

**Project Title:** Evaluation of durum varieties under dryland conditions at four off-station sites

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**Summary:** Due to the dry soil condition at planting in 2020, we were not able to plant the Valley County site at Nashua, MT. The Wibaux County site had very bad weed infestation in half of the experimental plots, therefore, the yield data are not reported here.

Table 1. Roosevelt County dryland durum wheat Poplar, MT 2020.

Variety	PlantHeight in	TestWeight† lb/bu	Protein %	GrainYield† bu/a
Alzada	27.3	63.6	14.2	46.1
Carpio	35.0	65.4	14.7	62.0
CDC-Dynamic	34.5	64.9	15.9	61.5
CDC-Fortitude	31.2	64.5	16.1	53.3
CDC-Vivid	34.3	65.0	16.3	58.8
Divide	35.8	65.1	15.7	59.0
Grenora	33.5	65.1	14.9	59.8
Joppa	36.4	65.6	14.5	57.7
Mountrail	32.6	65.2	15.1	66.6
MTD-16001	32.9	64.3	14.6	57.5
MTD16002	37.5	65.1	15.0	63.5
MTD16005	33.7	64.4	15.7	61.2
ND-Grano	34.1	65.8	15.2	59.6
ND-Riveland	36.1	65.1	14.8	62.7
Tioga	36.6	65.6	15.3	65.8
Transcend	36.9	65.1	16.4	53.6
Mean	34.3	65.0	15.3	59.3
P-Value	<0.0001	<0.0001	<0.0001	0.0006
CV (%)	3.7	0.6	1.4	7.4
LSD (0.05)	2.1	0.7	0.4	7.4

† Grain yield and test weight were adjusted to 12.0% moisture

#### Field Management

Previous crop:	Pea	Soil type:	Savage silty clay
Seeding date:	4/29/2020	Soil residual nitrate:	22 lb NO <sub>3</sub> -N/a
Season precipitation:	7.72 in	Soil test P <sub>2</sub> O <sub>5</sub> :	17.5 ppm
Harvest date:	8/25/2020	Nutrient fertilizer applied ( N, P <sub>2</sub> O <sub>5</sub> , K <sub>2</sub> O; lb/A):	63-19-0
-	-	Additional Fertilizer MASZ@80 lb/a	10-40-0-10(S)-1(Zn)

Table 2. Sheridan County dryland durum wheat Dagmar, MT 2020.

Variety	PlantHeight in	TestWeight† lb/bu	Protein %	GrainYield† bu/a
Alzada	25.6	64.9	13.5	46.1
Carpio	31.8	66.4	13.7	63.0
CDC-Dynamic	31.2	66.1	15.2	60.8
CDC-Fortitude	29.0	66.0	14.7	55.9
CDC-Vivid	32.0	65.8	15.1	57.7
Divide	31.4	66.4	14.6	57.4
Grenora	27.7	66.0	13.8	53.4
Joppa	31.8	66.5	13.6	52.6
Mountrail	30.8	65.9	14.1	58.7
MTD-16001	32.0	65.6	13.5	58.4
MTD16002	33.5	66.0	14.1	59.8
MTD16005	31.0	65.9	14.9	57.0
ND-Grano	31.5	66.5	13.8	54.4
ND-Riveland	32.4	65.6	14.2	55.1
Tioga	33.3	66.1	14.1	55.5
Transcend	32.3	66.6	15.3	61.9
Mean	31.1	66.0	14.3	56.7
P-Value	0.0002	<0.0001	<0.0001	0.0005
CV (%)	5.4	0.5	1.8	6.2
LSD (0.05)	2.8	0.5	0.4	5.9

† Grain yield and test weight were adjusted to 12.0% moisture

#### Field Management

Previous crop:	Lentil	Soil type:	Savage silty clay
Seeding date:	4/30/2020	Soil residual nitrate:	Not reported
Season precipitation:	5.68 in	Soil test P <sub>2</sub> O <sub>5</sub> :	Not reported
Harvest date:	8/31/2020	Nutrient fertilizer applied ( N, P <sub>2</sub> O <sub>5</sub> , K <sub>2</sub> O; lb/A):	63-19-0