

# 1991 REPORT

## Ontario Soybean Variety Trials



**Conducted in 1988-90  
by the  
Ontario Oil & Protein  
Seed Crop Committee**

## ONTARIO OIL & PROTEIN SEED CROP COMMITTEE

This organization is made up of representatives of OMAF, Agriculture Canada, the University of Guelph, the Ontario Seed Growers Association, the Canadian Seed Trade Association, the Ontario Soybean Growers Marketing Board and the Oilseed Crushers. Tests are conducted each year by the following co-operating agencies.

Research Station, Harrow, Ridgetown College of Agricultural Technology; Centralia College of Agricultural Technology; University of Guelph; Kemptville College of Agricultural Technology; Research Station, Ottawa; Research Station, Smithfield.

## INTERPRETATION OF RESULTS

### HEAT UNIT RATING

Using the same heat unit system as for corn, each variety is given a heat unit rating based on the relative maturity of that variety. In choosing a variety you should select those varieties approximately equal to or less than the heat units available on your farm. Varieties may differ slightly for heat unit rating from one test area to another.

### HILUM COLOUR

Each soybean seed has a hilum which is the point where it was attached to the pod. Varieties differ in hilum colour and can be either yellow, gray, buff, brown or black. Yellow hilum soybeans are generally the only type accepted for the export market.

### SEEDS PER KILOGRAM

This is an estimate of the relative number of seeds of a particular variety in a kilogram of seed. Since seed size can vary from year to year and from seed lot to seed lot these figures should be used as a rough guide only.

### PHYTOPHTHORA ROOT ROT

The % Plant Loss is a three-year average (1988-90) obtained in a field heavily infested with Phytophthora. Some races of Phytophthora root rot are not found at this site. Thus the relative ranking of varieties for tolerance may differ in fields that have other races present.

### YIELD INDEX

Varieties can only be compared within each test area. Yield index of a variety indicates its performance as a percentage of the average yield of all recommended varieties grown in a test area. Small index differences are not significant.

### DAYS FROM PLANTING TO MATURITY

Maturity is affected by planting date and the area where a variety is being grown. Varieties are rated as being mature when 95% of the pods on the plants are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

### PLANT HEIGHT

An indicator of the amount of plant growth, it is measured at maturity as the length of the stem from the base of the plant to its tip.

## LODGING

A visual estimate at maturity of the standability of the crop. A value of 1 is equivalent to a crop standing completely upright while a 5 represents a crop entirely flat. Within a test area, varieties with lower values are less prone to lodging.

## PROTEIN INDEX

This index measures the relative seed protein content among the varieties listed in Table 2-5. Those varieties with a protein index above 100% have above average seed protein content on a dry matter basis, whereas, those varieties with a protein index less than 100% have below average seed protein content. A 5% difference in protein index is approximately equal to a 2% difference in actual dry matter protein content. If a variety had a protein index of 100% and had an actual protein content of 40.0%, then a variety with a protein index of 105% would have an actual protein content of 42% and a variety with a protein index of 95% would have an actual protein content of 38%. All reported protein index values are averages of two years of data from all locations within a testing area.

## TESTING METHODS

In each trial, varieties were replicated in a suitable experimental design and received equal fertility, weed control and management. All trials were planted and harvested by machine.

Prior to harvest, plant height and lodging scores were obtained. The grain harvested from each plot was weighed and the yield of soybeans was calculated in tonnes/hectare at 14% moisture. Agronomic data in Tables 2 and 3 represent 3 year averages from between 2-4 locations each year. Agronomic data in Table 4 and 5 has been split on a soil type basis. Data from each area represents 3 year averages from 1-2 locations with similar soil type and heat unit ratings per year.

## TEST LOCATIONS & SOIL TYPES

### 1990 TRIALS

| <i>Location</i> | <i>Heat<br/>Unit<br/>Ratin</i> | <i>Soil Type</i> | <i>Row<br/>Widt<br/>-cm-</i> | <i>Co-operator</i>    |
|-----------------|--------------------------------|------------------|------------------------------|-----------------------|
| Malden          | 3500                           | Clay loam        | 60                           | Jon Parks             |
| Woodslee        | 3400                           | Clay             | 60                           | Research Station      |
| Tilbury         | 3350                           | Clay             | 60                           | Robert Farquharson    |
| Chatham         | 3300                           | Clay loam        | 60                           | Stan Wonnacott        |
| Inwood          | 3050                           | Clay             | 60                           | Jack & Kevin Marriott |
| Ridgetown       | 3250                           | Clay loam        | 60                           | RCAT.                 |
| Dutton          | 3100                           | Clay             | 60                           | Glen Walters          |
| Talbotville     | 2900                           | Clay loam        | 35                           | Jim Brokenshire       |
| Centralia       | 2800                           | Clay loam        | 35                           | C.CAT.                |
| Woodstock       | 2700                           | Clay loam        | 35                           | OAC.                  |
| St. Pauls       | 2750                           | Clay loam        | 35                           | Bernard Murray        |
| Winchester      | 2825                           | Clay loam        | 35                           | K.CAT.                |
| Elora           | 2550                           | Silt loam        | 35                           | O.A.C.                |
| Brussels        | 2600                           | Clay loam        | 35                           | Jeff Cardiff          |
| Ottawa          | 2650                           | Sandy loam       | 25                           | Research Station      |

**TABLE 1. SOYBEAN VARIETY  
RECOMMENDATIONS & DESCRIPTION**

| <i>Variety</i>           | <i>Heat<br/>Units<br/>Required</i> | <i>Hilum<br/>Colour</i> | <i>Seeds Per<br/>Kilogram</i> | <i>Phytophthora</i>                           | <i>Distributor</i>       |
|--------------------------|------------------------------------|-------------------------|-------------------------------|---|--------------------------|
|                          |                                    |                         |                               | <i>Root Rot<br/>Reaction<br/>% Plant Loss</i> |                          |
| Maple Ridge <sup>2</sup> | 2400                               | yellow                  | 6290                          | 14  | SeCan members            |
| Baron <sup>2</sup>       | 2450                               | dark                    | 5520                          | 11  | W.G. Thompson & Sons     |
| KG20                     | 2500                               | yellow                  | 5520                          | 16  | King Agro                |
| Maple Belle*             | 2500                               | yellow                  | 5814                          | 21  | SeCan members            |
| Maple Isle               | 2500                               | yellow                  | 5320                          | 18  | Public variety           |
| OAC Frontier             | 2550                               | brown                   | 5920                          | 24  | Cargill Grain Co. Ltd.   |
| Apache <sup>2</sup>      | 2600                               | gray                    | 5500                          | 11  | W.G. Thompson & Sons     |
| Bicentennial             | 2600                               | brown                   | 5070                          | 8   | SeCan members            |
| KG30                     | 2600                               | dark                    | 6620                          | 22  | Pride Brand Seeds        |
| KG40*                    | 2600                               | yellow                  | 5950                          | 12  | King Agro                |
| Maple Arrow*             | 2600                               | brown                   | 5240                          | 14  | Public variety           |
| Maple Glen               | 2600                               | yellow                  | 5200                          | 25  | SeCan members            |
| J-051                    | 2600                               | gray                    | 6490                          | 35  | Jacques Seed Co.         |
| KG41*                    | 2600                               | yellow                  | 5400                          | 5   | King Agro                |
| PS42                     | 2600                               | light gray              | 5000                          | 11  | Pride Brand Seeds        |
| S00-88*                  | 2600                               | brown                   | 5260                          | 11  | Northrup King Seeds Ltd. |
| OAC Scorpio              | 2600                               | yellow                  | 5610                          | 42  | SeCan members            |
| 9061                     | 2650                               | yellow                  | 6890                          | 23  | Pioneer Hi-Bred Ltd.     |
| OAC Libra                | 2650                               | black                   | 6040                          | 17  | SeCan members            |
| AC Bravor*               | 2700                               | brown                   | 5430                          | 15  | First Line Seeds Ltd.    |
| 0877                     | 2700                               | light gray              | 5890                          | 19  | Pioneer FE-Bred Ltd.     |
| J-081                    | 2700                               | yellow                  | 5550                          | 25  | Jacques Seed Co.         |
| KG60*                    | 2700                               | buff                    | 5250                          | 7   | King Agro                |
| Evans                    | 2700                               | yellow                  | 6180                          | 24  | Public variety           |
| Maple                    | 2750                               | buff                    | 6580                          | 13  | SeCan members            |
| OAC Aries                | 2750                               | dark                    | 5780                          | 30  | SeCan members            |
| OAC Eclipse <sup>s</sup> | 2750                               | brown                   | 5380                          | 12  | SeCan members            |
| OAC Musca                | 2750                               | tan                     | 5600                          | 10  | SeCan members            |
| KG62                     | 2800                               | yellow                  | 5940                          | 18  | King Agro                |
| Marathon                 | 2800                               | yellow                  | 5350                          | 17  | W.G. Thompson & Sons     |
| PS61 *                   | 2850                               | yellow                  | 5890                          | 10  | Pride Brand Seeds        |
| Crusader                 | 2850                               | yellow                  | 6140                          | 19  | W.G. Thompson & Sons     |
| OAC Dorado               | 2850                               | brown                   | 5770                          | 27  | SeCan members            |
| PS72                     | 2900                               | yellow                  | 6700                          | 14  | Pride Brand Seeds        |
| S09-70                   | 2900                               | yellow                  | 6290                          | 15  | Northrup King Seeds Ltd. |
| 9111                     | 2900                               | light gray              | 5020                          | 16  | Pioneer Hi-Bred Ltd.     |
| Talon*                   | 2900                               | buff                    | 5470                          | 5   | W.G. Thompson & Sons     |
| A1511**                  | 2900                               | buff                    | 6140                          | 9   | Cargill Grain Co. Ltd.   |
| A1564                    | 2900                               | yellow                  | 5860                          | 22  | Cargill Grain Co. Ltd.   |
| B152*                    | 2900                               | yellow                  | 5490                          | 8   | Northrup King Seeds Ltd. |
| G-3135*                  | 2900                               | brown                   | 5130                          | 19  | Funk Seeds               |
| Haroson*                 | 2900                               | buff                    | 6100                          | 10  | SeCan members            |
| Hodgson                  | 2900                               | buff                    | 6160                          | 22  | Public variety           |
| PS80                     | 2900                               | yellow                  | 6290                          | 7   | Pride Brand Seeds        |
| S15-50*                  | 2900                               | gray                    | 6700                          | 6   | Northrup King Seeds Ltd. |

*(Continued on next page)*

**TABLE 1. SOYBEAN VARIETY  
RECOMMENDATIONS & DESCRIPTION (Continued)**

| <i>Variety</i>      | <i>Heat<br/>Units<br/>Required</i> | <i>Hilum<br/>Colour</i> | <i>Seeds Per<br/>Kilogram</i> | <i>Phytophthora</i>                           | <i>Distributor</i>     |
|---------------------|------------------------------------|-------------------------|-------------------------------|---|------------------------|
|                     |                                    |                         |                               | <i>Root Rot<br/>Reaction<br/>% Plant Loss</i> |                        |
| T8508               | 2900                               | brown                   | 5210                          | 8   | W.G. Thompson & Sons   |
| KG82                | 2950                               | tan                     | 4780                          | 11  | King Agro              |
| 9161                | 2950                               | buff                    | 6280                          | 13  | Pioneer Hi-Bred Ltd.   |
| A1895               | 2950                               | black                   | 5880                          | 9   | Cargill Grain Co. Ltd. |
| A1929**             | 2950                               | brown                   | 6330                          | 10  | Cargill Grain Co. Ltd. |
| A1937               | 2950                               | buff                    | 6100                          | 13  | Cargill Grain Co. Ltd. |
| RCAT                | 3000                               | black                   | 5400                          | 15  | SeCan members          |
| S20-20*             | 3000                               | yellow                  | 5400                          | 9   | Northrup King Seeds    |
| A2234**             | 3000                               | black                   | 5720                          | 4   | Cargill Grain Co. Ltd. |
| 9202                | 3050                               | yellow                  | 6420                          | 8   | Pioneer Hi-Bred Ltd.   |
| G-3197              | 3050                               | buff                    | 5260                          | 7   | Funk Seeds             |
| S19-90*             | 3050                               | gray                    | 5230                          | 6   | Northrup King Seeds    |
| RCAT Persian*       | 3050                               | yellow                  | 5830                          | 11  | SeCan members          |
| PS83                | 3050                               | yellow                  | 5750                          | 19  | Pride Brand Seeds      |
| 9272                | 3050                               | buff                    | 6080                          | 14  | Pioneer Hi-Bred Ltd.   |
| Elgin               | 3075                               | black                   | 5560                          | 17  | Public variety         |
| KG92                | 3075                               | yellow                  | 5760                          | 10  | King Agro              |
| J-220               | 3075                               | yellow                  | 6120                          | 12  | Jacques Seed Co.       |
| Sals 93             | 3075                               | buff                    | 5450                          | 33  | Sals Seeds Ltd.        |
| Magic               | 3075                               | black                   | 5160                          | 5   | W.G. Thompson & Sons   |
| CX226               | 3100                               | buff                    | 5830                          | 8   | Dekalb Seeds           |
| Elgin 87**          | 3100                               | black                   | 5710                          | 8   | SeCan members          |
| Jewel               | 3100                               | yellow                  | 6300                          | 28  | W.G. Thompson & Sons   |
| Conrad              | 3125                               | brown                   | 5970                          | 3   | SeCan members          |
| CX174               | 3125                               | buff                    | 5380                          | 14  | Dekalb Seeds           |
| A2543               | 3150                               | black                   | 5790                          | 8   | Cargill Grain Co. Ltd. |
| Corsoy 79           | 3150                               | yellow                  | 6070                          | 10  | Public variety         |
| 9292                | 3150                               | brown                   | 5340                          | 10  | Pioneer Hi-Bred Ltd.   |
| Combat*             | 3150                               | yellow                  | 6090                          | 6   | W.G. Thompson & Sons   |
| J-103               | 3150                               | yellow                  | 5810                          | 28  | Jacques Seed Co.       |
| J-231               | 3150                               | brown-<br>black         | 4980                          | 17  | Jacques Seed Co.       |
| S26-06*             | 3175                               | buff                    | 5160                          | 13  | Northrup King Seeds    |
| A2630               | 3200                               | brown-<br>black         | 6890                          | 5   | Cargill Grain Co. Ltd. |
| 9303                | 3275                               | yellow                  | 5530                          | 8   | Pioneer Hi-Bred Ltd.   |
| KG100               | 3300                               | black                   | 6130                          | 14  | King Agro              |
| Dominator*          | 3300                               | yellow                  | 5720                          | 8   | W.G. Thompson & Sons   |
| A2943               | 3300                               | brown-<br>black         | 5960                          | 12  | Cargill Grain Co. Ltd. |
| S31-33 <sup>3</sup> | 3350                               | black                   | 5320                          | 11  | Northrup King Seeds    |

\* Varieties with resistance to most races of the *Phytophthora* root rot organism in Ontario.

\*\* Varieties with resistance to all races of the *Phytophthora* root rot organism in Ontario

<sup>1</sup> Three-year average (1988-90) in a field heavily infested with *Phytophthora*. Not all races of *Phytophthora* root rot are found at this site. Thus the relative ranking of varieties for plant loss may differ in fields that have other races

<sup>2</sup> Metribuzin herbicide should not be used on Maple Ridge, Baron, or Apache.

<sup>3</sup> Resistant to the known races of Soybean Cyst Nematode (SCN) in Ontario

**TABLE 2. AGRONOMIC DATA  
2500-2800 HEAT UNIT AREAS**

| <i>Variety</i>              | <i>Heat<br/>Unit<br/>Rating</i> | <i>Yield<br/>(t/ha)</i> | <i>Yield<br/>Index<br/>(%)</i> | <i>Days from<br/>Planting<br/>to<br/>Maturity</i> | <i>Plant<br/>Height<br/>(cm)</i> | <i>Lodging<br/>1=<br/>standing<br/>5=flat</i> | <i>Protein<br/>Index<br/>(%)</i> |
|-----------------------------|---------------------------------|-------------------------|--------------------------------|---|----------------------------------|---|----------------------------------|
| Maple Ridge                 | 2400                            | 2.66                    | 86                             | 104   | 59                               | 1.4   | 101                              |
| Baron                       | 2450                            | 2.72                    | 88                             | 103   | 64                               | 1.7   | 98                               |
| KG20                        | 2500                            | 2.86                    | 92                             | 107   | 68                               | 2.1   | 98                               |
| Maple Isle                  | 2500                            | 2.81                    | 91                             | 109   | 63                               | 1.3   | 98                               |
| Maple Belle                 | 2500                            | 2.75                    | 89                             | 108   | 65                               | 1.4   | 98                               |
| OAC Frontier                | 2550                            | 2.96                    | 95                             | 111   | 64                               | 1.4   | 96                               |
| Maple Glen                  | 2600                            | 3.21                    | 104                            | 114   | 68                               | 1.6   | 101                              |
| Maple Arrow                 | 2600                            | 3.09                    | 100                            | 115   | 77                               | 2.0   | 101                              |
| Bicentennial                | 2600                            | 3.18                    | 103                            | 118   | 76                               | 2.4   | 103                              |
| OAC Scorpio                 | 2600                            | 3.24                    | 104                            | 118   | 77                               | 2.4   | 98                               |
| KG30                        | 2600                            | 3.06                    | 99                             | 117   | 78                               | 1.8   | 98                               |
| KG40                        | 2600                            | 3.00                    | 97                             | 117   | 65                               | 1.6   | 101                              |
| KG41                        | 2600                            | 3.27                    | 105                            | 117   | 72                               | 1.4   | 101                              |
| PS42                        | 2600                            | 3.46                    | 112                            | 118   | 70                               | 1.8   | 101                              |
| S00-88                      | 2600                            | 3.10                    | 100                            | 118   | 79                               | 1.6   | 98                               |
| Apache                      | 2600                            | 3.12                    | 101                            | 118   | 71                               | 1.7   | 101                              |
| J-051                       | 2600                            | 3.04                    | 98                             | 118   | 70                               | 1.6   | 98                               |
| 9061                        | 2650                            | 3.22                    | 104                            | 120   | 71                               | 1.7   | 96                               |
| OAC Libra                   | 2650                            | 3.23                    | 104                            | 120   | 86                               | 3.0   | 98                               |
| AC Bravor                   | 2700                            | 3.40                    | 110                            | 122   | 80                               | 2.6   | 101                              |
| 0877                        | 2700                            | 3.28                    | 106                            | 124   | 85                               | 2.8   | 98                               |
| Evans                       | 2700                            | 3.08                    | 99                             | 124   | 86                               | 2.7   | 98                               |
| OAC Eclipse                 | 2750                            | 3.32                    | 107                            | 123   | 81                               | 1.9   | 98                               |
| Maple Donovan               | 2750                            | 3.38                    | 109                            | 124   | 81                               | 2.4   | 98                               |
| <b>Average Yield (t/ha)</b> |                                 | <b>3.10</b>             |                                |   |                                  |   |                                  |

*TESTING AREAS- 3-year average of 12 Trials at Brussels, Elora, Ottawa and Winchester.*

**TABLE 3. AGRONOMIC DATA  
2700-2900 HEAT UNIT AREAS**

| <i>Variety</i>              | <i>Heat<br/>Unit<br/>Rating</i> | <i>Yield<br/>(t/ha)</i> | <i>Yield<br/>Index<br/>(%)</i> | <i>Days from<br/>Planting<br/>to<br/>Maturity</i> | <i>Plant<br/>Height<br/>(cm)</i> | <i>Lodging<br/>1=<br/>standing<br/>5=flat</i> | <i>Protein<br/>Index<br/>(%)</i> |
|-----------------------------|---------------------------------|-------------------------|--------------------------------|---|----------------------------------|---|----------------------------------|
| Maple Glen                  | 2600                            | 2.77                    | 97                             | 109   | 64                               | 1.4   | 103                              |
| Apache                      | 2600                            | 2.66                    | 83                             | 111   | 70                               | 1.6   | 104                              |
| Bicentennial                | 2600                            | 2.73                    | 95                             | 112   | 73                               | 1.7   | 106                              |
| OAC Scorpio                 | 2600                            | 2.52                    | 88                             | 112   | 71                               | 1.9   | 100                              |
| OAC Libra                   | 2650                            | 2.93                    | 102                            | 116   | 83                               | 2.1   | 97                               |
| 0877                        | 2700                            | 2.85                    | 99                             | 117   | 81                               | 1.8   | 102                              |
| Maple Donovan               | 2700                            | 2.85                    | 99                             | 117   | 78                               | 1.7   | 102                              |
| J-081                       | 2700                            | 2.74                    | 95                             | 117   | 83                               | 1.5   | 99                               |
| KG60                        | 2700                            | 2.90                    | 101                            | 118   | 69                               | 1.8   | 102                              |
| Evans                       | 2700                            | 2.73                    | 95                             | 119   | 85                               | 2.1   | 101                              |
| OAC Aries                   | 2750                            | 2.73                    | 95                             | 119   | 91                               | 2.1   | 98                               |
| OAC Musca                   | 2750                            | 2.83                    | 99                             | 119   | 92                               | 2.0   | 95                               |
| KG62                        | 2800                            | 3.01                    | 105                            | 121   | 75                               | 1.6   | 100                              |
| Marathon                    | 2800                            | 2.89                    | 101                            | 121   | 84                               | 2.1   | 100                              |
| OAC Dorado                  | 2850                            | 2.91                    | 101                            | 121   | 77                               | 1.5   | 97                               |
| PS61                        | 2850                            | 2.87                    | 100                            | 122   | 77                               | 1.4   | 98                               |
| Crusader                    | 2850                            | 2.98                    | 104                            | 122   | 88                               | 1.8   | 97                               |
| S09-70                      | 2850                            | 2.85                    | 99                             | 122   | 81                               | 1.7   | 100                              |
| 9111                        | 2850                            | 3.05                    | 106                            | 122   | 68                               | 1.4   | 99                               |
| Haroson                     | 2900                            | 3.06                    | 107                            | 122   | 86                               | 1.9   | 99                               |
| Hodgson                     | 2900                            | 2.94                    | 102                            | 123   | 86                               | 1.8   | 99                               |
| S15-50                      | 2900                            | 3.08                    | 107                            | 126   | 90                               | 1.6   | 98                               |
| PS72                        | 2900                            | 2.74                    | 95                             | 126   | 84                               | 2.2   | 102                              |
| A1564                       | 2900                            | 2.92                    | 102                            | 126   | 92                               | 2.2   | 105                              |
| Talon                       | 2900                            | 3.07                    | 107                            | 126   | 86                               | 1.8   | 100                              |
| KG82                        | 2950                            | 2.88                    | 100                            | 129   | 85                               | 1.8   | 98                               |
| <b>Average Yield (t/ha)</b> |                                 | <b>2.87</b>             |                                |   |                                  |   |                                  |

*TESTING AREAS: 3 year average of 8 Trials at Centralia, Woodstock,  
St. Pauls, Smithfield and Winchester.*

**TABLE 4. AGRONOMIC DATA  
2900-3300 HEAT UNIT AREAS**

| <i>Variety</i>              | <i>Area 1</i>                   |                              |                                  |                      | <i>Area 2</i>                |                                  |                      |                                |
|-----------------------------|---------------------------------|------------------------------|----------------------------------|----------------------|------------------------------|----------------------------------|----------------------|--------------------------------|
|                             | <i>Heat<br/>Unit<br/>Rating</i> | <i>Yield<br/>Index<br/>%</i> | <i>Plant<br/>Height<br/>(cm)</i> | <i>Lodging</i>       | <i>Yield<br/>Index<br/>%</i> | <i>Plant<br/>Height<br/>(cm)</i> | <i>Lodging</i>       | <i>Protein<br/>Index<br/>%</i> |
|                             |                                 |                              |                                  | <i>1=<br/>5=flat</i> |                              |                                  | <i>1=<br/>5=flat</i> |                                |
| Crusader                    | 2850                            | 91                           | 71                               | 1.3                  | 95                           | 91                               | 2.2                  | 98                             |
| Haroson                     | 2900                            | 98                           | 72                               | 1.2                  | 98                           | 88                               | 1.8                  | 98                             |
| Hodgson                     | 2900                            | 89                           | 73                               | 1.3                  | 94                           | 92                               | 1.7                  | 99                             |
| A1564                       | 2900                            | 90                           | 78                               | 1.4                  | 98                           | 97                               | 2.2                  | 105                            |
| PS80                        | 2900                            | 95                           | 78                               | 1.3                  | 94                           | 98                               | 2.1                  | 100                            |
| T8508                       | 2900                            | 102                          | 67                               | 1.0                  | 104                          | 89                               | 1.6                  | 98                             |
| S15-50                      | 2900                            | 97                           | 80                               | 1.2                  | 96                           | 96                               | 1.9                  | 98                             |
| B152                        | 2900                            | 93                           | 63                               | 1.0                  | 98                           | 85                               | 1.4                  | 95                             |
| A1511                       | 2900                            | 106                          | 72                               | 1.0                  | 96                           | 86                               | 1.9                  | 100                            |
| G-3135                      | 2900                            | 95                           | 66                               | 1.1                  | 100                          | 89                               | 2.0                  | 100                            |
| 9161                        | 2950                            | 100                          | 72                               | 1.1                  | 100                          | 88                               | 1.4                  | 100                            |
| A1895                       | 2950                            | 100                          | 71                               | 1.2                  | 99                           | 86                               | 2.1                  | 104                            |
| A1929                       | 2950                            | 103                          | 72                               | 1.1                  | 96                           | 87                               | 1.4                  | 100                            |
| A1937                       | 2950                            | 98                           | 81                               | 1.5                  | 101                          | 95                               | 2.3                  | 100                            |
| S20-20                      | 3000                            | 107                          | 73                               | 1.0                  | 106                          | 92                               | 1.4                  | 99                             |
| RCAT Alliance               | 3000                            | 100                          | 80                               | 1.2                  | 100                          | 100                              | 1.7                  | 103                            |
| RCAT Persian                | 3050                            | 101                          | 73                               | 1.1                  | 101                          | 95                               | 1.9                  | 101                            |
| G-3197                      | 3050                            | 102                          | 62                               | 1.0                  | 100                          | 82                               | 1.5                  | 98                             |
| S19-90                      | 3050                            | 105                          | 70                               | 1.1                  | 104                          | 88                               | 1.3                  | 99                             |
| 9202                        | 3050                            | 102                          | 69                               | 1.0                  | 103                          | 85                               | 1.6                  | 98                             |
| A2234                       | 3050                            | 106                          | 74                               | 1.1                  | 104                          | 92                               | 1.4                  | 102                            |
| PS83                        | 3050                            | 103                          | 75                               | 1.2                  | 103                          | 96                               | 1.8                  | 102                            |
| Elgin                       | 3075                            | 103                          | 71                               | 1.3                  | 100                          | 87                               | 2.4                  | 96                             |
| Elgin 87                    | 3100                            | 108                          | 76                               | 2.1                  | 103                          | 88                               | 2.6                  | 98                             |
| CX174                       | 3100                            | 101                          | 75                               | 1.3                  | 93                           | 95                               | 2.0                  | 101                            |
| Jewel                       | 3100                            | 98                           | 68                               | 1.2                  | 105                          | 92                               | 2.3                  | 100                            |
| S26-06                      | 3200                            | 108                          | 77                               | 1.0                  | 109                          | 89                               | 1,6                  | 103                            |
| <b>Average Yield (t/ha)</b> | <b>3.17</b>                     |                              |                                  |                      | <b>3.75</b>                  |                                  |                      |                                |

*AREA 1: 3-year Average of 5 Trials at Inwood (Clay), Fingal (Silt Loam) and Dutton (Clay)*

*AREA 2: 3-year Average of 6 Trials at R.C.A.T. (Clay Loam) and Talbotville (Clay Loam)*

**TABLE 5 AGRONOMIC DATA  
3300-3500 HEAT UNIT AREAS**

| <i>Variety</i>              | <i>Area 3</i>           |                      |                          |                         | <i>Area 4</i>        |                          |                         |                        |
|-----------------------------|-------------------------|----------------------|--------------------------|-------------------------|----------------------|--------------------------|-------------------------|------------------------|
|                             | <i>Heat Unit Rating</i> | <i>Yield Index %</i> | <i>Plant Height (cm)</i> | <i>lodging I=5=flat</i> | <i>Yield Index %</i> | <i>Plant Height (cm)</i> | <i>Lodging I=5=flat</i> | <i>Protein Index %</i> |
| Haroson                     | 2900                    | 99                   | 69                       | 1.5                     | 96                   | 92                       | 2.4                     | 97                     |
| S15-50                      | 2975                    | 96                   | 76                       | 1.5                     | 95                   | 101                      | 2.1                     | 97                     |
| A1895                       | 2975                    | 93                   | 66                       | 1.4                     | 98                   | 84                       | 2.3                     | 104                    |
| A1937                       | 2975                    | 102                  | 75                       | 1.6                     | 101                  | 98                       | 2.5                     | 101                    |
| S19-90                      | 3000                    | 98                   | 65                       | 1.1                     | 108                  | 89                       | 1.3                     | 97                     |
| 9161                        | 3000                    | 92                   | 65                       | 1.3                     | 101                  | 88                       | 1.9                     | 101                    |
| RCAT Persian                | 3025                    | 98                   | 70                       | 1.4                     | 98                   | 99                       | 2.6                     | 100                    |
| A2234                       | 3050                    | 102                  | 68                       | 1.2                     | 100                  | 89                       | 1.9                     | 101                    |
| 9202                        | 3050                    | 95                   | 66                       | 1.1                     | 101                  | 88                       | 2.1                     | 97                     |
| 9272                        | 3050                    | 103                  | 67                       | 1.3                     | 101                  | 87                       | 2.1                     | 100                    |
| Magic                       | 3075                    | 99                   | 74                       | 2.1                     | 103                  | 95                       | 3.5                     | 100                    |
| J-220                       | 3075                    | 98                   | 67                       | 1.5                     | 100                  | 87                       | 2.8                     | 98                     |
| Jewel                       | 3100                    | 102                  | 64                       | 1.3                     | 99                   | 95                       | 2.8                     | 99                     |
| 0(226                       | 3100                    | 94                   | 64                       | 1.3                     | 94                   | 86                       | 2.3                     | 98                     |
| Elgin 87                    | 3100                    | 103                  | 74                       | 1.7                     | 98                   | 91                       | 3.0                     | 95                     |
| SALS93                      | 3100                    | 100                  | 74                       | 1.4                     | 97                   | 92                       | 2.3                     | 96                     |
| KG92                        | 3100                    | 105                  | 66                       | 1.3                     | 100                  | 89                       | 2.6                     | 93                     |
| Corsoy 79                   | 3100                    | 94                   | 84                       | 2.2                     | 93                   | 113                      | 3.2                     | 102                    |
| Conrad                      | 3125                    | 99                   | 73                       | 1.6                     | 104                  | 91                       | 2.4                     | 100                    |
| CX174                       | 3125                    | 101                  | 75                       | 1.4                     | 96                   | 97                       | 2.4                     | 99                     |
| J-231                       | 3150                    | 96                   | 74                       | 1.4                     | 99                   | 97                       | 2.1                     | 100                    |
| Combat                      | 3150                    | 103                  | 82                       | 1.8                     | 98                   | 113                      | 3.0                     | 103                    |
| A2543                       | 3150                    | 104                  | 66                       | 1.1                     | 106                  | 80                       | 1.6                     | 107                    |
| 9292                        | 3150                    | 105                  | 70                       | 1.2                     | 101                  | 87                       | 1.7                     | 100                    |
| J-103                       | 3150                    | 94                   | 67                       | 1.3                     | 94                   | 92                       | 2.5                     | 95                     |
| S26-06                      | 3175                    | 103                  | 73                       | 1.3                     | 106                  | 89                       | 1.7                     | 101                    |
| A2630                       | 3200                    | 105                  | 69                       | 1.0                     | 102                  | 91                       | 1.4                     | 102                    |
| 9303                        | 3275                    | 110                  | 72                       | 1.2                     | 104                  | 97                       | 2.2                     | 99                     |
| Dominator                   | 3300                    | 108                  | 80                       | 1.5                     | 109                  | 112                      | 2.6                     | 98                     |
| A2943                       | 3300                    | 103                  | 81                       | 1.3                     | 102                  | 106                      | 2.1                     | 102                    |
| KG100                       | 3300                    | 100                  | 81                       | 1.6                     | 101                  | 102                      | 2.6                     | 104                    |
| S31-33                      | 3350                    | 96                   | 78                       | 1.3                     | 91                   | 106                      | 2.6                     | 104                    |
| <b>Average Yield (t/ha)</b> |                         | <b>3.04</b>          |                          |                         | <b>3.76</b>          |                          |                         |                        |

AREA 3: 3-year Average of 5 Trials at Woodslee (Clay) and Tilbury (Clay)

AREA 4: 3-year Average of 6 Trials at Malden (Clay Loam) and Chatham (Clay Loam)