

**Agronomy Facts No. 32**  
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## **2002 MARYLAND SOYBEAN VARIETY TESTS**

Maryland soybean variety tests are conducted each year by the Maryland Agricultural Experiment Station, Department of Natural Resource Sciences and Landscape Architecture, to provide soybean growers with the latest information on agronomic performance of soybean varieties. Varieties are tested by maturity group as designated by the releasing organization. Varieties of Maturity Groups III, IV, and V are included in the tests because they are best adapted for production in Maryland. Late maturing varieties in Maturity Group IV were evaluated separately from the other varieties in Maturity Group IV and are listed as "IV-S" in the data tables. Entries in the 2002 test included Roundup Ready and standard varieties of public and private brands available to Maryland farmers. In addition, promising new varieties and advanced breeding lines are tested to compare their performance to that of widely grown varieties. New public varieties in the test and their state of origin are Apex (Ohio), KS 4602N and KS 5502N (Kansas). Experimental lines from Arkansas (R 95-1705), Indiana (C1981), Maryland (MD 95-5358, MD 96-5275, MD 96-5722, MD 97-6065, MD 97-6156, MD 97-6491, MD 98-5095, MD 98-5579, MD 98-5927, MD 99-0165-3RR, MD 99-0198-3RR, MD 99-0687-3RR, MD 99-1098-2RR), and Virginia (V 95-0016, V 96-0340, 99VPI-67RR, 99VPI-120RR) were included in the 2002 tests. The suppliers of private varieties are listed in Table 1.

The Maryland tests are designed to evaluate varieties at several planting dates and on various soil types within the soybean production areas of the state. Recommended cultural practices were followed in the establishment of each test. Tillage, row spacing, seeding rates, and plot length varied between tests and locations as shown in Table 2. Seed yield was determined on center rows of each plot, and plots were trimmed to a uniform length just prior to harvest. Each plot was replicated three times in each test and location. Seed moisture was determined on each plot at harvest and seed yield was adjusted to a 13% moisture level. Plant height and lodging were determined at maturity when 95% of the pods on each variety had attained their mature color. The number of seeds per pound was determined from 100-seed weights made on each plot. The appearance of the seed from each plot was given a score from 1 (best) to 5 (worst) based on the amount of wrinkled or cracked seed coats present. Seed protein and oil content were determined on a seed sample of each entry at all locations. Equal amounts of seed from each of the three test plots at a location were combined and used for analysis. Composition data on each sample were determined by an Infratec model 1255 Feed and Food Analyzer, which reports percent protein and oil on a dry-weight basis.

The 2002 growing season was generally dry for much of the summer at Queenstown and Quantico. Wet conditions in October delayed harvest and contributed to considerable purple stain and mold on seed. Only Keedysville and Clarksville had adequate rain throughout the season. The monthly rainfall for each location is shown in Table 3. Drought stress and the appearance of charcoal rot in the stressed plot areas caused unacceptable variation among plots and resulted in the loss of the Maturity Groups III and IV full-season tests of the standard varieties and the Maturity Group III Roundup Ready full-season test at Quantico.

Results of the 2002 tests are reported in Tables 4-7 for the standard varieties and in Tables 10-15 for the Roundup Ready varieties. In each of these tables, varieties within maturity groups are listed in order of yield, highest to lowest. The highest overall test location mean yields were at Keedysville and Clarksville for the Roundup Ready varieties and Clarksville for the standard varieties. Note that the double-crop yields were higher than the full-season yields at Quantico.

A least significant difference (LSD) value is reported for each maturity group in every test where statistically significant differences in plant characteristics were observed among varieties. This number is a statistical test calculated at the 20 percent probability level to aid in comparing the differences among varieties in a maturity group. When two varieties are compared for a plant characteristic and the difference between them is greater than the calculated LSD value, the varieties are judged to be significantly different for that specific characteristic. The "NS" designation indicates that there are no statistically significant differences among the varieties in that maturity group for that specific characteristic. The coefficient of variation (CV) is a relative measure of the variation and is an indicator of the degree of precision for a particular test. For these soybean variety tests, CV values below 15% are an indication that the precision of the test is good in distinguishing differences in seed yield between varieties.

The performance of a variety for several years or at several locations in the same year gives a better indication of its yield potential and agronomic characteristics than do data from a single year. As an aid in assessing the performance of individual varieties in the test, a relative yield value was calculated. Tables 8 and 16 summarize the relative yields of the standard and Roundup Ready varieties, respectively, by expressing their yields as a percent of the mean yield of all varieties in that maturity group at each location. Therefore, a variety with a relative yield that is consistently greater than 100 is a variety that consistently yields higher than the mean yield of all varieties in that maturity group. In Tables 8 and 16, the relative yields of those varieties with an asterisk are not statistically different from the highest yielding variety in that maturity group in those tests where a significant difference between varieties was observed in the statistical analyses.

Two-year average yields of standard and Roundup Ready varieties previously entered in the test are shown in Tables 9 and 17, respectively. The multiple-year data provide additional information on a variety's yielding ability. Seed composition data are summarized for the standard and Roundup Ready varieties in Tables 18-21. The information provided here should be used as a guide and growers should select a variety with great care based on personal experience as well as other available information.

Prepared by: W.J. Kenworthy and L.A. Wood

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#### Additional information:

Inclusion of entries in the Maryland Soybean Variety Tests does not constitute an endorsement or recommendation of a specific entry by the University of Maryland. Advertising statements by an individual company about the performance of its entries can be made as long as they are accurate statements about the data as published, with no reference to other companies' varieties. Statements similar to "See the official University of Maryland Soybean Variety Tests Agronomy Facts No. 32" and "Endorsement or recommendation by the University of Maryland is not implied" must accompany any information that is reproduced. Agronomy Facts No. 32 can be downloaded from the Department's new webpage:

<http://www.nrsl.umd.edu/extension/crops/>

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Table 1. Suppliers of private soybean varieties tested in 2002.

| Supplier   | Brand            | Herbicide<br>Reaction          | Entry   |
|--|------------------|--------------------------------|---|
| Agway Farm Seeds<br>Tully, NY 13159                        | AGWAY            | Roundup Ready                  | APK366NRR, APK371NRR, APK432NRR   |
| Clark Seeds, Inc.<br>Kenton, DE 19955                      | CLARK            | Roundup Ready                  | CL42RR, CL48RR  |
| Monsanto<br>Dekalb, IL 60115                               | ASGROW<br>DEKALB | Roundup Ready<br>Roundup Ready | AG3902, AG3903, AG4201, AG4403, AG4603<br>DKB38-51, DKB38-52, DKB44-51, DKB45-51                                    |
| Royster-Clark, Inc.<br>Mt. Sterling, OH 43143              | VIGORO           | Roundup Ready                  | V382NRR, V442NRR, V462NRS, V46N3RR,<br>V472NRR, V49N3RR   |
| Southern States<br>Cooperative, Inc.<br>Richmond, VA 23260 | S. STATES        | Roundup Ready                  | RT3502, RT3702, RT3799N, RT3802N, RT3975,<br>RT4098, RT446N, RT4502N, RT4720N, RT4810N,<br>RT4980, RT5001N, RT5302N |
| Syngenta Seeds, Inc.<br>Landisville, PA 17538              | NK               | Roundup Ready                  | S39-Q4, S39-K6, S40-R9, S42-P7, S46-G2  |
| UniSouth Genetics, Inc.<br>Nashville, TN 37211             | USG              | Roundup Ready<br>Standard      | 7398nRR, 7402nRR, 7403nRR, 7440nRR,<br>7449nRR, 7452nRR, 7489RR, 7482nRR, 7509nRR<br>5601T                          |

Table 2. The 2002 soybean variety test plot information.

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WESTERN MARYLAND RESEARCH AND EDUCATION CENTER  
Washington County - Keedysville, MD

Tests: Roundup Ready Maturity Groups III, IV, and IV-S  
Planting Date: June 5  
Row Spacing: 24 inches  
Soil Type: Hagerstown silt loam  
Soil Test: pH 6.6, P Index-Optimum, K Index-Excessive  
Previous Crop: Corn  
Fertilizer: None  
Lime: None  
Herbicide: 1 qt/A Roundup Ultra on July 3  
Plots: 4 rows, 20 ft long  
Seeding Rate: 6.5 seeds/ft  
Tillage: Conventional

CENTRAL MARYLAND RESEARCH AND EDUCATION CENTER - CLARKSVILLE FACILITY  
Howard County - Clarksville, MD

Tests: Roundup Ready Maturity Groups III, IV, and IV-S  
Planting Date: June 5  
Row Spacing: 24 inches  
Soil Type: Delanco silt loam  
Soil Test: pH 6.8, P Index- Optimum, K Index- Optimum  
Previous Crop: Corn  
Fertilizer: 300 lbs/A 0-14-40  
Lime: None  
Herbicide: 28 oz/A Roundup Ultra on July 9  
Plots: 4 rows, 20 ft long  
Seeding Rate: 6.5 seeds/ft  
Tillage: Conventional

Tests: Standard Varieties Maturity Groups III, IV, and IV-S  
Planting Date: June 5  
Row Spacing: 24 inches  
Soil Type: Delanco silt loam  
Soil Test: pH 6.8, P Index- Optimum, K Index- Optimum  
Previous Crop: Corn  
Fertilizer: 300 lbs/A 0-14-40  
Lime: None  
Herbicide: 2.5 pts/A Broadstrike + Dual  
Plots: 4 rows, 20 ft long  
Seeding Rate: 6.5 seeds/ft  
Tillage: Conventional

Table 2. (Continued)

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WYE RESEARCH AND EDUCATION CENTER  
Queen Annes County - Queenstown, MD

Tests: Full Season Standard Varieties Maturity Groups III, IV, IV-S, and V  
Planting Date: May 29  
Row Spacing: 24 inches  
Soil Type: Matapeake silt loam  
Soil Test: pH 6.4, P Index- Optimum, K Index- Optimum  
Previous Crop: Corn  
Fertilizer: None  
Lime: None  
Herbicide: Preemergence:1.3 pt/A Dual II Magnum, 5 oz/A Canopy XL  
Post emergence:1.5 pt/A Blazer, 1.5 pt/A Basagran on June 25  
Insecticide: 1 pt/A Dimethoate on August 8  
Plots: 4 rows, 20 ft long  
Seeding Rate: 6.5 seeds/ft except Maturity Group V entries = 6 seeds/ft  
Tillage: Conventional

Tests: Full Season Roundup Ready Varieties Groups III, IV, IV-S, and V  
Planting Date: May 30  
Row Spacing: 24 inches  
Soil Type: Matapeake silt loam  
Soil Test: pH 6.3, P Index- Optimum, K Index- Optimum  
Previous Crop: Corn  
Fertilizer: None  
Lime: None  
Herbicide: 26 oz/A Roundup Ultra on July 1  
Insecticide: 1 pt/A Lorsban on August 8  
Plots: 4 rows, 20 ft long  
Seeding Rate: 6.5 seeds/ft except Maturity Group V entries = 6 seeds/ft  
Tillage: Conventional

Tests: Double Crop Roundup Ready Varieties Maturity Groups III, IV, IV-S, and V  
Planting Date: June 25  
Row Spacing: 7.5 inches  
Soil Type: Matapeake silt loam  
Soil Test: pH 6.6, P Index- Excessive, K Index- Excessive  
Previous Crop: Wheat  
Fertilizer: None  
Lime: None  
Herbicide: 26 oz/A Roundup Ultra on August 9  
Insecticide: 1 pt/A Lorsban on August 9  
Plots: 7 rows, 25 ft long  
Seeding Rate: 3 seeds/ft  
Tillage: None

Table 2 (Continued)

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LOWER EASTERN SHORE RESEARCH AND EDUCATION CENTER- POPLAR HILL FACILITY  
Wicomico County - Quantico, MD

Tests: Full Season Standard Varieties Maturity Groups III, IV, IV-S, and V  
Planting Date: May 23  
Row Spacing: 24 inches  
Soil Type: Matapeake silt loam  
Soil Test: pH 6.3, P Index- Excessive, K Index- Optimum  
Previous Crop: Corn  
Fertilizer: 200 lbs/A of 0-15-40  
Lime: 1 ton/A  
Herbicide: Preemergence: 1.5 pt/A Dual 8E, 13 oz/A Lorox DF, 3 oz/A Canopy XL  
Plots: 4 rows, 20 ft long  
Seeding Rate: 6.5 seeds/ft except Maturity Group V entries= 6 seeds/ft  
Tillage: Conventional

Tests: Full Season Roundup Ready Varieties Maturity Groups III, IV, IV-S, and V  
Planting Date: May 28  
Row Spacing: 16 inches  
Soil Type: Mattapex silt loam  
Soil Test: pH 6.3, P Index- Excessive, K Index- Optimum  
Previous Crop: No-tillage corn  
Fertilizer: 200 lbs/A of 0-15-40  
Lime: None  
Herbicide: Early preemergence: 1 qt/A Roundup Ultra, 12 oz/A 2,4-D, 1 pt/A Dual 8E  
Post emergence: 1 qt/A Roundup Ultra on June 25  
Plots: 5 rows, 20 ft long  
Seeding Rate: 4.9 seeds/ft  
Tillage: None

Tests: Double Crop Standard Varieties Maturity Groups III, IV, IV-S, and V  
Planting Date: June 19  
Row Spacing: 16 inches  
Soil Type: Mattapex silt loam  
Soil Test: pH 6.3, P Index- Optimum, K Index- Optimum  
Previous Crop: Winter Barley  
Fertilizer: None on soybeans  
Lime: None on soybeans  
Herbicide: Preemergence: 1.5 pt/A Roundup Ultra, 1.6 pt/A Dual 8E, 5 oz/A Canopy, 8 oz/A 2,4-DB  
Post emergence: 1.5 pt/A Storm, 1 oz/A 2,4-DB, 3 oz/A Blazer + surfactant  
Plots: 5 rows, 20 ft long  
Seeding Rate: 6 seeds/ft  
Tillage: None

Table 2 (Continued)

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LOWER EASTERN SHORE RESEARCH AND EDUCATION CENTER- POPLAR HILL FACILITY  
 Wicomico County - Quantico, MD

Tests: Double Crop Roundup Ready Varieties Maturity Groups III, IV, IV-S, and V  
 Planting Date: June 19  
 Row Spacing: 16 inches  
 Soil Type: Mattapex silt loam  
 Soil Test: pH 6.3, P Index- Optimum, K Index- Optimum  
 Previous Crop: Winter Barley  
 Fertilizer: None on soybeans  
 Lime: None on soybeans  
 Herbicide: Preemergence: 1 qt/A Roundup Ultra  
                   Post emergence: 1 qt/A Roundup Ultra on July 22  
 Plots: 5 rows, 20 ft long  
 Seeding Rate: 6 seeds/ft  
 Tillage: None

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Table 3. Monthly precipitation (inches) during May through October at variety test locations.

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| Location    | May  | June | July | Aug. | Sept. | Oct. | Season |
|-------------|------|------|------|------|-------|------|--------|
| Keedysville | 3.32 | 3.19 | 3.52 | 3.58 | 3.69  | 4.63 | 21.93  |
| Clarksville | 3.55 | 1.64 | 1.82 | 3.85 | 3.59  | 6.50 | 20.95  |
| Queenstown  | 2.15 | 0.62 | 1.96 | 1.58 | 5.44  | 6.51 | 18.26  |
| Quantico    | 2.38 | 1.46 | 1.28 | 3.62 | 1.92  | 6.45 | 17.11  |

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Table 4. Performance of standard soybean varieties planted at Clarksville.

| <b>BRAND - ENTRY</b>        | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-----------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP III</b>   |                        |                          |                           |                           |                          |                         |
| PUBLIC - IA 3014            | 51.4                   | 10-02                    | 2.0                       | 33                        | 1.8                      | 2712                    |
| PUBLIC - GENERAL            | 50.2                   | 10-05                    | 1.5                       | 30                        | 1.0                      | 2235                    |
| PUBLIC - APEX               | 49.7                   | 10-12                    | 1.7                       | 23                        | 2.2                      | 2457                    |
| PUBLIC - IA 3010            | 49.3                   | 10-07                    | 1.0                       | 27                        | 1.8                      | 2498                    |
| PUBLIC - MACON              | 46.3                   | 10-06                    | 1.5                       | 29                        | 1.3                      | 2354                    |
| <b>Mean</b>                 | <b>49.4</b>            | <b>-</b>                 | <b>1.5</b>                | <b>28</b>                 | <b>1.6</b>               | <b>2451</b>             |
| <b>LSD (0.20)</b>           | <b>NS</b>              | <b>-</b>                 | <b>0.3</b>                | <b>1</b>                  | <b>0.3</b>               | <b>57</b>               |
| <b>CV (%)</b>               | <b>7.9</b>             |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP IV</b>    |                        |                          |                           |                           |                          |                         |
| EXPERIMENTAL - C 1981       | 59.1                   | 10-07                    | 2.2                       | 36                        | 1.0                      | 2685                    |
| PUBLIC - STRESSLAND         | 55.7                   | 10-07                    | 2.0                       | 35                        | 1.0                      | 2706                    |
| EXPERIMENTAL - MD 96-5722   | 55.1                   | 10-14                    | 2.0                       | 40                        | 1.5                      | 2017                    |
| PUBLIC - CORSICA            | 54.2                   | 10-10                    | 1.8                       | 36                        | 1.5                      | 2189                    |
| PUBLIC - HS 93-4118         | 53.7                   | 10-08                    | 1.3                       | 30                        | 1.7                      | 2273                    |
| EXPERIMENTAL - MD 95-5358   | 53.0                   | 10-12                    | 1.8                       | 38                        | 1.8                      | 2019                    |
| <b>Mean</b>                 | <b>54.0</b>            | <b>-</b>                 | <b>1.9</b>                | <b>36</b>                 | <b>1.5</b>               | <b>2270</b>             |
| <b>LSD (0.20)</b>           | <b>NS</b>              | <b>-</b>                 | <b>0.3</b>                | <b>2</b>                  | <b>0.4</b>               | <b>74</b>               |
| <b>CV (%)</b>               | <b>7.3</b>             |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP IV-S</b>  |                        |                          |                           |                           |                          |                         |
| PUBLIC - MD 4900            | 63.8                   | 10-25                    | 2.3                       | 30                        | 1.7                      | 2558                    |
| PUBLIC - KS 4694            | 62.7                   | 10-20                    | 1.8                       | 39                        | 1.7                      | 2192                    |
| PUBLIC - KS 4602N           | 58.7                   | 10-19                    | 1.8                       | 38                        | 1.5                      | 2195                    |
| EXPERIMENTAL - MD 98-5579   | 55.5                   | 10-14                    | 1.5                       | 32                        | 1.3                      | 2341                    |
| EXPERIMENTAL - MD 96-5275   | 55.2                   | 10-25                    | 2.7                       | 38                        | 1.3                      | 2781                    |
| EXPERIMENTAL - MD 97-6491   | 54.5                   | 10-22                    | 1.5                       | 34                        | 2.0                      | 2222                    |
| PUBLIC - MANOKIN            | 51.6                   | 10-22                    | 3.8                       | 39                        | 1.2                      | 2613                    |
| PUBLIC - LS 93-0375         | 51.1                   | 10-11                    | 1.3                       | 34                        | 1.7                      | 2159                    |
| EXPERIMENTAL - MD 97-6156   | 50.3                   | 10-15                    | 2.3                       | 39                        | 1.7                      | 2116                    |
| EXPERIMENTAL - JAPAN-L1L2L3 | 38.0                   | 10-19                    | 3.8                       | 27                        | 2.5                      | 1592                    |
| <b>Mean</b>                 | <b>55.0</b>            | <b>-</b>                 | <b>2.4</b>                | <b>35</b>                 | <b>1.6</b>               | <b>2312</b>             |
| <b>LSD (0.20)</b>           | <b>4.2</b>             | <b>-</b>                 | <b>0.3</b>                | <b>3</b>                  | <b>0.4</b>               | <b>107</b>              |
| <b>CV (%)</b>               | <b>7.0</b>             |                          |                           |                           |                          |                         |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Table 5. Performance of standard soybean varieties planted at Queenstown.

| BRAND - ENTRY               | Yield,<br>Bu/A | Maturity<br>Date | Lodging<br>Score* | Height,<br>Inches | Seed<br>Quality* | Seeds/<br>Pound |
|-----------------------------|----------------|------------------|-------------------|-------------------|------------------|-----------------|
| <b>MATURITY GROUP III</b>   |                |                  |                   |                   |                  |                 |
| PUBLIC - GENERAL            | 25.5           | 9-27             | 1.3               | 24                | 2.2              | 3218            |
| PUBLIC - IA 3014            | 24.6           | 9-19             | 1.7               | 27                | 1.7              | 3881            |
| PUBLIC - IA 3010            | 24.5           | 9-19             | 1.0               | 21                | 1.7              | 3985            |
| PUBLIC - MACON              | 22.9           | 9-24             | 1.3               | 26                | 2.0              | 3563            |
| PUBLIC - APEX               | 21.7           | 9-22             | 1.0               | 19                | 2.0              | 3900            |
| <b>Mean</b>                 | <b>23.8</b>    | -                | <b>1.3</b>        | <b>23</b>         | <b>1.9</b>       | <b>3710</b>     |
| <b>LSD (0.20)</b>           | <b>NS</b>      | -                | <b>0.2</b>        | <b>2</b>          | <b>NS</b>        | <b>175</b>      |
| <b>CV (%)</b>               | <b>15.0</b>    |                  |                   |                   |                  |                 |
| <b>MATURITY GROUP IV</b>    |                |                  |                   |                   |                  |                 |
| EXPERIMENTAL - C 1981       | 39.7           | 10-09            | 2.3               | 34                | 2.5              | 3344            |
| PUBLIC - LS 93-0375         | 39.2           | 10-03            | 2.0               | 29                | 1.8              | 2592            |
| PUBLIC - HS 93-4118         | 39.0           | 10-05            | 1.5               | 26                | 3.5              | 3005            |
| PUBLIC - CORSICA            | 38.8           | 10-01            | 2.0               | 29                | 2.3              | 2825            |
| EXPERIMENTAL - MD 96-5722   | 38.8           | 10-07            | 2.0               | 33                | 2.8              | 2691            |
| PUBLIC - STRESSLAND         | 37.5           | 10-07            | 2.3               | 32                | 2.3              | 3482            |
| EXPERIMENTAL - MD 97-6156   | 36.2           | 10-10            | 2.0               | 34                | 3.0              | 2598            |
| EXPERIMENTAL - MD 95-5358   | 33.8           | 10-03            | 1.7               | 30                | 3.0              | 2810            |
| <b>Mean</b>                 | <b>37.9</b>    | -                | <b>2.0</b>        | <b>31</b>         | <b>2.7</b>       | <b>2918</b>     |
| <b>LSD (0.20)</b>           | <b>NS</b>      | -                | <b>0.4</b>        | <b>2</b>          | <b>0.6</b>       | <b>125</b>      |
| <b>CV (%)</b>               | <b>14.1</b>    |                  |                   |                   |                  |                 |
| <b>MATURITY GROUP IV-S</b>  |                |                  |                   |                   |                  |                 |
| PUBLIC - MD 4900            | 49.7           | 10-23            | 1.5               | 23                | 1.0              | 2927            |
| PUBLIC - MANOKIN            | 43.8           | 10-20            | 3.0               | 36                | 1.3              | 2916            |
| PUBLIC - KS 4694            | 43.0           | 10-17            | 1.8               | 29                | 2.5              | 2478            |
| EXPERIMENTAL - MD 96-5275   | 41.1           | 10-24            | 2.0               | 29                | 1.7              | 3276            |
| PUBLIC - KS 4602N           | 41.0           | 10-15            | 2.2               | 29                | 2.3              | 2632            |
| EXPERIMENTAL - MD 97-6491   | 39.5           | 10-16            | 1.7               | 28                | 3.2              | 2689            |
| EXPERIMENTAL - MD 98-5579   | 36.0           | 10-18            | 2.0               | 26                | 2.5              | 2617            |
| EXPERIMENTAL - JAPAN-L1L2L3 | 31.6           | 10-21            | 3.0               | 25                | 3.2              | 2065            |
| <b>Mean</b>                 | <b>40.7</b>    | -                | <b>2.1</b>        | <b>28</b>         | <b>2.2</b>       | <b>2700</b>     |
| <b>LSD (0.20)</b>           | <b>5.5</b>     | -                | <b>0.3</b>        | <b>2</b>          | <b>0.6</b>       | <b>145</b>      |
| <b>CV (%)</b>               | <b>12.2</b>    |                  |                   |                   |                  |                 |

Table 5. (Continued) Queenstown - Standard Soybean Varieties

| <b>BRAND - ENTRY</b>      | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|---------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP V</b>   |                        |                          |                           |                           |                          |                         |
| EXPERIMENTAL - MD 97-6065 | 44.8                   | 11-03                    | 2.3                       | 31                        | 1.5                      | 2564                    |
| PUBLIC - KS 5502N         | 42.3                   | 11-04                    | 1.5                       | 30                        | 1.8                      | 2841                    |
| PUBLIC - HOLLADAY         | 42.1                   | 10-28                    | 1.7                       | 27                        | 2.3                      | 2809                    |
| EXPERIMENTAL - MD 98-5927 | 41.2                   | 11-03                    | 1.7                       | 27                        | 1.5                      | 2552                    |
| EXPERIMENTAL - V 96-0340  | 41.0                   | 11-03                    | 2.2                       | 29                        | 1.7                      | 2294                    |
| USG - 5601T               | 41.0                   | 11-04                    | 2.5                       | 34                        | 1.5                      | 3004                    |
| PUBLIC - BOLIVAR          | 39.7                   | 11-02                    | 3.0                       | 38                        | 2.8                      | 2305                    |
| EXPERIMENTAL - MD 98-5095 | 38.5                   | 11-03                    | 2.2                       | 30                        | 1.3                      | 2966                    |
| EXPERIMENTAL - V 95-0016  | 38.3                   | 11-04                    | 3.0                       | 32                        | 1.3                      | 3169                    |
| PUBLIC - HUTCHESON        | 35.6                   | 11-04                    | 1.7                       | 31                        | 3.5                      | 2767                    |
| PUBLIC - CLIFFORD         | 34.2                   | 10-31                    | 2.0                       | 28                        | 2.3                      | 2609                    |
| PUBLIC - ESSEX            | 34.0                   | 10-31                    | 1.8                       | 27                        | 2.3                      | 3093                    |
| EXPERIMENTAL - R 95-1705  | 33.4                   | 11-04                    | 1.8                       | 30                        | 1.5                      | 2790                    |
| <b>Mean</b>               | <b>38.9</b>            | <b>-</b>                 | <b>2.1</b>                | <b>30</b>                 | <b>2.0</b>               | <b>2751</b>             |
| <b>LSD (0.20)</b>         | <b>3.2</b>             | <b>-</b>                 | <b>0.3</b>                | <b>2</b>                  | <b>0.5</b>               | <b>158</b>              |
| <b>CV (%)</b>             | <b>7.7</b>             |                          |                           |                           |                          |                         |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Table 6. Performance of standard soybean varieties planted full season at Quantico.

| <b>BRAND - ENTRY</b>        | <b>Yield,<br/>Bu/A</b>   | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-----------------------------|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP III</b>   | <b>DATA NOT REPORTED</b> |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP IV</b>    | <b>DATA NOT REPORTED</b> |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP IV-S</b>  |                          |                          |                           |                           |                          |                         |
| PUBLIC - MD 4900            | 38.0                     | 10-16                    | 1.7                       | 25                        | 1.3                      | 3688                    |
| EXPERIMENTAL - MD 96-5275   | 34.3                     | 10-15                    | 1.7                       | 31                        | 1.5                      | 3688                    |
| PUBLIC - MANOKIN            | 32.7                     | 10-12                    | 3.0                       | 33                        | 1.2                      | 3594                    |
| EXPERIMENTAL - JAPAN-L1L2L3 | 31.1                     | 10-11                    | 2.8                       | 27                        | 2.8                      | 2340                    |
| PUBLIC - KS 4602N           | 22.7                     | 10-12                    | 1.2                       | 29                        | 3.8                      | 2794                    |
| EXPERIMENTAL - MD 98-5579   | 18.8                     | 10-10                    | 1.0                       | 26                        | 3.2                      | 2965                    |
| EXPERIMENTAL - MD 97-6491   | 17.3                     | 10-16                    | 1.3                       | 29                        | 4.7                      | 3130                    |
| PUBLIC - KS 4694            | 14.4                     | 10-09                    | 1.2                       | 26                        | 4.8                      | 3129                    |
| <b>Mean</b>                 | <b>26.2</b>              | <b>-</b>                 | <b>1.7</b>                | <b>28</b>                 | <b>2.9</b>               | <b>3166</b>             |
| <b>LSD (0.20)</b>           | <b>5.1</b>               | <b>-</b>                 | <b>0.3</b>                | <b>2</b>                  | <b>0.3</b>               | <b>148</b>              |
| <b>CV (%)</b>               | <b>17.6</b>              |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP V</b>     |                          |                          |                           |                           |                          |                         |
| EXPERIMENTAL - MD 97-6065   | 42.5                     | 10-15                    | 2.2                       | 31                        | 1.5                      | 3437                    |
| EXPERIMENTAL - V 95-0016    | 42.3                     | 10-22                    | 3.3                       | 35                        | 1.0                      | 3334                    |
| PUBLIC - KS 5502N           | 41.5                     | 10-21                    | 1.7                       | 28                        | 2.3                      | 3193                    |
| EXPERIMENTAL - V 96-0340    | 41.2                     | 10-18                    | 2.2                       | 29                        | 1.7                      | 2790                    |
| USG - 5601T                 | 41.1                     | 10-21                    | 2.7                       | 35                        | 1.2                      | 3529                    |
| PUBLIC - HOLLADAY           | 40.9                     | 10-16                    | 2.0                       | 27                        | 2.0                      | 3651                    |
| EXPERIMENTAL - MD 98-5927   | 38.9                     | 10-17                    | 1.8                       | 25                        | 1.0                      | 3202                    |
| PUBLIC - BOLIVAR            | 38.5                     | 10-17                    | 2.8                       | 39                        | 1.0                      | 2758                    |
| PUBLIC - CLIFFORD           | 36.7                     | 10-21                    | 2.3                       | 28                        | 1.8                      | 2728                    |
| EXPERIMENTAL - MD 98-5095   | 36.5                     | 10-20                    | 2.5                       | 31                        | 1.0                      | 3287                    |
| EXPERIMENTAL - R 95-1705    | 35.3                     | 10-23                    | 2.8                       | 33                        | 1.3                      | 2897                    |
| PUBLIC - HUTCHESON          | 35.0                     | 10-21                    | 1.8                       | 29                        | 1.2                      | 3241                    |
| PUBLIC - ESSEX              | 34.4                     | 10-23                    | 2.2                       | 27                        | 2.8                      | 3081                    |
| <b>Mean</b>                 | <b>38.8</b>              | <b>-</b>                 | <b>2.3</b>                | <b>30</b>                 | <b>1.5</b>               | <b>3164</b>             |
| <b>LSD (0.20)</b>           | <b>1.4</b>               | <b>-</b>                 | <b>0.3</b>                | <b>2</b>                  | <b>0.2</b>               | <b>142</b>              |
| <b>CV (%)</b>               | <b>3.4</b>               |                          |                           |                           |                          |                         |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Data from Maturity Groups III and IV are not reported because of unacceptable test plot variability

Table 7. Performance of standard soybean varieties double cropped at Quantico.

| BRAND - ENTRY               | Yield,<br>Bu/A | Maturity<br>Date | Lodging<br>Score* | Height,<br>Inches | Seed<br>Quality* | Seeds/<br>Pound |
|-----------------------------|----------------|------------------|-------------------|-------------------|------------------|-----------------|
| <b>MATURITY GROUP III</b>   |                |                  |                   |                   |                  |                 |
| PUBLIC - APEX               | 39.8           | 10-25            | 1.3               | 18                | 3.0              | 2146            |
| PUBLIC - GENERAL            | 39.6           | 10-21            | 1.3               | 18                | 1.8              | 2028            |
| PUBLIC - MACON              | 39.3           | 10-22            | 1.7               | 19                | 2.3              | 1986            |
| PUBLIC - IA 3014            | 36.9           | 10-20            | 1.5               | 19                | 3.0              | 2445            |
| PUBLIC - IA 3010            | 34.2           | 10-19            | 1.0               | 15                | 3.0              | 2380            |
| <b>Mean</b>                 | <b>38.0</b>    | <b>-</b>         | <b>1.4</b>        | <b>18</b>         | <b>2.6</b>       | <b>2197</b>     |
| <b>LSD (0.20)</b>           | <b>2.9</b>     | <b>-</b>         | <b>0.3</b>        | <b>1</b>          | <b>0.3</b>       | <b>109</b>      |
| <b>CV (%)</b>               | <b>6.7</b>     |                  |                   |                   |                  |                 |
| <b>MATURITY GROUP IV</b>    |                |                  |                   |                   |                  |                 |
| PUBLIC - STRESSLAND         | 41.9           | 10-22            | 1.0               | 21                | 2.3              | 2366            |
| EXPERIMENTAL - MD 96-5722   | 41.6           | 10-27            | 1.3               | 22                | 2.5              | 1986            |
| PUBLIC - HS 93-4118         | 41.3           | 10-27            | 1.2               | 18                | 2.7              | 1983            |
| PUBLIC - CORSICA            | 41.1           | 10-26            | 1.3               | 21                | 2.0              | 2053            |
| EXPERIMENTAL - MD 97-6156   | 40.6           | 10-28            | 1.3               | 21                | 2.5              | 2100            |
| EXPERIMENTAL - MD 95-5358   | 40.6           | 10-27            | 1.0               | 21                | 2.8              | 1962            |
| PUBLIC - LS 93-0375         | 40.1           | 10-26            | 1.2               | 23                | 2.7              | 2243            |
| EXPERIMENTAL - C 1981       | 38.6           | 10-24            | 1.5               | 23                | 2.0              | 2694            |
| <b>Mean</b>                 | <b>40.7</b>    | <b>-</b>         | <b>1.2</b>        | <b>21</b>         | <b>2.4</b>       | <b>2173</b>     |
| <b>LSD (0.20)</b>           | <b>NS</b>      | <b>-</b>         | <b>0.2</b>        | <b>2</b>          | <b>NS</b>        | <b>265</b>      |
| <b>CV (%)</b>               | <b>6.8</b>     |                  |                   |                   |                  |                 |
| <b>MATURITY GROUP IV-S</b>  |                |                  |                   |                   |                  |                 |
| PUBLIC - MD 4900            | 49.2           | 11-03            | 1.5               | 23                | 2.0              | 2627            |
| EXPERIMENTAL - MD 98-5579   | 43.7           | 10-25            | 1.3               | 22                | 2.2              | 2291            |
| EXPERIMENTAL - MD 96-5275   | 43.2           | 11-02            | 1.7               | 25                | 2.2              | 2741            |
| PUBLIC - MANOKIN            | 42.4           | 11-02            | 2.8               | 26                | 2.0              | 2971            |
| PUBLIC - KS 4694            | 41.3           | 10-28            | 1.0               | 20                | 2.0              | 2183            |
| PUBLIC - KS 4602N           | 40.6           | 10-29            | 1.2               | 20                | 2.0              | 2089            |
| EXPERIMENTAL - MD 97-6491   | 38.5           | 10-30            | 1.3               | 22                | 2.0              | 2322            |
| EXPERIMENTAL - JAPAN-L1L2L3 | 34.1           | 10-26            | 2.8               | 21                | 3.0              | 1839            |
| <b>Mean</b>                 | <b>41.6</b>    | <b>-</b>         | <b>1.7</b>        | <b>23</b>         | <b>2.2</b>       | <b>2383</b>     |
| <b>LSD (0.20)</b>           | <b>2.6</b>     | <b>-</b>         | <b>0.3</b>        | <b>2</b>          | <b>0.1</b>       | <b>124</b>      |
| <b>CV (%)</b>               | <b>5.6</b>     |                  |                   |                   |                  |                 |

Table 7. (Continued) Quantico - Double Crop, Standard Soybean Varieties

| <b>BRAND - ENTRY</b>      | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|---------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP V</b>   |                        |                          |                           |                           |                          |                         |
| PUBLIC - HOLLADAY         | 45.7                   | 11-05                    | 1.7                       | 23                        | 2.0                      | 2697                    |
| PUBLIC - KS 5502N         | 44.5                   | 11-09                    | 1.8                       | 28                        | 2.2                      | 2867                    |
| EXPERIMENTAL - V 95-0016  | 44.0                   | 11-09                    | 2.2                       | 29                        | 1.5                      | 2927                    |
| PUBLIC - ESSEX            | 43.4                   | 11-05                    | 1.7                       | 24                        | 1.3                      | 2707                    |
| EXPERIMENTAL - MD 97-6065 | 43.4                   | 11-07                    | 2.0                       | 26                        | 1.0                      | 2785                    |
| PUBLIC - HUTCHESON        | 43.2                   | 11-09                    | 2.3                       | 29                        | 1.8                      | 2505                    |
| EXPERIMENTAL - MD 98-5927 | 42.5                   | 11-07                    | 1.8                       | 22                        | 1.5                      | 2561                    |
| PUBLIC - CLIFFORD         | 42.4                   | 11-08                    | 2.2                       | 27                        | 2.2                      | 2200                    |
| USG - 5601T               | 42.2                   | 11-09                    | 2.5                       | 30                        | 1.5                      | 2928                    |
| EXPERIMENTAL - V 96-0340  | 41.8                   | 11-08                    | 1.7                       | 27                        | 1.7                      | 2155                    |
| EXPERIMENTAL - MD 98-5095 | 40.8                   | 11-05                    | 2.2                       | 25                        | 1.5                      | 2951                    |
| PUBLIC - BOLIVAR          | 39.3                   | 11-08                    | 2.0                       | 31                        | 1.5                      | 2364                    |
| EXPERIMENTAL - R 95-1705  | 33.9                   | 11-10                    | 2.0                       | 28                        | 1.7                      | 2511                    |
| <b>Mean</b>               | <b>42.1</b>            | <b>-</b>                 | <b>2.0</b>                | <b>27</b>                 | <b>1.6</b>               | <b>2628</b>             |
| <b>LSD (0.20)</b>         | <b>3.7</b>             | <b>-</b>                 | <b>0.3</b>                | <b>2</b>                  | <b>0.4</b>               | <b>110</b>              |
| <b>CV (%)</b>             | <b>8.2</b>             |                          |                           |                           |                          |                         |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Table 8. Relative yields of standard soybean varieties compared to the mean yield of all varieties in that maturity group at each location in 2002.

| BRAND - ENTRY                    | Clarksville                      | Queenstown  | Quantico    |             |
|----------------------------------|----------------------------------|-------------|-------------|-------------|
|                                  |                                  |             | Full Season | Double Crop |
| <b>MATURITY GROUP III</b>        |                                  |             |             |             |
|                                  | <b>Relative Yield, % of Mean</b> |             |             |             |
| PUBLIC - APEX                    | 101                              | 91          | -           | 105*        |
| PUBLIC - GENERAL                 | 102                              | 107         | -           | 104*        |
| PUBLIC - IA 3010                 | 100                              | 103         | -           | 90          |
| PUBLIC - IA 3014                 | 104                              | 103         | -           | 97          |
| PUBLIC - MACON                   | 94                               | 96          | -           | 103*        |
| <b>Location/Group Mean Yield</b> | <b>49.4</b>                      | <b>23.8</b> | -           | <b>38.0</b> |
| <b>MATURITY GROUP IV</b>         |                                  |             |             |             |
| PUBLIC - CORSICA                 | 100                              | 102         | -           | 101         |
| PUBLIC - HS 93-4118              | 99                               | 103         | -           | 102         |
| PUBLIC - LS 93-0375              | 95                               | 103         | -           | 98          |
| EXPERIMENTAL - MD 95-5358        | 98                               | 89          | -           | 100         |
| EXPERIMENTAL - MD 96-5722        | 102                              | 102         | -           | 102         |
| EXPERIMENTAL - MD 97-6156        | 93                               | 95          | -           | 100         |
| PUBLIC - STRESSLAND              | 103                              | 99          | -           | 103         |
| EXPERIMENTAL - C1981             | 109                              | 105         | -           | 95          |
| <b>Location/Group Mean Yield</b> | <b>54.0</b>                      | <b>37.9</b> | -           | <b>40.7</b> |
| <b>MATURITY GROUP IV-S</b>       |                                  |             |             |             |
| PUBLIC - KS 4602N                | 107                              | 101         | 87          | 98          |
| PUBLIC - KS 4694                 | 114*                             | 106         | 55          | 99          |
| PUBLIC - MANOKIN                 | 94                               | 108         | 125         | 102         |
| PUBLIC - MD 4900                 | 116*                             | 122*        | 145*        | 118*        |
| EXPERIMENTAL - MD 96-5275        | 100                              | 101         | 131*        | 104         |
| EXPERIMENTAL - MD 97-6491        | 99                               | 97          | 66          | 93          |
| EXPERIMENTAL - MD 98-5579        | 101                              | 88          | 72          | 105         |
| EXPERIMENTAL - JAPAN-L1L2L3      | 69                               | 78          | 119         | 82          |
| <b>Location/Group Mean Yield</b> | <b>55.0</b>                      | <b>40.7</b> | <b>26.2</b> | <b>41.6</b> |

Table 8. (Continued) Relative Yields, Standard Soybean Varieties

| BRAND - ENTRY                    | Clarksville | Queenstown                       | Quantico    |             |
|----------------------------------|-------------|----------------------------------|-------------|-------------|
|                                  |             |                                  | Full Season | Double Crop |
| <b>MATURITY GROUP V</b>          |             | <b>Relative Yield, % of Mean</b> |             |             |
| PUBLIC - BOLIVAR                 | -           | 102                              | 99          | 93          |
| PUBLIC - CLIFFORD                | -           | 88                               | 94          | 101*        |
| PUBLIC - ESSEX                   | -           | 87                               | 89          | 103*        |
| PUBLIC - HOLLADAY                | -           | 108*                             | 105         | 109*        |
| PUBLIC - HUTCHESON               | -           | 92                               | 90          | 103*        |
| PUBLIC - KS 5502N                | -           | 109*                             | 107*        | 106*        |
| EXPERIMENTAL - MD 97-6065        | -           | 115*                             | 110*        | 103*        |
| EXPERIMENTAL - MD 98-5095        | -           | 99                               | 94          | 97          |
| EXPERIMENTAL - MD 98-5927        | -           | 106                              | 100         | 101*        |
| USG - 5601T                      | -           | 105                              | 106         | 100*        |
| EXPERIMENTAL - V 95-0016         | -           | 99                               | 109*        | 105*        |
| EXPERIMENTAL - V 96-0340         | -           | 105                              | 106*        | 99          |
| EXPERIMENTAL - R 95-1705         | -           | 86                               | 91          | 81          |
| <b>Location/Group Mean Yield</b> | -           | <b>38.9</b>                      | <b>38.8</b> | <b>42.1</b> |

\*Yield is not significantly different from the highest yielding entry in this maturity group at this location.

Actual variety yield can be obtained by converting the relative yield to a decimal percentage and multiplying this value by the location/group mean yield. A variety with a relative yield that is consistently greater than 100 is a variety that consistently yields higher than the mean yield of all of those varieties in that maturity group.

Table 9. Two-year average yields of standard varieties grown at three locations in Maryland, 2001-2002.

| BRAND - ENTRY              | Clarksville             | Queenstown | Quantico    |             |
|----------------------------|-------------------------|------------|-------------|-------------|
|                            |                         |            | Full Season | Double Crop |
| <b>MATURITY GROUP III</b>  |                         |            |             |             |
|                            | <b>Seed Yield, Bu/A</b> |            |             |             |
| PUBLIC - GENERAL           | 47.7                    | 42.0       | 55.6*       | 49.7        |
| PUBLIC - IA 3010           | 48.0                    | 40.8       | 54.8*       | 48.2        |
| PUBLIC - MACON             | 46.7                    | 40.8       | 57.4*       | 49.3        |
| <b>MATURITY GROUP IV</b>   |                         |            |             |             |
| PUBLIC - CORSICA           | 48.4                    | 49.6       | 54.5*       | 47.7        |
| PUBLIC - HS 93-4118        | 51.8                    | 49.8       | 63.2*       | 49.2        |
| PUBLIC - LS 93-0375        | 46.3                    | 49.4       | 62.4*       | 47.8        |
| EXPERIMENTAL - MD 95-5358  | 49.9                    | 43.8       | 60.3*       | 43.8        |
| EXPERIMENTAL - MD 96-5722  | 53.6                    | 50.0       | 63.2*       | 50.9        |
| EXPERIMENTAL - MD 97-6156  | 45.6                    | 48.5       | -           | 47.3        |
| PUBLIC - STRESSLAND        | 54.7                    | 48.0       | 57.4*       | 49.5        |
| <b>MATURITY GROUP IV-S</b> |                         |            |             |             |
| PUBLIC - KS 4694           | 59.9                    | 48.3       | 37.9        | 48.4        |
| PUBLIC - MANOKIN           | 38.9                    | 45.5       | 40.8        | 42.3        |
| PUBLIC - MD 4900           | 51.7                    | 52.2       | 48.0        | 47.0        |
| EXPERIMENTAL - MD 96-5275  | 44.2                    | 47.2       | 43.5        | 42.9        |
| EXPERIMENTAL - MD 97-6491  | 56.4                    | 50.1       | 38.1        | 44.6        |
| <b>MATURITY GROUP V</b>    |                         |            |             |             |
| PUBLIC - CLIFFORD          | -                       | 42.4       | 47.6        | 43.6        |
| PUBLIC - ESSEX             | -                       | 43.4       | 43.9        | 42.3        |
| PUBLIC - HOLLADAY          | -                       | 42.8       | 50.7        | 45.1        |
| PUBLIC - HUTCHESON         | -                       | 42.0       | 43.0        | 40.2        |
| EXPERIMENTAL - MD 97-6065  | -                       | 49.1       | 49.0        | 40.1        |
| EXPERIMENTAL - V 95-0016   | -                       | 43.9       | 47.0        | 42.9        |

\*Data from 2000 and 2001

Table 10. Performance of Roundup Ready soybean varieties planted at Keedysville.

| <b>BRAND - ENTRY</b>          | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-------------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP III</b>     |                        |                          |                           |                           |                          |                         |
| AGWAY - APK366NRR             | 60.4                   | No Data                  | 1.2                       | 27                        | 3.0                      | 2549                    |
| NK - S39-Q4                   | 58.3                   | -                        | 1.5                       | 36                        | 1.0                      | 2484                    |
| AGWAY - APK371NRR             | 58.2                   | -                        | 1.3                       | 33                        | 1.7                      | 3040                    |
| S.STATES - RT3975             | 58.1                   | -                        | 2.2                       | 40                        | 1.0                      | 2934                    |
| S.STATES - RT3799N            | 57.1                   | -                        | 1.7                       | 38                        | 1.0                      | 2634                    |
| VIGORO - V382NRR              | 56.6                   | -                        | 1.7                       | 36                        | 1.0                      | 3059                    |
| S.STATES - RT3702             | 56.5                   | -                        | 2.2                       | 37                        | 1.0                      | 2871                    |
| DEKALB - DKB38-51             | 55.7                   | -                        | 1.5                       | 35                        | 1.5                      | 3028                    |
| DEKALB - DKB38-52             | 55.2                   | -                        | 1.7                       | 37                        | 1.2                      | 3180                    |
| S.STATES - RT3502             | 54.5                   | -                        | 2.7                       | 39                        | 1.0                      | 2974                    |
| USG - 7398nRR                 | 53.9                   | -                        | 2.5                       | 41                        | 1.0                      | 3060                    |
| NK - S39-K6                   | 53.3                   | -                        | 1.7                       | 36                        | 1.0                      | 3026                    |
| ASGROW - AG3903               | 52.4                   | -                        | 1.8                       | 35                        | 1.0                      | 3096                    |
| ASGROW - AG3902               | 51.7                   | -                        | 2.0                       | 38                        | 2.3                      | 3043                    |
| S.STATES - RT3802N            | 49.8                   | -                        | 1.7                       | 39                        | 1.0                      | 3147                    |
| <b>Mean</b>                   | <b>55.4</b>            | <b>-</b>                 | <b>1.8</b>                | <b>36</b>                 | <b>1.3</b>               | <b>2942</b>             |
| <b>LSD (0.20)</b>             | <b>NS</b>              | <b>-</b>                 | <b>0.5</b>                | <b>3</b>                  | <b>0.2</b>               | <b>223</b>              |
| <b>CV (%)</b>                 | <b>8.1</b>             |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP IV</b>      |                        |                          |                           |                           |                          |                         |
| USG - 7403nRR                 | 61.7                   | -                        | 1.2                       | 32                        | 1.0                      | 2651                    |
| S.STATES - RT4098             | 56.8                   | -                        | 1.7                       | 37                        | 1.0                      | 2828                    |
| CLARK - CL42RR                | 53.4                   | -                        | 1.2                       | 35                        | 1.0                      | 3292                    |
| VIGORO - V442NRR              | 53.0                   | -                        | 1.7                       | 34                        | 1.0                      | 3236                    |
| USG - 7402nRR                 | 52.9                   | -                        | 1.2                       | 34                        | 1.0                      | 2792                    |
| S.STATES - RT4502N            | 52.4                   | -                        | 1.7                       | 41                        | 1.0                      | 3150                    |
| AGWAY - APK432NRR             | 52.1                   | -                        | 1.2                       | 34                        | 1.0                      | 3200                    |
| NK - S40-R9                   | 52.0                   | -                        | 1.8                       | 36                        | 1.0                      | 3025                    |
| ASGROW - AG4201               | 50.5                   | -                        | 1.2                       | 34                        | 1.0                      | 2724                    |
| ASGROW - AG4403               | 50.4                   | -                        | 1.0                       | 30                        | 1.0                      | 3139                    |
| NK - S42-P7                   | 50.3                   | -                        | 1.5                       | 31                        | 1.0                      | 2763                    |
| USG - 7440nRR                 | 50.1                   | -                        | 1.5                       | 34                        | 1.0                      | 3250                    |
| S.STATES - RT446N             | 50.0                   | -                        | 1.7                       | 36                        | 1.0                      | 2846                    |
| DEKALB - DKB44-51             | 49.4                   | -                        | 1.2                       | 28                        | 1.3                      | 3045                    |
| USG - 7452nRR                 | 49.0                   | -                        | 1.2                       | 31                        | 1.0                      | 3047                    |
| USG - 7449nRR                 | 49.0                   | -                        | 2.0                       | 34                        | 1.7                      | 2258                    |
| EXPERIMENTAL - MD 99-0165-3RR | 48.6                   | -                        | 2.3                       | 35                        | 1.0                      | 2998                    |
| EXPERIMENTAL - MD 99-0198-3RR | 47.3                   | -                        | 1.3                       | 33                        | 1.0                      | 2894                    |
| DEKALB - DKB45-51             | 45.8                   | -                        | 1.0                       | 31                        | 1.0                      | 2785                    |
| <b>Mean</b>                   | <b>51.3</b>            | <b>-</b>                 | <b>1.4</b>                | <b>34</b>                 | <b>1.1</b>               | <b>2943</b>             |
| <b>LSD (0.20)</b>             | <b>NS</b>              | <b>-</b>                 | <b>0.5</b>                | <b>NS</b>                 | <b>NS</b>                | <b>285</b>              |
| <b>CV (%)</b>                 | <b>10.3</b>            |                          |                           |                           |                          |                         |

Table 10. (Continued) Keedysville - Roundup Ready Soybean Varieties

| BRAND - ENTRY                 | Yield,<br>Bu/A | Maturity<br>Date | Lodging<br>Score* | Height,<br>Inches | Seed<br>Quality* | Seeds/<br>Pound |
|-------------------------------|----------------|------------------|-------------------|-------------------|------------------|-----------------|
| <b>MATURITY GROUP IV-S</b>    |                |                  |                   |                   |                  |                 |
| VIGORO - V46N3RR              | 58.4           | -                | 2.0               | 36                | 1.3              | 2782            |
| S.STATES - RT4980             | 57.7           | -                | 2.2               | 38                | 1.0              | 2949            |
| CLARK - CL48RR                | 56.0           | -                | 2.5               | 39                | 1.0              | 2965            |
| USG - 7489RR                  | 55.9           | -                | 3.0               | 41                | 1.0              | 3045            |
| VIGORO - V49N3RR              | 55.8           | -                | 2.0               | 34                | 1.0              | 3001            |
| EXPERIMENTAL - MD 99-1098-2RR | 54.0           | -                | 1.3               | 30                | 1.3              | 3481            |
| S.STATES - RT4810N            | 52.8           | -                | 2.0               | 39                | 1.0              | 3031            |
| USG - 7482hRR                 | 52.6           | -                | 1.8               | 33                | 1.0              | 2995            |
| VIGORO - V462NRS              | 51.3           | -                | 2.0               | 38                | 1.3              | 2790            |
| NK - S46-G2                   | 51.2           | -                | 2.3               | 43                | 1.0              | 2909            |
| ASGROW - AG4603               | 50.2           | -                | 1.5               | 34                | 1.0              | 3067            |
| S.STATES - RT4720N            | 49.7           | -                | 2.2               | 38                | 1.0              | 2695            |
| VIGORO - V472NRR              | 49.7           | -                | 2.2               | 40                | 1.2              | 3295            |
| <b>Mean</b>                   | <b>53.5</b>    | -                | <b>2.1</b>        | <b>37</b>         | <b>1.1</b>       | <b>3000</b>     |
| <b>LSD (0.20)</b>             | <b>3.1</b>     | -                | <b>0.6</b>        | <b>4</b>          | <b>0.2</b>       | <b>190</b>      |
| <b>CV (%)</b>                 | <b>5.4</b>     |                  |                   |                   |                  |                 |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Table 11. Performance of Roundup Ready soybean varieties planted at Clarksville.

| BRAND - ENTRY                 | Yield,<br>Bu/A    | Maturity<br>Date | Lodging<br>Score* | Height,<br>Inches | Seed<br>Quality* | Seeds/<br>Pound |
|-------------------------------|-------------------|------------------|-------------------|-------------------|------------------|-----------------|
| <b>MATURITY GROUP III</b>     |                   |                  |                   |                   |                  |                 |
| AGWAY - APK366NRR             | 62.8              | 10-05            | 1.3               | 27                | 1.8              | 2182            |
| ASGROW - AG3902               | 60.2              | 10-08            | 1.7               | 37                | 1.5              | 2548            |
| NK - S39-Q4                   | 59.8              | 10-05            | 1.5               | 33                | 1.2              | 2183            |
| DEKALB - DKB38-51             | 58.7              | 10-08            | 1.3               | 29                | 1.3              | 2549            |
| DEKALB - DKB38-52             | 57.8              | 10-04            | 1.2               | 31                | 1.5              | 2835            |
| NK - S39-K6                   | 55.9              | 10-06            | 1.2               | 29                | 1.0              | 2617            |
| AGWAY - APK371NRR             | 55.3              | 10-03            | 1.2               | 32                | 2.0              | 2766            |
| ASGROW - AG3903               | 54.1              | 10-12            | 1.7               | 32                | 1.3              | 2550            |
| VIGORO - V382NRR              | 53.9              | 10-04            | 1.8               | 36                | 1.0              | 2644            |
| USG - 7398nRR                 | 53.8              | 10-03            | 2.3               | 40                | 1.0              | 2703            |
| S.STATES - RT3502             | 53.0              | 9-29             | 2.5               | 38                | 1.5              | 2867            |
| S.STATES - RT3702             | 52.5              | 10-04            | 1.8               | 33                | 1.3              | 2763            |
| S.STATES - RT3799N            | 51.9              | 10-04            | 1.5               | 34                | 1.2              | 2405            |
| S.STATES - RT3975             | 50.7              | 10-02            | 2.0               | 36                | 1.2              | 2474            |
| S.STATES - RT3802N            | 50.6              | 10-07            | 1.5               | 34                | 1.2              | 2552            |
|                               | <b>Mean</b>       | <b>-</b>         | <b>1.6</b>        | <b>33</b>         | <b>1.3</b>       | <b>2576</b>     |
|                               | <b>LSD (0.20)</b> | <b>-</b>         | <b>0.4</b>        | <b>2</b>          | <b>0.3</b>       | <b>99</b>       |
|                               | <b>CV (%)</b>     |                  |                   |                   |                  |                 |
|                               | <b>5.6</b>        |                  |                   |                   |                  |                 |
| <b>MATURITY GROUP IV</b>      |                   |                  |                   |                   |                  |                 |
| NK - S40-R9                   | 57.3              | 10-06            | 1.5               | 35                | 1.0              | 2609            |
| ASGROW - AG4201               | 55.3              | 10-13            | 1.7               | 32                | 1.0              | 2378            |
| ASGROW - AG4403               | 55.1              | 10-08            | 1.5               | 36                | 1.0              | 2986            |
| AGWAY - APK432NRR             | 54.4              | 10-11            | 1.5               | 33                | 1.0              | 2865            |
| DEKALB - DKB45-51             | 53.9              | 10-07            | 1.3               | 34                | 1.0              | 2403            |
| USG - 7402nRR                 | 53.3              | 10-14            | 1.8               | 37                | 1.0              | 2145            |
| DEKALB - DKB44-51             | 52.6              | 10-08            | 1.2               | 33                | 1.0              | 2853            |
| USG - 7440nRR                 | 52.1              | 10-14            | 1.5               | 30                | 1.0              | 2790            |
| CLARK - CL42RR                | 51.4              | 10-08            | 1.5               | 34                | 1.0              | 3043            |
| S.STATES - RT4502N            | 50.9              | 10-11            | 1.2               | 34                | 1.0              | 2415            |
| S.STATES - RT4098             | 50.6              | 10-05            | 1.3               | 32                | 1.0              | 2618            |
| USG - 7449nRR                 | 50.1              | 10-17            | 1.7               | 31                | 1.0              | 1895            |
| S.STATES - RT446N             | 50.0              | 10-05            | 1.8               | 35                | 1.0              | 2532            |
| NK - S42-P7                   | 49.8              | 10-12            | 1.0               | 26                | 1.0              | 2236            |
| EXPERIMENTAL - MD 99-0198-3RR | 49.6              | 10-08            | 1.8               | 35                | 1.0              | 2708            |
| EXPERIMENTAL - MD 99-0165-3RR | 48.3              | 10-03            | 2.3               | 35                | 1.0              | 2853            |
| USG - 7452nRR                 | 48.1              | 10-15            | 1.2               | 31                | 1.0              | 2644            |
| USG - 7403nRR                 | 47.5              | 10-11            | 1.0               | 26                | 1.0              | 2362            |
| VIGORO - V442NRR              | 46.0              | 10-14            | 1.2               | 30                | 1.0              | 2752            |
|                               | <b>Mean</b>       | <b>-</b>         | <b>1.5</b>        | <b>33</b>         | <b>1.0</b>       | <b>2584</b>     |
|                               | <b>LSD (0.20)</b> | <b>-</b>         | <b>0.4</b>        | <b>3</b>          | <b>NS</b>        | <b>105</b>      |
|                               | <b>CV (%)</b>     |                  |                   |                   |                  |                 |
|                               | <b>8.2</b>        |                  |                   |                   |                  |                 |

Table 11. (Continued) Clarksville - Roundup Ready Soybean Varieties

| <b>BRAND - ENTRY</b>          | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-------------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP IV-S</b>    |                        |                          |                           |                           |                          |                         |
| EXPERIMENTAL - MD 99-1098-2RR | 58.0                   | 10-22                    | 1.0                       | 29                        | 1.2                      | 2883                    |
| VIGORO - V49N3RR              | 56.2                   | 10-14                    | 1.5                       | 31                        | 1.3                      | 2319                    |
| USG - 7489RR                  | 55.9                   | 10-16                    | 2.2                       | 38                        | 1.3                      | 2433                    |
| S.STATES - RT4980             | 55.4                   | 10-14                    | 1.7                       | 36                        | 1.8                      | 2316                    |
| S.STATES - RT4810N            | 54.8                   | 10-20                    | 1.7                       | 36                        | 1.3                      | 2502                    |
| USG - 7482nRR                 | 54.3                   | 10-15                    | 1.7                       | 31                        | 1.0                      | 2442                    |
| S.STATES - RT4720N            | 53.9                   | 10-17                    | 1.8                       | 36                        | 2.0                      | 2182                    |
| CLARK - CL48RR                | 52.9                   | 10-16                    | 1.7                       | 33                        | 1.7                      | 2299                    |
| VIGORO - V46N3RR              | 52.0                   | 10-16                    | 1.0                       | 28                        | 1.5                      | 2157                    |
| ASGROW - AG4603               | 51.1                   | 10-19                    | 1.3                       | 28                        | 1.3                      | 2475                    |
| VIGORO - V472NRR              | 51.0                   | 10-20                    | 1.5                       | 32                        | 1.0                      | 2457                    |
| NK - S46-G2                   | 50.6                   | 10-20                    | 1.3                       | 37                        | 1.2                      | 2225                    |
| VIGORO - V462NRS              | 48.6                   | 10-14                    | 1.7                       | 34                        | 1.2                      | 2269                    |
| <b>Mean</b>                   | <b>53.4</b>            | <b>-</b>                 | <b>1.5</b>                | <b>33</b>                 | <b>1.4</b>               | <b>2381</b>             |
| <b>LSD (0.20)</b>             | <b>4.1</b>             | <b>-</b>                 | <b>0.3</b>                | <b>3</b>                  | <b>0.3</b>               | <b>67</b>               |
| <b>CV (%)</b>                 | <b>7.1</b>             |                          |                           |                           |                          |                         |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Table 12. Performance of Roundup Ready soybean varieties planted full season at Queenstown.

| BRAND - ENTRY                 | Yield,<br>Bu/A | Maturity<br>Date | Lodging<br>Score* | Height,<br>Inches | Seed<br>Quality* | Seeds/<br>Pound |
|-------------------------------|----------------|------------------|-------------------|-------------------|------------------|-----------------|
| <b>MATURITY GROUP III</b>     |                |                  |                   |                   |                  |                 |
| S.STATES - RT3702             | 33.3           | 10-07            | 1.3               | 28                | 1.8              | 3307            |
| AGWAY - APK366NRR             | 32.5           | 10-07            | 1.0               | 23                | 2.7              | 2849            |
| AGWAY - APK371NRR             | 32.4           | 9-28             | 1.2               | 26                | 1.3              | 3846            |
| NK - S39-Q4                   | 31.5           | 10-04            | 1.0               | 26                | 1.8              | 2772            |
| DEKALB - DKB38-52             | 30.8           | 9-28             | 1.0               | 23                | 1.8              | 3617            |
| S.STATES - RT3802N            | 30.3           | 10-08            | 1.7               | 30                | 1.3              | 3094            |
| ASGROW - AG3902               | 29.4           | 10-04            | 1.5               | 29                | 1.2              | 3597            |
| DEKALB - DKB38-51             | 29.0           | 10-03            | 1.0               | 24                | 1.5              | 3423            |
| ASGROW - AG3903               | 28.7           | 10-08            | 1.5               | 31                | 1.2              | 3449            |
| VIGORO - V382NRR              | 28.5           | 10-02            | 1.7               | 31                | 1.3              | 3873            |
| NK - S39-K6                   | 27.8           | 9-30             | 1.0               | 25                | 1.5              | 3261            |
| S.STATES - RT3799N            | 27.7           | 10-04            | 1.3               | 27                | 1.8              | 3249            |
| S.STATES - RT3975             | 24.9           | 10-07            | 1.5               | 29                | 1.3              | 3336            |
| S.STATES - RT3502             | 24.0           | 9-27             | 1.7               | 29                | 1.7              | 3679            |
| USG - 7398nRR                 | 20.2           | 9-29             | 1.5               | 29                | 1.5              | 4022            |
| <b>Mean</b>                   | <b>28.7</b>    | -                | <b>1.3</b>        | <b>27</b>         | <b>1.6</b>       | <b>3425</b>     |
| <b>LSD (0.20)</b>             | <b>3.5</b>     | -                | <b>0.4</b>        | <b>2</b>          | <b>0.3</b>       | <b>164</b>      |
| <b>CV (%)</b>                 | <b>11.5</b>    |                  |                   |                   |                  |                 |
| <b>MATURITY GROUP IV</b>      |                |                  |                   |                   |                  |                 |
| USG - 7440nRR                 | 46.7           | 10-08            | 1.8               | 30                | 1.0              | 2924            |
| AGWAY - APK432NRR             | 45.2           | 10-09            | 1.5               | 31                | 1.0              | 3028            |
| S.STATES - RT4502N            | 44.9           | 10-11            | 2.0               | 34                | 1.0              | 2799            |
| USG - 7449nRR                 | 44.5           | 10-11            | 2.3               | 32                | 2.0              | 2245            |
| USG - 7452nRR                 | 44.4           | 10-09            | 1.7               | 29                | 1.0              | 3125            |
| USG - 7403nRR                 | 43.9           | 10-06            | 1.3               | 26                | 2.0              | 2722            |
| DEKALB - DKB45-51             | 43.3           | 10-07            | 1.5               | 30                | 1.0              | 2732            |
| EXPERIMENTAL - MD 99-0198-3RR | 41.2           | 10-01            | 2.2               | 33                | 1.0              | 3390            |
| ASGROW - AG4201               | 40.5           | 10-09            | 1.3               | 27                | 1.7              | 2734            |
| S.STATES - RT446N             | 40.4           | 10-09            | 2.0               | 33                | 1.0              | 2874            |
| USG - 7402nRR                 | 40.0           | 10-11            | 1.8               | 32                | 1.0              | 2346            |
| CLARK - CL42RR                | 39.4           | 10-09            | 1.5               | 29                | 1.0              | 3423            |
| S.STATES - RT4098             | 39.0           | 10-06            | 1.7               | 28                | 1.0              | 2966            |
| NK - S42-P7                   | 38.7           | 10-03            | 1.2               | 25                | 1.0              | 2843            |
| VIGORO - V442NRR              | 38.7           | 10-08            | 1.5               | 30                | 1.0              | 3191            |
| ASGROW - AG4403               | 37.7           | 10-07            | 1.5               | 28                | 1.0              | 3248            |
| DEKALB - DKB44-51             | 37.0           | 10-09            | 1.3               | 27                | 1.0              | 3246            |
| NK - S40-R9                   | 35.4           | 10-07            | 1.7               | 30                | 1.0              | 3000            |
| EXPERIMENTAL - MD 99-0165-3RR | 31.7           | 9-29             | 2.0               | 31                | 1.0              | 3596            |
| <b>Mean</b>                   | <b>40.7</b>    | -                | <b>1.7</b>        | <b>30</b>         | <b>1.1</b>       | <b>2970</b>     |
| <b>LSD (0.20)</b>             | <b>NS</b>      | -                | <b>0.3</b>        | <b>2</b>          | <b>0.4</b>       | <b>179</b>      |
| <b>CV (%)</b>                 | <b>17.1</b>    |                  |                   |                   |                  |                 |

Table 12. (Continued) Queenstown - Full Season, Roundup Ready Soybean Varieties

| <b>BRAND - ENTRY</b>          | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-------------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP IV-S</b>    |                        |                          |                           |                           |                          |                         |
| USG - 7489RR                  | 49.1                   | 10-21                    | 2.0                       | 33                        | 1.8                      | 2405                    |
| VIGORO - V46N3RR              | 48.6                   | 10-20                    | 1.3                       | 26                        | 3.5                      | 2660                    |
| EXPERIMENTAL - MD 99-1098-2RR | 46.4                   | 10-24                    | 1.0                       | 24                        | 1.0                      | 3180                    |
| CLARK - CL48RR                | 45.9                   | 10-22                    | 1.8                       | 31                        | 2.2                      | 2382                    |
| VIGORO - V462NRS              | 44.5                   | 10-18                    | 2.0                       | 30                        | 1.2                      | 2747                    |
| VIGORO - V472NRR              | 44.4                   | 10-21                    | 1.8                       | 33                        | 2.3                      | 2841                    |
| VIGORO - V49N3RR              | 43.9                   | 10-20                    | 1.5                       | 27                        | 2.8                      | 2546                    |
| USG - 7482nRR                 | 43.3                   | 10-21                    | 1.5                       | 28                        | 2.3                      | 2515                    |
| S.STATES - RT4810N            | 40.9                   | 10-25                    | 1.3                       | 27                        | 2.2                      | 3009                    |
| S.STATES - RT4980             | 38.6                   | 10-23                    | 1.5                       | 27                        | 2.7                      | 2389                    |
| ASGROW - AG4603               | 38.4                   | 10-20                    | 1.3                       | 26                        | 2.3                      | 2894                    |
| S.STATES - RT4720N            | 38.3                   | 10-18                    | 1.5                       | 27                        | 2.7                      | 2476                    |
| NK - S46-G2                   | 36.6                   | 10-20                    | 1.3                       | 31                        | 2.8                      | 2939                    |
| <b>Mean</b>                   | <b>43.0</b>            | <b>-</b>                 | <b>1.5</b>                | <b>29</b>                 | <b>2.3</b>               | <b>2691</b>             |
| <b>LSD (0.20)</b>             | <b>6.0</b>             | <b>-</b>                 | <b>0.3</b>                | <b>3</b>                  | <b>0.8</b>               | <b>224</b>              |
| <b>CV (%)</b>                 | <b>12.9</b>            |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP V</b>       |                        |                          |                           |                           |                          |                         |
| EXPERIMENTAL - MD 99-0687-3RR | 39.1                   | 10-22                    | 1.7                       | 27                        | 1.0                      | 2691                    |
| S.STATES - RT5001N            | 35.9                   | 10-24                    | 2.0                       | 32                        | 1.2                      | 2814                    |
| USG - 7509nRR                 | 35.9                   | 10-24                    | 1.3                       | 28                        | 1.7                      | 2445                    |
| S.STATES - RT5302N            | 31.2                   | 10-25                    | 1.3                       | 32                        | 1.5                      | 2817                    |
| EXPERIMENTAL - 99VPI-120RR    | 30.9                   | 11-01                    | 1.0                       | 26                        | 1.8                      | 2931                    |
| EXPERIMENTAL - 99VPI-67RR     | 26.6                   | 11-01                    | 1.0                       | 26                        | 1.8                      | 3108                    |
| <b>Mean</b>                   | <b>33.3</b>            | <b>-</b>                 | <b>1.4</b>                | <b>28</b>                 | <b>1.5</b>               | <b>2801</b>             |
| <b>LSD (0.20)</b>             | <b>3.8</b>             | <b>-</b>                 | <b>0.3</b>                | <b>1</b>                  | <b>0.3</b>               | <b>193</b>              |
| <b>CV (%)</b>                 | <b>10.1</b>            |                          |                           |                           |                          |                         |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Table 13. Performance of Roundup Ready soybean varieties double cropped at Queenstown.

| <b>BRAND - ENTRY</b>          | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-------------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP III</b>     |                        |                          |                           |                           |                          |                         |
| AGWAY - APK366NRR             | 27.0                   | 10-26                    | 1.0                       | 16                        | 2.7                      | 2391                    |
| S.STATES - RT3702             | 25.1                   | 10-24                    | 1.0                       | 18                        | 2.0                      | 2765                    |
| NK - S39-Q4                   | 23.3                   | 10-25                    | 1.0                       | 18                        | 1.7                      | 2422                    |
| AGWAY - APK371NRR             | 21.8                   | 10-24                    | 1.0                       | 17                        | 2.0                      | 3206                    |
| VIGORO - V382NRR              | 21.4                   | 10-22                    | 1.0                       | 17                        | 2.3                      | 2978                    |
| DEKALB - DKB38-51             | 21.4                   | 10-22                    | 1.0                       | 16                        | 1.7                      | 3165                    |
| ASGROW - AG3902               | 21.3                   | 10-22                    | 1.0                       | 16                        | 2.5                      | 3129                    |
| S.STATES - RT3502             | 20.2                   | 10-24                    | 1.0                       | 16                        | 2.5                      | 2972                    |
| S.STATES - RT3799N            | 19.2                   | 10-22                    | 1.0                       | 15                        | 2.2                      | 2818                    |
| ASGROW - AG3903               | 19.2                   | 10-26                    | 1.0                       | 17                        | 2.2                      | 3160                    |
| DEKALB - DKB38-52             | 18.4                   | 10-26                    | 1.0                       | 14                        | 2.7                      | 3250                    |
| S.STATES - RT3802N            | 18.2                   | 10-24                    | 1.0                       | 16                        | 2.0                      | 2933                    |
| NK - S39-K6                   | 17.7                   | 10-25                    | 1.0                       | 15                        | 3.0                      | 3117                    |
| USG - 7398nRR                 | 17.4                   | 10-22                    | 1.0                       | 16                        | 2.3                      | 3378                    |
| S.STATES - RT3975             | 15.9                   | 10-26                    | 1.0                       | 16                        | 2.8                      | 2916                    |
|                               | <b>Mean</b>            | <b>-</b>                 | <b>1.0</b>                | <b>16</b>                 | <b>2.3</b>               | <b>2973</b>             |
|                               | <b>LSD (0.20)</b>      | <b>-</b>                 | <b>NS</b>                 | <b>2</b>                  | <b>0.4</b>               | <b>123</b>              |
|                               | <b>CV (%)</b>          | <b>16.6</b>              |                           |                           |                          |                         |
| <b>MATURITY GROUP IV</b>      |                        |                          |                           |                           |                          |                         |
| VIGORO - V442NRR              | 36.3                   | 10-25                    | 1.3                       | 22                        | 1.0                      | 2791                    |
| CLARK - CL42RR                | 33.6                   | 10-27                    | 1.2                       | 20                        | 1.0                      | 3072                    |
| EXPERIMENTAL - MD 99-0165-3RR | 32.1                   | 10-26                    | 1.8                       | 22                        | 1.2                      | 2755                    |
| DEKALB - DKB44-51             | 30.9                   | 10-28                    | 1.0                       | 18                        | 1.0                      | 2806                    |
| DEKALB - DKB45-51             | 30.3                   | 10-26                    | 1.3                       | 23                        | 1.0                      | 2907                    |
| S.STATES - RT446N             | 29.4                   | 11-01                    | 1.2                       | 22                        | 1.3                      | 2468                    |
| USG - 7452nRR                 | 29.0                   | 10-25                    | 1.2                       | 19                        | 1.0                      | 2899                    |
| USG - 7440nRR                 | 28.2                   | 10-27                    | 1.3                       | 19                        | 1.2                      | 2987                    |
| S.STATES - RT4502N            | 27.2                   | 10-27                    | 1.5                       | 23                        | 1.0                      | 2808                    |
| AGWAY - APK432NRR             | 27.1                   | 10-26                    | 1.0                       | 17                        | 1.0                      | 2898                    |
| EXPERIMENTAL - MD 99-0198-3RR | 26.0                   | 10-26                    | 1.2                       | 18                        | 1.5                      | 3243                    |
| ASGROW - AG4403               | 25.5                   | 10-26                    | 1.0                       | 19                        | 1.0                      | 2809                    |
| S.STATES - RT4098             | 25.2                   | 10-26                    | 1.2                       | 20                        | 2.0                      | 2843                    |
| NK - S42-P7                   | 25.1                   | 10-29                    | 1.0                       | 15                        | 1.7                      | 2466                    |
| ASGROW - AG4201               | 24.7                   | 11-01                    | 1.2                       | 19                        | 1.2                      | 2610                    |
| USG - 7449nRR                 | 24.0                   | 10-29                    | 1.3                       | 19                        | 2.0                      | 2204                    |
| USG - 7402nRR                 | 23.3                   | 11-02                    | 1.0                       | 19                        | 2.2                      | 2571                    |
| USG - 7403nRR                 | 21.5                   | 10-31                    | 1.0                       | 17                        | 2.5                      | 2530                    |
| NK - S40-R9                   | 21.1                   | 10-28                    | 1.0                       | 20                        | 3.0                      | 3213                    |
|                               | <b>Mean</b>            | <b>-</b>                 | <b>1.2</b>                | <b>20</b>                 | <b>1.5</b>               | <b>2783</b>             |
|                               | <b>LSD (0.20)</b>      | <b>-</b>                 | <b>0.3</b>                | <b>3</b>                  | <b>0.2</b>               | <b>150</b>              |
|                               | <b>CV (%)</b>          | <b>14.1</b>              |                           |                           |                          |                         |

Table 13. (Continued) Queenstown - Double Crop, Roundup Ready Soybean Varieties

| <b>BRAND - ENTRY</b>          | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-------------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP IV-S</b>    |                        |                          |                           |                           |                          |                         |
| NK - S46-G2                   | 29.0                   | 10-30                    | 1.2                       | 19                        | 1.5                      | 2754                    |
| S.STATES - RT4720N            | 28.8                   | 10-30                    | 1.7                       | 21                        | 2.0                      | 2712                    |
| CLARK - CL48RR                | 28.8                   | 10-31                    | 1.5                       | 19                        | 1.0                      | 2684                    |
| S.STATES - RT4980             | 28.1                   | 10-29                    | 1.3                       | 20                        | 1.0                      | 2715                    |
| USG - 7482nRR                 | 27.7                   | 10-29                    | 1.2                       | 20                        | 1.2                      | 2596                    |
| EXPERIMENTAL - MD 99-1098-2RR | 27.7                   | 10-30                    | 1.3                       | 19                        | 1.0                      | 3624                    |
| ASGROW - AG4603               | 27.5                   | 11-05                    | 1.3                       | 20                        | 1.0                      | 2774                    |
| VIGORO - V49N3RR              | 27.1                   | 10-28                    | 1.2                       | 17                        | 1.0                      | 2774                    |
| USG - 7489RR                  | 25.7                   | 11-03                    | 1.5                       | 20                        | 1.0                      | 2711                    |
| S.STATES - RT4810N            | 25.6                   | 11-05                    | 1.2                       | 18                        | 1.3                      | 3000                    |
| VIGORO - V462NRS              | 24.9                   | 10-28                    | 1.3                       | 18                        | 1.0                      | 2761                    |
| VIGORO - V472NRR              | 24.5                   | 11-03                    | 1.5                       | 21                        | 1.0                      | 2745                    |
| VIGORO - V46N3RR              | 22.3                   | 11-04                    | 1.0                       | 17                        | 1.3                      | 2410                    |
|                               | <b>Mean</b>            | <b>-</b>                 | <b>1.3</b>                | <b>19</b>                 | <b>1.2</b>               | <b>2789</b>             |
|                               | <b>LSD (0.20)</b>      | <b>-</b>                 | <b>NS</b>                 | <b>NS</b>                 | <b>0.2</b>               | <b>320</b>              |
|                               | <b>CV (%)</b>          |                          | <b>16.2</b>               |                           |                          |                         |
| <b>MATURITY GROUP V</b>       |                        |                          |                           |                           |                          |                         |
| EXPERIMENTAL - 99VPI-67RR     | 30.2                   | 11-11                    | 1.5                       | 23                        | 1.0                      | 3227                    |
| EXPERIMENTAL - 99VPI-120RR    | 27.8                   | 11-11                    | 1.7                       | 22                        | 1.0                      | 3192                    |
| S.STATES - RT5001N            | 26.4                   | 11-10                    | 2.0                       | 23                        | 1.0                      | 3092                    |
| EXPERIMENTAL - MD 99-0687-3RR | 25.4                   | 11-09                    | 2.0                       | 21                        | 1.0                      | 3288                    |
| S.STATES - RT5302N            | 24.7                   | 11-09                    | 2.0                       | 26                        | 1.0                      | 3358                    |
| USG - 7509nRR                 | 20.1                   | 11-07                    | 1.5                       | 21                        | 1.2                      | 2663                    |
|                               | <b>Mean</b>            | <b>-</b>                 | <b>1.8</b>                | <b>23</b>                 | <b>1.0</b>               | <b>3137</b>             |
|                               | <b>LSD (0.20)</b>      | <b>-</b>                 | <b>0.3</b>                | <b>NS</b>                 | <b>NS</b>                | <b>163</b>              |
|                               | <b>CV (%)</b>          |                          | <b>11.2</b>               |                           |                          |                         |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Table 14. Performance of Roundup Ready soybean varieties planted full season at Quantico.

| <b>BRAND - ENTRY</b>          | <b>Yield,<br/>Bu/A</b>   | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP III</b>     | <b>DATA NOT REPORTED</b> |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP IV</b>      |                          |                          |                           |                           |                          |                         |
| S.STATES - RT4502N            | 26.9                     | 10-10                    | 1.0                       | 25                        | 2.0                      | 3139                    |
| CLARK - CL42RR                | 25.6                     | 10-06                    | 1.0                       | 24                        | 3.7                      | 3855                    |
| S.STATES - RT446N             | 25.0                     | 10-11                    | 1.0                       | 26                        | 4.3                      | 3251                    |
| USG - 7440nRR                 | 24.6                     | 10-08                    | 1.0                       | 24                        | 4.3                      | 3538                    |
| ASGROW - AG4403               | 23.7                     | 10-08                    | 1.0                       | 24                        | 4.0                      | 3507                    |
| USG - 7452nRR                 | 23.5                     | 10-08                    | 1.0                       | 21                        | 4.2                      | 3594                    |
| DEKALB - DKB44-51             | 23.0                     | 10-06                    | 1.0                       | 22                        | 4.3                      | 3610                    |
| AGWAY - APK432NRR             | 22.9                     | 10-07                    | 1.0                       | 23                        | 4.5                      | 3483                    |
| VIGORO - V442NRR              | 20.5                     | 10-08                    | 1.0                       | 24                        | 4.3                      | 3564                    |
| DEKALB - DKB45-51             | 20.5                     | 10-08                    | 1.0                       | 25                        | 3.0                      | 3240                    |
| NK - S40-R9                   | 19.9                     | 10-06                    | 1.0                       | 23                        | 5.0                      | 3393                    |
| USG - 7449nRR                 | 19.4                     | 10-09                    | 1.0                       | 25                        | 5.0                      | 2610                    |
| USG - 7402nRR                 | 15.9                     | 10-06                    | 1.0                       | 25                        | 5.0                      | 3035                    |
| NK - S42-P7                   | 15.7                     | 10-02                    | 1.0                       | 19                        | 5.0                      | 3212                    |
| S.STATES - RT4098             | 12.9                     | 10-07                    | 1.0                       | 26                        | 5.0                      | 3529                    |
| USG - 7403nRR                 | 11.9                     | 10-04                    | 1.0                       | 19                        | 4.7                      | 3241                    |
| ASGROW - AG4201               | 11.3                     | 10-05                    | 1.0                       | 21                        | 4.2                      | 3056                    |
| EXPERIMENTAL - MD 99-0198-3RR | 9.2                      | 9-30                     | 1.0                       | 25                        | 4.5                      | 4280                    |
| EXPERIMENTAL - MD 99-0165-3RR | 5.6                      | 9-28                     | 1.0                       | 25                        | 4.7                      | 4441                    |
| <b>Mean</b>                   | <b>18.8</b>              | <b>-</b>                 | <b>1.0</b>                | <b>23</b>                 | <b>4.3</b>               | <b>3451</b>             |
| <b>LSD (0.20)</b>             | <b>3.3</b>               | <b>-</b>                 | <b>NS</b>                 | <b>2</b>                  | <b>0.4</b>               | <b>169</b>              |
| <b>CV (%)</b>                 | <b>16.2</b>              |                          |                           |                           |                          |                         |

Table 14. (Continued) Quantico - Full Season, Roundup Ready Soybean Varieties

| BRAND - ENTRY                 | Yield,<br>Bu/A | Maturity<br>Date | Lodging<br>Score* | Height,<br>Inches | Seed<br>Quality* | Seeds/<br>Pound |
|-------------------------------|----------------|------------------|-------------------|-------------------|------------------|-----------------|
| <b>MATURITY GROUP IV-S</b>    |                |                  |                   |                   |                  |                 |
| EXPERIMENTAL - MD 99-1098-2RR | 40.0           | 10-16            | 1.0               | 22                | 1.0              | 3555            |
| S.STATES - RT4720N            | 36.9           | 10-11            | 1.0               | 26                | 2.5              | 2540            |
| USG - 7489RR                  | 32.6           | 10-14            | 1.0               | 24                | 2.0              | 3050            |
| S.STATES - RT4980             | 31.9           | 10-13            | 1.0               | 27                | 2.0              | 2932            |
| NK - S46-G2                   | 31.4           | 10-17            | 1.0               | 29                | 2.7              | 2975            |
| VIGORO - V462NRS              | 31.1           | 10-17            | 1.2               | 27                | 2.2              | 2807            |
| VIGORO - V472NRR              | 30.6           | 10-16            | 1.0               | 27                | 1.7              | 3343            |
| S.STATES - RT4810N            | 29.0           | 10-14            | 1.0               | 28                | 1.8              | 3107            |
| VIGORO - V49N3RR              | 28.5           | 10-13            | 1.0               | 24                | 2.0              | 2845            |
| USG - 7482nRR                 | 28.3           | 10-15            | 1.0               | 26                | 2.5              | 2848            |
| ASGROW - AG4603               | 27.5           | 10-16            | 1.0               | 23                | 2.3              | 2893            |
| CLARK - CL48RR                | 27.0           | 10-12            | 1.0               | 24                | 2.5              | 3128            |
| VIGORO - V46N3RR              | 20.0           | 10-16            | 1.0               | 21                | 3.3              | 2841            |
| <b>Mean</b>                   | <b>30.4</b>    | <b>-</b>         | <b>1.0</b>        | <b>25</b>         | <b>2.2</b>       | <b>2989</b>     |
| <b>LSD (0.20)</b>             | <b>4.1</b>     | <b>-</b>         | <b>0.1</b>        | <b>2</b>          | <b>0.3</b>       | <b>131</b>      |
| <b>CV (%)</b>                 | <b>12.6</b>    |                  |                   |                   |                  |                 |
| <b>MATURITY GROUP V</b>       |                |                  |                   |                   |                  |                 |
| S.STATES - RT5302N            | 36.8           | 10-21            | 1.3               | 30                | 2.0              | 2516            |
| EXPERIMENTAL - 99VPI-120RR    | 34.8           | 10-28            | 1.2               | 25                | 2.0              | 2598            |
| EXPERIMENTAL - MD 99-0687-3RR | 34.1           | 10-18            | 1.0               | 25                | 2.0              | 2815            |
| EXPERIMENTAL - 99VPI-67RR     | 32.6           | 10-27            | 1.0               | 24                | 1.8              | 2704            |
| USG - 7509nRR                 | 32.5           | 10-19            | 1.0               | 24                | 1.7              | 2502            |
| S.STATES - RT5001N            | 27.7           | 10-16            | 1.2               | 28                | 1.7              | 2745            |
| <b>Mean</b>                   | <b>33.1</b>    | <b>-</b>         | <b>1.1</b>        | <b>26</b>         | <b>1.9</b>       | <b>2647</b>     |
| <b>LSD (0.20)</b>             | <b>2.6</b>     | <b>-</b>         | <b>NS</b>         | <b>2</b>          | <b>0.2</b>       | <b>116</b>      |
| <b>CV (%)</b>                 | <b>7.0</b>     |                  |                   |                   |                  |                 |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Data from Maturity Group III are not reported because of unacceptable test plot variability

Table 15. Performance of Roundup Ready soybean varieties double cropped at Quantico.

| BRAND - ENTRY                 | Yield,<br>Bu/A | Maturity<br>Date | Lodging<br>Score* | Height,<br>Inches | Seed<br>Quality* | Seeds/<br>Pound |
|-------------------------------|----------------|------------------|-------------------|-------------------|------------------|-----------------|
| <b>MATURITY GROUP III</b>     |                |                  |                   |                   |                  |                 |
| AGWAY - APK366NRR             | 39.7           | 10-24            | 1.0               | 18                | 2.3              | 2128            |
| ASGROW - AG3902               | 38.1           | 10-25            | 1.0               | 22                | 2.5              | 2606            |
| DEKALB - DKB38-51             | 37.4           | 10-25            | 1.0               | 18                | 1.8              | 2272            |
| VIGORO - V382NRR              | 37.3           | 10-22            | 1.2               | 22                | 2.2              | 2475            |
| S.STATES - RT3802N            | 36.8           | 10-24            | 1.7               | 24                | 2.0              | 2324            |
| S.STATES - RT3702             | 36.3           | 10-23            | 1.2               | 21                | 2.0              | 2349            |
| AGWAY - APK371NRR             | 34.6           | 10-23            | 1.0               | 20                | 2.3              | 2575            |
| S.STATES - RT3502             | 34.1           | 10-24            | 1.2               | 20                | 2.5              | 2360            |
| S.STATES - RT3799N            | 33.9           | 10-23            | 1.2               | 20                | 2.0              | 2257            |
| ASGROW - AG3903               | 33.5           | 10-25            | 1.3               | 21                | 2.5              | 2518            |
| NK - S39-Q4                   | 33.3           | 10-24            | 1.0               | 19                | 2.5              | 2081            |
| S.STATES - RT3975             | 32.7           | 10-23            | 1.3               | 22                | 2.3              | 2284            |
| USG - 7398nRR                 | 31.4           | 10-24            | 1.3               | 23                | 2.2              | 2504            |
| DEKALB - DKB38-52             | 29.8           | 10-25            | 1.0               | 17                | 3.0              | 2460            |
| NK - S39-K6                   | 28.9           | 10-26            | 1.0               | 19                | 3.5              | 2679            |
| <b>Mean</b>                   | <b>34.5</b>    | <b>-</b>         | <b>1.2</b>        | <b>20</b>         | <b>2.4</b>       | <b>2391</b>     |
| <b>LSD (0.20)</b>             | <b>4.0</b>     | <b>-</b>         | <b>0.2</b>        | <b>2</b>          | <b>0.3</b>       | <b>105</b>      |
| <b>CV (%)</b>                 | <b>10.8</b>    |                  |                   |                   |                  |                 |
| <b>MATURITY GROUP IV</b>      |                |                  |                   |                   |                  |                 |
| S.STATES - RT4502N            | 41.3           | 10-26            | 1.2               | 26                | 1.7              | 2784            |
| USG - 7440nRR                 | 41.1           | 10-25            | 1.0               | 20                | 1.5              | 2839            |
| USG - 7452nRR                 | 40.8           | 10-25            | 1.0               | 21                | 2.0              | 2723            |
| DEKALB - DKB44-51             | 39.5           | 10-26            | 1.2               | 20                | 1.8              | 2761            |
| VIGORO - V442NRR              | 39.5           | 10-25            | 1.2               | 20                | 2.0              | 2741            |
| ASGROW - AG4201               | 39.4           | 10-31            | 1.0               | 19                | 1.3              | 2350            |
| DEKALB - DKB45-51             | 38.8           | 10-30            | 1.2               | 21                | 2.7              | 2448            |
| ASGROW - AG4403               | 38.5           | 10-24            | 1.2               | 20                | 1.3              | 2728            |
| S.STATES - RT4098             | 37.9           | 10-27            | 1.0               | 20                | 2.5              | 2504            |
| S.STATES - RT446N             | 37.8           | 10-31            | 1.0               | 22                | 2.0              | 2499            |
| USG - 7449nRR                 | 37.5           | 10-31            | 1.5               | 21                | 2.3              | 2048            |
| AGWAY - APK432NRR             | 36.5           | 10-25            | 1.2               | 20                | 1.0              | 2852            |
| CLARK - CL42RR                | 36.1           | 10-25            | 1.2               | 20                | 1.7              | 2946            |
| USG - 7402nRR                 | 36.1           | 10-31            | 1.2               | 21                | 3.2              | 2176            |
| NK - S42-P7                   | 35.2           | 10-31            | 1.0               | 16                | 2.3              | 2247            |
| EXPERIMENTAL - MD 99-0198-3RR | 35.0           | 10-31            | 1.3               | 22                | 2.0              | 2730            |
| EXPERIMENTAL - MD 99-0165-3RR | 34.6           | 10-30            | 1.0               | 20                | 2.2              | 2695            |
| USG - 7403nRR                 | 32.7           | 10-31            | 1.2               | 19                | 2.8              | 2295            |
| NK - S40-R9                   | 32.3           | 10-30            | 1.0               | 21                | 5.0              | 2993            |
| <b>Mean</b>                   | <b>37.4</b>    | <b>-</b>         | <b>1.1</b>        | <b>21</b>         | <b>2.2</b>       | <b>2598</b>     |
| <b>LSD (0.20)</b>             | <b>2.7</b>     | <b>-</b>         | <b>NS</b>         | <b>2</b>          | <b>0.3</b>       | <b>96</b>       |
| <b>CV (%)</b>                 | <b>6.7</b>     |                  |                   |                   |                  |                 |

Table 15. (Continued) Quantico - Double Crop, Roundup Ready Soybean Varieties

| <b>BRAND - ENTRY</b>          | <b>Yield,<br/>Bu/A</b> | <b>Maturity<br/>Date</b> | <b>Lodging<br/>Score*</b> | <b>Height,<br/>Inches</b> | <b>Seed<br/>Quality*</b> | <b>Seeds/<br/>Pound</b> |
|-------------------------------|------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------|
| <b>MATURITY GROUP IV-S</b>    |                        |                          |                           |                           |                          |                         |
| CLARK - CL48RR                | 45.4                   | 10-27                    | 1.5                       | 26                        | 2.3                      | 2582                    |
| ASGROW - AG4603               | 44.9                   | 11-02                    | 1.0                       | 25                        | 2.0                      | 2475                    |
| USG - 7489RR                  | 44.7                   | 10-28                    | 1.5                       | 25                        | 2.2                      | 2635                    |
| S.STATES - RT4810N            | 42.3                   | 11-03                    | 1.3                       | 25                        | 1.8                      | 2461                    |
| S.STATES - RT4980             | 41.6                   | 10-27                    | 1.3                       | 25                        | 2.3                      | 2540                    |
| EXPERIMENTAL - MD 99-1098-2RR | 40.2                   | 11-01                    | 1.0                       | 22                        | 1.3                      | 3369                    |
| USG - 7482nRR                 | 40.1                   | 10-28                    | 1.3                       | 24                        | 2.5                      | 2423                    |
| VIGORO - V462NRS              | 39.9                   | 10-28                    | 1.8                       | 26                        | 2.0                      | 2413                    |
| VIGORO - V472NRR              | 39.5                   | 11-02                    | 1.3                       | 24                        | 2.5                      | 2563                    |
| VIGORO - V49N3RR              | 39.2                   | 10-29                    | 1.0                       | 22                        | 2.7                      | 2328                    |
| S.STATES - RT4720N            | 38.8                   | 10-29                    | 1.3                       | 28                        | 2.7                      | 2545                    |
| NK - S46-G2                   | 36.3                   | 10-30                    | 1.0                       | 24                        | 2.3                      | 2353                    |
| VIGORO - V46N3RR              | 35.9                   | 11-02                    | 1.2                       | 20                        | 2.7                      | 2330                    |
| <b>Mean</b>                   | <b>40.7</b>            | <b>-</b>                 | <b>1.3</b>                | <b>24</b>                 | <b>2.3</b>               | <b>2540</b>             |
| <b>LSD (0.20)</b>             | <b>3.7</b>             | <b>-</b>                 | <b>0.3</b>                | <b>2</b>                  | <b>0.4</b>               | <b>122</b>              |
| <b>CV (%)</b>                 | <b>8.4</b>             |                          |                           |                           |                          |                         |
| <b>MATURITY GROUP V</b>       |                        |                          |                           |                           |                          |                         |
| USG - 7509nRR                 | 43.6                   | 11-03                    | 1.5                       | 28                        | 2.5                      | 2227                    |
| S.STATES - RT5001N            | 38.2                   | 11-06                    | 2.0                       | 28                        | 1.5                      | 2670                    |
| S.STATES - RT5302N            | 38.2                   | 11-03                    | 1.7                       | 32                        | 1.3                      | 2613                    |
| EXPERIMENTAL - MD 99-0687-3RR | 37.0                   | 11-05                    | 1.7                       | 25                        | 2.0                      | 2998                    |
| EXPERIMENTAL - 99VPI-120RR    | 34.9                   | 11-07                    | 1.8                       | 29                        | 1.2                      | 3146                    |
| EXPERIMENTAL - 99VPI-67RR     | 34.3                   | 11-09                    | 1.7                       | 28                        | 1.0                      | 2945                    |
| <b>Mean</b>                   | <b>37.7</b>            | <b>-</b>                 | <b>1.7</b>                | <b>28</b>                 | <b>1.6</b>               | <b>2767</b>             |
| <b>LSD (0.20)</b>             | <b>2.4</b>             | <b>-</b>                 | <b>NS</b>                 | <b>1</b>                  | <b>0.3</b>               | <b>158</b>              |
| <b>CV (%)</b>                 | <b>5.7</b>             |                          |                           |                           |                          |                         |

\*Lodging Score: 1=all plants erect, to 5=all plants down

\*Seed Quality: 1=excellent (no moldy, cracked, or wrinkled seeds), to 5=poor

Table 16. Relative yields of Roundup Ready soybean varieties compared to the mean of all varieties in that maturity group at each location in 2002.

| BRAND - ENTRY                    | Keedys-<br>ville                 | Clarks-<br>ville | Queenstown  |             | Quantico    |             |
|----------------------------------|----------------------------------|------------------|-------------|-------------|-------------|-------------|
|                                  |                                  |                  | FS          | DC          | FS          | DC          |
| <b>MATURITY GROUP III</b>        | <b>Relative Yield, % of Mean</b> |                  |             |             |             |             |
| AGWAY - APK366NRR                | 109                              | 113*             | 113*        | 132*        | -           | 115*        |
| AGWAY - APK371NRR                | 105                              | 100              | 113*        | 106         | -           | 100         |
| ASGROW - AG3902                  | 93                               | 109*             | 102         | 104         | -           | 110*        |
| ASGROW - AG3903                  | 95                               | 98               | 100         | 94          | -           | 97          |
| DEKALB - DKB38-51                | 101                              | 106              | 101         | 104         | -           | 108*        |
| DEKALB - DKB38-52                | 100                              | 104              | 107*        | 90          | -           | 86          |
| NK - S39-K6                      | 96                               | 101              | 97          | 86          | -           | 84          |
| NK - S39-Q4                      | 105                              | 108*             | 110*        | 114         | -           | 97          |
| S.STATES - RT3502                | 98                               | 96               | 84          | 98          | -           | 99          |
| S.STATES - RT3702                | 102                              | 95               | 116*        | 123*        | -           | 105*        |
| S.STATES - RT3799N               | 103                              | 94               | 97          | 94          | -           | 98          |
| S.STATES - RT3802N               | 90                               | 91               | 106*        | 89          | -           | 107*        |
| S.STATES - RT3975                | 105                              | 92               | 87          | 78          | -           | 95          |
| USG - 7398nRR                    | 97                               | 97               | 70          | 85          | -           | 91          |
| VIGORO - V382NRR                 | 102                              | 97               | 99          | 105         | -           | 108*        |
| <b>Location/Group Mean Yield</b> | <b>55.4</b>                      | <b>55.4</b>      | <b>28.7</b> | <b>20.5</b> | <b>-</b>    | <b>34.5</b> |
| <b>MATURITY GROUP IV</b>         |                                  |                  |             |             |             |             |
| AGWAY - APK432NRR                | 102                              | 106*             | 111         | 99          | 122         | 98          |
| ASGROW - AG4201                  | 98                               | 108*             | 100         | 90          | 60          | 105*        |
| ASGROW - AG4403                  | 98                               | 107*             | 93          | 93          | 126*        | 103         |
| CLARK - CL42RR                   | 104                              | 100              | 97          | 123*        | 136*        | 97          |
| DEKALB - DKB44-51                | 96                               | 102              | 91          | 113         | 122         | 106*        |
| DEKALB - DKB45-51                | 89                               | 105*             | 106         | 111         | 109         | 104*        |
| NK - S40-R9                      | 101                              | 112*             | 87          | 77          | 106         | 86          |
| NK - S42-P7                      | 98                               | 97               | 95          | 92          | 84          | 94          |
| S.STATES - RT4098                | 111                              | 99               | 96          | 92          | 68          | 101         |
| S.STATES - RT446N                | 97                               | 97               | 99          | 107         | 133*        | 101         |
| S.STATES - RT4502N               | 102                              | 99               | 110         | 99          | 143*        | 110*        |
| USG - 7402nRR                    | 103                              | 104*             | 98          | 85          | 85          | 96          |
| USG - 7403nRR                    | 120                              | 92               | 108         | 78          | 63          | 87          |
| USG - 7440nRR                    | 98                               | 101              | 115         | 103         | 131*        | 110*        |
| USG - 7449nRR                    | 95                               | 97               | 109         | 88          | 103         | 100         |
| USG - 7452nRR                    | 96                               | 94               | 109         | 106         | 125         | 109*        |
| VIGORO - V442NRR                 | 103                              | 90               | 95          | 133*        | 109         | 106*        |
| EXPERIMENTAL - MD 99-0165-3RR    | 95                               | 94               | 78          | 117         | 30          | 92          |
| EXPERIMENTAL - MD 99-0198-3RR    | 92                               | 97               | 101         | 95          | 49          | 94          |
| <b>Location/Group Mean Yield</b> | <b>51.3</b>                      | <b>51.4</b>      | <b>40.7</b> | <b>27.4</b> | <b>18.8</b> | <b>37.4</b> |

Table 16. (Continued) Relative Yields - Roundup Ready Soybean Varieties

| BRAND - ENTRY                    | Keedys-                          | Clarks-     | Queenstown  |             | Quantico    |             |
|----------------------------------|----------------------------------|-------------|-------------|-------------|-------------|-------------|
|                                  | ville                            | ville       | FS          | DC          | FS          | DC          |
| <b>MATURITY GROUP IV-S</b>       | <b>Relative Yield, % of Mean</b> |             |             |             |             |             |
| ASGROW - AG4603                  | 94                               | 96          | 89          | 103         | 90          | 110*        |
| CLARK - CL48RR                   | 105*                             | 99          | 107*        | 108         | 89          | 111*        |
| NK - S46-G2                      | 96                               | 95          | 85          | 108         | 103         | 89          |
| S.STATES - RT4720N               | 93                               | 101         | 89          | 108         | 121*        | 95          |
| S.STATES - RT4810N               | 99                               | 103*        | 95          | 96          | 95          | 104*        |
| S.STATES - RT4980                | 108*                             | 104*        | 90          | 105         | 105         | 102         |
| USG - 7489RR                     | 105*                             | 105*        | 114*        | 96          | 107         | 110*        |
| USG - 7482nRR                    | 98                               | 102*        | 101*        | 104         | 93          | 98          |
| VIGORO - V462NRS                 | 96                               | 91          | 104*        | 93          | 102         | 98          |
| VIGORO - V46N3RR                 | 109*                             | 97          | 113*        | 83          | 66          | 88          |
| VIGORO - V472NRR                 | 93                               | 95          | 103*        | 92          | 101         | 97          |
| VIGORO - V49N3RR                 | 104*                             | 105*        | 102*        | 101         | 94          | 96          |
| EXPERIMENTAL - MD 99-1098-2RR    | 101                              | 109*        | 108*        | 104         | 132*        | 99          |
| <b>Location/Group Mean Yield</b> | <b>53.5</b>                      | <b>53.4</b> | <b>43.0</b> | <b>26.7</b> | <b>30.4</b> | <b>40.7</b> |
| <b>MATURITY GROUP V</b>          |                                  |             |             |             |             |             |
| S.STATES - RT5001N               | -                                | -           | 108*        | 103         | 84          | 101         |
| S.STATES - RT5302N               | -                                | -           | 94          | 96          | 111*        | 101         |
| USG - 7509nRR                    | -                                | -           | 108*        | 78          | 98          | 116*        |
| EXPERIMENTAL - MD 99-0687-3RR    | -                                | -           | 117*        | 99          | 103         | 98          |
| EXPERIMENTAL - 99VPI-67RR        | -                                | -           | 80          | 118*        | 98          | 91          |
| EXPERIMENTAL - 99VPI-120RR       | -                                | -           | 93          | 108*        | 105*        | 92          |
| <b>Location/Group Mean Yield</b> | <b>-</b>                         | <b>-</b>    | <b>33.3</b> | <b>25.7</b> | <b>33.1</b> | <b>37.7</b> |

FS=Full Season, DC=Double Crop

\*Yield is not significantly different from the highest yielding entry in this maturity group at this location.

Actual variety yield can be obtained by converting the relative yield to a decimal percentage and multiplying this value by the location/group mean yield. A variety with a relative yield that is consistently greater than 100 is a variety that consistently yields higher than the mean yield of all of those varieties in that maturity group.

Table 17. Two-year average yields of Roundup Ready soybean varieties grown at four Maryland locations, 2001-2002.

| BRAND - ENTRY                  | Keedys-<br>ville | Clarks-<br>ville | Queenstown              |      | Quantico |      |
|--------------------------------|------------------|------------------|-------------------------|------|----------|------|
|                                |                  |                  | FS                      | DC   | FS       | DC   |
| <b>MATURITY GROUP III</b>      |                  |                  | <b>Seed Yield, Bu/A</b> |      |          |      |
| ASGROW - AG3902                | 42.0             | 55.1             | 43.1                    | 38.6 | -        | 47.4 |
| ASGROW - AG3903                | 43.4             | 48.4             | 43.8                    | 37.2 | -        | 46.3 |
| DEKALB - DKB38-51              | 46.4             | 54.5             | 43.6                    | 34.4 | 74.2*    | 46.3 |
| DEKALB - DKB38-52              | 44.5             | 55.6             | 43.0                    | 34.0 | -        | 42.5 |
| NK - S39-Q4                    | 46.7             | 55.2             | 48.3                    | 39.8 | 77.7*    | 43.8 |
| S.STATES - RT3799N             | 45.6             | 48.7             | 44.1                    | 35.8 | 70.4*    | 46.5 |
| S.STATES - RT3975              | 44.4             | 46.6             | 40.5                    | 36.6 | 69.0*    | 41.9 |
| USG - 7398nRR                  | 43.7             | 52.0             | 41.1                    | 36.0 | 65.5*    | 40.2 |
| VIGORO - V382NRR               | 46.5             | 52.0             | 42.0                    | 38.3 | -        | 42.9 |
| <br><b>MATURITY GROUP IV</b>   |                  |                  |                         |      |          |      |
| ASGROW - AG4403                | 41.9             | 49.6             | 51.7                    | 41.7 | 48.1     | 46.8 |
| CLARK - CL42RR                 | 40.4             | 47.9             | 51.0                    | 45.3 | 49.1     | 45.1 |
| DEKALB - DKB44-51              | 40.1             | 49.6             | 50.5                    | 44.0 | 48.6     | 47.5 |
| DEKALB - DKB45-51              | 39.6             | 52.2             | 52.3                    | 43.4 | 47.9     | 46.4 |
| S.STATES - RT4098              | 43.2             | 49.5             | 48.0                    | 41.4 | 42.3     | 45.3 |
| S.STATES - RT446N              | 39.6             | 50.6             | 48.7                    | 40.4 | 44.6     | 44.9 |
| USG - 7449nRR                  | 39.1             | 45.9             | 49.9                    | 40.1 | 44.7     | 45.9 |
| VIGORO - V442NRR               | 41.0             | 44.2             | 52.1                    | 47.0 | 47.9     | 46.7 |
| EXPERIMENTAL - MD 99-0165-3RR  | 39.4             | 49.1             | 47.8                    | 44.0 | 39.2     | 45.8 |
| EXPERIMENTAL - MD 99-0198-3RR  | 40.6             | 51.6             | 52.5                    | 39.4 | 41.8     | 46.4 |
| <br><b>MATURITY GROUP IV-S</b> |                  |                  |                         |      |          |      |
| CLARK - CL48RR                 | 43.0             | 49.8             | 54.9                    | 42.5 | 50.3     | 46.2 |
| S.STATES - RT4980              | 42.0             | 53.2             | 49.7                    | 39.4 | 55.1     | 48.1 |
| USG - 7489RR                   | 41.0             | 54.0             | 59.5                    | 39.6 | 55.6     | 49.4 |
| VIGORO - V462NRS               | 41.5             | 49.6             | 57.6                    | 35.0 | 53.7     | 45.3 |
| VIGORO - V472NRR               | 38.5             | 50.3             | 54.3                    | 38.1 | 53.0     | 45.7 |
| EXPERIMENTAL - MD 99-1098-2RR  | 39.4             | 52.1             | 57.4                    | 36.2 | 57.0     | 42.2 |
| <br><b>MATURITY GROUP V</b>    |                  |                  |                         |      |          |      |
| S.STATES - RT5001N             | -                | -                | 43.5                    | 32.7 | 45.0     | 41.6 |
| USG - 7509nRR                  | -                | -                | 51.5                    | 32.8 | 51.9     | 46.5 |
| EXPERIMENTAL - MD 99-0687-3RR  | -                | -                | 45.9                    | 35.7 | 52.1     | 43.3 |

FS= Full Season, DC= Double Crop

\*Quantico FS Group III data from 2000- 2001 tests

Table 18. Seed protein content of standard soybean varieties grown at three Maryland locations, 2002.

| BRAND - ENTRY               | Clarksville | Queenstown        | Quantico    |             |
|-----------------------------|-------------|-------------------|-------------|-------------|
|                             |             |                   | Full Season | Double Crop |
| <b>MATURITY GROUP III</b>   |             | <b>Protein, %</b> |             |             |
| PUBLIC - APEX               | 38.3        | 38.1              | -           | 40.5        |
| PUBLIC - GENERAL            | 40.7        | 40.0              | -           | 42.2        |
| PUBLIC - IA 3010            | 37.3        | 36.7              | -           | 39.5        |
| PUBLIC - IA 3014            | 36.9        | 39.2              | -           | 39.3        |
| PUBLIC - MACON              | 38.0        | 38.0              | -           | 41.4        |
| <b>MATURITY GROUP IV</b>    |             |                   |             |             |
| PUBLIC - CORSICA            | 41.6        | 40.0              | -           | 42.7        |
| PUBLIC - HS 93-4118         | 39.1        | 37.3              | -           | 41.3        |
| PUBLIC - LS 93-0375         | 40.7        | 39.4              | -           | 41.7        |
| EXPERIMENTAL - MD 95-5358   | 40.2        | 40.0              | -           | 42.8        |
| EXPERIMENTAL - MD 96-5722   | 39.6        | 41.1              | -           | 42.6        |
| EXPERIMENTAL - MD 97-6156   | 40.0        | 39.9              | -           | 43.0        |
| PUBLIC - STRESSLAND         | 40.7        | 40.7              | -           | 41.5        |
| EXPERIMENTAL - C1981        | 40.7        | 40.7              | -           | 41.8        |
| <b>MATURITY GROUP IV-S</b>  |             |                   |             |             |
| PUBLIC - KS 4602N           | 41.3        | 40.2              | 44.1        | 42.9        |
| PUBLIC - KS 4694            | 39.8        | 38.4              | 43.9        | 41.1        |
| PUBLIC - MANOKIN            | 39.2        | 39.2              | 37.8        | 40.8        |
| PUBLIC - MD 4900            | 38.2        | 37.7              | 37.0        | 37.9        |
| EXPERIMENTAL - MD 96-5275   | 38.7        | 40.1              | 39.6        | 41.3        |
| EXPERIMENTAL - MD 97-6491   | 43.0        | 42.4              | 44.8        | 43.5        |
| EXPERIMENTAL - MD 98-5579   | 40.1        | 41.5              | 43.1        | 40.8        |
| EXPERIMENTAL - JAPAN-L1L2L3 | 41.6        | 43.9              | 41.7        | 41.4        |
| <b>MATURITY GROUP V</b>     |             |                   |             |             |
| PUBLIC - BOLIVAR            | -           | 42.5              | 41.2        | 42.8        |
| PUBLIC - CLIFFORD           | -           | 41.6              | 40.6        | 41.0        |
| PUBLIC - ESSEX              | -           | 43.8              | 43.1        | 43.9        |
| PUBLIC - HOLLADAY           | -           | 40.7              | 38.2        | 38.7        |
| PUBLIC - HUTCHESON          | -           | 42.0              | 40.2        | 41.1        |
| PUBLIC - KS 5502N           | -           | 39.8              | 38.3        | 39.6        |
| EXPERIMENTAL - MD 97-6065   | -           | 41.4              | 36.7        | 38.6        |
| EXPERIMENTAL - MD 98-5095   | -           | 40.6              | 40.0        | 41.3        |
| EXPERIMENTAL - MD 98-5927   | -           | 39.8              | 37.8        | 39.2        |
| USG - 5601T                 | -           | 42.3              | 41.3        | 42.7        |
| EXPERIMENTAL - V 95-0016    | -           | 41.4              | 39.5        | 41.7        |
| EXPERIMENTAL - V 96-0340    | -           | 41.6              | 40.2        | 41.2        |
| EXPERIMENTAL - R 95-1705    | -           | 45.6              | 45.1        | 47.4        |

Table 19. Seed oil content of standard soybean varieties grown at three Maryland locations, 2002.

| BRAND - ENTRY               | Clarksville | Queenstown | Quantico    |             |
|-----------------------------|-------------|------------|-------------|-------------|
|                             |             |            | Full Season | Double Crop |
| <b>MATURITY GROUP III</b>   |             |            |             |             |
|                             | Oil, %      |            |             |             |
| PUBLIC - APEX               | 22.1        | 19.6       | -           | 20.7        |
| PUBLIC - GENERAL            | 21.5        | 21.2       | -           | 20.6        |
| PUBLIC - IA 3010            | 22.1        | 21.6       | -           | 21.1        |
| PUBLIC - IA 3014            | 21.9        | 19.6       | -           | 21.0        |
| PUBLIC - MACON              | 21.9        | 21.4       | -           | 20.3        |
| <b>MATURITY GROUP IV</b>    |             |            |             |             |
| PUBLIC - CORSICA            | 20.6        | 21.9       | -           | 19.7        |
| PUBLIC - HS 93-4118         | 21.8        | 22.6       | -           | 19.5        |
| PUBLIC - LS 93-0375         | 20.9        | 21.9       | -           | 20.1        |
| EXPERIMENTAL - MD 95-5358   | 20.1        | 21.2       | -           | 19.5        |
| EXPERIMENTAL - MD 96-5722   | 20.9        | 20.2       | -           | 19.9        |
| EXPERIMENTAL - MD 97-6156   | 20.8        | 21.6       | -           | 19.4        |
| PUBLIC - STRESSLAND         | 21.6        | 22.0       | -           | 20.2        |
| EXPERIMENTAL - C1981        | 21.7        | 21.7       | -           | 20.3        |
| <b>MATURITY GROUP IV-S</b>  |             |            |             |             |
| PUBLIC - KS 4602N           | 20.8        | 21.5       | 19.4        | 20.3        |
| PUBLIC - KS 4694            | 21.1        | 22.0       | 18.6        | 20.2        |
| PUBLIC - MANOKIN            | 20.3        | 20.6       | 19.3        | 19.1        |
| PUBLIC - MD 4900            | 20.3        | 21.0       | 19.7        | 19.7        |
| EXPERIMENTAL - MD 96-5275   | 21.0        | 20.7       | 20.6        | 19.9        |
| EXPERIMENTAL - MD 97-6491   | 19.5        | 19.9       | 18.3        | 18.6        |
| EXPERIMENTAL - MD 98-5579   | 20.8        | 20.2       | 18.6        | 20.3        |
| EXPERIMENTAL - JAPAN-L1L2L3 | 19.2        | 17.9       | 19.8        | 18.3        |
| <b>MATURITY GROUP V</b>     |             |            |             |             |
| PUBLIC - BOLIVAR            | -           | 19.5       | 19.3        | 18.3        |
| PUBLIC - CLIFFORD           | -           | 19.4       | 19.2        | 19.6        |
| PUBLIC - ESSEX              | -           | 19.3       | 19.4        | 18.6        |
| PUBLIC - HOLLADAY           | -           | 19.8       | 20.1        | 19.9        |
| PUBLIC - HUTCHESON          | -           | 20.1       | 19.9        | 20.8        |
| PUBLIC - KS 5502N           | -           | 19.9       | 20.3        | 19.6        |
| EXPERIMENTAL - MD 97-6065   | -           | 19.2       | 20.5        | 20.1        |
| EXPERIMENTAL - MD 98-5095   | -           | 20.1       | 21.1        | 19.4        |
| EXPERIMENTAL - MD 98-5927   | -           | 20.1       | 20.4        | 20.1        |
| USG - 5601T                 | -           | 19.9       | 18.8        | 19.0        |
| EXPERIMENTAL - V 95-0016    | -           | 20.3       | 20.9        | 20.1        |
| EXPERIMENTAL - V 96-0340    | -           | 19.7       | 19.9        | 19.8        |
| EXPERIMENTAL - R 95-1705    | -           | 17.5       | 17.7        | 16.8        |

Table 20. Protein content of Roundup Ready soybean varieties grown at four Maryland locations, 2002.

| BRAND - ENTRY                 | Keedys-           | Clarks- | Queenstown |      | Quantico |      |
|-------------------------------|-------------------|---------|------------|------|----------|------|
|                               | ville             | ville   | FS         | DC   | FS       | DC   |
| <b>MATURITY GROUP III</b>     | <b>Protein, %</b> |         |            |      |          |      |
| AGWAY - APK366NRR             | 36.8              | 38.5    | 38.2       | 42.2 | -        | 40.9 |
| AGWAY - APK371NRR             | 39.2              | 40.1    | 39.9       | 44.5 | -        | 42.8 |
| ASGROW - AG3902               | 38.5              | 39.7    | 39.4       | 43.8 | -        | 42.1 |
| ASGROW - AG3903               | 38.8              | 40.6    | 40.1       | 42.9 | -        | 41.8 |
| DEKALB - DKB38-51             | 36.6              | 38.5    | 39.6       | 41.3 | -        | 41.0 |
| DEKALB - DKB38-52             | 36.3              | 37.8    | 37.6       | 43.7 | -        | 41.6 |
| NK - S39-K6                   | 37.8              | 39.6    | 39.6       | 44.9 | -        | 43.2 |
| NK - S39-Q4                   | 38.5              | 38.5    | 38.9       | 43.0 | -        | 40.8 |
| S.STATES - RT3502             | 37.1              | 36.8    | 37.7       | 42.8 | -        | 41.4 |
| S.STATES - RT3702             | 37.6              | 37.7    | 38.4       | 42.1 | -        | 41.5 |
| S.STATES - RT3799N            | 38.0              | 37.4    | 37.2       | 42.2 | -        | 41.4 |
| S.STATES - RT3802N            | 39.5              | 40.1    | 40.5       | 43.9 | -        | 42.6 |
| S.STATES - RT3975             | 38.6              | 39.9    | 39.7       | 43.5 | -        | 40.9 |
| USG - 7398nRR                 | 39.3              | 39.9    | 40.6       | 42.5 | -        | 41.7 |
| VIGORO - V382NRR              | 37.5              | 38.2    | 38.3       | 42.0 | -        | 40.1 |
| <b>MATURITY GROUP IV</b>      |                   |         |            |      |          |      |
| AGWAY - APK432NRR             | 36.6              | 38.1    | 36.0       | 41.1 | 39.2     | 38.8 |
| ASGROW - AG4201               | 38.5              | 39.9    | 38.9       | 42.4 | 42.1     | 41.8 |
| ASGROW - AG4403               | 37.8              | 37.8    | 36.9       | 41.1 | 39.8     | 39.6 |
| CLARK - CL42RR                | 37.7              | 38.3    | 39.5       | 42.5 | 41.3     | 41.5 |
| DEKALB - DKB44-51             | 38.9              | 38.3    | 36.2       | 41.0 | 40.2     | 39.8 |
| DEKALB - DKB45-51             | 39.4              | 40.2    | 39.5       | 42.6 | 42.8     | 42.3 |
| NK - S40-R9                   | 39.3              | 38.9    | 39.1       | 43.5 | 40.9     | 42.9 |
| NK - S42-P7                   | 38.4              | 40.3    | 39.1       | 44.4 | 41.8     | 43.5 |
| S.STATES - RT4098             | 37.8              | 38.4    | 38.3       | 41.7 | 40.8     | 40.5 |
| S.STATES - RT446N             | 39.5              | 39.8    | 41.5       | 43.5 | 42.7     | 42.2 |
| S.STATES - RT4502N            | 38.9              | 39.4    | 40.0       | 41.8 | 40.4     | 41.9 |
| USG - 7402nRR                 | 40.2              | 39.5    | 40.0       | 43.3 | 44.0     | 42.8 |
| USG - 7403nRR                 | 38.0              | 38.8    | 38.0       | 43.4 | 42.2     | 41.5 |
| USG - 7440nRR                 | 37.5              | 37.9    | 37.5       | 40.5 | 40.9     | 38.6 |
| USG - 7449nRR                 | 39.0              | 40.8    | 38.8       | 41.9 | 41.3     | 41.1 |
| USG - 7452nRR                 | 37.2              | 38.7    | 37.5       | 40.3 | 40.7     | 39.5 |
| VIGORO - V442NRR              | 36.5              | 37.5    | 36.7       | 40.5 | 40.4     | 38.9 |
| EXPERIMENTAL - MD 99-0165-3RR | 38.9              | 38.7    | 38.4       | 42.2 | 42.4     | 41.3 |
| EXPERIMENTAL - MD 99-0198-3RR | 41.2              | 40.8    | 39.0       | 44.4 | 42.3     | 43.1 |

Table 20. (Continued) Protein Content - Roundup Ready Soybean Varieties

| BRAND - ENTRY                 | Keedys- | Clarks- | Queenstown        |      | Quantico |      |
|-------------------------------|---------|---------|-------------------|------|----------|------|
|                               | ville   | ville   | FS                | DC   | FS       | DC   |
| <b>MATURITY GROUP IV-S</b>    |         |         | <b>Protein, %</b> |      |          |      |
| ASGROW - AG4603               | 37.7    | 38.7    | 40.8              | 41.5 | 41.9     | 40.0 |
| CLARK - CL48RR                | 35.3    | 37.5    | 39.8              | 40.3 | 39.7     | 38.3 |
| NK - S46-G2                   | 38.3    | 40.4    | 41.6              | 42.8 | 42.7     | 41.7 |
| S.STATES - RT4720N            | 38.3    | 39.0    | 40.1              | 41.6 | 39.3     | 39.4 |
| S.STATES - RT4810N            | 39.2    | 39.6    | 42.0              | 42.4 | 41.1     | 41.5 |
| S.STATES - RT4980             | 36.7    | 38.1    | 39.1              | 41.5 | 39.4     | 38.4 |
| USG - 7489RR                  | 36.9    | 38.2    | 39.1              | 41.1 | 39.9     | 38.8 |
| USG - 7482nRR                 | 38.7    | 40.0    | 41.1              | 43.2 | 41.3     | 41.1 |
| VIGORO - V462NRS              | 38.6    | 39.7    | 39.5              | 42.6 | 40.7     | 41.1 |
| VIGORO - V46N3RR              | 38.2    | 40.0    | 41.6              | 43.6 | 42.2     | 41.9 |
| VIGORO - V472NRR              | 37.6    | 39.9    | 41.1              | 43.6 | 41.0     | 41.8 |
| VIGORO - V49N3RR              | 38.7    | 40.1    | 40.1              | 42.5 | 40.9     | 40.5 |
| EXPERIMENTAL - MD 99-1098-2RR | 35.9    | 36.6    | 38.1              | 39.9 | 34.9     | 37.0 |
| <b>MATURITY GROUP V</b>       |         |         |                   |      |          |      |
| S.STATES - RT5001N            | -       | -       | 43.9              | 44.8 | 42.1     | 45.0 |
| S.STATES - RT5302N            | -       | -       | 43.5              | 41.2 | 41.7     | 43.0 |
| USG - 7509nRR                 | -       | -       | 43.8              | 42.7 | 41.4     | 42.2 |
| EXPERIMENTAL - MD 99-0687-3RR | -       | -       | 41.3              | 42.5 | 39.1     | 41.7 |
| EXPERIMENTAL - 99VPI-67RR     | -       | -       | 42.4              | 39.1 | 37.8     | 40.2 |
| EXPERIMENTAL - 99VPI-120RR    | -       | -       | 42.2              | 40.0 | 38.9     | 41.4 |

FS=Full Season, DC=Double Crop

Table 21. Oil content of Roundup Ready soybean varieties grown at four Maryland locations, 2002.

| BRAND - ENTRY                 | Keedys-<br>ville | Clarks-<br>ville | Queenstown    |      | Quantico |      |
|-------------------------------|------------------|------------------|---------------|------|----------|------|
|                               |                  |                  | FS            | DC   | FS       | DC   |
| <b>MATURITY GROUP III</b>     |                  |                  | <b>Oil, %</b> |      |          |      |
| AGWAY - APK366NRR             | 22.3             | 22.3             | 22.4          | 20.3 | 21.6     | 20.9 |
| AGWAY - APK371NRR             | 21.6             | 21.5             | 20.9          | 18.4 | 21.1     | 20.3 |
| ASGROW - AG3902               | 21.4             | 21.6             | 21.4          | 19.4 | 21.4     | 20.1 |
| ASGROW - AG3903               | 21.1             | 20.8             | 20.5          | 18.7 | 19.8     | 20.4 |
| DEKALB - DKB38-51             | 22.0             | 22.1             | 21.7          | 20.5 | 21.0     | 21.0 |
| DEKALB - DKB38-52             | 22.7             | 22.6             | 22.7          | 19.3 | 21.6     | 20.0 |
| NK - S39-K6                   | 22.1             | 21.7             | 21.7          | 18.9 | 20.2     | 19.7 |
| NK - S39-Q4                   | 21.2             | 21.5             | 21.6          | 19.6 | 19.4     | 20.7 |
| S.STATES - RT3502             | 22.8             | 22.9             | 21.9          | 19.3 | 21.3     | 20.2 |
| S.STATES - RT3702             | 22.8             | 23.1             | 22.4          | 20.7 | 22.0     | 21.2 |
| S.STATES - RT3799N            | 21.9             | 22.7             | 22.8          | 19.8 | 20.2     | 20.3 |
| S.STATES - RT3802N            | 21.3             | 21.6             | 21.1          | 19.0 | 20.6     | 20.3 |
| S.STATES - RT3975             | 21.5             | 22.0             | 21.8          | 19.4 | 20.8     | 21.0 |
| USG - 7398nRR                 | 21.5             | 21.8             | 20.8          | 19.9 | 20.4     | 20.3 |
| VIGORO - V382NRR              | 21.5             | 22.2             | 21.6          | 20.1 | 22.2     | 21.1 |
| <b>MATURITY GROUP IV</b>      |                  |                  |               |      |          |      |
| AGWAY - APK432NRR             | 22.2             | 22.2             | 23.5          | 20.9 | 22.0     | 22.0 |
| ASGROW - AG4201               | 21.4             | 21.8             | 21.8          | 19.6 | 21.2     | 20.1 |
| ASGROW - AG4403               | 20.9             | 22.5             | 23.0          | 20.8 | 21.7     | 21.7 |
| CLARK - CL42RR                | 21.4             | 21.9             | 21.9          | 20.1 | 21.0     | 20.6 |
| DEKALB - DKB44-51             | 20.8             | 22.1             | 23.5          | 20.7 | 21.5     | 21.6 |
| DEKALB - DKB45-51             | 22.1             | 22.1             | 22.5          | 20.2 | 21.0     | 20.5 |
| NK - S40-R9                   | 21.0             | 21.6             | 21.9          | 19.6 | 20.7     | 19.4 |
| NK - S42-P7                   | 21.6             | 21.6             | 21.9          | 19.1 | 20.7     | 19.2 |
| S.STATES - RT4098             | 22.1             | 22.5             | 22.9          | 19.7 | 21.3     | 21.2 |
| S.STATES - RT446N             | 20.6             | 20.8             | 20.6          | 19.1 | 18.9     | 19.7 |
| S.STATES - RT4502N            | 21.6             | 22.1             | 22.1          | 20.4 | 21.4     | 20.8 |
| USG - 7402nRR                 | 21.5             | 22.1             | 21.7          | 19.8 | 20.3     | 20.2 |
| USG - 7403nRR                 | 22.4             | 22.5             | 22.9          | 19.6 | 21.1     | 20.5 |
| USG - 7440nRR                 | 21.7             | 21.7             | 23.3          | 20.9 | 20.4     | 22.1 |
| USG - 7449nRR                 | 21.4             | 20.6             | 22.2          | 20.6 | 21.3     | 20.9 |
| USG - 7452nRR                 | 21.9             | 21.8             | 23.2          | 20.9 | 21.2     | 21.8 |
| VIGORO - V442NRR              | 22.4             | 22.4             | 23.1          | 21.2 | 21.5     | 21.9 |
| EXPERIMENTAL - MD 99-0165-3RR | 21.3             | 22.4             | 22.3          | 20.6 | 20.3     | 20.5 |
| EXPERIMENTAL - MD 99-0198-3RR | 19.2             | 20.6             | 21.7          | 16.9 | 19.9     | 18.8 |

Table 21. (Continued) Oil Content, Roundup Ready Soybean Varieties

| BRAND - ENTRY                 | Keedys-<br>ville | Clarks-<br>ville | Queenstown    |      | Quantico |      |
|-------------------------------|------------------|------------------|---------------|------|----------|------|
|                               |                  |                  | FS            | DC   | FS       | DC   |
| <b>MATURITY GROUP IV-S</b>    |                  |                  | <b>Oil, %</b> |      |          |      |
| ASGROW - AG4603               | 21.1             | 21.4             | 20.7          | 19.6 | 20.0     | 19.9 |
| CLARK - CL48RR                | 22.5             | 22.2             | 21.7          | 20.7 | 21.1     | 22.0 |
| NK - S46-G2                   | 21.0             | 21.3             | 20.9          | 19.6 | 20.1     | 19.8 |
| S.STATES - RT4720N            | 20.9             | 20.8             | 20.8          | 19.6 | 21.0     | 20.6 |
| S.STATES - RT4810N            | 21.7             | 21.5             | 19.9          | 19.7 | 20.5     | 20.0 |
| S.STATES - RT4980             | 22.0             | 21.9             | 21.9          | 20.5 | 21.7     | 21.9 |
| USG - 7489RR                  | 21.6             | 21.9             | 21.9          | 20.3 | 21.5     | 21.8 |
| USG - 7482nRR                 | 21.1             | 21.4             | 21.1          | 19.3 | 21.1     | 20.2 |
| VIGORO - V462NRS              | 21.8             | 21.6             | 22.1          | 19.7 | 21.3     | 20.8 |
| VIGORO - V46N3RR              | 21.8             | 21.4             | 20.9          | 19.6 | 21.1     | 20.3 |
| VIGORO - V472NRR              | 21.0             | 21.0             | 20.5          | 19.3 | 20.3     | 20.1 |
| VIGORO - V49N3RR              | 21.7             | 21.3             | 21.3          | 19.6 | 21.4     | 20.9 |
| EXPERIMENTAL - MD 99-1098-2RR | 20.5             | 20.4             | 20.1          | 19.6 | 21.4     | 20.3 |
| <b>MATURITY GROUP V</b>       |                  |                  |               |      |          |      |
| S.STATES - RT5001N            | -                | -                | 19.1          | 16.6 | 19.1     | 17.6 |
| S.STATES - RT5302N            | -                | -                | 18.2          | 18.7 | 18.6     | 18.1 |
| USG - 7509nRR                 | -                | -                | 20.6          | 20.2 | 20.5     | 20.4 |
| EXPERIMENTAL - MD 99-0687-3RR | -                | -                | 20.2          | 17.9 | 19.6     | 18.6 |
| EXPERIMENTAL - 99VPI-67RR     | -                | -                | 20.8          | 20.2 | 21.3     | 20.4 |
| EXPERIMENTAL - 99VPI-120RR    | -                | -                | 19.9          | 19.8 | 20.5     | 19.8 |

FS=Full Season, DC=Double Crop