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2023 Small Grains Performance Trials for New York

Enclosed are the results of our 2023 small grains regional trials and the cumulative summaries over years. Because the rankings of the varieties and lines often change from year to year, only the multiple year summaries should be considered to be useful indicators of varietal performance in this region. Reproduction of any table in this report must include the entire table unless we approve the editing. The information herein is provided with the understanding that no discrimination is intended and no endorsement by Cornell University or its employees is implied.

Your comments and suggestions concerning this report are welcome. If you would like additional information or do not wish to receive this report in the future, please contact us. Summaries and information about the Cornell Small Grains Breeding & Genetics Project are maintained on our small grains web page: <http://smallgrains.cals.cornell.edu>

We have continued to develop and test selections from our molecular marker-assisted breeding program in our soft winter wheat and barley breeding programs. Our most recent varieties are Medina (soft white) and Erie (soft red). These selections have improved resistance to preharvest sprouting and fusarium head blight combined with excellent agronomic performance. Medina has excellent malting quality for brewing wheat beer. Erie is a soft red winter wheat variety released in collaboration with Ohio State University that has excellent grain yield and disease resistance to powdery mildew, leaf spot, glume blotch, leaf rust, wheat spindle streak mosaic virus, wheat soil borne mosaic virus, and moderate resistance to fusarium head blight (scab). Our newest spring oat variety is Steuben, and it has excellent yield potential. In 2021, we released Cornell's first spring malting barley variety named Excelsior Gold and at the same time we released HudsonNY. Certified seed of Excelsior Gold and HudsonNY was produced in 2021. Please contact [RJ Richtmyer \(rjr39@cornell.edu\)](mailto:rjr39@cornell.edu), for more information. In 2021, we co-released a new winter malting barley with Oregon State University named Lightning. Certified seed is available. We have released a new soft white winter wheat named Towpath and certified seed will be available in 2024.

I wish to recognize the contributions of Research Support Specialist, David Benschler, Technical Assistant, Jason Schiller, and Field Assistant, Jenna Rice and thank them for their dedication.

Sincerely,

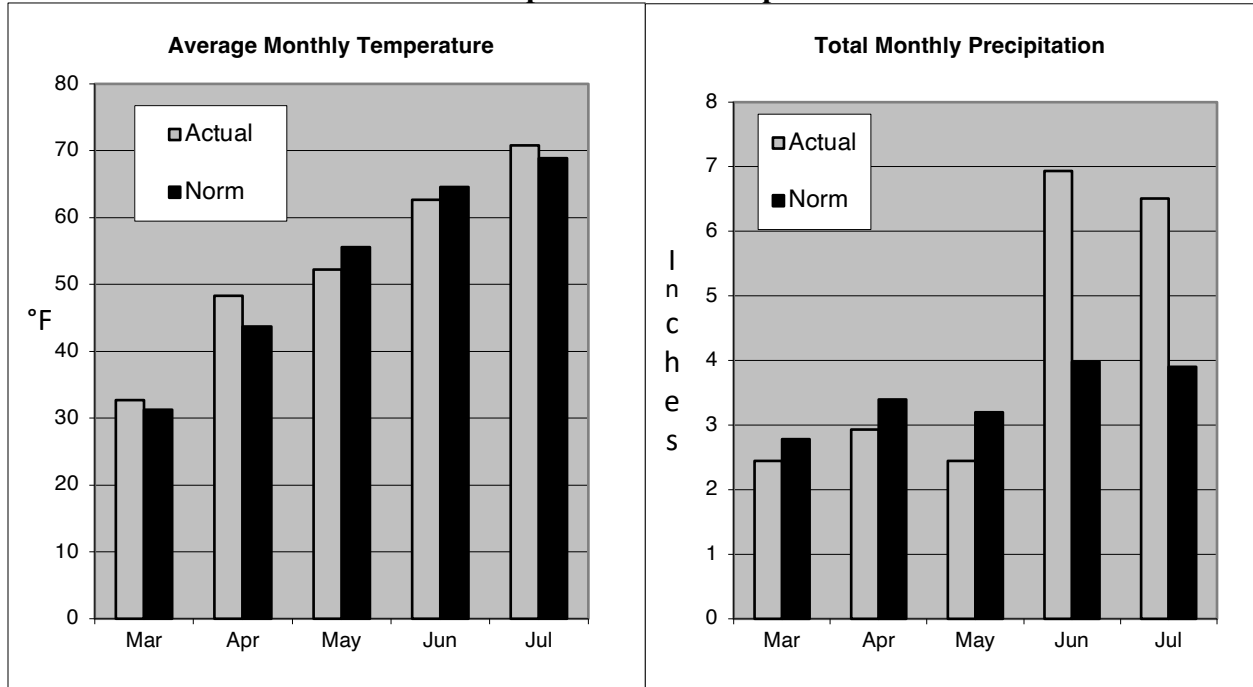
Mark E. Sorrells
Professor of Plant Breeding & Genetics

Testing Procedures:

In 2023, the Soft White Winter Wheat, Soft Red Winter Wheat, Winter Malting Barley, Spring Malting Barley, and Spring Oat regionals were grown in four locations and the Winter Hybrid Rye was grown in two locations. The wheat and oat trials near Ithaca consisted of 2 replicates while those out in the state consisted of 3 replicates. All barley and rye trials were grown in 3 replicates at all locations. All trial plots are 6-rows, 4 meters long with 18 cm between rows. Prior to harvest, the plots are

trimmed to 3 meters. Disease and lodging notes were recorded on a 0 to 9 scale with 0 being the best and 9 the poorest. All trials are planted in a randomized complete block design and analyzed by ANOVA. If there are indications of within replicate field variation a second ANOVA using a nearest-neighbor adjustment is computed based on the nearest 8-plot mean. If the coefficient of variation was reduced and the variance due to genotypes was the same or increased, those adjusted means were used for the summary. All trials are fertilized according to soil test recommendations for small grains. Winter grains trials generally receive a top dress of 56 kg/h (50 lbs/a) of actual N in the spring. For more information about small grains management see <http://fieldcrops.cals.cornell.edu/>.

2023 Precipitation and Temperature



The winter wheat and winter malting barley trials were planted on October 12 and 19 in Ithaca, October 6 in Seneca County and October 10 in Monroe County. The spring grains were planted on April 11 and 12 in Ithaca, April 21 in Seneca County and April 19 in Steuben County. The Hudson Valley winter trials were planted on September 30 and spring trials were planted April 28. The growing season averaged about 0.5 degrees warmer than normal, and rainfall was 3.99 inches above average with a total of 21.25 inches for the growing season (March – July) in Ithaca.

Acknowledgments:

Our testing program depends on being able to test new varieties in the areas where they will be grown under actual farming conditions. We gratefully acknowledge the many farmers who have provided us with a test site for our regional trials over many years. This year, the test site for winter grains was generously provided by Jeff Trout (Poormon Farms) in Seneca County and Rick Bair (Stokoe Farms) in Monroe County. Test sites for spring grains were provided by Dave Wallace - Steuben County, Jeff Trout in Seneca County and Jeff Arnold in Ulster County (Farm Hub). Without their support we would not be able to provide accurate, unbiased test results. Extension specialists Mike Stanyard, Aaron Gabriel and Christian Malsatski have been instrumental in arranging test sites, field days, and information distribution. Also, we thank Drs. Gary C. Bergstrom and Margaret E. Smith, extension faculty in Plant Pathology and Plant Breeding & Genetics for their excellent cooperation and support. We also gratefully acknowledge the financial support from NY State Ag & Markets, and the USDA NIFA Organic Research and Extension Initiative grant numbers 2011-51300-30697 and 2020-51300-32379, Agriculture and Food Research Initiative Competitive Grants 2011-68002-30029 (Triticeae-CAP) and 2017-67007-25939 (Wheat-CAP) from the USDA National Institute of Food and Agriculture, the U.S. Wheat and Barley Scab Initiative and Hatch Project 945.

2023 Soft White Winter Wheat Summaries - Cornell University

Entry		Grain Yield (kg/h)						Test Weight kg/hl	Lodg. 0-9	Head Date 2 Loc	Winter Surv %	Height cm	Preharvest		FHB Incid. %	FHB Sev. %	FHB Index %	DON ppm		
		Regional Locations											Sprouting	Rank						
		lth-Sny	lth-Ket	SenCo	MonCo	Mean	Rank													
1	Houser	4712	3860	4640	6567	4945	20	72.9	N	6/2	100	87	7.1	26	NA	NA	NA	NA	NA	
2	Caledonia	4814	4639	5091	5847	5098	18	72.3	O	6/2	100	77	5.4	19	NA	NA	NA	NA	116	
3	Cayuga	4781	3825	4368	4946	4480	26	75.2	N	6/3	100	91	1.8	1	NA	NA	NA	NA	NA	
4	Medina	5214	4767	4773	6110	5216	11	73.8	E	6/2	100	89	4.3	10	79	17	13.1	14	34	
5	Towpath	5084	3862	4427	6242	4904	22	73.2		6/5	100	79	4.7	13	76	20	15.9	18	58	
6	NY11014-9-25-1319	5243	4371	4916	6182	5178	14	72.9		6/1	100	78	5.7	23	66	12	7.8	5	44	
7	NY12006-2-1-7	4835	4043	4602	6240	4930	21	73.8		6/3	100	83	3.6	6	80	21	16.5	20	37	
8	NY12457-1-8-02	4792	4359	5270	6380	5200	12	73.1		6/2	100	77	4.8	15	84	13	11.2	11	57	
9	NY12397-1-4-13	5011	4593	5032	6477	5278	10	74.5		6/1	100	68	2.9	3	63	12	7.3	4	32	
10	NY12398-2-16-07-03W-1580	4912	4351	4983	6405	5163	16	75.2		6/3	100	76	4.8	16	75	19	15.4	16	53	
11	NY12512-1-6-05-1542	5293	4294	5413	6871	5468	5	74.1		6/3	100	76	3.9	8	83	19	15.6	17	47	
12	NY12007-2-4-13-1381	4823	4042	4897	5668	4858	24	73.0		6/2	100	82	4.6	12	84	15	12.3	13	27	
13	NY12311-1-30-10-1452	5349	5805	5121	6183	5614	2	73.9		6/1	100	77	5.1	17	69	16	11.2	10	47	
14	NY12508-1-7-15-1536	5302	4450	4987	6741	5370	7	74.4		6/1	100	75	3.2	4	36	8	3.1	1	25	
15	NY15158-01-01-10-1873	5235	4613	5359	6224	5358	8	71.9		5/30	100	76	6.1	25	38	13	5.0	2	47	
16	NY15158-01-01-11-1874	5631	4826	5467	7020	5736	1	72.6		5/31	100	74	4.7	14	54	18	9.9	6	48	
17	NY15150-01-01-12-1870	5171	5209	5215	6575	5543	3	72.6		6/1	100	68	4.4	11	96	21	20.6	23	55	
18	NY15148-01-01-10-1860	5660	4491	4984	6350	5371	6	71.8		6/2	100	74	5.1	18	79	21	16.9	21	45	
19	NY15150-01-01-05-1868	4855	4478	5106	6302	5185	13	73.3		6/1	100	68	2.7	2	75	16	11.3	12	48	
20	NY15145-01-01-11-1850	5088	4020	5167	6272	5137	17	73.4		6/4	100	81	5.5	21	71	16	11.1	9	40	
21	NY15173-01-01-01-1884	4430	3934	4811	6337	4878	23	74.3		5/31	100	67	5.7	22	51	14	7.3	3	52	
22	NY15173-01-01-11-1887	4856	3566	4451	6236	4777	25	74.5		6/1	100	72	4.2	9	70	15	10.1	7	54	
23	NY12512-1-6-17-1544	5253	4533	5388	6708	5470	4	75.0		6/3	100	80	3.5	5	68	23	16.0	19	46	
24	NY16037-01-Bulked-09	5113	4976	4635	5967	5173	15	73.5		6/2	100	81	5.8	24	85	21	17.7	22	39	
25	NY12513-1-16-06-1545	5090	4200	4795	6116	5050	19	72.9		6/4	100	85	3.8	7	63	17	10.7	8	43	
26	NY12428-1-12-01-01-1765	5055	4040	4977	7231	5326	9	74.6		6/2	100	69	5.4	20	81	17	14.6	15	41	
	Mean	5062	4390	4957	6315	5181		73.6		6/2	100	77	4.5		71	17	12.2			
	CV	4.3	9.1	7.1	8.9															

Entry	Grain Yield						Test Weight		Lodging		Head Date 2 Yr	FHB %Inc 2 Yr	FHB %Sev 2 Yr	FHB Index 2 Yr	DON ppm 2 Yr	Preharv Sprout 2 Yr	Height cm 2 Yr	Winter Surv 2 Yr			
	5 Year		3 Year		2 Year		5 Yr kg/h	lb/lb	2 Yr kg/h	lb/lb									4 Yr kg/h	2 Yr kg/h	
	kg/h	b/a	kg/h	b/a	kg/h	b/a															
1	Houser	4881	73	4718	70	5284	79	69.9	55.0	73.8	58.1	5.0	3.1	5/31	NA	NA	NA	NA	6.1	99	96
2	Caledonia	5035	75	5043	75	5419	81	69.8	55.0	73.5	57.9	2.0	2.5	5/31	98	56	54.6	66.5	4.8	89	100
3	Cayuga	4434	66	4556	68	4901	73	73.8	58.1	76.6	60.3	4.5	3.0	6/2	NA	NA	NA	NA	2.0	103	98
4	Medina	5010	74	5069	75	5401	80	71.3	56.2	74.9	59.0	3.0	2.8	5/31	76	18	13.8	23.7	3.2	97	99
5	Towpath	5122	76	5212	78	5266	78	71.2	56.1	74.4	58.6	2.0	2.8	6/2	59	25	14.3	34.2	4.6	89	98
6	NY11014-9-25-1319	5208	77	5164	77	5559	83	71.5	56.3	74.3	58.5	3.2	2.5	5/31	73	25	18.6	25.9	5.1	91	99
7	NY12006-2-1-7	5046	75	4978	74	5217	78	72.1	56.8	74.8	58.9	2.9	2.9	6/2	74	27	19.5	23.9	3.5	92	99
8	NY12457-1-8-02	5162	77	5175	77	5400	80	70.9	55.8	73.6	58.0	3.8	3.3	5/31	73	22	14.7	33.9	4.1	86	98
9	NY12397-1-4-13	5121	76	5137	76	5332	79	72.4	57.0	75.1	59.2	3.4	3.2	5/30	78	21	17.7	22.3	2.8	77	98
10	NY12398-2-16-07-03W-1580			5291	79	5249	78			76.1	59.9		2.2	6/1	78	23	19.1	30.9	3.9	82	98
11	NY12512-1-6-05-1542			5432	81	5464	81			74.3	58.5		3.5	6/2	81	21	17.1	30.0	3.9	87	98
12	NY12007-2-4-13-1381			5061	75	5082	76			74.3	58.5		3.2	5/30	88	25	22.5	18.7	3.5	83	95
13	NY12311-1-30-10-1452			5319	79	5486	82			74.7	58.8		3.2	5/31	73	25	18.4	29.2	4.2	86	90
14	NY12508-1-7-15-1536			5148	77	5474	81			74.9	59.0		3.8	5/29	63	18	14.2	19.3	3.7	82	96
15	NY15158-01-01-10-1873					5446	81			72.7	57.2		4.1	5/28	67	23	18.4	30.5	5.6	84	97
16	NY15158-01-01-11-1874					5577	83			72.6	57.2		4.3	5/29	71	25	19.1	31.3	4.5	82	96
17	NY15150-01-01-12-1870					5511	82			73.6	57.9		2.1	5/29	98	35	34.4	35.9	3.6	80	96
18	NY15148-01-01-10-1860					5390	80			72.9	57.4		3.5	5/31	77	24	18.5	28.0	5.1	83	93
19	NY15150-01-01-05-1868					5329	79			74.6	58.7		3.8	5/30	86	31	28.2	34.0	2.9	79	96

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2023 Red Winter Wheat Summaries - Cornell University

Entry	Grain Yield (kg/h)						Test		Preharvest				Winter		FHB			DON ppm		
	Regional Locations						Wt kg/hl	Lodg Rank	Head Date	Sprouting		Ht cm	Surv %	Incid %	Sev %	Index Rank				
	Ith-Sny	Ith-Ket	SenCo	MonCo	Mean	Rank				0-9	Rank									
1 Erie	5181	4518	1524	5911	4283	26	73.8	22	N	6/3	2.8	31	79	100	78	10	8	16	NA	
2 NY11013-10-15-1312	5189	4602	1550	5907	4312	23	73.1	28	O	6/2	0.95	21	81	100	60	12	8	15	27	
3 NY12299-1-3-14	5494	5345	1787	5414	4510	14	73.9	20	N	6/2	2.55	29	71	100	59	14	8	18	28	
4 NY12300-1-6-07-1436	5067	5137	1723	4736	4166	32	75.9	5	E	6/2	0.65	15	70	100	73	14	10	22	31	
5 NY12325-1-10-12-1476	5476	5068	1697	4984	4306	24	73.2	26		6/4	1.55	25	78	100	84	27	24	32	82	
6 SW65SR	5606	4902	1642	7292	4860	5	73.4	24		6/3	0.3	7	70	100	45	9	4	3	20	
7 SW51SR	5313	4588	1544	6116	4391	19	74.0	19		6/1	0.25	5	73	100	61	12	8	14	23	
8 Revere 2169	5474	4986	1671	7516	4912	2	73.2	27		6/2	0.9	19	71	100	38	8	3	2	26	
9 Revere 2148	5215	4647	1563	5383	4202	31	74.2	16		6/1	0.55	10	79	100	83	20	18	31	26	
10 NY12325-1-10-18-1477	5705	5032	1682	6286	4676	8	74.4	13		6/4	0.9	20	81	100	93	36	33	34	95	
11 NY12351-1-14-20-1484	5186	4869	1636	5299	4247	27	73.8	21		6/2	1.25	23	73	100	79	17	13	27	37	
12 OH12-317-57-1413	5059	4295	1452	6777	4396	18	76.2	3		6/2	0.15	4	76	100	56	11	6	10	42	
13 NY12302-2-14-01-1441	5025	4846	1631	5348	4213	30	72.2	32		6/3	1.6	26	75	100	80	19	15	30	53	
14 NY12308-1-18-09-1449	4834	5047	1696	5384	4240	29	72.8	30		6/3	0.1	2	85	100	71	16	12	23	28	
15 NY12302-2-14-08-1442	5385	4615	1552	5422	4243	28	72.4	31		6/4	1.65	27	79	100	70	20	15	29	46	
16 Revere 2277	5691	4914	1644	6174	4606	12	74.8	9		6/3	0.25	6	70	100	78	16	12	25	52	
17 16VDH-SRW03-023	5765	5621	1876	6203	4866	3	74.3	14		6/2	3.45	33	77	100	58	10	6	8	36	
18 NYX11-0357-24-13-5	5043	5256	1763	5592	4414	17	76.6	1		6/3	0.6	13	72	100	34	7	2	1	18	
19 NY15116-01-06-01-1804	5167	4465	1507	6114	4313	22	73.1	29		5/30	2.2	28	68	100	58	14	8	17	69	
20 Pioneer 25R64	5662	4718	1582	6642	4651	11	72.0	33		6/3	1.05	22	72	100	96	32	31	33	67	
21 Blaze	5191	4361	1472	6129	4288	25	73.8	23		6/2	3.1	32	77	100	54	10	5	5	51	
22 Hilliard	5546	4746	1592	6765	4662	10	74.7	10		6/2	0.75	16	71	100	60	11	7	12	32	
23 FS 743	5877	4872	1629	6562	4735	7	74.1	17		6/1	0.55	11	72	100	64	13	8	19	36	
24 FS 745	5767	5100	1703	6696	4816	6	73.3	25		6/2	0.6	14	71	100	68	12	7	13	40	
25 FS 891	5333	4525	1523	6463	4461	16	74.5	12		6/2	0.05	1	72	100	44	11	4	4	28	
26 USG 3804	5289	4617	1553	4241	3925	34	71.2	34		6/2	0.35	8	80	100	55	16	9	21	18	
27 USG 3904	5641	4728	1585	7497	4863	4	74.8	8		5/31	2.75	30	69	100	61	10	7	11	47	
28 Pioneer 25R29	5844	4689	1570	6587	4672	9	74.0	18		6/3	0.75	17	70	100	89	16	14	28	66	
29 Revere 2347	5524	5745	1920	6594	4946	1	74.3	15		6/1	0.55	12	76	100	54	10	5	7	33	
30 CM18-004	5752	4246	1428	5874	4325	21	74.5	11		6/2	0.85	18	76	100	74	17	13	26	36	
31 NY16068-01-11-1909	4923	4414	1492	5632	4115	33	75.4	6		6/1	0.15	3	70	100	74	11	9	20	49	
32 VA19W-36	4753	4465	1509	6746	4368	20	76.0	4		6/3	1.35	24	72	100	55	11	6	9	41	
33 VA19MAS7-519-1WS-R11	5338	4364	1471	7203	4594	13	76.3	2		6/2	4.65	34	70	100	78	15	12	24	34	
34 NY16058-01-06-1900	5674	4843	1622	5819	4490	15	75.2	7		6/2	0.4	9	67	100	48	11	5	6	29	
Mean	5382	4800	1612	6097	4473		74.1			6/2	1.2		74	100	65	14	10		41	
CV	5.8	10.1	10.7	12.6																

Cumulative Summary																			
Entry	Grain Yield						Test Wt(2Y)	Lodg 0-9	Ht cm	Head Date	Winter Surv	Sprout 0-9	FHB Incid %	FHB Sev %	FHB Index	DON ppm			
	4 Year		3 Year		2 Year														
	kg/h	b/a	kg/h	b/a	kg/h	b/a													
1 Erie	5439	81	5237	78	5198	77	76.7	60	0.0	86	6/1	95	2.7	84	29	26	16		
2 NY11013-10-15-1312	5228	78	4988	74	4901	73	76.3	60	0.5	90	5/31	94	0.8	65	23	15	17		
3 NY12299-1-3-14	5409	80	5198	77	5067	75	75.7	59	1.7	76	5/31	96	2.6	66	20	14	17		
4 NY12300-1-6-07-1436	5429	81	5150	77	4891	73	77.5	61	1.2	78	5/31	98	1.9	81	24	21	20		
5 NY12325-1-10-12-1476	5498	82	5313	79	5265	78	76.3	60	0.0	86	6/2	100	1.2	74	28	21	48		
6 SW65SR			5729	85	5554	83	75.8	59	1.2	77	5/31	96	0.9	71	18	15	15		
7 SW51SR			5172	77	5099	76	76.6	60	2.2	80	5/30	98	0.5	71	20	15	16		
8 Revere 2169			5741	85	5555	83	75.9	59	1.2	78	5/30	98	0.9	68	16	13	19		
9 Revere 2148			5184	77	4964	74	76.7	60	3.0	82	5/30	98	0.4	88	32	29	21		
10 NY12325-1-10-18-1477			5492	82	5441	81	77.5	61	0.0	87	6/2	100	1.0	78	37	28	54		
11 NY12351-1-14-20-1484			5471	81	5252	78	76.6	60	0.5	80	5/31	99	1.9	82	34	29	23		
12 OH12-317-57-1413			5476	81	5365	80	78.4	61	0.5	84	5/30	96	0.3	71	16	12	25		
13 NY12302-2-14-01-1441			5237	78	5088	76	74.1	58	0.0	82	6/2	99	1.7	66	21	14	29		
14 NY12308-1-18-09-1449			5199	77	5085	76	75.8	59	0.2	91	6/1	98	0.2	79	23	19	20		
15 NY12302-2-14-08-1442			5176	77	5117	76	74.5	58	0.0	87	6/3	99	2.0	51	16	9	26		
16 Revere 2277					5512	82	76.8	60	0.5	74	5/31	100	0.4	88	28	26	31		
17 16VDH-SRW03-023					5618	84	76.6	60	1.5	82	5/30	98	4.0	76	23	20	22		
18 NYX11-0357-24-13-5					4898	73	78.7	62	1.2	79	6/1	98	0.8	59	18	14	19		
19 NY15116-01-06-01-1804					5142	76	75.5	59	1.7	76	5/28	96	3.1	78	26	23	38		
20 Pioneer 25R64					5610	83	74.1	58	2.0	76	6/1	96	1.1	93	30	27	43		
21 Blaze					5207	82	76.2	57	1.8	84	5/31	95	3.7	69	23	18	30		
22 Hilliard					5538	82	76.8	60	1.2	81	5/30	94	1.3	78	21	18	22		

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2023 Winter Malting Barley Regional Trial Summary - Cornell University

Cumulative Summary		FHB FHB FHB FHB PHS Spot																				Keme on Malt Barley				Beta		All Malt						
		Grain Yield						Test		Test		Lodg Height		Head Wint		Inc Sev		Index		DON Score		Blotch		Scald		Wt 6/64"		Ext Protein		DP		Glucar FAN		Qual
		6 Year		3 Year		2 Year		Wt(3yr)		Wt(2yr)		0-9	cm	Date	Surv	%	%	%	ppm	0-9	0-9	0-9	(mg)	(%)	(%)	(%)	ASBC	ppm	ppm	ppm	ppm	ppm	Score	
Entry	Row	kg/h	b/a	kg/h	b/a	kg/h	b/a	kg/hl	lb/b	kg/hl	lb/b	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr	2 Yr		
1	LCS Satum	6	5614	104	5217	97	5362	100	58.8	45.9	59.8	46.7	1.9	64	5/23	83	38	17	7	10.2	0.1	2.5	0.5	37	97	79	8.9	90	38	125	NA			
2	KWS Scala	2	4572	85	4376	81	4756	88	60.1	46.9	61.2	47.8	2.3	61	5/27	91	67	16	9	13.6	4.0	0.3	4.7	45	99	83	9.5	131	60	162	45			
3	SY Tepee (209-66)	2	4830	90	4629	86	4955	92	61.3	47.9	62.7	48.9	2.2	69	5/27	92	63	12	7	12.6	0.9	2.0	1.1	41	96	82	9.9	151	51	176	37			
4	Lightning (Fac)	2	4623	86	4249	79	4573	85	63.4	49.6	65.0	50.8	0.8	67	5/26	85	37	10	3	6.2	0.1	3.1	1.0	44	99	82	10.9	140	146	197	41			
5	LCS Calypso	2	5049	94	4671	87	4984	93	61.5	48.0	63.2	49.4	1.6	72	5/23	90	23	10	2	4.9	0.5	2.3	0.9	45	91	82	10.5	145	100	152	36			
6	LCS Violetta	2	4668	87	4520	84	4647	86	62.9	49.1	64.1	50.1	2.0	69	5/22	88	30	17	4	10.4	0.4	1.3	0.4	43	99	83	10.3	160	102	173	41			
7	DH131738 (Fac)	2	4722	88	4359	81	4337	81	63.2	49.4	63.8	49.9	0.6	62	5/22	86	40	19	9	13.4	0.7	2.7	0.7	46	99	82	10.9	123	122	162	45			
8	DH130935 (Fac)	2	4789	89	4445	83	4646	86	62.1	48.5	63.5	49.6	0.2	68	5/23	79	27	10	2	10.4	1.8	1.6	1.1	43	99	82	9.9	119	222	154	41			
9	BC Clemetine	2			4924	92	5168	96	62.7	49.0	63.7	49.8	0.1	68	5/24	89	65	11	6	14.0	1.3	1.2	1.3	49	98	81	10.0	120	76	132	35			
10	BC Fay	2			5049	94	5391	100	60.7	47.5	61.9	48.4	1.8	68	5/26	93	75	16	11	19.8	1.2	2.5	0.4	43	99	82	10.0	141	290	149	43			
11	DH141132	2			4772	89	5262	98	60.7	47.4	62.8	49.1	1.5	68	5/27	88	77	15	11	19.4	1.6	1.4	0.3	43	98	81	9.5	129	290	161	32			
12	NY814-133	2					4540	84			63.9	49.9	0.6	68	5/26	75	58	11	4															
13	NY811-34	2					5146	96			63.0	49.2	2.5	71	5/27	93	71	12	6			0.0												
14	NY813-112	2					5083	94			64.1	50.1	1.6	71	5/27	90	88	14	9			0.0												
15	NY812-52	2					4765	89			61.5	48.0	1.5	71	5/26	79	42	11	4			0.1												
16	NY710-42	2					4934	92			62.7	49.0	1.6	61	5/26	87	49	11	4			0.9												
17	NY814-121	2					4980	93			60.8	47.5	0.8	65	5/24	91	68	11	5			0.7												
18	NY812-80	2					4764	89			63.0	49.2	2.8	65	5/28	89	52	12	5			0.6												
19	NY813-98	2					4380	81			64.7	50.5	2.3	65	5/24	75	53	12	5			0.5												
20	NY814-124	2					4531	84			65.5	51.2	1.2	66	5/23	82	49	14	7			0.3												
21	NY613-9	2					4669	87			63.3	49.4	2.1	66	5/26	80	45	8	2			0.5												
22	NY813-117	2					4556	85			61.5	48.0	1.9	68	5/29	78	61	16	11			0.3												
23	NY811-43	2					5214	97			63.2	49.3	2.8	62	5/29	91	61	13	8			0.5												
24	NY908-14	2					4284	80			64.6	50.5	1.3	65	5/25	75	54	14	6			0.2												
25	NY812-57	2					4669	87			63.8	49.9	0.8	68	5/27	83	39	12	5			0.1												
26	NYBS812-48	2					4881	91			63.0	49.2	2.2	69	5/30	90	73	15	12			0.8												
27	NY616-78	2					4213	78			62.1	48.5	1.1	59	5/25	82	58	10	4			0.5												
28	NY613-12	2					4577	85			63.4	49.6	0.9	59	5/24	78	59	16	8			0.3												
29	NY713-94	2					4358	81			63.1	49.3	1.7	56	5/24	84	53	13	6			2.2												

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2023 Hybrid Rye Trial - Cornell University

		Yield	Yield			Yield		Yield		Yield	TW	TW		TW	TW	TW	HD	WS	Ht	Ht	Lodging
Source	Entry	Cald	B/A	Rk	Sny	B/A	Rk	Mean	Rk	B/A	Cald	Lbs/B	Sny	Lbs/B	Mean	Lbs/B	Mean	Mean	Mean	Inches	Mean
1	Danko	7162	114	4	3964	63	7	5563	5	89	68.3	53.4	70.5	55.1	69.4	54.2	5/20	92	150	59	1.2
2	AC Hazlet	5875	94	7	3452	55	8	4663	8	74	68.3	53.3	69.9	54.6	69.1	54.0	5/22	88	161	63	1.7
3	Erie (wheat ck)	6763	108	5	4495	72	4	5629	4	90	70.5	55.1	71.2	55.7	70.9	55.4	5/30	100	89	35	0.8
4	KWS Serafino	7420	118	3	5448	87	2	6434	3	103	66.9	52.2	69.1	54.0	68.0	53.1	5/23	81	130	51	1.2
5	KWS Tayo	8271	132	2	5190	83	3	6731	2	107	66.3	51.8	67.9	53.1	67.1	52.4	5/23	86	127	50	0.7
6	KWS Receptor	8785	140	1	5813	93	1	7299	1	116	67.4	52.7	68.9	53.8	68.2	53.2	5/23	90	131	52	2.8
7	Thor triticale	5611	89	8	4489	72	5	5050	7	80	57.8	45.2	61.5	48.0	59.6	46.6	5/27	100	145	57	4.5
8	Surge triticale	6032	96	6	4344	69	6	5188	6	83	57.1	44.6	58.2	45.4	57.7	45.0	5/25	99	135	53	3.5
	Mean	6990	111		4649	74		5820		93	65.3	51.0	67.2	52.5	66.2	51.8		92	133	53	2.0
	cv	6.9			5.7																

2023 Spring Oat Regional and Cumulative Summaries - Cornell University

Entry	Grain Yield (kg/h)						Test Wt (kg/hl)			Ht cm	Head Date			
	Ith-Sny	Ith-Ket	SteCo.	SenCo.	Mean	Rank	Mean	Rank	Lodging					
1	OGLE	3070	4670	4340	No Data	4027	2	47.8	14	0.6	89	6/20		
2	NEWDAK	2829	4733	3870		3811	6	48.3	12	3.8	98	6/19		
3	Corral	3824	5252	4141		4406	1	49.2	9	1.7	78	6/21		
4	Steuben	2691	4613	3598		3634	9	51.2	5	1.8	97	6/23		
5	Buff	1745	3689	3265		2900	12	56.8	1	2.0	85	6/19		
6	SD150015	2914	4149	3986		3683	8	51.5	4	1.7	89	6/21		
7	Navaro	1904	3496	3221		2874	13	56.3	3	0.1	93	6/23		
8	14ANS01	1028	2710	3258		2332	14	56.7	2	0.3	102	6/23		
9	Mistral	2827	4978	4109		3971	4	48.1	13	0.9	101	6/21		
10	Juggernaut	2557	4374	3458		3463	11	49.4	7	2.6	87	6/20		
11	SD190311	2887	4665	4103		3885	5	49.2	10	2.2	93	6/22		
12	SD181237	2085	4890	4083		3686	7	48.7	11	2.2	109	6/21		
13	MN19113X_017	3226	4826	3961		4004	3	49.3	8	2.9	97	6/21		
14	SD181245	2315	4284	3948		3516	10	49.9	6	1.9	106	6/20		
Mean		2564	4380	3810		3585		50.9		1.8	94	6/21		
CV		21.7	10.4	6.8										
Highlighted = Naked oats														
Cumulative Summary		Grain Yield						Test Weight		Head	Lodging	Height		
Entry	5 Years		4 Years		3 Years		2 Years		4 Years		Date	0-9	cm	
	kg/h	b/a	kg/h	b/a	kg/h	b/a	kg/h	b/a	kg/hl	lbs/b	2 Yr	4 Yr	3 Yr	
1	OGLE	2815	78	2982	83	2975	83	3156	88	47.4	37.0	6/25	1.6	69
2	NEWDAK	2822	79	2849	79	2902	81	3131	87	49.3	38.5	6/23	5.1	75
3	Corral	2911	81	3032	85	3044	85	3258	91	48.3	37.8	6/26	2.6	60
4	Steuben	2722	76	2843	79	2706	75	2907	81	49.7	38.8	6/29	3.9	75
5	Buff	2233	62	2282	64	2303	64	2321	65	58.1	45.4	6/24	2.5	68
6	SD150015	3094	86	3106	87	3094	86	3178	89	51.6	40.4	6/26	1.3	69
7	Navaro			2123	59	2092	58	2207	62	58.9	46.0	6/30	1.6	69
8	14ANS01			1985	55	1917	53	1987	55	61.5	48.0	6/30	1.0	77

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