

August 2017

Edition 3-17

Annapolis Valley Giant Vegetable Growers



News From The Patch

Welcome to the Summer 2017 AVGVG Patch News

Dear AVGVG Club Member

It's that time of year again where we measure the success of our efforts and growing season. We hope that your patch and gardening skills will be rewarded at one of the many completions throughout the giant vegetable world. We hope that you can either bring something to Glad Gardens or a competition in your area. We trust that everyone has had a great growing season and that we can see some new records set by our many club members. We need lots of help to run the 9th Annual AVGVG Glad Gardens Weigh Off ,(September 22nd and 23rd ,2017) please come to the next meeting – August 28th ,7:00 pm , Windermere Hall in Berwick, and we can find something to suit your talents- no task too hard as there are plenty of small jobs that need to be done.

Good luck and hope to see you all soon.

Ron Muis

President, AVGVG



Help Feed Our Web Site

Our web site AVGVG.com needs to be fed so we want your photos and videos

- Patch Pics
- Weigh Off Pics
- Garden Pics
- Even pics of your pests in the garden!

Our site will eat almost anything digital!

E-mail them along to kpphalen@hotmail.com for inclusion on our web site.

Welcome to New Members

We would like to warmly welcome the following new members to the AVGVG:

- Chris Foley , Windermere , Nova Scotia

We encourage everyone who is a gardening enthusiast to join a club for the knowledge exchange, friendly competition, contests, growing information and, of course, great seeds. Our membership fees are \$15.00 per year which, given the variety and quality of seeds alone, is the best gardening bargain you will find anywhere! Membership renewals start again in September and are good for all of 2018. **Renewals for 2018 can be sent to Paul Cameron, 409 Arnold Road , Grafton, Nova Scotia, B0P 1V0 or renew at the Glad Gardens or Dill Farms Weigh Off's.**

World's Tallest Corn Towers Nearly 14 Meters



Western New York is getting its own kind of rural skyscraper: giant corn stalks. A researcher there in Allegany now reports growing corn nearly 14 meters (45 feet) high. That makes it about as tall as a four-story building. They appear to be the tallest corn plants ever recorded. A corn stalk typically grows to about 2.5 meters (8 feet). One strain from Mexico is taller, sometimes 3.4 meters or more. But when the nights are short and the days are long, corn has more time to tap growth-fostering sunlight. Then it can grow even more, sometimes taller than 6 meters (20 feet). Raising it in a greenhouse can add another 3 meters. And tweaking a gene called *Leafy1* can up its height yet another 3 meters. Put them together and such factors can cause this strain to ascend nearly 14 meters, notes Jason Karl. He is an agricultural scientist who helped turn some corn plants into such giants

Growing corn in a greenhouse with a specific genetic mutation makes them grow unusually tall. The Mexican name for corn is maize. That's also the common term for this plant outside the United States. The unusually tall maize type is called Chiapas 234. Usually "people try to make maize shorter, not taller," Karl notes. "So it is plainly funny even to consider adding *Leafy1* to the tallest strain."

Corn is the most widely grown food crop in the United States. Most scientists who study corn want to make it better for harvesting. So why would farmers prize shorter corn? Shorter stalks flower earlier in the season. That allows the ears of grain (containing the yummy kernels that we eat) to mature sooner.

But Karl isn't interested in corn that blooms quickly or is easy to harvest (because climbing an 12- to 14-meter ladder to pick their ears of corn would hardly be easy). Instead, he wants to know which genes and other factors, such as light, affect the stalk's growth. The Chiapas 234 strain was discovered in the 1940s in Mexico. Researchers stored seed from it in a freezer for nearly 30 years. Then, in a 1970 experiment, they grew up some of that seed in a greenhouse. To simulate summer nights, they gave the plants only short periods of darkness. The corn responded by growing more leafy segments, called internodes. Each internode is typically about 20 centimeters (8 inches) long. The corn that you might see on an American farm today has 15 to 20 internodes. The Chiapas 234 strain had 24. When grown with short nights, its stalks developed twice as many.

Karl read about the 1970s night-length study with Chiapas 234. He also knew about a mutation in the *Leafy1* gene that could make maize taller. He decided to put them together. "The mutation makes common U.S. maize a good third taller. And I had seen synergy between mutations and the night-length reaction," he says. And that, he recalls, was a "good omen for discovering new things via preposterously lofty maize."

What the researchers did

For his experiment, Karl grew the Chiapas 234 in a greenhouse with artificially shortened nights. Materials in the greenhouse walls filtered out some types of light. This allowed more reddish — or longer wavelength — light to reach the plants. That red light increased the length of the internodes. This made the plant grow to nearly 11 meters (35 feet). Then, Karl bred the *Leafy1* mutation into the stalks by controlling the pollen that

landed on each plant. The result was a nearly 14-meter stalk with a whopping 90 internodes! That's about five times as many as regular corn produces.

Housing Karl's 'skyscraper' corn as it grew required erecting this massive, specialty greenhouse. "The science done here makes lots of sense," says Edward Buckler. He is a geneticist with the U.S. Department of Agriculture (USDA). He has a lab at Cornell University in Ithaca, N.Y. Buckler was not part of the new study but says Karl's way of growing tall corn should make it grow nearly forever. "I have just never seen anyone try this in such a tall greenhouse," he says.

Paul Scott also was not involved in the study. This USDA scientist studies the genetics of corn at Iowa State University in Ames. "Plant height is important because it is related to yield," he says. "Bigger plants tend to produce more grain, but if they get too tall they tend to fall over." He says the new work helps scientists better understand which genes and other factors affect corn growth.

The new giant corn stalks have trouble surpassing 12 meters (40 feet). That's a result of the genetic mutation inserted into the corn, Karl says. He is now trying to tweak the corn's genetics by inserting other mutations to see if this corrects the problem. If they do, Karl suspects he might be able to get even loftier corn. Corn is incredibly diverse, Buckler notes. There are thousands of strains grown all over the world. This work can help scientists understand why plants may grow differently depending on their location (which would affect day length and light levels).

Gardening is a matter of your enthusiasm holding up until your back gets used to it. ~Author Unknown

Remember to bring your crosses and growing information to the competitions to be registered on Bigpumpkins.com

AVGVG Glad Gardens Weigh Off Update

Our 9th Annual Glad Gardens Weigh Off will take place in Waterville on Friday Night September 22nd from 7pm - 9pm and on Saturday September 23rd from 10 am to 3 pm . **We will have a very important planning meeting on August 28th at 7:00 pm at the Windermere Hall in Berwick. Everyone is encouraged to attend.**

Sponsor letters have gone out to the various businesses.

A few things to keep in mind:

- To be eligible to win the Wayne Knox Memorial Trophy you must be a paid member by August 28th , 2017 and have the heaviest pumpkin at the event;
- It takes everyone's efforts to pull off a successful event. We need your help;
- Event posters will be available for distribution on August 28th to help everyone spread the word; and
- All rules and event information have been posted on our web site under the events tab.
- All entry forms and rules are posted on the web site as well and it is a good idea to print them off and bring the complete forms with you to registration.



GPC : Bushel Gourd (Todd Kline)

Hello fellow growers, during the last couple of years there has been an upsurge in popularity with bushel gourds. Many growing clubs have had discussions, articles in newsletters, and have been passing out seeds to their memberships. Because of this interest the GPC would like to have a trial year this season. For this year bushel gourds will be allowed to be entered in the Master

Gardener competition. It will be the seventh category and it will now be 5 of 7 to qualify instead of 5 of 6. This will help more growers qualify for this highly competitive contest. Bushel gourds are widely adaptable and can do well in many growing climates. We know it is a little late in doing this but really there is no perfect time to do this with grow-

ers competing all over the world. Should Doug English's world record of 279.5 pounds be beaten, a plaque and \$250 prize will be awarded. If the interest continues to rise then they will become an official category next year. The rules for heavy gourds will be posted on the GPC website shortly. Good luck to everyone this season! Todd Kline



Important Upcoming Dates

- [Fredericton Exhibition](#), Fredericton, New Brunswick September 2, 2017
- [Hants County Exhibition](#), Windsor, Nova Scotia, September 14, 2017
- [Provincial Giant Pumpkin Festival](#), Neguac, New Brunswick, October 1, 2016
- [AVGVG Glad Gardens Weigh Off](#), Waterville, Nova Scotia, September 22/23, 2017
- Journee de la Citrouille Weigh Off, Edmundston, N.B. ,September 23/2017
- [Windsor/West Hants Pumpkin Weigh Off](#), Dill Farm, Windsor, Nova Scotia, September 30th , 2017
- Millville Pumpkin Festival, Millville, Nova Scotia (date not available at printing)



Annapolis Valley Giant Vegetable Growers

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Find us on the Web at:

www.avgvvg.com

GPC Early Tomato Submission

Each year many of us have Giant Tomatoes that ripen early. The GPC and Bigpumpkins.com have a way of getting your monster tomato registered before it hits the compost bin.

Virtual Early Tomato Weigh off

· The GPC has set up an avenue to record and recognise weights of tomatoes harvested prior to the annual weigh off season. This is called the Virtual Early Tomato Weigh off.

· Results will be recorded on the Early Tomato listing, on the GPC info page at Big Pumpkins.com.

· The GPC will accept entries up until September 30th of each year.

· The GPC will accept a maximum of three (3) entries per grower per year. Any other entries must be entered at a regular GPC sanctioned weigh off.

· Early entries must be weighed on a certified scale, such as a supermarket deli scale. Growers must supply a picture on the scale with their entry, the readout should be visible or a weigh slip.

· Early entries must be witnessed by an impartial third party witness, such as the scale operator.

· Any Tomato challenging the world record (to be eligible for GPC bonus money) must be verified by a GPC rep, either in person or by his/her designate.

· Entries must adhere to the tomato rules as set out below

· Growers must complete and submit the "Early Submission Form for Tomatoes" as found on the GPC web site, resources section, to John Vincent, mail to: tomato@greatpumpkincommonwealth.com within 24 hrs of the specimen being weighed.

Tomato Eligibility Rules

- 1) All tomatoes must be healthy; a healthy tomato must be free of significant soft spots or leakage.
- 2) Skin may be cracked but not leaking.
- 3) Tomato must be weighed on certified scales, calibrated to 2 decimal places in pounds or pounds and ounces.
- 4) Tomato weights must be reported in pounds and ounces, or pounds to 2nd deci-

mal place. (ie: 6 pounds 5.53 ounces or 6.35 lbs).

5) Stem must be cut within .5 inches of the specimen.

6) Green fruit will be allowed for weigh-off purposes.

7) Specimen must be weighed on a certified scale of appropriate sensitivity.

8) No frozen specimens will be allowed.

9) The entirety of the fruit flesh must be connected – pictures or video must show this

Check Out www.avgvvg.com to download THE GPC Entry Form for Early Tomato



2017 GPC OTT Chart for Atlantic Giant Pumpkins (inches to lbs)

OTT	lbs	OTT	lbs	OTT	lbs	OTT	lbs	OTT	lbs	OTT	lbs	OTT	lbs	OTT	lbs	OTT	lbs		
160	99	244	335	300	623	330	826	360	1060	390	1320	420	1602	450	1898	480	2204	510	2514
165	108	246	343	301	629	331	833	361	1068	391	1329	421	1611	451	1908	481	2214	511	2524
170	117	248	352	302	636	332	840	362	1076	392	1338	422	1621	452	1918	482	2224	512	2534
175	127	250	360	303	642	333	848	363	1085	393	1347	423	1631	453	1928	483	2234	513	2545
180	137	252	369	304	648	334	855	364	1093	394	1357	424	1641	454	1938	484	2245	514	2555
185	149	254	378	305	655	335	863	365	1101	395	1366	425	1650	455	1949	485	2255	515	2565
190	160	256	387	306	661	336	870	366	1110	396	1375	426	1660	456	1959	486	2265	516	2576
195	173	258	396	307	668	337	878	367	1118	397	1384	427	1670	457	1969	487	2276	517	2586
200	186	260	405	308	674	338	885	368	1127	398	1393	428	1680	458	1979	488	2286	518	2597
202	191	262	415	309	681	339	893	369	1135	399	1403	429	1689	459	1989	489	2296	519	2607
204	197	264	424	310	687	340	900	370	1144	400	1412	430	1699	460	1999	490	2307	520	2617
206	203	266	434	311	694	341	908	371	1152	401	1421	431	1709	461	2009	491	2317	521	2628
208	208	268	444	312	700	342	916	372	1161	402	1431	432	1719	462	2020	492	2327	522	2638
210	214	270	454	313	707	343	923	373	1170	403	1440	433	1729	463	2030	493	2338	523	2648
212	220	272	464	314	714	344	931	374	1178	404	1449	434	1739	464	2040	494	2348	524	2659
214	227	274	475	315	720	345	939	375	1187	405	1459	435	1748	465	2050	495	2358	525	2669
216	233	276	485	316	727	346	947	376	1196	406	1468	436	1758	466	2060	496	2369	526	2680
218	239	278	496	317	734	347	955	377	1204	407	1478	437	1768	467	2070	497	2379	527	2690
220	246	280	507	318	741	348	963	378	1213	408	1487	438	1778	468	2081	498	2389	528	2700
222	253	282	518	319	748	349	970	379	1222	409	1496	439	1788	469	2091	499	2400	529	2711
224	259	284	529	320	755	350	978	380	1231	410	1506	440	1798	470	2101	500	2410	530	2721
226	266	286	540	321	762	351	986	381	1240	411	1515	441	1808	471	2111	501	2420	531	2731
228	273	288	552	322	769	352	994	382	1248	412	1525	442	1818	472	2122	502	2431	532	2742
230	281	290	563	323	776	353	1002	383	1257	413	1535	443	1828	473	2132	503	2441	533	2752
232	288	292	575	324	783	354	1011	384	1266	414	1544	444	1838	474	2142	504	2451	534	2763
234	295	294	587	325	790	355	1019	385	1275	415	1554	445	1848	475	2152	505	2462	535	2773
236	303	296	599	326	797	356	1027	386	1284	416	1563	446	1858	476	2163	506	2472	536	2783
238	311	297	605	327	804	357	1035	387	1293	417	1573	447	1868	477	2173	507	2482	537	2794
240	319	298	611	328	811	358	1043	388	1302	418	1582	448	1878	478	2183	508	2493	538	2804
242	327	299	617	329	819	359	1051	389	1311	419	1592	449	1888	479	2193	509	2503	539	2815

Weight_lbs = (((14.2 / (1 + 7.3 * 2^(-(OTT_inches) / 96)))^3 + ((OTT_inches) / 51)^2.91 - 8) * 0.993

2012 WATERMELON WEIGHT ESTIMATION CHART											
Over-the-Top Inches vs. Estimated Weight Created Feb. 2012 by Andy Wolf											
Inches	Pounds	Inches	Pounds	Inches	Pounds	Inches	Pounds	Inches	Pounds	Inches	Pounds
90	23	117	49	144	88	171	143	198	217	225	311
91	24	118	50	145	90	172	146	199	220	226	315
92	25	119	51	146	92	173	148	200	223	227	319
93	26	120	53	147	94	174	151	201	226	228	323
94	26	121	54	148	95	175	153	202	229	229	327
95	27	122	55	149	97	176	156	203	233	230	331
96	28	123	57	150	99	177	158	204	236	231	335
97	29	124	58	151	101	178	161	205	239	232	339
98	30	125	59	152	103	179	163	206	243	233	343
99	31	126	61	153	105	180	166	207	246	234	348
100	32	127	62	154	107	181	168	208	249	235	352
101	32	128	63	155	109	182	171	209	253	236	356
102	33	129	65	156	111	183	174	210	256	237	360
103	34	130	66	157	113	184	176	211	260	238	365
104	35	131	68	158	115	185	179	212	263	239	369
105	36	132	69	159	117	186	182	213	267	240	373
106	37	133	71	160	119	187	185	214	270	241	378
107	38	134	72	161	121	188	187	215	274	242	382
108	39	135	74	162	123	189	190	216	277	243	387
109	40	136	75	163	125	190	193	217	281	244	391
110	41	137	77	164	127	191	196	218	285	245	396
111	42	138	78	165	130	192	199	219	288	246	400
112	43	139	80	166	132	193	202	220	292	247	405
113	44	140	81	167	134	194	205	221	296	248	410
114	46	141	83	168	136	195	208	222	300	249	414
115	47	142	85	169	139	196	211	223	303	250	419
116	48	143	87	170	141	197	214	224	307	251	424

2011 FIELD PUMPKIN WEIGHT ESTIMATION CHART							
OTT Inches vs. Estimated Weight Created 2011 by Scott Holub							
Inches	Pounds	Inches	Pounds	Inches	Pounds	Inches	Pounds
90	15	149	68	175	111	202	170
95	18	150	70	176	113	203	173
100	21	151	71	177	115	204	175
105	24	152	73	178	117	205	178
110	27	153	74	179	118	206	181
115	31	154	75	180	120	207	183
120	36	155	77	181	123	208	186
125	40	156	78	182	125	209	189
130	45	157	80	183	127	210	191
131	46	158	81	184	129	211	194
132	48	159	83	185	131	212	197
133	49	160	85	186	133	213	200
134	50	161	86	187	135	214	202
135	51	162	88	188	137	215	205
136	52	163	89	189	139	216	208
137	53	164	91	190	142	217	211
138	54	165	93	191	144	218	214
139	55	166	95	192	146	219	217
140	57	167	96	193	149	220	220
141	58	168	98	194	151	221	223
142	59	169	100	195	153	222	226
143	60	170	102	196	156	223	229
144	62	171	103	197	158	224	232
145	63	172	105	198	160	225	235
146	64	173	107	199	163	226	238
147	66	174	109	200	165	227	242
148	67	175	111	201	168	228	245

GPC Entry Form for Early Tomato

Grower Name: _____

Address City: _____ Street: _____

Postal Zip: _____ Email: _____

Phone: _____

Cross: _____ Variety: _____

Actual Weight

Status

Check One Box

Official

Damaged

Recordable Scale DATA

Last scale certificate date

List Certification Details _____

Grower Comments _____

Witness Signatures: _____ (print)
_____ (print)

