

Barley Variety Test

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Materials and Methods

Sixteen varieties were included in the 2002 barley test at Calumet, Iowa. Each variety was sown in three different plots in order to average the effects of soil variability. The varieties were planted April 3 at a rate of 2 bushels/acre. All barley plots were harvested July 15.

Results and Discussion

Barley yields averaged 89.1 bushels/acre in 2002, which is 11.6 bushels/acre more than in 2001 (Table 1). Excel was the highest yielding line based on three years of data (2000–2002) whereas Conlon had the highest test weight across all locations for the lines that were tested during the three-year period.

Additional information on barley variety tests in the state can be found in the publication, "Iowa Crop Performance Tests—Oat and Barley, 1998–2002," which is available from county extension offices (Pm-1645) and at www.public.iastate.edu/~jjannink/.

Table 1. Performance of spring barley varieties tested at Calumet from 2000-2002.

| Variety | Yield ¹ | | | 3-yr avg | Test weight ² (lbs/bu) | Heading date ³ (June) | Plant height ⁴ (in.) | Straw yield ⁵ (T/A) |
|------------------------|--------------------|------|------|----------|-----------------------------------|----------------------------------|---------------------------------|--------------------------------|
| | 2000 | 2001 | 2002 | | | | | |
| Azure | 48.1 | 79.2 | 62.0 | 63.1 | 48.9 | 36 | 36 | 2.3 |
| Bowers | 40.4 | 81.6 | 68.9 | 63.6 | 49.0 | 37 | 35 | 2.3 |
| Chilten | 35.9 | 78.5 | 61.8 | 58.7 | 49.8 | 36 | 37 | 2.1 |
| Conlon | - | 74.9 | 60.0 | 67.5 | 50.8 | 34 | 32 | 2.3 |
| Drummond | - | 88.0 | 60.9 | 74.5 | 50.0 | 36 | 32 | 2.0 |
| Excel | 48.9 | 88.2 | 73.5 | 70.2 | 50.3 | 38 | 32 | 2.0 |
| Hazen | 42.5 | 83.9 | 61.6 | 62.7 | 48.6 | 38 | 33 | 2.2 |
| Kewaunee | 40.8 | 80.8 | 58.7 | 60.1 | 48.2 | 36 | 34 | 2.2 |
| Lacey | - | 89.1 | 70.4 | 80.0 | 50.7 | 37 | 33 | 1.9 |
| Legacy | - | 76.6 | 59.6 | 59.0 | 48.7 | 38 | 34 | 1.9 |
| PrimusII | 40.4 | 67.4 | 60.8 | 56.2 | 50.7 | 32 | 36 | 2.0 |
| Robust | 51.6 | 89.6 | 67.0 | 69.4 | 50.4 | 37 | 36 | 2.1 |
| Royal | 42.5 | 66.8 | 63.0 | 57.5 | 49.2 | 38 | 27 | 1.9 |
| Seebe | - | 89.1 | 50.6 | 70.0 | 49.8 | 45 | 33 | 2.2 |
| Stander | 49.5 | 73.7 | 58.7 | 60.6 | 49.6 | 38 | 30 | 2.0 |
| Vivar | - | 75.9 | 58.4 | 58.1 | 46.1 | 40 | 30 | 2.1 |
| Average | 44.0 | 77.5 | 89.1 | 64.5 | 1.0 | 1 | 1 | 0.3 |
| LSD(0.05) ⁶ | 7.0 | 10.0 | 4.9 | 9.0 | 49.4 | 37 | 33 | 2.1 |

¹Grain yields are based on 48 lb/bu test weight.

²Test weight – average from three sites.

³Data collected at Ames only.

⁴Height – Measured at Ames.

⁵Straw yield – average from three sites.

⁶LSD = Least significant difference. When entries differ by an amount equal to one LSD or more, they are considered to be in different classes with 95% certainty.