

Figure 3b. Rank order of spring barley varieties from highest to lowest grain yields within fungicide and untreated treatments at Harriston (upper) and New Liskeard (lower), 2010.

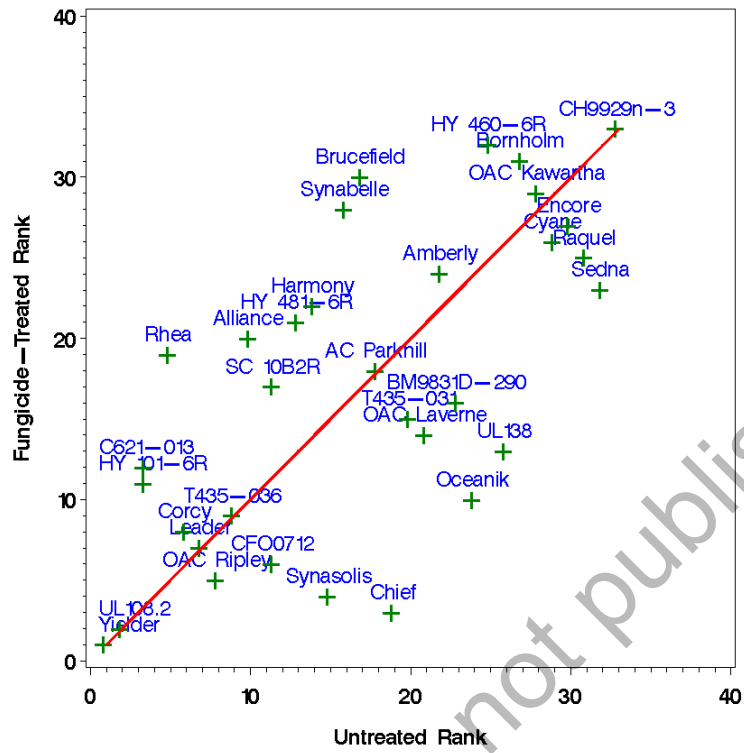


Figure 3c. Rank order of spring barley varieties from highest to lowest grain yields within fungicide and untreated treatments at Winchester, 2010.

Table 15. Managed spring oat performance at Harriston in 2010.

Class ¹	Variety	Yield (t/ha)				Relative Yield Within Fungicide		Test Weight (kg/hL)		Thousand Kernel Weight (g)		Lodging (0-9)		Crown Rust (0-9)		Septoria (0-9)	
		Fungicide		Δ%	p ²	Fungicide		Fungicide		Fungicide		Fungicide		Fungicide		Fungicide	
		no	yes			no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
		no	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
HL	AC Gwen	1.61	2.10	30	*	51	60	51.1	50.4	31.3	32.1	3.3	3.1	4.4	2.0	3.0	2.9
	CFA0607	3.03	2.87	-5	ns	95	82	49.6	51.4	25.6	24.3	2.2	0.3	2.3	4.4	1.4	3.2
W	Alcyon	2.88	3.61	25	**	91	103	44.5	45.4	40.9	39.8	6.3	5.0	4.3	1.4	2.1	1.0
	Bailey	3.37	3.48	3	ns	106	99	46.6	47.0	44.3	45.6	6.9	4.4	3.1	1.4	3.1	1.6
	Bradley	3.62	3.50	-3	ns	114	100	44.0	48.6	38.2	44.5	0.6	0.1	1.0	0.1	2.4	1.1
	CFA0908-2	3.59	3.87	8	ns	113	110	45.6	45.2	47.1	44.4	0.3	0.0	3.2	2.2	2.6	1.6
	Lachute	3.30	3.67	11	ns	104	104	40.8	44.4	37.0	39.0	7.6	4.6	4.7	2.0	2.7	2.9
	OA1174-3	3.63	4.10	13	ns	114	117	42.8	44.5	43.0	47.5	4.1	1.9	1.4	2.3	2.0	2.8
	OA1228-1	4.06	4.25	5	ns	128	121	44.5	43.4	39.0	38.2	0.6	0.0	0.0	0.0	3.9	1.1
	OAC Markdale	3.09	3.45	12	ns	97	98	45.1	44.1	37.3	40.0	3.4	3.7	3.3	3.2	1.6	1.0
	Prescott	2.68	3.23	21	*	85	92	43.3	45.6	37.6	39.3	2.2	0.6	5.7	2.0	3.8	2.3
	RC Amaze	3.64	3.70	2	ns	115	105	44.3	45.1	34.9	40.3	7.3	4.7	1.0	3.2	2.0	1.4
	Robust	3.36	3.82	14	ns	106	109	46.8	47.7	36.4	38.4	0.3	0.6	1.1	2.8	2.1	2.8
	Sherwood	2.98	3.30	11	ns	94	94	44.8	43.9	41.5	43.1	4.4	3.8	4.6	3.3	4.1	3.9
	Y	Manotick	2.80	3.71	33	***	88	106	40.5	41.7	40.9	41.4	5.3	6.4	5.6	2.4	3.6
	Mean	3.18	3.51	10	ns	100	100	45.0	45.9	38.3	39.9	3.7	2.6	3.1	2.2	2.7	2.1
	LSD _{0.05} (within fung) ³	0.44				13		-	-	-	-	-	-	-	-	-	-

¹HL=Hulless; W=White; Y=Yellow

²Treated vs untreated contrast; ***, **, *, ns represents statistical significance at $p=0.001$, 0.01, 0.05, and

³LSD = Fisher's Least Significant Difference at $p=0.05$

Table 16. Managed spring oat performance at New Liskeard in 2010.

Class ¹	Variety	Yield (t/ha)				Relative Yield Within Fungicide		Test Weight (kg/hL)		Thousand Kernel Weight (g)		Straw Yield (t/ha)	
		Fungicide		$\Delta\%$	p^2	Fungicide		Fungicide		Fungicide		Fungicide	
		no	yes			no	yes	no	yes	no	yes		
HL	AC Gwen	3.57	3.66	3	ns	76	75	47.0	47.2	38.9	39.2	4.19	5.61
	CFA0607	3.60	3.51	-3	ns	77	72	46.4	46.3	32.8	32.9	4.98	6.01
	Navaro	3.67	3.55	-3	ns	79	72	53.4	53.5	36.0	36.0	6.11	6.10
W	Alcyon	5.07	5.02	-1	ns	109	103	45.3	45.2	42.6	42.3	4.86	4.92
	Bailey	4.68	5.29	13	ns	100	108	44.7	45.3	40.0	40.2	3.93	5.18
	Bia	4.94	4.88	-1	ns	106	100	40.8	40.6	37.6	37.9	4.23	4.68
	Bradley	4.90	5.28	8	ns	105	108	42.3	43.0	41.6	41.6	4.77	5.00
	CANTAL	4.38	5.13	17	ns	94	105	45.9	45.6	43.2	43.1	5.28	5.66
	CFA0908-2	4.77	5.06	6	ns	102	103	42.5	42.4	42.6	42.6	3.59	4.66
	Canmore	5.24	5.11	-2	ns	112	104	46.2	45.6	44.6	45.1	5.02	5.05
	Dieter	5.41	5.35	-1	ns	116	109	43.0	42.9	43.1	41.8	4.68	5.56
	Lachute	4.58	4.93	8	ns	98	101	40.8	40.6	42.2	42.1	4.05	4.71
	Lois	5.38	5.72	6	ns	115	117	39.6	40.1	45.4	45.6	4.64	5.12
	OA1174-3	5.09	5.06	-1	ns	109	103	44.0	43.6	43.5	42.7	4.82	4.52
	OA1228-1	5.27	4.93	-6	ns	113	101	41.6	41.2	34.7	34.1	4.16	4.66
	Prescott	5.28	5.44	3	ns	113	111	44.9	44.2	38.5	37.7	4.33	5.74
	RC Amaze	4.14	4.43	7	ns	89	91	43.3	43.3	38.9	37.5	3.41	4.09
	Robust	4.31	4.50	4	ns	92	92	43.9	44.0	36.2	36.1	2.56	3.29
	SA04213	4.41	5.16	17	*	94	105	40.2	40.4	36.6	38.1	3.91	3.97
Sherwood	4.65	5.05	9	ns	100	103	44.2	44.7	43.9	44.3	5.45	5.69	
Synextra	4.53	4.88	8	ns	97	100	45.9	46.6	43.4	44.3	4.47	5.18	
Vitality	4.77	5.21	9	ns	102	106	41.7	41.6	45.8	45.2	5.12	4.84	
Y	SO04278	4.74	5.43	15	ns	102	111	44.5	44.3	40.5	39.8	3.84	3.76
	Mean	4.67	4.90	5	ns	100	100	44.0	44.0	40.5	40.4	4.45	4.96
	LSD _{0.05} (within fung) ³	0.59		-	-	13		-	-	-	-	-	-

¹HL=Hulless; W=White; Y=Yellow

²Treated vs untreated contrast; ***, **, *, ns represents statistical significance at $p=0.001$, 0.01, 0.05, and >0.05 ,

³LSD = Fisher's Least Significant Difference at $p=0.05$

Table 17. Managed spring oat performance in two separate trials (untreated and treated) at Ottawa in 2010.

Class ¹	Variety	Yield (t/ha)				Relative Yield Within Fungicide		Test Weight (kg/hL)		Thousand Kernel Weight (g)		Crown Rust (0-9)	
		Fungicide		Δ%	p ²	Fungicide		Fungicide		Fungicide		Fungicide	
		no	yes			no	yes	no	yes	no	yes		
H	AC Gwen	1.93	2.22	15	-	56	57	53.1	53.6	26.3	24.6	1.4	0.0
	CFA0607	2.24	2.80	25	-	64	72	55.0	55.6	23.6	21.8	0.0	0.0
	Navaro	2.34	2.69	15	-	67	70	59.5	59.7	20.3	22.5	0.0	0.0
W	Bailey	3.98	4.53	14	-	113	117	51.8	53.6	36.1	34.7	0.0	0.0
	Bradley	3.61	4.03	12	-	103	104	48.9	52.2	35.2	35.3	0.0	0.0
	CANTAL	4.45	4.51	1	-	127	116	54.0	56.2	37.1	36.0	1.0	0.0
	CFA0908-2	3.34	3.78	13	-	95	98	49.5	51.3	38.5	38.2	0.0	0.0
	Dieter	4.41	4.60	4	-	126	119	50.3	51.8	40.5	39.6	0.6	0.0
	Lachute	3.98	4.29	8	-	113	111	47.3	48.4	34.6	35.0	0.6	0.0
	OA1174-3	3.46	4.00	16	-	99	103	52.5	52.6	38.9	38.7	0.0	0.0
	OA1228-1	3.22	3.79	18	-	92	98	48.7	50.2	32.9	33.0	0.0	0.0
	Prescott	4.38	4.39	0	-	125	113	51.6	53.5	35.0	35.1	1.0	0.0
	RC Amaze	3.18	3.28	3	-	91	85	49.6	49.4	35.7	34.9	0.0	0.0
	Robust	3.16	3.49	10	-	90	90	50.9	53.2	33.8	33.1	0.0	0.0
	SA04213	3.49	4.04	16	-	99	104	45.7	47.4	31.4	33.6	0.0	0.0
	Sherwood	3.88	4.30	11	-	110	111	51.2	52.9	39.9	39.9	0.0	0.0
	Synextra	4.37	4.51	3	-	124	116	54.4	56.5	37.0	37.8	2.5	0.0
	Vitality	3.54	4.24	20	-	101	110	52.2	54.4	40.1	41.1	1.0	0.0
Y	Manotick	3.30	3.61	9	-	94	93	44.9	46.3	36.3	38.4	1.0	0.0
	SO04278	3.55	4.35	23	-	101	112	52.7	47.8	36.0	35.0	0.0	0.0
Mean		3.49	3.87	11	-	100	100	51.2	52.3	34.5	34.4	0.5	0.0
LSD _{0.05} (within fung) ³		0.53	0.31	-	-	15	8	-	-	-	-	-	-

¹HL=Hulless; W=White; Y=Yellow

²Separate Trials; treated vs untreated contrast not available.

³LSD = Fisher's Least Significant Difference at $p=0.05$

Table 18. Managed spring oat performance at St. Mary's in 2010.

Class ¹	Variety	Yield (t/ha)				Relative Yield Within Fungicide		Test Weight (kg/hL)		Thousand Kernel Weight (g)		Lodging (0-9)		Stem Break (0-9)		Stem Rust (0-9)	
		Fungicide		Δ%	p ²	Fungicide		Fungicide		Fungicide		Fungicide		Fungicide		Fungicide	
		no	yes			no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
H	AC Gwen	0.19	0.82	332	***	11	30	50.3	56.5	18.8	20.1	7.0	3.0	6.5	2.3	2.6	2.8
	CFA0607	1.71	2.30	35	***	94	85	60.5	59.6	20.3	23.2	2.0	0.3	2.8	0.3	0.8	2.6
W	Alcyon	1.55	2.49	61	***	86	92	39.8	47.2	24.9	27.9	8.0	3.0	7.3	1.5	2.4	2.9
	Bailey	1.76	2.83	61	***	97	105	44.4	51.7	27.7	30.4	8.0	5.0	8.0	5.8	1.4	2.0
	Bradley	2.26	3.13	38	***	125	116	42.2	47.6	29.0	31.2	0.0	0.0	0.8	0.0	1.9	2.3
	CFA0908-2	2.40	2.84	18	***	133	105	46.1	49.6	29.8	34.4	3.0	1.3	3.5	1.3	1.4	1.7
	Lachute	1.48	2.52	70	***	82	93	38.2	46.0	23.8	27.0	8.8	2.3	8.5	2.3	1.8	2.6
	OA1174-3	2.68	3.47	29	***	148	128	47.3	51.9	32.5	34.4	2.5	0.0	3.5	0.0	2.1	2.4
	OA1228-1	3.30	3.65	11	**	182	135	48.6	51.5	24.6	28.1	0.3	0.0	0.0	0.0	0.5	0.9
	OAC Markdale	1.65	2.72	65	***	91	100	43.1	48.7	23.7	27.5	7.3	0.5	8.0	1.0	1.8	1.6
	Prescott	1.29	2.72	111	***	71	101	40.7	50.2	21.7	27.6	8.0	1.8	7.3	2.0	1.7	3.2
	RC Amaze	2.15	2.86	33	***	118	106	47.6	50.3	28.2	29.3	8.0	4.8	8.0	4.3	3.3	2.3
	Robust	2.31	3.15	36	***	127	116	45.1	51.0	24.1	26.5	3.0	0.5	3.0	1.0	2.4	2.6
Sherwood	1.30	2.17	67	***	72	80	36.0	47.1	24.1	31.2	8.3	4.0	8.0	5.0	2.6	3.1	
Y	Manotick	1.14	2.95	159	***	63	109	35.5	45.4	26.1	34.1	6.8	0.3	5.8	1.0	2.1	2.3
	Mean	1.81	2.71	50	***	100	100	44.4	50.3	25.3	28.9	5.4	1.8	5.4	1.8	1.9	2.4
	LSD _{0.05} (within fung) ³	0.25				11		-	-	-	-	-	-	-	-	-	-

¹HL=Hulless; W=White; Y=Yellow

²Treated vs untreated contrast; ***, **, ns represents statistical significance at $p=0.001$, 0.01, 0.05, and

³LSD = Fisher's Least Significant Difference at $p=0.05$

Table 19. Managed spring oat performance at Winchester in 2010.

Class ¹	Variety	Yield (t/ha)				Relative Yield Within Fungicide		Test Weight (kg/hL)		Thousand Kernel Weight (g)		Straw Yield (t/ha)	
		Fungicide		$\Delta\%$	p^2	Fungicide		Fungicide		Fungicide		Fungicide	
		no	yes			no	yes	no	yes	no	yes		
H	AC Gwen	4.42	4.66	5	ns	85	84	53.4	54.9	31.1	33.3	4.06	5.64
	CFA0607	4.44	4.68	5	ns	85	84	55.6	54.4	28.5	28.1	4.71	6.12
	Navaro	4.08	4.32	6	ns	78	77	61.8	60.9	32.1	32.5	5.82	7.34
W	Bailey	5.09	5.20	2	ns	98	93	47.2	48.6	35.9	37.1	2.78	4.19
	Bradley	5.75	5.76	0	ns	111	103	48.6	47.3	38.5	38.5	4.48	6.33
	CANTAL	5.80	6.23	7	ns	112	112	49.8	50.6	38.4	38.8	4.22	5.93
	CFA0908-2	5.75	6.01	5	ns	111	108	47.8	48.3	42.6	41.2	3.54	4.88
	Dieter	5.21	6.06	16	***	100	109	47.0	47.8	38.8	36.0	3.00	4.37
	Lachute	5.15	5.77	12	**	99	103	45.6	46.0	36.5	39.2	2.73	3.64
	OA1174-3	5.32	5.80	9	*	102	104	46.7	45.5	40.8	39.3	3.29	4.45
	OA1228-1	5.86	6.11	4	ns	113	110	47.8	48.6	30.8	31.3	3.49	4.98
	Prescott	5.00	5.53	11	*	96	99	49.9	47.6	33.9	34.4	2.94	3.95
	RC Amaze	4.79	5.27	10	*	92	94	46.5	46.8	35.9	36.5	3.11	4.24
	Robust	5.57	5.76	3	ns	107	103	49.1	49.7	32.9	32.4	3.46	4.58
	SA04213	5.20	5.59	8	ns	100	100	46.0	46.5	34.3	35.4	2.90	3.21
	Sherwood	5.02	5.73	14	**	97	103	46.0	47.5	38.4	41.4	2.61	3.65
	Synextra	5.25	5.90	12	**	101	106	51.9	51.8	37.7	38.9	3.56	5.83
	Vitality	5.55	5.89	6	ns	107	106	47.6	47.3	42.2	41.0	3.37	3.48
Y	Manotick	5.34	5.56	4	ns	103	100	42.9	44.2	40.6	40.6	2.80	3.36
	SO04278	5.39	5.71	6	ns	104	102	50.9	51.9	35.7	38.0	2.70	3.19
	Mean	5.20	5.58	7	*	100	100	49.1	49.3	36.3	36.7	3.48	4.67
	LSD _{0.05} (within fung) ³	0.57		-	-	11		-	-	-	-	-	-

¹HL=Hulless; W=White; Y=Yellow

²Treated vs untreated contrast; ***, **, *, ns represents statistical significance at $p=0.001$, 0.01 , 0.05 , and >0.05 ,

³LSD = Fisher's Least Significant Difference at $p=0.05$

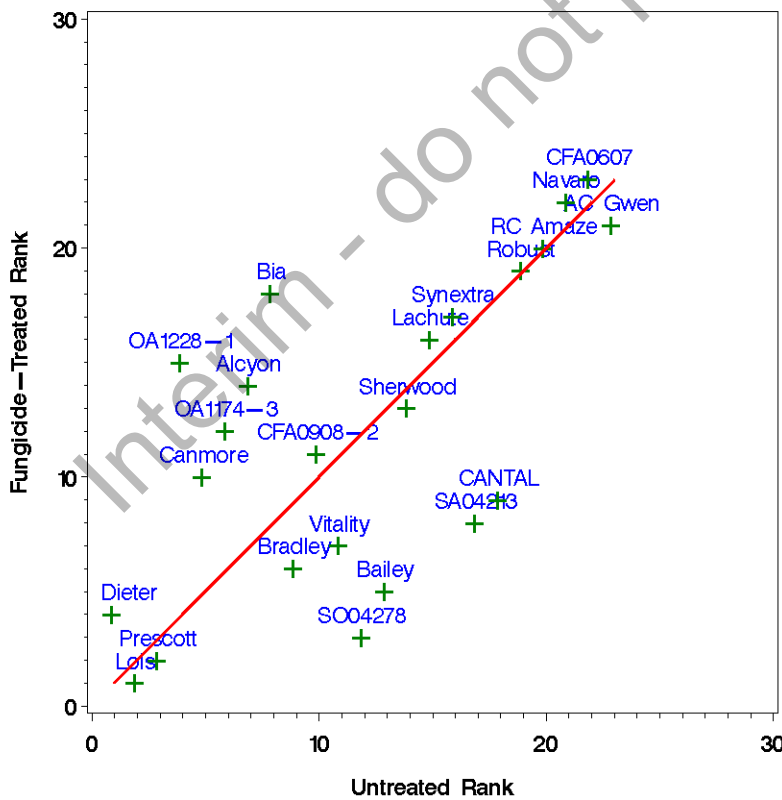
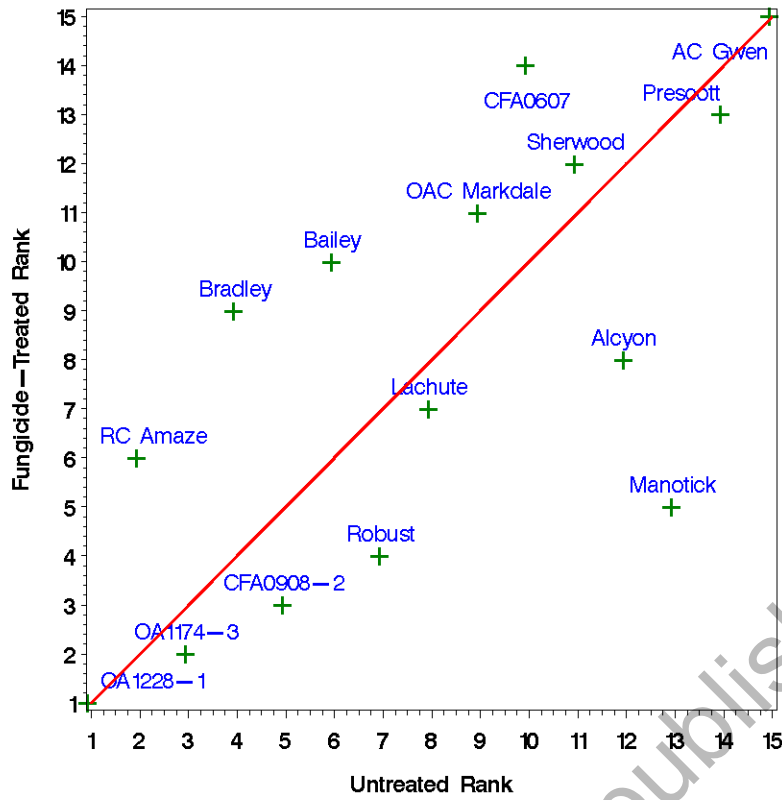


Figure 4a. Rank order of spring oat varieties from highest to lowest grain yields within fungicide and untreated treatments at Harriston (upper) and New Liskeard (lower), 2010.

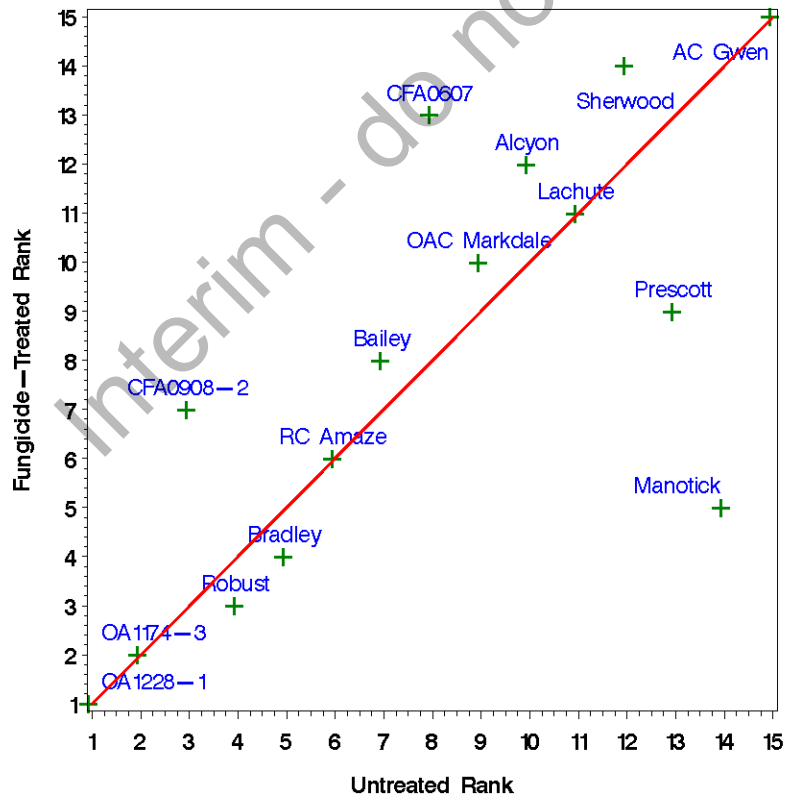
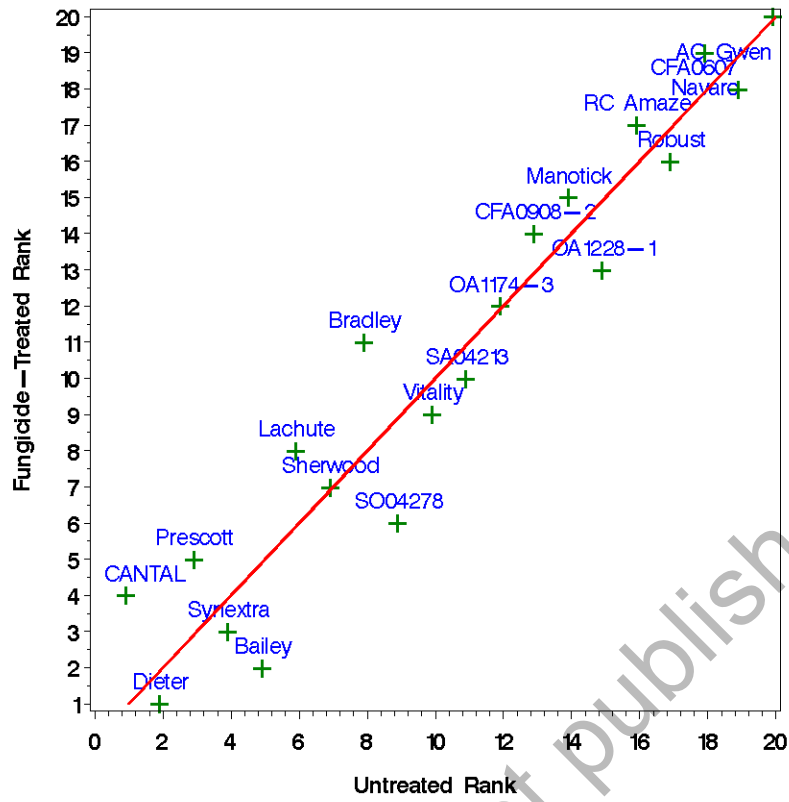


Figure 4b. Rank order of spring oat varieties from highest to lowest grain yields within fungicide and untreated treatments at Ottawa (upper) and St. Mary's (lower), 2010.

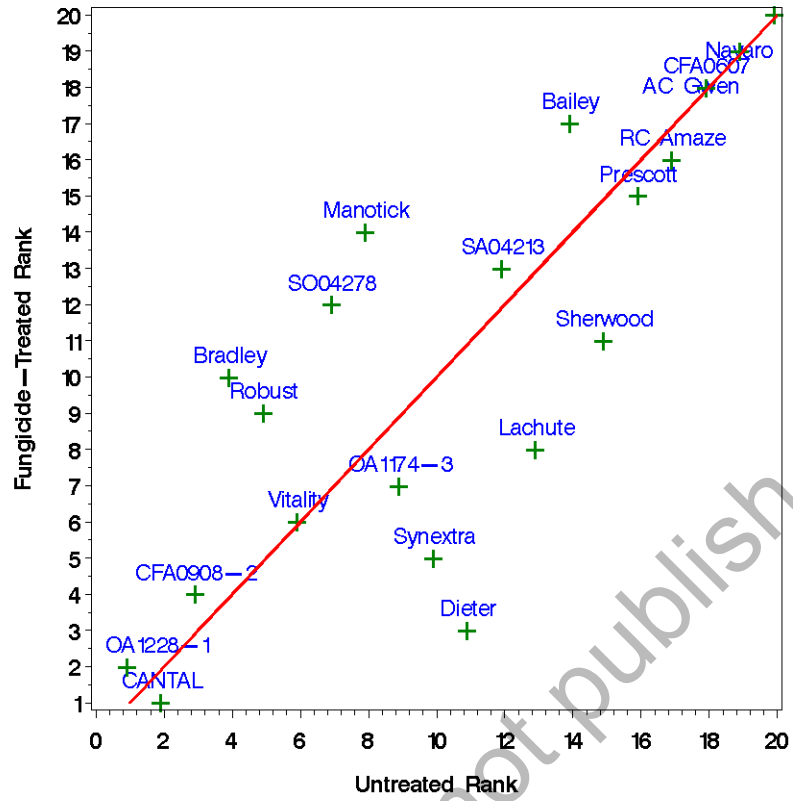


Figure 4c. Rank order of spring oat varieties from highest to lowest grain yields within fungicide and untreated treatments at Winchester, 2010.