

# Uniform Oat Variety Trials – 2008

<http://varietytesting.tamu.edu>

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### Texas AgriLife Research

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**Purpose:** To provide unbiased yield data for oat producers across the state. With this information, Texas oat producers can make an educated decision about the most appropriate variety for their geographic region.

**Overview:** The Uniform Oat Variety Trial (UOVT) is coordinated and implemented by numerous Texas AgriLife Extension and Research faculty and staff from College Station, Dallas, Vernon, and Amarillo. We greatly appreciate the cooperation of David Holubec at the Brady location. Six locations of the Oat UVT were planted. The table below describes the predominant issues that affected the 2007-08 oat crop at each location.

| <b>Location</b> | <b>Issues</b>  |
|-----------------|--|
| Brady           | Moderate deer damage early; fall drought; some volunteer wheat                             |
| Castroville     | Moderate crown rust; trace stem rust; moderate to heavy bird damage                        |
| Chillicothe     | Drought; wild hog damage to some entries   |
| College Station | Light to moderate crown rust; light stem rust; heavy barley yellow dwarf virus             |
| McGregor        | Good year, dry fall; wet winter and spring; light crown and stem rust; moderate shattering |
| Prosper         | Good year, wet fall and winter, dry spring; no disease                                     |



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### Uniform Oat Variety Trial - 2008

|                     |                 | Brady       |             | Castroville |             | Chillicothe |             |
|---------------------|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Variety             | Source          | Grain Yield | Test Weight | Grain Yield | Test Weight | Grain Yield | Test Weight |
|                     |                 | (bu/ac)     | (lb/bu)     | (bu/ac)     | (lb/bu)     | (bu/ac)     | (lb/bu)     |
| Dallas              | TAMU            | 103.3       | -           | 64.0        | 25.5        | 83.5        | 33.8        |
| Harrison            | LSU             | 78.4        | -           | 76.7        | 33.5        | 43.7        | 35.8        |
| HG76-30             | East Texas Seed | 107.0       | -           | 61.1        | 31.0        | 81.5        | 34.3        |
| Horizon 270         | FSU             | 98.6        | -           | 94.1        | 30.0        | 80.1        | 34.7        |
| Horizon 321         | FSU             | 90.4        | -           | 105.6       | 34.0        | 73.5        | 35.0        |
| Horizon 474         | FSU             | 80.0        | -           | 87.3        | 34.0        | 81.6        | 37.6        |
| Plot Spike          | LSU             | 99.6        | -           | 83.9        | 28.5        | 88.6        | 34.9        |
| TAMO 405            | TAMU            | 105.3       | -           | 66.5        | 32.0        | 50.3        | 33.9        |
| TAMO 406            | TAMU            | 104.6       | -           | 87.8        | 31.0        | 94.6        | 29.4        |
| TAMO 606            | TAMU            | 85.7        | -           | 104.8       | 31.5        | 71.7        | 35.3        |
| Trophy              | LSU             | 87.2        | -           | 73.3        | 31.0        | 76.0        | 37.5        |
| <b>Mean</b>         |                 | <b>94.5</b> | <b>-</b>    | <b>82.3</b> | <b>31.1</b> | <b>75.0</b> | <b>34.7</b> |
| <b>C.V. (%)</b>     |                 | <b>15.2</b> | <b>-</b>    | <b>19.4</b> | <b>-</b>    | <b>17.2</b> | <b>-</b>    |
| <b>LSD (P=0.05)</b> |                 | <b>24.3</b> | <b>-</b>    | <b>23.2</b> | <b>-</b>    | <b>22.6</b> | <b>-</b>    |

### Uniform Oat Variety Trial - 2008

|                     |                 | College Station |             | McGregor    |             | Prosper     |             |
|---------------------|-----------------|-----------------|-------------|-------------|-------------|-------------|-------------|
| Variety             | Source          | Grain Yield     | Test Weight | Grain Yield | Test Weight | Grain Yield | Test Weight |
|                     |                 | (bu/ac)         | (lb/bu)     | (bu/ac)     | (lb/bu)     | (bu/ac)     | (lb/bu)     |
| Dallas              | TAMU            | 81.3            | 28.0        | 92.8        | 36.0        | 101.2       | -           |
| Harrison            | LSU             | 114.3           | 31.5        | 82.5        | 35.0        | 77.8        | -           |
| HG76-30             | East Texas Seed | 90.4            | 29.5        | 81.1        | 36.0        | 70.7        | -           |
| Horizon 270         | FSU             | 122.5           | 32.0        | 109.3       | 36.0        | 102.4       | -           |
| Horizon 321         | FSU             | 113.0           | 31.5        | 98.6        | 36.5        | 74.5        | -           |
| Horizon 474         | FSU             | 100.4           | 31.0        | 60.2        | 37.0        | 63.0        | -           |
| Plot Spike          | LSU             | 101.5           | 30.5        | 97.7        | 33.0        | 97.2        | -           |
| TAMO 405            | TAMU            | 114.8           | 30.5        | 103.5       | 35.0        | 88.6        | -           |
| TAMO 406            | TAMU            | 124.9           | 33.0        | 108.2       | 33.5        | 129.4       | -           |
| TAMO 606            | TAMU            | 100.3           | 31.0        | 80.0        | 33.5        | 96.7        | -           |
| Trophy              | LSU             | 116.6           | 33.5        | 95.6        | 37.0        | 81.9        | -           |
| <b>Mean</b>         |                 | <b>107.3</b>    | <b>31.1</b> | <b>91.8</b> | <b>35.3</b> | <b>89.4</b> | <b>-</b>    |
| <b>C.V. (%)</b>     |                 | <b>10.5</b>     | <b>-</b>    | <b>7.4</b>  | <b>-</b>    | <b>12.4</b> | <b>-</b>    |
| <b>LSD (P=0.05)</b> |                 | <b>19.1</b>     | <b>-</b>    | <b>11.6</b> | <b>-</b>    | <b>17.6</b> | <b>-</b>    |

### Uniform Oat Variety Trial Ratings - 2008

| Variety     | Source          | College Station            |                |                  |                    | Castroville    |
|-------------|-----------------|----------------------------|----------------|------------------|--------------------|----------------|
|             |                 | BYDV <sup>†</sup><br>(0-9) | Crown<br>Rust* | Heading<br>(day) | Height<br>(inches) | Crown<br>Rust* |
| Dallas      | TAMU            | 5                          | 70 S           | 105              | 34                 | 70 S           |
| Harrison    | LSU             | 4                          | 20 S           | 102              | 47                 | 5 S            |
| HG76-30     | East Texas Seed | 4                          | 90 S           | 100              | 46                 | 70 S           |
| Horizon 270 | FSU             | 4                          | 0 R            | 98               | 39                 | 10 S           |
| Horizon 321 | FSU             | 3                          | 60 S           | 102              | 33                 | 30 S           |
| Horizon 474 | FSU             | 5                          | 5 MS           | 103              | 36                 | 30 MS          |
| Plot Spike  | LSU             | 5                          | 5 MS           | 108              | 39                 | Tr MS          |
| TAMO 405    | TAMU            | 4                          | Tr MS          | 94               | 34                 | 30 S           |
| TAMO 406    | TAMU            | 3                          | 0 R            | 101              | 40                 | 0 R            |
| TAMO 606    | TAMU            | 3                          | 5 S            | 107              | 35                 | Tr S           |
| Trophy      | LSU             | 4                          | 5 MS           | 100              | 42                 | 0 R            |

### Uniform Oat Variety Trial Ratings - 2008

| Variety     | Source          | McGregor                      |                    |                  | Prosper          |                    |
|-------------|-----------------|-------------------------------|--------------------|------------------|------------------|--------------------|
|             |                 | Lodging <sup>†</sup><br>(0-5) | Height<br>(inches) | Heading<br>(day) | Heading<br>(day) | Height<br>(inches) |
| Dallas      | TAMU            | 3                             | 38                 | 107              | 107              | 39                 |
| Harrison    | LSU             | 0                             | 40                 | 110              | 104              | 39                 |
| HG76-30     | East Texas Seed | 3                             | 39                 | 107              | 103              | 43                 |
| Horizon 270 | FSU             | 0                             | 32                 | 105              | 103              | 35                 |
| Horizon 321 | FSU             | 0                             | 35                 | 109              | 100              | 35                 |
| Horizon 474 | FSU             | 0                             | 33                 | 106              | 103              | 38                 |
| Plot Spike  | LSU             | 0                             | 38                 | 115              | 108              | 41                 |
| TAMO 405    | TAMU            | 0                             | 33                 | 105              | 103              | 31                 |
| TAMO 406    | TAMU            | 0                             | 35                 | 112              | 104              | 40                 |
| TAMO 606    | TAMU            | 0                             | 36                 | 107              | 106              | 38                 |
| Trophy      | LSU             | 0                             | 41                 | 103              | 102              | 44                 |

\* Percentage followed by code: R = Resistant, MS = Moderately Susceptible, S = Susceptible, Tr = Trace

<sup>†</sup> Ratings - 0 is no disease