

# North Central Research Extension Center—Minot 2010 Durum Fungicide x Variety Trial

Jeremy Pederson, Area Extension Specialist/Cropping Systems  
Trial information

- Design: RCB with split-plot arrangement and four replicates
- Plot size: 5' x 18'
- Planting Date/Rate: April 23rd, 1.5 M PLS per acre
- Previous Crop/Tillage: Wheat/Fall tilled with chisel plow spikes
- Seeding System: Plot planter with off set double disc openers on 6 inch spacing
- Fertility: 217 lb/acre fall-spread urea
- Fungicide Treatments: 2 oz/acre Tilt applied with herbicide to 4-5 leaf wheat on June 7  
6.5 oz/acre Prosaro + .25% v/v. NIS applied on July 2 when wheat was in early flower
- Application Equipment: CO<sub>2</sub> pressurized hand boom with 8001 flat fans @ 40 psi and 10 GPA for 4-5 leaf  
CO<sub>2</sub> pressurized hand boom with 8002 twin jets @ 40 psi and 20 GPA for early flower
- Weed Control: 1.7 pt/acre Wolverine applied June 7
- Harvest Date: August 24

| Variety     | Disease <sup>1</sup> |          | Disease |          | Incidence <sup>2</sup> |          | Severity |          | Severity |          | Weight          |          | Protein |          | Yield |          |
|-------------|----------------------|----------|---------|----------|------------------------|----------|----------|----------|----------|----------|-----------------|----------|---------|----------|-------|----------|
|             | -----%               |          | -----%  |          | -----%                 |          | -----%   |          | -----%   |          | -----lb/bu----- |          | -----%  |          | bu/A  |          |
|             | 21-Jun               |          | 29-Jul  |          | 3-Aug                  |          | 3-Aug    |          | 3-Aug    |          |                 |          |         |          |       |          |
|             | Fung.                | No Fung. | Fung.   | No Fung. | Fung.                  | No Fung. | Fung.    | No Fung. | Fung.    | No Fung. | Fung.           | No Fung. | Fung.   | No Fung. | Fung. | No Fung. |
| Alkabo      | 7.5                  | 11.3     | 22.5    | 58.8     | 5.0                    | 10.6     | 16.2     | 17.1     | 0.8      | 1.7      | 61.9            | 60.0     | 13.6    | 13.2     | 85.5  | 65.3     |
| DG Max      | 8.8                  | 12.5     | 22.5    | 60.0     | 9.4                    | 13.1     | 17.6     | 14.1     | 2.0      | 2.1      | 62.0            | 60.6     | 14.6    | 14.1     | 83.6  | 67.1     |
| DG Star     | 7.5                  | 11.3     | 27.5    | 60.0     | 8.8                    | 8.8      | 8.0      | 12.1     | 0.7      | 1.1      | 61.2            | 59.1     | 14.7    | 13.5     | 80.8  | 64.9     |
| Divide      | 11.3                 | 12.5     | 17.5    | 48.8     | 6.3                    | 8.8      | 17.4     | 18.3     | 1.4      | 2.5      | 61.4            | 60.1     | 14.7    | 13.8     | 79.5  | 70.1     |
| Grande Doro | 7.5                  | 10.0     | 20.0    | 56.3     | 5.6                    | 13.8     | 16.2     | 11.9     | 0.8      | 1.6      | 62.4            | 60.4     | 14.4    | 13.2     | 84.2  | 75.8     |
| Grenora     | 8.8                  | 10.0     | 17.5    | 55.0     | 9.4                    | 10.6     | 9.6      | 14.1     | 0.9      | 1.5      | 61.1            | 59.8     | 14.4    | 13.3     | 91.7  | 74.0     |
| Lebsock     | 8.8                  | 12.5     | 22.5    | 45.3     | 6.9                    | 9.4      | 12.4     | 12.3     | 0.8      | 1.4      | 62.7            | 61.0     | 13.0    | 13.6     | 75.9  | 68.1     |
| Mountrail   | 8.8                  | 10.0     | 22.5    | 61.3     | 6.9                    | 14.4     | 10.5     | 13.9     | 0.6      | 1.9      | 60.9            | 58.9     | 13.8    | 13.6     | 88.8  | 67.2     |
| Tioga       | 11.3                 | 12.5     | 20.0    | 50.0     | 9.4                    | 10.6     | 11.3     | 13.1     | 1.2      | 1.5      | 61.6            | 59.8     | 14.7    | 14.0     | 87.9  | 73.9     |
| LSD 5%      | NS                   |          | 8.6     |          | NS                     |          | NS       |          | NS       |          | 0.7             |          | 0.8     |          | 16.0  |          |
| C.V.%       | 27.7                 |          | 15.8    |          | 44.6                   |          | 54.8     |          | 74.4     |          | 0.9             |          | 4.2     |          | 14.6  |          |
| Mean        | 10.1                 |          | 38.2    |          | 9.3                    |          | 13.7     |          | 1.4      |          | 60.8            |          | 13.9    |          | 76.9  |          |

Spring soil test results (4/26/2010 sampling date): N= 143 lb/a (0-24"), P = 23ppm (0-6"), K = 440 ppm (0-6"), S = 46 lb/a (0-24"), OM = 5.6%.

<sup>1</sup> Leaf disease ratings based on visual evaluation of disease severity in the plot.

<sup>2</sup> Fusarium head blight (FHB) ratings based on 40 heads sampled per plot. Incidence = percent exhibiting symptoms, Head severity = average percent affected in symptomatic heads, Field severity = percent incidence x percent head severity.