Hudson Valley Small Grains Variety Research and Commercialization Trials Report 2019-2022

Introduction:

The Hudson Valley Small Grains Project was initiated in 2014 to support the development of a foundation for a viable local small grains economy. This project is a collaboration between the Hudson Valley Farm Hub, Cornell University and Cornell Cooperative Extension of Ulster County (CCEUC, Christian Malsatzki) to select varieties of small grains suitable to the Hudson Valley region and emerging market needs. To date, the project has evaluated well over 150 varieties of spring and winter grains in replicated research trials. Also, several varieties have been evaluated in large ("field-scale") plots of 1-2 acres. A comprehensive report was issued in October 2018 to coincide with a convening that brought the participants together for a review of the project. This report presents a summary of results for the years 2019 to 2022 for both spring and winter grains trials.

Objectives:

1) Evaluate spring and winter grains varieties at the Hudson Valley Farm hub using standard yield trial procedures.
2) Identify varieties of interest for one acre grow outs for the purpose of determining the suitability for commercialization.
3) Develop extension and outreach materials and events that inform Hudson Valley farmers and processors of the benefits of value-added grain production and opportunities for marketing.

Results:

Attached below are the trial results for each year and 4-year summaries for both spring and winter grains grown at the Hudson Valley Farm Hub. Only those varieties that were grown in the same years are summarized to provide unbiased comparisons.

Winter Grains:



Among the hard red winter wheat varieties, Jagger (Kansas) and Expedition (SDSU) were the highest yielding followed by Arapahoe (Nebraska). Surprisingly, Warthog (Quebec, Canada), a very popular variety, was the lowest yielding in these trials. Entries 5-9 were generally low yielding, likely because they were developed for the Pacific Northwest by Steve Jones. They also tend to mature later in our climate. For 1-2 acre plots, it might be worth testing Jagger and Expedition although Expedition has a tendency to lodge. There was no data for 2019 because of severe winter kill.

For the winter barley trials, the highest yielding varieties were Calypso (Limagrain) and Flavia (Germany). Unfortunately, both are susceptible to lodging. Violetta was a close third and is currently being grown commercially in NY. KWS Scala is the most widely grown winter barley in NY, but KWS is discontinuing its sale. Buck and #STRKR are naked barleys used

mainly for human food products. Hulled barley must be pearled to remove the hull for human consumption. The pearling process removes part of the seed coat and embryo, so it is no longer a whole grain. Naked barley products can be used directly to produce whole grain products. Buck (Oregon) would be a good choice for whole grain products.

Winter rye varieties include both conventional synthetic varieties from Europe and Canada and hybrid varieties from Germany. The hybrids always out yield the conventional varieties by 20-30%. KWS Tayo and Serafino are the most recent releases, and they are the highest yielding. Although all rye varieties tend to lodge, the hybrids are the most resistant. All are suitable for milling and baking.



Winter spelt was evaluated at the Farm Hub for the first time in 2021. Oberkulmer has been grown on limited acreage in Pennsylvania, New York and Michigan for many years. Our tests have identified higher yielding varieties such as Rothenburger Rutkorn (Switzerland). Eluma River spelt is a free-threshing spelt variety. All of the other varieties must be dehulled before they can be used for human consumption. All of the spelt varieties have a tendency to lodge, and they mature later than wheat. It might be of interest to grow a larger plot of Eluma River for evaluation of its suitability for artisan baking.

Spring Grains:

Hard red spring wheat is considered to be the best for bread making quality. We included two heritage varieties in these trials, Red Fife and Øland. Surprisingly, Red Fife had the highest yield followed by MN-Torgy and Tom (Minnesota). Heritage varieties are prone to lodging and Øland is very late to mature. Tom has been evaluated in large plots in recent years and has produced high quality artisan bread. The Minnesota varieties are renowned for bread making quality. Glenn (North Dakota) is an old stand by and has been grown in NY for many years. None of the spring grains survived the weed pressure and heavy rains in 2019.

Spring barley has been challenging to grow at the Farm Hub and the trials failed in 2019, 2021, and 2022, mainly because of severe weed competition. Entries 4-9 are naked barleys and they had lower yields, partly because the hull is not included in the yield measurement. There was no lodging in 2020 and 2022 but all were completely lodged in 2021. Two new Canadian naked barleys are promising, and we recently released two new spring malting barley varieties, Excelsior Gold and HudsonNY, specifically adapted to New York.

There has been some interest in growing oats in the Hudson Valley, so we have evaluated 10 varieties. The oat variety trials failed in 2019 because of weed competition and in 2022 because of bird damage. Our new variety, Steuben, had the highest yields followed by Buff, a hulless oat variety. Two varieties from Semican (Canadian company) also yielded well. All of the varieties in this trial are hulless except Steuben. Hulless varieties are ideal for local production for food products because they do not have to be dehulled. If there is a local market, it may be desirable to produce a larger quantity of seed for evaluation.

Mark E. Sorrells
June 13, 2023

Hudson Valley Winter Grains Summaries 2019-2022

Hudson Valley Winter Wheat Trial 2019-2022

		Grain Yield (kg/h)						Test Wt	Lodg	Head
	Entry	2019	2020	2021	2022	Mean	Rank	kg/hl	0-9	Date
1	Warthog	No	5658	1995	3131	3594	9	73.4	1.2	5/25
2	Expedition	Data	5390	3283	6402	5025	2	74.1	4.0	5/21
3	Jagger		4968	3036	7423	5143	1	73.0	2.0	5/20
4	Arapahoe		5746	3356	5432	4845	3	72.1	3.5	5/24
5	J110012-A		6076	2310	4511	4299	7	71.1	0.2	5/27
6	J110003-8		5292	2414	6141	4616	5	70.8	0.8	5/26
7	Barber II		4599	3304	5296	4400	6	73.2	4.2	5/25
8	Renan		5003	2841	4946	4263	8	69.3	0.8	5/28
9	Skagitonia		5758	2850	5673	4760	4	62.7	0.0	5/31
	CV		9.7	15.4	12.3					

Hudson Valley Winter Barley Trial 2019-2022

		Grain Yield (kg/h)						Test Wt	Lodg	Head
	Entry	2019	2020	2021	2022	Mean	Rank	kg/hl	0-9	Date
1	KWS Scala	1047	3402	2761	5195	3101	6	57.5	1.1	5/18
2	Flavia	1340	6346	3576	4527	3947	2	60.0	3.7	5/17
3	KWS Somerset	1268	4927	2691	5185	3518	4	59.7	2.1	5/17
4	Calypso	1414	7378	3024	6922	4684	1	61.4	4.1	5/17
5	Violetta	1353	6541	3067	4543	3876	3	61.3	0.8	5/16
6	SU-Mateo	1100	4776	2135	4906	3229	5	59.8	0.9	5/19
7	Buck	1294	2972	1932	5693	2973	7	70.8	4.9	5/19
8	#STRKR	961	4907	1203	3853	2731	8	68.8	2.0	5/18
	CV	14.7	10.94	36.6	13.2					

Hudson Valley Winter Rye Trial 2019-2022

		Grain Yield (kg/h)						Test Wt	Lodg	Wint
	Entry	2019	2020	2021	2022	Mean	Rank	kg/hl	0-9	Survival
1	Brasetto	920	No	4141	4849	3303	3	63.6	2.8	39
2	Medina (wheat	Deer	Data	2251	3987	3119	4	64.9	4.2	35
3	Danko	1138		1801	6374	3104	5	65.6	4.5	8
4	Hazlet	1205		3038	4009	2751	6	65.9	5.0	34
5	KWS Serafino	1452		5244	6188	4295	2	65.8	3.5	23
6	KWS Tayo	1564		4408	8275	4749	1	64.5	2.7	28
	CV	20.6		13.8	23.0					

Hudson Valley Winter Spelt Trial 2021-2022

		Grain Yield (kg/h)						Test Wt	Lodg	Head
	Entry	2019	2020	2021	2022	Mean	Rank	kg/hl	0-9	Date
1	Oberkulmer	No	No	1510	3909	2710	4	40.87	4.0	5/30
2	Eluma River	Data	Data	1553	2135	1844	6	64.82	5.3	5/28
3	Guggisburg			1929	3094	2512	5	40.07	6.3	6/2
4	Rothenburger Rutkorn			2337	4817	3577	1	41.15	5.3	6/2
5	Pfalzer Dinkel			2518	3335	2926	3	38.85	5.2	5/30
6	Altgold			1941	4801	3371	2	38.15	4.8	6/1
	CV			21.6	15.9					

Hudson Valley Spring Grains Summaries 2019-2022

Hudson Valley Spring Wheat Trial 2019-2022

		Grain Yield (kg/h)						Test Wt	Lodg	Head
	Entry	2019	2020	2021	2022	Mean	Rank	kg/hl	0-9	Date
1	Red Fife	No	1498	938	1775	1404	1	67.4	5.2	6/14
2	Tom	Data	1545	1118	1409	1358	3	69.9	2.5	6/15
3	Sabin		1362	1047	1443	1284	6	67.8	3.2	6/15
4	Glenn		1347	1066	1302	1238	7	70.4	2.8	6/15
5	Faller		1467	1050	1467	1328	4	68.9	3.3	6/17
6	Øland		1435	647	1540	1207	9	61.5	5.8	6/21
7	Norden		1589	1041	1317	1316	5	69.9	2.8	6/17
8	Shelly		1291	949	1438	1226	8	68.6	4.0	6/18
9	MN-Torgy		1665	1015	1453	1378	2	67.5	3.0	6/16
10	MN-Washburn		1323	971	1100	1131	10	63.0	3.2	6/16
	CV		19.8	17.4	12.9					

Hudson Valley Spring Barley Trial 2019-2022

		Grain Yield (kg/h)						Test Wt	Lodg	Head
	Entry	2019	2020	2021	2022	Mean	Rank	kg/hl	0-9	Date
1	Conlon	No	1607	No	No	1607	2	56.5	5.0	6/15
2	AAC Synergy	Data	1571	Data	Data	1571	3	52.5	5.0	6/18
3	ND Genesis		1648			1648	1	53.4	5.0	6/16
4	Purple Valley*		802			802	9	74.0	5.0	6/14
5	Food barley-56*		1028			1028	6	70.6	5.0	6/16
6	Food barley-118*		1057			1057	5	71.6	5.0	6/14
7	Food barley-159*		836			836	8	70.6	5.0	6/10
8	Food barley-313*		937			937	7	73.8	5.0	6/14
9	CH2909-162-95*		1145			1145	4	65.7	5.0	6/20
	CV		26.8							

Hudson Valley Spring Oat Trial 2019-2022

		Grain Yield (kg/h)						Test Wt	Lodg	Head
	Entry	2019	2020	2021	2022	Mean	Rank	kg/hl	0-9	Date
1	Buff	No	1604	1309	No	1456	2	50.1	3.2	6/14
2	Steuben	Data	1904	1936	Data	1920	1	46.3	2.5	6/19
3	ACGehl		705	828		767	9	58.3	3.3	6/18
4	OA1456-2N		708	735		721	10	57.3	3.0	6/20
5	Navaro		811	1066		939	5	57.3	3.3	6/20
6	Fuego		999	822		911	6	54.5	3.5	6/21
7	Casino		998	813		906	7	57.8	2.8	6/20
8	14ANS01		994	1067		1030	3	56.9	3.7	6/20
9	15ANS06		910	980		945	4	55.8	3.0	6/19
10	Paul		896	910		903	8	53.8	3.2	6/19
	CV		21.2	18.8						

2019 Hudson Valley Winter Grains Summary

2019 Hudson Valley Winter Wheat Trial

	Entry	
1	Warthog	**Not Harvested - winter kill**
2	AC Morely	
3	Expedition	
4	Jagger	
5	Arapahoe	
6	Clark's Cream	
7	Skagit 1109	
8	J110012-A	
9	J110003-8	
10	Barber II	
11	Renan	
12	Skagitonia	

2019 Hudson Valley Winter Barley Trial

		Grain Yield		Test Wt
	Entry	kg/h	Rank	kg/hl
1	KWS Scala	1047	9	54.7
2	Endeavor	1127	7	57.8
3	Flavia	1340	4	56.4
4	KWS Somerset	1268	6	55.8
5	Alba	1453	1	56.0
6	Calypso	1414	2	57.3
7	Violetta	1353	3	57.2
8	SU-Mateo	1100	8	55.9
9	Buck	1294	5	65.3
10	#STRKR	961	10	65.1
	CV	14.7		

2019 Hudson Valley Winter Rye Trial

		Grain Yield		Test Wt
	Entry	kg/h	Rk	kg/hl
1	Brasetto	920	8	66.1
2	KWS Gatano	1248	5	66.1
3	Medina (wheat)	Deer Damage		-
4	Danko	1138	7	69.4
5	Hazlet	1205	6	68.1
6	KWS Serafino	1452	3	68.1
7	KWS Tayo	1564	2	66.3
8	KWS Fratello	1322	4	66.3
9	KWS Bono	1974	1	69.8
10	Svedjerug	787	9	66.9
	CV	20.6		

2019 Spring Grains Trials not harvested - Weeds and precipitation at harvest

2020 Hudson Valley Winter Grains Summaries

2020 Hudson Valley Winter Wheat Trial

No.	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Lodg. 0-9	Wint Surv%
1	Warthog	5658	5	75.0	0.3	67
2	AC Morely	6024	2	76.3	2.0	100
3	Expedition	5390	6	73.8	5.7	67
4	Jagger	4968	9	71.7	1.3	67
5	Arapahoe	5746	4	72.3	5.3	37
6	Skagit 1109	4300	11	71.5	0.0	100
7	J110012-A	6076	1	72.7	0.0	67
8	J110003-8	5292	7	71.2	0.0	97
9	Barber II	4599	10	76.0	3.3	67
10	Renan	5003	8	70.7	0.0	100
11	Skagitonia	5758	3	64.8	0.0	33
	cv	9.7				

2020 Hudson Valley Winter Barley Trial

No.	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Lodg. 0-9	Wint Surv%
1	KWS Scala	3402	9	57.2	N	72
2	Endeavor	3671	8	59.7	O	70
3	Flavia	6346	3	62.8	N	97
4	KWS Somerset	4927	5	60.9	E	83
5	Alba	5067	4	58.6		97
6	Calypso	7378	1	63.8		100
7	Violetta	6541	2	62.5		98
8	SU-Mateo	4776	7	61.1		93
9	Buck*	2972	10	75.5		22
10	#STRKR*	4907	6	69.3		77
	cv	10.9				

*Naked food barley

2020 Hudson Valley Winter Rye Trial

Trial was not harvested due to winter kill and weeds.

No.	Entry	Wint Surv%
1	Brasetto (200 k/m2)	32
2	Brasetto (250 k/m2)	35
3	Medina (wheat ck)	70
4	Danko	7
5	Hazlet	8
6	KWS Serafino	5
7	KWS-H176 (KWS Tayo)	45
8	KWS Bono	52
9	Svedjerug	3
10	Wheeler	17

2020 Hudson Valley Farm Hub Winter Grains Summaries

2020 Hudson Valley Spring Grains Summaries

2020 Hudson Valley Spring Wheat Trial

No.	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Lodg. 0-9	Head Date
1	Red Fife	1498	5	70.3	4.0	6/14
2	Tom	1545	4	74.2	0.0	6/13
3	Sabin	1362	8	72.6	0.0	6/14
4	Glenn	1347	9	72.3	0.0	6/13
5	Faller	1467	6	71.4	0.0	6/15
6	Øland	1435	7	69.5	4.7	6/19
7	Norden	1589	3	74.5	0.0	6/15
8	Bolles	1340	10	72.4	0.3	6/15
9	Shelly	1291	12	71.2	0.7	6/16
10	Lang-MN	1613	2	74.1	0.0	6/14
11	K-Bed	1052	14	65.0	2.0	6/18
12	K-Bev	735	15	62.9	0.0	6/14
13	Linkert	1286	13	72.1	0.0	6/14
14	MN-Torgy	1665	1	72.4	0.0	6/15
15	MN-Washburn	1323	11	72.6	0.0	6/14
	cv	19.8				

2020 Hudson Valley Spring Barley Trial

No.	Entry	Grain Yield kg/h	Rank	Test Wt. kg/hl	Lodg. 0-9	Head Date
1	Conlon	1607	2	56.5	N	6/16
2	AAC Synergy	1571	3	52.5	O	6/18
3	ND Genesis	1648	1	53.4	N	6/16
4	KWS Tinka	1361	4	51.9	E	6/16
5	LCS Opera	727	14	46.4		6/23
6	Purple Valley*	802	13	74.0		6/14
7	Meg's Song*	869	11	63.6		6/19
8	Havener*	215	16	na		6/23
9	Food barley-56*	1028	9	70.6		6/16
10	Food barley-106*	1051	8	71.6		6/16
11	Food barley-118*	1057	7	71.6		6/15
12	Food barley-159*	836	12	70.6		6/10
13	Food barley-256*	686	15	71.6		6/12
14	Food barley-313*	937	10	73.8		6/14
15	L94 food barley*	1140	6	72.7		6/13
16	CH2909-162-95*	1145	5	65.7		6/17
	cv	26.8				

* Naked food barley

2020 Hudson Valley Hulled Grains Trial

No.	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Lodging 0-9	Head Date
1	Corral	2255	1	50.3	0.0	6/13
2	Red Vernal	834	10	na	1.0	6/22
3	Buff*	1604	4	50.1	0.0	6/13
4	Hayden	1771	3	47.9	0.0	6/16
5	MN09255	1904	2	47.3	0.0	6/19
6	Lamar Einkorn	267	14	64.7	2.3	6/28
7	Milkyway Einkorn	138	16	40.4	2.0	6/24
8	Italian Einkorn	237	15	na	0.7	6/27
9	ACGehl*	705	13	67.9	0.3	6/18
10	OA1456-2N*	708	12	64.0	0.3	6/20
11	Navaro*	811	11	64.5	0.0	6/20
12	Fuego*	999	5	63.3	0.0	6/21
13	Casino*	998	6	64.3	0.0	6/19
14	14ANS01*	994	7	63.4	0.0	6/20
15	15ANS06*	910	8	63.5	0.0	6/19
16	Paul*	896	9	61.2	0.0	6/19
	cv	21.2				

* Hulless food oats

2021 Hudson Valley Winter Grains Summary

2021 Hudson Valley Winter Wheat Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodging 0-9
1	Warthog	1995	10	68.4	2.0
2	AC Morely	1542	12	69.0	4.3
3	Expedition	3283	3	71.2	2.3
4	Jagger	3036	4	71.8	2.7
5	Arapahoe	3356	1	67.5	1.7
6	Ukrainka	2809	7	69.1	3.7
7	Skagit 1109	1745	11	67.6	3.0
8	J110012-A	2310	9	70.4	0.3
9	J110003-8	2414	8	68.5	1.7
10	Barber II	3304	2	70.8	5.0
11	Renan	2841	6	66.6	1.7
12	Skagitonia	2850	5	60.1	0.0
		15.4			

2021 Hudson Valley Winter Malting Barley Trial

Ent#	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Head Date	Lodg 0-9
1	KWS Scala	2761	4	57.8	5/17	N
2	Endeavor	1178	9	53.5	5/15	o
3	Flavia	3576	1	61.5	5/17	n
4	KWS Somerset	2691	5	60.5	5/16	e
5	Alba	1058	10	55.6	5/17	
6	Calypso	3024	3	61.3	5/18	
7	Violetta	3067	2	61.4	5/16	
8	SU-Mateo	2135	6	59.8	5/19	
9	Buck	1932	7	72.0	5/17	
10	#STRKR	1203	8	71.9	5/17	
	CV	36.6				

2021 Hudson Valley Winter Rye Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodging 0-9
1	Brasetto	4141	4	64.7	0.0
2	Medina (wheat	2251	6	63.5	1.0
3	Danko	1801	7	64.4	1.7
4	Hazlet	3038	5	64.7	2.7
5	KWS Serafino	5244	1	65.7	1.7
6	KWS Tayo	4408	3	64.0	0.0
7	Svedjerug	977	10	56.4	8.0
8	KWS Receptor	4651	2	66.4	1.3
9	Wheeler	1685	8	59.0	3.0
10	Rymin	1674	9	62.9	4.3
	CV	13.8			

2021 Hudson Valley Winter Spelt Trial

Ent#	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Lodging 0-9	Head Date
1	Oberkulmer	1510	6	41.7	0.7	5/29
2	Elwha River	1553	5	65.5	3.0	5/26
3	Guggisburg	1929	4	41.9	5.7	6/2
4	Rothenburger	2337	2	40.5	4.0	6/2
5	Pfalzer Dinkel	2518	1	41.1	2.7	5/29
6	Altgold	1941	3	37.7	2.7	6/1
	CV	21.6				

2021 Hudson Valley Spring Grains Summaries

2021 Hudson Valley Spring Wheat Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodg 0-9	Head Date
1	Red Fife	938	11	62.4	7.0	6/14
2	Tom	1118	1	63.5	4.3	6/14
3	Sabin	1047	6	60.8	4.0	6/14
4	Glenn	1066	3	62.1	6.0	6/13
5	Faller	1050	4	62.1	5.0	6/15
6	Øland	647	12	43.6	7.7	6/23
7	Norden	1041	7	61.4	1.3	6/16
8	Bolles	1048	5	62.0	4.0	6/18
9	Shelly	949	10	62.4	2.3	6/17
10	Lang-MN	1076	2	62.9	2.3	6/15
11	MN-Torgy	1015	8	59.8	3.0	6/13
12	MN-Washburn	971	9	44.2	3.7	6/15
	CV	17.4				

2021 Hudson Valley Oat Trial

Ent#	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Lodg 0-9	Head Date
1	Buff	1309	2	50.1	N	6/14
2	Steuben	1936	1	45.3	o	6/19
3	ACGehl	828	7	48.8	n	6/19
4	OA1456-2N	735	10	50.7	e	6/19
5	Navaro	1066	4	50.0		6/20
6	Fuego	822	8	45.6		6/23
7	Casino	813	9	51.3		6/20
8	14ANS01	1067	3	50.3		6/20
9	15ANS06	980	5	48.0		6/20
10	Paul	910	6	46.5		6/20
	CV	18.8				

****Spring barley yields too low to summarize**

2021 Hudson Valley Spring Barley Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodg 0-9	Head Date
1	Conlon				9	6/15
2	AAC Synergy				9	6/19
3	ND Genesis				9	6/16
4	Purple Valley				9	6/14
5	FBC-sel.-56				9	6/16
6	FBC-sel.-118				9	6/13
7	FBC-sel.-159				9	6/11
8	FBC-sel.-313				9	6/14
9	CH2909-162-95				9	6/22
10	CDC Clear				9	6/21
11	CDC Carter				9	6/23
12	CDC Ascent				9	6/19
13	Excelsior Gold				9	6/18
14	CU 198				9	6/18

2022 Hudson Valley Winter Grains Summary

2022 Hudson Valley Winter Wheat Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodg 0-9	Head Date
1	Warthog	3131	10	76.7	N	5/25
2	Expedition	6402	2	77.4	o	5/21
3	Jagger	7423	1	75.4	n	5/20
4	Arapahoe	5432	6	76.4	e	5/24
5	Ukrainka	5635	5	73.6		5/27
6	J110012-A	4511	9	70.1		5/27
7	J110003-8	6141	3	72.8		5/26
8	Barber II	5296	7	72.9		5/25
9	Renan	4946	8	70.6		5/28
10	Skagitonia	5673	4	63.0		5/31
		12.3				

2022 Hudson Valley Winter Malting Barley Trial

Ent#	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Lodg 0-9	Head Date
1	KWS Scala	5195	3	60.4	1.0	5/18
2	Flavia	4527	8	59.4	3.0	5/18
3	KWS Somerset	5185	4	61.4	2.3	5/18
4	Calypso	6922	1	63.2	5.3	5/17
5	Violetta	4543	7	63.8	2.0	5/16
6	SU-Mateo	4906	5	62.4	1.0	5/20
7	Buck	5693	2	70.3	6.3	5/22
8	#STRKR	3853	9	69.0	4.3	5/20
9	DH133535	4562	6	64.6	2.7	5/22
	CV	13.2				

2022 Hudson Valley Winter Rye Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodg 0-9	Wint Kill
1	Brasetto	4849	6	66.4	5.7	43
2	Medina (wheat	3987	8	68.3	7.3	0
3	Danko	6374	4	67.8	7.3	8
4	Hazlet	4009	7	67.1	7.3	60
5	KWS Serafino	6188	5	67.0	5.3	40
6	KWS Tayo	8275	1	66.5	5.3	12
7	KWS Receptor	7694	2	68.3	3.0	13
8	Wheeler	3081	9	63.6	4.7	17
9	Rymin	2190	10	63.1	7.0	87
10	Spooner	7207	3	67.1	7.0	2
	CV	23.0				

2022 Hudson Valley Winter Spelt Trial

Ent#	Entry	Grain Yield kg/h	Rank	Test Wt kg/hl	Lodging 0-9	Head Date
1	Oberkulmer	3909	5	40.1	7.3	6/1
2	Eluma River	2135	9	64.1	7.7	5/31
3	Guggisburg	3094	8	38.2	7.0	6/2
4	Rothenburger	4817	2	41.8	6.7	6/2
5	Pfalzer Dinkel	3335	7	36.6	7.7	5/31
6	Altgold	4801	3	38.6	7.0	6/2
7	Maverick	5022	1	40.7	7.7	5/25
8	Comet	4206	4	38.6	3.3	5/25
9	Sonic	3803	6	36.2	5.3	6/1
	CV	15.9				

2022 Hudson Valley Spring Grains Summaries

2022 Hudson Valley Spring Wheat Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodg 0-9	Head Date
1	Red Fife	1775	1	69.5	6.3	6/15
2	Tom	1409	7	72.1	5.0	6/12
3	Sabin	1443	5	70.1	6.3	6/11
4	Glenn	1302	9	76.7	5.7	6/12
5	Faller	1467	3	73.2	6.7	6/16
6	Øland	1540	2	71.4	7.0	6/20
7	Norden	1317	8	73.8	5.7	6/15
8	Shelly	1438	6	72.2	7.3	6/17
9	MN-Torgy	1453	4	70.4	6.0	6/12
10	MN-Washburn	1100	10	72.2	6.3	6/14
	CV	10.6				

2022 Hudson Valley Spring Oat Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodg 0-9	Head Date
1	Buff	248		1.0	6.3	6/14
2	Steuben	295		4.3	5.0	6/18
3	ACGehl	150		5.7	6.3	6/18
4	OA1456-2N	80		4.7	5.7	6/20
5	Navaro	258		2.3	6.7	6/19
6	Fuego	80		4.0	7.0	6/18
7	Casino	116		2.0	5.7	6/20
8	14ANS01	103		0.7	7.3	6/19
9	15ANS06	101		1.3	6.0	6/18
10	Paul	127		3.7	6.3	6/19

Weed pressure. Yields too low to summarize.

2022 Hudson Valley Spring Barley Trial

Ent#	Entry	Grain Yield kg/h	Rk	Test Wt kg/hl	Lodg 0-9	Head Date
1	Conlon	1166		55.0	N	6/15
2	AAC Synergy	2404		54.3	o	6/17
3	ND Genesis	2025		51.3	n	6/17
4	Purple Valley	1623		72.2	e	6/13
5	FBC-selection-5(	Weeds		Weeds		6/17
6	FBC-selection-1(	Weeds		Weeds		6/20
7	FBC-selection-1!	1054		66.8		6/11
8	FBC-selection-3	Weeds		Weeds		6/13
9	CH2909-162-95	1498		64.6		8/24
10	CDC Clear	Weeds		Weeds		6/15
11	CDC Carter	1244		65.0		6/21
12	CDC Ascent	1654		68.4		6/19
13	Excelsior Gold	1632		55.9		6/15
14	HudsonNY(CU198)	1901		53.7		6/15

Yields too low to summarize - Weeds