2013 Collaborative On-Farm Test (COFT) Variety Performance Results

The objective of the 2013 COFT was to compare performance and adaptability of popular and newly released CSU varieties (Byrd, Brawl CL Plus, Denali, and Antero) with a proven high- yielding variety (Hatcher), and with a variety with a grower price-premium (Snowmass) under unbiased, field-scale testing conditions. The COFT program is in its 15th year and the majority of Colorado’s 2013 wheat acreage was planted to winter wheat varieties that have been tested in the COFT program.

In the fall of 2012, thirty-three eastern Colorado wheat producers planted on-farm tests in Baca, Bent, Prowers, Kiowa, Cheyenne, Kit Carson, Washington, Yuma, Phillips, Sedgwick, Lincoln, Logan, Adams, and Weld counties. Each collaborator planted the six varieties in side- by-side strips (approximately one acre per variety) at the same seeding rate as they seeded their own wheat. Fifteen viable harvest results were obtained from the thirty-three tests due to the extremely dry conditions farmers experienced during the growing season. The COFT results need to be interpreted based on all tests within a year and not on the basis of a single variety comparison on a single farm in one year.

Colorado extension wheat educators who conducted the COFT program in 2013:

Jerry Johnson – Extension Specialist-Crop Production, Fort Collins

Bruce Bosley – Extension Agronomist, Logan County

Wilma Trujillo – Extension Agronomist, Prowers County

John Deering – Extension Specialist-Ag. Business Management, Washington County

Ron Meyer – Extension Agronomist, Golden Plains Area

20

**2013 Collaborative On-Farm Test (COFT) Variety Performance Results**

 2013 Varietiesa

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Byr d |  | Antero |  | Brawl CL Plus |  | Denali |  | Hatcher |  | Snowmass |  | COFT Average |  |
| Test |  | Protein | Test | Protein | Test | Protein | Test | Protein | Test | Protein | Test | Protein | Test | Protein |

County/Nearest Town Yieldb Weight Protein Yieldc Yieldb Weight Protein Yieldc Yieldb Weight Protein Yieldc Yieldb Weight Protein Yieldc Yieldb Weight Protein Yieldc Yieldb Weight Protein Yieldc Yieldb Weight Protein Yieldc

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| bu/ac lb/bu percent lb/ac Baca/Vilas 8.2 56.1 - - Kit Carson/Burlington 15.0 57.9 16.4 147Lincoln/Arriba 32.8 57.5 15.0 295Logan/Leroy 25.6 59.0 11.7 180Logan/Peetz 30.1 59.0 - - Logan/Sterling W 34.8 55.0 14.1 295Phillips/Haxtun 48.0 53.8 14.0 403Washington/Akron S 39.0 60.0 13.7 320Washington/Akron W 16.7 55.0 13.7 137Washington/Central 21.3 55.5 12.4 159Washington/Otis 48.8 58.5 14.1 414Weld/Keenesburg 37.7 56.0 15.1 343Weld/New Raymer 26.8 56.5 14.0 225Weld/Roggen 49.8 59.0 - - Yuma/Yuma 37.8 59.6 9.3 210 | bu/ac lb/bu percent lb/ac10.0 55.2 - -12.5 59.0 16.5 12436.3 56.6 14.6 31924.2 59.5 11.6 16830.8 59.0 - -32.0 56.0 13.5 26043.3 54.1 14.5 37836.3 60.0 14.0 30519.8 55.0 14.5 17222.6 58.5 12.6 17139.9 58.5 14.5 34633.1 57.0 14.4 28733.0 57.0 13.0 25856.6 60.0 - -34.1 60.3 9.2 188 | bu/ac lb/bu percent lb/ac6.5 57.9 - -16.5 58.6 16.6 16434.8 56.6 14.9 31224.2 62.0 12.9 18719.6 59.0 - -35.3 55.5 14.3 30446.7 55.4 14.9 41740.5 61.5 15.0 36418.1 56.0 14.9 16222.0 56.9 13.1 17342.5 60.5 15.0 38235.3 56.5 15.1 32024.9 58.0 13.8 20648.4 60.0 - -37.0 61.5 9.8 218 | bu/ac lb/bu percent lb/ac5.2 57.1 - -14.2 59.1 16.0 13737.0 55.6 14.3 31726.9 59.0 11.5 18637.8 58.0 - -31.5 56.0 14.0 26544.5 55.8 14.2 37834.8 62.0 14.0 29217.0 56.0 15.5 15721.7 58.2 13.9 18241.7 61.0 14.4 36227.9 58.0 14.9 25025.3 57.0 14.5 22052.2 60.0 - -33.7 61.2 9.7 197 | bu/ac lb/bu percent lb/ac5.7 56.0 - -11.5 59.1 16.1 11131.6 55.8 14.1 26723.4 59.5 11.4 16036.3 57.2 - -33.8 56.5 13.7 27743.5 52.8 13.9 36330.5 60.0 14.4 26415.6 55.0 14.1 13220.4 57.5 12.6 15440.2 59.0 14.1 34034.7 59.0 13.4 27926.2 56.0 13.9 21849.4 61.0 - -32.8 59.4 9.4 185 | bu/ac lb/bu percent lb/ac6.3 54.6 - -11.4 58.2 15.2 10428.4 55.4 15.0 25621.1 58.0 11.7 14829.6 58.0 - -27.2 53.5 13.0 21236.3 52.4 14.1 30637.8 60.0 12.6 28515.5 55.0 14.5 13519.8 55.3 11.5 13734.8 59.0 13.4 28125.2 57.0 13.3 20126.7 56.0 13.1 21041.0 60.0 - -27.8 59.1 9.0 150 | bu/ac lb/bu percent lb/ac*7.0 56.2 - -**13.5 58.7 15.2 104**33.5 56.3 15.0 256**24.2 59.5 11.7 148**30.7 58.4 - -**32.4 55.4 13.0 212**43.7 54.1 14.1 306**36.5 60.6 12.6 285**17.1 55.3 14.5 135**21.3 57.0 11.5 137**41.3 59.4 13.4 281**32.3 57.3 13.3 201**27.1 56.8 13.1 210**49.6 60.0 - -**33.9 60.2 9.0 150* |

**Average**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **31.5 57.2 13.6 261 31.0 57.7 13.6 248 30.1 58.4 14.2** | **267** | **30.1 58.3** | **13.9** | **245** | **29.0** | **57.6** | **13.4** | **229** | **25.9** | **56.8** | **13.0** | **202** | ***29.6*** | ***57.7*** | ***13.0*** | ***202*** |
| A A,B B,C |  | B,C |  |  | C |  |  |  | D |  |  |  |  |  |  |  |

Significanced

LSD (P<0.30) for yield = 1.2 bu/ac

LSD (P<0.30) for test weight = 0.3 lb/bu LSD (P<0.30) for protein = 0.3 percent LSD (P<0.30) for protein yield = 12 lb/ac

aVarieties are ranked left to right by highest average yield.

bThe protein yield is calculated by multiplying the grain yield by the percent grain protein.

cAll yields are corrected to 12% moisture.

dSignificance: Varieties with different letters have yields that are significantly different from one another.

21