



# 2018 South Dakota Grain Sorghum Hybrid Trial Results Kennebec

Chris Graham | SDSU Extension Agronomist  
Bruce Swan | SDSU Agriculture Research Manager  
Dwayne Beck | Dakota Lakes Farm Manager  
Jonathan Kleinjan | SDSU Extension Crop Production Associate

**Cooperator:** Kim Halverson  
**Location:** Kennebec, SD  
**Soil Type:** Silt Loam  
**Fertilizer:** 100 lbs N/ac (46-0-0)  
**Previous crop:** Corn  
**Tillage:** No-till  
**Row spacing:** 30"  
**Seeding Rate:** 60,000 PLS/acre  
**Herbicide:** Dual/Atrazine  
**Fungicide:** NA  
**Date seeded:** 6/6/2018  
**Date harvested:** 10/22/2018

Table 1. 2018 grain sorghum hybrids tested at Kennebec, SD§.

| Hybrid Name | Company                    | Germ. (%) | Maturity Group (E, M/E, M)† | Days to 50% Bloom | Grain Color (B, C, R, Y)‡ | Panicle Type (SC or SO)§ | Resistance to greenbug biotype: C, E, I, K, or none |
|-------------|----------------------------|-----------|-----------------------------|-------------------|---------------------------|--------------------------|---|
| 251         | Chromatin/Sorghum Partners | 85        | VE                          | 52                | R                         | O                        | NA  |
| 88Y47       | Dupont Pioneer             | 85        | E                           | 61                | W                         | SC                       | None  |
| 89Y79       | Dupont Pioneer             | 85        | E                           | 59                | W                         | SC                       | None  |
| ADV XG001   | Advanta                    | 85        | ME                          | 63                | B                         | SC                       | None  |
| ADV XG251   | Advanta                    | 40        | ME                          | 63                | B                         | SO                       | None  |
| ADV XG602   | Advanta                    | 85        | ME                          | 63                | B                         | SO                       | None  |
| ADV XG629   | Advanta                    | 85        | E                           | 58                | C                         | SC                       | None  |
| AG1101      | Advanta                    | 85        | E                           | 55                | R                         | SC                       | None  |
| AG1201      | Advanta                    | 85        | E                           | 60                | B                         | SC                       | None  |
| AG1203      | Advanta                    | 85        | ME                          | 63                | B                         | SO                       | None  |
| AG1301      | Advanta                    | 85        | ME                          | 63                | C                         | SC                       | None  |
| AS 216      | Arrow                      | 90        | E                           | 50                | B                         | SO                       | N/A   |
| AS12X       | Arrow                      | 90        | ME                          | 62                | R                         | SC                       | N/A   |
| AS248FG     | Arrow                      | 90        | ME                          | 58                | W                         | SC                       | N/A   |
| AV6R01      | AgVenture                  | -         | -                           | -                 | -                         | -                        | -   |
| AVSR31      | AgVenture                  | -         | -                           | -                 | -                         | -                        | -   |
| DKS28-05    | Dekalb/Monsanto            | -         | E                           | 57                | B                         | SC                       | E,I   |
| DKS29-07    | Dekalb/Monsanto            | -         | E                           | 59                | C                         | I                        | None  |
| GS 750      | Sokota                     | -         | -                           | -                 | -                         | -                        | -   |
| GS 852      | Sokota                     | -         | -                           | -                 | -                         | -                        | -   |
| GX17912     | Dyna-Gro                   | 85        | ME                          | 60                | C                         | SO                       | C,E   |
| M57GB19     | Dyna-Gro                   | 85        | E                           | 58                | B                         | SO                       | C,E,I   |
| GX17917     | Dyna-Gro                   | 85        | E                           | 58                | R                         | SO                       | C,E,I   |
| GX18919     | Dyna-Gro                   | -         | -                           | -                 | -                         | -                        | -   |
| LGS 5001    | Legend Seeds               | 85        | E                           | 52                | B                         | SO                       | N/A   |
| LGS 5508    | Legend Seeds               | 85        | ME                          | 59                | W                         | SC                       | N/A   |
| LGS 5808    | Legend Seeds               | 85        | E                           | 58                | R                         | SC                       | N/A   |
| LGX 5002    | Legend Seeds               | 85        | E                           | 53                | R                         | SO                       | N/A   |
| M59GB57     | Dyna-Gro                   | 85        | E                           | 59                | B                         | SO                       | C,E   |
| M60GB31     | Dyna-Gro                   | 85        | ME                          | 60                | B                         | SO                       | C,E,I   |
| M60GB88     | Dyna-Gro                   | 85        | ME                          | 60                | B                         | SO                       | C,E   |
| M71GB01     | Dyna-Gro                   | 85        | VE                          | 54                | B                         | SO                       | C,E   |
| SP 31A15    | Chromatin/Sorghum Partners | 85        | E                           | 58                | Br                        | SO                       | NA  |
| SP 68M57    | Chromatin/Sorghum Partners | 85        | M                           | 65                | Br                        | SO                       | NA  |
| SP 25C10    | Chromatin/Sorghum Partners | 85        | VE                          | 52                | Br                        | SO                       | NA  |

† Maturity: E=Early, M/E = Medium Early, M = Medium

‡ Grain Color: B = Bronze, C = Cream, R = Red, Y = Yellow

§ Panicle type: SC = Semi-Closed, SO = Semi-Open

Table 2. 2018 grain sorghum hybrid performance trial results (average of 4 replications) at Kennebec, SD§.

| Variety              | Height (in) | Test Wt (lbs) | 2018 (bu/a) | 2 year (bu/a) |
|----------------------|-------------|---------------|-------------|---------------|
| 251                  | 43          | 54.0          | 53          | -             |
| 88Y47                | 50          | 51.9          | 66          | -             |
| 89Y79                | 47          | 53.2          | 62          | -             |
| ADV XG001            | 49          | 46.6          | 58          | -             |
| ADV XG251            | 49          | 34.9          | 36          | -             |
| ADV XG602            | 47          | 40.0          | 43          | -             |
| ADV XG629            | 39          | 52.2          | 67          | -             |
| AG1101               | -           | 52.7          | <b>74</b>   | 62            |
| AG1201               | 42          | 50.4          | <b>73</b>   | 64            |
| AG1203               | 49          | 39.8          | 50          | -             |
| AG1301               | 43          | 46.7          | 58          | -             |
| AS 216               | 42          | 50.6          | 65          | -             |
| AS12X                | 53          | 49.9          | 54          | -             |
| AS248FG              | 45          | 48.3          | 51          | -             |
| AV6R01               | 49          | 54.2          | <b>81</b>   | -             |
| AVSR31               | 42          | 50.4          | 52          | -             |
| DKS28-05             | 44          | 48.5          | <b>75</b>   | -             |
| DKS29-07             | 50          | 49.6          | <b>71</b>   | -             |
| GS 750               | 47          | 50.6          | 58          | -             |
| GS 852               | 47          | 51.9          | <b>70</b>   | -             |
| GX17912              | 51          | 46.6          | <b>74</b>   | -             |
| M57GB19              | 49          | 48.0          | <b>81</b>   | -             |
| GX17917              | 47          | 50.3          | <b>73</b>   | -             |
| GX18919              | 50          | 49.0          | 66          | -             |
| LGS 5001             | 47          | 50.0          | 64          | 55            |
| LGS 5508             | 47          | 50.7          | 60          | 58            |
| LGS 5808             | 50          | 49.0          | 60          | 58            |
| LGX 5002             | 42          | 51.4          | 69          | -             |
| M59GB57              | 42          | 49.8          | <b>77</b>   | -             |
| M60GB31              | -           | 45.5          | 66          | -             |
| M60GB88              | 51          | 45.2          | 54          | -             |
| M71GB01              | 44          | 51.3          | 63          | -             |
| SP 31A15             | 46          | 48.7          | <b>80</b>   | 65            |
| SP 68M57             | 53          | 45.7          | 66          | -             |
| SP25C10              | 41          | 48.1          | 61          | 54            |
| <b>Trial Average</b> | 47          | 48.7          | 64          | 60            |
| <b>LSD (0.05)†</b>   | -           | 2.8           | 13.3        | -             |
| <b>C.V. %‡</b>       | -           | 3.4           | 12.7        | -             |

§ Values in bold rank in the top third of all varieties for each category

† Value required ( $\geq$ LSD) to determine if varieties are significantly different from one another.

‡ C.V. is a measure of variability or experimental error, 15% or less is acceptable.