

## COOPERATIVE SMALL GRAIN NURSERY TRIALS

Plantings in 1987 included: Uniform Regional Hard Red Spring Wheat, Project leader Dr. Robert Busch, University of Minnesota; Uniform Hard Red Winter Wheat, Dr. Darryl Cox, Agronomy Dept., North Dakota State University; Uniform Regional Durum, Project leader Dr. R.G. Cantrell, North Dakota State University; Uniform Early and Uniform Midseason Oats, Project leader Dr. Howard Rines, University of Minnesota; Western Spring Barley and Western Dryland Spring Barley, Project leader Dr. E.A. Hockett, Montana State University; and Advanced Two-row Barley Nursery, cooperator Dr. Jerry Franckowiak, North Dakota State University. Field performance reports are furnished to respective project leaders for evaluation and compilation into composite regional reports. Required samples for quality analysis are furnished to appropriate state or USDA cereal chemistry laboratories upon request of respective project leaders. Trials included 34 varieties and experimental lines in the Uniform Regional hard spring wheat trial; 30 lines in the Uniform Regional durum nursery; 80 varieties and experimentals in three barley nurseries and 57 varieties in the early and midseason oats nurseries. Yields were less than those of field plots. Hard red spring wheat yields ranged from a low of 17.3 bushels per acre to 23.5 bushels per acre. High field plot yield was 43.7 bushels per acre. D8302, a North Dakota experimental, was high producer in the Regional durum trials and ND 820294, at 38.8 bushels per acre, was the highest yielding North Dakota oats in the 1987 trials. A wide range of yields were produced by 80 barley lines, with a high yield of 55.1 bushels per acre recorded for Lewis. Barley yields ranged from a low of 24.4 to 55.1 bushels per acre. Individual nursery yields are set forth in Tables 32 through 38.

**Table 32. Uniform Regional Hard Red Spring Wheat Nursery**

<b>Entry</b>	<b>Bu/A Avg.</b>	<b>Test Wt. Lbs.</b>	<b>Heading Date</b>	<b>Height In.</b>	<b>1000 K.W. Grams</b>
Marquis	17.3	58.0	21-Jun	30	28.5
Chris	18.6	57.5	20-Jun	25	35.6
Stoa	20.4	58.0	18-Jun	24	39.4
Era	20.8	58.0	21-Jun	23	32.0
Butte 86	17.4	59.0	15-Jun	22	40.2
SD 2980	23.5	59.5	15-Jun	23	36.3
SD 2999	21.4	58.0	14-Jun	23	32.2
SD 3000	20.4	60.0	17-Jun	24	32.9
SD 3005	19.4	59.0	13-Jun	22	36.7
SD 8052	23.3	60.0	16-Jun	24	39.6
MN 82047	18.9	59.0	18-Jun	22	35.7
MN 81110	21.5	57.5	19-Jun	23	39.1
MN 82354	18.1	59.0	20-Jun	23	33.8
MN 84662	19.7	59.5	17-Jun	21	37.2
MN 84056	22.8	59.0	17-Jun	22	31.0
MT 8336	18.7	59.5	18-Jun	23	36.8
MT 8446	19.0	58.5	16-Jun	20	31.7
ND 606	20.1	58.5	18-Jun	24	35.2
ND 618	20.9	59.0	18-Jun	21	30.4
ND 626	20.1	60.0	17-Jun	21	39.7
ND 622	21.1	59.0	18-Jun	22	31.2
ND 640	22.2	59.0	21-Jun	22	34.0
HS 84-700	19.1	56.0	16-Jun	18	33.7
HS 84-873	20.0	58.5	17-Jun	18	35.3
HS 84-41	21.7	59.0	16-Jun	19	44.6
HS 84-692	21.7	58.0	20-Jun	21	37.6
2385	19.2	58.0	16-Jun	22	33.9
W 2501	22.4	56.5	17-Jun	19	34.0
FA 984-38	19.2	59.5	18-Jun	25	33.4
RH HYBD	22.5	58.5	17-Jun	22	37.1
RH LINE	21.5	58.0	16-Jun	21	32.0
RH LINE	20.6	58.0	19-Jun	21	35.8
WA 7328	18.2	56.5	19-Jun	22	39.0
WA 7329	20.4	58.5	18-Jun	22	38.4
Seeding Date: April 23, 1987      Harvest Date: August 3, 1987					
LSD .05 = 4.4 Bu/A      CV = 18.5 %					

**Table 33. 1987 Dickinson Uniform Regional Durum Nursery**

<b>Entry</b>	<b>Bu/A Avg.</b>	<b>Test Wt. Lbs.</b>	<b>Days to Head</b>	<b>Height Cm</b>	<b>1000 K.W. Grams</b>
Mindum	18.0	59.0	59	60	38.5
Ward	19.5	58.5	58	44	38.8
Rugby	17.8	57.5	56	46	38.9
Vic	16.6	57.5	57	50	47.3
Lloyd	19.1	56.0	58	40	46.5
Medora	21.4	58.5	58	38	40.7
Monroe	17.7	57.5	54	47	48.6
Sceptre	19.1	57.0	59	39	43.1
Stockholm	19.0	58.0	58	31	39.5
Fjord	19.1	59.0	57	36	42.6
D 8172	17.8	58.0	59	40	41.6
D 8191	18.0	56.0	60	32	42.5
D 8193	17.8	56.5	59	33	39.1
D 81151	20.9	56.5	60	41	38.3
D 81154	22.1	57.0	60	40	37.4
D 8261	22.9	58.0	60	44	47.2
D 8263	20.3	57.5	59	45	41.7
D 8269	18.1	57.0	60	48	42.0
D 8291	19.3	59.0	60	44	38.1
FA 883-323	20.6	57.5	60	47	42.8
FA 884-326	20.2	56.0	56	45	46.6
NPB 86748	18.3	57.0	58	43	38.9
D 8302	22.0	57.0	57	40	42.7
D 8304	19.7	57.0	58	43	39.3
D 8309	19.1	58.5	57	43	39.8
D 8311	18.8	58.5	57	42	38.7
D 8370	21.4	58.0	61	43	40.2
D 8374	20.0	59.0	61	48	41.7
D 8380	20.9	59.5	61	46	41.8
D 83103	21.8	57.0	59	47	45.8
Seeding Date: April 23, 1987      Harvest Date: August 4, 1987					
LSD .05 = 2.6 Bu/A      CV = 13.6 %					

**Table 34. 1987 Dickinson Uniform Early Oats Nursery**

Entry	Bu/A Avg.	Test Wt. Lbs.	Height Cm	----- Heading -----	
				Date	fr 1/1
Otee (ck)	39.6	31.0	52	16-Jun	166
IL 81-1882	37.0	31.5	45	16-Jun	166
IL 83-7646	41.3	32.0	51	16-Jun	166
IL 83-8037-1	36.6	33.0	45	17-Jun	167
IL 82-2770	39.4	31.0	38	18-Jun	168
Don (ck)	33.0	31.0	46	16-Jun	166
IA D504	42.1	29.5	58	15-Jun	165
IA D623-15	41.4	28.5	51	15-Jun	165
Clintford (ck)	36.9	32.5	58	14-Jun	164
PA 8196-1334	36.3	30.0	48	14-Jun	164
PA 8290-7026	35.6	33.5	46	16-Jun	166
PA 8393-12861	40.1	32.5	55	17-Jun	167
SD 830095	36.7	33.0	56	13-Jun	163
MN 84134	42.2	32.5	62	17-Jun	167
Andrew (ck)	34.6	31.5	68	13-Jun	163
MO 07399	38.6	30.5	53	15-Jun	165
MO 07477	40.4	32.0	48	15-Jun	165
MO 07941	40.2	31.5	50	16-Jun	166
MO 07831	33.7	31.0	55	17-Jun	167
MO 07929	35.8	31.0	51	17-Jun	167
Bates (ck)	40.5	32.0	58	14-Jun	164
Seeding Date: April 23 Harvest Date: July 31					
LSD .05 = 7.6 Bu/A CV = 17.0 %					

**Table 35. 1987 Uniform Midseason Oat Performance Nursery**

Entry	Bu/A Avg.	Test Wt. Lbs.	Height Cm	----- Heading -----	
				Date	fr 1/1
IL 79-4924	30.7	34.5	49	17-Jun	167
IL 81-1882	30.6	32.0	49	17-Jun	167
IL 81-2570	32.6	32.5	56	17-Jun	167
IL 82-1657	35.6	34.0	54	19-Jun	169
IL 83-4801	30.5	31.5	50	16-Jun	166
Ogle	37.3	34.5	50	16-Jun	166
P76178D1-29-3-3-6	32.5	34.0	53	17-Jun	167
P76178D1-29-3-3-6-3	35.9	32.5	51	18-Jun	168
P7869D1-5-3-4-2	34.5	31.5	52	17-Jun	167
OA 774-1	28.1	33.0	61	16-Jun	166
OA 698-2	33.7	32.5	54	17-Jun	167
OA 677-4	36.5	34.0	70	22-Jun	172
W 82056	38.4	32.0	71	22-Jun	172
W 82639	37.7	32.5	73	23-Jun	173
PA 8494-1468	27.6	33.0	99	18-Jun	168
PA 8494-9588	42.0	33.0	66	17-Jun	167
PA 8494-4099	32.3	31.5	63	17-Jun	167
PA 8494-422	40.8	35.0	54	18-Jun	168
Clintland	40.9	31.5	64	13-Jun	163
SD 810109	30.8	34.5	72	18-Jun	168
SD 820045	34.8	32.5	62	17-Jun	167
SD 790159-95	34.6	35.0	81	18-Jun	168
SD 830153	37.1	33.0	70	17-Jun	167
MN 84231	32.2	33.5	66	17-Jun	167
MN 85175	34.3	33.0	72	14-Jun	164
MN 85208	29.9	33.5	71	16-Jun	166
Gopher	35.4	32.5	69	17-Jun	167
ND 810104	38.6	31.0	67	17-Jun	167
ND 820294	38.8	34.0	67	17-Jun	167
ND 830775	31.8	34.0	69	20-Jun	170
ND 830646	37.0	33.0	66	18-Jun	168
ND 841974	31.9	33.5	69	18-Jun	168
Dal	32.0	32.0	62	18-Jun	168
WI X4872-10	27.8	33.5	57	16-Jun	166
WI X4872-2	39.0	31.5	57	17-Jun	167
WI X4223-2-1-1	32.2	30.5	63	19-Jun	169
Seeding Date: April 23		Harvest Date: August 3			
LSD .05 = 6.6 Bu/A		CV = 19.4 %			

**Table 36. 1987 Dickinson Western Spring Barley Nursery**

Entry	Bu/A Avg.	Test Wt. Lbs.	Heading fr 1/1	Height Cm	-----Plumpness % -----		
					6/64	5.5/6	Pan
Trebi *	29.9	41.0	172	41	76.2	17.7	5.9
Steptoe *	26.2	45.0	166	42	88.8	8.1	3.0
Klages	30.4	41.5	180	47	73.9	15.1	10.9
Morex *	30.2	45.0	167	45	73.5	14.3	12.1
BA 280529	37.6	44.5	175	47	81.1	14.1	4.5
BA 814038	40.4	45.5	175	43	86.7	8.5	4.5
ID 910740	29.4	46.0	171	42	83.9	10.2	5.7
MT 81161	36.1	47.0	170	43	82.5	19.9	6.4
MT 81616	38.0	44.0	180	45	61.2	25.9	12.7
OR 8408 *	35.0	43.0	175	46	74.5	16.8	8.5
BA 680761 *	24.4	42.0	169	44	78.2	15.0	6.7
ID 223222 *	26.3	45.5	173	46	79.2	15.4	5.3
MT 81143	32.9	45.5	169	48	75.7	14.7	9.6
MT 81502	35.6	45.0	173	48	63.8	21.1	14.9
ND 7691	30.8	46.0	170	42	82.9	11.5	5.5
OR 8432	27.8	42.0	176	38	64.7	22.8	12.3
PB 29	38.1	44.0	177	52	59.9	26.6	13.4
VD 403582	30.9	43.0	168	49	79.2	13.7	7.0
WA 870780	30.0	38.5	171	52	61.1	19.5	19.3
BA 280350	39.8	47.0	171	49	76.9	10.3	12.7
PB 265	37.3	44.5	175	52	69.4	19.0	11.4
SF 8623	29.5	40.0	167	42	67.1	17.7	14.9
SM 8618	34.1	47.5	174	41	73.7	17.6	8.6
UT 1848 *	32.0	42.5	170	48	68.6	18.6	12.8
UT 2793 *	29.5	40.5	168	47	68.0	15.8	16.1
UT 2780 *	32.5	40.0	172	52	71.9	17.6	10.3
WA 701883	32.8	45.0	174	51	70.3	15.7	13.8
WA 877178	34.3	46.5	172	52	76.7	12.1	11.2
WA 102178 *	28.6	46.0	171	43	79.1	13.5	7.4
WP 85350 *	38.5	43.5	177	39	69.1	25.3	7.6
*6-row							
Seeding Date: April 23, 1987 Harvest Date: July 30, 1987							
LSD .05 = 8.5 Bu/A CV = 22.6 %							

**Table 37. 1987 Dickinson Western Dryland Spring Barley Nursery**

Entry	Bu/A Avg.	Test Wt. Lbs.	Heading fr 1/1	Height Cm	-----Plumpness % -----		
					6/64	5.5/6	Pan
Munsing	35.1	46.0	169	34	83.4	8.9	4.4
Steptoe	39.6	44.0	167	37	84.9	10.8	4.1
Clark	34.6	46.5	175	45	81.8	12.3	5.8
Hector	40.4	47.0	175	50	78.4	12.9	8.5
ID 810099	38.7	47.0	175	48	65.4	18.3	16.3
CI 15856	37.8	48.0	169	48	89.5	7.0	3.4
PI 483237	44.1	46.0	168	48	88.2	9.2	2.5
BA 280529	44.5	46.5	179	51	88.9	6.9	4.2
MT 81143	36.4	47.5	167	48	89.9	6.5	3.4
MT 81502	41.0	48.5	175	43	77.8	17.0	5.1
MT 81616	41.4	46.5	179	50	79.4	14.3	6.3
OR 8432	48.1	47.5	180	40	87.0	8.6	4.3
BA 814038	43.5	47.5	174	46	79.1	13.5	7.4
BA 280350	47.3	47.5	173	46	84.0	10.8	5.1
ID 810274	40.0	47.0	173	52	87.6	8.1	4.3
MT 81161	42.2	49.0	168	44	85.7	7.8	6.4
MT 140523	41.8	45.0	168	44	75.7	16.1	8.1
OM 8413	35.8	48.0	175	33	68.4	21.7	9.7
MT 83422	40.3	48.5	171	40	91.2	5.8	3.0
MT 83424	38.2	48.0	172	40	89.6	7.0	3.2
MT 83435	39.7	49.0	172	45	79.6	13.8	6.4
MT 83533	34.3	48.5	172	46	89.0	7.5	3.4
MT 328202	37.3	48.0	173	50	81.7	8.6	9.6
ND 8671	39.9	47.5	170	47	82.6	13.2	4.0
WA 877178	37.3	46.5	172	42	74.9	13.7	11.1
Seeding Date: April 23		Harvest Date: July 30					
LSD .05 = 8.6 Bu/A		CV = 18.6 %					

**Table 38. 1987 Advanced 2-Row Barley Nursery (Exp. 12)**

<b>Entry</b>	<b>Bu/A Avg.</b>	<b>Test Wt. Lbs.</b>	<b>Heading Date</b>	<b>Height Cm</b>
Bowman	47.5	47.5	16-Jun	56
Hazen	44.2	42.0	18-Jun	55
Lewis	55.1	46.5	17-Jun	62
Morex	35.6	46.0	17-Jun	53
ND 5971	42.5	43.5	22-Jun	56
ND 7771	53.8	44.5	21-Jun	51
ND 8876	49.0	45.0	20-Jun	53
ND 8886	49.4	46.0	17-Jun	50
ND 8907	49.9	48.0	16-Jun	50
ND 8918	43.7	47.0	17-Jun	58
ND 8923	49.4	46.0	22-Jun	46
ND 8935	51.3	46.5	21-Jun	50
ND 8953	37.7	47.5	18-Jun	50
ND 8968	53.6	48.5	18-Jun	58
ND 8972	40.7	48.0	16-Jun	60
ND 8995	47.2	47.0	16-Jun	55
ND 9012	43.3	47.5	17-Jun	54
ND 9034	45.2	48.5	18-Jun	57
ND 9035	49.4	48.0	18-Jun	52
ND 9070	50.6	47.5	19-Jun	52
ND 9104	49.9	46.0	22-Jun	42
ND 9105	47.1	49.0	23-Jun	50
ND 9147	53.6	47.0	23-Jun	42
ND 9163	45.7	47.5	17-Jun	54
ND 9180	41.1	47.0	17-Jun	46
Seeding Date: April 23, 1987		Harvest Date: July 31, 1987		
LSD .05 = 7.1 Bu/A		CV = 8.5 %		