

Title: Durum variety evaluations in the Western Triangle Area.

Year: 2005

Location: Western Triangle Research Center, Conrad, MT.

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Dryland and irrigated durum variety trials were grown on fallow at Conrad. A dryland off-station durum trial was no-till planted on chemical fallow at the Knees area in western Choteau County.

Results: Data for the durum trials are presented in Tables 1-6, and include the 2005 and multi-year averages. Irrigation water shortages allowed only one application to the irrigated trial in 2005. Consequently, the irrigated yields were less than normal potential (Table 6).

Test weights at the Knees averaged 57.6 lbs/bu, indicating this area may have a higher risk of failure to produce market quality durum (Table 2). In the Conrad dryland and irrigated trials, Maier and 'Ben' had the highest test weights, and 'Monroe' and Alzada had the earliest head dates.

The highest yielding varieties on dryland were 'Avonlea', 'Alzada', 'Maier', and 'Mountrail', with Avonlea, Alzada and Maier also having average or better test weights (Table 4). For irrigated durum, Mountrail, Alzada, and 'Plaza' were the highest yielding varieties (Table 6).

Future Plans: Variety trials will be repeated in 2006 at these same locations.

Table 1. 2005 **Durum** variety trial, Knees area, MT.

Variety	Yield bu/a	Test Wt lb/bu	Height in.	Protein %
McNeal (spr wheat)	53.4	56.4	34	15.7
Plaza	49.2	56.6	35	17.4
Alzada	48.3	55.5	32	17.4
Lebsock	47.9	58.2	41	17.7
Maier	47.6	56.7	38	18.2
Monroe	47.3	56.9	42	17.8
Avonlea	47.1	57.1	42	18.3
Mountrail	47.1	55.9	38	17.7
Dilse	47.1	57.9	38	17.6
Munich	45.5	56.2	39	18.8
Vic	45.0	58.6	42	17.9
Pierce	43.6	56.8	41	18.7
Ben	42.4	57.6	42	18.6
Kyle	41.7	57.4	46	18.2
mean	46.7	57.0	39.3	17.9

LSD (.05) = 6.7 bu. C.V.1&2 = 8.5 & 4.9

Cooperator/Location: Dan Picard, western Chouteau Co.

Planted April 11, 2005 on chem-fallow.

Fertilizer, actual: 71-52-0

Harvested Aug 9, 2005.

Conducted by MSU Western Triangle Ag Research Ctr.

Table 2. Four-year average, **Durum** varieties, Knees area, Chouteau Co. 2002-05.

Variety	4-Year Average			
	Yield bu/a	Test weight	Height in.	Protein %
McNeal (Spr Wheat)	42.5	55.2	33.5	15.9
Monroe	41.4	57.7	39.3	17.0
Alzada, WestBred	40.5	56.7	30.0	16.4
Maier	40.4	57.5	35.0	17.5
Mountrail	40.3	56.7	35.8	16.8
Lebsock	39.9	59.5	36.0	16.4
Avonlea	39.7	57.6	38.0	17.3
Dilse	39.2	57.5	35.9	17.3
Plaza	38.5	57.3	30.8	16.1
Munich	37.9	57.0	35.0	17.1
Vic	37.5	59.5	39.2	16.9
Kyle	36.9	57.9	40.3	16.9
Ben	36.7	58.1	38.3	17.5
Pierce	36.5	57.1	37.8	17.5
nursery mean	39.2	57.6	36.3	16.9

Cooperator & Location: Dan Picard, Chouteau Co. MT
 Conducted by MSU Western Triangle Agr Research Center.

Table 3. 2005 **dryland Durum** variety trial, Conrad, MT.

Variety	Yield bu/a	Test Wt lb/bu	Height in.	Head date	Protein %
Alzada	59.8	60.4	31	182	15.2
McNeal (spr wht)	57.4	58.8	36	184	15.6
Strongfield	55.5	59.0	39	185	16.4
Avonlea	55.4	59.3	39	184	16.8
Maier	54.5	60.5	34	184	16.2
Pierce	50.9	60.3	39	184	16.0
Vic	50.6	62.0	44	184	15.6
Lebsock	50.5	60.3	37	184	16.4
Plaza	50.2	58.1	29	185	16.2
Kyle	50.1	59.7	45	186	16.5
Monroe	49.3	58.8	40	182	16.7
Munich	49.1	59.1	36	184	16.9
Mountrail	47.9	58.3	39	185	16.6
Dilse	47.3	60.2	35	185	17.2
Ben	45.7	60.7	41	185	16.9
mean	51.6	59.7	37.6	184.2	16.3
LSD (.05) = 9.1 bu. C.V.1&2 = 10.6 & 6.1					

Planted April 25, 2005 on fallow.

Fertilizer, actual: 71-52-0

Harvested Aug 22, 2005.

Location: MSU Western Triangle Ag Research Ctr, Conrad, MT

Table 4. Four-year averages, **dryland Durum** varieties, Conrad area, Pondera Co. 2002 - 05.

Variety	4-Year Average				
	Yield bu/a	Test weight	Height in.	Head date	Protein %
Alzada, WestBred	52.8	60.3	31.0	182.0	13.9
McNeal (Spr Wheat)	52.6	59.0	33.8	184.8	14.2
Avonlea	52.0	60.2	36.5	184.0	15.2
Maier	50.4	61.1	33.3	184.8	14.4
Mountrail	49.6	59.8	36.0	185.3	14.1
Plaza	48.4	59.3	29.5	185.0	14.0
Kyle	47.8	60.0	40.5	186.3	14.8
Munich	47.8	59.8	33.8	183.5	14.6
Pierce	47.2	60.8	36.4	184.5	14.5
Lebsock	46.0	60.8	34.8	184.3	14.0
Dilse	45.8	60.5	34.0	185.8	15.2
Ben	44.1	61.2	37.3	184.5	14.6
Monroe	43.8	59.8	36.3	181.5	14.9
Vic	42.9	61.0	38.5	184.0	14.5
nursery mean	48.0	60.3	35.1	184.3	14.5

Location: MSU Western Triangle Agr Research Center, Conrad, MT.

Table 5. 2005 irrigated Durum variety trial, Conrad, MT.

Variety	Yield bu/a	Test Wt lb/bu	Height in.	Head date	Protein %
Alzada WestBred	55.3	60.7	31	182	15.8
Mountrail	54.5	60.8	35	185	15.7
Plaza	52.9	59.3	29	184	16.6
Maier	51.9	60.6	35	184	17.0
Pierce	51.8	60.7	39	185	16.6
McNeal (spr wheat)	51.8	58.6	35	184	15.0
Avonlea	50.3	59.6	39	182	17.4
Lebsock	50.1	60.4	37	183	16.7
Monroe	48.3	59.8	40	181	16.7
Munich	46.8	59.8	35	183	17.1
Dilse	46.6	60.5	36	185	17.8
Ben	46.4	61.1	39	184	17.2
Vic	44.1	61.4	40	183	16.8
Kyle	43.9	60.3	44	186	16.4
mean	49.6	60.3	36.7	183.6	16.6

LSD (.05) = 9.3 bu. C.V.1&2 = 11.2 & 6.5

Planted April 25, 2005 on fallow.

Fertilizer, actual: 100-52-0

Harvested Aug 22, 2005.

Location: MSU Western Triangle Ag Research Ctr, Conrad, MT

Table 6. Four-year average, **irrigated Durum** varieties, Conrad area, Pondera Co. 2002 - 05.

Variety	4-Year Average				
	Yield bu/a	Test weight	Height in.	Head date	Protein %
Mountrail	81.5	62.0	37.5	184.8	13.2
Alzada, WestBred	80.6	62.6	33.3	182.0	13.8
Plaza	80.3	61.6	31.5	184.8	13.6
Avonlea	78.4	61.9	38.8	182.8	14.6
Munich	77.7	61.5	36.3	183.5	14.3
Maier	77.1	62.7	35.8	184.0	14.1
McNeal (Spr Wheat)	77.1	60.7	35.8	184.3	13.5
Pierce	76.6	62.4	40.2	185.2	13.4
Lebsock	74.2	62.1	37.8	183.8	14.3
Dilse	73.8	62.4	38.2	185.2	14.3
Ben	69.2	62.6	39.0	184.0	14.1
Kyle	66.3	61.4	43.3	185.8	14.2
Vic	65.1	62.3	41.3	183.8	14.4
Monroe	57.1	61.9	39.5	181.3	14.5
nursery mean	73.9	62.0	37.7	183.9	14.0

Location: MSU Western Triangle Agr Research Center, Conrad, MT.