2011 Collaborative On-Farm Tests (COFT) Results

The objective of the 2011 COFT was to compare performance and adaptability of popular

and newly released CSU varieties (Snowmass, Hatcher, Ripper, and Bill Brown), and promising

commercial varieties from WestBred (Winterhawk) and Watley Seed (TAM 112) under unbiased,

commercial-scale testing conditions. The COFT program is in its 13th year and much of

Colorado’s 2011 wheat acreage was planted to winter wheat varieties that have been tested in

the COFT program. In the fall of 2010, twenty-three eastern Colorado wheat producers planted

COFT trials in Baca, Prowers, Kiowa, Cheyenne, Kit Carson, Washington, Yuma, Phillips, Bent,

Logan, Adams, and Weld counties. Each collaborator planted six varieties in side-by-side strips

(approximately 1.25 acres per variety) at the same time and at the same seeding rate as they

seeded their own wheat. Despite the difficult 2010-2011 growing conditions, viable harvest

results were obtained from 20 of the 23 tests.

The COFT trial results need to be interpreted based on the average across all tests within a year and not on the basis of a single variety comparison on a single farm in one year.

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2011 Collaborative On-Farm Tests (COFT) Variety Performance Results

2011 Varietiesa

Bill Brown Hatcher Winterhawk Snowmass

Ripper TAM 112 COFT Average

County/Town Yieldb

Test

Weight Proteind Yieldb

Test

Weight Proteind Yieldb

Test

Weight Proteind Yieldb

Test

Weight Proteind Yieldb

Test

Weight Proteind Yieldb

Test

Weight Proteind Yieldb

Test

Weight Proteind

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| bu/ac lb/bu percent  Adams/Bennett 48.0 61.0 9.3  Baca/Vilas 18.0 60.0 12.6  Baca/Walsh 26.4 61.0 - Bent/Lamar 23.6 60.5 12.1  Cheyenne/Arapahoe 24.7 59.3 - Cheyenne/Cheyenne Wells 68.6 59.0 9.6  Kit Carson/Bethune 52.8 61.7 12.7  Kit Carson/Stratton 88.4 60.5 11.4  Logan/Leroy 66.6 61.5 9.4  Logan/Peetz 18.7 60.0 12.6  Logan/Sterling W 48.7 59.0 12.2  Phillips/Haxtun 71.0 59.0 10.5  Prowers/Lamar 23.9 59.0 12.1  Washington/Akron E 60.1 56.5 13.7  Washington/Woodlin 65.6 60.5 10.2  Weld/Keenesburg 64.8 58.5 12.5  Weld/New Raymer 33.3 57.5 11.8  Weld/Prospect Valley 48.5 57.0 13.0  Yuma/Wray 59.6 54.0 11.2  Yuma/Yuma 30.6 60.0 10.0 | bu/ac lb/bu percent  45.4 59.5 10.4  17.5 61.5 12.3  26.3 61.0 -  25.6 60.5 12.4  24.2 59.5 13.7  58.8 62.5 10.0  45.0 60.2 12.3  84.4 57.5 -  67.4 60.5 10.0  21.5 59.0 12.5  52.3 58.0 12.0  77.2 60.0 9.8  28.8 62.5 12.0  60.2 56.0 13.3  59.5 60.5 10.8  69.5 58.5 12.4  31.6 57.0 11.7  47.8 55.5 12.4  66.2 56.3 -  30.4 60.0 10.2 | bu/ac lb/bu percent  49.4 62.0 9.4  19.8 61.5 12.0  24.3 62.0 -  20.7 58.0 12.4  20.3 59.5 13.7  58.3 61.5 10.7  47.1 60.2 12.5  76.0 55.7 11.0  62.8 62.0 10.0  17.1 60.0 12.8  46.0 60.0 12.8  80.5 60.0 10.4  17.9 61.5 13.3  55.7 58.0 13.3  60.7 62.0 10.4  58.7 60.0 13.1  28.3 57.5 12.0  43.7 57.0 12.5  76.1 59.0 9.9  31.0 60.0 10.0 | bu/ac lb/bu percent  38.7 60.5 9.9  15.4 57.0 13.6  26.0 62.0 -  24.0 60.0 12.3  24.0 59.5 14.3  58.4 62.0 11.0  50.0 59.7 12.4  87.0 59.2 12.1  65.9 61.5 10.1  17.0 59.0 12.5  45.8 58.6 12.0  80.5 60.0 11.8  25.6 62.0 12.3  56.4 56.0 10.4  56.1 62.5 10.5  49.8 58.5 13.1  31.4 55.5 11.6  40.9 56.0 13.3  65.9 58.0 10.3  31.6 59.0 10.7 | bu/ac lb/bu percent  40.5 59.5 10.4  20.6 61.0 12.7  28.3 61.0 -  27.6 59.0 12.1  25.3 59.0 14.0  58.8 60.5 10.6  46.0 59.5 -  87.1 59.4 12.0  63.8 60.5 10.6  13.9 56.0 14.6  48.0 56.5 12.3  71.0 58.0 11.1  24.5 60.5 12.8  58.6 57.5 14.4  55.3 61.0 11.1  54.7 58.5 13.0  33.3 55.5 11.8  42.0 56.0 13.8  55.1 54.0 11.7  31.6 60.0 10.5 | bu/ac lb/bu percent  39.5 62.0 10.4  18.4 60.5 14.1  23.5 61.0 -  22.2 59.0 13.4  19.2 60.0 14.0  63.1 60.0 11.3  40.1 59.7 12.9  84.1 59.7 12.5  63.3 62.0 9.9  14.6 60.0 13.5  44.2 58.5 12.9  80.5 60.0 10.4  23.0 60.0 13.7  63.0 57.5 13.9  60.1 62.5 10.5  58.0 59.0 14.1  29.5 58.0 12.6  42.7 57.0 13.8  62.1 57.0 11.3  26.1 60.0 10.6 | bu/ac lb/bu percent  *43.6 60.8 10.0*  *18.3 60.3 12.9*  *25.8 61.3 -*  *23.9 59.5 12.5*  *23.0 59.5 13.9*  *61.0 60.9 10.5*  *46.8 60.2 12.5*  *84.5 58.7 11.8*  *65.0 61.3 10.0*  *17.1 59.0 13.1*  *47.5 58.4 12.4*  *76.8 59.5 10.7*  *23.9 60.9 12.7*  *59.0 56.9 13.2*  *59.5 61.5 10.6*  *59.3 58.8 13.0*  *31.2 56.8 11.9*  *44.3 56.4 13.2*  *64.2 56.4 10.9*  *30.2 59.8 10.3* |

Average 47.1 59.3 47.0 59.3 44.7 59.9 44.5 59.3 44.3 58.6 43.9 59.7 *45.2 59.3*

10

Significancec Yield A A B B B B LSD (0.30) for yield = 1.2 bu/ac

aVarieties are ranked left to right by highest average yield

bYield corrected to 12% moisture

cSignificance: Varieties with different letters are significantly different from one another based on the LSD values (1.2 bu/ac for yield)

dA different apparatus was used to determine protein content in locations north and south of I-70. Northern locations were analyzed by the Wheat Improvement Program in Ft. Collins, CO and the southern locations were analyzed at a grain elevator in Lamar, CO. Protein content from northern locations cannot be compared to those in the southern locations and vice versa.

Variety Summary of 2011 Collaborative On-Farm Tests (COFT)

Variety Summary of 2011 Collaborative On-Farm Tests (COFT)

Locations North and

South of I-70

2011 Overall (20)a

North (14)a South (6)a

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Varietyb | Yieldc,d | Test Weight |  |  | Proteine |
|  | bu/ac | lb/bu |  |  | percent |
| Bill Brown | 47.1 A | 59.3 A B |  | 11.5 | 11.6 A B |
| Hatcher | 47.0 A | 59.3 A B |  | 11.5 | 12.1 A B |
| Winterhawk | 44.7 B | 59.9 A |  | 11.6 | 12.4 A |
| Snowmass | 44.5 B | 59.3 A B |  | 11.5 | 12.7 A |
| Ripper | 44.3 B | 58.6 B |  | 12.1 | 12.4 A |
| TAM 112 | 43.9 B | 59.7 A |  | 12.2 | 13.3 A |

LSD (0.30) 1.2 1.0 NS 1.1

aNumber of locations used

bVarieties are ranked by highest average yield overall

cYield corrected to 12% moisture

dSignificance: Varieties with different letters are significantly different from one another based on the LSD values

eA different apparatus was used to determine protein content in the northern locations than the southern locations. Northern locations were analyzed by the Wheat Improvement Program in Ft. Collins, CO and the southern locations were analyzed at a grain elevator in Lamar, CO.