

Oat Variety Test

Ron Skrdla, ag research specialist
Jean-Luc Jannink, assistant professor
Department of Agronomy

Materials and Methods

Twenty-eight varieties were included in the 2005 oat variety test at Sutherland. Each variety was sown in three different plots to average the effects of soil variability. The varieties were planted on March 29 at a rate of 3 bushels/acre. The oat plots were harvested on July 22.

Results

Average oat grain yield at Sutherland in 2005 was 166 bushels/acre, 49 bushels/acre more than

the long-term average yield (Table 1). Based on several years of data, Woodburn was the highest-yielding variety. Reeves had the highest test weight among hulled (or normal) oat varieties in 2005. Buff, however, is a hull-less variety and thus had a higher test weight.

Additional information on oat and barley variety tests in the state can be found in the publication "Iowa Crop Performance Tests—Oat and Barley, 2005," which is available from county extension offices (Pm-1645) and at www.public.iastate.edu/~jjannink/.

Table 1. Performance of oat varieties tested at Sutherland.

| Variety | Grain Yield (bushels/acre) | | | Lodging score ² | Groat % ³ | CR ⁴ | BYD ⁴ | Test weight ⁵ |
|------------------|----------------------------|----------------|-------------------------------|----------------------------|----------------------|-----------------|------------------|--------------------------|
| | 2005 | Long-term avg. | Head date (June) ¹ | | | | | |
| Baker | 178 | 128 | 8 | 43.3 | 74.3 | 2.0 | 3.8 | 34.1 |
| Blaze | 161 | 125 | 9 | 40.9 | 75.9 | 1.8 | 3.2 | 34.4 |
| Brawn | 162 | 125 | 10 | 32.0 | 74.7 | 5.1 | 3.4 | 32.5 |
| Buff | 127 | 93 | 7 | 30.4 | 91.0 | 2.0 | 3.6 | 44.3 |
| Chaps | 166 | 121 | 8 | 35.7 | 74.3 | 3.5 | 3.3 | 32.7 |
| Cherokee | 90 | 79 | 4 | 42.9 | 71.9 | 5.5 | 6.5 | 33.7 |
| Classic | 155 | 115 | 10 | 32.4 | 70.3 | 2.2 | 2.7 | 34.0 |
| Dane | 150 | 112 | 2 | 36.7 | 73.1 | 2.7 | 4.3 | 31.8 |
| Drumlin | 170 | 122 | 12 | 50.8 | 74.7 | 2.2 | 3.7 | 33.7 |
| Esker | 176 | 126 | 6 | 41.8 | 74.7 | 2.0 | 4.3 | 33.5 |
| Gem | 167 | 118 | 9 | 32.5 | 70.3 | 0.9 | 3.7 | 33.6 |
| IN09201 | 173 | 122 | 5 | 32.1 | 71.1 | 2.4 | 3.5 | 34.6 |
| Jay | 168 | 122 | 8 | 30.2 | 72.3 | 1.2 | 3.4 | 34.4 |
| Jerry | 146 | 114 | 9 | 36.5 | 74.3 | 2.8 | 4.3 | 35.9 |
| Jim | 175 | 123 | 5 | 39.7 | 74.3 | 3.4 | 3.7 | 34.8 |
| Jud | 164 | 118 | 11 | 31.9 | 71.5 | 1.5 | 3.6 | 34.2 |
| Kame | 162 | 114 | 6 | 30.7 | 73.1 | 2.0 | 3.8 | 32.4 |
| Killdeer | 164 | 123 | 11 | 33.8 | 71.9 | 3.3 | 3.9 | 33.2 |
| Moraine | 167 | 117 | 6 | 34.0 | 75.1 | 1.5 | 3.8 | 34.5 |
| Ogle | 158 | 122 | 10 | 38.7 | 74.7 | 4.4 | 3.5 | 31.3 |
| Reeves | 165 | 111 | 6 | 51.5 | 73.9 | 1.6 | 3.4 | 36.9 |
| Richland | 109 | 79 | 8 | 59.0 | 68.7 | 6.0 | 5.9 | 31.6 |
| Robust | 172 | 123 | 11 | 22.8 | 71.9 | 0.1 | 1.4 | 35.1 |
| Sesqui | 179 | 124 | 12 | 38.3 | 71.5 | 1.4 | 3.9 | 34.2 |
| Spurs | 169 | 130 | 6 | 41.2 | 73.9 | 1.9 | 3.7 | 35.3 |
| Wabasha | 177 | 118 | 10 | 29.4 | 73.1 | 1.4 | 3.1 | 33.3 |
| Winona | 170 | 124 | 4 | 38.3 | 73.1 | 2.2 | 4.0 | 34.8 |
| Woodburn | 181 | 125 | 5 | 31.6 | 72.7 | 0.1 | 0.9 | 35.5 |
| Average | 166 | 117 | 8 | 39.0 | 73.6 | 3.0 | 4.0 | 34.5 |
| LSD ³ | 17 | 15 | 2 | 20.3 | 4.9 | 2.5 | 1.5 | 1.2 |

¹Heading date at Ames, 2005.²Lodging from Lewis, 2004.³Groat % – 2005 average from two sites.⁴CR, crown rust and SR data from 2005, 0=resistant, 9=highly infected; BYD, barley yellow dwarf virus data from 2004.⁵Test weight–2005 average from five 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.