

**2006 Barley Variety Trial - No-till**

**Hettinger**

Variety	Days to Head	Plant Height	Test Weight	% Plump	Grain Protein	---- Grain Yield ----			Average Yield	
						2004	2005	2006	2 yr	3 yr
		inches	Lbs/bu	>6/64	%	----- Bushels per acre -----				
<b>Two Row Types</b>										
Haxby	65	25	53.4	78	14.2	76.9	76.8	84.6	80.7	79.4
Eslick	66	23	50.6	61	14.0	78.3	63.6	77.4	70.5	73.1
Bowman	64	23	53.0	95	13.8	63.5	66.8	80.3	73.6	70.2
Rawson	64	26	51.4	98	11.5	64.3	65.2	75.5	70.4	68.3
AC Metcalf	66	24	49.0	77	14.9	68.3	60.6	74.7	67.6	67.9
Conlon	64	26	53.2	98	13.3	44.5	63.9	78.3	71.1	62.2
Harrington	68	23	46.3	30	15.3	69.4	52.6	59.7	56.2	60.6
<b>Six Row Types</b>										
Lacey	62	23	50.6	79	14.0	67.6	65.4	79.3	72.4	70.8
Legacy	64	25	47.6	61	14.0	67.2	55.4	77.1	66.2	66.6
Drummond	64	24	49.5	73	13.8	62.4	64.5	72.1	68.3	66.3
Stellar-ND	63	24	48.6	77	13.3	64.0	60.1	74.0	67.0	66.0
Tradition	64	23	50.0	74	14.3	62.0	56.7	73.9	65.3	64.2
Robust	64	28	49.5	62	14.5	62.6	52.8	70.8	61.8	62.1
Trial Mean	64	24	50.3	77	13.6	66.7	64.6	76.0	--	--
C.V. %	1.4	7.0	1.5	8.5	2.9	5.8	10.5	9.7	--	--
LSD .05	1	2	1.0	9	0.6	5.4	9.5	10.4	--	--
LSD .01	2	3	1.4	12	0.7	7.1	12.6	13.8	--	--

Planting Date: April 11, 2006  
 Harvest Date: July 18, 2006  
 Seeding Rate: 750,000 live seeds / acre (approx. 1.4 bu/A).  
 Previous Crop: 2005 = fallow, 2004 & 2003 = soybean.

**2006 Barley Variety Trial - Continuously Cropped - No-till Mandan**

Cooperator: USDA-ARS, Mandan

Variety	Test	%	Grain	---- Grain Yield ----			Average Yield		
	Weight	Plump	Protein	2004	2005	2006	2 yr	3 yr	
	Lbs/bu	>6/64	%	----- Bushels per acre -----					
<b>2 Row Types</b>									
Rawson	42.6	76	13.5	48.2	79.5	42.7	61.1	56.8	
Haxby	41.0	24	15.4	56.1	60.0	34.8	47.4	50.3	
Conlon	38.9	24	14.8	24.7	37.3	36.8	37.0	32.9	
Eslick	41.3	19	14.9		76.6	47.4	62.0		
<b>6 Row Types</b>									
Tradition	41.7	30	14.3	41.3	65.9	46.4	56.2	51.2	
Drummond	42.7	40	13.8	48.1	33.8	46.2	40.0	42.7	
Robust	40.3	42	14.4	43.2	47.2	37.0	42.1	42.5	
Stellar-ND	41.5	39	14.9		72.4	40.3	56.4		
Trial Mean	41.2	36	14.6	43.6	59.1	41.1	--	--	
C.V. %	5.2	16.5	9.4	16.3	13.3	11.4	--	--	
LSD .05	NS	10	NS	12.9	13.8	8.1	--	--	
LSD .01	NS	14	NS	18.4	19.1	NS	--	--	

Planting Date: April 35, 2006

Harvest Date: August 4, 2006

Seeding Rate: 750,000 live seeds / acre (approx. 1.4 bu/A).

Previous Crop: 2003 = barley, 2004 = lentil, 2005 = hrww.

NS = no statistical difference between varieties.

Note: The 2006 trial sustained severe heat and moisture stress.

**2006 Barley Variety Trial - Continuously Cropped - No-till** **New Leipzig**

Cooperator: Daryl Birdsall, New Leipzig

Variety	Plant	Test	%	Grain	---- Grain Yield ----			<u>Average Yield</u>	
	Height	Weight	Plump	Protein	2004	2005	2006	2 yr	3 yr
	inches	Lbs/bu	>6/64	%	----- Bushels per acre -----				
<b>2 Row Types</b>									
Rawson	18	43.9	77	12.9	38.3	53.6	30.3	42.0	40.7
Conlon	19	45.6	82	14.1	27.4	41.5	25.7	33.6	31.5
Haxby	17	46.4	38	15.8		71.7	31.5	51.6	
Eslick	17	42.8	27	15.4		63.2	34.9	49.0	
<b>6 Row Types</b>									
Drummond	20	41.3	36	14.5	38.9	55.5	29.3	42.4	41.2
Tradition	15	40.7	40	15.0	34.7	47.2	26.1	36.6	36.0
Robust	19	40.6	33	15.4	32.6	47.4	24.9	36.2	35.0
Stellar-ND	17	38.9	47	14.2		49.4	24.7	37.0	
Trial Mean	18	42.5	50	14.7	34.2	53.6	28.2	--	--
C.V. %	7.7	1.8	14.7	3.4	11.1	12.0	9.8	--	--
LSD .05	2	1.1	11	0.7	5.9	9.5	4.0	--	--
LSD .01	3	1.5	14	1.0	8.3	12.9	5.5	--	--

Planting Date: April 24, 2006

Harvest Date: July 31, 2006

Seeding Rate: 750,000 live seeds / acre (approx. 1.4 bu/A).

Previous Crop: 2003 & 2004 = lentil, 2005 = hrww.

Note: The 2006 trial sustained severe heat and moisture stress.

**2006 Barley Variety Trial - Continuously Cropped - No-till****Regent**

Cooperators: August and Perry Kirschmann, Regent

Variety	Plant	Test	%	Grain	---- Grain Yield ----			<u>Average Yield</u>	
	Height	Weight	Plump	Protein	2003	2005	2006	2 yr	3 yr
	inches	Lbs/bu	>6/64	%	----- Bushels per acre -----				
<b>2 Row Types</b>									
Conlon	25	47.7	93	13.1	76.4	53.7	57.5	55.6	62.5
Haxby	23	48.4	40	13.6		73.5	70.4	72.0	
Eslick	21	45.2	29	14.9		74.3	64.0	69.2	
Rawson	23	46.6	88	11.2		65.1	61.0	63.0	
<b>6 Row Types</b>									
Robust	24	44.2	49	14.7	58.3	60.6	48.3	54.4	55.7
Drummond	23	43.4	45	13.6		68.3	57.1	62.7	
Stellar-ND	21	42.1	55	13.3		70.4	53.8	62.1	
Tradition	22	43.6	44	14.2		65.8	50.1	58.0	
Trial Mean	23	45.1	57	13.5	66.8	66.5	57.4	--	--
C.V. %	4.5	1.6	10.3	2.5	5.5	6.8	5.5	--	--
LSD .05	1	1.0	9	0.5	5.7	6.7	4.6	--	--
LSD .01	2	1.4	12	0.7	8.0	9.1	6.2	--	--

Planting Date: April 24, 2006

Harvest Date: July 31, 2006

Seeding Rate: 750,000 live seeds / acre (approx. 1.4 bu/A).

Previous Crop: 2002 &amp; 2004 = lentil, 2005 = hrww.

**2006 Barley Variety Trial - Continuously Cropped - No-till****Scranton**

Cooperators: Neal and Justin Freitag, Scranton

Variety	Plant	Test	%	Grain	---- Grain Yield ----			<u>Average Yield</u>	
	Height	Weight	Plump	Protein	2004	2005	2006	2 yr	3 yr
	inches	Lbs/bu	>6/64	%	----- Bushels per acre -----				
<b>2 Row Types</b>									
Rawson	30	47.8	94	10.6	81.9	66.7	90.5	78.6	79.7
Eslick	28	45.9	75	11.8		76.7	94.8	85.8	
Haxby	27	49.6	69	12.2		68.9	94.7	81.8	
Conlon	29	49.2	97	11.6		39.9	82.0	61.0	
<b>6 Row Types</b>									
Drummond	30	45.9	59	12.5	89.9	65.6	82.9	74.2	79.5
Tradition	27	44.1	56	12.0	81.1	68.9	81.6	75.2	77.2
Robust	31	46.5	58	12.8	75.4	62.6	77.9	70.2	72.0
Stellar-ND	30	43.4	70	12.1		67.2	77.3	72.2	
Trial Mean	29	46.7	74	12.0	82.1	64.6	85.2	--	--
C.V. %	4.8	1.5	8.4	6.6	6.5	10.3	6.0	--	--
LSD .05	2	1.0	9	NS	8.5	9.8	7.4	--	--
LSD .01	3	1.4	12	NS	12.2	13.3	10.1	--	--

Planting Date: April 24, 2006

Harvest Date: August 2, 2006

Seeding Rate: 750,000 live seeds / acre (approx. 1.4 bu/A).

Previous Crop: 2003 &amp; 2004 = Lentil, 2005 = hrww.

NS = no statistical difference between varieties.

**2006 Barley Variety Trial - Continuously Cropped - No-till****Selfridge**

Cooperator: Nick Vollmuth, Selfridge

Variety	Plant	Test	%	Grain	---- Grain Yield ----			<u>Average Yield</u>	
	Height	Weight	Plump	Protein	2004	2005	2006	2 yr	3 yr
	inches	Lbs/bu	>6/64	%	----- Bushels per acre -----				
<b>2 Row Types</b>									
Rawson	22	45.6	79	12.0	86.9	68.5	47.1	57.8	67.5
Conlon	22	47.4	91	14.6	81.7	66.4	47.8	57.1	65.3
Haxby	21	48.0	42	15.5		75.7	53.1	64.4	
Eslick	19	46.2	46	15.2		71.9	51.7	61.8	
<b>6 Row Types</b>									
Tradition	18	41.5	38	15.4	87.9	73.3	36.0	54.6	65.7
Drummond	20	42.1	40	15.4	87.4	71.4	32.4	51.9	63.7
Robust	21	41.0	19	15.6	66.3	60.8	26.4	43.6	51.2
Stellar-ND	19	38.4	27	14.6		72.9	25.7	49.3	
Trial Mean	20	43.8	50	14.7	82.0	70.1	40.5	--	--
C.V. %	5.0	1.7	12.3	3.6	7.5	4.5	10.9	--	--
LSD .05	1	1.1	9	0.8	9.5	4.7	6.5	--	--
LSD .01	2	1.5	12	1.1	13.3	6.3	8.8	--	--

Planting Date: April 25, 2006

Harvest Date: August 4, 2006

Seeding Rate: 750,000 live seeds / acre (approx. 1.4 bu/A).

Previous Crop: 2003 &amp; 2004 = lentil, 2005 = hrww.

Note: The 2006 trial sustained moderate heat and moisture stress.

**Barley in the West River Region**

**Combined**

**Means**

Variety	Days to Head	Plant Height	Seeds / Pound	Test Weight	Grain Protein	% Plump	---- Grain Yield ----			Average Yield	
							2004	2005	2006	2 yr	3 yr
		inches	#	lbs/bu	%		----- Bushels per acre -----				
<b>2 Row Types</b>											
Conlon	63	25	10,213	46.9	13.8	83	44.8	54.1	58.6	56.4	52.5
Eslick	66	23	13,089	45.2	14.5	45		73.4	66.9	70.2	
Haxby	65	24	12,198	47.7	14.6	50		71.2	66.2	68.7	
Rawson	64	25	8,882	46.6	12.1	87		70.0	62.6	66.3	
<b>6 Row Types</b>											
Drummond	62	24	14,786	44.1	14.1	51	58.9	63.2	58.6	60.9	60.2
Tradition	62	23	15,311	43.5	14.3	48	56.6	66.1	56.6	61.4	59.8
Robust	62	24	13,588	43.8	14.7	47	49.0	58.9	53.6	56.2	53.8
Stellar-ND	62	25	15,355	41.8	13.8	55		68.4	54.2	61.3	
# of Locations*	2	6	1	7	7	7	8	8	7	15	23

\* Locations:2006 = Hettinger, Dickinson, Scranton, Regent, New Leipzig, Selfridge, & Mandan.

2005 = Hettinger, Dickinson, Scranton, Regent, New Leipzig, Selfridge, Mandan, & Ralph,

SD.

2004 = Hettinger, Dickinson, Scranton, Selfridge, New Leipzig, Mandan, Ralph & Bison,

SD.