

Performance of hard red spring wheat cultivars with and without fungicide<sup>1</sup> on yield and agronomic traits at Steele County, ND, 2019.

| Cultivar      | BLS Score <sup>2</sup> | Height       |      | Leaf Disease |      | Test Weight     |      | FHB Index   |      | Protein     |      | Yield                |      |      |
|---------------|------------------------|--------------|------|--------------|------|-----------------|------|-------------|------|-------------|------|----------------------|------|------|
|               | (1-9)                  | No Fung      | Fung | No Fung      | Fung | No Fung         | Fung | No Fung     | Fung | No Fung     | Fung | No Fung              | Fung | Avg. |
|               |                        | ----(cm)---- |      | ----(%)----  |      | ----(lb/bu)---- |      | ----(%)---- |      | ----(%)---- |      | ------(bu/acre)----- |      |      |
| Ambush        | 5.3                    | 76.8         | 76.0 | 4.0          | 3.7  | 58.3            | 58.6 | 0.0         | 0.3  | 15.6        | 14.6 | 53.9                 | 58.1 | 56.0 |
| Barlow        | 3.7                    | 84.2         | 81.8 | 2.7          | 3.7  | 55.3            | 58.4 | 1.0         | 0.1  | 15.0        | 15.3 | 49.6                 | 53.2 | 51.4 |
| Bolles        | 8.3                    | 81.5         | 81.5 | 4.0          | 3.3  | 57.8            | 58.6 | 0.2         | 0.1  | 16.0        | 15.4 | 52.1                 | 63.4 | 57.7 |
| Boost         | 1.7                    | 83.2         | 82.8 | 2.7          | 1.3  | 58.2            | 58.0 | 0.7         | 0.0  | 14.6        | 14.1 | 61.7                 | 73.4 | 67.5 |
| Commander     | 4.0                    | 75.3         | 77.2 | 2.7          | 3.3  | 59.0            | 55.8 | 0.2         | 0.1  | 14.7        | 14.9 | 62.5                 | 58.4 | 60.5 |
| CP3504        | 3.7                    | 75.2         | 73.8 | 3.3          | 3.0  | 56.4            | 57.4 | 0.5         | 0.1  | 14.7        | 12.9 | 58.0                 | 69.1 | 63.6 |
| CP3530        | 6.3                    | 89.3         | 84.7 | 4.0          | 3.7  | 58.1            | 58.3 | 0.7         | 0.2  | 15.9        | 14.8 | 54.8                 | 61.1 | 57.9 |
| CP3616        | 7.3                    | 78.0         | 75.2 | 4.3          | 4.0  | 55.4            | 55.5 | 1.1         | 0.3  | 16.6        | 16.1 | 43.5                 | 51.8 | 47.7 |
| CP3888        | 6.0                    | 75.7         | 77.3 | 4.0          | 4.0  | 56.5            | 57.5 | 1.2         | 0.5  | 15.4        | 14.9 | 49.3                 | 56.0 | 52.7 |
| CP3910        | 7.7                    | 77.2         | 77.3 | 4.7          | 4.3  | 56.0            | 58.7 | 0.1         | 0.2  | 16.1        | 15.3 | 49.0                 | 52.5 | 50.7 |
| CP3915        | 4.0                    | 77.5         | 76.8 | 3.7          | 2.0  | 59.0            | 61.4 | 0.6         | 0.0  | 15.1        | 14.0 | 56.3                 | 71.5 | 63.9 |
| CP3939        | 5.7                    | 77.0         | 75.5 | 4.0          | 4.3  | 56.8            | 56.7 | 0.9         | 0.1  | 15.9        | 15.4 | 48.2                 | 50.9 | 49.5 |
| Elgin-ND      | 5.7                    | 86.7         | 84.0 | 3.3          | 4.3  | 56.5            | 56.6 | 0.5         | 0.0  | 14.9        | 14.6 | 51.1                 | 51.9 | 51.5 |
| Faller        | 4.7                    | 82.3         | 81.5 | 3.0          | 3.0  | 58.2            | 58.5 | 0.3         | 0.1  | 14.9        | 13.9 | 56.1                 | 65.1 | 60.6 |
| Glenn         | 3.7                    | 87.5         | 87.2 | 2.3          | 3.7  | 59.7            | 60.1 | 0.0         | 0.3  | 15.6        | 15.3 | 51.0                 | 52.7 | 51.9 |
| Lang-MN       | 2.3                    | 85.8         | 82.5 | 3.0          | 2.7  | 59.1            | 60.1 | 0.3         | 0.0  | 15.7        | 14.8 | 50.5                 | 61.6 | 56.0 |
| LCS Breakaway | 7.7                    | 72.5         | 72.2 | 4.7          | 4.0  | 58.0            | 56.5 | 0.1         | 0.1  | 15.7        | 15.6 | 47.4                 | 52.4 | 49.9 |
| LCS Cannon    | 3.3                    | 77.3         | 73.0 | 3.0          | 3.0  | 54.1            | 60.0 | 0.0         | 0.1  | 14.9        | 14.0 | 40.3                 | 56.6 | 48.5 |
| LCS Rebel     | 2.3                    | 80.5         | 79.2 | 2.3          | 3.3  | 58.3            | 59.4 | 0.1         | 0.0  | 15.2        | 14.8 | 56.0                 | 61.9 | 58.9 |
| LCS Trigger   | 3.7                    | 82.7         | 83.2 | 2.3          | 3.0  | 59.4            | 58.9 | 0.0         | 0.0  | 12.4        | 12.4 | 72.2                 | 71.7 | 71.9 |
| Linkert       | 6.3                    | 75.2         | 71.2 | 2.7          | 3.7  | 54.2            | 58.3 | 1.0         | 0.4  | 16.1        | 15.4 | 49.6                 | 52.6 | 51.1 |
| MN-Washburn   | 5.3                    | 76.5         | 78.0 | 3.7          | 4.0  | 57.5            | 58.4 | 0.7         | 0.1  | 15.7        | 14.9 | 54.6                 | 59.8 | 57.2 |
| MS Barracuda  | 7.3                    | 73.2         | 71.2 | 4.7          | 4.7  | 54.7            | 56.0 | 0.3         | 0.0  | 16.0        | 14.7 | 40.8                 | 41.2 | 41.0 |
| MS Camaro     | 6.7                    | 71.3         | 70.7 | 4.0          | 4.0  | 54.6            | 57.3 | 1.4         | 0.1  | 15.7        | 14.9 | 33.9                 | 46.5 | 40.2 |
| MS Chevelle   | 7.3                    | 74.0         | 74.3 | 3.3          | 4.0  | 56.5            | 58.2 | 0.2         | 0.2  | 14.7        | 13.4 | 46.8                 | 55.1 | 51.0 |
| ND VitPro     | 3.3                    | 80.5         | 78.2 | 2.7          | 2.3  | 59.1            | 60.6 | 0.5         | 0.1  | 15.6        | 14.9 | 51.1                 | 53.7 | 52.4 |
| Shelly        | 7.7                    | 74.8         | 75.5 | 4.7          | 3.3  | 55.8            | 57.2 | 0.6         | 0.1  | 14.9        | 14.2 | 41.8                 | 57.3 | 49.5 |
| Surpass       | 2.3                    | 79.7         | 77.8 | 2.7          | 2.0  | 58.3            | 58.7 | 0.1         | 0.0  | 15.0        | 14.6 | 41.8                 | 58.2 | 50.0 |
| SY 611CL      | 7.3                    | 70.8         | 70.8 | 2.7          | 3.0  | 57.6            | 59.3 | 0.1         | 0.0  | 14.8        | 14.7 | 52.3                 | 61.4 | 56.8 |
| SY Ingmar     | 6.0                    | 72.8         | 72.2 | 3.3          | 2.0  | 59.0            | 59.2 | 0.6         | 0.0  | 15.7        | 15.2 | 49.4                 | 58.8 | 54.1 |
| SY Longmire   | 6.3                    | 75.8         | 77.5 | 2.3          | 2.0  | 58.9            | 60.2 | 1.6         | 0.4  | 14.6        | 14.2 | 47.6                 | 63.2 | 55.4 |
| SY McCloud    | 6.0                    | 76.7         | 75.7 | 3.3          | 3.3  | 58.4            | 60.4 | 0.3         | 0.4  | 15.2        | 15.0 | 49.6                 | 62.9 | 56.2 |
| SY Rockford   | 9.0                    | 78.7         | 79.2 | 5.0          | 5.0  | --              | 50.5 | 0.3         | 0.4  | 16.4        | 16.0 | 22.0                 | 28.6 | 25.3 |
| SY Soren      | 7.7                    | 72.8         | 75.2 | 3.0          | 3.7  | 54.9            | 59.2 | 0.1         | 0.0  | 15.8        | 15.3 | 40.7                 | 55.1 | 47.9 |
| SY Valda      | 5.3                    | 73.5         | 74.7 | 2.3          | 3.0  | 58.3            | 59.0 | 0.2         | 0.0  | 14.4        | 13.8 | 58.0                 | 65.3 | 61.6 |
| TCG-Climax    | 4.7                    | 79.5         | 81.8 | 3.0          | 4.0  | 58.5            | 60.1 | 0.1         | 0.0  | 15.8        | 15.5 | 50.3                 | 57.8 | 54.0 |
| TCG-Heartland | 6.3                    | 73.3         | 72.0 | 3.0          | 3.7  | 59.5            | 58.7 | 1.0         | 0.0  | 15.5        | 15.2 | 53.9                 | 58.3 | 56.1 |
| TCG-Spitfire  | 4.3                    | 79.3         | 78.2 | 2.3          | 3.3  | 57.2            | 58.1 | 0.5         | 0.0  | 14.4        | 13.7 | 58.5                 | 69.3 | 63.9 |
| TCG-Stalwart  | 9.0                    | 74.8         | 73.0 | 5.0          | 5.0  | 50.6            | 54.2 | 1.8         | 0.0  | 17.1        | 16.6 | 25.7                 | 35.4 | 30.5 |
| Mean          | 5.5                    | 77.9         | 77.2 | 3.4          | 3.4  | 57.2            | 58.2 | 0.5         | 0.1  | 15.3        | 14.8 | 49.5                 | 57.3 | 53.4 |
| CV            |                        | 3.2          |      | 25.0         |      | 2.9             |      | 134.2       |      | 3.6         |      |                      |      | 3.2  |
| LSD 0.05      |                        | 2.9          |      | 0.9          |      | 1.9             |      | 0.5         |      | 0.6         |      |                      |      | 7.5  |

<sup>1</sup>Fungicide consisted of Prostar<sup>TM</sup> at 6.5 fl oz/acre + NIS 2 pt/100 gal at Feekes 10.51<sup>2</sup> Bacterial Leaf Streak ratings are an average of the response of the genotypes in other locations in 2019.