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Oat Variety Test

Abstract

Twenty-eight varieties were included in the 2005 oat variety test at Nashua. 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 28.

Keywords

Agronomy

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences

Oat Variety Test

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Materials and Methods

Twenty-eight varieties were included in the 2005 oat variety test at Nashua. 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 28.

Results

Average oat grain yield at Nashua in 2005 was 131 bushels/acre, 8 bushels/acre more than the long-term average yield (Table 1). Based on several years of data, Baker and Woodburn were the highest yielding varieties. Reeves had the highest test weight among hulled (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 Nashua.

| Variety 2005 Long-term avg Lodging (June) Groat score ² Groat w3 CR4 BYD4 Test Weight5 Baker 146 139 8 43.3 74.3 2.0 3.8 34.1 Blaze 140 132 9 40.9 75.9 1.8 3.2 34.4 Brawn 137 127 10 32.0 74.7 5.1 3.4 32.5 Buff 96 94 7 30.4 91.0 2.0 3.6 44.3 Chaps 142 133 8 35.7 74.3 3.5 3.3 32.7 Cherokee 81 86 4 42.9 71.9 5.5 6.5 33.7 Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 | Grain Yield (bushels/acre) | | | | | | | | |
|---|----------------------------|-----|-----|------|------|------|------|---------|------|
| Variety 2005 avg (June)¹ score² %³ CR⁴ BYD⁴ Weight⁵ Baker 146 139 8 43.3 74.3 2.0 3.8 34.1 Blaze 140 132 9 40.9 75.9 1.8 3.2 34.4 Brawn 137 127 10 32.0 74.7 5.1 3.4 32.5 Buff 96 94 7 30.4 91.0 2.0 3.6 44.3 Chaps 142 133 8 35.7 74.3 3.5 3.3 32.7 Cherokee 81 86 4 42.9 71.9 5.5 6.5 33.7 Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 7 | | | | Head | | | | | |
| Baker 146 139 8 43.3 74.3 2.0 3.8 34.1 Blaze 140 132 9 40.9 75.9 1.8 3.2 34.4 Brawn 137 127 10 32.0 74.7 5.1 3.4 32.5 Buff 96 94 7 30.4 91.0 2.0 3.6 44.3 Chaps 142 133 8 35.7 74.3 3.5 3.3 32.7 Cherokee 81 86 4 42.9 71.9 5.5 6.5 33.7 Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 | ** · | ••• | | | | | crp4 | DV 1D 4 | |
| Blaze 140 132 9 40.9 75.9 1.8 3.2 34.4 Brawn 137 127 10 32.0 74.7 5.1 3.4 32.5 Buff 96 94 7 30.4 91.0 2.0 3.6 44.3 Chaps 142 133 8 35.7 74.3 3.5 3.3 32.7 Cherokee 81 86 4 42.9 71.9 5.5 6.5 33.7 Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 | | | | | | | | | |
| Brawn 137 127 10 32.0 74.7 5.1 3.4 32.5 Buff 96 94 7 30.4 91.0 2.0 3.6 44.3 Chaps 142 133 8 35.7 74.3 3.5 3.3 32.7 Cherokee 81 86 4 42.9 71.9 5.5 6.5 33.7 Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 | | | | | | | | | |
| Buff 96 94 7 30.4 91.0 2.0 3.6 44.3 Chaps 142 133 8 35.7 74.3 3.5 3.3 32.7 Cherokee 81 86 4 42.9 71.9 5.5 6.5 33.7 Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 | Blaze | | | | | | | | |
| Chaps 142 133 8 35.7 74.3 3.5 3.3 32.7 Cherokee 81 86 4 42.9 71.9 5.5 6.5 33.7 Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 | | | | | | | 5.1 | | |
| Cherokee 81 86 4 42.9 71.9 5.5 6.5 33.7 Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 | Buff | 96 | 94 | 7 | 30.4 | 91.0 | 2.0 | 3.6 | 44.3 |
| Classic 134 126 10 32.4 70.3 2.2 2.7 34.0 Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 | Chaps | 142 | 133 | 8 | 35.7 | 74.3 | 3.5 | 3.3 | 32.7 |
| Dane 122 122 2 36.7 73.1 2.7 4.3 31.8 Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | Cherokee | 81 | 86 | 4 | 42.9 | 71.9 | 5.5 | 6.5 | 33.7 |
| Drumlin 124 128 12 50.8 74.7 2.2 3.7 33.7 Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | Classic | 134 | 126 | 10 | 32.4 | 70.3 | 2.2 | 2.7 | 34.0 |
| Esker 133 136 6 41.8 74.7 2.0 4.3 33.5 Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | Dane | 122 | 122 | 2 | 36.7 | 73.1 | 2.7 | 4.3 | 31.8 |
| Gem 109 121 9 32.5 70.3 0.9 3.7 33.6 IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | Drumlin | 124 | 128 | 12 | 50.8 | 74.7 | 2.2 | 3.7 | 33.7 |
| IN09201 137 128 5 32.1 71.1 2.4 3.5 34.6 Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | Esker | 133 | 136 | 6 | 41.8 | 74.7 | 2.0 | 4.3 | 33.5 |
| Jay 129 128 8 30.2 72.3 1.2 3.4 34.4 Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | Gem | 109 | 121 | 9 | 32.5 | 70.3 | 0.9 | 3.7 | 33.6 |
| Jerry 128 121 9 36.5 74.3 2.8 4.3 35.9 Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | IN09201 | 137 | 128 | 5 | 32.1 | 71.1 | 2.4 | 3.5 | 34.6 |
| Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | Jay | 129 | 128 | 8 | 30.2 | 72.3 | 1.2 | 3.4 | 34.4 |
| Jim 137 129 5 39.7 74.3 3.4 3.7 34.8 Jud 129 125 11 31.9 71.5 1.5 3.6 34.2 | Jerry | 128 | 121 | 9 | 36.5 | 74.3 | 2.8 | 4.3 | 35.9 |
| | | 137 | 129 | 5 | 39.7 | 74.3 | 3.4 | 3.7 | 34.8 |
| Kame 130 130 6 30.7 73.1 2.0 3.8 32.4 | Jud | 129 | 125 | 11 | 31.9 | 71.5 | 1.5 | 3.6 | 34.2 |
| | Kame | 130 | 130 | 6 | 30.7 | 73.1 | 2.0 | 3.8 | 32.4 |
| Killdeer 137 131 11 33.8 71.9 3.3 3.9 33.2 | Killdeer | 137 | 131 | 11 | 33.8 | 71.9 | 3.3 | 3.9 | 33.2 |
| Moraine 127 124 6 34.0 75.1 1.5 3.8 34.5 | Moraine | 127 | 124 | 6 | 34.0 | 75.1 | 1.5 | 3.8 | 34.5 |
| Ogle 145 127 10 38.7 74.7 4.4 3.5 31.3 | Ogle | 145 | 127 | 10 | 38.7 | 74.7 | 4.4 | 3.5 | 31.3 |
| Reeves 129 124 6 51.5 73.9 1.6 3.4 36.9 | - | 129 | 124 | 6 | 51.5 | 73.9 | 1.6 | 3.4 | 36.9 |
| Richland 98 85 8 59.0 68.7 6.0 5.9 31.6 | Richland | 98 | 85 | 8 | 59.0 | 68.7 | 6.0 | 5.9 | 31.6 |
| Robust 140 123 11 22.8 71.9 0.1 1.4 35.1 | Robust | 140 | 123 | 11 | 22.8 | 71.9 | 0.1 | 1.4 | 35.1 |
| Sesqui 138 133 12 38.3 71.5 1.4 3.9 34.2 | Sesqui | 138 | 133 | 12 | 38.3 | 71.5 | 1.4 | 3.9 | 34.2 |
| Spurs 135 133 6 41.2 73.9 1.9 3.7 35.3 | _ | 135 | 133 | 6 | 41.2 | 73.9 | 1.9 | 3.7 | 35.3 |
| Wabasha 135 125 10 29.4 73.1 1.4 3.1 33.3 | • | | | 10 | 29.4 | 73.1 | | 3.1 | |
| Winona 137 128 4 38.3 73.1 2.2 4.0 34.8 | | | | | | | | | |
| Woodburn 135 139 5 31.6 72.7 0.1 0.9 35.5 | | | | | | | | | |
| Average 131 123 8 39.0 73.6 3.0 4.0 34.5 | • | | | | | | | 4.0 | |
| LSD ³ 16 14 2 20.3 4.9 2.5 1.5 1.2 | | | | | | | | | |

¹Heading date at Ames, 2005.

²Lodging from Lewis, 2005.

 $^{^{3}}$ Groat % – 2005 average from two sites.

⁴CR, crown rust and SR data from 2004, 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.