**2007 Collaborative On-Farm Test (COFT) Performance Trial Results**

Much of Colorado's 2007 wheat acreage was planted to winter wheat varieties that have been tested in the COFT program which is in its ninth year of testing. With on-farm testing, wheat producers can evaluate new varieties on their own farms before seed of the new varieties is available on the market to all farmers. On-farm testing directly involves agents and producers in the variety development process, thereby speeding adoption of new, superior varieties.

Colorado State University Cooperative Extension specialists have a large responsibility for the success of this program - recruiting volunteer growers, delivering seed, planning test layout and operations, helping with planting, keeping records, coordinating visits, communicating with growers and campus coordinators, coordination of weighing plots and measuring yields. Equally important, COFT would not be possible without the collaboration of so many dedicated wheat producers throughout eastern Colorado.

Eastern Colorado Cooperative Extension Wheat Educators and On-Farm Test Coordinators

Name Title Office Location

|  |  |  |
| --- | --- | --- |
| Bruce Bosley | Platte River agronomist | Sterling |
| Scott Brase  Alan Helm | SE Area agronomist  Golden Plains specialist | Lamar  Holyoke |

Ron Meyer Golden Plains agronomist Burlington

In the fall of 2006, nineteen eastern Colorado wheat producers (including the Plainsman Research Center at Walsh) planted 22 COFT trials in Baca, Prowers, Kiowa, Cheyenne, Kit Carson, Phillips, Logan, Adams, and Weld counties. Working with local Extension specialists, each collaborator received 100-150 pounds seed of each variety and planted the six varieties in side-by-side strips. The objective of the 2007 COFT was to compare performance and adaptability of newly-released varieties to varieties they might replace in Colorado for selection of the best performing hard red variety (Hatcher and Ripper), the best hard white variety (Avalanche and Danby), or the best Clearfield\* wheat variety (Above and Bond CL).

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| --- | --- | --- |
| **Variety Performance in the 2007 Collaborative On-Farm Test** | Test |  |
| County/Town | Average | Comment |
| Adams/Byers | 75.1 | Deep snow cover, no-till, high fertility |
| Weld/Keenesburg | 42.7 | Variable weed infestations by variety |
| Weld/New Raymer | 39.4 | No-till, good fertility |
| Logan/Sterling W | 54.3 | No-till, good fertility, fair finishing moisture |
| Logan/Fleming | 35.3 | Low soil moisture mid May to mid June |
| Logan/Peetz | 41.3 | Good finishing moisture |
| Phillips/Paoli \*6 | 52.8 | Fertilized for high yield |
| Phillips/Haxtun \*6 | 35.1 | Wheat Steak Mosaic Virus |
| Phillips/Haxtun \*3 | 33.4 | Wheat Steak Mosaic Virus |
| Yuma/Yuma \*6 | 32.2 | Low fertility |
| Yuma/Yuma \*3 | 31.0 | Low fertility |
| Washington/Anton | 15.6 | Severe hail 5/14 |
| Kit Carson/Bethune | 32.4 | Dry in fall 2006. |
| Kit Carson/Burlington | 57.8 | Excellent soil moisture fall 2006 and early 2007 |
| Cheyenne/Arapahoe | 58.0 | Little moisture after snow, late rust |
| Kiowa/Haswell | 19.6 | Severe hail 5/29, broken & heads stems |
| Kiowa/Towner | 47.2 | Stripe & leaf rust largest factor |
| Prowers/Two Buttes | 63.8 | Great moisture, heavy stripe & leaf rust |
| Baca/Springfield | 55.7 | Little moisture after snow |
| Baca/Walsh I | 48.6 | Deep snow cover, little moisture after snow. |
| Baca/Walsh II | 45.0 | Deep snow cover, little moisture after snow. |
| Baca/Vilas | 30.7 | Spring drought, leaf and stripe rust |
| Average Yield |  |  |
| LSD(0.30)  Significance |  |  |

1. \*6 - Trials planted specifically at 600,000 seeds/acre

2. \*3 - Trials planted specifically at

300,000 seeds/acre

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | HRW varieties  Hatcher Ripper | Clearfield Varieties  Bond CL Above | HWW varieties  Danby Avalanche |  |
| Yield (bu/ac) at 13% moisture | | |
| 82.1 77.7  53.6 45.8  41.6 41.9  57.4 53.4  36.3 37.4  45.2 46.1  51.2 51.3  37.7 38.6  33.5 32.3  30.1 38.7  27.4 26.8  22.1 17.7  36.1 31.5  62.1 56.2  60.7 69.8  27.8 22.4  49.3 40.7  76.6 52.0  58.0 55.1  53.4 42.7  49.5 43.1  33.2 21.9 | 77.6 72.1  41.5 37.5  37.8 39.0  59.2 49.2  34.7 36.9  39.1 40.0  52.9 58.2  27.2 36.4  29.6 41.2  29.7 33.9  35.1 37.9  14.9 11.5  30.9 33.6  56.6 51.6  60.7 58.4  21.9 17.4  50.9 48.0  60.3 55.5  56.1 57.1  51.5 49.5  46.2 46.0  32.9 30.3 | 72.1 69.0  38.6 39.0  37.5 38.5  55.4 51.3  31.9 34.5  41.1 36.5  50.6 52.4  33.3 37.2  31.3 32.7  31.5 29.0  27.2 31.7  17.6 9.5  31.2 31.2  66.0 54.4  54.6 43.7  15.1 13.2  49.0 45.1  76.7 61.5  53.9 53.7  51.5 43.1  45.3 39.8  38.0 28.0 |
|  | 46.6 42.9  1.6  A B | 43.1 42.8  1.2  NS | 43.2 39.8  1.2  A B | 43.0 |

3. LSD and Significance are specific to the

intended variety comparisons

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