

Table 1. 1984 Hard Red Spring Wheat Variety Trial

Variety	Hettinger		Dickinson			
	Bushels per Acre	Test Weight Lbs/bu	Bushels per Acre	Test Weight Lbs/bu	Heading Date	Height Inches
Apex	48.8	54.8	52.8	61.0	6-30	30
Stoa	42.5	55.3	54.3	59.5	7-3	37
HS 78-1139	42.0	50.7	51.3	59.5	7-4	24
HY 320	41.6	51.2	52.8	61.5	7-3	28
NK 775-8002	40.7	52.3	49.5	62.5	7-4	38
Butte	40.3	54.5	28.2	59.5	6-30	28
Era	40.2	52.5				
Walera	40.0	50.5	45.5	57.0	7-6	30
Buckshot	40.0	50.6	58.7	59.0	7-5	32
Alex	38.7	57.2	30.4	58.5	7-3	33
NK 775-4342	38.3	54.9	41.8	61.5	7-6	31
Coteau	38.1	54.7	37.4	58.5	7-6	37
PR 2369	37.8	54.1	45.1	61.0	7-2	28
Guard	37.5	53.0	52.8	61.0	7-6	39
Wheaton	36.7	47.2	50.2	58.5	7-4	30
Marshall	36.6	50.1	38.5	59.0	7-5	29
Centa	35.5	54.4	41.1	61.5	6-29	32
Challenger	35.4	53.7				
Len	35.1	50.4	42.5	58.0	7-3	28
Solar	34.9	50.1	34.5	58.0	7-6	32
Success	34.8	51.1	44.4	58.5	7-9	34
X7993	34.2	54.2	48.8	54.0	7-6	41
Oslo	34.1	52.5	35.9	58.0	6-30	28
Olaf	33.8	52.3	36.7	58.0	7-2	27
PR 2360	33.4	48.9	42.5	60.0	7-3	30
Katepwa	33.2	54.6	38.9	60.0	7-4	39
Lew	32.8	56.6	45.1	62.5	7-6	39
Waldron	31.2	51.2	31.5	56.0	7-2	30
Victory 283	30.6	53.0	36.7	61.5	7-2	33
Glenman	30.5	49.3	45.5	59.5	7-5	28
Leader	30.4	55.2	46.2	61.0	7-2	33
WM 99	28.2	51.4	46.6	59.0	7-6	39
Columbus	26.0	53.9	36.3	59.5	7-6	38
Erik	25.3	49.7	40.0	58.0	7-7	30
WB 8-1			48.4	61.5	7-2	26
LSD @ 5%	12.4 bu	4.2 lbs	7.4 bu			
CV	21.4%	5.0%	14.9%			
Seeding Date	April 17		April 24			
Harvest Date	August 14		August 13			

Table 2. Long Term Hard Red Spring Wheat Yield Averages, Hettinger

Variety	Bushels per Acre			Averages	
	1982	1983	1984	2-Yr.	3-Yr.
Butte	41.0	77.0	40.3	58.7	52.8
Coteau	40.0	72.0	38.1	55.1	50.0
Olaf	50.0	74.0	33.8	53.9	52.6
Len	44.0	70.0	35.1	52.6	49.7
Alex	47.0	69.0	38.7	53.9	51.6
Oslo	44.0	72.0	34.1	53.1	50.0
Walera	38.0	78.0	40.0	59.0	52.0
Marshall	44.0	84.0	36.6	60.3	54.9
Wheaton		76.0	36.7	56.4	
Erik		79.0	25.3	52.2	
Centa		72.0	35.5	53.8	

Table 3. Long Term Hard Red Spring Wheat Yield Averages, Dickinson

Variety	Bushels per Acre					5-Yr. Avg.
	1980	1981	1982	1983	1984	
Butte	20.6	41.3	50.9	41.8	28.2	36.6
Coteau	22.8	43.7	47.3	41.0	37.4	38.4
Olaf	23.7	44.6	48.7	42.4	36.7	39.2
Len	23.4	43.5	49.8	35.8	42.5	39.0
Alex	22.6	48.1	57.5	44.3	30.4	40.6
Walera	25.0	48.7	60.8	48.7	45.5	45.7
Lew	23.1	39.1	44.3	41.0	45.1	38.5
Solar	23.9	53.1	50.1	46.2	34.5	41.6
Waldron	22.6	40.7	46.8	46.5	31.5	37.6
Stoa		53.4	49.5	45.9	54.3	
Oslo		49.2	55.6	40.2	35.9	
Marshall			53.9	45.7	38.5	
Columbus			49.0	39.3	36.3	
Centa			51.4	38.0	41.1	
Leader			41.3	35.2	46.2	

Table 4. 1984 Durum Variety Trial

	Hettinger			Dickinson		
Variety	Bushels per Acre	Test Weight Lbs/bu	Bushels per Acre	Test Weight Lbs/bu	Heading Date	Height Inches
Ward	58.3	60.3	27.0	61.0	7-4	34
Vic	55.2	60.8	34.9	61.5	7-6	33
Lloyd	53.1	60.0	37.4	58.0	7-12	24
Cando	50.5	56.8	37.1	60.5	7-6	24
D 793	49.7	57.8	29.4	61.0	7-4	32
Crosby	48.9	57.8	33.0	61.0	7-4	30
Medora	48.6	59.2				
Rugby	47.8	58.1	30.3	61.5	7-6	35
Coulter	46.8	57.7	30.3	60.0	7-6	33
Rolette	42.4	58.2	29.7	62.0	7-1	28
LSD @ 5%	13.9 bu	3.5 lbs	4.9 bu			
CV	20.5%	4.2%	15.0%			
Seeding Date	April 17			April 25		
Harvest Date	August 14			August 14		

Table 5. Long Term Durum Yield Averages, Hettinger

Variety	Bushels per Acre			Averages	
	1982	1983	1984	2-Yr.	3-Yr.
Vic	51.0	74.0	55.2	64.6	60.1
Cando	50.0	71.0	50.5	60.8	57.2
Rolette	53.0	72.0	42.4	57.2	55.8
Ward	53.0	71.0	58.3	64.7	60.8
Lloyd		74.0	53.1	63.6	

Table 6. Long Term Durum Yield Averages, Dickinson

Variety	Bushels per Acre					5-Yr. Avg.
	1980	1981	1982	1983	1984	
Vic	18.2	40.8	51.2	49.5	34.9	38.9
Cando	17.3	39.6	57.2	49.8	37.1	40.2
Rolette	14.3	44.2	49.5	42.1	29.7	36.0
Ward	16.5	44.6	52.3	47.3	27.0	37.5
Lloyd	20.4	45.4	63.3	58.3	37.4	45.0
Crosby	14.7	42.9	53.6	42.4	33.0	37.3
Coulter	16.0	41.1	54.5	51.2	30.3	38.6
Rugby	17.3	39.4	52.3	49.5	30.3	37.8

Table 7. 1984 Barley Variety Trial

	Hettinger		Dickinson			
Variety	Bushels per Acre	Test Weight Lbs/bu	Bushels per Acre	Test Weight Lbs/bu	Heading Date	Height Inches
Gallatin	62.8	48.8	80.8	48.5	7-4	33
Hector	62.7	49.1	66.2	46.5	7-8	35
Bowman	59.2	48.3	84.9	50.5	7-3	30
Bumper	57.4	43.0	59.8	40.5	7-6	37
Harrington	56.9	46.2	67.7	44.0	7-9	30
Abbe	54.9	46.1	71.5	45.0	7-8	32
Clark	54.0	47.5	62.9	47.0	7-8	32
Glenn	50.3	42.6	61.2	41.0	7-2	35
Summit	49.4	48.2				
TR 212	49.4	45.2	71.2	47.5	7-8	32
Piston	48.9	47.0	75.3	48.5	7-8	29
Hazen	47.5	44.3	78.4	45.0	7-4	37
Morex	45.1	45.7	62.2	43.0	7-4	35
Larker	45.0	44.9				
Azure	43.7	43.0	77.0	44.5	7-3	33
Robust	38.2	47.8	65.7	47.0	7-4	35
LSD @ 5%	10.6 bu	1.9 lbs	6.1 bu			
CV	14.6%	2.9%	8.5%			
Seeding Date	April 17		May 8			
Harvest Date	August 8		August 8			

Table 8. Long Term Barley Yield Averages, Hettinger

Variety	Bushels per Acre			Averages	
	1982	1983	1984	2-Yr.	3-Yr.
Hector	80.0	90.0	62.7	76.4	77.6
Glenn	81.0	93.0	50.3	71.7	74.8
Morex	78.0	104.0	45.1	74.6	75.7
Azure	94.0	112.0	43.7	77.9	83.2

Table 9. Long Term Barley Yield Averages, Dickinson

Variety	Bushels per Acre					5-Yr. Avg.
	1980	1981	1982	1983	1984	
Hector	44.4	53.0	80.8	68.1	66.2	62.5
Glenn	35.1	45.4	77.4	57.1	61.2	55.2
Morex	34.0	52.0	75.6	65.7	62.2	57.9
Bumper	34.4	48.4	80.1	72.2	59.8	59.0
Clark		53.5	74.6	68.1	62.9	
Harrington			85.3	73.6	67.7	
Azure			80.5	77.3	77.0	

Table 10. 1984 Oat Variety Trial

Variety	Hettinger		Dickinson			
	Bushels per Acre	Test Weight Lbs/bu	Bushels per Acre	Test Weight Lbs/bu	Heading Date	Height Inches
Border	77.4	29.4	71.2	30.0	7-17	28
75AB1170	73.4	29.9	64.5	32.0	7-13	33
Russell	67.2	32.7				
Otana	65.7	34.2	56.8	36.5	7-9	37
Dumont	65.3	32.2	65.6	33.0	7-13	32
Porter	63.0	31.2				
Steele	61.6	32.6	56.8	37.5	7-6	35
Moore	58.2	32.1				
Pierce	57.3	34.2				
Centennial	57.0	34.1	47.4	37.0	7-9	33
Kelsey	54.2	30.4	61.8	34.5	7-7	33
Fidler	52.4	28.4				
Menominee	46.1	30.7	56.7	33.0	7-13	33
Haylander			54.1	37.0	7-7	37
LSD @ 5%	NS	2.8 lbs	6.9 bu			
CV	19.7%	6.2%	11.1%			
Seeding Date	April 17			May 11		
Harvest Date	August 8			August 9		

Table 11. Long Term Oats Yield Averages, Hettinger

Variety	Bushels per Acre		
	1983	1984	2-Yr. Avg.
Otana	135.0	65.7	100.4
Porter	136.0	63.0	99.5
Pierce	116.0	57.3	86.7
Fidler	104.0	52.4	78.2

Table 12. Long Term Oats Yield Averages, Dickinson

Variety	Bushels per Acre					5-Yr. Avg.
	1980	1981	1982	1983	1984	
Otana	47.9	60.0	103.7	107.9	56.8	72.3
Kelsey	45.3	55.2	103.7	113.5	61.8	75.9
Menominee	48.9	48.4	92.0	99.7	56.7	69.1

Table 13. 1984 Hard Red Winter Wheat Variety Trial

Variety	Hettinger		Dickinson			
	Bushels per Acre	Test Weight Lbs/bu	Bushels per Acre	Test Weight Lbs/bu	Heading Date	Height Inches
Norstar	49.5	60.5	51.2	59.0	6-27	40
Rose	47.3	61.5	38.9	60.0	6-22	32
Agassiz	46.5	59.5	45.9	59.0	6-25	37
Roughrider	40.2	60.0	44.1	59.0	6-22	35
Rita	35.2	57.0	9.3	56.5	6-22	27
Winoka			45.4	61.5	6-22	37
Rose			42.8	59.5	6-22	37
LSD @ 5%	5.0 bu		7.3 bu			
CV	10.0%		17.6%			
Seeding Date	September 8			September 7		
Harvest Date	August 27			August 7		

**Table 14. Long Term Small Grain Yield Averages
Hard Red Winter Wheat**

Dickinson					
Variety	Bushels per Acre				
	1981	1982	1983	1984	4-Yr. Avg.
Froid	41.7	53.9	55.3	42.8	48.4
Roughrider	40.7	53.6	63.5	44.1	50.5
Norstar	45.4	65.5	66.3	51.2	57.1
Winoka	49.1	48.1	62.2	45.4	51.2
Hettinger					
Variety	Bushels per Acre				
	1983	1984	2-Yr. Avg.		
Roughrider	57.0	40.2	48.6		
Norstar	64.1	49.5	56.8		

Table 15. 1984 Winter Rye Variety Trial

Dickinson				
Variety	Bushels per Acre	Test Weight Lbs/bu	Heading Date	Height Inches
Hancock	49.5	56.0	6-1	44
Musketeer	48.4	57.0	6-2	42
Cougar	51.9	56.0	6-3	43
Chaupon	62.8	53.5	6-5	42
Puma	49.9	56.5	6-2	48
LSD @ 5%	10.4 bu			
CV	14.9%			

Table 16. Long Term Yield Comparison – Winter Rye Variety Trials, 1984

Yield in Bushels per Acre						
Variety	1980	1981	1982	1983	1984	5-Yr. Avg.
Puma	13	58	31	68	50	44
Chaupon	12	74	23	75	63	49
Cougar	12	50	18	56	52	38
Hancock		60	17	71	50	
Musketeer			18	75	48	

Table 17. 1984 Dickinson and Off-Station Hard Red Spring Wheat Variety Trials

Bushels per Acre							
Variety	Dickinson	Beach	Beulah	Glen Ullin	Hannover	Manning	Average 6 Sites
Coteau	37.4	23.9	42.6	30.5	33.6	24.8	32.1
Butte	28.2	16.9	34.7	30.8	34.1	20.6	27.6
Olaf	36.7	26.0	44.8	34.7	37.1	25.6	34.2
Len	42.5	27.5	49.8	37.4	39.6	27.0	37.3
Walera	45.5	25.3	52.3	39.3	37.1	27.8	37.9
Alex	30.4	19.8	40.4	35.8	35.8	25.3	31.3
Stoa	54.3	19.4	40.4	29.2	34.7	23.1	33.5
Oslo	35.9	19.4	46.5	30.3	37.4	26.4	32.7
Marshall	38.5	30.4	50.1	33.8	37.7	27.5	36.3
Centa	41.1	20.5	40.2	30.0	36.3	21.2	31.6
Erik	40.0	27.9	49.2	34.4	33.6	26.1	35.2
Guard	52.8	23.1	52.3	37.1	41.0	26.4	38.8
Wheaton	50.2	26.0	56.9	38.5	42.4	28.1	40.4
X7993	48.8	30.8	44.6	30.8	29.2	25.3	34.9
Success	44.4	27.9	56.9	44.0	42.1	25.6	40.2
LSD @ 5%	7.4 bu	3.2 bu	5.9 bu	3.5 bu	3.9 bu	6.7 bu	5.4 bu
CV	14.9%	10.9%	12.5%	10.1%	10.5%	26.0%	
Seeding Date	April 24	May 18	May 15	May 17	May 16	May 9	
Harvest Date	Aug. 13	Aug. 24	Aug. 23	Aug. 22	Aug. 21	Aug. 16	

Table 18. 1984 Hettinger and Off-Station Hard Red Spring Wheat Variety Trials

Bushels per Acre							
Variety	Hettinger	Regent	Flasher	Thunderhawk	Scranton	Average 5 Sites	Average 11 Sites
Coteau	38.1	48.1	32.4	29.3	20.6	33.7	32.8
Butte	40.3	59.5	39.1	33.8	24.1	39.4	32.9
Olaf	33.8	60.6	35.8	28.4	26.7	37.1	35.5
Len	35.1	51.6	33.1	33.3	26.1	35.8	36.6
Walera	40.0	59.5	37.4	37.1	27.1	40.2	38.9
Alex	38.7	50.6	31.9	30.2	22.8	34.8	32.9
Stoa	42.5	54.7	34.3	30.5	20.3	36.5	34.9
Oslo	34.1	59.5	40.0	29.1	30.4	38.6	35.4
Marshall	36.6	52.9	37.1	35.1	25.7	37.5	36.9
Centa	35.5	55.2	37.6	34.7	25.1	37.6	34.3
Erik	25.3	49.8	36.4	32.6	23.3	33.5	34.4
Guard	37.5	60.0	40.4	37.1	31.5	41.3	39.9
Wheaton	36.7	61.1	40.4	37.3	31.6	41.4	40.8
X7993	34.2	55.1	32.7	33.8	20.9	35.3	35.1
LSD @ 5%	12.4 bu	8.3 bu	4.1 bu	4.5 bu	5.0 bu	7.5 bu	6.4 bu
CV	21.4%	10.4%	7.9%	9.5%	13.6%		
Seeding Date	April 17	April 18	April 19	April 19	April 18		
Harvest Date	Aug. 14	Aug. 9	Aug. 6	Aug. 9	Aug. 10		

Table 19. 1984 Dickinson and Off-Station Hard Red Spring Wheat Variety Trials

Test Weight Lbs / Bu							
Variety	Dickinson	Beach	Beulah	Glen Ullin	Hannover	Manning	Average 6 Sites
Coteau	58.5	58.0	60.0	55.5	56.5	60.0	58.1
Butte	59.5	59.0	62.0	60.5	60.5	62.0	60.6
Olaf	58.0	59.5	61.0	59.0	59.0	62.0	59.8
Len	58.0	60.0	60.5	60.5	58.5	61.0	59.8
Walera	57.0	59.0	61.5	61.0	56.5	59.0	59.0
Alex	58.5	59.5	61.0	62.0	57.5	61.5	60.0
Stoa	59.5	59.0	60.5	60.5	55.0	59.5	59.0
Oslo	58.0	56.0	57.0	59.5	57.5	60.0	58.0
Marshall	59.0	58.5	60.5	61.5	56.5	60.0	59.3
Centa	61.5	59.0	61.5	62.5	58.5	63.0	61.0
Erik	58.0	57.0	56.0	59.0	56.5	58.5	57.5
Guard	61.0	56.0	62.5	61.5	59.0	61.0	60.2
Wheaton	58.5	55.5	61.0	60.0	56.0	59.0	58.3
X7993	54.0	57.0	58.5	57.0	57.0	60.0	57.3
Success	58.5	58.0	59.5	60.5	58.0	59.0	58.9

Table 20. 1984 Hettinger and Off-Station Hard Red Spring Wheat Variety Trials

Test Weight Lbs / Bu							
Variety	Hettinger	Regent	Flasher	Thunderhawk	Scranton	Average 5 Sites	Average 11 Sites
Coteau	54.7	59.5	57.2	55.4	55.9	56.5	57.4
Butte	54.5	61.1	58.1	59.2	57.7	58.1	59.5
Olaf	52.3	59.2	55.7	52.2	56.6	55.2	57.7
Len	50.4	60.3	55.3	55.8	56.4	55.6	57.9
Walera	50.5	59.5	54.7	56.7	54.9	55.3	57.3
Alex	57.2	60.5	57.5	57.0	58.5	58.1	59.2
Stoa	55.3	59.4	56.4	55.3	55.5	56.4	57.8
Oslo	52.5	57.4	56.0	57.9	55.0	55.8	57.0
Marshall	50.1	58.8	55.3	56.0	54.7	55.0	57.4
Centa	54.4	61.6	58.0	60.6	58.8	58.7	59.9
Erik	49.7	57.3	55.9	56.8	53.1	54.6	56.2
Guard	53.0	60.6	57.3	59.1	57.5	57.5	59.0
Wheaton	47.2	59.1	54.1	58.2	54.4	54.6	56.6
X7993	54.2	58.5	57.2	53.7	55.1	55.7	56.6
LSD @ 5%	4.2 lbs	1.5 lbs	1.7 lbs	1.8 lbs	1.7 lbs	2.4 lbs	
CV	5.0%	1.8%	2.1%	2.2%	2.1%		

Table 21. 1984 Dickinson and Off-Station Hard Red Spring Wheat Variety Trials

Protein Percent @ 14% Moisture							
Variety	Dickinson	Beach	Beulah	Glen Ullin	Hannover	Manning	Average 6 Sites
Coteau	15.8	17.8	16.4	16.2	16.8	17.9	16.8
Butte	15.1	16.3	15.6	14.5	15.4	16.4	15.6
Olaf	15.3	16.9	15.3	14.5	16.2	16.7	15.8
Len	15.1	17.1	15.6	14.5	16.1	16.9	15.6
Walera	12.9	16.1	14.3	12.8	15.4	15.9	14.6
Alex	15.4	17.2	15.6	13.6	16.5	17.3	15.9
Stoa	14.5	15.9	15.4	13.2	15.6	15.9	15.1
Oslo	13.0	16.0	14.0	12.6	14.2	16.4	14.4
Marshall	13.5	16.8	14.6	13.3	15.4	16.8	15.1
Centa	14.3	16.3	15.2	13.3	15.2	16.5	15.1
Erik	13.1	16.8	14.8	14.2	15.9	16.9	15.3
Guard	13.8	17.2	14.6	13.7	14.9	16.9	15.2
Wheaton	13.2	16.5	14.1	13.1	14.8	16.7	14.7
X7993	14.6	17.9	15.6	15.5	16.3	17.9	16.3
Success	13.2	16.3	14.5	13.1	15.3	16.5	14.8

Table 22. 1984 Dickinson and Off-Station Durum Variety Trials

Bushels per Acre							
Variety	Dickinson	Beach	Beulah	Glen Ullin	Hannover	Manning	Average 6 Sites
Rolette	29.7	20.9	35.6	23.8	34.5	24.2	28.1
Ward	27.0	23.5	31.9	31.5	39.2	30.1	30.5
Cando	37.1	20.9	40.3	32.6	37.0	30.4	33.1
Vic	34.9	26.8	41.4	33.7	39.6	31.2	34.6
Lloyd	37.4	27.9	38.5	34.1	41.1	30.4	34.9
LSD @ 5%	4.9 bu	4.3 bu	6.0 bu	3.8 bu	4.0 bu	9.7 bu	5.8 bu
CV	15.0%	11.9%	12.0%	9.0%	7.8%	25.0%	
Test Weight Lbs / Bu							
Rolette	62.0	60.5	61.0	63.0	61.0	64.0	61.9
Ward	61.0	60.5	60.5	62.0	59.5	63.0	61.1
Cando	60.5	60.5	60.0	62.5	59.0	62.0	60.8
Vic	61.5	61.0	61.5	62.0	60.5	63.5	61.7
Lloyd	58.0	60.5	60.5	61.5	59.5	61.5	60.3
Seeding Date	April 25	May 18	May 15	May 17	May 16	May 9	
Harvest Date	Aug. 14	Aug. 24	Aug. 23	Aug. 22	Aug. 21	Aug. 16	

Table 23. 1984 Hettinger and Off-Station Durum Variety Trials

Bushels per Acre							
Variety	Hettinger	Regent	Flasher	Thunderhawk	Scranton	Average 5 Sites	Average 11 Sites
Rolette	42.4	54.4	36.8	36.1	27.9	39.5	33.3
Ward	58.3	52.8	28.9	34.9	26.6	40.3	35.0
Cando	50.5	55.8	31.6	41.8	36.3	43.2	37.7
Vic	55.2	51.5	28.1	33.3	28.0	39.2	36.7
Lloyd	53.1	59.5	34.1	43.3	35.6	45.1	39.5
Coulter	46.8	56.4	30.9	34.1	26.1	38.9	
LSD @ 5%	13.9 bu	NS	2.9 bu	3.9 bu	4.2 bu	6.8 bu	6.3 bu
CV	20.5%	8.7%	6.2%	6.9%	9.2%		
Test Weight Lbs / Bu							
Rolette	58.2	63.0	59.8	61.6	60.6	60.6	61.3
Ward	60.3	61.4	58.2	59.9	59.5	59.9	60.5
Cando	56.8	61.4	56.6	59.3	58.5	58.5	59.7
Vic	60.8	61.8	59.7	59.1	60.7	60.4	61.1
Lloyd	60.0	61.4	60.0	59.3	60.5	60.2	60.2
Coulter	57.7	61.0	57.5	59.7	59.1	59.0	
LSD @ 5%	3.5 lbs	1.1 lbs	1.5 lbs	1.0 lbs	0.8 lbs	1.9 lbs	
CV	4.2%	1.2%	1.7%	1.1%	0.9%		
Seeding Date	April 17	April 18	April 19	April 19	April 18		
Harvest Date	Aug. 14	Aug. 9	Aug. 6	Aug. 9	Aug. 10		

Table 24. 1984 Dickinson and Off-Station Oat Variety Trials

Bushels per Acre							
Variety	Dickinson	Beach	Beulah	Glen Ullin	Hannover	Manning	Average 6 Sites
Steele	56.8	31.6	52.2	50.2	44.7	41.2	46.1
Otana	56.8	50.0	69.4	59.3	56.4	61.2	58.9
Border	71.2	51.6	57.8	55.7	66.7	62.6	60.9
Dumont	64.5	45.0	56.4	45.4	44.0	51.6	51.2
Porter	55.0	38.8	57.8	53.7	50.9	48.5	50.8
Pierce	53.0	28.2	53.0	53.6	47.5	39.9	45.9
LSD @ 5%	6.9 bu	10.7 bu	14.8 bu	11.6 bu	8.3 bu	10.3 bu	10.7 bu
CV	11.1%	20.5%	19.9%	17.0%	12.9%	15.7%	
Test Weight Lbs / Bu							
Steele	37.5	37.0	37.0	38.0	39.0	44.0	38.8
Otana	36.5	37.0	37.0	35.5	36.5	36.5	36.5
Border	30.0	34.5	32.5	32.0	31.0	30.0	31.7
Dumont	33.0	37.5	38.0	38.0	38.0	37.0	36.9
Porter	37.0	39.0	36.5	36.5	36.5	38.0	37.3
Pierce	37.0	37.5	36.5	35.5	35.5	35.0	36.2
Seeding Date	May 11	May 18	May 15	May 17	May 16	May 9	
Harvest Date	Aug. 9	Aug. 24	Aug. 22	Aug. 22	Aug. 21	Aug. 16	

Table 25. 1984 Hettinger and Off-Station Oat Variety Trials

Bushels per Acre							
Variety	Hettinger	Regent	Flasher	Thunderhawk	Scranton	Average 5 Sites	Average 11 Sites
Steele	61.6	68.5	66.7	48.7	15.6	52.2	48.9
Otana	65.7	85.0	74.8	67.2	25.2	63.6	61.0
Border	77.4	98.5	75.6	74.2	36.3	72.4	66.1
Dumont	65.3	84.3	61.3	51.9	22.2	57.0	53.8
Porter	63.0	97.5	84.5	77.8	28.3	70.2	59.6
Pierce	57.3	85.3	68.7	44.8	14.2	54.1	49.6
Fidler	52.4	83.8	56.4	39.9	30.8	52.7	
LSD @ 5%	NS	NS	11.1 bu	9.5 bu	2.7 bu	6.6 bu	9.1 bu
CV	19.7%	1.9%	1.1%	1.5%	1.3%		
Test Weight Lbs / Bu							
Steele	32.6	33.4	31.6	35.3	33.9	33.4	36.3
Otana	34.2	35.6	31.9	36.4	38.7	35.4	36.0
Border	29.4	33.5	27.6	32.5	36.6	31.9	31.8
Dumont	32.2	34.0	32.5	35.6	34.2	33.7	35.5
Porter	31.2	36.5	32.7	36.7	38.4	35.1	36.3
Pierce	34.2	35.8	33.2	37.0	35.7	35.2	35.7
Fidler	30.7	32.4	28.3	34.8	34.4	32.1	
LSD @ 5%	2.8 lbs	1.9 lbs	1.1 lbs	1.5 lbs	1.3 lbs	1.8 lbs	
CV	6.2%	3.7%	2.3%	2.8%	2.5%		
Seeding Date	April 17	April 18	April 19	April 19	April 18		
Harvest Date	Aug. 8	Aug. 9	Aug. 6	Aug. 9	Aug. 10		

Table 26. 1984 Dickinson and Off-Station Barley Variety Trials

Bushels per Acre							
Variety	Dickinson	Beach	Beulah	Glen Ullin	Hannover	Manning	Average 6 Sites
Azure	77.0	23.0	78.4	46.7	30.7	41.3	49.5
Morex	62.2	36.7	63.3	53.2	48.6	43.1	51.2
Robust	65.7	38.1	66.0	48.6	43.5	40.3	50.4
Hazen	78.4	30.7	89.8	55.0	40.1	43.1	56.2
Hector	66.2	40.3	68.3	57.7	52.3	50.4	55.9
Bowman	84.9	42.6	103.6	57.8	57.8	47.7	65.7
Piston	75.3	28.9	75.2	59.6	44.0	48.1	55.2
LSD @ 5%	6.1 bu	9.1 bu	17.8 bu	12.0 bu	5.1 bu	10.6 bu	10.9 bu
CV	8.5%	20.9%	18.1%	17.7%	9.0%	18.8%	
Test Weight Lbs / Bu							
Azure	44.5	48.5	49.5	49.0	49.0	48.5	48.2
Morex	43.0	42.5	49.0	49.5	46.0	47.0	46.2
Robust	47.0	45.0	50.0	48.5	46.5	48.0	47.5
Hazen	45.0	43.5	48.0	48.0	47.5	47.0	46.5
Hector	46.5	49.5	48.0	49.0	48.5	49.0	48.4
Bowman	50.5	47.0	52.0	51.0	49.5	50.0	50.0
Piston	48.5	47.5	50.5	50.0	48.0	49.0	48.9
Seeding Date	May 8	May 18	May 15	May 17	May 16	May 9	
Harvest Date	Aug. 8	Aug. 24	Aug. 23	Aug. 22	Aug. 21	Aug. 16	

Table 27. 1984 Hettinger and Off-Station Barley Variety Trials

Bushels per Acre							
Variety	Hettinger	Regent	Flasher	Thunderhawk	Scranton	Average 5 Sites	Average 11 Sites
Azure	43.7	79.0	43.8	36.9	42.5	49.2	49.4
Morex	45.1	76.9	35.8	32.0	40.1	46.0	48.8
Robust	38.2	66.4	37.9	34.7	38.4	43.1	47.1
Hazen	47.5	79.4	42.7	38.9	45.7	50.8	53.8
Hector	62.7	81.8	45.8	48.2	50.1	57.7	56.7
Bowman	59.2	83.0	46.3	48.1	43.0	55.9	61.3
LSD @ 5%	10.6 bu	9.0 bu	7.1 bu	6.9 bu	5.4 bu	8.0 bu	9.7 bu
CV	14.6%	7.7%	11.2%	11.5%	8.2%		
Test Weight Lbs / Bu							
Azure	43.0	47.8	40.1	45.2	47.7	44.8	46.6
Morex	45.7	48.5	41.6	45.1	49.3	46.0	46.1
Robust	47.8	48.7	41.9	44.9	48.8	46.4	47.0
Hazen	44.3	47.1	40.3	44.3	48.2	44.8	45.7
Hector	49.1	50.5	43.3	46.0	51.4	48.1	48.3
Bowman	48.3	50.8	45.8	49.7	52.1	49.3	54.2
LSD @ 5%	1.9 lbs	0.6 lbs	1.4 lbs	1.2 lbs	1.1 lbs	1.3 lbs	
CV	2.9%	0.8%	2.3%	1.8%	1.5%		
Seeding Date	April 17	April 18	April 19	April 19	April 18		
Harvest Date	Aug. 8	Aug. 9	Aug. 6	Aug. 9	Aug. 10		

Table 28. 1984 Safflower Variety Trial

Hettinger				
Variety	Type	Pounds per Acre	Test Weight Lbs/bu	Oil %
S-208	Linoleic	1344	40.4	44.3
C/W 24	Linoleic	1241	40.1	43.2
80 B 1341	Linoleic	1198	40.7	41.6
S-317	Oleic	1143	39.7	45.5
81B3565	Linoleic	1142	43.5	40.4
81B6078	Linoleic	1110	39.5	42.8
S-541	Linoleic	894	40.7	48.0
Okre	Linoleic	842	38.3	44.1
796-1-3	Oleic	837	42.0	45.0
81B3697	Oleic	789	41.5	42.5
Hartman	Linoleic	772	39.4	33.8
Rehbein	Linoleic	767	40.6	40.6
LSD @ 5%		135.1 lbs	1.3 lbs	
CV		9.3 %	2.2%	
Seeding Date		May 11		
Harvest Date		October 2		
Dickinson				
S-208		975	39.0	44.6
S-541		971	40.5	46.8
Hartman		414	41.0	37.7
LSD @ 5%		137.1 lbs		
CV		14.2%		
Seeding Date		May 25		
Harvest Date		October 2		

Table 29. 1984 Dickinson Sunflower Hybrid Trial

Hybrid	Pounds per Acre	Test Weight 1/	Oil %
Stauffer S 1888	1574	29.0	44.4
Stauffer S 1300	1744	32.0	44.9
Arrowhead 747	1205	31.0	49.1
Arrowhead 707B	1390	28.5	41.9
Sigco 455	1560	28.5	41.5
Sigco 465	1503	31.0	51.9
Dekalb DKS-42	1489	29.0	43.5
Dekalb DPG 3362	1361	29.5	46.6
Dahlgren DO 855	1914	31.0	44.4
Dahlgren DO 730	1815	31.0	49.2
Cargill 206	1659	30.0	45.2
Cargill 207	1645	31.0	41.5
Northrup King Sunbred 265	1773	28.5	45.8
Cenex 7101	1702	28.5	45.2
Cenex 8101	1617	29.0	49.0
Interstate 7111	1957	30.5	48.1
Interstate 7780	1149	31.5	45.5
Seedtec ST 316	1744	27.5	43.4
Seedtec ST 317	1801	30.5	46.4
TNT Sunflo 634	2042	29.0	44.8
LSD @ 5%	440.1 lbs		
CV	26.9%		
Planting Date	May 30		
Harvest Date	September 26		
1/ oven dry			

Table 30. 1984 Dickinson Corn Hybrid Trial Grain Yields

Hybrid	Bushels per Acre 1/	Test Weight 2/ Lbs/bu	Shelling % 2/
Cargill 822	39	50.0	73
Cargill 829	40	45.0	71
Northrup King PX9055	50	51.5	82
Northrup King PX9151	38	46.5	77
Northrup King PX9242	40	41.5	74
Interstate 234	33	48.0	79
Interstate 244	43	50.0	76
Agasco 2XAA1	42	50.0	82
Agasco 4XA	48	52.0	79
Jacques JX 21	44	48.5	77
TNT Sunflo 850	44	49.5	77
TNT Sunflo 801	44	50.0	78
Dahlgren DC 408	53	47.0	80
Dahlgren DC 422	49	43.0	80
Dahlgren DC 418	50	49.5	78
Keltgen KS 92	42	46.5	72
Cenex 2084	62	49.5	79
Cenex 3083	41	48.5	79
Cenex 3088	55	49.5	79
LSD @ 5%	7.9 bu		
CV	17.6%		
Planting Date	May 29		
Harvest Date	September 26		
1/ 12% Moisture			
2/ 0% Moisture			

Table 31. 1984 Dickinson Corn Hybrid Trial Silage Yields

Hybrid	Tons per Acre 1/	Harvest Moisture %
Cargill 822	7.7	71.7
Cargill 829	10.9	72.4
Northrup King PX9055	7.8	68.0
Northrup King PX9151	8.5	73.9
Northrup King PX9242	9.2	71.1
Interstate 234	7.1	71.6
Interstate 244	7.9	70.8
Agasco 2XAA1	7.1	68.3
Agasco 4XA	7.1	71.2
Jacques JX21	8.9	72.1
TNT Sunflo 850	8.2	66.9
TNT Sunflo 801	9.2	70.9
Dahlgren DC 408	7.9	70.6
Dahlgren DC 422	10.6	72.7
Dahlgren DC 418	10.2	70.9
Keltgen KS 92	8.9	70.9
Cenex 2084	8.5	72.0
Cenex 3083	8.1	72.1
Cenex 3088	10.0	71.2
LSD @ 5%	1.9 tons	
CV	2.6%	
Planting Date	May 29	
Harvest Date	September 6	
1/ 70% Moisture		

Table 32. Hettinger Corn Grain and Silage Trial

Variety	Bushels per Acre at 15.5% Moisture	Test Weight Lbs/bu	Grain % Moisture at Harvest	Silage Tons per Acre at 70% Moisture
Dahlgren DC418	32.2	51.3	16.7	9.5
NK PX9242	30.2	48.0	15.6	8.3
Funks G-5048	27.7	51.3	15.3	11.8
Interstate 244	27.3	51.6	15.0	8.4
Interstate 234	26.5	47.0	16.0	7.7
Jacques JX15	26.4	49.1	17.4	8.2
Funks 0010X	24.5	51.5	14.7	9.0
Agasco 4XA	24.0	49.1	15.2	9.2
Dahlgren DC422	23.8	44.7	15.5	7.7
Jacques JX21	23.5	50.8	17.9	9.0
TNT / Sun-Flo 850	23.2	44.5	17.8	9.8
Cargill 822	20.3	51.2	15.6	10.1
NK PX9151	20.2	48.6	15.9	8.7
Cenex 2084	20.1	48.8	15.8	9.8
Cargill 829	18.7	42.0	22.5	9.4
Agasco 3XB-7	13.8	45.8	18.0	8.1
Highest	32.2 bu	51.6 lbs	22.5%	11.8 tons
Lowest	13.8	42.0	14.7	7.7
C.V. %	12.76	2.50	9.92	11.70
LSD 5%	4.34	1.73	2.34	1.51
LSD 1%	5.79	2.31	3.12	2.01

Plant Population: 18,000 plants per acre

Seeding Date: May 17th

Fertilizer Applied: 95 lbs. / ac. 18-46-0
45 lbs. / ac. 36% zinc sulfate

Yield Goal: 80 bu. / ac. grain
13 tons / ac. silage

Herbicide Applied: 2.50 quart / ac. Bladex 4L + 1.1 quart / ac. Atrazine 4L
preplant incorporated

Harvest Date: October 23rd

Notes: Yields were severely reduced due to drought and bird damage.

Table 33. Regent Corn Grain and Silage Trial

Variety	Bushels per Acre at 15.5% Moisture	Test Weight Lbs / bu	Grain % Moisture at Harvest	Silage Tons per Acre at 70% Moisture
Stauffer B35	77.0	50.9	20.2	9.2
Agasco 4XA	75.7	50.2	20.1	10.8
NK PX9242	72.1	48.2	20.0	9.5
Dahlgren DC408	71.9	51.4	14.7	10.6
Jacques JX21	71.9	49.6	18.6	8.9
Stauffer 101	71.7	50.3	17.2	10.4
Sigco 077	71.0	50.1	15.2	11.4
Interstate 244	70.9	51.9	18.6	10.7
Sigco 0852	70.8	50.1	17.8	11.2
NK PX9151	70.5	49.1	17.8	9.4
Cargill 822	70.3	52.7	20.7	10.0
Dahlgren DC418	70.0	53.0	20.5	11.7
Cenex 3083	68.1	49.4	18.4	10.5
Jacques JX15	67.8	53.8	17.4	10.8
Cargill 829	67.7	47.1	26.2	9.9
TNT / Sun-Flo 850	67.1	49.7	18.2	9.8
Interstate 234	63.7	47.4	22.4	11.0
Highest	77.0 bu	53.8 lbs	26.2%	11.7 tons
Lowest	63.7	47.1	14.7	8.9
C.V. %	7.17	1.94	6.02	12.42
LSD 5%	NS	1.39	1.63	NS
LSD 1%	NS	1.85	2.18	NS

Plant Population: 18,000 plants per acre
 Seeding Date: May 18th
 Fertilizer Applied: 150 lbs. / ac. 18-46-0
 45 lbs. / ac. 36% zinc sulfate
 Yield Goal: 80 bu. / ac. grain
 13 tons / ac. silage

Herbicide Applied: 2.25 quart / ac. Bladex 4L + 1 quart / ac. Atrazine 4L
preplant incorporated

Harvest Date: October 24th

Table 34. 1984 Hettinger On-Station Dry Bean Variety Trial

Variety	Type	Pounds per Acre	Test Weight Lbs / bu
Nodak	Pinto	1299	59.7
Olathe	Pinto	1224	56.2
Fiesta	Pinto	1061	56.2
Ouray	Pinto	1049	59.4
Pindak	Pinto	1043	58.3
UI 114	Pinto	1014	55.8
Holberg	Pinto	931	60.1
Fleetwood	Navy	1080	62.5
Upland	Navy	938	60.3
Opal	Navy	889	61.1
C-20	Navy	710	59.4
Zircon	Navy	559	61.7
Midnight	Black Turtle	1207	60.1
T39	Black Turtle	1030	59.3
Highest		1299 lbs	62.5 lbs
Lowest		559	55.8
C.V. %		7.80	5.76
LSD 5%		112.3	NS
LSD 1%		150.7	NS

Seeding Rate: Navy Beans (45 lbs. / ac. pure live seed)
Pinto Beans (65 lbs. / ac. pure live seed)
Black Turtle Beans (55 lbs. / ac. pure live seed)

Seeding Date May 11th

Fertilizer Applied: 60 lbs. / ac. 18-46-0

Yield Goal: 2,200 lb. / ac.

Herbicide Applied: 1 qt. / ac. Treflan 4E

Harvest Date: September 19th