

**Irrigated Wheat Variety Trial, NMSU Agricultural Science Center at Clovis, 2019**

**Investigators:** A. Scott, B. Niece and A. Mesbah

**Test Description**

| <b>Location:</b>   | <b>Management Practices:</b>   | <b>Growing Conditions:</b>   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
|--|--|--|----------------|------------------|--------------------|----------------|----------|------|----------|-----------|----------|----------|--------|-----|----------|--------|------|----------|----------|--------------------|------|-----|-------------|-----------|--------|------|----------|--------|-----------|---------|--------|----------------------|------|-----|--------|---------|--------|---|------------------------|---------|------------------|----------|
| County/Area: Curry<br>Longitude: -103.22<br>Latitude: 34.60<br>Elevation: 4435 ft.<br>Soil Name: Olton<br>Soil Texture: clay loam<br>Soil Depth: >60 in.   | Previous Crop: fallow<br>Planting Date: 20-Nov<br>Harvest Date: 2-Jul  | <table border="1"> <thead> <tr> <th></th> <th>Average Temp. °F</th> <th>Precip. in.</th> <th>Irrigation in.</th> </tr> </thead> <tbody> <tr><td>November</td><td>43.0</td><td>0.17</td><td>0.9</td></tr> <tr><td>December</td><td>37.5</td><td>0.14</td><td>0.4</td></tr> <tr><td>January</td><td>38.5</td><td>0.16</td><td>0.6</td></tr> <tr><td>February</td><td>41.4</td><td>0.18</td><td>1.0</td></tr> <tr><td>March</td><td>45.7</td><td>1.11</td><td>1.2</td></tr> <tr><td>April</td><td>56.0</td><td>2.49</td><td>2.8</td></tr> <tr><td>May</td><td>63.2</td><td>1.69</td><td>4.4</td></tr> <tr><td>June</td><td>72.7</td><td>2.09</td><td>-</td></tr> <tr><td>July 1-2</td><td>78.0</td><td>0.07</td><td>-</td></tr> </tbody> </table> |                | Average Temp. °F | Precip. in.        | Irrigation in. | November | 43.0 | 0.17     | 0.9       | December | 37.5     | 0.14   | 0.4 | January  | 38.5   | 0.16 | 0.6      | February | 41.4               | 0.18 | 1.0 | March       | 45.7      | 1.11   | 1.2  | April    | 56.0   | 2.49      | 2.8     | May    | 63.2                 | 1.69 | 4.4 | June   | 72.7    | 2.09   | -   | July 1-2               | 78.0    | 0.07             | -        |
|  | Average Temp. °F   | Precip. in.  | Irrigation in. |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| November   | 43.0   | 0.17   | 0.9            |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| December   | 37.5   | 0.14   | 0.4            |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| January  | 38.5   | 0.16   | 0.6            |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| February   | 41.4   | 0.18   | 1.0            |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| March  | 45.7   | 1.11   | 1.2            |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| April  | 56.0   | 2.49   | 2.8            |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| May  | 63.2   | 1.69   | 4.4            |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| June   | 72.7   | 2.09   | -              |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| July 1-2   | 78.0   | 0.07   | -              |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| <b>Test Design:</b><br>Replications: 3<br>Planted Plot Length: 30 ft.<br>Harvested Plot Length: 30 ft.<br>Plot Width: 75 in.<br>Rows per Plot: 11<br>Drill Row Spacing: 6.25 in.<br>Seeding Rate: 30 lb/ac | <b>Production Inputs</b><br><table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td colspan="3"><b>Fertilizer:</b></td> </tr> <tr> <td>N</td> <td>74 lb/ac</td> <td>carryover</td> </tr> <tr> <td>Phos</td> <td>30 lb/ac</td> <td>29-Sep</td> </tr> <tr> <td>N</td> <td>73 lb/ac</td> <td>28-Feb</td> </tr> <tr> <td>S</td> <td>13 lb/ac</td> <td>28-Feb</td> </tr> <tr> <td colspan="3"><b>Herbicides:</b></td> </tr> <tr> <td>Affinity BS</td> <td>0.6 oz/ac</td> <td>25-Mar</td> </tr> <tr> <td>LV 6</td> <td>12 oz/ac</td> <td>25-Mar</td> </tr> <tr> <td>Prowl H2O</td> <td>3 pt/ac</td> <td>25-Mar</td> </tr> <tr> <td colspan="3"><b>Insecticides:</b></td> </tr> <tr> <td>Govern</td> <td>1 pt/ac</td> <td>25-Mar</td> </tr> </tbody> </table> |  | Rate           | Date             | <b>Fertilizer:</b> |                |          | N    | 74 lb/ac | carryover | Phos     | 30 lb/ac | 29-Sep | N   | 73 lb/ac | 28-Feb | S    | 13 lb/ac | 28-Feb   | <b>Herbicides:</b> |      |     | Affinity BS | 0.6 oz/ac | 25-Mar | LV 6 | 12 oz/ac | 25-Mar | Prowl H2O | 3 pt/ac | 25-Mar | <b>Insecticides:</b> |      |     | Govern | 1 pt/ac | 25-Mar | <table border="1"> <tbody> <tr> <td>Seasonal Precipitation</td> <td>8.1 in.</td> </tr> <tr> <td>Total Irrigation</td> <td>11.3 in.</td> </tr> </tbody> </table> | Seasonal Precipitation | 8.1 in. | Total Irrigation | 11.3 in. |
|  | Rate   | Date   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| <b>Fertilizer:</b>   |  |  |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| N  | 74 lb/ac   | carryover  |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| Phos   | 30 lb/ac   | 29-Sep   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| N  | 73 lb/ac   | 28-Feb   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| S  | 13 lb/ac   | 28-Feb   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| <b>Herbicides:</b>   |  |  |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| Affinity BS  | 0.6 oz/ac  | 25-Mar   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| LV 6   | 12 oz/ac   | 25-Mar   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| Prowl H2O  | 3 pt/ac  | 25-Mar   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| <b>Insecticides:</b>   |  |  |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| Govern   | 1 pt/ac  | 25-Mar   |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| Seasonal Precipitation   | 8.1 in.  |  |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |
| Total Irrigation   | 11.3 in.   |  |                |                  |                    |                |          |      |          |           |          |          |        |     |          |        |      |          |          |                    |      |     |             |           |        |      |          |        |           |         |        |                      |      |     |        |         |        |   |                        |         |                  |          |

**Irrigated Wheat Variety Trial, NMSU Agricultural Science Center at Clovis, 2019**

| Variety Name         |              | Grain Yield <sup>1</sup><br>bu/a | Bushel Weight<br>lb/bu | Harvest Moisture<br>% | Plant Height<br>in | Lodging<br>% | Head Date<br>date |
|----------------------|--------------|----------------------------------|------------------------|-----------------------|--------------------|--------------|-------------------|
| CP7909               | Croplan      | 72.8 ***                         | 62.4 *                 | 9.5                   | 35.3 *             | 0            | 5/10              |
| CPX79-10             | Croplan      | 70.4 *                           | 63.5 ***               | 10.7 ***              | 33.0               | 0            | 5/13              |
| TAMW-101             | TAMU         | 69.5 *                           | 61.7 *                 | 9.5                   | 33.7 *             | 0            | 5/11              |
| WB 4418              | Westbred     | 67.9 *                           | 59.6 *                 | 9.0                   | 33.0               | 0            | 5/12              |
| WB 4792              | Westbred     | 67.8 *                           | 60.2 *                 | 9.4                   | 34.3 *             | 0            | 5/18 *            |
| Winterhawk           | Westbred     | 67.5 *                           | 63.1 *                 | 9.8                   | 34.7 *             | 0            | 5/12              |
| PlainsGold Canvas    | CSU          | 67.2 *                           | 61.9 *                 | 9.4                   | 34.3 *             | 0            | 5/15              |
| TAM 114              | Warner Seed  | 66.8 *                           | 62.4 *                 | 9.9 *                 | 36.0 ***           | 0            | 5/14              |
| CP7869               | Croplan      | 66.4 *                           | 59.0 *                 | 9.3                   | 31.3               | 0            | 5/18 *            |
| PlainsGold Langin    | CSU          | 66.2 *                           | 61.0 *                 | 9.4                   | 32.3               | 0            | 5/9               |
| PlainsGold Avery     | CSU          | 65.9 *                           | 60.1 *                 | 9.1                   | 36.0 *             | 0            | 5/15              |
| TX12V7415            | TAMU         | 65.7 *                           | 63.1 *                 | 9.9 *                 | 34.3 *             | 0            | 5/11              |
| Lonerider            | OSU          | 65.4 *                           | 61.7 *                 | 9.5                   | 30.7               | 0            | 5/17 *            |
| SY Monument          | Syngenta     | 65.4 *                           | 59.4 *                 | 8.6                   | 32.7               | 0            | 5/17 *            |
| 08BC379-40-1         | Syngenta     | 64.8 *                           | 63.2 *                 | 10.4 *                | 31.7               | 0            | 5/12              |
| LCS Link             | Limagrain    | 63.9                             | 59.3 *                 | 9.1                   | 33.0               | 0            | 5/16              |
| TAM 111              | Gayland Ward | 63.5                             | 50.2                   | 8.7                   | 35.0 *             | 0            | 5/11              |
| SY Grit              | Syngenta     | 63.2                             | 59.1 *                 | 8.8                   | 34.3 *             | 0            | 5/13              |
| WB 4303              | Westbred     | 62.8                             | 58.7 *                 | 8.7                   | 31.3               | 0            | 5/15              |
| SY Rugged            | Syngenta     | 62.5                             | 60.6 *                 | 9.1                   | 31.0               | 0            | 5/16 *            |
| SY Flint             | Syngenta     | 62.4                             | 59.9 *                 | 8.9                   | 33.3 *             | 0            | 5/10              |
| TAM 204              | Watley Seed  | 62.2                             | 57.9 *                 | 9.0                   | 33.3 *             | 0            | 5/16              |
| TAM 113              | Warner Seed  | 61.3                             | 62.0 *                 | 10.0 *                | 35.3 *             | 0            | 5/12              |
| Gallagher            | OSU          | 61.1                             | 60.7 *                 | 9.0                   | 33.7 *             | 0            | 5/15              |
| OK12716              | OSU          | 61.0                             | 58.7 *                 | 8.7                   | 34.3 *             | 0            | 5/14              |
| TAM 304              | TAMU         | 60.9                             | 57.5 *                 | 8.9                   | 32.3               | 0            | 5/12              |
| Iba                  | OSU          | 60.4                             | 60.8 *                 | 7.8                   | 32.3               | 0            | 5/19 ***          |
| Smith's Gold         | OSU          | 60.4                             | 61.9 *                 | 9.4                   | 33.3 *             | 0            | 5/16              |
| Dyna-Gro Long Branch | Dyna-Gro     | 59.7                             | 58.9 *                 | 8.9                   | 33.3 *             | 0            | 5/16              |
| LCS Pistol           | Limagrain    | 59.6                             | 57.7 *                 | 8.8                   | 32.0               | 0            | 5/15              |
| TX11A001295          | TAMU         | 59.4                             | 61.0 *                 | 9.1                   | 32.0               | 0            | 5/17 *            |
| TAM 112              | Watley Seed  | 59.3                             | 62.7 *                 | 9.4                   | 32.3               | 0            | 5/14              |
| DH12HRW27-3          | Limagrain    | 53.3                             | 59.8 *                 | 8.7                   | 30.0               | 0            | 5/16 *            |
| Trial Mean           |              | 63.8                             | 60.3                   | 9.2                   | 33.2               | 0.0          | 5/14              |
| LSD (P> 0.05)        |              | 8.5                              | 6.6                    | 0.9                   | 2.8                | 0.0          | 2.85              |
| CV                   |              | 8.2                              | 6.8                    | 6.1                   | 5.2                | 0.0          | 1.30              |
| F Test               |              | 0.04                             | 0.35                   | <.0001                | <.0001             | <.0001       | <.0001            |

<sup>1</sup>Yields adjusted to 60 lb standard bushel weight and 13.5 % moisture.

\*\*\* Highest numerical value in the column.

\* Not significantly different from the highest numerical value in the column based on the 5% LSD.

<sup>2</sup>No lodging reported