

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 Varieties^a

County/Nearest Town	Byrd			Antero			Brawl CL Plus			Dentali			Hatchler			Snowmass			COFT Average						
	Yield ^b bu/ac	Weight lb/ bu	Protein percent	Yield ^b bu/ac	Weight lb/ bu	Protein percent	Yield ^b bu/ac	Weight lb/ bu	Protein percent	Yield ^b bu/ac	Weight lb/ bu	Protein percent	Yield ^b bu/ac	Weight lb/ bu	Protein percent	Yield ^b bu/ac	Weight lb/ bu	Protein percent	Yield ^b bu/ac	Weight lb/ bu	Protein percent				
																						Test	Test	Test	Test
Baca/Vilas	8.2	56.1	-	10.0	55.2	-	6.5	57.9	-	5.2	57.1	-	5.7	56.0	-	6.3	54.6	-	7.0	56.2	-	-	-	-	
Kit Carson/Burlington	15.0	57.9	16.4	14.7	12.5	59.0	16.5	58.6	16.6	16.4	14.2	59.1	16.0	13.7	11.5	59.1	16.1	11.1	104	13.5	58.7	15.2	104	104	
Lincold/Arriba	32.8	57.5	15.0	29.5	36.3	56.6	14.6	31.9	34.8	56.6	14.9	31.2	37.0	55.6	14.3	31.7	31.6	55.8	14.1	267	28.4	55.4	15.0	256	256
Logan/Leroy	25.6	59.0	11.7	18.0	24.2	59.5	11.6	16.8	24.2	62.0	12.9	18.7	26.9	59.0	11.5	18.6	23.4	59.5	11.4	160	21.1	58.0	11.7	148	148
Logan/Peetz	30.1	59.0	-	-	30.8	59.0	-	-	19.6	59.0	-	-	37.8	58.0	-	-	36.3	57.2	-	-	29.6	58.0	-	-	-
Logan/Sterling W	34.8	55.0	14.1	29.5	32.0	56.0	13.5	26.0	35.3	55.5	14.3	30.4	31.5	56.0	14.0	26.5	33.8	56.5	13.7	277	27.2	53.5	13.0	212	212
Phillips/Haxtun	48.0	53.8	14.0	40.3	43.3	54.1	14.5	37.8	46.7	55.4	14.9	41.7	44.5	55.8	14.2	37.8	43.5	52.8	13.9	363	36.3	52.4	14.1	306	306
Washington/Akron S	39.0	60.0	13.7	32.0	36.3	60.0	14.0	30.5	40.5	61.5	15.0	36.4	34.8	62.0	14.0	29.2	30.5	60.0	14.4	264	37.8	60.0	12.6	285	285
Washington/Akron W	16.7	55.0	13.7	13.7	19.8	55.0	14.5	17.2	18.1	56.0	14.9	16.2	17.0	56.0	15.5	15.7	15.6	55.0	14.1	132	15.5	55.0	14.5	135	135
Washington/Central	21.3	55.5	12.4	15.9	22.6	58.5	12.6	17.1	22.0	56.9	13.1	17.3	21.7	58.2	13.9	18.2	20.4	57.5	12.6	154	19.8	55.3	11.5	137	137
Washington/Otis	48.8	58.5	14.1	41.4	39.9	58.5	14.5	34.6	42.5	60.5	15.0	38.2	41.7	61.0	14.4	36.2	40.2	59.0	14.1	340	34.8	59.0	13.4	281	281
Weld/Keenesburg	37.7	56.0	15.1	34.3	33.1	57.0	14.4	28.7	35.3	56.5	15.1	32.0	27.9	58.0	14.9	25.0	34.7	59.0	13.4	279	25.2	57.0	13.3	201	201
Weld/New Raymer	26.8	56.5	14.0	22.5	33.0	57.0	13.0	25.8	24.9	58.0	13.8	20.6	25.3	57.0	14.5	22.0	26.2	56.0	13.9	218	26.7	56.0	13.1	210	210
Weld/Roggen	49.8	59.0	-	-	56.6	60.0	-	-	48.4	60.0	-	-	52.2	60.0	-	-	49.4	61.0	-	-	41.0	60.0	-	-	-
Yuma/Yuma	37.8	59.6	9.3	21.0	34.1	60.3	9.2	18.8	37.0	61.5	9.8	21.8	33.7	61.2	9.7	19.7	32.8	59.4	9.4	185	27.8	59.1	9.0	150	150
Average	31.5	57.2	13.6	26.1	31.0	57.7	13.6	24.8	30.1	58.4	14.2	26.7	30.1	58.3	13.9	24.5	29.0	57.6	13.4	229	25.9	56.8	13.0	202	202

Significance^d

A

A,B

B,C

C

D

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.