Co. and is wilt resistant and has some tolerance to alfalfa weevil and anthracnose. Has yielded well in the state variety trials for a number of years.

Liberty-Moderately winterhardy. Tolerance to alfalfa weevil. Resistant to pea aphid and anthracnose disease. Developed from the same germplasm base as Team and Arc.

Olympic-Has resistance to bacterial wilt, anthracnose and fusarium wilt and is susceptible to phytophthora root rot.

Voris A77-Has resistance to anthracnose, bacterial wilt, and fusarium wilt. Has moderate yellowing and has performed well.

Saranac AR-Wilt and anthracnose resistant. The growth habit of this variety is the same as for Saranac. Seed supply may be limited in Tennessee.

Williamsburg-Developed from selections out of Kansas Common. It is susceptible to bacterial wilt. This variety has been a good producer and is well adapted over the state.

## RED CLOVER

Kenstar-Related synthetics have been evaluated in Tennessee for several years. These synthetics were Ky Syn A-1 and A-2. Kenstar was carried as an experimental Ky Syn A-3. A-1 consisted of 20 clones, A-2 of 30 clones, and Kenstar contained 10 of the superior clones common to both A-1 and A-2. Similar to Kenland in resistance to anthracnose, powdery mildew, and general morphological appearance. Has persisted for three years in many tests when Kenland persistent for only one or two years.

Redland II-A synthetic variety similar to Redland in growth habit, and persistence. Was selected from Redland after screening for resistance to pea aphid, northern and southern anthracnose and powdery mildew.

Redman-Has been evaluated for several years. Has performed better than Kenland and slightly less than Kenstar. Reported to have good resistance to northern anthracnose and moderate resistance to powdery mildew.

## BURLEY TOBACCO

Burley 64-A closely-spaced, upright-leaf, late flowering variety which has medium-high resistance to black shank, high resistance to black root rot, wildfire and mosaic, and medium-high resistance to fusarium wilt. Is recommended on farms where black shank and black root rot are causing problems.

Clay 501-A high yielding, rapid growing, medium early maturing variety. It is a stand-up type burley with big leaves.

Co-op 313-A high yielding variety with medium-high resistance to black root rot and high resistance to mosaic, fusarium wilt, and wildfire. Has low resistance to black shank and should not be planted on land known to have black shank present.

Co-op 543-A stand-up variety with moderate yield potential. Plants mature about the same time as KY 14. Has medium-high resistance to black shank and medium resistance to black root rot.

Ky 14-A high-yielded variety which has medium resistance to black root rot and high resistance to fusarium wilt, wildfire and mosaic. Has also shown some resistance to Tobacco Vein Mottling Virus (TVMV). Is similar to Va 509 in number of days to flowering, plant height, and leaf number per plant.

Ky 17-A stand-up variety which produces reasonable yields of high quality leaf. Has medium-high resistance to black shank and high resistance to black root rot, mosaic, wildfire, and fusarium wilt.

MS Bu. 21 X Ky. 10-A semi-drooping leaf hybrid which has high resistance to wildfire and mosaic, low resistance to black root rot, medium resistance to fusarium wilt, and no resistance to black shank. Yields about the same as Ky 10 but more than Burley 21. Has better quality than Ky 10, but not as good as Burley 21.

MS Ky 14 x L8-A high-yielding large leaf hybrid which has high resistance to wildfire and mosaic, medium-high resistance to black root rot and medium resistance to fusarium wilt. Not recommended where black shank is known to be present.

R 7-11-A high yielding, large leaf, medium height burley. Has medium resistance to black root-rot and mosaic. Has no resistance to black shank.

TN 86-A stand-up variety with high yield potential. Has high resistance to tobacco vein mottling virus and black root rot, medium-high resistance to tobacco etch virus and potato virus, and medium resistance to black shank. Matures about 10-14 days later than MS Ky 14 x L8. Should be topped at a manageable height since under favorable conditions it can grow tall.

Va 509-An upright-leaf variety which has medium resistance to black shank, high resistance to wildfire, low resistance to black root rot and medium resistance to fusarium wilt. It was selected from a cross of Burley 37 X Burley 21. The general characteristics are intermediate between those of Burley 21 and Burley 37.

## DARK FIRE-CURED TOBACCO

Broad Leaf Madole-A relatively high yielding, high acre value variety. Susceptible to mosaic and wildfire.

Black Mammoth-Leaf is somewhat darker and broader than Madole. Usually does not droop quite as much as Madole. Susceptible to mosaic and wildfire.

DF-300-Moderately resistant to black shank. Is a broad-leaved, open-growing tobacco, lighter green in color than Madole with plant growth similar to Madole. The cured tobacco is usually lighter brown in color than Madole. Is best adapted to the production of wrapping tobacco, but is capable of producing cutting or snuff tobacco.

DF-485-A dark fire-cured variety. Has high resistance to black root rot, wildfire, and mosaic virus and moderate resistance to black shank races "0" and "1". Closely resembles Black Mammoth, except has a longer, wider and darker green leaf. Flowers the same as Madole, is taller and has less leaves than Madole, yet the leaf yield is the same.

DF-911-A multiple disease resistant dark fire-cured variety. Is resistant to black root rot, mosaic, and wildfire but not to black shank. Compared very favorably with Madole in growth, yield and quality but is slightly darker in color. Growth habit and appearance are a little more open than Madole, especially at maturity, and the leaf attachment is more upright.

## DARK AIR-CURED TOBACCO

KY 160-A medium to large leaf one sucker variety. Leaves are dark green in color and fairly smooth. Resistant to tobacco mosaic.

OS-802-A one-sucker variety with medium resistance to black shank and high resistance to wildfire and tobacco mosaic. Is light green in color with an open growth habit and tends to have a smoother leaf surface than Ky 160.



1986

## PERFORMANCE

## OF FIELD CROP VARIETIES

Corn-Grain Sorghum-Summer Annuals-Oats  
Barley-Wheat-Alfalfa-Soybeans

DATA FOR 1986 WITH SUMMARIES OF RESULTS  
FROM PREVIOUS YEARS

## INTRODUCTION

The purpose of the project, "Field Crop Variety Evaluation," is to test field crop varieties available to farmers of this and neighboring states, as well as the best experimental varieties being developed by experimental stations, other agencies, and private companies.

The tests were conducted using field plot designs, fertility levels, and experimental techniques that have been found suitable for each crop.

Committees composed of specialists from the research, resident instruction, and extension staffs of the University of Tennessee Institute of Agriculture study the performance data and determine varieties to be recommended.

For a variety to be recommended, it must yield well and have other characteristics suitable for Tennessee conditions.

## PRESENTATION OF DATA

The tests were conducted in each of the principal agricultural regions of the state where the specific crop is grown. Plots of each variety were replicated several times at each location. Locations of field tests are given in each table of data. An average of the performance of a variety across the area of adaption and over a period of years is the best basis for evaluation.

The tables on the following pages have been prepared with the entries listed in order of performance, the highest-yielding entry being listed first.

The least significant difference (L.S.D.) values at the five percent level for the 1986 tests are shown at the bottom of each table. The yields of any two varieties being compared must differ by at least this amount in order for the varieties to be considered different in yielding ability. Also, coefficient of variation values (C.V. %) are shown at the bottom of each table. This value is a measure of the variability found within each experiment. At each location where tests were conducted in 1986, the soil types are reported at the end of the table.

## Performance of Corn Hybrids

The medium-season state corn hybrid tests were conducted at seven locations, the full-season at four, and the early-maturing hybrids at five locations. Corn yields at Greeneville and Crossville were reduced due to severe drought during silking and tasseling. The yields in West Tennessee were good to excellent in 1986.

All tests were over-planted and thinned to about 20,000 to 26,000 plants per acre. Population varied from location to location but the population was the same for all varieties at a given location. The reason for the variation from location was due to the changes in spacing between the rows, with the spacing within the row remaining the same. Most tests were conducted using thirty-six inches between rows, but at Milan the spacing between rows was thirty inches. The tests were fertilized with 150 pounds or more of nitrogen per acre. At least as much phosphorous and potassium were applied as recommended by soil test recommendation, sometimes more. The plot size for hand-harvested plots in most cases was two rows 11 feet long, and for the mechanically harvested plots yields were obtained from two rows 25 to 30 feet in length. Plots were replicated four times. The corn hybrid studies at Jackson, Martin, and Milan were harvested with a picker-sheller and all other tests were harvested by hand in 1986.

Corn yields are expressed in bushels per acre, adjusted to 15.5 percent moisture. The percent grain moisture at harvest is presented to show the relative maturity of each hybrid.

The five leading medium-season hybrids in the regular test in 1986 were DeKalb-Pfizer DK-711, DeKalb-Pfizer DK-748, Stauffer 8500, FFR 811C, and Pioneer brand 3147, a full-season hybrid included as a check hybrid. In the extra medium-season hybrid test, the highest producing hybrids were McCurdy 7800, T. E. 6996, Pioneer brand 3320, and Agri Pro HP 77.

The four leading hybrids in the full-season test in 1986 were Pioneer brand 3165, Cargill 980, Bailey SX651, and Pioneer brand 3187.

The highest producing early-maturing hybrids in 1986 were Asgrow/O's Gold 2570, Pioneer brand 3389, DeKalb-Pfizer DK-636, Asgrow/O's Gold Experimental 5L34All, and Pioneer brand 3358.

Table 1. Corn: Yield of medium-season hybrids evaluated at five locations in 1986.

| Color        | Cross | Hybrid                | Avg.  | 1/<br>Knox-<br>ville | 2/<br>Spring<br>Hill | 3/<br>Spring-<br>field | 4/<br>Martin | 4/<br>Milan |
|--------------|-------|-----------------------|-------|----------------------|----------------------|------------------------|--------------|-------------|
|              |       |                       |       | Bushels per acre     |                      |                        |              |             |
| y            | 2X    | DeKalb-Pfizer DK-711  | 143   | 160                  | 82                   | 166                    | 134          | 171         |
| y            | 2X    | Pioneer brand 3147    | 142   | 164                  | 77                   | 175                    | 149          | 144         |
| y            | 2X    | DeKalb-Pfizer DK-748  | 140   | 162                  | 87                   | 153                    | 133          | 163         |
| y            | 2X    | Stauffer 8500         | 138   | 153                  | 80                   | 153                    | 144          | 158         |
| y            | 2X    | FFR 811C              | 138   | 141                  | 84                   | 156                    | 140          | 167         |
| y            | 2X    | Funk G-6066X          | 135   | 167                  | 74                   | 143                    | 135          | 157         |
| y            | 2X    | DeKalb-Pfizer DK-689  | 135   | 148                  | 82                   | 148                    | 137          | 158         |
| y            | 2X    | SeedTec H-2675        | 133   | 155                  | 79                   | 146                    | 131          | 152         |
| y            | 2X    | Jacques 8350          | 132   | 165                  | 90                   | 140                    | 118          | 148         |
| y            | 2X    | Zimmerman Z-27Y       | 131   | 131                  | 70                   | 160                    | 151          | 144         |
| y            | 2X    | McCurdy 8150          | 131   | 146                  | 77                   | 141                    | 132          | 158         |
| y            | 2X    | N.K. PX9540           | 130   | 145                  | 81                   | 140                    | 134          | 153         |
| y            | 2X    | SeedTec H-2686A       | 130   | 154                  | 69                   | 149                    | 133          | 148         |
| y            | 2X    | G.K. 750              | 130   | 146                  | 81                   | 142                    | 132          | 150         |
| y            | 2X    | FFR 848c              | 129   | 139                  | 80                   | 152                    | 130          | 144         |
| y            | 2X    | Asgrow/O's Gold 5509  | 129   | 152                  | 63                   | 147                    | 117          | 164         |
| y            | 2X    | McCurdy 84AA          | 128   | 138                  | 68                   | 147                    | 129          | 160         |
| y            | 2X    | Stauffer S7759        | 128   | 142                  | 78                   | 133                    | 128          | 159         |
| y            | 2X    | Funk G-4765           | 128   | 160                  | 70                   | 134                    | 125          | 148         |
| y            | M2X   | Funk G-4733           | 127   | 157                  | 70                   | 141                    | 124          | 144         |
| y            | 2X    | Asgrow/O's Gold RX892 | 127   | 142                  | 81                   | 136                    | 128          | 147         |
| w            | 2X    | Funk G-6044w          | 127   | 140                  | 70                   | 141                    | 138          | 144         |
| y            | 2X    | RA 1502               | 126   | 150                  | 66                   | 146                    | 124          | 147         |
| y            | 2X    | Pioneer brand 3320    | 126   | 141                  | 71                   | 142                    | 135          | 143         |
| y            | 2X    | N.K. PX9581           | 126   | 145                  | 77                   | 134                    | 126          | 147         |
| y            | 2X    | Pioneer brand 3184    | 126   | 146                  | 80                   | 133                    | 132          | 136         |
| y            | M2X   | Coker 19A             | 125   | 133                  | 74                   | 137                    | 134          | 148         |
| y            | 2X    | P.A.G. SX352          | 125   | 127                  | 76                   | 138                    | 133          | 152         |
| y            | 2X    | Jacques 8250          | 125   | 142                  | 74                   | 145                    | 126          | 138         |
| y            | 2X    | Cargill 967           | 125   | 139                  | 68                   | 138                    | 136          | 144         |
| y            | 2X    | Coker 8625            | 125   | 149                  | 78                   | 119                    | 133          | 145         |
| y            | M2X   | TN 82035              | 124   | 139                  | 73                   | 141                    | 124          | 142         |
| w            | 2X    | Asgrow/O's Gold 2680w | 123   | 145                  | 66                   | 136                    | 121          | 146         |
| y            | 2X    | Coker 21              | 123   | 151                  | 59                   | 129                    | 121          | 153         |
| y            | M2X   | Funk G-4614           | 122   | 142                  | 79                   | 129                    | 130          | 132         |
| y            | 2X    | Paymaster 7990        | 122   | 120                  | 69                   | 144                    | 130          | 144         |
| y            | M2X   | Funk G-4734           | 120   | 142                  | 59                   | 134                    | 120          | 143         |
| y            | 2X    | FFR 815C              | 119   | 132                  | 65                   | 133                    | 125          | 139         |
| y            | 2X    | Beck's 85XA           | 119   | 146                  | 72                   | 135                    | 114          | 126         |
| w            | 2X    | TN 85003              | 118   | 125                  | 70                   | 137                    | 127          | 129         |
| L.S.D. (.05) |       |                       | 7.7   | 27.6                 | 13.9                 | 17.4                   | 14.4         | 15.1        |
| C.V. %       |       |                       | 9.7   | 13.6                 | 13.4                 | 8.8                    | 7.9          | 7.3         |
| Avg.         |       |                       | 128.0 | 146.0                | 74.2                 | 142.0                  | 130.0        | 148.0       |

1/Sequatchie silt loam (2% to 5% slopes).

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

3/Huntington silt loam (2% to 5% slopes).

4/Falaya silt loam (2% to 5% slopes).

Table 2. Corn: Yield and other characteristics of medium-season hybrids evaluated at five locations in 1986.

| Color        | Cross | Hybrid                | Avg. Yield | Erect plants | Grain quality        | Husk cover           | Ear ht. | Grain moisture at harvest |
|--------------|-------|-----------------------|------------|--------------|----------------------|----------------------|---------|---------------------------|
|              |       |                       | Bu/A       | %            | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In.     | %                         |
| y            | 2X    | DeKalb-Pfizer DK-711  | 143        | 98           | 2.6                  | 3.8                  | 54      | 18.3                      |
| y            | 2X    | Pioneer brand 3147    | 142        | 96           | 4.6                  | 3.7                  | 56      | 18.6                      |
| y            | 2X    | DeKalb-Pfizer DK-748  | 140        | 97           | 3.4                  | 2.5                  | 59      | 18.1                      |
| y            | 2X    | Stauffer 8500         | 138        | 97           | 2.4                  | 4.5                  | 54      | 17.9                      |
| y            | 2X    | FFR 811C              | 138        | 97           | 3.6                  | 4.7                  | 52      | 17.0                      |
| y            | 2X    | Funk G-6066X          | 135        | 99           | 2.4                  | 2.3                  | 54      | 16.5                      |
| y            | 2X    | DeKalb-Pfizer DK-689  | 135        | 98           | 2.6                  | 2.8                  | 55      | 17.4                      |
| y            | 2X    | SeedTec H-2675        | 133        | 92           | 2.8                  | 2.8                  | 52      | 17.6                      |
| y            | 2X    | Jacques 8350          | 132        | 98           | 2.6                  | 3.2                  | 54      | 17.6                      |
| y            | 2X    | Zimmerman Z-27Y       | 131        | 96           | 3.0                  | 3.7                  | 56      | 16.2                      |
| y            | 2X    | McCurdy 8150          | 131        | 96           | 2.8                  | 2.5                  | 59      | 19.1                      |
| y            | 2X    | N.K. PX9540           | 130        | 98           | 2.8                  | 3.2                  | 50      | 16.1                      |
| y            | 2X    | SeedTec H-2686A       | 130        | 96           | 2.8                  | 2.7                  | 55      | 19.4                      |
| y            | 2X    | G.K. 750              | 130        | 99           | 2.4                  | 2.7                  | 52      | 15.9                      |
| y            | 2X    | FFR 848c              | 129        | 98           | 3.2                  | 2.3                  | 58      | 17.1                      |
| y            | 2X    | Asgrow/O's Gold 5509  | 129        | 92           | 3.2                  | 2.8                  | 54      | 19.1                      |
| y            | 2X    | McCurdy 84AA          | 128        | 90           | 3.2                  | 3.5                  | 53      | 18.4                      |
| y            | 2X    | Stauffer S7759        | 128        | 98           | 3.6                  | 4.5                  | 55      | 16.2                      |
| y            | 2X    | Funk G-4765           | 128        | 98           | 3.2                  | 3.3                  | 54      | 18.2                      |
| y            | M2X   | Funk G-4733           | 127        | 97           | 2.8                  | 2.7                  | 52      | 18.7                      |
| y            | 2X    | Asgrow/O's Gold RX892 | 127        | 94           | 3.0                  | 3.5                  | 55      | 17.9                      |
| w            | 2X    | Funk G-6044w          | 127        | 90           | 3.0                  | 2.8                  | 53      | 19.9                      |
| y            | 2X    | RA 1502               | 126        | 92           | 3.4                  | 3.2                  | 50      | 17.6                      |
| y            | 2X    | Pioneer brand 3320    | 126        | 96           | 2.4                  | 3.3                  | 52      | 17.0                      |
| y            | 2X    | N.K. PX9581           | 126        | 95           | 2.8                  | 3.3                  | 52      | 17.6                      |
| y            | 2X    | Pioneer brand 3184    | 126        | 99           | 3.2                  | 3.5                  | 50      | 18.3                      |
| y            | M2X   | Coker 19A             | 125        | 97           | 3.4                  | 3.3                  | 54      | 17.7                      |
| y            | 2X    | P.A.G. SX352          | 125        | 97           | 3.4                  | 4.5                  | 55      | 15.8                      |
| y            | 2X    | Jacques 8250          | 125        | 98           | 4.0                  | 3.5                  | 53      | 16.8                      |
| y            | 2X    | Cargill 967           | 125        | 97           | 4.4                  | 4.8                  | 54      | 16.4                      |
| y            | 2X    | Coker 8625            | 125        | 98           | 2.6                  | 2.8                  | 50      | 15.9                      |
| y            | M2X   | TN 82035              | 124        | 97           | 2.4                  | 4.0                  | 54      | 17.7                      |
| w            | 3X    | Asgrow/O's Gold 2680w | 123        | 93           | 3.4                  | 2.3                  | 58      | 19.5                      |
| y            | 2X    | Coker 21              | 123        | 94           | 3.2                  | 3.3                  | 53      | 18.8                      |
| y            | M2X   | Funk G-4614           | 122        | 95           | 3.2                  | 3.3                  | 53      | 17.8                      |
| y            | 2X    | Paymaster 7990        | 122        | 99           | 4.4                  | 4.5                  | 50      | 16.7                      |
| y            | M2X   | Funk G-4734           | 120        | 98           | 3.0                  | 3.2                  | 55      | 19.0                      |
| y            | 2X    | FFR 815C              | 119        | 99           | 4.0                  | 4.7                  | 52      | 16.9                      |
| y            | 2X    | Beck's 85XA           | 119        | 100          | 3.0                  | 2.3                  | 52      | 18.4                      |
| w            | 2X    | TN 85003              | 118        | 97           | 2.8                  | 2.3                  | 54      | 17.4                      |
| L.S.D. (.05) |       |                       | 7.7        |              |                      |                      |         |                           |
| C.V. %       |       |                       | 9.7        |              |                      |                      |         |                           |
| Avg.         |       |                       | 128.0      |              |                      |                      |         |                           |

<sup>1/</sup>Ratings based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 3. Corn: Yield of 24 extra medium-season hybrids evaluated at five locations in 1986.

| Color            | Cross | Hybrid                 | Avg.  | 1/         | 2/          | 3/           | 4/     | 4/    | 5/6/         |
|------------------|-------|------------------------|-------|------------|-------------|--------------|--------|-------|--------------|
|                  |       |                        |       | Knox-ville | Spring Hill | Spring-field | Martin | Milan | Greene-ville |
| Bushels per acre |       |                        |       |            |             |              |        |       |              |
| y                | 2X    | McCurdy 7800           | 141   | 178        | 79          | 159          | 127    | 160   | 38           |
| y                | 2X    | T.E. 6996              | 138   | 177        | 72          | 147          | 131    | 160   | 40           |
| y                | 2X    | Pioneer brand 3320     | 138   | 174        | 85          | 151          | 126    | 151   | 42           |
| y                | 2X    | Agri Pro HP 77         | 136   | 182        | 79          | 154          | 112    | 154   | 42           |
| y                | 2X    | T.E. 6994              | 133   | 167        | 77          | 130          | 131    | 158   | 43           |
|                  |       |                        |       |            |             |              |        |       |              |
| y                | 2X    | SeedTec ST-7750        | 132   | 174        | 79          | 142          | 113    | 152   | 43           |
| w                | 2X    | Asgrow/O's Gold RX956W | 129   | 168        | 64          | 149          | 109    | 156   | 42           |
| y                | 2X    | SeedTec H-2601         | 129   | 153        | 72          | 148          | 121    | 152   | 39           |
| y                | 2X    | Asgrow/O's Gold RX860  | 129   | 170        | 67          | 143          | 122    | 144   | 40           |
| y                | 2X    | Zimmerman Z-28         | 129   | 157        | 64          | 151          | 111    | 162   | 38           |
|                  |       |                        |       |            |             |              |        |       |              |
| y                | 2X    | Cargill 971            | 129   | 156        | 68          | 139          | 121    | 159   | 42           |
| y                | 2X    | Princeton SX865        | 129   | 173        | 75          | 142          | 114    | 139   | 36           |
| y                | M2X   | Super Crost 5454       | 127   | 148        | 63          | 151          | 118    | 153   | 40           |
| y                | M2X   | Gold Medal 984         | 126   | 169        | 62          | 132          | 117    | 152   | 32           |
| y                | M2X   | Gold Medal 3357        | 126   | 160        | 68          | 148          | 107    | 145   | 42           |
|                  |       |                        |       |            |             |              |        |       |              |
| y                | 2X    | Agri Pro 830           | 125   | 162        | 58          | 153          | 99     | 150   | 46           |
| y                | M2X   | Gold Medal 335         | 124   | 160        | 69          | 147          | 106    | 140   | 44           |
| y                | 2X    | Super Crost 5438       | 124   | 146        | 67          | 137          | 118    | 152   | 38           |
| w                | 2X    | SeedTec H-2625W        | 124   | 144        | 56          | 158          | 108    | 152   | 37           |
| y                | 2X    | FFR 810C               | 123   | 150        | 68          | 136          | 108    | 153   | 42           |
|                  |       |                        |       |            |             |              |        |       |              |
| w                | 3X    | Funk G-6054W           | 121   | 153        | 61          | 142          | 103    | 148   | 30           |
| y                | 2X    | T.E. 6995A             | 121   | 150        | 64          | 140          | 110    | 142   | 37           |
| y                | 2X    | Cargill 973            | 121   | 150        | 68          | 126          | 114    | 146   | 45           |
| y                | 2X    | Asgrow/O's Gold RX798  | 120   | 148        | 60          | 139          | 102    | 150   | 36           |
|                  |       |                        |       |            |             |              |        |       |              |
| L.S.D. (.05)     |       |                        | 15.4  | 16.2       | 10.4        | N.S.         | 18.0   | 15.4  | N.S.         |
| C.V. %           |       |                        | 9.1   | 7.1        | 10.8        | 11.5         | 11.1   | 7.2   | 18.6         |
| Avg.             |       |                        | 128.0 | 161.3      | 68.5        | 144.6        | 114.5  | 151.3 | 39.8         |

1/ Sequatchie silt loam (2% to 5% slopes).

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

3/ Huntington silt loam (2% to 5% slopes).

4/ Falaya silt loam (2% to 5% slopes).

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

6/ Not included in average because of high C.V. due to severe drought.

Table 4. Corn: Yield and other characteristics of 24 extra medium-season hybrids evaluated at five locations in 1986.

| Color Cross  |     | Hybrid                 | Avg.<br>Yield<br>Bu/A | Grain<br>quality<br>Rating <sup>1/</sup> | Husk<br>cover<br>Rating <sup>1/</sup> | Ear<br>ht.<br>In. | Grain<br>moisture<br>at<br>harvest<br>% |
|--------------|-----|------------------------|-----------------------|------------------------------------------|---------------------------------------|-------------------|-----------------------------------------|
| y            | 2X  | McCurdy 7800           | 141                   | 3.5                                      | 4.0                                   | 50                | 16.0                                    |
| y            | 2X  | T.E. 6996              | 138                   | 2.5                                      | 4.5                                   | 54                | 16.2                                    |
| y            | 2X  | Pioneer brand 3320     | 138                   | 2.0                                      | 3.0                                   | 44                | 15.8                                    |
| y            | 2X  | Agri Pro HP 77         | 136                   | 2.5                                      | 3.5                                   | 52                | 15.8                                    |
| y            | 2X  | T.E. 6994              | 133                   | 3.0                                      | 2.5                                   | 58                | 15.4                                    |
| y            | 2X  | SeedTec ST-7750        | 132                   | 3.0                                      | 2.0                                   | 52                | 15.0                                    |
| w            | 2X  | Asgrow/O's Gold RX956W | 129                   | 2.0                                      | 3.5                                   | 52                | 17.2                                    |
| y            | 2X  | SeedTec H-2601         | 129                   | 4.5                                      | 5.0                                   | 51                | 14.9                                    |
| y            | 2X  | Asgrow/O's Gold RX860  | 129                   | 3.0                                      | 2.5                                   | 49                | 15.8                                    |
| y            | 2X  | Zimmerman Z-28         | 129                   | 3.5                                      | 4.5                                   | 55                | 14.8                                    |
| y            | 2X  | Cargill 971            | 129                   | 4.0                                      | 3.0                                   | 50                | 15.2                                    |
| y            | 2X  | Princeton SX865        | 129                   | 2.0                                      | 2.5                                   | 54                | 16.0                                    |
| y            | M2X | Super Crost 5454       | 127                   | 3.5                                      | 4.0                                   | 53                | 14.7                                    |
| y            | M2X | Gold Medal 984         | 126                   | 2.5                                      | 2.0                                   | 51                | 15.6                                    |
| y            | M2X | Gold Medal 3357        | 126                   | 4.0                                      | 3.5                                   | 56                | 15.1                                    |
| y            | 2X  | Agri Pro 830           | 125                   | 3.0                                      | 3.5                                   | 55                | 15.4                                    |
| y            | M2X | Gold Medal 335         | 124                   | 3.5                                      | 5.0                                   | 57                | 15.4                                    |
| y            | 2X  | Super Crost 5438       | 124                   | 4.0                                      | 4.5                                   | 52                | 15.0                                    |
| w            | 2X  | SeedTec H-2625W        | 124                   | 2.5                                      | 3.0                                   | 52                | 16.6                                    |
| y            | 2X  | FFR 810C               | 123                   | 2.0                                      | 4.0                                   | 54                | 15.4                                    |
| w            | 3X  | Funk G-6054W           | 121                   | 2.5                                      | 3.0                                   | 56                | 15.8                                    |
| y            | 2X  | T.E. 6995A             | 121                   | 3.5                                      | 4.0                                   | 53                | 14.4                                    |
| y            | 2X  | Cargill 973            | 121                   | 2.5                                      | 3.5                                   | 46                | 15.0                                    |
| y            | 2X  | Asgrow/O's Gold RX798  | 120                   | 3.0                                      | 3.0                                   | 52                | 15.2                                    |
| L.S.D. (.05) |     |                        | 15.4                  |                                          |                                       |                   |                                         |
| C.V. %       |     |                        | 9.1                   |                                          |                                       |                   |                                         |
| Avg.         |     |                        | 128.0                 |                                          |                                       |                   |                                         |

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

Table 5. Corn: Yield of medium-season hybrids evaluated at five locations for two years (1985-86).

| Color            | Cross | Hybrid                | 2 Yr.<br>Avg. | Knox-<br>ville | Spring<br>Hill | Spring-<br>field | Martin | Milan |
|------------------|-------|-----------------------|---------------|----------------|----------------|------------------|--------|-------|
| Bushels per acre |       |                       |               |                |                |                  |        |       |
| y                | 2X    | Pioneer brand 3147    | 152           | 160            | 102            | 178              | 153    | 168   |
| y                | 2X    | DeKalb-Pfizer DK-689  | 150           | 152            | 104            | 157              | 159    | 178   |
| y                | 2X    | DeKalb-Pfizer DK-748  | 149           | 153            | 96             | 161              | 147    | 188   |
| y                | 2X    | Stauffer 8500         | 148           | 146            | 100            | 161              | 157    | 178   |
| y                | 2X    | Zimmerman Z-27Y       | 148           | 138            | 96             | 164              | 165    | 177   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | FFR 811C              | 146           | 138            | 96             | 153              | 154    | 191   |
| y                | 2X    | SeedTec H-2686A       | 145           | 143            | 92             | 162              | 152    | 176   |
| y                | 2X    | McCurdy 8150          | 145           | 144            | 96             | 153              | 160    | 171   |
| y                | 2X    | Asgrow/O's Gold 5509  | 144           | 148            | 84             | 162              | 135    | 190   |
| y                | 3X    | Funk G-4765           | 144           | 148            | 97             | 155              | 145    | 172   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | Pioneer brand 3320    | 143           | 144            | 100            | 147              | 155    | 171   |
| y                | 2X    | Beck's 85XA           | 143           | 150            | 102            | 153              | 142    | 169   |
| y                | 2X    | McCurdy 84AA          | 143           | 140            | 90             | 158              | 148    | 180   |
| y                | 2X    | RA 1502               | 142           | 148            | 91             | 150              | 149    | 170   |
| y                | 2X    | Pioneer brand 3184    | 141           | 143            | 98             | 155              | 143    | 164   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | Asgrow/O's Gold RX892 | 140           | 142            | 93             | 148              | 144    | 174   |
| y                | 3X    | Stauffer S7759        | 140           | 137            | 94             | 140              | 152    | 179   |
| y                | 2X    | Cargill 967           | 140           | 141            | 87             | 156              | 145    | 171   |
| y                | 2X    | Coker 21              | 140           | 147            | 86             | 150              | 138    | 177   |
| y                | M2X   | Coker 19A             | 139           | 135            | 89             | 143              | 154    | 172   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | P.A.G. SX352          | 139           | 133            | 87             | 145              | 153    | 174   |
| y                | 2X    | Coker 8625            | 138           | 143            | 94             | 136              | 158    | 161   |
| y                | 2X    | SeedTec H-2675        | 138           | 143            | 90             | 144              | 146    | 168   |
| y                | M2X   | Funk G-4733           | 138           | 148            | 92             | 154              | 136    | 162   |
| y                | 2X    | N.K. PX 9581          | 138           | 140            | 94             | 143              | 142    | 172   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | N.K. PX 9540          | 138           | 135            | 94             | 140              | 154    | 168   |
| y                | M2X   | TN 82035              | 137           | 142            | 88             | 150              | 136    | 170   |
| w                | 3X    | Asgrow/O's Gold 2680W | 136           | 140            | 94             | 150              | 130    | 165   |
| y                | 2X    | FFR 848C              | 134           | 131            | 94             | 142              | 142    | 163   |
| y                | M2X   | Funk G-4734           | 134           | 137            | 84             | 143              | 136    | 167   |
|                  |       |                       |               |                |                |                  |        |       |
| w                | 2X    | TN 850003             | 134           | 134            | 88             | 139              | 149    | 161   |
| y                | M2X   | Funk G-4614           | 133           | 140            | 92             | 139              | 145    | 150   |

Table 6. Corn: Yield and other characteristics of medium-season hybrids evaluated at five locations for two years (1985-86).

| Color | Cross | Hybrid                | 2 Yr.                 | Erect<br>plants | Grain<br>quality     | Husk<br>cover        | Ear<br>ht. | Grain                     |
|-------|-------|-----------------------|-----------------------|-----------------|----------------------|----------------------|------------|---------------------------|
|       |       |                       | Avg.<br>Yield<br>Bu/A |                 |                      |                      |            | moisture<br>at<br>harvest |
|       |       |                       |                       | %               | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In.        | %                         |
| y     | 2X    | Pioneer brand 3147    | 152                   | 90              | 4.4                  | 3.8                  | 55         | 19.5                      |
| y     | 2X    | DeKalb-Pfizer DK-689  | 150                   | 97              | 2.8                  | 3.0                  | 56         | 17.9                      |
| y     | 2X    | DeKalb-Pfizer DK-748  | 149                   | 95              | 3.6                  | 2.9                  | 57         | 18.3                      |
| y     | 2X    | Stauffer 8500         | 148                   | 94              | 2.4                  | 4.3                  | 53         | 18.5                      |
| y     | 2X    | Zimmerman Z-27Y       | 148                   | 93              | 2.9                  | 4.1                  | 56         | 16.7                      |
| y     | 2X    | FFR 811C              | 146                   | 97              | 4.1                  | 4.8                  | 51         | 17.6                      |
| y     | 2X    | SeedTec H-2686A       | 145                   | 94              | 3.3                  | 3.4                  | 53         | 18.9                      |
| y     | 2X    | McCurdy 8150          | 145                   | 94              | 3.1                  | 2.9                  | 58         | 19.6                      |
| y     | 2X    | Asgrow/O's Gold 5509  | 144                   | 89              | 3.3                  | 3.0                  | 53         | 19.4                      |
| y     | 3X    | Funk G-4765           | 144                   | 94              | 3.4                  | 3.4                  | 54         | 19.2                      |
| y     | 2X    | Pioneer brand 3320    | 143                   | 95              | 2.4                  | 3.4                  | 52         | 17.6                      |
| y     | 2X    | Beck's 85XA           | 143                   | 99              | 3.2                  | 2.8                  | 52         | 19.0                      |
| y     | 2X    | McCurdy 84AA          | 143                   | 88              | 3.3                  | 3.6                  | 52         | 18.8                      |
| y     | 2X    | RA 1502               | 142                   | 90              | 3.2                  | 3.6                  | 50         | 18.1                      |
| y     | 2X    | Pioneer brand 3184    | 141                   | 98              | 3.6                  | 4.0                  | 50         | 19.3                      |
| y     | 2X    | Asgrow/O's Gold RX892 | 140                   | 92              | 3.1                  | 3.6                  | 54         | 18.1                      |
| y     | 3X    | Stauffer S7759        | 140                   | 97              | 3.4                  | 4.4                  | 55         | 16.6                      |
| y     | 2X    | Cargill 967           | 140                   | 94              | 4.4                  | 4.6                  | 54         | 16.6                      |
| y     | 2X    | Coker 21              | 140                   | 90              | 3.4                  | 3.5                  | 52         | 19.3                      |
| y     | M2X   | Coker 19A             | 139                   | 95              | 4.1                  | 3.6                  | 53         | 17.9                      |
| y     | 2X    | P.A.G. SX352          | 139                   | 93              | 3.4                  | 4.3                  | 54         | 16.1                      |
| y     | 2X    | Coker 8625            | 138                   | 98              | 2.9                  | 3.3                  | 50         | 16.1                      |
| y     | 2X    | SeedTec H-2675        | 138                   | 89              | 3.3                  | 2.9                  | 51         | 18.0                      |
| y     | M2X   | Funk G-4733           | 138                   | 95              | 2.6                  | 3.1                  | 52         | 19.4                      |
| y     | 2X    | N.K. PX 9581          | 138                   | 93              | 3.0                  | 3.4                  | 52         | 18.0                      |
| y     | 2X    | N.K. PX 9540          | 138                   | 96              | 2.5                  | 3.4                  | 49         | 16.3                      |
| y     | M2X   | TN 82035              | 137                   | 95              | 2.8                  | 3.9                  | 52         | 17.8                      |
| w     | 3X    | Asgrow/O's Gold 2680W | 136                   | 89              | 3.3                  | 2.7                  | 57         | 20.0                      |
| y     | 2X    | FFR 848C              | 134                   | 96              | 3.2                  | 3.2                  | 56         | 17.7                      |
| y     | M2X   | Funk G-4734           | 134                   | 96              | 2.7                  | 3.4                  | 54         | 19.8                      |
| w     | 2X    | TN 850003             | 134                   | 96              | 3.3                  | 2.9                  | 53         | 17.5                      |
| y     | M2X   | Funk G-4614           | 133                   | 94              | 2.9                  | 3.4                  | 53         | 18.0                      |

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

Table 7. Corn: Yield of medium-season hybrids evaluated at five locations for three years (1984-86).

| Color            | Cross | Hybrid                | 3 Yr.<br>Avg. | Knox-<br>ville | Spring<br>Hill | Spring-<br>field | Martin | Milan |
|------------------|-------|-----------------------|---------------|----------------|----------------|------------------|--------|-------|
| Bushels per acre |       |                       |               |                |                |                  |        |       |
| y                | 2X    | Pioneer brand 3147    | 162           | 169            | 121            | 181              | 166    | 174   |
| y                | 2X    | DeKalb-Pfizer DK-689  | 158           | 158            | 119            | 159              | 168    | 184   |
| y                | 2X    | Zimmerman Z-27Y       | 157           | 148            | 116            | 170              | 174    | 177   |
| y                | 2X    | Asgrow/O's Gold 5509  | 153           | 157            | 104            | 167              | 149    | 185   |
| y                | 3X    | Funk G-4765           | 152           | 155            | 109            | 160              | 161    | 176   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | Coker 21              | 151           | 158            | 107            | 156              | 150    | 182   |
| y                | 2X    | Pioneer brand 3320    | 150           | 151            | 113            | 151              | 163    | 174   |
| y                | 2X    | McCurdy 8150          | 150           | 152            | 107            | 158              | 166    | 170   |
| y                | 2X    | RA 1502               | 150           | 155            | 109            | 157              | 157    | 172   |
| y                | 2X    | McCurdy 84AA          | 149           | 147            | 102            | 160              | 158    | 179   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | Beck's 85XA           | 149           | 152            | 116            | 157              | 154    | 167   |
| y                | 2X    | SeedTec H-2686A       | 149           | 154            | 101            | 162              | 155    | 172   |
| y                | M2X   | Funk G-4733           | 148           | 153            | 109            | 157              | 150    | 168   |
| y                | 2X    | Pioneer brand 3184    | 147           | 149            | 111            | 160              | 147    | 167   |
| y                | 2X    | Cargill 967           | 145           | 140            | 97             | 152              | 157    | 173   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | N.K. PX 9581          | 144           | 143            | 107            | 151              | 154    | 167   |
| y                | 2X    | FFR 811C              | 144           | 136            | 100            | 147              | 158    | 178   |
| y                | 3X    | Stauffer S7759        | 144           | 137            | 104            | 148              | 165    | 170   |
| y                | M2X   | Coker 19A             | 143           | 141            | 102            | 148              | 155    | 170   |
| y                | M2X   | Funk G-4734           | 142           | 145            | 102            | 149              | 146    | 169   |
|                  |       |                       |               |                |                |                  |        |       |
| y                | 2X    | P.A.G. SX352          | 142           | 133            | 100            | 145              | 164    | 167   |
| y                | 2X    | FFR 848C              | 138           | 138            | 106            | 146              | 147    | 159   |
| w                | 3X    | Asgrow/O's Gold 2680W | 136           | 139            | 98             | 149              | 138    | 157   |

Table 8. Corn: Yield and other characteristics of medium-season hybrids evaluated at five locations for three years (1984-86).

| Color | Cross | Hybrid                | 3 Yr.                 | Erect<br>plants | Grain<br>quality     | Husk<br>cover        | Ear<br>ht. | Grain                     |
|-------|-------|-----------------------|-----------------------|-----------------|----------------------|----------------------|------------|---------------------------|
|       |       |                       | Avg.<br>Yield<br>Bu/A |                 |                      |                      |            | moisture<br>at<br>harvest |
|       |       |                       |                       | %               | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In.        | %                         |
| y     | 2X    | Pioneer brand 3147    | 162                   | 92              | 4.4                  | 3.9                  | 56         | 20.7                      |
| y     | 2X    | DeKalb-Pfizer DK-689  | 158                   | 97              | 2.6                  | 2.7                  | 55         | 19.1                      |
| y     | 2X    | Zimmerman Z-27Y       | 157                   | 95              | 2.7                  | 3.8                  | 57         | 17.6                      |
| y     | 2X    | Asgrow/O's Gold 5509  | 153                   | 93              | 3.4                  | 2.9                  | 52         | 20.4                      |
| y     | 3X    | Funk G-4765           | 152                   | 95              | 3.5                  | 3.2                  | 55         | 20.1                      |
| y     | 2X    | Coker 21              | 151                   | 93              | 3.6                  | 3.2                  | 52         | 20.4                      |
| y     | 2X    | Pioneer brand 3320    | 150                   | 97              | 2.5                  | 3.0                  | 52         | 18.7                      |
| y     | 2X    | McCurdy 8150          | 150                   | 94              | 3.1                  | 2.8                  | 58         | 20.4                      |
| y     | 2X    | RA 1502               | 150                   | 93              | 3.2                  | 3.5                  | 51         | 18.8                      |
| y     | 2X    | McCurdy 84AA          | 149                   | 91              | 3.5                  | 3.5                  | 52         | 19.8                      |
| y     | 2X    | Beck's 85XA           | 149                   | 99              | 3.2                  | 2.9                  | 52         | 20.1                      |
| y     | 2X    | SeedTec H-2686A       | 149                   | 94              | 3.4                  | 3.7                  | 54         | 20.0                      |
| y     | M2X   | Funk G-4733           | 148                   | 96              | 2.5                  | 2.9                  | 52         | 20.3                      |
| y     | 2X    | Pioneer brand 3184    | 147                   | 98              | 3.5                  | 4.4                  | 50         | 20.2                      |
| y     | 2X    | Cargill 967           | 145                   | 94              | 4.6                  | 4.5                  | 54         | 17.5                      |
| y     | 2X    | N.K. PX 9581          | 144                   | 94              | 3.2                  | 3.4                  | 52         | 18.9                      |
| y     | 2X    | FFR 811C              | 144                   | 97              | 4.2                  | 4.8                  | 51         | 18.8                      |
| y     | 3X    | Stauffer S7759        | 144                   | 97              | 3.5                  | 4.5                  | 55         | 17.4                      |
| y     | M2X   | Coker 19A             | 143                   | 96              | 3.8                  | 3.3                  | 53         | 19.0                      |
| y     | M2X   | Funk G-4734           | 142                   | 96              | 2.7                  | 3.2                  | 54         | 20.9                      |
| y     | 2X    | P.A.G. SX352          | 142                   | 94              | 3.5                  | 4.3                  | 54         | 17.2                      |
| y     | 2X    | FFR 848C              | 138                   | 95              | 2.9                  | 3.1                  | 56         | 18.7                      |
| w     | 3X    | Asgrow/O's Gold 2680W | 136                   | 90              | 3.8                  | 3.0                  | 58         | 20.5                      |

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

Table 9. Corn: Yield of full-season hybrids evaluated at four locations in 1986.

| Color        | Cross | Hybrid                  | Avg.  | 1/<br>Knox-<br>ville | 2/<br>Spring<br>Hill | 3/<br>Jackson | 4/<br>Ames<br>Plantation |
|--------------|-------|-------------------------|-------|----------------------|----------------------|---------------|--------------------------|
|              |       |                         |       | Bushels per acre     |                      |               |                          |
| y            | 2X    | Pioneer brand 3165      | 120   | 154                  | 69                   | 124           | 133                      |
| y            | 2X    | Cargill 980             | 118   | 132                  | 70                   | 125           | 143                      |
| y            | 2X    | Bailey SX651            | 116   | 134                  | 79                   | 115           | 135                      |
| y            | 2X    | Pioneer brand 3187      | 116   | 136                  | 82                   | 119           | 126                      |
| y            | 2X    | GK 850                  | 113   | 136                  | 67                   | 120           | 129                      |
| w            | 2X    | TN 840023               | 112   | 138                  | 80                   | 114           | 119                      |
| y            | 2X    | GK 900                  | 112   | 132                  | 75                   | 111           | 130                      |
| y            | 2X    | P.A.G. SX383            | 111   | 128                  | 68                   | 114           | 135                      |
| w            |       | Pioneer brand 3144W     | 111   | 126                  | 73                   | 104           | 142                      |
| y            | 2X    | Gold Medal 1070         | 111   | 135                  | 74                   | 116           | 117                      |
| y            | 2X    | Jacques 8400            | 110   | 136                  | 80                   | 104           | 123                      |
| y            | 2X    | Stauffer S8655          | 110   | 130                  | 82                   | 107           | 123                      |
| y            | 2X    | McCurdy 8172            | 110   | 129                  | 68                   | 123           | 119                      |
| y            | M2X   | Bailey SX684            | 109   | 139                  | 75                   | 107           | 114                      |
| y            | 2X    | Paymaster 8990          | 108   | 124                  | 67                   | 118           | 125                      |
| w            | 2X    | Zimmerman Z-60W         | 108   | 134                  | 67                   | 115           | 116                      |
| w            | 2X    | Zimmerman Z-14W         | 108   | 132                  | 68                   | 107           | 124                      |
| y            | M2X   | Super Crost Ell8        | 106   | 121                  | 74                   | 109           | 121                      |
| w            | 3X    | GK 927W                 | 105   | 143                  | 60                   | 92            | 123                      |
| y            | M2X   | Funk G-4858             | 105   | 136                  | 61                   | 105           | 117                      |
| y            | 2X    | DeKalb-Pfizer DK-789    | 104   | 136                  | 65                   | 96            | 121                      |
| w            |       | Zimmerman Z-54          | 104   | 121                  | 64                   | 106           | 123                      |
| w            | 2X    | FFR 925W                | 104   | 132                  | 60                   | 105           | 118                      |
| w            | 2X    | FFR 717W                | 103   | 120                  | 66                   | 109           | 117                      |
| y            | M2X   | Sunbelt 1816            | 103   | 134                  | 65                   | 97            | 115                      |
| y            | 2X    | Pioneer brand 3147      | 102   | 117                  | 65                   | 97            | 131                      |
| w            | 3X    | DeKalb-Pfizer DK-77W    | 102   | 138                  | 57                   | 99            | 115                      |
| y            | M3X   | Funk G-4868             | 102   | 144                  | 54                   | 99            | 110                      |
| y            | 2X    | Sun Prairie SP550       | 102   | 114                  | 72                   | 102           | 115                      |
| y            | 2X    | N.K. PX95               | 99    | 117                  | 54                   | 108           | 118                      |
| y            | 2X    | Super Crost Ell9        | 98    | 127                  | 67                   | 101           | 100                      |
| w            | 2X    | Zimmerman Z-11W         | 98    | 126                  | 53                   | 87            | 127                      |
| w            | M2X   | T82-2051                | 98    | 137                  | 50                   | 87            | 115                      |
| w            | 2X    | Princeton SX906         | 96    | 120                  | 63                   | 95            | 106                      |
| y            | 2X    | Jacques 8700            | 96    | 112                  | 57                   | 100           | 115                      |
| y            | M2X   | Gold Medal 770          | 95    | 122                  | 64                   | 84            | 112                      |
| y            | 2X    | Stauffer S8818          | 95    | 111                  | 52                   | 112           | 105                      |
| w            | 2X    | Princeton SX933         | 94    | 113                  | 59                   | 99            | 104                      |
| w            | 3X    | FFR 929W                | 93    | 114                  | 54                   | 84            | 118                      |
| y            | M2X   | FFR 955C                | 92    | 102                  | 51                   | 99            | 115                      |
| y            | 3X    | Asgrow/O's Gold 5L44Ell | 87    | 107                  | 56                   | 90            | 96                       |
| w            | 3X    | Funk G-4787W            | 76    | 105                  | 46                   | 65            | 87                       |
| L.S.D. (.05) |       |                         | 18.2  | 21.2                 | 13.7                 | 17.3          | 15.7                     |
| C.V. %       |       |                         | 11.2  | 11.9                 | 15.0                 | 11.9          | 9.4                      |
| Avg.         |       |                         | 103.9 | 127.3                | 65.1                 | 104.0         | 119.0                    |

1/Sequatchie silt loam (2% to 5% slopes).

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

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

4/Loring silt loam (2% to 5% slopes).

Table 10. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations in 1986.

| Color        | Cross | Hybrid                  | Avg.  | Erect  | Grain                | Husk                 | Ear | Grain      |
|--------------|-------|-------------------------|-------|--------|----------------------|----------------------|-----|------------|
|              |       |                         | Yield | plants | quality              | cover                | ht. | moisture   |
|              |       |                         | Bu/A  | %      | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In. | at harvest |
| y            | 2X    | Pioneer brand 3165      | 120   | 99     | 2.8                  | 3.2                  | 54  | 22.5       |
| y            | 2X    | Cargill 980             | 118   | 89     | 3.5                  | 1.8                  | 54  | 22.9       |
| y            | 2X    | Bailey SX651            | 116   | 98     | 4.0                  | 4.5                  | 55  | 20.5       |
| y            | 2X    | Pioneer brand 3187      | 116   | 96     | 2.6                  | 3.2                  | 54  | 21.7       |
| y            | 2X    | GK 850                  | 113   | 95     | 2.8                  | 4.5                  | 53  | 21.3       |
| w            | 2X    | TN 840023               | 112   | 88     | 3.2                  | 3.2                  | 57  | 22.5       |
| y            | 2X    | GK 900                  | 112   | 97     | 4.0                  | 4.5                  | 53  | 22.6       |
| y            | 2X    | P.A.G. SX383            | 111   | 87     | 3.8                  | 3.5                  | 53  | 22.6       |
| w            |       | Pioneer brand 3144W     | 111   | 96     | 3.5                  | 4.0                  | 59  | 22.1       |
| y            | 2X    | Gold Medal 1070         | 111   | 99     | 3.2                  | 2.5                  | 53  | 20.5       |
| y            | 2X    | Jacques 8400            | 110   | 97     | 3.8                  | 5.0                  | 51  | 22.7       |
| y            | 2X    | Stauffer S8655          | 110   | 97     | 4.0                  | 3.2                  | 54  | 20.2       |
| y            | 2X    | McCurdy 8172            | 110   | 96     | 3.0                  | 4.0                  | 54  | 23.9       |
| y            | M2X   | Bailey SX684            | 109   | 97     | 3.5                  | 2.8                  | 55  | 21.6       |
| y            | 2X    | Paymaster 8990          | 108   | 90     | 3.7                  | 3.2                  | 52  | 22.9       |
| w            | 2X    | Zimmerman Z-60W         | 108   | 93     | 3.3                  | 2.8                  | 56  | 22.7       |
| w            | 2X    | Zimmerman Z-14W         | 108   | 89     | 3.2                  | 2.5                  | 54  | 22.3       |
| y            | M2X   | Super Crost Ell8        | 106   | 97     | 3.8                  | 3.2                  | 51  | 19.4       |
| w            | 3X    | GK 927W                 | 105   | 84     | 3.4                  | 3.0                  | 55  | 25.8       |
| y            | M2X   | Funk G-4858             | 105   | 93     | 3.5                  | 3.2                  | 54  | 24.6       |
| y            | 2X    | DeKalb-Pfizer DK-789    | 104   | 92     | 3.8                  | 3.5                  | 53  | 22.6       |
| w            |       | Zimmerman Z-54          | 104   | 92     | 3.0                  | 2.5                  | 55  | 23.0       |
| w            | 2X    | FFR 925W                | 104   | 94     | 3.6                  | 2.2                  | 57  | 22.9       |
| w            | 2X    | FFR 717W                | 103   | 81     | 3.5                  | 3.0                  | 50  | 24.1       |
| y            | M2X   | Sunbelt 1816            | 103   | 96     | 3.8                  | 3.8                  | 56  | 24.6       |
| y            | 2X    | Pioneer brand 3147      | 102   | 94     | 4.8                  | 3.8                  | 53  | 22.5       |
| w            | 3X    | DeKalb-Pfizer DK-77W    | 102   | 94     | 3.3                  | 2.8                  | 60  | 23.2       |
| y            | M3X   | Funk G-4868             | 102   | 97     | 3.5                  | 2.5                  | 56  | 28.4       |
| y            | 2X    | Sun Prairie SP550       | 102   | 90     | 4.0                  | 4.8                  | 50  | 21.4       |
| y            | 2X    | N.K. PX95               | 99    | 86     | 3.4                  | 3.5                  | 58  | 22.8       |
| y            | 2X    | Super Crost Ell9        | 98    | 98     | 4.0                  | 3.0                  | 55  | 21.0       |
| w            | 2X    | Zimmerman Z-11W         | 98    | 91     | 3.6                  | 3.0                  | 56  | 24.8       |
| w            | M2X   | T82-2051                | 98    | 97     | 3.5                  | 2.2                  | 58  | 25.7       |
| w            | 2X    | Princeton SX906         | 96    | 94     | 4.0                  | 3.0                  | 55  | 25.6       |
| y            | 2X    | Jacques 8700            | 96    | 93     | 3.8                  | 3.2                  | 52  | 22.5       |
| y            | M2X   | Gold Medal 770          | 95    | 92     | 4.0                  | 4.8                  | 54  | 21.6       |
| y            | 2X    | Stauffer S8818          | 95    | 91     | 3.8                  | 3.5                  | 52  | 23.7       |
| w            | 2X    | Princeton SX933         | 94    | 90     | 3.7                  | 3.8                  | 54  | 25.0       |
| w            | 3X    | FFR 929W                | 93    | 91     | 3.6                  | 2.5                  | 57  | 26.0       |
| y            | M2X   | FFR 955C                | 92    | 93     | 4.0                  | 3.0                  | 57  | 23.8       |
| y            | 3X    | Asgrow/O's Gold 5L44Ell | 87    | 96     | 3.5                  | 3.8                  | 55  | 21.5       |
| w            | 3X    | Funk G-4787W            | 76    | 95     | 4.6                  | 2.5                  | 57  | 26.0       |
| L.S.D. (.05) |       |                         | 18.2  |        |                      |                      |     |            |
| C.V. %       |       |                         | 11.2  |        |                      |                      |     |            |
| Avg.         |       |                         | 103.9 |        |                      |                      |     |            |

<sup>1/</sup>Ratings based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 11. Corn: Yield of full-season hybrids evaluated at four locations for two years (1985-86).

| Color            | Cross | Hybrid               | 2 Yr.<br>Avg. | Knox-<br>ville | Spring<br>Hill | Jackson | Ames<br>Plantation |
|------------------|-------|----------------------|---------------|----------------|----------------|---------|--------------------|
| Bushels per acre |       |                      |               |                |                |         |                    |
| y                | 2X    | Pioneer brand 3165   | 135           | 157            | 109            | 127     | 146                |
| y                | 2X    | Cargill 980          | 123           | 141            | 94             | 124     | 134                |
| w                | 2X    | TN 840023            | 122           | 142            | 101            | 116     | 130                |
| y                | 2X    | Jacques 8400         | 122           | 144            | 99             | 111     | 132                |
| y                | 2X    | GK 900               | 121           | 142            | 99             | 114     | 129                |
|                  |       |                      |               |                |                |         |                    |
| w                | 2X    | Zimmerman Z-14W      | 120           | 143            | 94             | 114     | 130                |
| y                | M3X   | Funk G-4868          | 120           | 147            | 95             | 109     | 130                |
| y                | 2X    | Pioneer brand 3147   | 120           | 134            | 95             | 108     | 143                |
| y                | M3X   | Funk G-4858          | 120           | 142            | 93             | 111     | 133                |
| y                | 2X    | P.A.G. SX383         | 118           | 136            | 94             | 113     | 130                |
|                  |       |                      |               |                |                |         |                    |
| y                | 2X    | GK 850               | 118           | 142            | 87             | 113     | 130                |
| w                | 2X    | Zimmerman Z-60W      | 118           | 141            | 94             | 108     | 128                |
| y                | 2X    | McCurdy 8172         | 118           | 135            | 90             | 120     | 126                |
| y                | 2X    | Dekalb-Pfizer DK-789 | 118           | 142            | 96             | 103     | 130                |
| y                | 2X    | Paymaster 8990       | 117           | 138            | 88             | 114     | 128                |
|                  |       |                      |               |                |                |         |                    |
| w                | 2X    | Zimmerman Z-11W      | 117           | 140            | 90             | 97      | 140                |
| w                | 3X    | GK 927W              | 116           | 145            | 82             | 101     | 137                |
| w                | 3X    | DeKalb-Pfizer DK-77W | 114           | 142            | 87             | 105     | 122                |
| y                | M2X   | FFR 955C             | 112           | 123            | 90             | 103     | 131                |
| w                | M2X   | T82-2051             | 111           | 140            | 85             | 96      | 124                |
|                  |       |                      |               |                |                |         |                    |
| w                | 2X    | FFR 917W             | 110           | 130            | 82             | 106     | 122                |
| w                | 3X    | FFR 929W             | 110           | 129            | 83             | 97      | 129                |
| y                | 2X    | Jacques 8700         | 109           | 124            | 82             | 110     | 120                |
| y                | 2X    | Stauffer S8818       | 109           | 129            | 80             | 112     | 115                |

Table 12. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations for two years (1985-86).

| Color | Cross | Hybrid                    | 2 Yr.                 | Erect<br>plants | Grain<br>quality     | Husk<br>cover        | Ear<br>ht. | Grain                     |
|-------|-------|---------------------------|-----------------------|-----------------|----------------------|----------------------|------------|---------------------------|
|       |       |                           | Avg.<br>Yield<br>Bu/A |                 |                      |                      |            | moisture<br>at<br>harvest |
|       |       |                           |                       | %               | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In.        | %                         |
| y     | 2X    | Pioneer brand 3165        | 135                   | 99              | 2.7                  | 3.7                  | 52         | 22.4                      |
| y     | 2X    | Cargill 980               | 123                   | 94              | 3.0                  | 3.2                  | 51         | 23.2                      |
| w     | 2X    | TN 840023                 | 122                   | 91              | 3.4                  | 3.1                  | 54         | 21.7                      |
| y     | 2X    | Jacques 8400              | 122                   | 96              | 3.1                  | 4.8                  | 48         | 22.4                      |
| y     | 2X    | GK 900                    | 121                   | 98              | 3.1                  | 4.5                  | 49         | 22.2                      |
| w     | 2X    | Zimmerman Z-14W           | 120                   | 94              | 2.9                  | 2.4                  | 52         | 22.9                      |
| y     | M3X   | Funk G-4868 <sup>2/</sup> | 120                   | 97              | 3.0                  | 3.2                  | 54         | 27.1                      |
| y     | 2X    | Pioneer brand 3147        | 120                   | 94              | 4.0                  | 3.6                  | 52         | 22.8                      |
| y     | M3X   | Funk G-4858               | 120                   | 96              | 3.3                  | 3.8                  | 51         | 23.7                      |
| y     | 2X    | P.A.G. SX383              | 118                   | 92              | 3.2                  | 3.3                  | 50         | 22.6                      |
| y     | 2X    | GK 850                    | 118                   | 97              | 3.2                  | 4.1                  | 50         | 21.4                      |
| w     | 2X    | Zimmerman Z-60W           | 118                   | 96              | 3.1                  | 2.7                  | 54         | 23.0                      |
| y     | 2X    | McCurdy 8172              | 118                   | 96              | 2.8                  | 3.8                  | 51         | 23.4                      |
| y     | 2X    | Dekalb-Pfizer DK-789      | 118                   | 94              | 3.3                  | 4.0                  | 51         | 23.6                      |
| y     | 2X    | Paymaster 8990            | 117                   | 94              | 3.1                  | 3.6                  | 50         | 22.8                      |
| w     | 2X    | Zimmerman Z-11W           | 117                   | 91              | 2.9                  | 2.8                  | 54         | 24.1                      |
| w     | 3X    | GK 927W                   | 116                   | 89              | 3.4                  | 3.1                  | 54         | 24.4                      |
| w     | 3X    | DeKalb-Pfizer DK-77W      | 114                   | 94              | 3.4                  | 2.6                  | 57         | 23.7                      |
| y     | M2X   | FFR 955C                  | 112                   | 93              | 3.1                  | 3.4                  | 54         | 22.8                      |
| w     | M2X   | T82-2051                  | 111                   | 96              | 3.1                  | 2.5                  | 54         | 24.3                      |
| w     | 2X    | FFR 917W <sup>3/</sup>    | 110                   | 89              | 3.2                  | 3.3                  | 48         | 23.6                      |
| w     | 3X    | FFR 929W                  | 110                   | 91              | 2.9                  | 3.0                  | 54         | 24.8                      |
| y     | 2X    | Jacques 8700              | 109                   | 94              | 3.7                  | 3.4                  | 49         | 22.5                      |
| y     | 2X    | Stauffer S8818            | 109                   | 92              | 3.6                  | 3.2                  | 49         | 23.0                      |

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

<sup>2/</sup>Tested in previous years as Experimental 9002y.

<sup>3/</sup>Tested in previous years as Experimental 18509.

Table 13. Corn: Yield of full-season hybrids evaluated at four locations for three years (1984-86).

| Color            | Cross | Hybrid               | 3 Yr. | Knox- | Spring | Ames    |            |
|------------------|-------|----------------------|-------|-------|--------|---------|------------|
|                  |       |                      | Avg.  | ville | Hill   | Jackson | Plantation |
| Bushels per acre |       |                      |       |       |        |         |            |
| y                | 2X    | Pioneer brand 3165   | 139   | 170   | 122    | 123     | 140        |
| y                | 2X    | DeKalb-Pfizer DK-789 | 124   | 156   | 114    | 103     | 123        |
| y                | M3X   | Funk G-4858          | 124   | 153   | 106    | 113     | 124        |
| y                | 2X    | GK 900               | 124   | 149   | 111    | 113     | 122        |
| y                | 2X    | Pioneer brand 3147   | 124   | 145   | 110    | 106     | 134        |
|                  |       |                      |       |       |        |         |            |
| y                | 2X    | Cargill 980          | 124   | 151   | 107    | 110     | 126        |
| w                | 3X    | GK 927W              | 123   | 158   | 106    | 103     | 127        |
| w                | 2X    | Zimmerman Z-14W      | 123   | 155   | 107    | 108     | 119        |
| w                | 2X    | Zimmerman Z-11W      | 122   | 158   | 106    | 97      | 128        |
| y                | 2X    | McCurdy 8172         | 121   | 146   | 104    | 117     | 118        |
|                  |       |                      |       |       |        |         |            |
| y                | 2X    | Paymaster 8990       | 119   | 149   | 102    | 109     | 116        |
| y                | 2X    | GK 850               | 119   | 146   | 102    | 107     | 121        |
| y                | 2X    | P.A.G. SX383         | 119   | 142   | 102    | 109     | 122        |
| w                | 3X    | DeKalb-Pfizer DK-77W | 119   | 155   | 102    | 112     | 116        |
| y                | M2X   | FFR 955C             | 116   | 141   | 102    | 101     | 121        |
|                  |       |                      |       |       |        |         |            |
| w                | M2X   | T82-2051             | 116   | 152   | 104    | 92      | 114        |
| w                | 3X    | FFR 929W             | 115   | 146   | 98     | 96      | 122        |

Table 14. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations for three years (1984-86).

| Color | Cross | Hybrid               | 3 Yr.                 | Erect<br>plants | Grain                           | Husk                          | Ear<br>ht. | Grain                          |
|-------|-------|----------------------|-----------------------|-----------------|---------------------------------|-------------------------------|------------|--------------------------------|
|       |       |                      | Avg.<br>Yield<br>Bu/A |                 | quality<br>Rating <sup>1/</sup> | cover<br>Rating <sup>1/</sup> |            | moisture<br>at<br>harvest<br>% |
| y     | 2X    | Pioneer brand 3165   | 139                   | 98              | 2.8                             | 3.8                           | 51         | 22.2                           |
| y     | 2X    | DeKalb-Pfizer DK-789 | 124                   | 94              | 3.4                             | 4.0                           | 50         | 24.2                           |
| y     | M3X   | Funk G-4858          | 124                   | 95              | 3.2                             | 3.4                           | 50         | 23.7                           |
| y     | 2X    | GK 900               | 124                   | 98              | 3.0                             | 4.5                           | 49         | 22.4                           |
| y     | 2X    | Pioneer brand 3147   | 124                   | 93              | 4.0                             | 3.6                           | 50         | 23.2                           |
|       |       |                      |                       |                 |                                 |                               |            |                                |
| y     | 2X    | Cargill 980          | 124                   | 93              | 3.1                             | 3.1                           | 50         | 23.2                           |
| w     | 3X    | GK 927W              | 123                   | 88              | 3.3                             | 2.9                           | 53         | 24.2                           |
| w     | 2X    | Zimmerman Z-14W      | 123                   | 93              | 2.9                             | 2.3                           | 50         | 22.7                           |
| w     | 2X    | Zimmerman Z-11W      | 122                   | 90              | 2.9                             | 2.7                           | 54         | 24.1                           |
| y     | 2X    | McCurdy 8172         | 121                   | 95              | 2.8                             | 3.6                           | 51         | 23.5                           |
|       |       |                      |                       |                 |                                 |                               |            |                                |
| y     | 2X    | Paymaster 8990       | 119                   | 94              | 2.9                             | 3.5                           | 49         | 22.7                           |
| y     | 2X    | GK 850               | 119                   | 96              | 3.4                             | 3.9                           | 48         | 21.3                           |
| y     | 2X    | P.A.G. SX383         | 119                   | 92              | 3.2                             | 3.5                           | 49         | 22.7                           |
| w     | 3X    | DeKalb-Pfizer DK-77W | 119                   | 93              | 3.4                             | 2.5                           | 56         | 24.0                           |
| y     | M2X   | FFR 955C             | 116                   | 92              | 3.1                             | 3.3                           | 52         | 22.6                           |
|       |       |                      |                       |                 |                                 |                               |            |                                |
| w     | M2X   | T82-2051             | 116                   | 95              | 3.0                             | 2.2                           | 54         | 24.2                           |
| w     | 3X    | FFR 929W             | 115                   | 91              | 2.9                             | 3.1                           | 53         | 24.3                           |

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

Table 15. Corn: Yield of 26 early-maturing hybrids evaluated at four locations in 1986.

| Color        | Cross | Hybrid                  | Avg.  | 1/<br>Knox-<br>ville | 2/<br>Martin | 2/<br>Milan | 3/<br>Ames<br>Plantation |
|--------------|-------|-------------------------|-------|----------------------|--------------|-------------|--------------------------|
|              |       |                         |       | Bushels per acre     |              |             |                          |
| y            | 2X    | Asgrow/O's Gold 2570    | 137   | 147                  | 109          | 166         | 127                      |
| y            | 2X    | Pioneer brand 3389      | 137   | 141                  | 125          | 166         | 117                      |
| y            | 2X    | DeKalb-Pfizer DK-636    | 137   | 133                  | 132          | 157         | 126                      |
| y            | 2X    | Asgrow/O's Gold 5L34All | 136   | 155                  | 113          | 167         | 109                      |
| y            | 2X    | Pioneer brand 3358      | 136   | 139                  | 118          | 161         | 125                      |
|              |       |                         |       |                      |              |             |                          |
| y            | 2X    | DeKalb-Pfizer DK-656    | 134   | 136                  | 107          | 171         | 124                      |
| y            | 2X    | Agri Pro HP 555         | 134   | 151                  | 100          | 164         | 121                      |
| y            | 2X    | Super Crost 5438        | 134   | 136                  | 100          | 168         | 130                      |
| y            | 2X    | Pioneer brand 3378      | 133   | 131                  | 116          | 166         | 118                      |
| y            | 2X    | FFR 788C                | 133   | 138                  | 100          | 171         | 121                      |
|              |       |                         |       |                      |              |             |                          |
| y            | 2X    | McCurdy 7676            | 132   | 145                  | 102          | 151         | 130                      |
| y            | 2X    | Agri Pro 818            | 131   | 138                  | 119          | 156         | 113                      |
| y            | 2X    | Asgrow/O's Gold 3344    | 131   | 133                  | 122          | 160         | 109                      |
| y            | 2X    | Beck's 65X              | 131   | 126                  | 116          | 156         | 124                      |
| y            | 2X    | Funk G-4626             | 130   | 134                  | 105          | 165         | 118                      |
|              |       |                         |       |                      |              |             |                          |
| y            | 2X    | McCurdy 83-40           | 130   | 144                  | 103          | 152         | 122                      |
| y            | 2X    | Asgrow/O's Gold RX788   | 129   | 135                  | 121          | 154         | 105                      |
| y            | 2X    | FFR 747C                | 129   | 134                  | 113          | 153         | 115                      |
| y            | 2X    | DeKalb-Pfizer DK-672    | 128   | 141                  | 97           | 161         | 114                      |
| y            | 2X    | Funk G-4635             | 128   | 136                  | 103          | 164         | 110                      |
|              |       |                         |       |                      |              |             |                          |
| y            | 2X    | USS 7001                | 127   | 132                  | 108          | 147         | 120                      |
| y            | M2X   | Funk G-4522             | 126   | 130                  | 104          | 164         | 108                      |
| y            | 2X    | Sun Prairie SP230       | 124   | 124                  | 107          | 154         | 109                      |
| y            | 2X    | Coker 8575              | 122   | 129                  | 98           | 160         | 102                      |
| y            | 2X    | N.K. PX79               | 120   | 117                  | 105          | 147         | 113                      |
|              |       |                         |       |                      |              |             |                          |
| y            | M2X   | FFR 767C                | 107   | 111                  | 90           | 133         | 95                       |
|              |       |                         |       |                      |              |             |                          |
| L.S.D. (.05) |       |                         | 8.5   | 15.0                 | 20.9         | 16.1        | 16.8                     |
| C.V. %       |       |                         | 9.4   | 7.9                  | 13.6         | 7.2         | 10.2                     |
| Avg.         |       |                         | 129.9 | 135.2                | 109.0        | 158.9       | 116.4                    |

1/Sequatchie silt loam (2% to 5% slopes).

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

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

Table 16. Corn: Yield and other characteristics of 26 early-maturing hybrids evaluated at five locations in 1986.

| Color        | Cross | Hybrid                  | Avg.  | Grain                | Husk                 | Ear | Grain      |
|--------------|-------|-------------------------|-------|----------------------|----------------------|-----|------------|
|              |       |                         | Yield | quality              | cover                | ht. | moisture   |
|              |       |                         | Bu/A  | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In. | at harvest |
| y            | 2X    | Asgrow/O's Gold 2570    | 137   | 3.0                  | 3.0                  | 57  | 21.5       |
| y            | 2X    | Pioneer brand 3389      | 137   | 3.0                  | 5.5                  | 54  | 20.3       |
| y            | 2X    | DeKalb-Pfizer DK-636    | 137   | 2.5                  | 3.0                  | 53  | 19.1       |
| y            | 2X    | Asgrow/O's Gold 5L34A11 | 136   | 3.5                  | 3.0                  | 49  | 19.5       |
| y            | 2X    | Pioneer brand 3358      | 136   | 3.0                  | 4.5                  | 53  | 20.8       |
|              |       |                         |       |                      |                      |     |            |
| y            | 2X    | DeKalb-Pfizer DK-656    | 134   | 3.5                  | 4.5                  | 56  | 19.9       |
| y            | 2X    | Agri Pro HP 555         | 134   | 3.0                  | 2.8                  | 57  | 21.7       |
| y            | 2X    | Super Crost 5438        | 134   | 3.0                  | 4.5                  | 55  | 20.6       |
| y            | 2X    | Pioneer brand 3378      | 133   | 3.0                  | 4.2                  | 52  | 18.3       |
| y            | 2X    | FFR 788C                | 133   | 4.0                  | 4.2                  | 53  | 21.8       |
|              |       |                         |       |                      |                      |     |            |
| y            | 2X    | McCurdy 7676            | 132   | 3.0                  | 3.0                  | 57  | 21.4       |
| y            | 2X    | Agri Pro 818            | 131   | 4.0                  | 3.2                  | 52  | 19.7       |
| y            | 2X    | Asgrow/O's Gold 3344    | 131   | 4.0                  | 4.0                  | 55  | 20.4       |
| y            | 2X    | Beck's 65X              | 131   | 4.0                  | 4.0                  | 55  | 20.8       |
| y            | 2X    | Funk G-4626             | 130   | 2.0                  | 3.0                  | 54  | 20.8       |
|              |       |                         |       |                      |                      |     |            |
| y            | 2X    | McCurdy 83-40           | 130   | 3.5                  | 2.5                  | 54  | 21.4       |
| y            | 2X    | Asgrow/O's Gold RX788   | 129   | 2.5                  | 2.8                  | 53  | 20.3       |
| y            | 2X    | FFR 747C                | 129   | 2.5                  | 3.0                  | 52  | 20.8       |
| y            | 2X    | DeKalb-Pfizer DK-672    | 128   | 3.5                  | 2.8                  | 54  | 20.0       |
| y            | 2X    | Funk G-4635             | 128   | 3.0                  | 3.5                  | 59  | 22.0       |
|              |       |                         |       |                      |                      |     |            |
| y            | 2X    | USS 7001                | 127   | 4.0                  | 3.2                  | 54  | 21.5       |
| y            | M2X   | Funk G-4522             | 126   | 3.0                  | 3.2                  | 53  | 21.2       |
| y            | 2X    | Sun Prairie SP230       | 124   | 4.0                  | 5.0                  | 51  | 19.2       |
| y            | 2X    | Coker 8575              | 122   | 3.5                  | 4.0                  | 49  | 18.4       |
| y            | 2X    | N.K. PX79               | 120   | 4.0                  | 3.8                  | 54  | 18.6       |
|              |       |                         |       |                      |                      |     |            |
| y            | M2X   | FFR 767C                | 107   | 4.0                  | 3.8                  | 55  | 19.4       |
| L.S.D. (.05) |       |                         | 8.5   |                      |                      |     |            |
| C.V. %       |       |                         | 9.4   |                      |                      |     |            |
| Avg.         |       |                         | 129.9 |                      |                      |     |            |

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

Table 17. Corn: Yield of early-maturing hybrids evaluated at four locations for two years (1985-86).

| Color | Cross | Hybrid               | 2 Yr. | Knox- | Ames             |       |            |
|-------|-------|----------------------|-------|-------|------------------|-------|------------|
|       |       |                      | Avg.  | ville | Martin           | Milan | Plantation |
|       |       |                      |       |       | Bushels per acre |       |            |
| y     | 2X    | Pioneer brand 3389   | 149   | 144   | 147              | 178   | 129        |
| y     | 2X    | Asgrow/O's Gold 2570 | 149   | 155   | 127              | 179   | 135        |
| y     | 2X    | McCurdy 7676         | 147   | 152   | 132              | 170   | 134        |
| y     | 2X    | Agri Pro HP 555      | 147   | 162   | 117              | 179   | 128        |
| y     | 2X    | Pioneer brand 3358   | 146   | 142   | 129              | 173   | 137        |
|       |       |                      |       |       |                  |       |            |
| y     | 2X    | DeKalb-Pfizer DK-636 | 145   | 141   | 135              | 171   | 132        |
| y     | 2X    | Pioneer brand 3378   | 144   | 140   | 137              | 172   | 127        |
| y     | 2X    | DeKalb-Pfizer DK-672 | 144   | 155   | 115              | 176   | 128        |
| y     | 2X    | USS 7001             | 143   | 143   | 131              | 169   | 127        |
| y     | 2X    | Super Crost 5438     | 143   | 138   | 119              | 179   | 135        |
|       |       |                      |       |       |                  |       |            |
| y     | 2X    | FFR 788C             | 142   | 148   | 111              | 185   | 126        |
| y     | 2X    | Beck's 65X           | 141   | 134   | 130              | 172   | 126        |
| y     | 2X    | DeKalb-Pfizer DK-656 | 141   | 142   | 117              | 184   | 121        |
| y     | 2X    | FFR 747C             | 141   | 148   | 126              | 167   | 123        |
| y     | 2X    | Asgrow/O's Gold 3344 | 140   | 138   | 133              | 171   | 117        |
|       |       |                      |       |       |                  |       |            |
| y     | 2X    | Funk G-4635          | 138   | 139   | 121              | 175   | 117        |
| y     | 2X    | Funk G-4522          | 136   | 139   | 126              | 163   | 114        |
| y     | 2X    | Coker 8575           | 130   | 143   | 105              | 165   | 107        |
| y     | M2X   | FFR 767C             | 124   | 128   | 112              | 150   | 108        |

Table 18. Corn: Yield and other characteristics of early-maturing hybrids evaluated at four locations for two years (1985-86).<sup>1/</sup>

|       |       |                      | 2 Yr. | Grain                | Husk                 | Ear | Grain    |
|-------|-------|----------------------|-------|----------------------|----------------------|-----|----------|
|       |       |                      | Avg.  | quality              | cover                | ht. | moisture |
| Color | Cross | Hybrid               | Yield | Rating <sup>2/</sup> | Rating <sup>2/</sup> | In. | at       |
|       |       |                      | Bu/A  |                      |                      |     | harvest  |
|       |       |                      |       |                      |                      |     | %        |
| y     | 2X    | Pioneer brand 3389   | 149   | 2.4                  | 5.2                  | 54  | 20.6     |
| y     | 2X    | Asgrow/O's Gold 2570 | 149   | 2.9                  | 3.2                  | 56  | 22.0     |
| y     | 2X    | McCurdy 7676         | 147   | 2.5                  | 2.8                  | 56  | 21.4     |
| y     | 2X    | Agri Pro HP 555      | 147   | 2.5                  | 2.4                  | 56  | 22.1     |
| y     | 2X    | Pioneer brand 3358   | 146   | 2.6                  | 5.0                  | 53  | 21.0     |
|       |       |                      |       |                      |                      |     |          |
| y     | 2X    | DeKalb-Pfizer DK-636 | 145   | 2.4                  | 2.8                  | 52  | 19.8     |
| y     | 2X    | Pioneer brand 3378   | 144   | 3.0                  | 5.2                  | 53  | 19.2     |
| y     | 2X    | DeKalb-Pfizer DK-672 | 144   | 2.6                  | 2.6                  | 53  | 20.8     |
| y     | 2X    | USS 7001             | 143   | 3.2                  | 3.8                  | 52  | 21.5     |
| y     | 2X    | Super Crost 5438     | 143   | 3.1                  | 4.5                  | 54  | 20.9     |
|       |       |                      |       |                      |                      |     |          |
| y     | 2X    | FFR 788C             | 142   | 3.2                  | 4.5                  | 53  | 21.6     |
| y     | 2X    | Beck's 65X           | 141   | 3.0                  | 4.3                  | 54  | 21.0     |
| y     | 2X    | DeKalb-Pfizer DK-656 | 141   | 2.8                  | 4.2                  | 54  | 20.9     |
| y     | 2X    | FFR 747C             | 141   | 2.2                  | 2.5                  | 51  | 20.8     |
| y     | 2X    | Asgrow/O's Gold 3344 | 140   | 2.9                  | 3.3                  | 54  | 20.8     |
|       |       |                      |       |                      |                      |     |          |
| y     | 2X    | Funk G-4635          | 138   | 2.8                  | 3.8                  | 57  | 22.0     |
| y     | 2X    | Funk G-4522          | 136   | 2.8                  | 3.6                  | 50  | 21.6     |
| y     | 2X    | Coker 8575           | 130   | 3.0                  | 4.5                  | 48  | 19.5     |
| y     | M2X   | FFR 767C             | 124   | 3.6                  | 4.1                  | 54  | 19.6     |

<sup>1/</sup>No lodging data reported because tests were harvested before any lodging had occurred.

<sup>2/</sup>Ratings based on scale of 1 through 9 with 1 being excellent and 9 poor.

Table 19. Corn: Yield of early-maturing hybrids evaluated at four locations for three years (1984-86).

| Color Cross      | Hybrid | 3 Yr.                | Knox- |        |       | Ames       |     |
|------------------|--------|----------------------|-------|--------|-------|------------|-----|
|                  |        | Avg.                 | ville | Martin | Milan | Plantation |     |
| Bushels per acre |        |                      |       |        |       |            |     |
| y                | 2X     | Pioneer brand 3389   | 148   | 146    | 147   | 174        | 124 |
| y                | 2X     | Asgrow/O's Gold 2570 | 147   | 159    | 127   | 176        | 125 |
| y                | 2X     | McCurdy 7676         | 146   | 158    | 136   | 165        | 124 |
| y                | 2X     | FFR 788C             | 143   | 148    | 125   | 179        | 118 |
| y                | 2X     | Pioneer brand 3358   | 141   | 139    | 129   | 168        | 127 |
|                  |        |                      |       |        |       |            |     |
| y                | 2X     | FFR 747C             | 139   | 150    | 124   | 165        | 117 |
| y                | 2X     | USS 7001             | 138   | 144    | 131   | 156        | 121 |
| y                | 2X     | Super Crost 5438     | 138   | 138    | 121   | 167        | 126 |
| y                | M2X    | Funk G-4522          | 138   | 141    | 135   | 168        | 109 |
| y                | 2X     | Asgrow/O's Gold 3344 | 137   | 139    | 134   | 164        | 110 |
|                  |        |                      |       |        |       |            |     |
| y                | 2X     | Beck's 65X           | 137   | 137    | 130   | 162        | 118 |
| y                | 2X     | DeKalb-Pfizer DK-656 | 136   | 146    | 112   | 173        | 115 |

Table 20. Corn: Yield and other characteristics of early-maturing hybrids evaluated at four locations for three years (1984-86).

|       |       |                      | 3 Yr.         | Erect  | Grain                | Husk                 | Ear | Grain         |
|-------|-------|----------------------|---------------|--------|----------------------|----------------------|-----|---------------|
| Color | Cross | Hybrid               | Avg.<br>Yield | plants | quality              | cover                | ht. | moisture      |
|       |       |                      | Bu/A          | %      | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In. | at<br>harvest |
|       |       |                      |               |        |                      |                      |     | %             |
| y     | 2X    | Pioneer brand 3389   | 148           | 100    | 2.5                  | 5.0                  | 52  | 20.6          |
| y     | 2X    | Asgrow/O's Gold 2570 | 147           | 99     | 2.9                  | 3.3                  | 54  | 22.3          |
| y     | 2X    | McCurdy 7676         | 146           | 99     | 2.7                  | 3.0                  | 55  | 21.9          |
| y     | 2X    | FFR 788C             | 143           | 100    | 3.4                  | 4.0                  | 51  | 21.7          |
| y     | 2X    | Pioneer brand 3358   | 141           | 100    | 2.8                  | 5.0                  | 51  | 21.6          |
|       |       |                      |               |        |                      |                      |     |               |
| y     | 2X    | FFR 747C             | 139           | 100    | 2.3                  | 2.8                  | 50  | 20.9          |
| y     | 2X    | USS 7001             | 138           | 100    | 3.4                  | 4.0                  | 51  | 21.5          |
| y     | 2X    | Super Crost 5438     | 138           | 100    | 3.3                  | 4.7                  | 53  | 21.4          |
| y     | M2X   | Funk G-4522          | 138           | 100    | 2.7                  | 3.5                  | 49  | 21.6          |
| y     | 2X    | Asgrow/O's Gold 3344 | 137           | 99     | 3.0                  | 3.4                  | 50  | 20.9          |
|       |       |                      |               |        |                      |                      |     |               |
| y     | 2X    | Beck's 65X           | 137           | 99     | 3.2                  | 4.5                  | 53  | 21.2          |
| y     | 2X    | DeKalb-Pfizer DK-656 | 136           | 100    | 2.9                  | 4.3                  | 53  | 21.4          |

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

Table 21. Corn: Yield and other characteristics of 40 extra hybrids evaluated at Knoxville in 1986.<sup>1/</sup>

| Color        | Cross | Hybrid                      | Avg.<br>Yield<br>Bu/A | Grain<br>quality<br>Rating <sup>2/</sup> | Husk<br>cover<br>Rating <sup>2/</sup> | Ear<br>ht.<br>In. | Grain<br>moisture<br>at<br>harvest |
|--------------|-------|-----------------------------|-----------------------|------------------------------------------|---------------------------------------|-------------------|------------------------------------|
|              |       |                             |                       |                                          |                                       |                   | %                                  |
| y            | 2X    | Asgrow/O's Gold 5L34A11     | 164                   | 2.5                                      | 3.0                                   | 57                | 21.9                               |
| y            | 2X    | Beck's 85MDM                | 160                   | 3.0                                      | 4.0                                   | 61                | 25.3                               |
| y            | 2X    | McCurdy 85-60               | 159                   | 3.0                                      | 3.0                                   | 56                | 22.0                               |
| y            | 2X    | SeedTec EX-209              | 158                   | 2.0                                      | 3.0                                   | 56                | 21.9                               |
| y            | 2X    | Zimmerman Z-15              | 155                   | 3.0                                      | 2.5                                   | 55                | 25.8                               |
| y            | 2X    | Coker 3020                  | 155                   | 3.0                                      | 4.0                                   | 50                | 21.8                               |
| y            | 2X    | Sunbelt 1802                | 151                   | 3.0                                      | 4.0                                   | 54                | 22.8                               |
| y            | 2X    | Pfister 4470                | 147                   | 3.5                                      | 4.5                                   | 56                | 20.8                               |
| y            | 2X    | Zimmerman Z-35              | 146                   | 2.5                                      | 2.5                                   | 56                | 21.5                               |
| y            | 2X    | Pioneer brand 3184          | 146                   | 3.5                                      | 3.5                                   | 50                | 23.6                               |
| w            | 2X    | Asgrow/O's Gold 5L44D44     | 146                   | 3.5                                      | 3.5                                   | 53                | 21.9                               |
| w            | 3X    | FFR Exp 1413W               | 143                   | 2.0                                      | 2.0                                   | 59                | 24.8                               |
| w            | 2X    | G.K. Exp 5921W              | 143                   | 3.0                                      | 2.0                                   | 60                | 23.0                               |
| y            | M2X   | McCurdy 85-61               | 140                   | 3.5                                      | 2.5                                   | 58                | 25.3                               |
| y            | 2X    | N.K. X6674                  | 139                   | 3.0                                      | 4.0                                   | 54                | 24.8                               |
| y            | M2X   | Sun Prairie SP2405          | 139                   | 3.0                                      | 3.0                                   | 53                | 22.9                               |
| y            | 2X    | P.A.G. SX16A                | 138                   | 3.0                                      | 4.0                                   | 56                | 20.4                               |
| y            | 2X    | Pfister 4571                | 137                   | 3.0                                      | 4.0                                   | 58                | 23.6                               |
| y            | 2X    | P.A.G. SX351                | 134                   | 5.0                                      | 4.0                                   | 56                | 22.5                               |
| w            | 2X    | Paymaster Exp 126022        | 134                   | 3.5                                      | 4.0                                   | 48                | 20.8                               |
| y            | 2X    | P.A.G. SX352                | 132                   | 4.0                                      | 5.0                                   | 54                | 19.0                               |
| y            | M2X   | Coker 8696                  | 132                   | 3.0                                      | 3.0                                   | 57                | 22.1                               |
| w            | 3X    | FFR Exp 1414W               | 132                   | 3.5                                      | 2.0                                   | 59                | 25.2                               |
| y            | 3X    | Asgrow/O's Gold 5L45A13     | 130                   | 3.5                                      | 3.5                                   | 54                | 22.8                               |
| y            | 2X    | Agri Pro EX 670             | 130                   | 3.0                                      | 3.5                                   | 54                | 20.3                               |
| y            | 2X    | P.A.G. Exp 185059           | 130                   | 2.0                                      | 3.0                                   | 56                | 22.8                               |
| w            | 2X    | FFR Exp 16992               | 129                   | 4.0                                      | 5.0                                   | 50                | 21.2                               |
| y            | 2X    | Madison GL271               | 129                   | 4.0                                      | 4.0                                   | 54                | 19.6                               |
| y            | 2X    | McCurdy 84-50               | 128                   | 4.0                                      | 3.0                                   | 48                | 19.3                               |
| y            | 2X    | Madison GL40                | 128                   | 3.0                                      | 4.0                                   | 46                | 21.6                               |
| y            | 2X    | Sun Prairie SP2750          | 128                   | 2.5                                      | 2.5                                   | 54                | 20.8                               |
| w            | 2X    | Asgrow/O's Gold 5L44D43     | 127                   | 2.5                                      | 2.0                                   | 59                | 23.0                               |
| y            | 2X    | TN 850809                   | 124                   | 2.5                                      | 4.0                                   | 49                | 23.7                               |
| y            | 3X    | Asgrow/O's Gold 5L45A34     | 124                   | 4.0                                      | 3.5                                   | 52                | 23.0                               |
| w            | 2X    | FFR Exp 16990               | 122                   | 3.5                                      | 3.0                                   | 52                | 20.6                               |
| y            | 2X    | P.A.G. Exp 125618           | 121                   | 4.0                                      | 4.0                                   | 52                | 22.0                               |
| y            | 2X    | Pfister 3450                | 121                   | 4.0                                      | 3.5                                   | 55                | 22.6                               |
| w            | 2X    | FFR Exp 15848 <sup>3/</sup> | 119                   | 4.0                                      | 2.0                                   | 50                | 23.4                               |
| y            | 2X    | Cargill Exp 126016          | 117                   | 4.0                                      | 4.5                                   | 50                | 20.3                               |
| w            | 2X    | FFR Exp 16991               | 108                   | 4.0                                      | 3.0                                   | 52                | 21.9                               |
| L.S.D. (.05) |       |                             | 18.3                  |                                          |                                       |                   |                                    |
| C.V. %       |       |                             | 9.6                   |                                          |                                       |                   |                                    |
| Avg.         |       |                             | 136.3                 |                                          |                                       |                   |                                    |

<sup>1/</sup>Sequatchie silt loam (2% to 5% slopes).<sup>2/</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.<sup>3/</sup>FFR Exp 15848 had 15846 on package.

Table 22. Corn: Yield and other characteristics of medium-season hybrids evaluated at Crossville in 1986.

| Color        | Cross | Hybrid                | Avg.<br>Yield<br>Bu/A | Grain<br>quality<br>Rating <sup>1/</sup> | Husk<br>cover<br>Rating <sup>1/</sup> | Ear<br>ht.<br>In. | Grain<br>moisture<br>at<br>harvest |
|--------------|-------|-----------------------|-----------------------|------------------------------------------|---------------------------------------|-------------------|------------------------------------|
|              |       |                       |                       |                                          |                                       |                   | %                                  |
| y            | 2X    | DeKalb-Pfizer DK-711  | 111                   | 3.0                                      | 2.5                                   | 58                | 26.5                               |
| y            | 2X    | Stauffer S7759        | 106                   | 3.0                                      | 3.5                                   | 56                | 23.7                               |
| y            | 2X    | SeedTec H-2675        | 103                   | 2.5                                      | 3.0                                   | 57                | 25.8                               |
| y            | 2X    | Stauffer 8500         | 102                   | 3.5                                      | 4.5                                   | 58                | 25.8                               |
| y            | 2X    | N.K. PX 9540          | 101                   | 3.0                                      | 3.0                                   | 55                | 22.4                               |
| y            | 2X    | Zimmerman Z-27Y       | 101                   | 3.5                                      | 5.0                                   | 62                | 25.9                               |
| y            | 2X    | P.A.G. SX352          | 99                    | 3.0                                      | 4.5                                   | 57                | 23.9                               |
| y            | 2X    | Beck's 85XA           | 99                    | 3.0                                      | 3.0                                   | 58                | 25.2                               |
| y            | 2X    | GK 750                | 98                    | 2.5                                      | 3.0                                   | 56                | 23.0                               |
| y            | 2X    | FFR 811C              | 98                    | 4.0                                      | 4.0                                   | 54                | 25.8                               |
| y            | 2X    | Coker 8625            | 96                    | 3.0                                      | 3.0                                   | 56                | 18.8                               |
| y            | 2X    | Pioneer brand 3320    | 94                    | 3.5                                      | 3.5                                   | 60                | 28.0                               |
| y            | 2X    | Funk G-6066X          | 93                    | 3.5                                      | 3.0                                   | 58                | 27.3                               |
| y            | 2X    | McCurdy 8150          | 93                    | 3.5                                      | 4.5                                   | 65                | 26.8                               |
| y            | 2X    | Cargill 967           | 92                    | 4.5                                      | 4.5                                   | 63                | 24.0                               |
| y            | 2X    | Jacques 8350          | 90                    | 3.0                                      | 3.0                                   | 59                | 24.8                               |
| y            | 2X    | DeKalb-Pfizer DK-689  | 90                    | 3.0                                      | 3.0                                   | 64                | 27.2                               |
| y            | 2X    | N.K. PX 9581          | 89                    | 3.0                                      | 5.5                                   | 58                | 26.2                               |
| y            | 2X    | Asgrow/O's Gold 5509  | 88                    | 3.5                                      | 3.5                                   | 58                | 27.6                               |
| y            | M2X   | Funk G-4614           | 87                    | 3.5                                      | 3.0                                   | 60                | 25.2                               |
| y            | 2X    | Paymaster 7990        | 87                    | 4.5                                      | 4.5                                   | 54                | 27.8                               |
| y            | M2X   | Funk G-4734           | 84                    | 3.5                                      | 3.5                                   | 62                | 25.8                               |
| y            | M2X   | Coker 19A             | 84                    | 3.5                                      | 4.0                                   | 58                | 24.6                               |
| y            | 2X    | FFR 815C              | 84                    | 3.5                                      | 4.5                                   | 56                | 27.0                               |
| y            | 2X    | Asgrow/O's Gold RX892 | 83                    | 3.0                                      | 4.0                                   | 58                | 24.9                               |
| y            | M2X   | Funk G-4733           | 82                    | 3.0                                      | 3.0                                   | 52                | 27.2                               |
| y            | 2X    | Jacques 8250          | 81                    | 3.0                                      | 4.0                                   | 54                | 25.7                               |
| y            | 2X    | McCurdy 84AA          | 80                    | 3.5                                      | 3.5                                   | 57                | 26.2                               |
| y            | 2X    | DeKalb-Pfizer DK-748  | 77                    | 3.0                                      | 3.0                                   | 62                | 27.3                               |
| y            | 2X    | RA 1502               | 74                    | 4.5                                      | 4.0                                   | 56                | 29.2                               |
| y            | 3X    | Funk G-4765           | 69                    | 3.5                                      | 3.5                                   | 60                | 27.2                               |
| y            | 2X    | Pioneer brand 3184    | 68                    | 3.5                                      | 4.5                                   | 52                | 25.6                               |
| y            | 2X    | Pioneer brand 3147    | 68                    | 5.0                                      | 5.0                                   | 65                | 31.0                               |
| y            | 2X    | SeedTec H-2686A       | 60                    | 4.5                                      | 3.0                                   | 64                | 26.6                               |
| y            | 2X    | Coker 21              | 58                    | 4.0                                      | 3.5                                   | 58                | 29.4                               |
| w            | 2X    | Funk G-6044W          | 55                    | 3.5                                      | 3.0                                   | 62                | 31.0                               |
| w            | 2X    | TN 850003             | 51                    | 3.5                                      | 3.0                                   | 58                | 27.0                               |
| y            | M2X   | TN 82035              | 47                    | 4.0                                      | 3.0                                   | 60                | 25.8                               |
| y            | 2X    | FFR 848C              | 38                    | 3.0                                      | 3.0                                   | 62                | 27.0                               |
| w            | 3X    | Asgrow/O's Gold 2680W | 36                    | 3.5                                      | 3.0                                   | 64                | 30.8                               |
| L.S.D. (.05) |       |                       | 27.1                  |                                          |                                       |                   |                                    |
| C.V. %       |       |                       | 23.4                  |                                          |                                       |                   |                                    |
| Avg.         |       |                       | 82.4                  |                                          |                                       |                   |                                    |

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

Table 23. Corn: Yield and other characteristics of 24 medium-season hybrids evaluated at Crossville in 1986.

| Color        | Cross | Hybrid                 | Avg.  | Grain                | Husk                 | Ear | Grain        |
|--------------|-------|------------------------|-------|----------------------|----------------------|-----|--------------|
|              |       |                        | Yield | quality              | cover                | ht. | moisture     |
|              |       |                        | Bu/A  | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In. | at harvest % |
| y            | 2X    | McCurdy 7800           | 118   | 3.0                  | 5.5                  | 60  | 24.4         |
| y            | 2X    | T.E. 6996              | 113   | 3.0                  | 4.5                  | 59  | 25.5         |
| y            | 2X    | Agri Pro HP 771        | 112   | 3.0                  | 3.5                  | 62  | 24.3         |
| y            | 2X    | SeedTec ST-7750        | 107   | 3.0                  | 2.5                  | 60  | 23.2         |
| y            | 2X    | Cargill 971            | 106   | 3.0                  | 3.0                  | 58  | 24.6         |
| y            | 2X    | Princeton SX865        | 104   | 3.5                  | 3.0                  | 57  | 23.4         |
| y            | 2X    | FFR 810C               | 104   | 4.0                  | 3.5                  | 55  | 21.5         |
| y            | 2X    | Zimmerman Z-28         | 103   | 3.5                  | 4.5                  | 62  | 22.3         |
| y            | 2X    | Asgrow/O's Gold RX798  | 102   | 3.5                  | 3.0                  | 56  | 20.7         |
| y            | 2X    | Agri Pro 830           | 101   | 3.0                  | 3.5                  | 58  | 22.4         |
| y            | 2X    | Cargill 973            | 98    | 3.0                  | 3.0                  | 50  | 25.4         |
| y            | 2X    | T.E. 6994              | 97    | 3.0                  | 3.0                  | 54  | 22.3         |
| w            | 2X    | Asgrow/O's Gold RX956W | 96    | 3.0                  | 3.0                  | 56  | 23.6         |
| y            | 2X    | Pioneer brand 3320     | 95    | 3.0                  | 2.5                  | 53  | 25.2         |
| y            | M2X   | Super Crost 5454       | 94    | 2.5                  | 3.5                  | 59  | 23.2         |
| y            | M2X   | Gold Medal 3357        | 91    | 3.0                  | 3.0                  | 60  | 23.5         |
| y            | 2X    | Super Crost 5438       | 91    | 3.5                  | 3.5                  | 57  | 23.0         |
| y            | M2X   | Gold Medal 984         | 90    | 4.0                  | 3.0                  | 64  | 24.0         |
| y            | 2X    | SeedTec H-2601         | 88    | 3.5                  | 4.0                  | 52  | 24.0         |
| y            | M2X   | Gold Medal 335         | 88    | 3.5                  | 3.5                  | 60  | 23.8         |
| y            | 2X    | T.E. 6995A             | 84    | 3.5                  | 3.0                  | 62  | 24.0         |
| w            | 2X    | SeedTec H-2625W        | 76    | 2.5                  | 3.0                  | 62  | 26.2         |
| y            | 2X    | Asgrow/O's Gold RX860  | 74    | 4.0                  | 2.5                  | 54  | 22.7         |
| w            | 3X    | Funk G-6054W           | 59    | 3.0                  | 2.5                  | 58  | 25.4         |
| L.S.D. (.05) |       |                        | 21.0  |                      |                      |     |              |
| C.V. %       |       |                        | 15.6  |                      |                      |     |              |
| Avg.         |       |                        | 95.4  |                      |                      |     |              |

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

Table 24. Corn: Yield and other characteristics of medium-season hybrids evaluated at Crossville for three years (1984-86).

| Color | Cross | Hybrid                | 3 Yr.         | Erect<br>plants | Grain<br>quality     | Husk<br>cover        | Ear<br>ht. | Grain         |
|-------|-------|-----------------------|---------------|-----------------|----------------------|----------------------|------------|---------------|
|       |       |                       | Avg.<br>Yield |                 |                      |                      |            | moisture      |
|       |       |                       | Bu/A          | %               | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In.        | at<br>harvest |
| y     | 2X    | Beck's 85XA           | 156           | 99              | 2.8                  | 3.0                  | 59         | 28.7          |
| y     | 2X    | Stauffer S7759        | 150           | 99              | 2.6                  | 4.5                  | 59         | 23.6          |
| y     | 2X    | Zimmerman Z-27Y       | 149           | 100             | 2.8                  | 4.5                  | 66         | 26.3          |
| y     | 2X    | Cargill 967           | 147           | 100             | 4.2                  | 5.3                  | 62         | 25.3          |
| y     | 2X    | P.A.G. SX352          | 145           | 98              | 3.2                  | 4.7                  | 58         | 23.6          |
| y     | 2X    | McCurdy 8150          | 145           | 99              | 3.2                  | 3.3                  | 66         | 27.9          |
| y     | 2X    | N.K. PX 9581          | 143           | 100             | 3.5                  | 4.7                  | 59         | 26.4          |
| y     | 2X    | Asgrow/O's Gold 5509  | 141           | 96              | 3.8                  | 3.8                  | 58         | 28.8          |
| y     | 2X    | DeKalb-Pfizer DK-689  | 141           | 99              | 3.2                  | 3.8                  | 62         | 28.2          |
| y     | 2X    | Pioneer brand 3320    | 140           | 99              | 2.7                  | 3.7                  | 59         | 27.2          |
| y     | 2X    | Pioneer brand 3184    | 139           | 100             | 3.8                  | 4.3                  | 55         | 27.3          |
| y     | 2X    | McCurdy 84AA          | 138           | 95              | 3.7                  | 3.2                  | 58         | 27.4          |
| y     | M2X   | Funk G-4733           | 137           | 99              | 3.0                  | 2.8                  | 57         | 28.2          |
| y     | M2X   | Coker 19A             | 136           | 99              | 3.5                  | 3.7                  | 58         | 26.4          |
| y     | 2X    | RA 1502               | 136           | 98              | 3.8                  | 3.8                  | 55         | 27.7          |
| y     | 2X    | FFR 811C              | 135           | 96              | 4.0                  | 4.7                  | 54         | 25.7          |
| y     | 2X    | SeedTec H-2686A       | 132           | 98              | 3.7                  | 3.5                  | 62         | 28.4          |
| y     | M2X   | Funk G-4734           | 129           | 98              | 3.8                  | 3.5                  | 61         | 29.6          |
| y     | 2X    | Coker 21              | 129           | 99              | 4.0                  | 3.3                  | 58         | 31.0          |
| y     | 2X    | Pioneer brand 3147    | 126           | 100             | 5.0                  | 4.0                  | 64         | 31.9          |
| y     | 3X    | Funk G-4765           | 124           | 99              | 3.8                  | 3.2                  | 62         | 31.0          |
| w     | 3X    | Asgrow/O's Gold 2680W | 121           | 98              | 3.8                  | 3.2                  | 66         | 30.2          |
| y     | 2X    | FFR 848C              | 117           | 98              | 3.2                  | 3.2                  | 65         | 27.8          |

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

Table 25. Corn: Yield and other characteristics of early-maturing hybrids evaluated at Crossville in 1986.

| Color Cross  |     | Hybrid                  | Avg.<br>Yield<br>Bu/A | Husk<br>cover<br>Rating <sup>1/</sup> | Ear<br>ht.<br>In. | Grain<br>moisture<br>at<br>harvest<br>% |
|--------------|-----|-------------------------|-----------------------|---------------------------------------|-------------------|-----------------------------------------|
| y            | 2X  | Asgrow/O's Gold 5L34A11 | 89                    | 3.5                                   | 52                | 23.6                                    |
| y            | 2X  | McCurdy 83-40           | 89                    | 3.5                                   | 59                | 21.1                                    |
| y            | 2X  | McCurdy 7676            | 84                    | 5.0                                   | 58                | 23.4                                    |
| y            | 2X  | FFR 747C                | 83                    | 3.0                                   | 57                | 22.8                                    |
| y            | 2X  | Agri Pro HP 555         | 82                    | 3.0                                   | 64                | 22.4                                    |
| y            | 2X  | DeKalb-Pfizer DK-656    | 80                    | 4.5                                   | 62                | 23.8                                    |
| y            | 2X  | Asgrow/O's Gold 2570    | 79                    | 3.0                                   | 66                | 22.5                                    |
| y            | 2X  | Pioneer brand 3358      | 76                    | 5.0                                   | 55                | 21.5                                    |
| y            | 2X  | Asgrow/O's Gold 3344    | 73                    | 4.0                                   | 60                | 26.8                                    |
| y            | 2X  | Super Crost 5438        | 73                    | 4.0                                   | 56                | 23.3                                    |
| y            | 2X  | Funk G-4635             | 72                    | 3.5                                   | 60                | 23.4                                    |
| y            | M2X | Funk G-4522             | 71                    | 3.5                                   | 58                | 24.4                                    |
| y            | 2X  | DeKalb-Pfizer DK-636    | 70                    | 3.5                                   | 60                | 23.4                                    |
| y            | 2X  | USS 7001                | 66                    | 3.5                                   | 50                | 23.4                                    |
| y            | 2X  | DeKalb-Pfizer DK-672    | 65                    | 4.5                                   | 59                | 24.8                                    |
| y            | 2X  | Asgrow/O's Gold RX788   | 65                    | 3.5                                   | 59                | 22.5                                    |
| y            | 2X  | Funk G-4626             | 63                    | 3.0                                   | 56                | 24.4                                    |
| y            | 2X  | Pioneer brand 3389      | 62                    | 3.0                                   | 60                | 22.2                                    |
| y            | 2X  | Sun Prairie SP230       | 61                    | 3.5                                   | 56                | 22.0                                    |
| y            | 2X  | Pioneer brand 3378      | 60                    | 4.5                                   | 56                | 24.0                                    |
| y            | 2X  | Coker 8575              | 58                    | 3.0                                   | 50                | 21.8                                    |
| y            | 2X  | Beck's 65X              | 57                    | 4.0                                   | 60                | 23.3                                    |
| y            | 2X  | FFR 788C                | 57                    | 3.0                                   | 56                | 24.2                                    |
| y            | M2X | FFR 767C                | 56                    | 3.0                                   | 63                | 23.6                                    |
| y            | 2X  | Agri Pro 818            | 54                    | 4.0                                   | 58                | 22.6                                    |
| y            | 2X  | N.K. PX 79              | 54                    | 3.5                                   | 60                | 22.9                                    |
| L.S.D. (.05) |     |                         | 21.6                  |                                       |                   |                                         |
| C.V. %       |     |                         | 22.1                  |                                       |                   |                                         |
| Avg.         |     |                         | 69.3                  |                                       |                   |                                         |

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

Table 26. Corn: Yield and other characteristics of early-maturing hybrids evaluated at Crossville for three years (1984-86).

| Color | Cross | Hybrid               | 3 Yr.         | Erect<br>plants | Grain<br>quality     | Husk<br>cover        | Ear<br>ht. | Grain         |
|-------|-------|----------------------|---------------|-----------------|----------------------|----------------------|------------|---------------|
|       |       |                      | Avg.<br>Yield |                 |                      |                      |            | moisture      |
|       |       |                      | Bu/A          | %               | Rating <sup>1/</sup> | Rating <sup>1/</sup> | In.        | at<br>harvest |
| y     | 2X    | Asgrow/O's Gold 2570 | 143           | 97              | 3.5                  | 2.7                  | 65         | 23.6          |
| y     | 2X    | McCurdy 7676         | 142           | 99              | 2.8                  | 3.5                  | 61         | 23.7          |
| y     | 2X    | Pioneer brand 3358   | 141           | 100             | 3.2                  | 5.8                  | 57         | 23.4          |
| y     | 2X    | DeKalb-Pfizer DK-656 | 139           | 99              | 3.0                  | 3.7                  | 60         | 23.5          |
| y     | 2X    | Super Crost 5438     | 137           | 100             | 3.8                  | 4.2                  | 56         | 23.1          |
| y     | 2X    | FFR 747C             | 137           | 98              | 3.0                  | 3.5                  | 56         | 23.4          |
| y     | 2X    | FFR 788C             | 137           | 99              | 3.5                  | 3.3                  | 56         | 24.3          |
| y     | 2X    | Pioneer brand 3389   | 136           | 100             | 3.2                  | 5.2                  | 59         | 23.0          |
| y     | 2X    | USS 7001             | 135           | 95              | 3.5                  | 3.7                  | 52         | 23.8          |
| y     | 2X    | Beck's 65X           | 134           | 97              | 3.5                  | 3.8                  | 60         | 22.8          |
| y     | M2X   | Funk G-4522          | 134           | 100             | 4.0                  | 2.8                  | 56         | 25.0          |
| y     | 2X    | Asgrow/O's Gold 3344 | 127           | 95              | 3.5                  | 4.0                  | 57         | 24.5          |

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

**Table 27. Corn:** Performance data for 39 corn hybrids evaluated for susceptibility to Gray Leaf Spot and Northern Leaf Spot in Johnson County, TN, in 1986.<sup>1/</sup>

| Hybrid                | Yield<br>Bu/A | Standing<br>Plants<br>% | Moisture<br>at<br>Harvest<br>% | Gray<br>Leaf<br>Spot | Northern<br>Leaf<br>Spot |
|-----------------------|---------------|-------------------------|--------------------------------|----------------------|--------------------------|
|                       |               |                         |                                | Rating               |                          |
|                       |               |                         |                                | 2/<br>1.6            | 3/<br>1.0                |
| Pioneer brand 3352    | 143           | 99                      | 19.9                           | 1.6                  | 1.0                      |
| Pioneer brand 3192    | 133           | 83                      | 24.0                           | 2.4                  | 1.0                      |
| DeKalb-Pfizer DK-789  | 132           | 89                      | 25.5                           | 1.5                  | 2.6                      |
| FFR 747C              | 123           | 98                      | 21.7                           | 2.7                  | 3.0                      |
| Pioneer brand 3233    | 115           | 92                      | 21.0                           | 1.2                  | 1.8                      |
| Zimmerman Z-11W       | 111           | 70                      | 25.0                           | 1.8                  | 2.6                      |
| Pioneer brand 3389    | 111           | 97                      | 19.8                           | 3.5                  | 1.6                      |
| FFR 810C              | 110           | 88                      | 18.7                           | 2.6                  | 3.6                      |
| Pioneer brand 3358    | 109           | 96                      | 18.0                           | 2.9                  | 1.0                      |
| Asgrow/O's Gold 2570  | 107           | 48                      | 20.8                           | 3.2                  | 3.5                      |
| FFR 811C              | 107           | 75                      | 22.8                           | 2.2                  | 1.4                      |
| FFR 848C              | 105           | 89                      | 24.0                           | 1.5                  | 1.5                      |
| Pioneer brand 3320    | 105           | 72                      | 19.3                           | 3.6                  | 0.5                      |
| McCurdy 8150          | 103           | 69                      | 26.4                           | 3.0                  | 3.0                      |
| N.K. PX 95            | 102           | 79                      | 27.2                           | 1.6                  | 2.1                      |
| Coker 19A             | 102           | 88                      | 22.0                           | 2.0                  | 3.2                      |
| RA 1502               | 102           | 90                      | 23.0                           | 3.5                  | 3.2                      |
| Asgrow/O's Gold 3344  | 101           | 63                      | 20.6                           | 1.8                  | 0.5                      |
| Beck's 85XA           | 101           | 90                      | 23.4                           | 1.9                  | 2.6                      |
| Mol7 x NC250          | 99            | 72                      | 20.1                           | 1.2                  | 1.8                      |
| FFR 955C              | 99            | 70                      | 23.4                           | 2.6                  | 3.5                      |
| Zimmerman Z-14W       | 97            | 79                      | 24.7                           | 1.6                  | 1.4                      |
| USS 7001              | 96            | 79                      | 22.6                           | 2.1                  | 2.7                      |
| Pioneer brand 3165    | 96            | 65                      | 22.6                           | 2.1                  | 1.7                      |
| Pioneer brand 3147    | 94            | 77                      | 23.3                           | 2.5                  | 1.1                      |
| Pioneer brand 3110    | 91            | 96                      | 25.6                           | 1.4                  | 1.5                      |
| SeedTec H-2686A       | 91            | 91                      | 25.6                           | 2.7                  | 2.7                      |
| Pioneer brand 3184    | 89            | 85                      | 23.4                           | 3.3                  | 3.5                      |
| DeKalb-Pfizer DK-689  | 88            | 77                      | 23.6                           | 1.6                  | 1.6                      |
| Funk G-4522           | 87            | 80                      | 20.8                           | 5.0                  | 3.8                      |
| Funk G-4733           | 82            | 62                      | 24.3                           | 3.8                  | 3.5                      |
| Coker 21              | 79            | 71                      | 23.1                           | 3.1                  | 4.0                      |
| McCurdy 84AA          | 77            | 73                      | 23.1                           | 3.6                  | 3.7                      |
| DeKalb-Pfizer DK-748  | 76            | 91                      | 23.7                           | 2.2                  | 3.4                      |
| Funk G-4868           | 76            | 89                      | 26.8                           | 3.0                  | 0.5                      |
| FFR 929W              | 76            | 82                      | 25.6                           | 1.5                  | 2.7                      |
| N.K. PX 79            | 75            | 75                      | 23.3                           | 1.5                  | 1.6                      |
| Asgrow/O's Gold 5509  | 74            | 63                      | 25.1                           | 3.4                  | 3.8                      |
| Asgrow/O's Gold 2680W | 72            | 79                      | 25.3                           | 1.4                  | 2.9                      |
| L.S.D. (.05)          | 34.0          | 19.0                    | 2.0                            | 0.9                  | 0.9                      |
| C.V. %                | 26.0          | 18.0                    | 4.3                            | 27.0                 | 30.0                     |
| Avg.                  | 98.0          | 80.0                    | 23.0                           | 2.4                  | 2.3                      |

<sup>1/</sup>Data obtained in cooperation with Tom Fortune, Cooperative Extension Service, Johnson County, TN; Wayne Ward, Farm Manager, Maymeade Farm, Johnson County, TN; D. R. West and D. R. Kincer, University of Tennessee, Knoxville.

<sup>2/</sup>Rating scale of 1 to 5, where 1 = no leaf lesions and 5 = severe leaf blighting.

<sup>3/</sup>Rating scale of 0 to 5, where 0 = no leaf lesions and 5 = severe leaf blighting.

Table 28. Corn: Yield and virus rating for 47 corn hybrids grown on the Knoxville Holston Farm in 1986.<sup>1/</sup>

| Hybrid                  | Yield | Moisture<br>at<br>Harvest | Virus<br>Diseased<br>Plants | Virus<br>Severity    |
|-------------------------|-------|---------------------------|-----------------------------|----------------------|
|                         | Bu/A  | %                         | %                           | Rating <sup>2/</sup> |
| Jaques 8400             | 97.4  | 19.0                      | 59.3                        | 3.0                  |
| Pioneer brand 3378      | 94.3  | 17.5                      | 44.4                        | 2.2                  |
| McCurdy 85-60           | 91.8  | 21.6                      | 43.6                        | 2.2                  |
| DeKalb-Pfizer DK-689    | 85.7  | 21.5                      | 45.4                        | 2.1                  |
| MDM4                    | 85.4  | 20.0                      | 52.2                        | 2.7                  |
| FFR 815C                | 84.8  | 22.4                      | 33.6                        | 1.9                  |
| Gold Medal 335          | 81.4  | 19.1                      | 64.6                        | 2.9                  |
| Asgrow/O's Gold 5L34A02 | 78.9  | 19.2                      | 70.3                        | 3.2                  |
| FFR 767C                | 78.3  | 18.7                      | 38.4                        | 2.2                  |
| Beck's 85MDM            | 74.6  | 23.0                      | 32.5                        | 1.9                  |
| Gold Medal 3357         | 74.4  | 18.7                      | 52.8                        | 2.4                  |
| McCurdy 83-40           | 73.7  | 20.2                      | 70.4                        | 3.2                  |
| McCurdy 85-61           | 73.6  | 21.7                      | 48.2                        | 2.2                  |
| P.A.G. SX 16A           | 73.3  | 18.9                      | 45.6                        | 2.0                  |
| Gold Medal 1070         | 72.3  | 19.3                      | 77.2                        | 3.5                  |
| Jaques 8250             | 71.4  | 20.7                      | 55.6                        | 2.7                  |
| Pioneer brand 3147      | 71.2  | 22.7                      | 40.6                        | 2.1                  |
| SeedTec ST7750          | 69.1  | 18.2                      | 76.1                        | 3.3                  |
| Stauffer S8645          | 68.6  | 18.5                      | 69.1                        | 3.0                  |
| Funk G-4858             | 66.7  | 22.7                      | 73.1                        | 3.2                  |
| N.K. PX79               | 64.4  | 19.5                      | 55.9                        | 2.6                  |
| FFR 955C                | 62.7  | 22.6                      | 52.6                        | 2.3                  |
| Funk G-6066X            | 60.7  | 20.1                      | 71.2                        | 3.1                  |
| Zimmerman Z-14W         | 60.6  | 22.9                      | 84.0                        | 3.7                  |
| N.K. PX95               | 60.6  | 21.3                      | 65.1                        | 2.9                  |
| Asgrow/O's Gold 5L44D43 | 60.0  | 20.6                      | 52.4                        | 2.6                  |
| Funk G-4734             | 58.3  | 21.5                      | 73.0                        | 3.3                  |
| Funk G-4868             | 57.8  | 25.9                      | 65.4                        | 3.1                  |
| Zimmerman Z-60W         | 57.5  | 21.2                      | 74.2                        | 3.6                  |
| Funk G-6054W            | 57.1  | 21.2                      | 79.3                        | 3.7                  |
| Coker 8696              | 54.6  | 21.4                      | 34.6                        | 1.9                  |
| DeKalb-Pfizer Dk-77W    | 54.6  | 22.6                      | 91.5                        | 4.3                  |
| FFR 925                 | 54.3  | 21.6                      | 93.6                        | 4.4                  |
| Asgrow/O's Gold 5E44E11 | 52.8  | 20.4                      | 80.0                        | 3.4                  |
| Gold Medal 770          | 51.4  | 21.1                      | 81.5                        | 4.0                  |
| Funk G-4765             | 50.8  | 19.7                      | 81.4                        | 4.1                  |
| Gold Medal 984          | 50.4  | 21.4                      | 68.9                        | 3.1                  |
| Sunbelt 1860            | 44.0  | 24.9                      | 68.6                        | 3.2                  |
| DeKalb-Pfizer DK-789    | 43.8  | 22.7                      | 48.6                        | 2.2                  |
| FFR 848C                | 43.0  | 20.6                      | 42.7                        | 2.3                  |
| Pioneer brand 3187      | 42.8  | 20.9                      | 66.2                        | 2.6                  |
| FFR Exp 1414W           | 37.4  | 21.5                      | 72.4                        | 3.1                  |
| (K55xC.I.66) x T163     | 35.2  | 22.6                      | 88.5                        | 4.0                  |
| FFR Exp 1413W           | 33.4  | 22.6                      | 70.6                        | 3.3                  |
| FFR 929W                | 25.4  | 21.5                      | 78.3                        | 3.7                  |
| Zimmerman Z-11W         | 24.6  | 22.6                      | 77.7                        | 3.6                  |
| Funk G-4787W            | 18.3  | 21.8                      | 91.0                        | 4.3                  |
| L.S.D. (.05)            | 18.7  | 1.8                       | 21.1                        | 0.9                  |
| C.V. %                  | 22.6  | 4.2                       | 24.6                        | 21.7                 |
| Avg.                    | 61.3  | 21.1                      | 63.9                        | 3.0                  |

<sup>1/</sup>This test was grown in an area heavily infested with johnsongrass to insure virus disease pressure. In addition, the test was under heavy drought stress in 1986. Hybrid yields were thus influenced by weed competition, drought stress, and virus disease susceptibility. The correlations between yield and percent diseased plants, and between yield and virus severity rating were -0.45 and -0.48, respectively. These correlations were in the -0.8 range in 1985.

<sup>2/</sup>Virus severity rated on 1 to 9 scale, where 1 = no virus symptoms and 9 = dead plants.

Virus data obtained in cooperation with D. R. Kincer and D. R. West.

Table 29. Corn: Yield and virus rating of corn hybrids grown at the Knoxville Holston Farm for two years (1985-86).

| Hybrid               | Yield<br>Bu/A | Moisture<br>at<br>Harvest<br>% | Virus<br>Diseased<br>Plants<br>% | Virus<br>Severity<br>Rating <sup>1/</sup> |
|----------------------|---------------|--------------------------------|----------------------------------|-------------------------------------------|
| DeKalb-Pfizer DK-689 | 103           | 20.9                           | 60                               | 2.7                                       |
| FFR 815C             | 99            | 21.2                           | 55                               | 2.8                                       |
| Beck's 85MDM         | 88            | 21.5                           | 76                               | 2.9                                       |
| FFR 955C             | 86            | 21.6                           | 69                               | 3.3                                       |
| Jaques 8400          | 86            | 19.4                           | 74                               | 4.2                                       |
| Funk G-4858          | 84            | 22.8                           | 78                               | 3.7                                       |
| FFR 767C             | 84            | 18.1                           | 65                               | 3.5                                       |
| Pioneer brand 3147   | 82            | 22.6                           | 62                               | 2.8                                       |
| Zimmerman Z-14W      | 81            | 22.4                           | 87                               | 4.3                                       |
| P.A.G. SX16A         | 81            | 18.1                           | 67                               | 3.3                                       |
| Zimmerman Z-60W      | 80            | 20.9                           | 80                               | 4.0                                       |
| FFR 848C             | 78            | 19.8                           | 60                               | 3.0                                       |
| Funk G-4734          | 73            | 21.0                           | 82                               | 3.9                                       |
| Funk G-4868          | 72            | 25.0                           | 77                               | 4.0                                       |
| DeKalb-Pfizer DK-789 | 69            | 23.0                           | 64                               | 3.1                                       |
| Funk G-4765          | 67            | 19.9                           | 88                               | 4.6                                       |
| DeKalb-Pfizer DK-77W | 62            | 22.4                           | 94                               | 5.0                                       |
| FFR Exp 1414W        | 60            | 21.3                           | 81                               | 4.0                                       |
| Zimmerman Z-11W      | 58            | 21.9                           | 82                               | 4.0                                       |
| FFR 929W             | 53            | 21.7                           | 84                               | 4.2                                       |
| FFR Exp 1413W        | 53            | 21.6                           | 80                               | 4.1                                       |
| Avg.                 | 76            | 21.3                           | 75                               | 3.7                                       |

<sup>1/</sup>Virus severity rated on 1 to 9 scale, where 1 = no virus symptoms and 9 = dead plants.

## Performance of Wheat, Barley, Oats and Rye Varieties

### Wheat

Thirty-two soft red winter wheat varieties were evaluated at eight locations in 1986. No data were reported for Springfield, Crossville and Greeneville in 1984 or for Crossville in 1985 due to conditions that made the data too variable to be reliable.

The winter of 1985-86 had warm days and cold nights with little or no snow cover resulting in winter killing of wheat, oats and barley at many locations. Winter kill was severe at Crossville with no small grain variety performing well.

Small grain yields were further reduced, especially at Knoxville and Greeneville, by the dry spring of 1986.

With the dry spring of 1986, very little disease was noted at any location. Little or no response to foliar fungicide treatment on wheat varieties was obtained at Knoxville, Spring Hill and Jackson in 1986. These results will be reported in another publication.

Coker 762, Terral 817, Terral 812 and Coker 9227 did not perform well at most locations. Terral 812 seed were weak, resulting in thin stands at most locations. Florida 302 had performed well in 1984 and 1985, with little or no winter kill; however, in 1986 it showed winter killing at several locations with reduced yields. Coker 747 performed better relative to other varieties in 1986 than it had in previous years.

In 1986 the leading cultivars in yield of wheat were HW 3021, HW 3015, Coker 747, Saluda, Pioneer brand 2550 and Becker. Coker 916, Coker 983, and Magnum did not perform as well in 1986 as they had in 1984 and 1985. Using the three-year average, the leading varieties were Coker 916, Caldwell, Scotty, Compton, and Pioneer brand 2250.

The recommended wheat varieties for 1986-87 are Auburn, Caldwell, Coker 747, Coker 916, Fillmore, Massey, Pioneer brand 2550, Scotty and Tyler.

### Barley

Nine barley cultivars were evaluated at six locations in 1986. No yield data are reported for Greeneville because of winter killing and poor stands for all varieties.

Wysor and Henry were the two leading varieties in average yield. Yields at Knoxville, Crossville and Springfield were erratic for most varieties due to winter killing. The injury was not uniform across all replications, resulting in high C.V.'s for these locations. Spring Hill and Jackson data were averaged because of their low C.V.'s; however, the varieties ranked the same for this average yield as when the locations with high C.V.'s were included in the state average. These types of data can be expected in years where significant winter killing occurs.

The recommended barley varieties for 1986-87 are Volbar and Henry.

### Fall Seeded Oats

All fall seeded winter oats winter-killed in 1984. In 1985 some winter killing occurred but snow cover during severe cold reduced injury. In 1986 Jackson was the only location where little winter killing occurred. No yields were reported for Greeneville due to severe winter killing for all varieties.

Madison variety winter-killed at all locations with yields being recorded at Jackson only. The two leading varieties, Cumberland and Coker 716, suffered winter injury at most locations.

The recommended fall seeded oats for 1986-87 are Southern States 76-30, Coker 716 and Cumberland.

### Spring Oats

Thirteen spring oat varieties were evaluated for grain and forage at Knoxville in 1986. Don, Ogle, Larry and Noble were the leading varieties in grain yield. Forage and grain yield for most varieties were reduced by the extremely dry spring and early summer at this location.

### Rye

Several varieties or strains were evaluated in 1986 at Knoxville for Gurley's Seed Company and Samuel Roberts Noble Foundation, Inc. The leading varieties in grain yield were AFC 20-20, GI 85, N.F. 142, and GI 87x. Considering the growing season of 1985-86, the rye varieties performed well. Most varieties lodged severely with GI 87 lodging the least. Test weight (weight per bu) was very similar for most varieties.

Table 30. Wheat: Yield of soft red winter wheat varieties evaluated at eight locations in 1986.

| Variety               | Avg. | Greene <sup>1/</sup><br>ville | Knox <sup>2/</sup><br>ville | Spring <sup>3/</sup><br>field | Spring <sup>4/</sup><br>Hill | 5/<br>Jackson | 6/<br>Milan | Cross <sup>7/</sup><br>ville | 8/<br>Martin |
|-----------------------|------|-------------------------------|-----------------------------|-------------------------------|------------------------------|---------------|-------------|------------------------------|--------------|
| Bushels per acre      |      |                               |                             |                               |                              |               |             |                              |              |
| HW 3021               | 37   | 53                            | 28                          | 37                            | 32                           | 39            | 52          | 11                           | 45           |
| HW 3015               | 36   | 52                            | 28                          | 32                            | 36                           | 36            | 51          | 10                           | 42           |
| Coker 747             | 35   | 50                            | 30                          | 34                            | 28                           | 39            | 43          | 16                           | 36           |
| Saluda                | 34   | 53                            | 25                          | 31                            | 32                           | 43            | 45          | 7                            | 39           |
| Pioneer<br>brand 2550 | 34   | 48                            | 28                          | 27                            | 32                           | 40            | 48          | 12                           | 39           |
| Becker                | 34   | 39                            | 21                          | 27                            | 33                           | 41            | 53          | 10                           | 49           |
| Fillmore              | 33   | 44                            | 34                          | 26                            | 33                           | 35            | 36          | 18                           | 40           |
| Tyler                 | 32   | 47                            | 22                          | 31                            | 29                           | 39            | 44          | 6                            | 37           |
| Pioneer<br>brand 2551 | 32   | 37                            | 25                          | 21                            | 35                           | 39            | 44          | 15                           | 44           |
| T79-307               | 31   | 45                            | 22                          | 32                            | 30                           | 25            | 42          | 17                           | 37           |
| Scotty                | 31   | 50                            | 24                          | 28                            | 23                           | 35            | 37          | 16                           | 34           |
| Auburn                | 31   | 36                            | 26                          | 21                            | 24                           | 42            | 35          | 25                           | 42           |
| Garst Exp<br>4055     | 31   | 42                            | 22                          | 24                            | 28                           | 39            | 36          | 15                           | 40           |
| Caldwell              | 31   | 44                            | 28                          | 27                            | 29                           | 32            | 34          | 12                           | 44           |
| Coker 9323            | 30   | 43                            | 23                          | 32                            | 25                           | 40            | 31          | 14                           | 30           |
| Massey                | 30   | 45                            | 16                          | 29                            | 26                           | 34            | 43          | 9                            | 36           |
| Compton               | 30   | 44                            | 32                          | 17                            | 28                           | 33            | 34          | 10                           | 41           |
| Coker 916             | 29   | 45                            | 18                          | 32                            | 30                           | 34            | 43          | 4                            | 29           |
| HW 3027               | 29   | 47                            | 19                          | 31                            | 25                           | 32            | 42          | 6                            | 32           |
| T80-312               | 29   | 41                            | 20                          | 31                            | 26                           | 26            | 37          | 19                           | 33           |
| Magnum                | 28   | 42                            | 26                          | 31                            | 27                           | 24            | 31          | 16                           | 26           |
| HW 3022               | 28   | 37                            | 18                          | 27                            | 23                           | 38            | 42          | 2                            | 33           |
| Twain <sup>10/</sup>  | 28   | 42                            | 15                          | 28                            | 28                           | 32            | 37          | 6                            | 35           |
| Newton                | 27   | 35                            | 19                          | 20                            | 20                           | 37            | 33          | 21                           | 32           |
| AKS (N-80)            | 26   | 45                            | 10                          | 27                            | 26                           | 22            | 32          | 6                            | 37           |
| Florida 302           | 25   | 37                            | 5                           | 25                            | 20                           | 41            | 40          | 5                            | --9/         |
| Coker 983             | 24   | 37                            | 16                          | 28                            | 19                           | 36            | 34          | 3                            | 21           |
| Blazer                | 24   | 37                            | 15                          | 24                            | 19                           | 23            | 32          | 7                            | 32           |
| Coker 762             | 27   | 46                            | 9                           | 30                            | --9/                         | 43            | 27          | 7                            | --9/         |
| Terral 817            | 20   | 34                            | 10                          | 24                            | --9/                         | 28            | 25          | 3                            | --9/         |
| Terral 812            | 19   | 33                            | 2                           | 22                            | --9/                         | 34            | 17          | 4                            | --9/         |
| Coker 9227            | 13   | 12                            | 3                           | 12                            | --9/                         | 16            | 33          | 4                            | --9/         |
| Bailey 4287           |      |                               | 14                          |                               |                              |               |             |                              |              |
| L.S.D. (.05)          |      | 9.7                           | 6.1                         | 6.3                           | 5.4                          | 5.2           | 7.5         | 4.1                          |              |
| C.V. %                |      | 16.4                          | 22.0                        | 16.7                          | 14.1                         | 10.8          | 14.1        | 27.8                         |              |
| Avg.                  |      | 41.9                          | 19.8                        | 27.1                          | 27.3                         | 34.4          | 37.9        | 10.6                         |              |

<sup>1/</sup>Waynesboro silt loam (2% to 5% slopes).<sup>2/</sup>Decatur silt loam (2% to 5% slopes).<sup>3/</sup>Dickson silt loam (2% to 5% slopes).<sup>4/</sup>Maury silt loam (2% to 5% slopes).<sup>5/</sup>Calloway silt loam (2% to 5% slopes).<sup>6/</sup>Memphis silt loam (2% to 5% slopes).<sup>7/</sup>Hartsells loam (2% to 5% slopes).<sup>8/</sup>Falaya silt loam (2% to 5% slopes).<sup>9/</sup>No yield reported because of disease, poor germination or weed problems.<sup>10/</sup>Tested as Agri Pro 78-044-111.

Table 31. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at eight locations in 1986.

| Variety                   | Yield<br>bu/A | Date<br>Headed | Date<br>Mature | Plant<br>Height<br>in. | Lodging<br>% | 1/<br>Test<br>Weight<br>lb/bu | 2/<br>Leaf<br>Rust<br>Rating<br>(0-5) | 2/<br>Mildew<br>Rating<br>(0-5) | 3/<br>Stand<br>Rating<br>(0-10) |
|---------------------------|---------------|----------------|----------------|------------------------|--------------|-------------------------------|---------------------------------------|---------------------------------|---------------------------------|
| HW 3021                   | 37            | 4-29           | 6-2            | 32                     | 0.7          | 57.0                          | 1.8                                   | 1.0                             | 3.2                             |
| HW 3015                   | 36            | 4-28           | 6-2            | 33                     | 1.8          | 55.4                          | 0.1                                   | 0.3                             | 3.8                             |
| Coker 747                 | 35            | 4-28           | 6-1            | 28                     | 0.7          | 58.4                          | 0.9                                   | 1.2                             | 5.2                             |
| Saluda                    | 34            | 4-28           | 6-1            | 28                     | 0.6          | 57.4                          | 0.2                                   | 0.8                             | 3.2                             |
| Pioneer<br>brand 2550     | 34            | 4-30           | 6-3            | 31                     | 1.4          | 56.4                          | 0.1                                   | 1.2                             | 3.0                             |
| Becker                    | 34            | 5-1            | 6-2            | 28                     | 0.7          | 56.2                          | 0.7                                   | 3.6                             | 3.2                             |
| Fillmore                  | 33            | 5-4            | 6-7            | 34                     | 1.0          | 51.8                          | 0.0                                   | 0.3                             | 5.5                             |
| Tyler                     | 32            | 5-1            | 6-5            | 32                     | 1.6          | 53.8                          | 4.7                                   | 1.5                             | 1.8                             |
| Pioneer<br>brand 2551     | 32            | 4-30           | 6-1            | 29                     | 0.8          | 55.9                          | 0.5                                   | 0.4                             | 7.2                             |
| T79-307                   | 31            | 4-28           | 6-1            | 33                     | 2.4          | 54.8                          | 1.8                                   | 1.4                             | 5.8                             |
| Scotty                    | 31            | 4-28           | 6-2            | 31                     | 1.1          | 54.9                          | 0.1                                   | 1.2                             | 7.2                             |
| Auburn                    | 31            | 5-4            | 6-6            | 30                     | 0.6          | 54.9                          | 0.0                                   | 1.0                             | 8.0                             |
| Garst Exp<br>4055         | 31            | 4-28           | 6-2            | 31                     | 1.3          | 56.6                          | 0.1                                   | 1.2                             | 6.8                             |
| Caldwell                  | 31            | 4-28           | 6-1            | 32                     | 2.4          | 53.1                          | 0.0                                   | 1.1                             | 4.2                             |
| Coker 9323                | 30            | 4-28           | 6-2            | 27                     | 0.7          | 54.6                          | 0.4                                   | 0.2                             | 6.5                             |
| Massey                    | 30            | 4-28           | 6-2            | 31                     | 1.7          | 55.3                          | 4.3                                   | 0.1                             | 3.0                             |
| Compton                   | 30            | 4-29           | 6-1            | 30                     | 1.1          | 54.7                          | 0.0                                   | 0.9                             | 6.0                             |
| Coker 916                 | 29            | 4-27           | 5-31           | 28                     | 2.2          | 56.1                          | 0.1                                   | 0.6                             | 1.0                             |
| HW 3027                   | 29            | 4-27           | 5-31           | 29                     | 1.0          | 55.2                          | 0.3                                   | 0.9                             | 2.0                             |
| T80-312                   | 29            | 4-28           | 6-2            | 33                     | 1.4          | 54.4                          | 3.5                                   | 1.5                             | 6.2                             |
| Magnum                    | 28            | 4-27           | 5-31           | 28                     | 0.7          | 54.1                          | 0.7                                   | 1.5                             | 5.0                             |
| HW 3022                   | 28            | 4-29           | 6-3            | 31                     | 0.7          | 55.2                          | 1.0                                   | 1.6                             | 1.8                             |
| Twain                     | 28            | 4-29           | 6-2            | 32                     | 1.4          | 56.8                          | 0.0                                   | 0.1                             | 2.8                             |
| Newton                    | 27            | 5-2            | 6-2            | 29                     | 0.6          | 54.3                          | 0.5                                   | 2.0                             | 8.8                             |
| AKS (N-80)                | 26            | 4-27           | 5-30           | 30                     | 1.1          | 50.3                          | 0.0                                   | 1.2                             | 2.0                             |
| Florida 302               | 25            | 5-1            | 6-5            | 28                     | 1.3          | 55.4                          | 0.0                                   | 0.1                             | 0.8                             |
| Coker 983                 | 24            | 4-29           | 6-3            | 26                     | 0.4          | 55.4                          | 0.4                                   | 0.1                             | 0.1                             |
| Blazer                    | 24            | 4-28           | 5-31           | 30                     | 1.6          | 54.8                          | 1.5                                   | 1.6                             | 2.5                             |
| Coker 762 <sup>4</sup> /  | 27            | 4-30           | 6-5            | 25                     | 1.8          | 55.6                          | 0.1                                   | 0.9                             | 3.8                             |
| Terral 817 <sup>4</sup> / | 20            | 4-27           | 6-2            | 28                     | 3.0          | 54.7                          | 0.0                                   | 0.9                             | 1.2                             |
| Terral 812 <sup>4</sup> / | 19            | 4-28           | 6-6            | 26                     | 2.2          | 55.6                          | 0.2                                   | 0.8                             | 0.4                             |
| Coker 9227 <sup>4</sup> / | 13            | 4-28           | 6-4            | 26                     | 0.8          | 49.1                          | 0.1                                   | -                               | 0.1                             |

1/Test weight for Jackson only.

2/Rating based on a scale of 0 to 5, with 0 being no disease and 5 being severe.

3/A stand rating of 0 to 10 at Crossville, with 0 being no stand or survival and 10 being 100 percent stand or survival.

4/Average of six locations instead of eight.

Table 32. Wheat: Yield of soft red winter wheat varieties evaluated at six locations for two years (1984-85).

| Variety               | Avg. | Greene-<br>ville | Knox-<br>ville | Spring<br>Hill | Spring-<br>field | Jackson | Milan |
|-----------------------|------|------------------|----------------|----------------|------------------|---------|-------|
| Bushels per acre      |      |                  |                |                |                  |         |       |
| HW 3015               | 46   | 58               | 35             | 42             | 45               | 50      | 48    |
| Saluda                | 45   | 63               | 38             | 38             | 37               | 51      | 43    |
| Coker 916             | 43   | 61               | 28             | 38             | 39               | 44      | 49    |
| HW 3021               | 43   | 54               | 34             | 38             | 45               | 43      | 41    |
| Pioneer<br>brand 2550 | 41   | 56               | 33             | 38             | 39               | 43      | 36    |
| Scotty                | 41   | 61               | 32             | 33             | 37               | 46      | 37    |
| Coker 747             | 40   | 54               | 33             | 33             | 37               | 41      | 43    |
| Florida 302           | 40   | 51               | 24             | 37             | 38               | 49      | 38    |
| Massey                | 38   | 52               | 26             | 34             | 39               | 41      | 37    |
| Magnum                | 38   | 56               | 29             | 34             | 36               | 40      | 35    |
| Caldwell              | 38   | 51               | 34             | 36             | 37               | 40      | 32    |
| Tyler                 | 38   | 55               | 29             | 35             | 43               | 35      | 32    |
| Coker 983             | 38   | 51               | 28             | 33             | 38               | 45      | 34    |
| Compton               | 38   | 52               | 33             | 34             | 30               | 45      | 35    |
| Fillmore              | 37   | 48               | 36             | 36             | 36               | 40      | 27    |
| Auburn                | 36   | 50               | 30             | 29             | 33               | 44      | 33    |
| Blazer                | 32   | 50               | 22             | 28             | 31               | 30      | 28    |

Table 33. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at six locations for two years (1984-85).

| Variety               | Yield<br>bu/A | Date<br>Headed | Date<br>Mature | Plant<br>Height<br>in. | Lodging<br>% | Test<br>Weight<br>lb/bu | Rust<br>Rating<br>(0-5) | Leaf<br>Mildew<br>Rating<br>(0-5) |
|-----------------------|---------------|----------------|----------------|------------------------|--------------|-------------------------|-------------------------|-----------------------------------|
| HW 3015               | 46            | 4-28           | 6-1            | 35                     | 17           | 55.8                    | 0.7                     | 1.9                               |
| Saluda                | 45            | 4-28           | 6-1            | 30                     | 28           | 57.3                    | 0.6                     | 0.0                               |
| Coker 916             | 43            | 4-26           | 5-30           | 30                     | 12           | 56.1                    | 0.2                     | 1.0                               |
| HW 3021               | 43            | 4-28           | 6-1            | 35                     | 16           | 55.2                    | 2.2                     | 1.3                               |
| Pioneer<br>brand 2550 | 41            | 4-30           | 6-3            | 32                     | 25           | 56.1                    | 0.9                     | 1.1                               |
| Scotty                | 41            | 4-28           | 6-1            | 32                     | 12           | 55.8                    | 0.2                     | 0.7                               |
| Coker 747             | 40            | 4-28           | 5-31           | 30                     | 26           | 57.4                    | 1.8                     | 2.2                               |
| Florida 302           | 40            | 4-30           | 6-4            | 32                     | 21           | 54.9                    | 0.0                     | 0.0                               |
| Massey                | 38            | 4-27           | 6-1            | 33                     | 18           | 55.4                    | 2.2                     | 0.4                               |
| Magnum                | 38            | 4-27           | 5-30           | 30                     | 11           | 56.2                    | 0.8                     | 1.4                               |
| Caldwell              | 38            | 4-28           | 6-1            | 33                     | 23           | 54.8                    | 0.5                     | 0.7                               |
| Tyler                 | 38            | 5-1            | 6-3            | 35                     | 21           | 53.7                    | 4.0                     | 0.8                               |
| Coker 983             | 38            | 4-28           | 6-2            | 29                     | 8            | 57.2                    | 0.3                     | 0.2                               |
| Compton               | 38            | 5-1            | 6-1            | 32                     | 25           | 56.8                    | 0.0                     | 1.4                               |
| Fillmore              | 37            | 5-5            | 6-5            | 37                     | 21           | 53.2                    | 0.5                     | 0.4                               |
| Auburn                | 36            | 5-4            | 6-4            | 33                     | 10           | 55.7                    | 0.0                     | 1.2                               |
| Blazer                | 32            | 4-29           | 5-30           | 33                     | 20           | 55.6                    | 1.0                     | 1.3                               |

Table 34. Wheat: Yield of soft red winter wheat varieties evaluated at five locations for three years (1984-86).

| Variety            | Avg. | Knoxville | Spring Hill | Jackson | Milan | Martin |
|--------------------|------|-----------|-------------|---------|-------|--------|
| Bushels per acre   |      |           |             |         |       |        |
| Coker 916          | 47   | 44        | 54          | 44      | 53    | 41     |
| Caldwell           | 46   | 45        | 51          | 45      | 42    | 46     |
| Scotty             | 45   | 45        | 43          | 48      | 43    | 47     |
| Compton            | 45   | 43        | 45          | 49      | 42    | 46     |
| Pioneer brand 2550 | 45   | 44        | 50          | 46      | 42    | 42     |
| Auburn             | 44   | 42        | 46          | 47      | 41    | 45     |
| Massey             | 44   | 42        | 48          | 43      | 46    | 43     |
| Magnum             | 43   | 43        | 46          | 43      | 42    | 43     |
| Fillmore           | 43   | 45        | 47          | 44      | 38    | 41     |
| Coker 983          | 43   | 44        | 47          | 45      | 43    | 37     |
| Coker 747          | 43   | 42        | 43          | 45      | 48    | 37     |
| Tyler              | --   | 44        | 52          | 43      | 44    | --1/   |
| Florida 302        | --   | 40        | 50          | 52      | 45    | --1/   |

1/No data for 1984.

Table 35. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at five locations for three years (1984-86).

| Variety            | Yield | Date Headed | Date Mature | Plant Height | Lodging | Test Weight | Leaf Rust Rating | Mildew Rating |
|--------------------|-------|-------------|-------------|--------------|---------|-------------|------------------|---------------|
|                    | bu/A  |             |             | in.          | %       | lb/bu       | (0-5)            | (0-5)         |
| Coker 916          | 47    | 4-28        | 6-1         | 30           | 9.8     | 56.1        | 0.2              | 0.8           |
| Caldwell           | 46    | 4-28        | 6-1         | 33           | 16.1    | 54.2        | 0.7              | 0.8           |
| Scotty             | 45    | 4-28        | 6-1         | 32           | 8.7     | 55.5        | 0.2              | 0.9           |
| Compton            | 45    | 4-30        | 6-1         | 32           | 17.3    | 56.1        | 0.3              | 1.2           |
| Pioneer brand 2550 | 45    | 4-30        | 6-3         | 32           | 16.9    | 56.2        | 0.6              | 1.1           |
| Auburn             | 44    | 5-4         | 6-5         | 33           | 7.1     | 55.4        | 0.0              | 1.1           |
| Massey             | 44    | 4-27        | 6-2         | 32           | 12.4    | 55.4        | 2.9              | 0.3           |
| Magnum             | 43    | 4-27        | 5-30        | 30           | 7.3     | 55.5        | 0.8              | 1.4           |
| Fillmore           | 43    | 5-5         | 6-6         | 36           | 14.6    | 52.7        | 0.3              | 0.4           |
| Coker 983          | 43    | 4-28        | 6-2         | 28           | 5.6     | 56.6        | 0.4              | 0.1           |
| Coker 747          | 43    | 4-28        | 6-1         | 35           | 10.9    | 55.8        | 2.1              | 1.2           |
| Tyler              | --1/  | 5-1         | 6-3         | 34           | 14.4    | 53.7        | 4.2              | 1.0           |
| Florida 302        | --1/  | 4-30        | 6-5         | 30           | 14.2    | 55.1        | 0.0              | 0.1           |

1/No data for Martin in 1984.

Table 36. Barley: Yield of varieties evaluated at five locations in 1986.

| Variety          | Avg.<br>Across<br>Five<br>Locations | 1/<br>Knox-<br>ville | 2/<br>Cross-<br>ville | 3/<br>Spring-<br>field | 4/<br>Spring<br>Hill | 5/<br>Jackson | 6/<br>Avg.<br>Spring<br>Hill &<br>Jackson |
|------------------|-------------------------------------|----------------------|-----------------------|------------------------|----------------------|---------------|-------------------------------------------|
| Bushels per acre |                                     |                      |                       |                        |                      |               |                                           |
| Wysor            | 46                                  | 32                   | 33                    | 26                     | 67                   | 75            | 71                                        |
| Henry            | 41                                  | 36                   | 34                    | 29                     | 55                   | 51            | 53                                        |
| Kline            | 31                                  | 2                    | 14                    | 31                     | 45                   | 61            | 53                                        |
| Volbar           | 29                                  | 3                    | 14                    | 20                     | 50                   | 61            | 55                                        |
| Anson            | 29                                  | 8                    | 13                    | 25                     | 51                   | 50            | 51                                        |
| Genesis          | 28                                  | 8                    | 16                    | 19                     | 48                   | 48            | 48                                        |
| Dawn             | 27                                  | 7                    | 12                    | 19                     | 45                   | 49            | 47                                        |
| R74-203          | 26                                  | 3                    | 12                    | 19                     | 39                   | 58            | 48                                        |
| Surveyor         | 25                                  | 0.8                  | 27                    | 20                     | 31                   | 48            | 25                                        |
| L.S.D. (.05)     |                                     | 9.4                  | 14.1                  | 10.9                   | 7.4                  | 8.5           |                                           |
| C.V. %           |                                     | 58.2                 | 49.5                  | 32.3                   | 10.6                 | 10.4          |                                           |
| Avg.             |                                     | 11.1                 | 19.6                  | 23.0                   | 47.9                 | 55.6          |                                           |

1/Decatur silt loam (2% to 5% slopes).

2/Hartsells loam (2% to 5% slopes).

3/Dickson silt loam (2% to 5% slopes).

4/Maury silt loam (2% to 5% slopes).

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

6/Jackson and Spring Hill yields were averaged due to low C.V.'s. However, even with the high C.V.'s at the other locations, ranking of average yield varied very little. These erratic yields were due to winter killing.

Table 37. Barley: Yield and other characteristics of varieties evaluated at five locations in 1986.

| Variety  | Yield<br>bu/A | Date<br>Headed | Date<br>Mature | Plant<br>Height<br>in. | Weight <sup>1/</sup><br>per<br>Bushel<br>lbs |
|----------|---------------|----------------|----------------|------------------------|----------------------------------------------|
| Wysor    | 46            | 4-30           | 5-29           | 29                     | 43.8                                         |
| Henry    | 41            | 4-26           | 5-29           | 28                     | 44.4                                         |
| Kline    | 31            | 5-1            | 6-4            | 28                     | ---- <sup>2/</sup>                           |
| Volbar   | 29            | 5-1            | 6-3            | 28                     | 41.3                                         |
| Anson    | 29            | 4-30           | 5-30           | 29                     | 38.5                                         |
| Genesis  | 28            | 4-21           | 5-25           | 25                     | 47.6                                         |
| Dawn     | 27            | 4-20           | 5-24           | 26                     | 47.8                                         |
| R74-203  | 26            | 5-3            | 6-4            | 27                     | 40.1                                         |
| Surveyor | 25            | 4-30           | 5-29           | 25                     | ---- <sup>2/</sup>                           |

<sup>1/</sup>Knoxville data only.

<sup>2/</sup>Missing data due to winter killing on most plots.

Table 38. Fall Seeded Oats: Yield of varieties evaluated at four locations in 1986.

| Variety             | Avg. | 1/<br>Knoxville | 2/<br>Springfield | 3/<br>Spring<br>Hill | 4/<br>Jackson |
|---------------------|------|-----------------|-------------------|----------------------|---------------|
| Bushels per acre    |      |                 |                   |                      |               |
| Cumberland          | 32   | 16              | 39                | 22                   | 52            |
| Coker 716           | 31   | 15              | 41                | 11                   | 59            |
| Brook's (Hall)      | 30   | 5               | 37                | 17                   | 60            |
| Brook's (N.C.)      | 30   | 6               | 40                | 21                   | 52            |
| AKS County Seed 883 | 29   | 9               | 41                | 17                   | 49            |
| Coker 277           | 22   | 4               | 31                | 13                   | 42            |
| Madison             | --5/ | --              | --                | --                   | 29            |

1/Decatur silt loam (2% to 5% slopes).

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

3/Maury silt loam (2% to 5% slopes).

4/Memphis silt loam (2% to 5% slopes).

5/No yield due to winter kill.

Table 39. Fall Seeded Oats: Yield and other characteristics of varieties evaluated at four locations in 1986.

| Variety             | Yield<br>bu/A | Date<br>Headed | Date<br>Mature | Plant<br>Height<br>in. |
|---------------------|---------------|----------------|----------------|------------------------|
| Cumberland          | 32            | 5-9            | 6-12           | 26                     |
| Coker 716           | 31            | 5-9            | 6-11           | 25                     |
| Brook's (Hall)      | 30            | 5-8            | 6-11           | 26                     |
| Brook's (N.C.)      | 30            | 5-8            | 6-11           | 27                     |
| AKS County Seed 883 | 29            | 5-9            | 6-14           | 23                     |
| Coker 277           | 22            | 5-7            | 6-12           | 24                     |
| Madison             | --1/          | ---            | ----           | --                     |

1/No yield due to winter kill at most locations.

Table 40. Spring Oats: Yield and other characteristics of varieties evaluated at Knoxville in 1986.<sup>1/</sup>

| Variety      | Yield |      | Date Headed | Date Mature | Plant Height<br>in. | Weight<br>per<br>Bushel<br>lbs |
|--------------|-------|------|-------------|-------------|---------------------|--------------------------------|
|              | T/A   | bu/A |             |             |                     |                                |
| Don          | 1.44  | 51   | 5-21        | 6-30        | 28                  | 30.1                           |
| Ogle         | 1.49  | 45   | 5-24        | 6-30        | 30                  | 27.6                           |
| Larry        | 1.18  | 43   | 5-21        | 6-29        | 26                  | 29.1                           |
| Noble        | 1.29  | 42   | 5-22        | 6-29        | 28                  | 27.2                           |
| Otee         | 1.23  | 38   | 5-22        | 6-27        | 26                  | 28.7                           |
| Bates        | 1.10  | 38   | 5-18        | 6-29        | 26                  | 28.7                           |
| Porter       | 1.54  | 38   | 5-28        | 6-29        | 29                  | 28.2                           |
| Lang         | 1.12  | 37   | 5-18        | 6-28        | 28                  | 26.7                           |
| Hazle        | 1.25  | 35   | 5-26        | 6-29        | 27                  | 26.3                           |
| Moore        | 1.62  | 31   | 5-28        | 6-30        | 36                  | 25.6                           |
| Dal          | 1.27  | 30   | 5-30        | 6-30        | 30                  | 25.6                           |
| Grundy       | 1.25  | 29   | 5-20        | 6-27        | 26                  | 26.4                           |
| Lodi         | 1.53  | 25   | 6-2         | 7-2         | 38                  | 23.4                           |
| L.S.D. (.05) | N.S.  | 11.4 |             |             |                     |                                |
| C.V. %       | 19.7  | 21.3 |             |             |                     |                                |
| Avg.         | 1.35  | 37.2 |             |             |                     |                                |

<sup>1/</sup>Decatur silt loam (2% to 5% slopes).

Table 41. Rye: Yield and other characteristics of varieties evaluated at Knoxville in 1986.<sup>1/</sup>

| Variety                             | Yield |      | Date Headed | Plant Height<br>in. | Lodging<br>% | Weight<br>per<br>Bushel<br>lbs |
|-------------------------------------|-------|------|-------------|---------------------|--------------|--------------------------------|
|                                     | bu/A  | T/A  |             |                     |              |                                |
| AFC 20-20 <sup>2/</sup>             | 31    | 1.99 | 6-17        | 56                  | 60           | 54.0                           |
| GI 85 <sup>2/</sup>                 | 31    | 2.33 | 6-17        | 55                  | 60           | 54.4                           |
| N.F. 142 <sup>3/</sup>              | 30    | 2.26 | 6-17        | 57                  | 48           | 53.6                           |
| GI 87x <sup>2/</sup>                | 29    | 2.24 | 6-16        | 56                  | 55           | 54.8                           |
| Gurley Grazer<br>2000 <sup>2/</sup> | 28    | 2.47 | 6-16        | 57                  | 45           | 54.1                           |
| GI 87 <sup>2/</sup>                 | 28    | 2.08 | 6-17        | 56                  | 35           | 54.2                           |
| N.F. 214 <sup>3/</sup>              | 28    | 2.44 | 6-17        | 56                  | 58           | 53.2                           |
| Elbon <sup>3/</sup>                 | 28    | 2.25 | 6-17        | 55                  | 61           | 54.9                           |
| Bonel <sup>3/</sup>                 | 25    | 2.39 | 6-17        | 55                  | 69           | 54.0                           |
| Maton <sup>3/</sup>                 | 21    | 2.56 | 6-17        | 54                  | 86           | 53.7                           |
| L.S.D. (.05)                        | N.S.  | 0.28 |             |                     |              |                                |
| C.V. %                              | 26.7  | 8.9  |             |                     |              |                                |
| Avg.                                | 26.0  | 2.30 |             |                     |              |                                |

<sup>1/</sup>Decatur silt loam (2% to 5% slopes).

<sup>2/</sup>Gurley's Seed Co., Selma, NC.

<sup>3/</sup>Samuel Roberts Noble Foundation, Inc., Ardmore, OK.

## Grain Sorghum

The grain sorghum tests were conducted at Spring Hill, Springfield, Milan, Martin, and Ames Plantation. The same forty varieties were evaluated at Martin and Springfield in 1986. At Ames Plantation two planting dates were made. The test at Spring Hill consisted of thirty-six varieties that were not included in the tests at Martin and Ames Plantation. No data are reported for Spring Hill due to bird damage. Fourteen varieties were evaluated at Springfield and Milan. The fourteen varieties at Milan were grown no-till in killed wheat and in a conventional seedbed.

The leading varieties in yield in 1986 at Ames Plantation and Martin were Cargill 61, Paymaster 109A, Coker 7737, Coker 7675, and P.A.G. 5572. The varieties having the highest two-year average yield for Ames Plantation and Martin were Stauffer S9740y, P.A.G. 5572, Pioneer brand 8300, Topaz, and Paymaster 1022. At Springfield, Topaz, Funk G-1711, Funk G-522DR, Hy-Performer 1330DR, and Asgrow/O's Gold GS712 produced the highest two-year average yield.

Fourteen varieties were evaluated at Milan in 1985 and 1986 with ten varieties occurring each year. The six highest grain producers for these two years at Milan were DeKalb-Pfizer DK-42y, Pioneer brand 8333, Hy-Performer 1330DR, and DeKalb-Pfizer DK-64.

Table 42. Grain Sorghum: Yield and other characteristics of varieties evaluated at Ames Plantation and Martin in 1986.

| Variety               | 1/<br>Avg.<br>Yield | 2/3/<br>Ames Plantation |      | 4/<br>Martin     | Head<br>type         | Head<br>exertion | Plant<br>ht. | Grain<br>moisture<br>at<br>harvest |
|-----------------------|---------------------|-------------------------|------|------------------|----------------------|------------------|--------------|------------------------------------|
|                       | Bu/A                | Early                   | Late | Bushels per acre | Rating <sup>5/</sup> | in.              | in.          | %                                  |
|                       |                     |                         |      |                  |                      |                  |              |                                    |
| Cargill 61            | 108                 | 118                     | 98   | 92               | 2                    | 9.2              | 44           | 15.5                               |
| Paymaster 109A        | 108                 | 111                     | 105  | 104              | 3                    | 10.4             | 48           | 15.4                               |
| Coker 7737            | 106                 | 111                     | 101  | 77               | 2                    | 11.2             | 50           | 16.0                               |
| Coker 7675            | 105                 | 112                     | 98   | 101              | 3                    | 11.0             | 48           | 15.6                               |
| P.A.G 5572            | 105                 | 108                     | 102  | 99               | 2                    | 9.8              | 48           | 15.4                               |
| FFR 421DR             | 104                 | 109                     | 99   | 91               | 3                    | 11.2             | 51           | 15.1                               |
| Asgrow/O's Gold GS712 | 104                 | 110                     | 97   | 92               | 2                    | 13.0             | 51           | 15.9                               |
| Paymaster 1096y       | 103                 | 105                     | 102  | 91               | 2                    | 10.6             | 53           | 16.4                               |
| Hy-Performer 1330DR   | 103                 | 107                     | 100  | 79               | 2                    | 12.8             | 55           | 16.0                               |
| Funk G-1711           | 103                 | 109                     | 97   | 86               | 2                    | 10.0             | 50           | 16.1                               |
| Pioneer brand 8333    | 102                 | 104                     | 100  | 83               | 2                    | 10.6             | 47           | 15.8                               |
| Pioneer brand 8226    | 102                 | 103                     | 100  | 114              | 2                    | 11.2             | 49           | 17.3                               |
| Paymaster 1022        | 101                 | 104                     | 98   | 100              | 1                    | 9.8              | 50           | 15.8                               |
| DeKalb-Pfizer DK-59E  | 101                 | 110                     | 92   | 77               | 2                    | 11.2             | 48           | 16.1                               |
| Funk G-1602           | 101                 | 102                     | 100  | 86               | 2                    | 11.4             | 49           | 15.9                               |
| Dekalb-Pfizer M-565   | 100                 | 108                     | 93   | 113              | 2                    | 10.8             | 46           | 16.2                               |
| Stauffer S9750        | 100                 | 107                     | 93   | 88               | 2                    | 8.8              | 50           | 16.6                               |
| Chaparral             | 100                 | 104                     | 96   | 96               | 2                    | 11.4             | 48           | 15.4                               |
| P.A.G. 6670           | 100                 | 109                     | 90   | 78               | 2                    | 10.2             | 50           | 17.0                               |
| Pioneer brand 8300    | 100                 | 104                     | 95   | 99               | 2                    | 8.4              | 46           | 16.4                               |
| Funk G-522DR          | 99                  | 105                     | 94   | 78               | 2                    | 9.2              | 46           | 16.1                               |
| Paymaster R1090       | 98                  | 103                     | 94   | 87               | 3                    | 12.6             | 50           | 15.4                               |
| T.E. y-77             | 98                  | 96                      | 100  | 103              | 2                    | 10.6             | 50           | 16.9                               |
| Stauffer S9740y       | 98                  | 110                     | 86   | 109              | 2                    | 11.6             | 48           | 14.3                               |
| Opal                  | 98                  | 103                     | 92   | 106              | 2                    | 11.4             | 47           | 16.0                               |
| Topaz                 | 98                  | 109                     | 87   | 105              | 2                    | 10.8             | 47           | 16.4                               |
| T.E. Dinero           | 98                  | 108                     | 87   | 115              | 3                    | 11.0             | 44           | 16.7                               |
| FFR 321DR             | 98                  | 107                     | 88   | 88               | 2                    | 10.0             | 46           | 16.7                               |
| Mustang               | 97                  | 100                     | 95   | 102              | 2                    | 11.2             | 45           | 16.2                               |
| N.K. 2660             | 97                  | 96                      | 98   | 105              | 2                    | 8.8              | 46           | 15.8                               |
| Stauffer 7346R        | 97                  | 97                      | 98   | 75               | 2                    | 9.0              | 44           | 15.4                               |
| Funk G-1645           | 97                  | 102                     | 91   | 79               | 2                    | 11.0             | 45           | 16.4                               |
| FFR 331DR             | 96                  | 102                     | 90   | 63               | 2                    | 12.0             | 54           | 16.2                               |
| Pioneer brand 8222    | 96                  | 104                     | 88   | 89               | 2                    | 10.6             | 46           | 16.1                               |
| Stauffer 530GR        | 95                  | 99                      | 91   | 77               | 2                    | 10.8             | 49           | 15.5                               |
| DeKalb-Pfizer DK-64   | 95                  | 102                     | 97   | 89               | 2                    | 11.2             | 51           | 16.8                               |
| DeKalb-Pfizer DK-42y  | 95                  | 96                      | 94   | 80               | 2                    | 11.8             | 48           | 16.3                               |
| Hy-Performer Honcho   | 93                  | 101                     | 85   | 68               | 2                    | 9.4              | 42           | 15.8                               |
| Stauffer S9525        | 85                  | 87                      | 82   | 82               | 2                    | 12.2             | 47           | 15.4                               |
| DeKalb-Pfizer DK-64BR | 61                  | 52                      | 71   | 102              | 3                    | 16.2             | 64           | 16.1                               |
| L.S.D. (.05)          | 11.7                | 14.7                    | 14.7 | 29.6             |                      |                  |              |                                    |
| C.V. %                | 12.1                | 10.2                    | 11.2 | 23.3             |                      |                  |              |                                    |
| Avg.                  | 98.6                | 103.3                   | 93.8 | 91.2             |                      |                  |              |                                    |

1/Martin yield not included in average due to high C.V.

2/Early planting in 30-inch rows and late planting in 40-inch rows.

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

4/Falaya silt loam (2% to 5% slopes).

5/Head type is rated 1-3; with 1 = tight and 3 = loose or open head type.

Table 43. Grain Sorghum: Yield and other characteristics of varieties evaluated at two locations for two years (1985-86).

| Variety               | Avg.<br>Yield | 1/<br>Ames<br>Plantation | 2/<br>Martin | 3/<br>Head<br>Type<br>Rating | 4/<br>Head<br>Extension | Plant<br>Ht. | Grain<br>Moisture<br>at<br>Harvest |
|-----------------------|---------------|--------------------------|--------------|------------------------------|-------------------------|--------------|------------------------------------|
|                       |               | Bushels per acre         |              | (1-3)                        | In.                     | In.          | %                                  |
| Stauffer S9740y       | 104           | 98 <sup>5/</sup>         | 113          | 2.0                          | 11.0                    | 52           | 16.0                               |
| P.A.G. 5572           | 103           | 99                       | 109          | 1.7                          | 8.4                     | 51           | 15.9                               |
| Pioneer brand 8300    | 102           | 101                      | 102          | 1.7                          | 8.3                     | 51           | 16.4                               |
| Topaz                 | 100           | 95                       | 109          | 1.7                          | 8.7                     | 50           | 15.9                               |
| Paymaster 1022        | 100           | 98                       | 103          | 1.3                          | 9.2                     | 52           | 16.0                               |
| T.E. y-77             | 99            | 96                       | 105          | 1.7                          | 9.4                     | 54           | 16.7                               |
| Chaparral             | 99            | 101                      | 95           | 1.7                          | 10.5                    | 50           | 15.3                               |
| Opal                  | 99            | 95                       | 104          | 1.7                          | 9.7                     | 50           | 15.4                               |
| Paymaster R1090       | 98            | 100                      | 97           | 3.0                          | 11.4                    | 52           | 15.0                               |
| Hy-Performer 1330DR   | 98            | 104                      | 90           | 1.7                          | 11.1                    | 59           | 16.1                               |
| Pioneer brand 8333    | 97            | 99                       | 94           | 1.7                          | 9.9                     | 50           | 15.9                               |
| T.E. Dinero           | 97            | 90                       | 108          | 2.0                          | 9.6                     | 48           | 16.1                               |
| Dekalb-Pfizer M565    | 97            | 92                       | 104          | 1.7                          | 8.7                     | 49           | 15.9                               |
| P.A.G. 6670           | 97            | 99                       | 93           | 1.3                          | 8.9                     | 54           | 16.6                               |
| Funk G-1711           | 97            | 100                      | 92           | 1.7                          | 9.1                     | 53           | 16.6                               |
| Pioneer brand 8222    | 96            | 94                       | 97           | 1.7                          | 9.4                     | 48           | 16.0                               |
| FFR 421DR             | 95            | 99                       | 90           | 2.0                          | 10.9                    | 54           | 14.8                               |
| DeKalb-Pfizer DK-64   | 95            | 92                       | 100          | 2.0                          | 9.6                     | 49           | 17.5                               |
| Mustang               | 95            | 95                       | 95           | 1.7                          | 9.8                     | 48           | 15.6                               |
| Asgrow/O's Gold GS712 | 95            | 94                       | 97           | 1.7                          | 10.6                    | 54           | 16.2                               |
| N.K. 2660             | 94            | 89                       | 102          | 2.0                          | 9.2                     | 50           | 16.2                               |
| Coker 7675            | 93            | 93                       | 93           | 1.7                          | 9.6                     | 51           | 15.9                               |
| FFR 321DR             | 91            | 90                       | 92           | 1.7                          | 8.6                     | 48           | 16.2                               |
| FFR 331DR             | 91            | 100                      | 77           | 2.0                          | 10.8                    | 59           | 16.4                               |
| Stauffer S9750        | 91            | 88                       | 94           | 1.7                          | 7.7                     | 54           | 16.5                               |
| DeKalb-Pfizer DK-42y  | 90            | 88                       | 94           | 1.7                          | 11.7                    | 51           | 16.8                               |
| Stauffer 530GR        | 89            | 89                       | 88           | 1.7                          | 9.5                     | 49           | 15.4                               |
| Funk G-522DR          | 87            | 97                       | 88           | 1.7                          | 8.8                     | 49           | 16.2                               |
| Hy-Performer Honcho   | 85            | 88                       | 82           | 2.0                          | 8.9                     | 45           | 15.4                               |
| DeKalb-Pfizer DK-64BR | 80            | 66                       | 101          | 2.0                          | 15.0                    | 66           | 15.9                               |

1/Average of two tests in 1986 and one in 1985.

2/Average of one test each year (1985-86).

3/Head type is rated 1-3; with 1 = tight and 3 = loose or open head type.

4/Head extension is expressed in inches the head extends above the flag leaf.

5/Yield adjusted because Stauffer S9740y was only evaluated in one test in 1986 instead of two as all other varieties.

Table 44. Grain Sorghum: Yield and other characteristics of varieties evaluated at Springfield for two years (1985-86).

| Variety              | 1985-86<br>Yield<br>Bu/A | Head<br>Type<br>(1-3) | Head<br>Exertion<br>In. | Plant<br>Ht.<br>In. |
|----------------------|--------------------------|-----------------------|-------------------------|---------------------|
| Topaz                | 123                      | 1.7                   | 9.2                     | 47                  |
| Funk G-1711          | 120                      | 3.0                   | 6.0                     | 45                  |
| Funk G-522DR         | 120                      | 2.0                   | 6.8                     | 46                  |
| Hy-Performer 1330DR  | 120                      | 1.5                   | 11.5                    | 57                  |
| O's Gold GS712       | 118                      | 1.5                   | 8.2                     | 50                  |
| Stauffer S9740y      | 116                      | 32.0                  | 9.8                     | 54                  |
| Coker 7675           | 115                      | 2.2                   | 9.8                     | 54                  |
| Pioneer brand 8333   | 115                      | 2.8                   | 5.2                     | 45                  |
| T.E. Dinero          | 113                      | 1.8                   | 5.2                     | 45                  |
| T.E. y-77            | 112                      | 1.2                   | 7.8                     | 52                  |
| FFR 321DR            | 110                      | 2.2                   | 5.5                     | 46                  |
| DeKalb-Pfizer DK-42y | 108                      | 2.5                   | 9.0                     | 50                  |
| Paymaster 1022       | 105                      | 1.2                   | 6.2                     | 46                  |
| DeKalb-Pfizer DK-64  | 100                      | 2.8                   | 9.8                     | 50                  |
| L.S.D. (.05)         | 20.5                     |                       |                         |                     |
| C.V. %               | 18.1                     |                       |                         |                     |
| Avg.                 | 114.0                    |                       |                         |                     |

Table 45. Grain Sorghum: Yield of varieties evaluated at Milan for two years (1985-86).

| Variety              | Avg. | 1986 | 1985 |
|----------------------|------|------|------|
| Bushels per acre     |      |      |      |
| DeKalb-Pfizer DK-42y | 135  | 124  | 146  |
| Pioneer brand 8333   | 134  | 128  | 140  |
| Topaz                | 134  | 131  | 138  |
| Funk G-522DR         | 133  | 137  | 130  |
| Hy-Performer 1330DR  | 134  | 128  | 134  |
| DeKalb-Pfizer DK-64  | 130  | 125  | 136  |
| FFR 321              | 124  | 122  | 127  |
| O's Gold GS 712      | 122  | 134  | 111  |
| Coker C7675          | 119  | 122  | 116  |
| Funk G-522A          | 117  | 124  | 110  |
| Paymaster 1022       | 116  | 118  | 115  |

Performance of Summer Annuals  
(Sorghum X Sudangrass Crosses and Pearl Millets)

Sixteen summer annuals were evaluated in 1986 for forage production at Knoxville and Spring Hill. The plants were cut to a six-inch stubble when they reached 30 to 36 inches in height. The test at Knoxville was harvested three times and at Spring Hill four. All yields are reported as tons of oven dry forage. The test at Spring Hill was harvested with a forage chopper and at Knoxville by hand.

The leading cultivars in yield in 1986 were Funk HW 6986, DeKalb-Pfizer ST-6+, and DeKalb-Pfizer SX-17; using a two year average, DeKalb-Pfizer ST-6+, DeKalb-Pfizer SX-17, Haygrazer II and Sordan 79 performed well.

Table 46. Summer Annuals: Yields of varieties evaluated at Knoxville and Spring Hill in 1986.

| Company       | Variety             | Avg. | 1/<br>Knoxville | 2/<br>Spring Hill |
|---------------|---------------------|------|-----------------|-------------------|
|               |                     |      | Tons per acre   |                   |
| Funk's        | Funk HW 6986        | 3.19 | 3.04            | 3.34              |
| DeKalb-Pfizer | ST-6+               | 3.11 | 3.15            | 3.06              |
| DeKalb-Pfizer | SX-17               | 3.10 | 2.86            | 3.34              |
| T.E.          | Haygrazer II        | 3.04 | 3.41            | 2.66              |
| N.K.          | Sordan 79           | 3.02 | 3.10            | 2.94              |
| Co-op         | FFR 202             | 3.00 | 3.27            | 2.72              |
| Pennington    | Summergrazer III    | 2.92 | 3.01            | 2.83              |
| Asgrow        | Grazer N-2          | 2.88 | 3.01            | 2.74              |
| Funk's        | Funk FP4            | 2.87 | 3.00            | 2.73              |
| Mayo          | M-Grazer            | 2.70 | 2.76            | 2.64              |
| N.K.          | Millex 24           | 2.69 | 2.78            | 2.59              |
| Cal/West      | Bravo II            | 2.52 | 2.72            | 2.32              |
| N.K.          | Trudan 8            | 2.51 | 2.85            | 2.17              |
| Cal/West      | HS 30405            | 2.46 | 2.63            | 2.28              |
| Pennington    | Tifleaf 20          | 2.30 | 2.11            | 2.48              |
| Co-op         | FFR 105 (Exp 38505) | 2.29 | 2.59            | 1.98              |
| L.S.D. (.05)  |                     |      | 0.64            | 0.24              |
| C.V. %        |                     |      | 14.8            | 6.5               |
| Avg.          |                     |      | 2.89            | 2.68              |

1/Etowah and Captiva silt loam (2% to 5% slopes).

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

Table 47. Summer Annuals: Yield of varieties evaluated at Knoxville and Spring Hill for two years (1985-86).

| Variety             | Avg. | Knoxville |      | Spring Hill |      |
|---------------------|------|-----------|------|-------------|------|
|                     |      | 1986      | 1985 | 1986        | 1985 |
| Tons per acre       |      |           |      |             |      |
| DeKalb-Pfizer ST-6+ | 3.58 | 3.15      | 4.16 | 3.06        | 3.94 |
| DeKalb-Pfizer SX-17 | 3.55 | 2.86      | 4.05 | 3.34        | 3.93 |
| Haygrazer II        | 3.53 | 3.41      | 4.12 | 2.66        | 3.92 |
| Sordan 79           | 3.40 | 3.10      | 3.84 | 2.94        | 3.73 |
| Funk HW 6986        | 3.39 | 3.04      | 3.21 | 3.34        | 3.97 |
| Summergrazer III    | 3.33 | 3.01      | 3.57 | 2.83        | 3.92 |
| Funk FP4            | 3.32 | 3.00      | 3.65 | 2.73        | 3.89 |
| Grazer N-2          | 3.28 | 3.01      | 3.60 | 2.74        | 3.76 |
| M-Grazer            | 3.24 | 2.76      | 3.78 | 2.64        | 3.79 |
| Trudan 8            | 3.16 | 2.85      | 3.63 | 2.17        | 3.97 |
| Millex 24           | 3.05 | 2.78      | 3.07 | 2.59        | 3.75 |
| FFR 105 (Exp 38505) | 2.32 | 2.59      | 3.19 | 1.98        | 3.53 |

### Alfalfa

Alfalfa results are from tests grown at Spring Hill, Jackson, Knoxville, and Springfield. Data are reported from two tests at Knoxville, one seeded in the spring of 1983 and another in the fall of 1985 for a total of 37 varieties. Liberty and Cimarron were included in the 1985 seeding as check varieties with the remaining varieties being relatively new releases. Shenandoah, Liberty, Cimarron, Funk G-7808 and Milkmaker were the five leading varieties in hay yield. Most alfalfa varieties evaluated in recent years show very little difference in yield among varieties the first year or so. At Springfield, the leading alfalfa varieties based on two years data were Voris A77, Dart Cimarron, Pike and Armor.

The highest producing alfalfa varieties using a four-year average from tests seeded in the spring of 1983 were Armor, Vanguard, Cimarron, Voris A77, and Olympic.

Using a five-year average, the leading varieties at Jackson were Apollo, Voris A77, DeKalb 130, Vanguard, and Weevlc hek. At Spring Hill the top varieties for the past five years were Apollo, Vanguard, Cimarron, Saranac AR, and Pioneer brand 524.

Table 48. Alfalfa: Yield of varieties seeded at Knoxville Sept. 3, 1985.

| Variety      | Yield     | Variety     | Yield     |
|--------------|-----------|-------------|-----------|
|              | Tons/acre |             | Tons/acre |
| Shenandoah   | 3.39      | N-17        | 3.23      |
| Liberty      | 3.36      | Mohawk      | 3.21      |
| Cimarron     | 3.35      | Pike        | 3.17      |
| Funk G-7808  | 3.28      | Vancor      | 3.17      |
| Milkmaker    | 3.28      | Husky       | 3.11      |
| WL 320       | 3.28      | Medistan    | 3.04      |
| RAidor       | 3.27      | Advantage   | 3.04      |
| DeKalb 135   | 3.26      | Agate       | 3.04      |
| Arrow        | 3.24      | Eagle       | 3.02      |
| Dart         | 3.24      | Spreador II | 2.24      |
| L.S.D. (.05) | 0.43      |             | 0.43      |
| C.V. %       | 9.6       |             | 9.6       |
| Avg.         | 3.16      |             | 3.16      |

Table 49. Alfalfa: Yield of varieties seeded at Knoxville in the spring of 1983.<sup>1/</sup>

| Variety           | 1983-86 | 1986 | 1985 | 1984 | 1983 |
|-------------------|---------|------|------|------|------|
|                   | Avg.    |      |      |      |      |
| Tons per acre     |         |      |      |      |      |
| Armor             | 3.83    | 3.57 | 5.08 | 5.32 | 1.36 |
| Vanguard          | 3.79    | 3.42 | 4.86 | 5.44 | 1.45 |
| Cimarron          | 3.68    | 3.23 | 4.58 | 5.45 | 1.46 |
| Voris A77         | 3.67    | 3.29 | 4.64 | 5.37 | 1.37 |
| Olympic           | 3.62    | 3.13 | 4.56 | 5.46 | 1.31 |
| Acclaim           | 3.60    | 2.54 | 5.01 | 5.53 | 1.32 |
| Apollo            | 3.58    | 3.24 | 4.64 | 5.16 | 1.29 |
| Saranac AR        | 3.53    | 3.13 | 4.33 | 5.14 | 1.52 |
| Classic           | 3.48    | 2.98 | 4.53 | 5.16 | 1.26 |
| Funk G-7808       | 3.48    | 3.03 | 4.54 | 5.11 | 1.25 |
| Pioneer brand 555 | 3.46    | 3.17 | 4.44 | 4.91 | 1.30 |
| Hi-phy            | 3.43    | 2.85 | 4.44 | 5.11 | 1.31 |
| Tempo             | 3.43    | 2.91 | 4.37 | 5.04 | 1.41 |
| Pioneer brand 532 | 3.42    | 2.94 | 4.45 | 5.17 | 1.10 |
| Pioneer brand 531 | 3.32    | 2.88 | 4.26 | 5.02 | 1.14 |
| Weevlchek         | 3.31    | 2.88 | 4.33 | 4.86 | 1.16 |
| Gladiator         | 3.23    | 2.96 | 4.24 | 4.48 | 1.23 |
| Pioneer brand 526 | 3.20    | 2.62 | 4.20 | 4.82 | 1.18 |
| Pioneer brand 524 | 3.19    | 2.76 | 3.97 | 4.84 | 1.20 |
| L.S.D. (.05)      |         | N.S. | 0.48 | 0.44 | N.S. |
| C.V. %            |         | 12.0 | 7.6  | 6.2  | 18.2 |
| Avg.              |         | 3.10 | 4.40 | 5.12 | 1.30 |

<sup>1/</sup>Etowah silt loam (2% to 5% slopes).

Table 50. Alfalfa: Yield of varieties seeded at Springfield in 1984.<sup>1/</sup>

| Variety      | Avg.          | 1986 | 1985 | Variety     | Avg.          | 1986 | 1985 |
|--------------|---------------|------|------|-------------|---------------|------|------|
|              | Tons per acre |      |      |             | Tons per acre |      |      |
| Voris A77    | 4.70          | 4.62 | 4.78 | RAidor      | 4.46          | 4.36 | 4.58 |
| Dart         | 4.66          | 4.56 | 4.75 | DeKalb 130  | 4.46          | 4.35 | 4.57 |
| Cimarron     | 4.59          | 4.55 | 4.63 | Acclaim     | 4.46          | 4.38 | 4.54 |
| Pike         | 4.58          | 4.40 | 4.75 | Shenandoah  | 4.46          | 4.44 | 4.49 |
| Armor        | 4.56          | 4.53 | 4.59 | Liberty     | 4.44          | 4.44 | 4.44 |
| Vancor       | 4.53          | 4.50 | 4.56 | N-7         | 4.30          | 4.31 | 4.30 |
| Arrow        | 4.51          | 4.56 | 4.46 | Vanguard    | 4.22          | 4.22 | 4.22 |
| Mohawk       | 4.48          | 4.46 | 4.49 | Funk G-7808 | 4.19          | 4.19 | 4.19 |
|              |               |      |      | Spreador II | 3.82          | 3.87 | 3.78 |
| L.S.D. (.05) |               | 0.35 | 0.44 |             |               | 0.35 | 0.44 |
| C.V. %       |               | 5.6  | 6.95 |             |               | 5.6  | 6.95 |
| Avg.         |               | 4.39 | 4.48 |             |               | 4.39 | 4.48 |

<sup>1/</sup>Dickson silt loam (2% to 5% slopes).

Table 51. Alfalfa: Yield of varieties seeded at Jackson in the fall of 1981.<sup>1/</sup>

| Variety           | 1982-86       | 1986 | 1985 | 1984 | 1983 | 1982 |
|-------------------|---------------|------|------|------|------|------|
|                   | Avg.          |      |      |      |      |      |
|                   | Tons per acre |      |      |      |      |      |
| Apollo            | 5.62          | 4.86 | 6.24 | 5.73 | 4.88 | 6.38 |
| Voris A77         | 5.58          | 4.44 | 6.55 | 5.71 | 4.55 | 6.66 |
| DeKalb 130        | 5.48          | 4.81 | 6.56 | 5.62 | 4.63 | 5.78 |
| Vanguard          | 5.42          | 4.26 | 6.47 | 5.85 | 4.38 | 6.12 |
| Weevlc hek        | 5.41          | 4.46 | 6.09 | 5.54 | 4.89 | 6.09 |
| Classic           | 5.38          | 4.21 | 6.26 | 5.47 | 4.41 | 6.57 |
| Pioneer brand 532 | 5.35          | 4.62 | 6.28 | 5.60 | 4.69 | 5.55 |
| Cimarron          | 5.30          | 4.36 | 6.32 | 5.57 | 4.33 | 5.90 |
| Agate             | 5.27          | 4.56 | 6.50 | 5.46 | 4.32 | 5.53 |
| Hi-phy            | 5.24          | 4.68 | 6.01 | 5.24 | 4.42 | 5.86 |
| Pioneer brand 524 | 5.22          | 3.92 | 6.28 | 5.39 | 4.53 | 6.00 |
| Tempo             | 5.22          | 3.75 | 6.25 | 5.79 | 4.54 | 5.76 |
| Saranac AR        | 5.15          | 4.24 | 6.24 | 5.29 | 4.04 | 5.96 |
| Olympic           | 5.14          | 3.78 | 6.24 | 5.29 | 4.32 | 6.08 |
| Gladiator         | 5.12          | 3.65 | 6.25 | 5.47 | 4.31 | 5.90 |
| Arc               | 5.05          | 4.04 | 5.90 | 5.14 | 4.37 | 5.78 |
| Liberty           | 5.03          | 4.05 | 5.78 | 5.13 | 4.38 | 5.81 |
| Spreador II       | 4.32          | 2.87 | 5.20 | 4.42 | 3.40 | 3.69 |
| L.S.D. (.05)      |               | 0.55 | 0.64 | 0.50 | 0.47 | 0.55 |
| C.V. %            |               | 9.3  | 7.3  | 6.9  | 7.6  | 6.4  |
| Avg.              |               | 4.20 | 6.19 | 5.12 | 4.39 | 5.97 |

<sup>1/</sup>Grenada silt loam (2% to 5% slopes).

Table 52. Alfalfa: Yield of varieties seeded at Spring Hill in the fall of 1981.<sup>1/</sup>

| Variety           | 1982-86       | 1986 | 1985 | 1984 | 1983 | 1982 |
|-------------------|---------------|------|------|------|------|------|
|                   | Avg.          |      |      |      |      |      |
|                   | Tons per acre |      |      |      |      |      |
| Apollo            | 4.71          | 2.86 | 5.53 | 5.53 | 4.98 | 4.65 |
| Vangard           | 4.69          | 2.85 | 5.44 | 5.52 | 4.93 | 4.69 |
| Cimarron          | 4.65          | 2.86 | 5.33 | 5.57 | 4.88 | 4.62 |
| Saranac AR        | 4.47          | 2.54 | 5.17 | 5.12 | 4.81 | 4.71 |
| Pioneer brand 524 | 4.44          | 2.68 | 5.14 | 5.38 | 4.71 | 4.30 |
| Olympic           | 4.41          | 2.66 | 4.84 | 5.30 | 4.86 | 4.38 |
| Dekalb 130        | 4.41          | 2.58 | 4.85 | 5.26 | 4.68 | 4.66 |
| Voris A77         | 4.38          | 2.64 | 5.08 | 5.15 | 4.54 | 4.46 |
| Arc               | 4.32          | 2.70 | 5.02 | 4.90 | 4.50 | 4.46 |
| Weevlchek         | 4.20          | 2.21 | 4.96 | 5.06 | 4.46 | 4.32 |
| Liberty           | 4.16          | 2.50 | 4.67 | 4.88 | 4.62 | 4.13 |
| Classic           | 4.15          | 2.26 | 4.78 | 5.06 | 4.50 | 4.13 |
| Tempo             | 4.10          | 2.14 | 4.53 | 4.95 | 4.53 | 4.36 |
| Agate             | 4.03          | 2.55 | 4.88 | 4.59 | 4.42 | 3.73 |
| Gladiator         | 3.99          | 2.12 | 4.43 | 4.60 | 4.59 | 4.19 |
| Pioneer brand 532 | 3.96          | 2.53 | 4.78 | 4.70 | 4.29 | 3.51 |
| Hi-phy            | 3.84          | 2.25 | 4.56 | 4.47 | 4.03 | 3.85 |
| Spreador II       | 2.63          | 1.20 | 2.78 | 2.84 | 3.48 | 2.84 |
| L.S.D. (.05)      |               | 0.50 | 0.83 | 0.90 | N.S. | 0.85 |
| C.V. %            |               | 14.5 | 12.6 | 12.9 | 12.1 | 14.2 |
| Avg.              |               | 2.45 | 4.68 | 4.94 | 4.55 | 4.22 |

<sup>1/</sup>Maury silt loam (2% to 5% slopes).

## Soybeans

The soybean variety trials (Maturity group V) were conducted at seven locations across the state (Tables 1 and 2). The data from Spring Hill will be presented later in another report due to the plots being harvested late. The wet weather during November delayed harvest at several locations. The yields were good at all locations except Springfield and Ames Plantation. A second and later planting (May 14) of Maturity group V varieties was grown at Ames Plantation and produced higher yields than the earlier planting (April 26) due to the favorable rainfall which occurred later in the growing season. Usually beans planted late at this location would result in yield reduction instead of the yield advantages that were obtained in 1986. The results from this second planting will be reported later with the Spring Hill results. At Knoxville, Temik was used to control the soybean cyst nematode. Dry weather occurred in the early part of the growing season at Knoxville, with adequate moisture occurring during the later stages of growth. Flowering and pod development were delayed due to this lack of moisture during the early flowering period for most varieties in Maturity group V. The maturity of Essex was delayed at Knoxville where Temik had been used for nematode control. The beans of this variety matured normally but leaf drop was delayed and second growth occurred under these conditions. Several varieties were stunted at Knoxville where Temik had been used, especially if emergence was delayed due to crusting or slow germinating seed. The worst stunting occurred where the beans were covered with some soil from rotary hoeing to break the crust. Most varieties recovered and grew normally. TN 83-26 (an experimental) showed the most symptoms of Temik injury primarily of leaf crinkling. Forrest has shown the same symptoms under similar conditions where Temik has been used. Excellent soybean cyst nematode control was obtained at this location in 1986. In 1985 at Knoxville where Furadan had been used, very little cyst nematode control was noted especially in some "hot" spots in the field.

In 1986 at Knoxville, Terra Vig 515, Pioneer brand 9591, Yield King 577, Hartz 5252, Hartz 5370, TN 5-85, and Forrest produced sixty or more bushels of beans.

Coker 425 is a high yielding, lodging resistant variety that seems to do better under good growing conditions. Due to its growth habit of being short without much lateral branching, it might respond to close row spacing. However, in wide rows under drought conditions, this variety's yields may be reduced more than other varieties due to its growth habit. At Greeneville in 1985 this variety grew taller and branched more than normal when compared with other locations in Tennessee.

The leading varieties in yield of Maturity group V were Terra Vig 515, Pioneer brand 9591, Deltapine 415, Deltapine 105, Coker 485, FFR 561 and Essex. Using a three-year average for this maturity group (V), Coker 485, Coker 425, Essex, FFR 561, Pioneer brand 5482, and Deltapine 105 were the highest yielding varieties (Table 5).

Thirty-two late-maturing varieties (Maturity group VI & VII) were evaluated at four locations in 1986 (Tables 7 and 8). No yield data are reported for Spring Hill due to late harvest; results will be published in another report. The highest yielding varieties in this late group in 1986 were Coker 686, Coker 156, Asgrow A6520, Leflore, and Yield King 707. Jeff, Spartan, Yield King 707, Hartz 6383R and Yield King 757 had a tendency to lodge. The remaining varieties stood well in these studies in 1986. Using a two-year average (Tables 9 and 10), Asgrow A6242, Asgrow A6520, Leflore, Hartz 7126, and Shiloh yielded as well as or better than Centennial.

The early-maturing varieties of Maturity group IV or less were evaluated at five locations in 1986 (Tables 13 and 14). Yields at Springfield and Ames Plantation were reduced due to dry weather. RA 452, Pershing, and Bailey 469 produced the highest average yield for 1986.

Two strains tests were conducted at Jackson with 12 strains being evaluated in Maturity group V (Table 17) and 13 strains being evaluated in the late-maturity groups of VI & VII (Table 18). In Maturity group V at Jackson, TN 84-51 and TN 84-147 yielded as well as or better than Essex. In the late strain test, Hartz H81-9548 produced the highest average yield.

In 1986, Lawrence D. Young evaluated all varieties at Jackson in the greenhouse for susceptibility to soybean cyst nematodes (Tables 19 to 22). The susceptibility rating was based on a scale of 0, 1, 2, 3, and 4, with 4 being susceptible. A mean severity index was obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants.

Example 1: 8 plants with a rating of 4 =  $32/8 = 4.0$  mean severity index.

Example 2: (3 plants x 2 rating = 6) + (2 plants x 1 rating = 2) +  
(3 plants x 0 rating = 0) =  $6 + 2 + 0 = 8$  divided by  
8 total plants = 1.0 mean severity index.

A letter rating was also given with R being resistant, S being susceptible, MR being moderately resistant and Seg. being a variety segregating for nematode resistance. A "+" was given when a variety had a rating greater than the worst rating of 4.

Table 53. Soybeans: Yield of varieties (Maturity Group V) evaluated at six locations in 1986.

| Variety             | Avg. | 1/<br>Greene-<br>ville | 2/<br>Knox-<br>ville | 3/<br>Spring-<br>field | 4/<br>Ames<br>Plantation | 5/<br>Milan | 6/<br>Martin |
|---------------------|------|------------------------|----------------------|------------------------|--------------------------|-------------|--------------|
|                     |      | Bushels per acre       |                      |                        |                          |             |              |
| Terra Vig 515       | 41   | 35                     | 61                   | 19                     | 24                       | 57          | 52           |
| Pioneer brand 9591  | 41   | 39                     | 60                   | 17                     | 26                       | 59          | 46           |
| Deltapine 415       | 41   | 42                     | 58                   | 19                     | 26                       | 57          | 42           |
| Deltapine 105       | 41   | 41                     | 53                   | 24                     | 26                       | 54          | 45           |
| Coker 485           | 40   | 41                     | 55                   | 16                     | 22                       | 60          | 50           |
| FFR 561             | 40   | 37                     | 51                   | 18                     | 29                       | 56          | 49           |
| Essex               | 40   | 42                     | 52                   | 16                     | 25                       | 56          | 47           |
| Yield King 577      | 39   | 31                     | 64                   | 12                     | 24                       | 56          | 49           |
| Coker 425           | 39   | 32                     | 52                   | 19                     | 22                       | 63          | 47           |
| Hartz 5252          | 39   | 36                     | 62                   | 20                     | 21                       | 50          | 44           |
| Hartz 5370          | 39   | 40                     | 60                   | 19                     | 24                       | 48          | 42           |
| Pioneer brand 5482  | 39   | 38                     | 57                   | 18                     | 25                       | 50          | 46           |
| TN 5-85             | 38   | 35                     | 60                   | 15                     | 26                       | 50          | 44           |
| FFR 562             | 38   | 40                     | 52                   | 17                     | 24                       | 51          | 46           |
| Pioneer brand 9581  | 38   | 38                     | 56                   | 14                     | 24                       | 51          | 45           |
| Coker 355           | 37   | 39                     | 52                   | 23                     | 23                       | 41          | 45           |
| Hartz 5171          | 37   | 37                     | 58                   | 17                     | 19                       | 50          | 43           |
| Hartz X5164         | 37   | 38                     | 51                   | 14                     | 22                       | 54          | 53           |
| Coker 80-R-49       | 37   | 37                     | 57                   | 14                     | 22                       | 50          | 42           |
| Shenandoah          | 36   | 43                     | 58                   | 15                     | 18                       | 44          | 41           |
| Forrest             | 36   | 32                     | 62                   | 18                     | 20                       | 43          | 41           |
| Asgrow A5474        | 36   | 34                     | 56                   | 16                     | 20                       | 50          | 39           |
| Asgrow A5980        | 36   | 36                     | 54                   | 19                     | 18                       | 49          | 39           |
| Pioneer brand 9571  | 36   | 30                     | 52                   | 17                     | 20                       | 47          | 46           |
| Terra Vig 553       | 36   | 33                     | 54                   | 15                     | 22                       | 47          | 42           |
| FFR 560             | 36   | 35                     | 52                   | 14                     | 23                       | 45          | 43           |
| Epps                | 35   | 38                     | 49                   | 16                     | 26                       | 42          | 41           |
| Bedford             | 35   | 34                     | 48                   | 18                     | 25                       | 42          | 44           |
| N.K. S59-19         | 35   | 34                     | 47                   | 10                     | 26                       | 51          | 40           |
| Yield King 503      | 34   | 40                     | 54                   | 13                     | 24                       | 43          | 33           |
| DeKalb-Pfizer EX655 | 34   | 32                     | 52                   | 10                     | 19                       | 45          | 48           |
| Asgrow A5149        | 34   | 30                     | 47                   | 19                     | 20                       | 54          | 36           |
| TN 83-26            | 34   | 32                     | 50                   | 13                     | 19                       | 47          | 42           |
| Deltapine 675       | 34   | 34                     | 57                   | 18                     | 19                       | 44          | 32           |
| RA 480              | 34   | 36                     | 52                   | 16                     | 21                       | 44          | 33           |
| L.S.D. (.05)        | 3.5  | 7.3                    | 7.5                  | 5.9                    | 4.2                      | 6.5         | 9.2          |
| C.V. %              | 13.5 | 14.4                   | 9.8                  | 25.5                   | 13.3                     | 9.2         | 15.1         |
| Avg.                | 37.2 | 36.4                   | 54.7                 | 16.5                   | 22.7                     | 50.0        | 43.1         |

1/Waynesboro loam (2% to 5% slopes).

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

3/Dickson silt loam (2% to 5% slopes).

4/Loring silt loam (2% to 5% slopes).

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

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

Table 54. Soybeans: Yield and other characteristics of varieties (Maturity Group V) evaluated at six locations in 1986.

| Variety             | Avg.<br>Yield<br>Bu/A | Moisture<br>at<br>Harvest<br>% | Date<br>Full<br>Bloom | Date<br>Mature | Plant<br>Height<br>In. | Lodging<br>% |
|---------------------|-----------------------|--------------------------------|-----------------------|----------------|------------------------|--------------|
| Terra Vig 515       | 41                    | 15.8                           | 7-15                  | 10-12          | 34.3                   | 8.6          |
| Pioneer brand 9591  | 41                    | 14.4                           | 7-12                  | 10-12          | 28.4                   | 0.0          |
| Deltapine 415       | 41                    | 14.8                           | 7-12                  | 9-30           | 34.8                   | 3.9          |
| Deltapine 105       | 41                    | 14.7                           | 7-16                  | 10-6           | 38.4                   | 18.4         |
| Coker 485           | 40                    | 15.1                           | 7-15                  | 10-15          | 33.9                   | 15.4         |
| FFR 561             | 40                    | 15.0                           | 7-14                  | 10-7           | 34.1                   | 0.4          |
| Essex               | 40                    | 14.7                           | 7-7                   | 9-28           | 38.4                   | 18.4         |
| Yield King 577      | 39                    | 14.0                           | 7-14                  | 10-1           | 37.7                   | 30.8         |
| Coker 425           | 39                    | 14.0                           | 7-6                   | 9-28           | 25.5                   | 0.0          |
| Hartz 5252          | 39                    | 14.1                           | 7-14                  | 10-1           | 37.4                   | 4.6          |
| Hartz 5370          | 39                    | 14.6                           | 7-14                  | 10-6           | 37.6                   | 2.7          |
| Pioneer brand 5482  | 39                    | 14.0                           | 7-10                  | 10-6           | 38.7                   | 9.1          |
| TN 5-85             | 38                    | 14.5                           | 7-9                   | 9-29           | 36.4                   | 7.0          |
| FFR 562             | 38                    | 14.7                           | 7-17                  | 10-9           | 41.4                   | 3.1          |
| Pioneer brand 9581  | 38                    | 13.7                           | 7-10                  | 9-30           | 36.7                   | 9.1          |
| Coker 355           | 37                    | 14.0                           | 7-13                  | 10-4           | 37.1                   | 5.5          |
| Hartz 5171          | 37                    | 15.1                           | 7-14                  | 10-8           | 39.6                   | 13.2         |
| Hartz X5164         | 37                    | 14.7                           | 7-14                  | 10-12          | 36.8                   | 4.2          |
| Coker 80-R-49       | 37                    | 14.0                           | 7-9                   | 9-27           | 30.1                   | 3.2          |
| Shenandoah          | 36                    | 14.5                           | 7-13                  | 10-2           | 36.9                   | 10.4         |
| Forrest             | 36                    | 14.3                           | 7-10                  | 9-29           | 36.4                   | 3.6          |
| Asgrow A5474        | 36                    | 14.3                           | 7-12                  | 9-27           | 36.4                   | 3.6          |
| Asgrow A5980        | 36                    | 15.0                           | 7-15                  | 10-5           | 39.4                   | 24.8         |
| Pioneer brand 9571  | 36                    | 13.9                           | 7-13                  | 10-2           | 39.2                   | 11.6         |
| Terra Vig 553       | 36                    | 14.1                           | 7-15                  | 10-4           | 35.8                   | 5.4          |
| FFR 560             | 36                    | 14.1                           | 7-18                  | 10-5           | 42.1                   | 23.4         |
| Epps                | 35                    | 15.2                           | 7-12                  | 9-29           | 36.0                   | 19.4         |
| Bedford             | 35                    | 14.4                           | 7-19                  | 10-2           | 40.8                   | 22.9         |
| N.K. 859-19         | 35                    | 14.0                           | 7-14                  | 9-26           | 31.0                   | 3.4          |
| Yield King 503      | 34                    | 13.3                           | 7-10                  | 9-27           | 39.4                   | 10.2         |
| DeKalb-Pfizer EX655 | 34                    | 13.8                           | 7-16                  | 10-7           | 34.2                   | 1.0          |
| Asgrow A5149        | 34                    | 14.2                           | 7-9                   | 10-2           | 31.1                   | 0.0          |
| TN 83-26            | 34                    | 13.5                           | 7-9                   | 9-26           | 40.4                   | 0.9          |
| Deltapine 675       | 34                    | 14.5                           | 7-17                  | 10-4           | 39.0                   | 5.0          |
| RA 480              | 34                    | 13.6                           | 7-10                  | 9-27           | 41.2                   | 14.5         |
| L.S.D. (.05)        | 3.5                   |                                |                       |                |                        |              |
| C.V. %              | 13.5                  |                                |                       |                |                        |              |
| Avg.                | 37.2                  |                                |                       |                |                        |              |

Table 55. Soybeans: Yield of varieties (Maturity Group V) evaluated at six locations for two years (1985-86).

| Variety            | Avg. | Greene-<br>ville | Knox-<br>ville | Spring-<br>field | Ames<br>Plantation | Milan | Martin |
|--------------------|------|------------------|----------------|------------------|--------------------|-------|--------|
| Bushels per acre   |      |                  |                |                  |                    |       |        |
| Coker 485          | 45   | 38               | 53             | 26               | 38                 | 62    | 50     |
| Terra Vig 515      | 45   | 35               | 56             | 26               | 42                 | 58    | 50     |
| Deltapine 105      | 44   | 44               | 52             | 28               | 41                 | 47    | 47     |
| Essex              | 44   | 44               | 48             | 27               | 43                 | 54    | 48     |
| FFR 561            | 44   | 42               | 46             | 27               | 45                 | 54    | 48     |
| TN 5-85            | 43   | 36               | 53             | 25               | 42                 | 56    | 46     |
| Pioneer brand 5482 | 43   | 41               | 50             | 26               | 41                 | 52    | 48     |
| Coker 425          | 43   | 39               | 50             | 28               | 38                 | 57    | 46     |
| Hartz 5252         | 43   | 38               | 54             | 27               | 39                 | 53    | 46     |
| Asgrow A5980       | 42   | 38               | 53             | 27               | 36                 | 52    | 45     |
| FFR 562            | 42   | 42               | 50             | 23               | 42                 | 51    | 45     |
| Asgrow A5474       | 42   | 39               | 50             | 25               | 38                 | 53    | 47     |
| Hartz 5370         | 42   | 36               | 52             | 27               | 39                 | 52    | 44     |
| Coker 355          | 42   | 37               | 52             | 30               | 37                 | 48    | 46     |
| Hartz 5171         | 42   | 36               | 51             | 26               | 38                 | 52    | 45     |
| Forrest            | 42   | 35               | 56             | 28               | 38                 | 49    | 43     |
| Pioneer brand 9571 | 42   | 35               | 49             | 26               | 37                 | 52    | 49     |
| Bedford            | 41   | 36               | 47             | 24               | 40                 | 51    | 50     |
| Terra Vig 553      | 41   | 36               | 50             | 25               | 40                 | 52    | 42     |
| FFR 560            | 41   | 36               | 51             | 24               | 37                 | 51    | 44     |
| Epps               | 40   | 38               | 48             | 23               | 38                 | 48    | 45     |
| Asgrow A5149       | 40   | 36               | 49             | 29               | 36                 | 50    | 38     |
| Yield King 503     | 39   | 40               | 52             | 23               | 40                 | 40    | 36     |
| RA 480             | 37   | 36               | 49             | 25               | 37                 | 37    | 34     |

**Table 56. Soybeans: Yield and other characteristics of varieties (Maturity Group V) evaluated at six locations for two years (1985-86).**

| Variety            | Avg.<br>Yield<br>Bu/A | Moisture<br>at<br>Harvest<br>% | Date<br>Full<br>Bloom | Date<br>Mature | Plant<br>Height<br>In. | Lodging<br>% |
|--------------------|-----------------------|--------------------------------|-----------------------|----------------|------------------------|--------------|
| Coker 485          | 45                    | 14.6                           | 7-13                  | 10-12          | 34                     | 18.0         |
| Terra Vig 515      | 45                    | 15.0                           | 7-15                  | 10-9           | 34                     | 11.0         |
| Deltapine 105      | 44                    | 14.7                           | 7-14                  | 10-5           | 38                     | 20.0         |
| Essex              | 44                    | 14.4                           | 7-5                   | 9-27           | 28                     | 4.0          |
| FFR 561            | 44                    | 14.7                           | 7-9                   | 10-3           | 34                     | 3.0          |
| TN 5-85            | 43                    | 14.1                           | 7-8                   | 9-29           | 36                     | 13.0         |
| Pioneer brand 5482 | 43                    | 13.9                           | 7-9                   | 10-6           | 39                     | 12.0         |
| Coker 425          | 43                    | 14.0                           | 7-5                   | 9-27           | 26                     | 2.0          |
| Hartz 5252         | 43                    | 14.2                           | 7-11                  | 10-1           | 36                     | 13.0         |
| Asgrow A5980       | 42                    | 14.8                           | 7-12                  | 10-4           | 41                     | 28.0         |
| FFR 562            | 42                    | 14.5                           | 7-14                  | 10-6           | 40                     | 7.0          |
| Asgrow A5474       | 42                    | 14.2                           | 7-10                  | 9-27           | 36                     | 7.0          |
| Hartz 5370         | 42                    | 14.6                           | 7-12                  | 10-5           | 38                     | 13.0         |
| Coker 355          | 42                    | 14.0                           | 7-11                  | 10-4           | 37                     | 14.0         |
| Hartz 5171         | 42                    | 14.6                           | 7-12                  | 10-5           | 39                     | 19.0         |
| Forrest            | 42                    | 14.0                           | 7-9                   | 9-29           | 37                     | 8.0          |
| Pioneer brand 9571 | 42                    | 14.0                           | 7-11                  | 10-4           | 38                     | 20.0         |
| Bedford            | 41                    | 14.3                           | 7-19                  | 10-3           | 43                     | 30.0         |
| Terra Vig 553      | 41                    | 14.2                           | 7-12                  | 10-2           | 36                     | 12.0         |
| FFR 560            | 41                    | 14.1                           | 7-15                  | 10-4           | 43                     | 30.0         |
| Epps               | 40                    | 14.6                           | 7-10                  | 9-30           | 36                     | 37.0         |
| Asgrow A5149       | 40                    | 14.1                           | 7-7                   | 9-30           | 30                     | 0.4          |
| Yield King 503     | 39                    | 13.2                           | 7-7                   | 9-27           | 40                     | 14.0         |
| RA 480             | 37                    | 13.8                           | 7-9                   | 9-27           | 41                     | 22.7         |

**Table 57. Soybeans: Yield of varieties (Maturity Group V) evaluated at six locations for three years (1984-86).**

| Variety            | Avg. | Greene-<br>ville | Knox-<br>ville | Spring-<br>field | Ames<br>Plantation | Milan | Martin |
|--------------------|------|------------------|----------------|------------------|--------------------|-------|--------|
| Bushels per acre   |      |                  |                |                  |                    |       |        |
| Coker 485          | 46   | 40               | 50             | 32               | 44                 | 60    | 49     |
| Coker 425          | 46   | 43               | 50             | 33               | 44                 | 58    | 46     |
| Essex              | 45   | 46               | 48             | 32               | 46                 | 52    | 46     |
| FFR 561            | 45   | 43               | 49             | 32               | 48                 | 52    | 45     |
| Pioneer brand 5482 | 45   | 42               | 50             | 32               | 46                 | 51    | 46     |
| Deltapine 105      | 45   | 44               | 49             | 32               | 47                 | 50    | 46     |
| Hartz 5252         | 44   | 41               | 50             | 40               | 43                 | 51    | 45     |
| TN 5-85            | 43   | 39               | 50             | 28               | 44                 | 54    | 45     |
| Asgrow A5980       | 43   | 42               | 47             | 31               | 40                 | 52    | 46     |
| Asgrow A5474       | 43   | 41               | 46             | 29               | 42                 | 52    | 46     |
| Hartz 5171         | 42   | 38               | 49             | 30               | 42                 | 52    | 43     |
| Hartz 5370         | 42   | 40               | 46             | 30               | 44                 | 51    | 42     |
| Pioneer brand 9571 | 42   | 39               | 44             | 29               | 42                 | 51    | 48     |
| FFR 562            | 42   | 43               | 47             | 26               | 44                 | 48    | 44     |
| Coker 355          | 42   | 39               | 46             | 32               | 42                 | 48    | 45     |
| Forrest            | 42   | 38               | 50             | 31               | 41                 | 48    | 43     |
| Bedford            | 41   | 37               | 45             | 27               | 41                 | 50    | 46     |
| FFR 560            | 41   | 37               | 46             | 26               | 39                 | 51    | 44     |
| Epps               | 40   | 38               | 44             | 27               | 41                 | 47    | 43     |
| Yield King 503     | 40   | 41               | 46             | 28               | 45                 | 41    | 38     |
| RA 480             | 37   | 39               | 44             | 28               | 40                 | 38    | 36     |

Table 58. Soybeans: Yield and other characteristics of varieties (Maturity Group V) evaluated at six locations for three years (1984-86).

| Variety            | Yield<br>Bu/A | Plant<br>Height<br>In. | Lodging<br>% | Date<br>Mature |
|--------------------|---------------|------------------------|--------------|----------------|
| Coker 485          | 46            | 35                     | 20           | 10-10          |
| Coker 425          | 46            | 27                     | 2            | 9-28           |
| Essex              | 45            | 33                     | 11           | 9-27           |
| FFR 561            | 45            | 34                     | 4            | 10-3           |
| Pioneer brand 5482 | 45            | 38                     | 10           | 10-5           |
| Deltapine 105      | 45            | 38                     | 24           | 10-6           |
| Hartz 5252         | 44            | 37                     | 19           | 10-5           |
| TN 5-85            | 43            | 37                     | 16           | 9-29           |
| Asgrow A5980       | 43            | 41                     | 32           | 10-5           |
| Asgrow A5474       | 43            | 37                     | 7            | 9-30           |
| Hartz 5171         | 42            | 40                     | 23           | 10-6           |
| Hartz 5370         | 42            | 39                     | 20           | 10-6           |
| Pioneer brand 9571 | 42            | 39                     | 18           | 10-5           |
| FFR 562            | 42            | 37                     | 10           | 10-4           |
| Coker 355          | 42            | 38                     | 12           | 10-5           |
| Forrest            | 42            | 38                     | 12           | 10-1           |
| Bedford            | 41            | 43                     | 35           | 10-6           |
| FFR 560            | 41            | 43                     | 34           | 10-6           |
| Epps               | 40            | 36                     | 41           | 10-1           |
| Yield King 503     | 40            | 39                     | 22           | 10-3           |
| RA 480             | 37            | 42                     | 28           | 9-30           |

Table 59. Soybeans: Yield of varieties (Maturity group VI & VII) evaluated at three locations in 1986.

| Variety         | Avg. | Knoxville | Ames                           | Milan |
|-----------------|------|-----------|--------------------------------|-------|
|                 |      |           | Plantation<br>Bushels per acre |       |
| Coker 686       | 48   | 60        | 26                             | 58    |
| Coker 156       | 46   | 59        | 26                             | 53    |
| Asgrow A6520    | 46   | 58        | 24                             | 55    |
| Leflore         | 46   | 56        | 28                             | 52    |
| Yield King 757  | 45   | 57        | 29                             | 50    |
| Asgrow A6242    | 44   | 58        | 25                             | 50    |
| Sampson         | 44   | 56        | 30                             | 46    |
| FFR 668         | 44   | 57        | 28                             | 47    |
| Centennial      | 43   | 52        | 27                             | 51    |
| Asgrow A6787    | 43   | 59        | 18                             | 52    |
| Hartz 7126      | 43   | 55        | 28                             | 47    |
| Deltapine 566   | 43   | 55        | 26                             | 47    |
| Hartz X6385     | 43   | 57        | 24                             | 48    |
| N.K. S69-96     | 42   | 56        | 23                             | 48    |
| Hartz 6383R     | 42   | 56        | 26                             | 44    |
| Yield King 696  | 42   | 57        | 25                             | 44    |
| Yield King 707  | 42   | 52        | 28                             | 45    |
| Shiloh          | 42   | 53        | 22                             | 50    |
| Yield King 593  | 41   | 61        | 20                             | 42    |
| Funk G-1409     | 41   | 51        | 23                             | 48    |
| Yield King 613  | 40   | 55        | 20                             | 47    |
| RA 606          | 40   | 50        | 23                             | 46    |
| Deltapine 497   | 40   | 48        | 24                             | 47    |
| Hartz 7110      | 40   | 54        | 25                             | 39    |
| Coker 6716      | 39   | 53        | 21                             | 43    |
| Funk G-Exp 3305 | 39   | 54        | 18                             | 44    |
| Terra Vig 616   | 39   | 53        | 21                             | 42    |
| Deltapine 417   | 38   | 46        | 25                             | 44    |
| Spartan         | 38   | 46        | 23                             | 45    |
| Jeff            | 38   | 52        | 26                             | 35    |
| Sanalona        | 36   | 49        | 20                             | 39    |
| McNair 500      | 36   | 51        | 14                             | 43    |
| L.S.D. (.05)    | 3.6  |           |                                |       |
| C.V. %          | 11.4 |           |                                |       |
| Avg.            | 41.6 |           |                                |       |

Table 60. Soybeans: Yield and other characteristics of varieties (Maturity Group VI & VII) evaluated at three locations in 1986.

| Variety         | Avg.<br>Yield<br>Bu/A | Moisture<br>at<br>Harvest<br>% | Date<br>Full<br>Bloom | Date<br>Mature | Plant<br>Height<br>In. | Lodging<br>% |
|-----------------|-----------------------|--------------------------------|-----------------------|----------------|------------------------|--------------|
| Coker 686       | 48                    | 16.7                           | 7-27                  | 10-26          | 36                     | 3            |
| Coker 156       | 46                    | 16.8                           | 7-26                  | 10-24          | 36                     | 2            |
| Asgrow A6520    | 46                    | 17.3                           | 7-26                  | 10-19          | 34                     | 8            |
| Leflore         | 46                    | 17.3                           | 7-26                  | 10-24          | 38                     | 10           |
| Yield King 757  | 45                    | 17.4                           | 7-29                  | 10-29          | 42                     | 24           |
| Asgrow A6242    | 44                    | 16.6                           | 7-24                  | 10-20          | 35                     | 8            |
| Sampson         | 44                    | 16.4                           | 7-28                  | 10-28          | 34                     | 8            |
| FFR 668         | 44                    | 17.6                           | 7-29                  | 10-26          | 38                     | 2            |
| Centennial      | 43                    | 17.0                           | 7-28                  | 10-24          | 40                     | 3            |
| Asgrow A6787    | 43                    | 16.4                           | 7-29                  | 10-25          | 36                     | 7            |
| Hartz 7126      | 43                    | 17.4                           | 7-26                  | 10-28          | 41                     | 5            |
| Deltapine 566   | 43                    | 16.4                           | 7-27                  | 10-26          | 36                     | 2            |
| Hartz X6385     | 43                    | 17.4                           | 7-28                  | 10-23          | 36                     | 4            |
| N.K. S69-96     | 42                    | 16.8                           | 7-29                  | 10-27          | 36                     | 8            |
| Hartz 6383R     | 42                    | 16.9                           | 7-27                  | 10-27          | 39                     | 22           |
| Yield King 696  | 42                    | 16.6                           | 7-27                  | 10-22          | 35                     | 4            |
| Yield King 707  | 42                    | 16.8                           | 8-3                   | 10-28          | 49                     | 28           |
| Shiloh          | 42                    | 15.8                           | 7-26                  | 10-12          | 33                     | 2            |
| Yield King 593  | 41                    | 16.2                           | 7-25                  | 10-19          | 39                     | 4            |
| Funk G-1409     | 41                    | 16.8                           | 7-26                  | 10-20          | 37                     | 2            |
| Yield King 613  | 40                    | 16.0                           | 7-28                  | 10-22          | 40                     | 7            |
| RA 606          | 40                    | 16.7                           | 7-26                  | 10-28          | 41                     | 9            |
| Deltapine 497   | 40                    | 17.4                           | 8-2                   | 10-27          | 47                     | 6            |
| Hartz 7110      | 40                    | 17.8                           | 7-28                  | 10-23          | 40                     | 11           |
| Coker 6716      | 39                    | 16.2                           | 7-25                  | 10-16          | 36                     | 2            |
| Funk G-Exp 3305 | 39                    | 16.3                           | 7-26                  | 10-17          | 34                     | 3            |
| Terra Vig 616   | 39                    | 16.7                           | 7-26                  | 10-25          | 42                     | 10           |
| Deltapine 417   | 38                    | 18.9                           | 7-27                  | 10-28          | 49                     | 10           |
| Spartan         | 38                    | 18.9                           | 7-28                  | 10-28          | 39                     | 31           |
| Jeff            | 38                    | 17.0                           | 7-25                  | 10-24          | 36                     | 32           |
| Sanalona        | 36                    | 16.6                           | 7-29                  | 10-18          | 35                     | 8            |
| McNair 500      | 36                    | 16.5                           | 7-24                  | 10-12          | 32                     | 2            |
| L.S.D. (.05)    | 3.6                   |                                |                       |                |                        |              |
| C.V. %          | 11.4                  |                                |                       |                |                        |              |
| Avg.            | 41.6                  |                                |                       |                |                        |              |

Table 61. Soybeans: Yield of varieties (Maturity group VI &amp; VII) evaluated at three locations for two years (1985-86).

| Variety        | Avg. | Knoxville | Ames                           | Milan |
|----------------|------|-----------|--------------------------------|-------|
|                |      |           | Plantation<br>Bushels per acre |       |
| Asgrow A6242   | 47   | 54        | 38                             | 50    |
| Asgrow A6520   | 46   | 52        | 35                             | 52    |
| Leflore        | 46   | 48        | 38                             | 52    |
| Hartz 7126     | 45   | 49        | 36                             | 49    |
| Shiloh         | 45   | 49        | 36                             | 49    |
| Centennial     | 45   | 49        | 37                             | 48    |
| Yield King 593 | 44   | 55        | 33                             | 43    |
| Deltapine 566  | 43   | 49        | 34                             | 47    |
| Hartz 6383R    | 43   | 49        | 34                             | 46    |
| Hartz 7110     | 42   | 49        | 32                             | 46    |
| Yield King 613 | 40   | 46        | 31                             | 45    |
| RA 606         | 40   | 45        | 31                             | 44    |
| Terra Vig 616  | 40   | 47        | 31                             | 42    |
| FFR 668        | 40   | 49        | 30                             | 40    |
| Deltapine 417  | 39   | 45        | 29                             | 42    |

Table 62. Soybeans: Yield and other characteristics of varieties (Maturity Group VI &amp; VII) evaluated at three locations for two years (1985-86).

| Variety        | Avg.          | Moisture           | Date          | Date   | Plant         | Lodging |
|----------------|---------------|--------------------|---------------|--------|---------------|---------|
|                | Yield<br>Bu/A | at<br>Harvest<br>% | Full<br>Bloom | Mature | Height<br>In. |         |
| Asgrow A6242   | 47            | 16.0               | 7-18          | 10-14  | 37            | 4.0     |
| Asgrow A6520   | 46            | 16.5               | 7-30          | 10-15  | 35            | 4.0     |
| Leflore        | 46            | 16.2               | 7-20          | 10-19  | 41            | 5.0     |
| Hartz 7126     | 45            | 16.4               | 7-22          | 10-21  | 42            | 3.0     |
| Shiloh         | 45            | 15.4               | 7-19          | 10-10  | 36            | 0.7     |
| Centennial     | 45            | 16.2               | 7-22          | 10-19  | 40            | 2.0     |
| Yield King 593 | 44            | 15.6               | 7-19          | 10-15  | 42            | 3.0     |
| Deltapine 566  | 43            | 15.8               | 7-21          | 10-20  | 38            | 1.0     |
| Hartz 6383R    | 43            | 16.4               | 7-21          | 10-22  | 40            | 9.0     |
| Hartz 7110     | 42            | 16.8               | 7-24          | 10-21  | 42            | 5.0     |
| Yield King 613 | 40            | 15.7               | 7-26          | 10-16  | 46            | 5.0     |
| RA 606         | 40            | 16.2               | 7-22          | 10-22  | 41            | 4.0     |
| Terra Vig 616  | 40            | 16.3               | 7-22          | 10-22  | 44            | 6.0     |
| FFR 668        | 40            | 16.4               | 7-24          | 10-21  | 39            | 1.0     |
| Deltapine 417  | 39            | 17.4               | 7-25          | 10-27  | 49            | 6.0     |

Table 63. Soybeans: Yield of varieties (Maturity group VI & VII) evaluated at three locations for three years (1984-86).

| Variety        | Avg. | Knoxville | Ames                           | Milan |
|----------------|------|-----------|--------------------------------|-------|
|                |      |           | Plantation<br>Bushels per acre |       |
| Asgrow A6242   | 45   | 45        | 42                             | 48    |
| Asgrow A6520   | 45   | 45        | 39                             | 50    |
| Hartz 7126     | 44   | 42        | 41                             | 50    |
| Centennial     | 43   | 44        | 40                             | 45    |
| Yield King 593 | 43   | 46        | 39                             | 43    |
| Hartz 6383R    | 43   | 45        | 38                             | 45    |
| Deltapine 566  | 42   | 41        | 37                             | 48    |
| Yield King 613 | 40   | 40        | 36                             | 44    |
| FFR 668        | 39   | 42        | 34                             | 42    |
| RA 606         | 39   | 39        | 35                             | 43    |
| Deltapine 417  | 39   | 39        | 35                             | 42    |

Table 64. Soybeans: Yield and other characteristics of varieties (Maturity Groups VI & VII) evaluated at three locations for three years (1984-86).

| Variety        | Yield | Plant Height | Lodging | Date Mature |
|----------------|-------|--------------|---------|-------------|
|                | Bu/A  | In.          | %       |             |
| Asgrow A6242   | 45    | 38           | 13      | 10-14       |
| Asgrow A6520   | 45    | 37           | 14      | 10-16       |
| Hartz 7126     | 44    | 42           | 16      | 10-22       |
| Centennial     | 43    | 41           | 13      | 10-20       |
| Yield King 593 | 43    | 43           | 17      | 10-17       |
| Hartz 6383R    | 43    | 40           | 26      | 10-21       |
| Deltapine 566  | 42    | 40           | 11      | 10-22       |
| Yield King 613 | 40    | 45           | 20      | 10-17       |
| FFR 668        | 39    | 41           | 8       | 10-21       |
| RA 606         | 39    | 41           | 13      | 10-21       |
| Deltapine 417  | 39    | 49           | 19      | 10-26       |

Table 65. Soybeans: Yield of varieties (Maturity Group IV) evaluated at five locations in 1986.

| Variety             | Avg. | 1/<br>Knox-<br>ville | 2/<br>Cross-<br>ville | 3/<br>Spring-<br>field | 4/<br>Milan | 5/<br>Ames<br>Plantation |
|---------------------|------|----------------------|-----------------------|------------------------|-------------|--------------------------|
| Bushels per acre    |      |                      |                       |                        |             |                          |
| RA 452              | 40   | 44                   | 41                    | 22                     | 61          | 31                       |
| Pershing            | 39   | 39                   | 38                    | 26                     | 64          | 28                       |
| Bailey 469          | 36   | 39                   | 35                    | 17                     | 57          | 29                       |
| TN 83-7             | 35   | 38                   | 31                    | 22                     | 58          | 28                       |
| RA 451              | 34   | 31                   | 32                    | 18                     | 59          | 34                       |
| Pioneer brand 9471  | 34   | 34                   | 29                    | 17                     | 59          | 30                       |
| Stevens             | 32   | 34                   | 31                    | 16                     | 51          | 26                       |
| DeKalb-Pfizer CX415 | 30   | 31                   | 30                    | 20                     | 50          | 22                       |
| Coker 393           | 30   | 36                   | 30                    | 18                     | 48          | 17                       |
| DeKalb-Pfizer CX380 | 28   | 24                   | 28                    | 16                     | 55          | 18                       |
| L.S.D. (.05)        | 2.8  | 7.4                  | 4.5                   | 4.7                    | 6.9         | 7.0                      |
| C.V. %              | 13.7 | 14.6                 | 9.6                   | 17.0                   | 8.5         | 18.6                     |
| Avg.                | 33.7 | 35.0                 | 32.4                  | 19.2                   | 56.2        | 25.8                     |

1/Sequatchie silt loam (2% to 5% slopes).

2/Hartsells loam (2% to 5% slopes).

3/Dickson silt loam (2% to 5% slopes).

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

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

Table 66. Soybeans: Yield and other characteristics of varieties (Maturity Group IV) evaluated at five locations in 1986.

| Variety             | Avg.<br>Yield<br>Bu/A | Moisture<br>at<br>Harvest<br>% | Date<br>First<br>Flower | Date<br>Mature | Plant<br>Ht.<br>In. | Flower<br>Color | Pubes-<br>cence<br>Color | Date<br>Last<br>Flower |
|---------------------|-----------------------|--------------------------------|-------------------------|----------------|---------------------|-----------------|--------------------------|------------------------|
| RA 452              | 40                    | 14.6                           | 6-14                    | 9-18           | 38                  | W               | G                        | 7-23                   |
| Pershing            | 39                    | 15.4                           | 6-14                    | 9-22           | 28                  | W               | G                        | 7-20                   |
| Bailey 469          | 36                    | 16.6                           | 6-12                    | 9-15           | 36                  | P & W           | G                        | 7-23                   |
| TN 83-7             | 35                    | 16.7                           | 6-12                    | 9-13           | 38                  | P               | T                        | 7-19                   |
| RA 451              | 34                    | 16.8                           | 6-13                    | 9-24           | 40                  | P               | T                        | 7-24                   |
| Pioneer brand 9471  | 34                    | 15.6                           | 6-12                    | 9-11           | 35                  | P               | T                        | 7-22                   |
| Stevens             | 32                    | 16.4                           | 6-13                    | 9-15           | 39                  | P               | G                        | 7-22                   |
| DeKalb-Pfizer CX415 | 30                    | 15.8                           | 6-11                    | 9-3            | 32                  | W               | T                        | 7-18                   |
| Coker 393           | 30                    | 15.7                           | 6-11                    | 9-3            | 28                  | P               | T                        | 7-15                   |
| DeKalb-Pfizer CX380 | 28                    | 18.0                           | 6-8                     | 8-31           | 30                  | W               | T                        | 7-15                   |
| L.S.D. (.05)        | 2.8                   |                                |                         |                |                     |                 |                          |                        |
| C.V. %              | 13.7                  |                                |                         |                |                     |                 |                          |                        |
| Avg.                | 33.7                  |                                |                         |                |                     |                 |                          |                        |

Table 67. Soybeans: Yield of varieties (Maturity Group IV) evaluated at five locations for two years (1985-86).

| Variety            | Avg. | 1/<br>Knox-<br>ville | 2/<br>Cross-<br>ville | 3/<br>Spring-<br>field | 4/<br>Milan | 5/<br>Ames<br>Plantation |
|--------------------|------|----------------------|-----------------------|------------------------|-------------|--------------------------|
|                    |      | Bushels per acre     |                       |                        |             |                          |
| Pershing           | 44   | 48                   | 41                    | 39                     | 58          | 34                       |
| RA 452             | 44   | 49                   | 44                    | 39                     | 47          | 38                       |
| Pioneer brand 9471 | 41   | 44                   | 34                    | 37                     | 56          | 35                       |
| RA 451             | 41   | 42                   | 38                    | 35                     | 55          | 34                       |
| TN 83-7            | 40   | 47                   | 32                    | 36                     | 58          | 29                       |
| Stevens            | 38   | 40                   | 34                    | 34                     | 52          | 31                       |

Table 68. Soybeans: Yield and other characteristics of varieties (Maturity Group IV) evaluated at five locations for two years (1985-86).

| Variety            | Avg.  | Moisture | Date   | Date   | Plant | Date   |
|--------------------|-------|----------|--------|--------|-------|--------|
|                    | Yield | at       | First  | Mature | Ht.   | Last   |
|                    | Bu/A  | Harvest  | Flower |        | In.   | Flower |
|                    |       | %        |        |        |       |        |
| Pershing           | 44    | 15.1     | 6-21   | 9-22   | 29    | 7-21   |
| RA 452             | 44    | 15.4     | 6-20   | 9-20   | 39    | 7-26   |
| Pioneer brand 9471 | 41    | 14.8     | 6-12   | 9-11   | 37    | 7-22   |
| RA 451             | 41    | 16.4     | 6-15   | 9-25   | 41    | 7-23   |
| TN 83-7            | 40    | 16.4     | 6-13   | 9-14   | 41    | 7-19   |
| Stevens            | 38    | 16.1     | 6-14   | 9-13   | 42    | 7-21   |

Table 69. Soybeans: Yield and other characteristics of strains (Maturity Group V) evaluated at Jackson in 1986.

| Strain               | Avg.<br>Yield<br>Bu/A | Moisture<br>at<br>Harvest<br>% | Date<br>First<br>Flower | Date<br>Mature | Plant<br>Ht.<br>In. | Flower<br>Color | Pubes-<br>cence<br>Color |
|----------------------|-----------------------|--------------------------------|-------------------------|----------------|---------------------|-----------------|--------------------------|
|                      |                       |                                |                         |                |                     |                 |                          |
| TN 84-51             | 36                    | 12.1                           | 7-15                    | 9-14           | 28                  | P               | T                        |
| TN 84-147            | 34                    | 13.0                           | 7-15                    | 9-22           | 32                  | P               | G                        |
| Essex                | 33                    | 12.6                           | 7-16                    | 9-22           | 26                  | P               | G                        |
| M82-570127           | 32                    | 12.7                           | 7-19                    | 9-28           | 35                  | P               | T                        |
| TN 82-94             | 32                    | 12.8                           | 7-15                    | 9-22           | 28                  | P               | G                        |
| FFR 565              | 32                    | 12.8                           | 7-16                    | 9-22           | 32                  | W               | T                        |
| M82-572403           | 30                    | 12.6                           | 7-19                    | 9-22           | 32                  | W               | G                        |
| M82-540103           | 29                    | 13.6                           | 7-15                    | 9-22           | 29                  | W               | G                        |
| M82-572509           | 29                    | 13.6                           | 7-16                    | 9-22           | 29                  | P               | G                        |
| DeKalb EX 655        | 29                    | 17.8                           | 7-20                    | 10-8           | 31                  | W               | T                        |
| TN 84-147            | 29                    | 13.3                           | 7-18                    | 9-23           | 40                  | P               | G                        |
| 82-824 <sup>1/</sup> | 28                    | 13.1                           | 7-18                    | 9-23           | 32                  | W               | T                        |
| Forrest              | 28                    | 12.1                           | 7-18                    | 9-22           | 32                  | W               | T                        |
| TN 84-147            | 27                    | 12.4                           | 7-15                    | 9-13           | 28                  | P               | G                        |
| L.S.D. (.05)         | 5.2                   |                                |                         |                |                     |                 |                          |
| C.V. %               | 11.8                  |                                |                         |                |                     |                 |                          |
| Avg.                 | 30.5                  |                                |                         |                |                     |                 |                          |

<sup>1/</sup>Coker/Rohm and Haas Co.

Table 70. Soybeans: Yield and other characteristics of strains (Maturity groups VI and VII) evaluated at Jackson in 1986.

| Strain        | Yield<br>Bu/A | Moisture<br>at<br>Harvest<br>% | Date<br>Full<br>Bloom | Date<br>Mature | Plant<br>Ht.<br>In. | Lodging<br>% | Flower<br>Color | Pubes-<br>cence<br>Color |
|---------------|---------------|--------------------------------|-----------------------|----------------|---------------------|--------------|-----------------|--------------------------|
|               |               |                                |                       |                |                     |              |                 |                          |
| <sup>1/</sup> |               |                                |                       |                |                     |              |                 |                          |
| H81-9548      | 44            | 17.4                           | 7-28                  | 10-30          | 44                  | 20           | Purple          | Tawny                    |
| Centennial    | 37            | 18.0                           | 7-29                  | 10-30          | 46                  | 10           | Purple          | Tawny                    |
| H81-2173      | 36            | 12.9                           | 7-18                  | 9-22           | 34                  | 14           | White           | Tawny                    |
| Deltapine 726 | 36            | 19.9                           | 8-3                   | 11-5           | 46                  | 18           | Purple          | Tawny                    |
| M82-571206    | 36            | 18.9                           | 7-28                  | 11-5           | 41                  | 2            | Purple          | Tawny                    |
| H81-1587      | 34            | 19.2                           | 8-4                   | 11-8           | 44                  | 19           | White           | Grey                     |
| M82-581908    | 32            | 20.4                           | 7-28                  | 11-2           | 35                  | 1            | Purple          | Tawny                    |
| M82-722611    | 32            | 20.0                           | 8-1                   | 11-5           | 40                  | 2            | White           | Grey                     |
| HB-15578-E4-6 | 31            | 19.6                           | 7-28                  | 10-31          | 47                  | 8            | Purple          | Tawny                    |
| H79-17006     | 31            | 13.2                           | 7-18                  | 9-29           | 38                  | 4            | White           | Tawny                    |
| Leflore       | 30            | 20.2                           | 7-28                  | 11-3           | 47                  | 14           | Purple          | Tawny                    |
| H81-851       | 29            | 19.5                           | 7-18                  | 10-31          | 41                  | 8            | White           | Tawny                    |
| HB-2J-E4-6    | 27            | 14.9                           | 7-19                  | 10-12          | 42                  | 7            | Purple          | Tawny                    |
| CO82M-128     | 27            | 19.1                           | 7-28                  | 10-23          | 46                  | 21           | Purple          | Grey                     |
| H81-860       | 26            | 20.7                           | 7-31                  | 11-1           | 43                  | 7            | White           | Tawny                    |
| L.S.D. (.05)  | 8.4           |                                |                       |                |                     |              |                 |                          |
| C.V. %        | 18.2          |                                |                       |                |                     |              |                 |                          |
| Avg.          | 32.4          |                                |                       |                |                     |              |                 |                          |

<sup>1/</sup> H = Hartz; M = Funk G; CO = C/R Seed Co.; and HB = Hy-Performer.

Table 71. Soybeans: Soybean Cyst Nematode ratings made by Lawrence D. Young on Maturity Group V varieties grown in the greenhouse at Jackson in 1986.

| Variety               | Soybean Cyst Nematode             |        | Resistance Rating      |        |
|-----------------------|-----------------------------------|--------|------------------------|--------|
|                       | Race 3                            | Race 4 | Race 3                 | Race 4 |
|                       | Mean Severity Index <sup>1/</sup> |        | (R or S) <sup>2/</sup> |        |
| Forrest               | 0.8                               | 3.7    | R                      | S      |
| Essex                 | 4.0                               | 4.0    | S                      | S      |
| Bedford               | 0.0                               | 1.0    | R                      | R      |
| Epps                  | 0.8                               | 2.1    | R                      | R      |
| Asgrow A5474          | 0.4                               | 1.2    | R                      | R      |
| Asgrow A5980          | 1.2                               | 2.8    | R                      | S      |
| Asgrow A5149          | 3.7                               | 3.9    | S                      | S      |
| Deltapine 415         | 1.3                               | 4.0    | R                      | S      |
| Deltapine 675         | 3.2                               | 3.4    | S                      | S      |
| Deltapine 105         | 3.9                               | 3.8    | S                      | S      |
| Pioneer brand 5482    | 2.6                               | 1.5    | ?                      | R      |
| Pioneer brand 9571    | 0.6                               | 2.0    | R                      | Seg.   |
| Pioneer brand 9581    | 1.2                               | 2.2    | R                      | R      |
| Pioneer brand 9591    | 3.7                               | 4.0    | S                      | S      |
| FFR 560               | 0.6                               | 1.0    | R                      | R      |
| FFR 561               | 4.0                               | 4.5    | S                      | S      |
| FFR 562               | 4.0                               | 3.8    | S                      | S      |
| Hartz 5171            | 0.6                               | 3.4    | R                      | S      |
| Hartz 5370            | 0.1                               | 4.0    | R                      | S      |
| Hartz 5252            | 0.2                               | 4.0    | R                      | S      |
| Hartz X5164           | 1.8                               | 2.2    | R                      | R      |
| TN 5-85               | 0.6                               | 3.7    | R                      | S      |
| TN 83-26              | 2.8                               | 3.2    | Seg.                   | MR     |
| Coker 355             | 0.0                               | 1.2    | R                      | R      |
| Coker 485             | 0.0                               | 3.9    | R                      | S      |
| Coker 425             | 4.0                               | 3.9    | S                      | S      |
| Coker 80R-419 (check) | 1.1                               | 4.0    | R                      | S+     |
| RA 480                | 2.7                               | 3.7    | ?                      | S      |
| Y.K. 577              | 0.2                               | 4.0    | R                      | S      |
| Y.K. 503              | 3.8                               | 3.4    | S                      | S      |
| Terra Vig 515         | 0.0                               | 4.0    | R                      | S      |
| Terra Vig 553         | 1.2                               | 4.0    | R                      | S      |
| Shenandoah            | 3.8                               | 4.0    | S                      | S      |
| N.K. S59-19           | 0.5                               | 2.0    | R                      | S      |
| DeKalb-Pfizer EX655   | 2.0                               | 3.0    | Seg.                   | MR     |

<sup>1/</sup>The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants. Rating was based on a scale of 0 through 4 with 4 being the most susceptible.

<sup>2/</sup>R = resistant and S = susceptible.

Table 72. Soybeans: Soybean Cyst Nematode ratings made by Lawrence D. Young on Maturity Groups VI & VII varieties grown in the greenhouse at Jackson in 1986.

| Variety          | Soybean Cyst Nematode             |        | Resistance Rating      |           |
|------------------|-----------------------------------|--------|------------------------|-----------|
|                  | Race 3                            | Race 4 | Race 3                 | Race 4    |
|                  | Mean Severity Index <sup>1/</sup> |        | (R or S) <sup>2/</sup> |           |
| Deltapine 417    | 4.0                               | 4.0    | S                      | S         |
| Deltapine 566    | 4.0                               | 4.0    | S                      | S         |
| Deltapine 497    | 4.0                               | 4.0    | S                      | S         |
| Y.K. 696         | 0.1                               | 4.0    | R                      | S         |
| Y.K. 593         | 0.4                               | 4.0    | R                      | S         |
| Y.K. 707         | 0.2                               | 3.8    | R                      | MR        |
| Y.K. 613         | 0.3                               | 4.0    | R                      | S         |
| Y.K. 757         | 0.5                               | 2.8    | R                      | MR        |
| Hartz X6385      | 0.2                               | 4.0    | R                      | S         |
| Hartz 6383R      | 0.3                               | 4.0    | R                      | S         |
| Hartz 7126       | 0.2                               | 4.0    | R                      | S         |
| Hartz H 79-21046 | 0.0                               | 4.0+   | R                      | S+        |
| N.K. S69-96      | 4.0                               | 4.0    | S                      | S         |
| Terra Vig 616    | 3.5                               | 4.0    | S                      | S         |
| Leflore          | 0.8                               | 1.7    | R                      | R         |
| Centennial       | 0.7                               | 4.0    | R                      | S         |
| Coker 6716       | 0.2                               | 4.0    | R                      | S         |
| Coker 156        | 4.0                               | 4.0    | S                      | S         |
| Coker 686        | 0.0                               | 4.0    | R                      | S         |
| Jeff             | 0.7                               | 3.2    | R                      | MR        |
| RA 606           | 1.1                               | 4.0    | R                      | S         |
| Asgrow A6785     | 3.8                               | 3.9    | S                      | S         |
| Asgrow A6520     | 0.4                               | 2.9    | R                      | MR        |
| Asgrow A6242     | 0.6                               | 2.4    | R                      | R or Seg. |
| FFR 668          | 4.0                               | 4.0    | S                      | S         |
| Shiloh           | 1.8                               | 2.3    | Seg.                   | R         |
| Sanalona         | 4.0                               | 3.8    | S                      | S         |
| Sampson          | 4.0+                              | 4.0    | S                      | S         |
| Funk G-Exp. 3305 | 4.0+                              | 4.0    | S                      | S         |
| Funk G-1409      | 4.0                               | 4.0    | S                      | S         |
| Spartan          | 4.0                               | 4.0    | S                      | S         |
| McNair 500       | 4.0                               | 3.8    | S                      | S         |

<sup>1/</sup>The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants.

<sup>2/</sup>R = resistant and S = susceptible.

Table 73. Soybeans: Soybean Cyst Nematode ratings made by Lawrence D. Young on early-maturing varieties grown in the greenhouse at Jackson in 1986.

| Variety               | Soybean Cyst Nematode             |        | Resistance Rating |        |
|-----------------------|-----------------------------------|--------|-------------------|--------|
|                       | Race 3                            | Race 4 | Race 3            | Race 4 |
|                       | Mean Severity Index <sup>1/</sup> |        | (R or S)          |        |
| Essex <sup>2/</sup>   | 3.8                               | -      | S                 | -      |
| RA 452                | 3.4                               | 3.8    | S                 | S      |
| TN 83-7               | 0.3                               | 1.2    | R                 | R      |
| Stevens               | 4.0                               | 3.9    | S                 | S      |
| RA 451                | 4.0                               | 4.0    | S                 | S      |
| Pershing              | 4.0                               | 4.0    | S                 | S      |
| Pioneer brand 9471    | 4.0                               | 4.0    | S                 | S      |
| Coker 393             | 3.7                               | 4.0    | S                 | S      |
| DeKalb-Pfizer CX380   | 3.8                               | 3.5    | S                 | S      |
| DeKalb-Pfizer CX415   | 3.0                               | 3.8    | S                 | S      |
| Bailey 467            | 4.0                               | 3.0    | S                 | S      |
| Bedford <sup>3/</sup> | -                                 | 1.0    | -                 | R      |

<sup>1/</sup>The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants.

<sup>2/</sup>Essex used as a check in race 3 infested soil.

<sup>3/</sup>Bedford used as a check in race 4 infested soil.

**Table 74. Soybeans: Soybean Cyst Nematode ratings made by Lawrence D. Young on experimental strains grown in the greenhouse at Jackson in 1986.**

| Strain          | Soybean Cyst Nematode             |        | Resistance Rating |        |
|-----------------|-----------------------------------|--------|-------------------|--------|
|                 | Race 3                            | Race 4 | Race 3            | Race 4 |
|                 | Mean Severity Index <sup>1/</sup> |        | (R or S)          |        |
| Essex (check)   | 4.0+                              | -      | S                 | -      |
| M 540103        | 4.0                               | 3.0    | S                 | S      |
| M 572509        | 4.0                               | 3.8    | S                 | S      |
| M 572403        | 1.2                               | 3.3    | R                 | S      |
| CO 82-824       | 0.3                               | 3.0    | R                 | S      |
| Exp 655         | 2.7                               | 2.9    | S                 | S      |
| FFR 565         | 2.0                               | 3.4    | R                 | S      |
| TN 82-94        | 4.0                               | 4.0    | S                 | S      |
| TN 84-51        | 4.0                               | 3.8    | S                 | S      |
| TN 84-129       | 1.8                               | 4.0    | Seg.              | S      |
| TN 84-146       | 1.4                               | 3.8    | Seg.              | S      |
| TN 84-147       | 0.5                               | 4.0    | R                 | S      |
| H 81-860        | 0.3                               | 3.5    | R                 | S      |
| Bedford (check) | -                                 | 2.6    | -                 | R      |
| H 81-9448       | 0.7                               | 2.0    | R                 | R      |
| H 79-17006      | 0.5                               | 3.7    | R                 | S      |
| H 81-851        | 0.1                               | 3.9    | R                 | S      |
| H 81-1587       | 0.4                               | 3.4    | R                 | S      |
| M 82-1571206    | 4.0                               | 3.5    | S                 | S      |
| M 82-722611     | 3.8                               | 3.8    | S                 | S      |
| CO 82M-128      | 0.5                               | 1.8    | R                 | R      |
| HB-2J-E4-6      | 0.3                               | 3.7    | R                 | S      |
| Deltapine 726   | 0.3                               | 3.7    | R                 | S      |

<sup>1/</sup>The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants.

<sup>2/</sup>Essex used as a check in race 3 infested soil.

<sup>3/</sup>Bedford used as a check in race 4 infested soil.

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