

Title 2: Evaluation of durum varieties under dryland fallow and dryland recrop conditions at five off-station sites (Flaxville, Nashua, Poplar, Wibaux, and Plentywood).

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OBJECTIVES: To evaluate the performance of experimental lines and varieties of durum across eastern Montana.

MATERIALS AND METHODS:

Location:

- Daniels county (Flaxville)
- Roosevelt county (Poplar)
- Sheridan county (Plentywood)
- Valley county (Nashua)
- Wibaux county (Wibaux)

RESULTS:

Agronomic data are shown in Table 1-5.

Table 1: Daniels county durum evaluation

Entry	Height cm	Grain YLD lb/ac	Grain YLD bu/ac	Protein %	TW lb/bu
Mountrail	85	2752	46	10.3	60.4
Divide	89	3160	53	10.3	62.6
Alabo	87	2608	43	9.6	61.7
Grenora	85	2741	46	10.9	61.5
Tioga	82	2334	39	10.0	61.6
Carpio	88	3392	57	10.0	62.7
Joppa	80	2583	43	11.3	60.9
Alzada	84	2576	43	11.2	61.4
Silver	65	1439	24	12.8	58.9
Strongfield	90	2654	44	11.0	61.9
MT101717	63	1964	33	11.0	61.2
MT101694	82	1965	33	11.0	60.2
MT112434	69	1547	26	12.0	59.0
MT112444	65	1956	33	11.4	58.6
MT112463	66	1842	31	12.1	59.5
MT112219	64	2085	35	11.1	61.4
AVG	78	2350	39	11.0	60.8
Probability	0.0173	0.0003	0.0003	0.0008	<.0001
CV	14.5	19.4	19.4	6.8	1.5
LSD	19	761	13	1.3	1.5

Table 2: Roosevelt county durum evaluation

Entry	Height cm	Grain YLD lb/ac	Grain YLD bu/ac	Protein %	TW lb/bu
Mountrail	98	2408	40	15.4	60.8
Divide	106	2730	45	16.3	62.0
Alabo	98	2331	39	14.3	63.6
Grenora	101	2734	46	14.9	61.1
Tioga	105	2808	47	16.0	61.8
Carpio	99	3013	50	15.5	62.6
Joppa	101	2918	49	15.1	61.4
Alzada	81	2559	43	14.9	60.8
Silver	81	2520	42	15.2	60.3
Strongfield	103	2197	37	16.8	61.8
MT101717	75	2471	41	14.8	62.4
MT101694	98	2191	37	15.5	61.6
MT112434	71	1834	31	15.2	59.2
MT112444	82	2753	46	14.6	59.7
MT112463	82	2015	34	15.0	58.6
MT112219	76	2496	42	14.1	63.2
AVG	91	2499	42	15.2	61.3
Probability	<.0001	0.0018	0.0018	<.0001	<.0001
CV	4.5	12.2	12.2	1.9	1.3
LSD	7	509	8	0.5	1.3

Table 3: Sheridan county durum evaluation

Entry	Height cm	Grain YLD lb/ac	Grain YLD bu/ac	Protein %	TW lb/bu
Mountrail	74	2407	40	13.6	60.9
Divide	74	2325	39	14.1	62.0
Alabo	72	2132	36	13.0	61.6
Grenora	73	2302	38	13.0	60.9
Tioga	78	2586	43	13.8	61.6
Carpio	87	2334	39	13.6	61.4
Joppa	78	2453	41	13.1	61.3
Alzada	73	1462	24	13.8	58.9
Silver	65	1123	19	14.2	58.8
Strongfield	80	2226	37	15.0	61.7
MT101717	61	1978	33	13.0	61.8
MT101694	80	1864	31	13.3	61.1
MT112434	54	723	12	15.1	56.9
MT112444	76	1762	29	13.1	59.7
MT112463	64	1484	25	13.3	58.7
MT112219	67	1755	29	13.6	61.9
AVG	72	1932	32	13.7	60.6
Probability	0.0078	<.0001	<.0001	<.0001	<.0001
CV	11.8	8.3	8.3	2.3	0.6
LSD	14	268	4	0.5	0.6

Table 4: Valley county durum evaluation

Entry	Height cm	Grain YLD lb/ac	Grain YLD bu/ac	Protein %	TW lb/bu
Mountrail	75	1822	30	15.4	62.5
Divide	75	2032	34	16.0	63.6
Alabo	73	1494	25	14.3	63.5
Grenora	68	1946	32	14.9	62.7
Tioga	84	2249	37	15.2	64.0
Carpio	85	2470	41	15.7	63.2
Joppa	76	2043	34	14.8	63.7
Alzada	66	1738	29	15.7	63.3
Silver	62	1672	28	16.2	60.9
Strongfield	74	1920	32	16.3	64.0
MT101717	63	1783	30	14.2	65.9
MT101694	67	1611	27	14.8	63.9
MT112434	56	1547	26	14.9	62.5
MT112444	62	1936	32	14.9	62.7
MT112463	67	1598	27	14.9	62.5
MT112219	65	1973	33	14.2	65.7
AVG	70	1865	31	15.1	63.4
Probability	<.0001	0.0002	0.0002	<.0001	<.0001
CV	6.7	11.5	11.5	2.1	0.8
LSD	8	357	6	0.5	0.9

Table 5: Wibaux county durum evaluation

Entry	Height cm	Grain YLD lb/ac	Grain YLD bu/ac	Protein %	TW lb/bu
Mountrail	74	2796	47	12.8	64.3
Divide	71	2458	41	12.2	65.1
Alabo	68	2606	43	12.7	65.5
Grenora	68	2666	44	13.1	64.5
Tioga	76	2211	37	14.4	63.6
Carpio	77	2631	44	13.4	64.6
Joppa	65	1774	30	12.7	64.6
Alzada	63	1793	30	13.9	64.4
Silver	61	2352	39	13.8	63.6
Strongfield	79	2582	43	12.8	65.1
MT101717	60	2897	48	11.8	67.6
MT101694	73	2606	43	12.9	64.6
MT112434	58	2243	37	13.2	63.9
MT112444	65	2420	40	12.9	63.4
MT112463	65	3243	54	13.0	64.7
MT112219	59	1941	32	12.6	65.7
AVG	68	2451	41	13.0	64.7
Probability	<.0001	0.1396	0.1396	0.0363	<.0001
CV	6.4	22.3	22.3	5.8	1.1
LSD	7	910	15	1.3	1.2