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

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**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 16.4 147  Lincoln/Arriba 32.8 57.5 15.0 295  Logan/Leroy 25.6 59.0 11.7 180  Logan/Peetz 30.1 59.0 - - Logan/Sterling W 34.8 55.0 14.1 295  Phillips/Haxtun 48.0 53.8 14.0 403  Washington/Akron S 39.0 60.0 13.7 320  Washington/Akron W 16.7 55.0 13.7 137  Washington/Central 21.3 55.5 12.4 159  Washington/Otis 48.8 58.5 14.1 414  Weld/Keenesburg 37.7 56.0 15.1 343  Weld/New Raymer 26.8 56.5 14.0 225  Weld/Roggen 49.8 59.0 - - Yuma/Yuma 37.8 59.6 9.3 210 | bu/ac lb/bu percent lb/ac  10.0 55.2 - -  12.5 59.0 16.5 124  36.3 56.6 14.6 319  24.2 59.5 11.6 168  30.8 59.0 - -  32.0 56.0 13.5 260  43.3 54.1 14.5 378  36.3 60.0 14.0 305  19.8 55.0 14.5 172  22.6 58.5 12.6 171  39.9 58.5 14.5 346  33.1 57.0 14.4 287  33.0 57.0 13.0 258  56.6 60.0 - -  34.1 60.3 9.2 188 | bu/ac lb/bu percent lb/ac  6.5 57.9 - -  16.5 58.6 16.6 164  34.8 56.6 14.9 312  24.2 62.0 12.9 187  19.6 59.0 - -  35.3 55.5 14.3 304  46.7 55.4 14.9 417  40.5 61.5 15.0 364  18.1 56.0 14.9 162  22.0 56.9 13.1 173  42.5 60.5 15.0 382  35.3 56.5 15.1 320  24.9 58.0 13.8 206  48.4 60.0 - -  37.0 61.5 9.8 218 | bu/ac lb/bu percent lb/ac  5.2 57.1 - -  14.2 59.1 16.0 137  37.0 55.6 14.3 317  26.9 59.0 11.5 186  37.8 58.0 - -  31.5 56.0 14.0 265  44.5 55.8 14.2 378  34.8 62.0 14.0 292  17.0 56.0 15.5 157  21.7 58.2 13.9 182  41.7 61.0 14.4 362  27.9 58.0 14.9 250  25.3 57.0 14.5 220  52.2 60.0 - -  33.7 61.2 9.7 197 | bu/ac lb/bu percent lb/ac  5.7 56.0 - -  11.5 59.1 16.1 111  31.6 55.8 14.1 267  23.4 59.5 11.4 160  36.3 57.2 - -  33.8 56.5 13.7 277  43.5 52.8 13.9 363  30.5 60.0 14.4 264  15.6 55.0 14.1 132  20.4 57.5 12.6 154  40.2 59.0 14.1 340  34.7 59.0 13.4 279  26.2 56.0 13.9 218  49.4 61.0 - -  32.8 59.4 9.4 185 | bu/ac lb/bu percent lb/ac  6.3 54.6 - -  11.4 58.2 15.2 104  28.4 55.4 15.0 256  21.1 58.0 11.7 148  29.6 58.0 - -  27.2 53.5 13.0 212  36.3 52.4 14.1 306  37.8 60.0 12.6 285  15.5 55.0 14.5 135  19.8 55.3 11.5 137  34.8 59.0 13.4 281  25.2 57.0 13.3 201  26.7 56.0 13.1 210  41.0 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.

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