

Hybrid Asparagus Yield Trials
2021 Results

John Bakker

Objectives:

To evaluate the yield, quality, disease resistance, and longevity of selected asparagus hybrids.

Methods:

The trials established during 2012, 2015B and 2017A consisted of transplants which were sown in the greenhouse in May or June and transplanted into the trial plots during July or August. The 2015A trial was planted with year old crowns planted 32 per plot 9.4" apart in May. The 2017C Competitors trial was planted with 33 crowns per plot spaced 9" apart. The transplants are spaced 9" or 12" apart in 54" rows. Each plot consists of 25 or 32 plants per replication depending on spacing. Plots are harvested 30 times during the third and subsequent seasons. Beginning in Spring of 2020 the weight, diameter, and length of each spear harvested was measured and recorded using an automated data collection system. In addition, quality measures to assess tip quality were collected from each spear harvested. During 2021, tip quality data were included in the averages reported from dates May 7 to June 4, excluded from June 5 to June 13, and June 14 tip quality was included in the reported data.

Results:

During the 2021 harvest season, some of the entries were significantly more productive than Guelph Millenium. In the 2115A Crown trial, WB-206 was significantly more productive than Millenium. The cumulative 8 year yields for the 2012 International Asparagus Cultivar Trial revealed 4 entries which were more productive than Millenium. Those varieties were UG10, NJ 1178, UG017, and UG018.

2012 International Asparagus Cultivar Trial
 Michigan Asparagus Industry Research Farm
 Hart, MI
 2021 Results

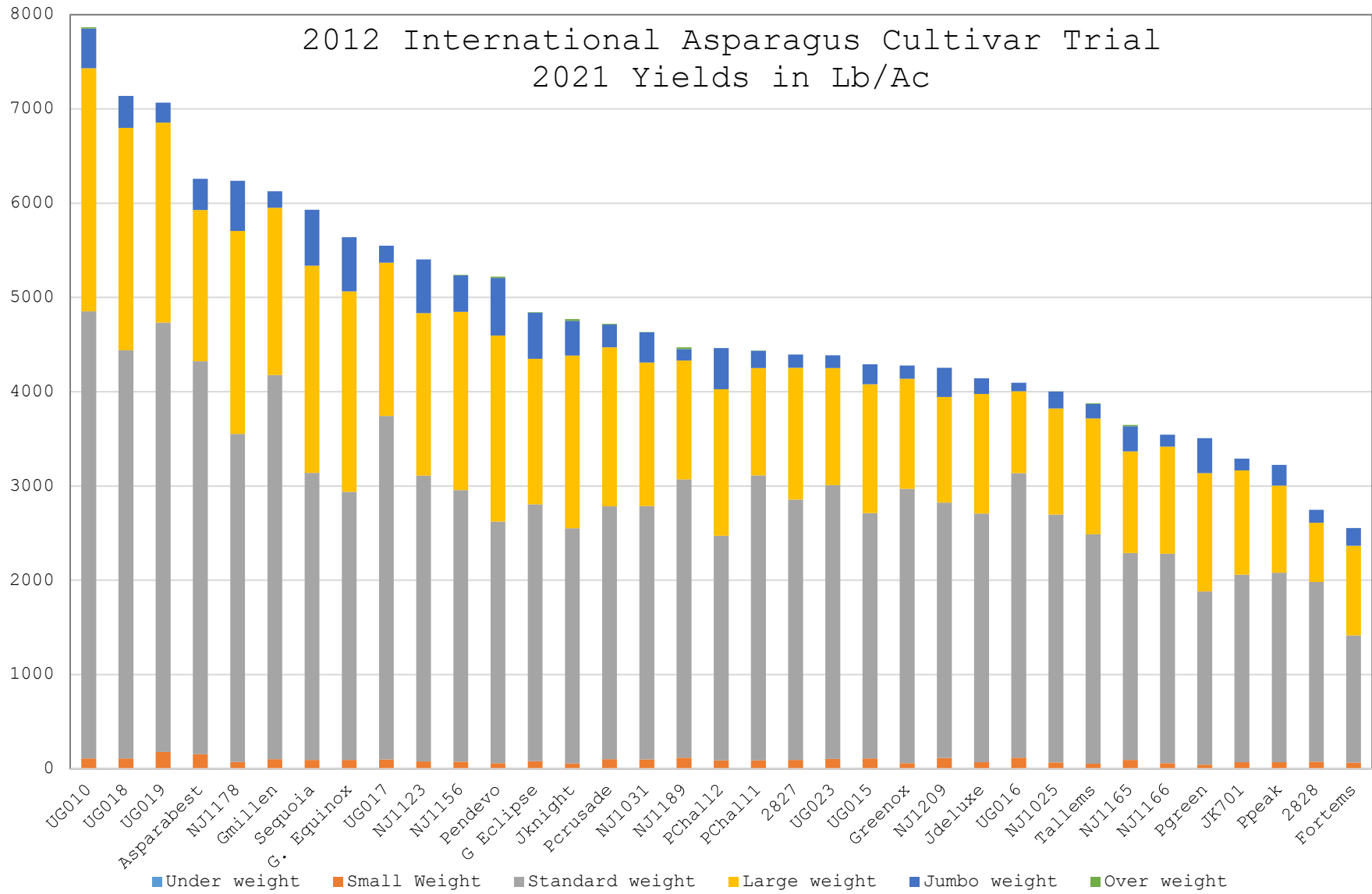
Variety	2021 Average Yields in Lb/Ac (by diameter)								
	Under	Small	Std	Large	Jumbo	Over	Total	%Std	%Flower
UG010	0	110	4742	2579	422	12	7866	62	30
UG018	0	110	4329	2359	341	0	7139	62	28
UG019	0	178	4555	2122	211	0	7067	63	32
Asparabest	0	155	4168	1605	331	0	6259	66	29
NJ1178	0	74	3480	2152	533	0	6239	57	31
Gmillen	0	104	4074	1776	175	0	6128	66	31
Sequoia	0	96	3045	2197	593	0	5932	53	30
G. Equinox	0	94	2846	2127	573	0	5639	53	31
UG017	0	99	3646	1625	180	0	5549	66	27
NJ1123	0	77	3034	1724	569	0	5404	57	25
NJ1156	0	75	2883	1890	387	5	5240	53	29
Pendevo	0	61	2562	1975	611	12	5221	52	29
G. Eclipse	0	82	2724	1543	490	4	4844	57	28
Jknight	0	57	2495	1832	367	19	4770	52	29
Pcrusade	0	101	2683	1687	241	8	4721	60	30
NJ1031	0	99	2690	1521	320	3	4633	59	31
NJ1189	0	119	2952	1260	123	19	4472	67	30
PChall2	0	89	2385	1553	436	0	4463	55	26
PChall1	0	90	3024	1138	181	4	4438	65	25
2827	1	95	2762	1397	141	0	4395	64	32
UG023	0	106	2904	1241	136	0	4387	66	30
UG015	0	109	2605	1366	210	0	4290	59	30
Greenox	0	61	2908	1168	142	0	4280	68	31
NJ1209	0	115	2710	1121	311	0	4256	63	32
Jdeluxe	0	71	2636	1270	166	0	4144	62	31
UG016	0	119	3019	868	88	0	4095	73	30
Porthos	0	68	2630	1124	181	0	4003	66	29
Tallems	0	53	2435	1229	153	7	3878	62	27
NJ1165	0	95	2195	1077	267	14	3648	61	32
NJ1166	0	61	2222	1136	128	0	3546	65	26
Pgreen	0	45	1837	1256	369	0	3507	54	30
JK701	0	70	1989	1106	124	0	3290	60	30
Ppeak	0	69	2010	925	221	0	3226	60	29
2828	0	77	1906	627	138	0	2747	69	27
Fortems	0	64	1350	951	190	0	2556	55	30

LSD_{.05}

n.s.

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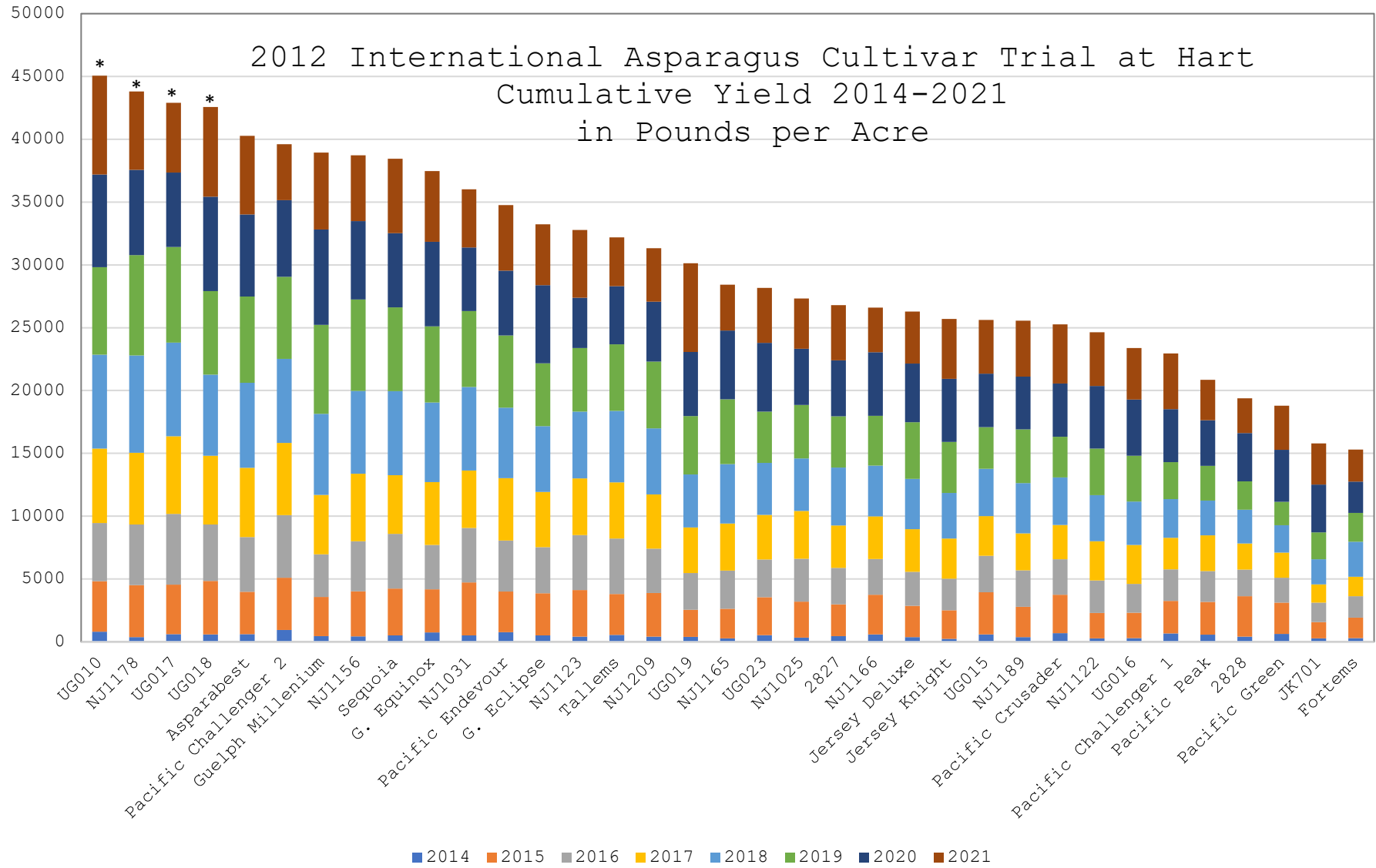
2012 International Asparagus Cultivar Trial 2021 Yields in Lb/Ac



2012 International Asparagus Cultivar Trial
Hart, MI
Cumulative Yield 2014-2020

Cultivar	Annual Yields in Lb/Ac								SUM
	2014	2015	2016	2017	2018	2019	2020	2021	
UG010	799	4024	4641	5921	7472	6963	7375	7866	45059
NJ1178	376	4127	4831	5704	7761	7974	6791	6239	43804
UG017	616	3939	5628	6184	7440	7623	5915	5549	42894
UG018	588	4254	4495	5477	6451	6655	7516	7139	42575
Asparabest	612	3375	4350	5519	6762	6868	6527	6259	40272
P. Challenger 2	945	4147	4993	5748	6682	6545	6085	4463	39608
G. Millenium	442	3118	3411	4717	6466	7072	7587	6128	38941
NJ1156	435	3579	3988	5382	6580	7276	6249	5240	38729
Sequoia	502	3738	4346	4669	6688	6683	5902	5932	38459
G. Equinox	738	3447	3525	4995	6337	6066	6731	5639	37479
NJ1031	507	4217	4333	4573	6648	6046	5056	4633	36013
P. Endeavour	758	3251	4046	4965	5616	5743	5170	5221	34770
G. Eclipse	514	3347	3662	4406	5233	5014	6219	4844	33240
NJ1123	401	3723	4370	4512	5318	5060	3999	5404	32788
Tallems	549	3249	4416	4483	5690	5294	4627	3878	32185
NJ1209	414	3464	3543	4305	5256	5323	4767	4256	31328
UG019	391	2161	2916	3628	4216	4654	5097	7067	30129
NJ1165	270	2351	3055	3746	4723	5167	5462	3648	28422
UG023	526	3029	2993	3550	4139	4079	5473	4387	28175
Porthos	336	2854	3425	3807	4179	4255	4475	4003	27336
2827	460	2526	2901	3381	4601	4082	4451	4395	26797
NJ1166	580	3166	2851	3386	4050	3946	5077	3546	26602
Jersey Deluxe	377	2484	2709	3393	3996	4522	4669	4144	26293
Jersey Knight	243	2261	2514	3192	3644	4048	5030	4770	25701
UG015	596	3354	2897	3151	3778	3318	4243	4290	25627
NJ1189	365	2424	2898	2949	3999	4282	4180	4472	25571
Pacific Crusade	679	3074	2826	2726	3778	3238	4230	4721	25269
NJ1122	280	2011	2584	3129	3671	3696	4990	4280	24640
UG016	300	2019	2296	3096	3454	3645	4477	4095	23382
P. Challenger 1	675	2571	2525	2508	3074	2946	4210	4438	22947
P. Peak	574	2612	2441	2842	2764	2774	3620	3226	20853
2828	407	3227	2106	2095	2675	2265	3848	2747	19372
P. Green	628	2492	1981	1991	2194	1849	4143	3507	18784
JK701	270	1295	1549	1451	2007	2135	3800	3290	15796
Fortems	299	1629	1709	1539	2791	2286	2500	2556	15308
LSD.05	246	873	912	1132	1368	1367	1487	1487	2254

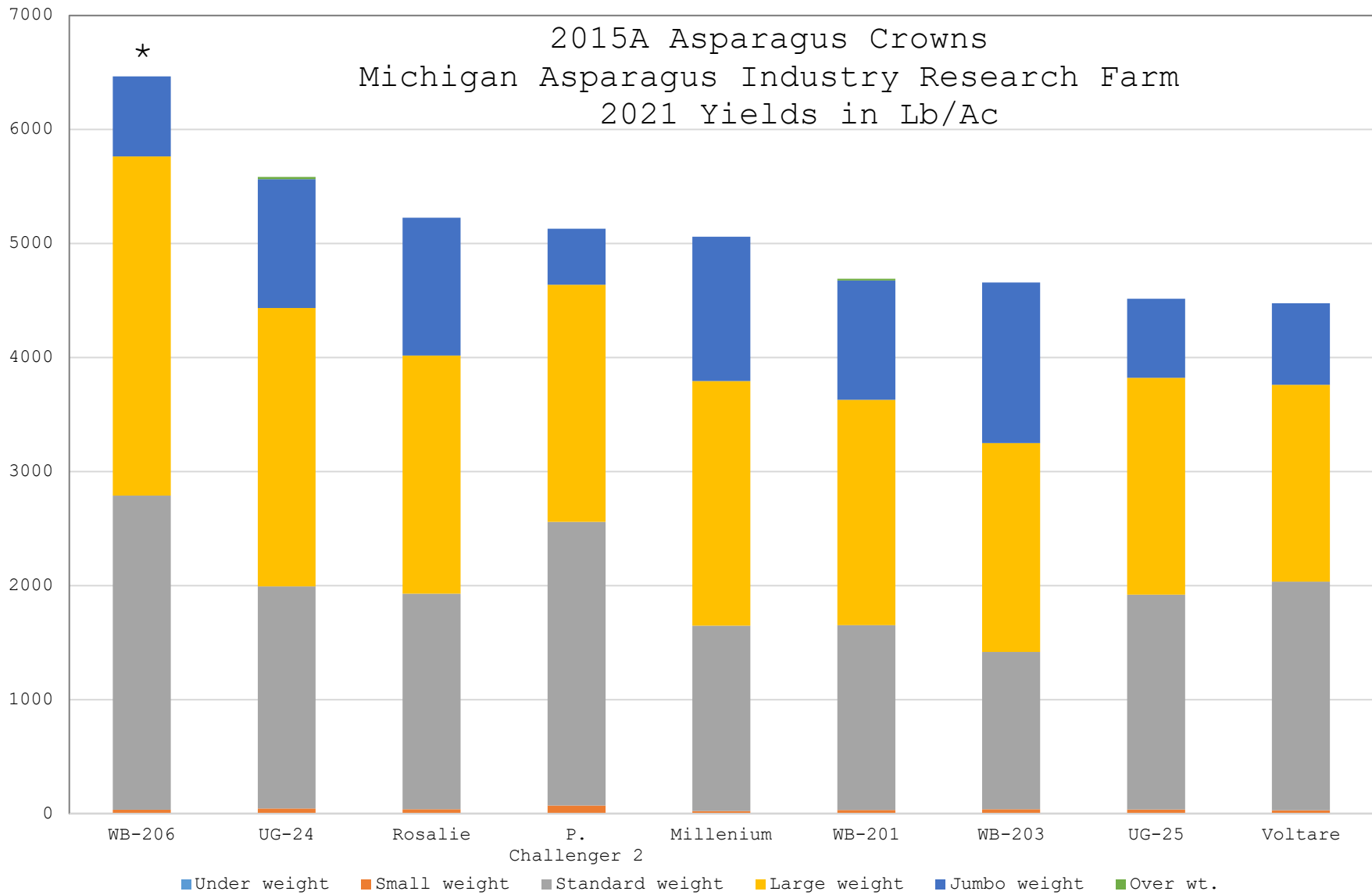
2012 International Asparagus Cultivar Trial at Hart
 Cumulative Yield 2014-2021
 in Pounds per Acre



2015A Asparagus Crowns
 Michigan Asparagus Industry Research Farm
 Hart, MI
 2021 Yield Data

Variety	2021 Average Yields in Lb/Ac (by diameter)						Total	%Std	%Flower
	Under	Small	Std	Large	Jumbo	Over			
WB-206	0	33	2756	2974	703	0	6466	43	30
UG-24	0	46	1947	2442	1129	20	5584	35	33
Rosalie	0	38	1891	2089	1208	0	5226	36	35
P. Challenger	0	70	2489	2079	492	0	5130	50	33
Millenium	0	22	1626	2145	1267	0	5060	34	36
WB-201	0	32	1621	1976	1048	15	4691	36	32
WB-203	0	38	1380	1831	1410	0	4659	30	34
UG-25	0	36	1884	1901	694	0	4516	42	36
Voltare	0	29	2006	1725	715	0	4476	45	32
LSD _{.05}							1251		5

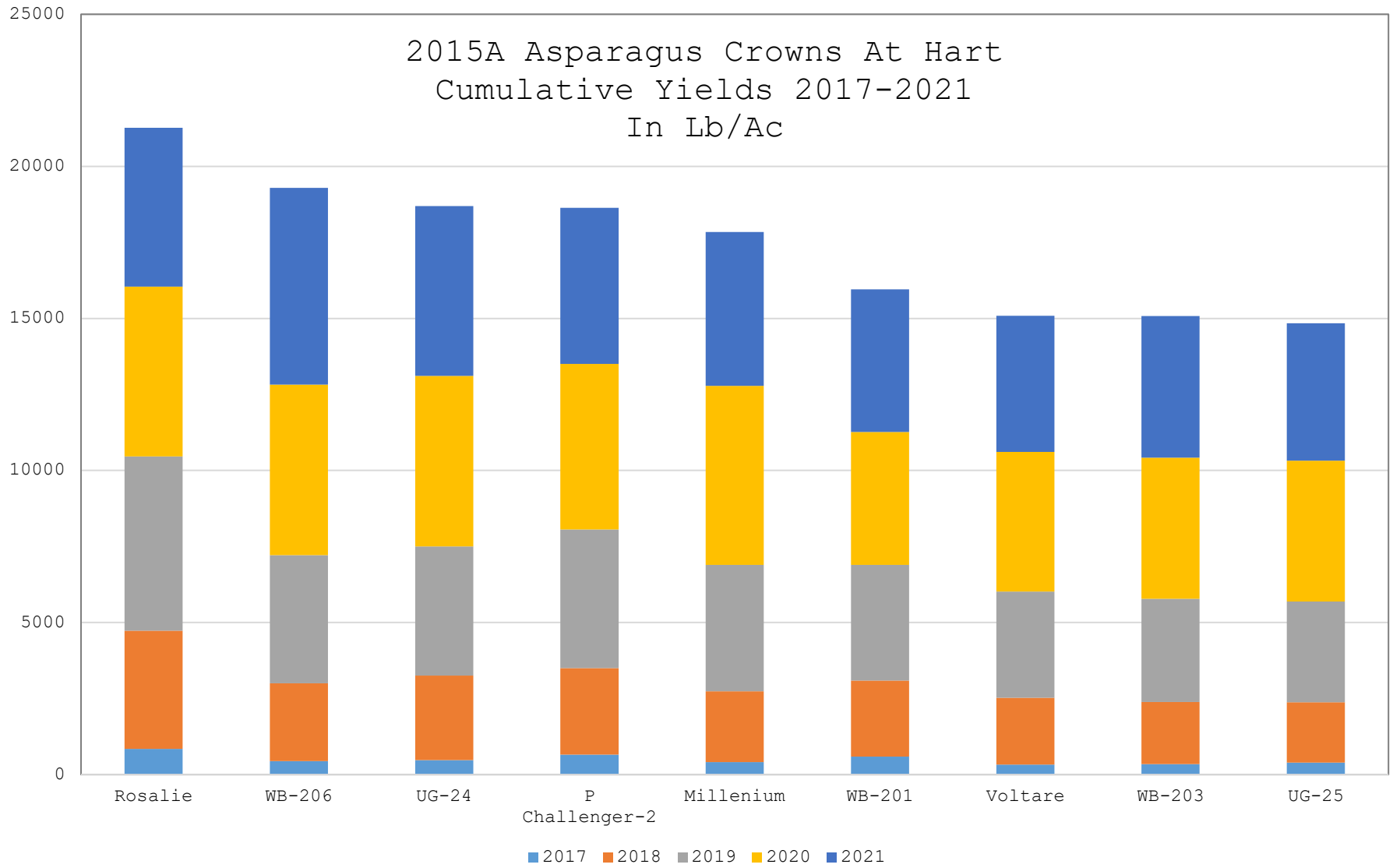
2015A Asparagus Crowns
 Michigan Asparagus Industry Research Farm
 2021 Yields in Lb/Ac



2015A Asparagus Crowns
Michigan Asparagus Industry Research Farm
Cumulative Yield 2017-2021

Variety	Annual Yields in Lb/Ac					SUM
	2017	2018	2019	2020	2021	
Rosalie	842	3891	5730	5580	5226	21269
WB-206	444	2559	4210	5610	6466	19288
UG-24	475	2780	4245	5612	5584	18695
P Challenger-2	654	2844	4562	5445	5130	18635
Millenium	408	2328	4159	5884	5060	17839
WB-201	588	2503	3803	4368	4691	15953
Voltare	328	2194	3494	4595	4476	15088
WB-203	344	2042	3396	4639	4659	15080
UG-25	396	1980	3314	4632	4516	14838
LSD _{.05}	198	732	870	1830	1251	3824

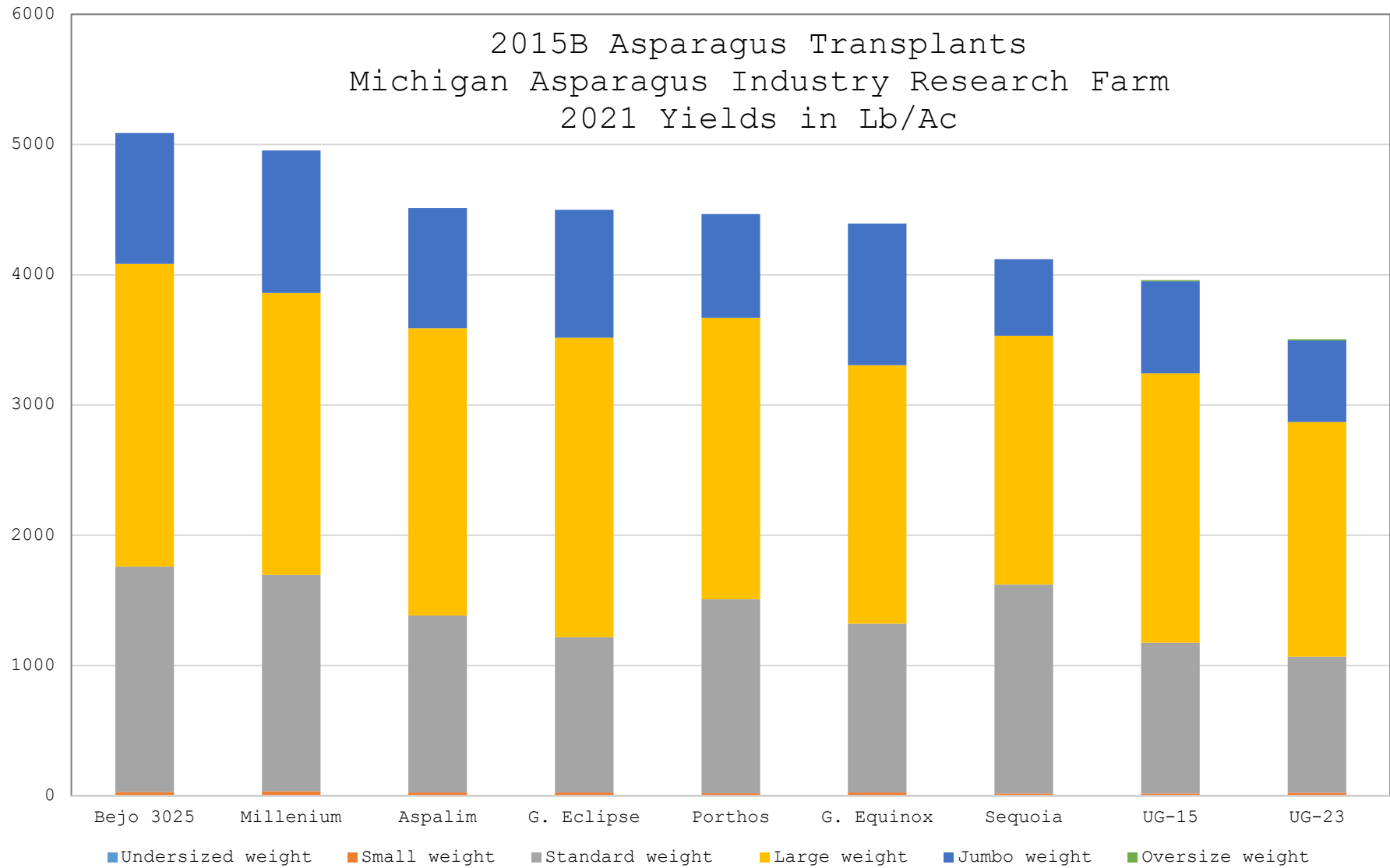
2015A Asparagus Crowns At Hart
Cumulative Yields 2017-2021
In Lb/Ac



2015B Asparagus Transplants
Michigan Asparagus Industry Research Farm
Hart, MI
2021 Results

Variety	2021 Average Yields in Lb/Ac (by diameter)							%Std	%Flower
	Under	Small	Std	Large	Jumbo	Over	Total		
Bejo 3025	1	28	1731	2323	1005	0	5088	35	33
Millenium	0	35	1662	2165	1093	0	4955	34	34
Aspalim	0	24	1360	2204	924	0	4513	30	33
G. Eclipse	0	25	1193	2299	981	0	4499	27	35
Porthos	0	20	1488	2161	797	0	4467	35	34
G. Equinox	0	25	1295	1985	1089	0	4394	29	36
Sequoia	0	18	1603	1910	587	0	4119	40	36
UG-15	0	17	1158	2067	708	10	3959	30	39
UG-23	0	23	1046	1801	626	9	3505	31	38
LSD _{.05}							n.s.		5

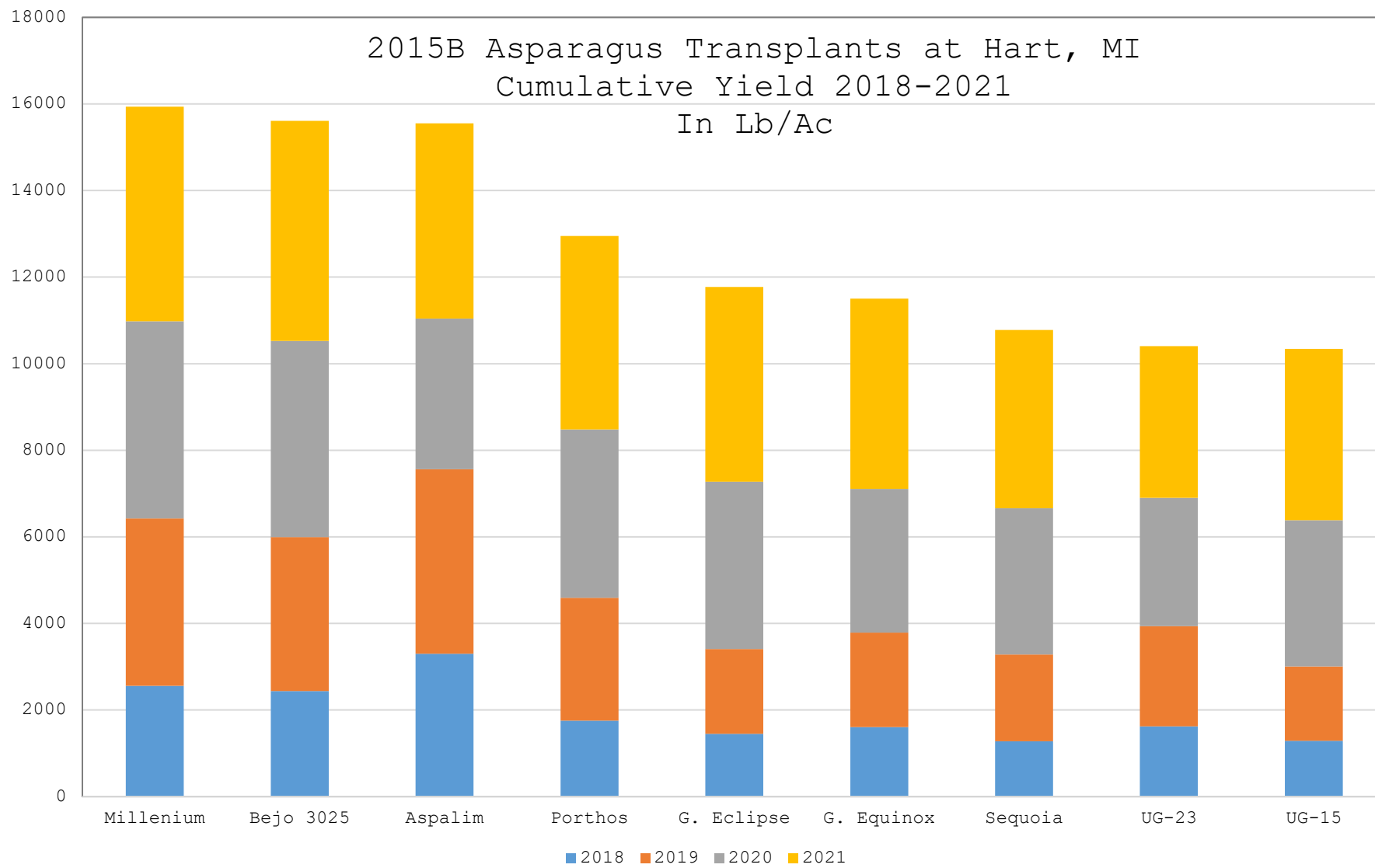
2015B Asparagus Transplants
 Michigan Asparagus Industry Research Farm
 2021 Yields in Lb/Ac



2015B Asparagus Transplants at Hart, MI
 Cumulative Yield 2018-2021
 In lb/Ac

Variety	Annual Yields in lb/Ac				SUM
	2018	2019	2020	2021	
Millenium	2559	3866	4557	4955	15937
Bejo 3025	2436	3558	4529	5088	15611
Aspalim	3297	4265	3478	4513	15553
Porthos	1755	2836	3891	4467	12949
G. Eclipse	1451	1956	3867	4499	11772
G. Equinox	1604	2184	3319	4394	11501
Sequoia	1280	2004	3376	4119	10779
UG-23	1624	2314	2961	3505	10404
UG-15	1288	1718	3379	3959	10345
LSD _{.05}	658	1199	1217	1268	1635

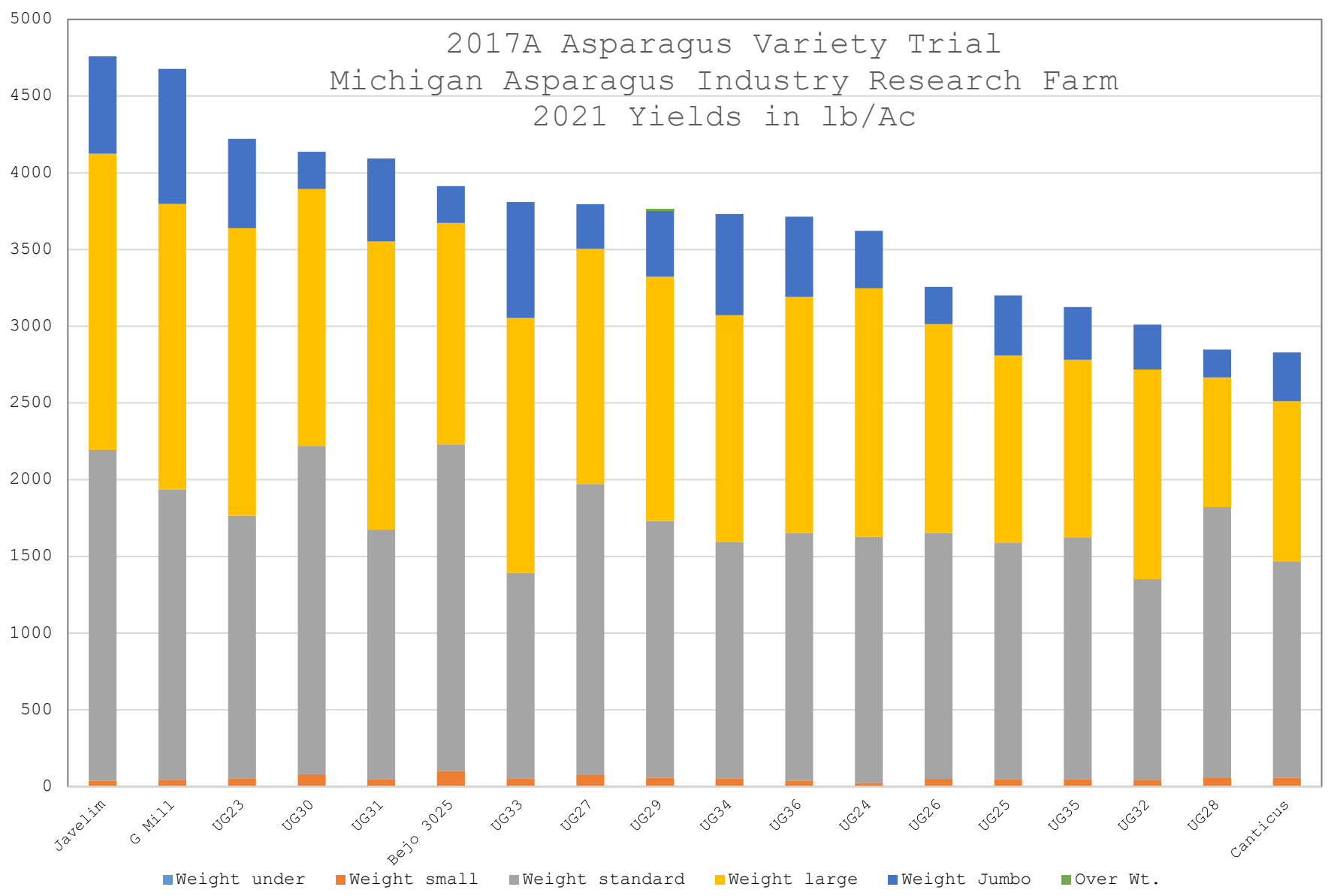
2015B Asparagus Transplants at Hart, MI
Cumulative Yield 2018-2021
In Lb/Ac



2017A Asparagus Yield Trial
Michigan Asparagus Industry Research Farm
2021 Results

Variety	2021 Average Yields in Lb/Ac (by diameter)							%Std	%Flower
	Under	Small	Std	Large	Jumbo	Over	Total		
Javelim	0	38	2157	1929	634	0	4758	45	34
G Mill	0	44	1893	1860	881	0	4678	41	41
UG23	1	53	1711	1873	583	0	4221	41	38
UG30	2	78	2138	1677	242	0	4137	52	40
UG31	1	46	1628	1879	540	0	4093	41	41
Bejo 3025	1	102	2129	1442	240	0	3914	54	37
UG33	0	54	1339	1662	754	0	3810	36	37
UG27	1	77	1895	1533	290	0	3796	50	36
UG29	1	56	1675	1592	430	11	3764	44	40
UG34	1	52	1540	1479	659	0	3731	43	42
UG36	0	36	1617	1540	522	0	3715	46	40
UG24	0	23	1605	1620	374	0	3622	44	37
UG26	1	50	1602	1361	243	0	3257	49	37
UG25	0	47	1543	1219	391	0	3200	48	37
UG35	0	49	1573	1160	343	0	3125	51	36
UG32	0	45	1307	1365	294	0	3011	45	38
UG28	0	55	1767	844	182	0	2848	63	41
Canticus	3	54	1408	1046	318	0	2830	52	38
LSD _{.05}							n.s.		8

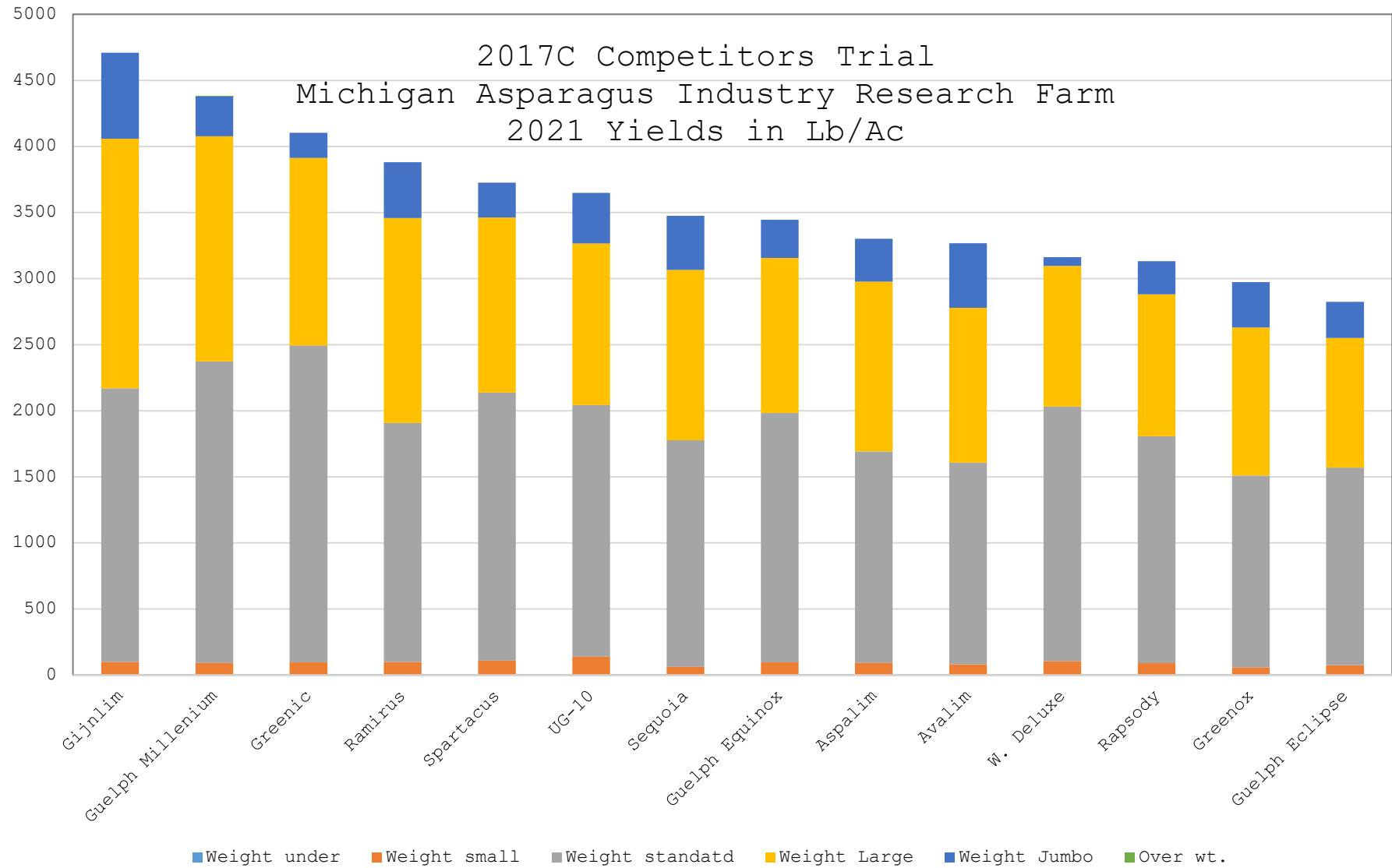
2017A Asparagus Variety Trial
 Michigan Asparagus Industry Research Farm
 2021 Yields in lb/Ac



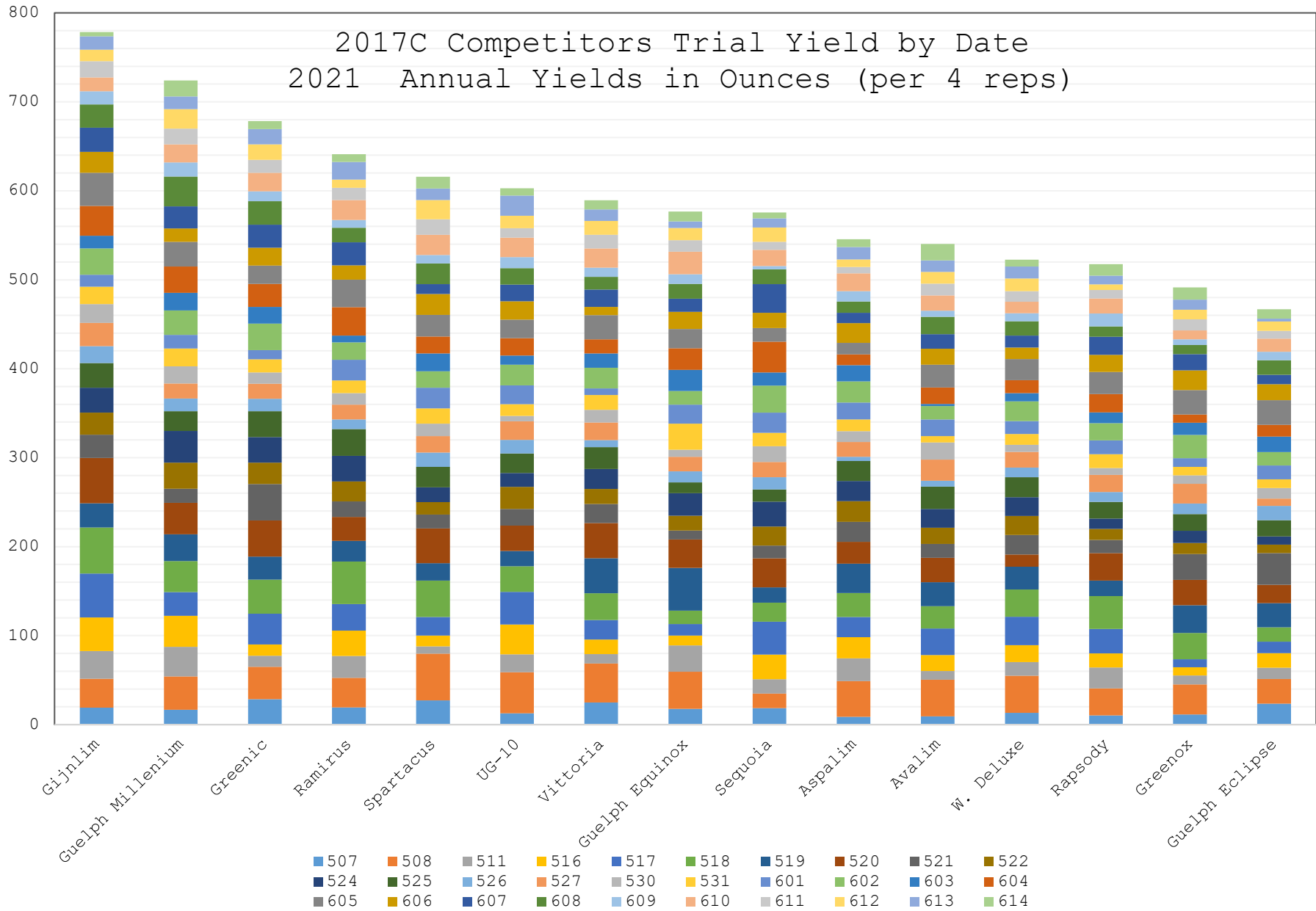
2017C Competitors Trial
Michigan Asparagus Industry Research Farm
2021 Results

Variety	2021 Average Yields in Lb/Ac (by Diameter)						%Std	%Flower	
	Under	Small	Std	Large	Jumbo	Over			Total
Gijnlim	1	99	2070	1887	652	0	4709	47	27
Guelph Millenium	0	92	2281	1703	303	2	4380	55	30
Greenic	2	94	2397	1420	190	0	4104	58	32
Ramirus	1	100	1806	1550	424	0	3881	48	28
Spartacus	0	110	2029	1323	265	0	3726	56	33
UG-10	1	138	1904	1222	382	0	3648	51	28
Sequoia	1	62	1715	1288	409	0	3475	50	28
Guelph Equinox	0	96	1887	1173	289	0	3445	59	30
Aspalim	0	92	1600	1284	325	0	3301	48	32
Avalim	0	81	1526	1172	489	0	3268	49	33
W. Deluxe	0	106	1925	1065	66	0	3162	60	32
Rapsody	0	91	1717	1073	251	0	3132	54	30
Greenox	0	58	1450	1121	344	0	2973	49	31
Guelph Eclipse	1	74	1494	982	273	0	2824	55	29
LSD _{.05}							n.s.		5

2017C Competitors Trial
 Michigan Asparagus Industry Research Farm
 2021 Yields in Lb/Ac



2017C Competitors Trial Yield by Date
 2021 Annual Yields in Ounces (per 4 reps)



Guelph Eclipse Plant Population Study
2021 Results

John Bakker

Objectives:

To evaluate the effect of planting density on yield and spear size in a planting of asparagus variety Guelph Eclipse.

Methods:

The trial was established in 2017 with year old crowns of Guelph Eclipse planted on 13 May, 2017. The crowns are spaced 6, 9 or 12 inches apart in 54" rows. Each plot is 25" feet long. Plots with plant spacing of 6" apart consist of 50 crowns, 9" spacing have 33 crowns, and 12" spacing contain 25 crowns per plot. The planting density for the 3 treatments are 19,360, 14,520, and 9,680 crowns per acre, respectively. Fresh weight, spear number and spear size, based on diameter are measured and recorded for each harvest.

Results:

During the 2021 harvest season there were no significant differences in total yield between the three treatments. This was the third picking for this trial and it was harvested 30 times.

2017B Guelph Eclipse Plant Population Trial
 Michigan Asparagus Industry Research Farm
 2021 Results

Treatment	2021 Average Yields in Lb/Ac (by Diameter)							%Std	%Flower
	Under	Small	Std	Large	Jumbo	Over	Total		
12 inch spacing	1	125	2509	1603	201	6	4445	58	35
9 inch spacing	1	120	2091	1400	211	0	3825	55	36
6 inch spacing	0	110	2313	1199	155	9	3786	61	34
LSD _{.05}							n.s.		n.s

2017B Guelph Eclipse Plant Population Trial
Michigan Asparagus Industry Research Farm
2021 Yields in Lb/Ac

