

**M A G P G**

THE ORANGE PAGES

SPRING 2015



**M A G P G**

## And now, a word from our PREZ:

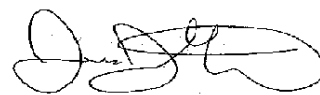
Another growing season is upon us, and the spring of 2015 is long overdue on the east coast after the brutal winter we had. Many members experienced several record lows across our core area along with a hefty amount of snowfall. One nice thing about a harsh winter and especially two harsh winters back to back is that we can hope for a noticeable decrease in harmful insect populations.

There are several exciting announcements to make and I will start with congratulating MAGPG leadership team member Kevin Snyder on his recent appointment to the Great Pumpkin Commonwealth as Northeast Rep. Kevin replaces MAGPG member Andy Wolf who filled this role for quite some time. A tireless ambassador to growing giant pumpkins, Andy Wolf has now been promoted to President of the GPC. The GPC's global set of rules as well as an extensive recognition and prize structure is what keeps our member's weighoff experience fair and exciting, and our members can rest assured that we have a strong voice and presence within the global GPC network. Maybe if Kevin's new job keeps him busy enough I will finally have a shot at beating him at the weighoffs. Congratulations Kevin and Andy!

Another exciting bit of news is the possibility of a new GPC sanctioned weighoff in South Jersey this year. This weighoff has gone on for a few years now Vice President Alex McCracken is working with the site owners to gain official status within the GPC. This will ensure that all entries become official weights, the rules are fair for the growers, and the typical GPC awards will be possible at a new east coast weighoff site. [Editor update: the deadline is approaching so it appears that this year's South Jersey weighoff will remain non-GPC, although we encourage all of our growers to enter.]

Our premier weighoff, Monster Pumpkin Madness, will continue to be held in Doylestown PA on the last Saturday in September. There has been a notable spike of interest in the Master Gardener Award conducted by the GPC, and at the suggestion of Kevin Snyder we have decided to have our own local Master Grower competition at Monster Pumpkin Madness. This will allow for growers that cannot quite compete at the top of the field for giant pumpkins to still be contenders for a major title and prize. As not all growers have the room and flexibility to grow all of the GPC categories, we will require entry of only 3 of the following 6 giant varieties: Heaviest giant pumpkin, heavies giant squash, heaviest watermelon, heaviest tomato, heaviest hard stemmed field pumpkin, and *longest* gourd. We currently anticipate a \$500.00 prize for this very hardworking grower. There are still many details to be worked out by the MAGPG leadership team in order to ensure the fairness of this competition. Just as with the \$500.00 Howard Dill Award prize, there will likely be some bumps in the road as our club continues to be on the leading edge of fun new weighoff categories.

To go along with this exciting development, our spring issue is filled with articles that will educate you with various aspects of the other GPC giant categories. We can of course help you find competitive seeds for any of these varieties- just send us an email! I hope you enjoy this newsletter and wish you a year of personal bests in the patch. See you at the weighoffs! -Jim Gerhardt



# Jane and Phil Hunt's Tips for Healthy & Successful Trellis Long Gourd Growing

<http://www.gvgo.ca/>

- Our Long Gourd trellis is a very simple plan. We used 4 pieces of 4" x 4" x 12' as our main uprights.
- Then we used 2" x 4" to frame them together in a 6' x 6' x 12' trellis.
- Make sure you use enough 2" x 4" boards to make it strong & secure.
- After the trellis is framed up, we used a roll steel mesh 6" x 4" (the kind they use to reinforce concrete floors) & nailed it all around & on the top so that the gourd can climb up to the top & run across it without falling through.

**Make sure you secure the trellis to either a solid fence**

**Or you can use those 8' T-bar fence posts**

**& drive them down 4'+ beside each of your main uprights & secure them to that.**



# Jane and Phil Hunt's Tips for Healthy & Successful Trellis Long Gourd Growing

- The 1st year I used it, I didn't secure it very well & the wind blew it over & broke every Long Gourd on it.
- Luckily it only landed in the potato patch & didn't do any real damage !
- You don't want that to happen to you, so make sure it won't move in the wind.
- I don't have a current picture of it, but I'm sure you have a pretty good idea as to what I've built. \*please note pictures are included as examples.
- Be sure to make your connections as strong as possible, so it comes apart after a few years.
- **We used some pieces of the Gang-Nails, along with very long screw nails on the corners & main connections to make sure it was well secured.**



**AND, BE SURE TO TUNE IN FOR THE FALL NEWSLETTER WHEN OUR INTREPID PRESIDENT WILL FILL US IN ON HOW HIS BUILT-FROM-SCRATCH TRELLIS WORKED OUT THIS SEASON!!!**

And now Jim Gerhardt's  
Giant Tomato Growing Chat  
With  
Dan McCoy



Dan holds his world record 8.41 lb tomato.

JG: How tall do you allow your tomato plants to grow?

**DM: The plant that the 8.41 grew on was 30" high. The plant that grew my 6.88 and 5.30 were around 36" high or less.**

JG: Do you pinch off every sucker?

**DM: Yes, no suckers were allowed to grow on any of my plants.**

JG: At what age is the plant when you set the first fruit? Can you produce more than one giant tomato per plant?

**DM: The first blooms are usually ready to pollinate 2 months after seed starting. Just like pumpkins, it's better to have only one fruit per plant to better your odds at a real nice one. It's best to pollinate your keeper right on the very first fruit truss. (the first flowers to appear on the plant) even if it's just a double fused bloom I would go with it if it sets. You will be able to tell the difference between a single flower and a double or bigger.**

JG: What tomato seeds are you planting in your patch this year?

**DM: I will be planting my 8.41 and 4.57 for sure and maybe a couple others.**

JG: How do you apply water and what is your general watering schedule?

**DM: I watered my plants using rain water collected in a rain barrel and water from a dehumidifier. I watered just when the top layer of soil began to look dry. In the dead of summer it was every other day. I watered ten gallons over all ten plants when I did water. I think it helped to be in a greenhouse so I could control the watering and not have to contend with rain. I have a rain barrel that I also dumped my dehumidifier water from my basement in.**

JG: How is the planting site prepared, and do you prepare each plant site individually, or evenly modify the soil across the whole area where your plants will be grown?

**DM: I did this for my whole greenhouse. I chopped up my 1122 lb. pumpkin and composted it into the greenhouse. Over the winter I threw my wood ashes into the garden. I heat with wood so whenever my bucket was full from the stove, I threw it out there, overall about 6 buckets full. In the spring I tilled in around 12 pounds of dehydrated chicken manure, 12 pounds of humic acid, 12 pounds of 10-10-10, 1/2 cup borax and 6 pounds of kelp meal. In the spring each planting hole also received one handful of Mykos.**

JG: When do you start your plants? Do you like to stagger your start dates in order to have new specimens periodically throughout the growing season?

**DM: I will start most of my seeds around May 1st. Then, I start just a couple more June 1st for the weighoffs.**

JG: Do you do any early season protection?

**DM: The tomatoes don't go outside until 3rd week in May. They will stay indoors under the lights for 3 weeks.**

JG: How do you start your tomato seeds?

**DM: I start my seeds in those little peat pellets in a plastic container with saran wrap over the top. Then I put them in my germ chamber. It's just a cooler with a seeds starting mat in the bottom with the lid cracked to keep it around 80 to 85 degrees.**

JG: Do you bury any part of the stem in order to increase root volume?

**DM: I bury the stem right up to the first true set of leaves. I put my plants out at a very young age, so this isn't real deep.**

JG: Do you use Myco in the root zone?

**DM: Yes; I do use Myco from RTI ( <http://reforest.com/> )**

JG: What is your fertilizer schedule for early, mid and late season growing?

**DM: Right after the seedlings popped up, I drenched with advanced nutrient Voodoo Juice. Once a week throughout the whole life of the plant I drenched with 2ml. of Voodoo Juice in a liter jug.**

**I also watered with compost tea from Xtreme Gardening several times during the season and drenched the plant several times using Dunkel's Tomato Turbo. Early on I used a small spray bottle with Uncle Dunkels to foliar feed but once the plants got too big for that I didn't foliar feed again.**

**I fertilized during the season using mostly 0-0-25 after fruit set. I used liquid form 0-0-25 from Growth Products. I mixed 1/4 cup of it into a 2 gallon jug of water and drenched the plant once a week after fruit set for the life of the plant.**

**I also used Ron Wallace's products on my plants.**

JG: Do you need to support a big tomato so that it does not fall from the vine prematurely?

**DM: It depends on how they are positioned on the vine. My 8.41 needed support for sure. But I did not support the 6.88 tomato, but make sure you support the stem of the tomato at least. I use a strip of white sheet looped around the stem of the tomato and tie it off on a sturdy branch above the tomato.**

JG: How many tomato plants do you grow per year?

**DM: I grow around 10 plants a year.**

JG: What is the best way to support a large plant (cages, stakes, etc)?

**DM: I just use a piece of 1/2" rebar that is at least 6 feet long and push it into the ground a couple feet. I then tie the plant off with those neat soft ties you can buy at any big box stores garden center.**

JG: Do you spray your plants for bugs and disease and if so, are there any products that you might recommend? **DM: I did not spray my plants with anything for that.**

# How I Grew the World Record 1578\* Holub Green Squash – Green Genetics

By Scott Holub



**1578\*  
Holub  
2014  
world  
record  
squash  
(615  
Cantrell x  
self).  
Weighed  
at  
Bauman's  
Farm,  
Gervais,  
Oregon,  
USA.**

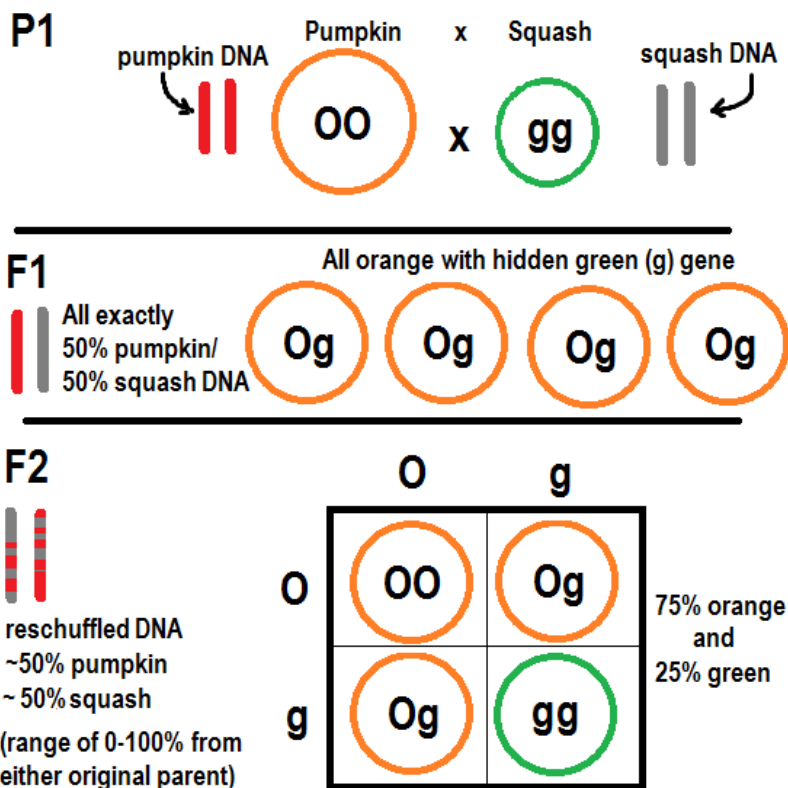
Photo Credit:  
Christy  
Nelson

My basic pumpkin growing principles are to grow the best genetics and provide optimal nutrients, optimal water, and optimal temperatures without costing me too much money. Nothing too exciting in the growing methods, really. I just use standard agricultural principles and copy more experienced growers, but I will cover that later on in the article.

I think the more interesting part of getting to 1578 green pounds was the genetics and seed selection. Before we go too much further, it would be helpful if you Google “Mendelian inheritance”. Through some crosses, observation, and testing, mostly by people other than me (Pitura, Shymanski, Cantrell, Haist, and others), we have determined that green fruit in *Cucurbita maxima* is a recessive Mendelian trait. Recessive traits are those that can “skip a generation” and that is clearly what green-fruitedness does when crossed with non-green-fruited plants. A cross between a modern orange-fruited “pumpkin” and a green-fruited “squash” will almost always yield seeds that will all grow into what look like pumpkins, no greenies, but those “F1 hybrid” pumpkins will have a hidden green gene in their seeds. (See the diagram below.)

“1578\* Holub seeds should all produce green squash with the potential to reach high weights...”





Look at competition weights and you see that pumpkins have the obvious genetic advantage over squash. This is due to the more intense and rigorous selection that pumpkins have had from being much more frequently grown. This year, and in previous years, there were about 1/10<sup>th</sup> as many squash grown as pumpkins and that makes a huge difference in the ability to select for weight in squash; outlier weights are a lower probability occurrence, so selecting for them is difficult. Weight-wise the pumpkin x squash (or squash x pumpkin) F1 hybrids would be expected to be intermediate between squash and pumpkins, since weight acts more as a quantitative trait than the on/off Mendelian green/not-green fruit color.

So offspring from the F1 will just look like slightly smaller pumpkins.

However, when these F1 hybrids with the hidden green gene and intermediate weights are selfed or crossed with each other in a second generation this gives the green-fruitedness an opportunity to appear again in that “F2” generation (at a rate of 1 out of 4 offspring, on average). At this stage we’d predict that some of these F2 offspring with intermediate genetic weight potential will be GREEN! (See the diagram.) This gives these fruit a substantial competitive advantage for weight in the green squash class. This phenomenon is what I gambled on in the selection of the seed that ultimately produced the new world record green squash:

### 615 Cantrell 2013 (913\* Boyce 2011 x 1221.5\* Robinson 2012[No fruit on pollinator])



The 913\* Boyce seeds and the 1221.5\* Robinson seeds are F1 AG x Squash hybrids and the 615 Cantrell seeds are the F2 hybrids from the above discussion and diagram. Some notable pumpkin heritage in the 615 Cantrell (and thus the 1578\* Holub) includes 1634/1461 Werner, 1236/1725 Harp, 1421.5/1662.5 Stelts, and 1385/1689 Jutras on the Boyce side, and 1807/1351 Stelts, 1495 Stelts, 1161/1566 Rodonis, and others on the Robinson side. 996\* Haist, 800\* Neily, 895.5\* Hester and 990\* Hebb make up most of the squash genetics. The maternal line was squash: 895.5\* Hester.

**615 Cantrell 2013 fruit - a seed from this fruit grew the 1578 lb world record squash.**

Photo credit: Dave Cantrell

I planted out 8 plants from 615 Cantrell seeds in one patch and grew them all, in full competition mode, to the first female stage in mid June. I pulled plants that showed yellow or striped-yellow small females as they appeared. There were 3 green-fruited plants and 5 yellow-fruited, consistent with the 1/4 green estimate based on the single gene Mendelian recessive assumption. It's worth pointing out that each single plant is either entirely green-fruited or entirely yellow-fruited. You won't normally find an individual plant that has both green and yellow baby females unless something weird is going on. I selected what I thought was the best colored, best positioned, and best growing plant of the 3 green-fruited ones and pulled the other two leaving just one plant to occupy that patch and grow out to harvest.

Since the 1578\* Holub (615 Cantrell x self) was green, and it was selfed, the seeds should all produce green squash with the potential to reach high weights. Even greater squash weight gains are probably attainable as future generations of hybrids are developed that incorporate even more advanced pumpkin genes. Meeting the color rules for squash is always tricky business even in "purebred" squash lines where we sometimes see non-squash colors showing up in patches or spots on the fruit that will disqualify it from entry in the squash category. These disqualifying color traits are likely not related to the green-fruitedness gene directly, but are probably influenced by other genes, gene interactions, and environmental effects not fully understood. Just a word of warning that perhaps not all green-female squash x pumpkin F2 crosses will successfully meet the color guidelines. It also helps to get lucky.

Here's a brief summary of my growing methods, what I did, not a recommendation:

*Green baby x Green baby = Green baby* just

Nutrients: I grow on nice river terrace sandy loam, which is a great place to start. I finally broke down and got my first soil test this year and also did an early- and mid- season foliage test. (I'm such a cheapskate, so it was hard to write those checks, but worth it, I think.) Deficiencies were addressed, but probably not always adequately corrected as some persisted despite treatment. Pre-planting this consisted mainly of leaves collected from my neighborhood, dolomite lime, 16-16-16, urea (46-0-0), and K-Mag (0-0-22); all from the farmers' co-op. Micro nutrients were purchased locally or online and applied pre-plant to the soil and foliarly through the season per test findings. Low rates of prilled/pelletized fertilizers were also applied by hand under the leaves on a few occasions during the season. No fertilizer in the irrigation water, no kelp, no mycorrhizae or biologicals at all this year, and nothing but patch soil to bury vines. I don't completely discount that stuff, but first things first (i.e. N-P-K-S-Ca-Mg from ag strength fertilizer), since I try to keep costs down. I did foliarly apply some monopotassium phosphate once it went on sale later in the season, but I think that did more to burn the leaves than help growth, hard to say. Cheaping out on a later foliar test was probably a mistake; I think there were signs of potassium deficiency I didn't catch early enough and some leaf bloating indicated that I ended the season way too high in nitrogen.

Temperature management: I germinated the seeds indoors in late April using the ziplock and moist paper towel method on a heating pad, but I overheated my first batch when the thermostat slipped out from the heated area. A few survived, and more replacement seeds (Thanks, Dave!) were started a few days later. The world record plant was one of the replacement seeds. Seeds were grown inside the house until the first true leaf was well formed and were then placed out in mini green houses (two plants per hut) in early May after hardening off. Green houses were opened and closed daily and nightly per the weather conditions. Later during pollination female flowers and developing fruit were shaded with plastic chairs and old sheets until they reached a size where just sheets would work. When possible and when temperature forecasts indicated, blankets were added over the fruit to keep it warm at night or cool on hot days.

Water: More by evolution than by design, I use standard 50 ft garden soaker hoses on a 3-station automatic timer for most of the daily (or 2 or 3x daily) watering needs. (I bought soaker hoses my first year out so I just keep using them and buying more. There are probably better and cheaper ways to get water out to the plants.) I added approximately 50 to 150+ gallons per plant per day depending on the weather. I hand watered after fertilization to wash material in and I hit dry spots by hand occasionally. I like to keep fruit and leaves dry when possible.

Diseases and insects: Slugs, cucumber beetles, powdery mildew, and aphids were my main problems. I used traditional slug bait with Metaldehyde. I used DeBacco's diluted milk method early in the season for powdery mildew prevention. Later in the season I added in chlorothalonil when I saw PM showing up. I also did a couple doses of myclobutanil during some high humidity, high disease pressure periods. For insect control my first line of defense was planting fennel in a couple spots in the patch even before I put the pumpkin/squash plants out. Fennel attracts a wide variety of beneficial insects to the patch: lady bugs, wasps, etc. I also had mixed flocks of birds visiting and foraging for insects almost every morning. I did spray bifenthrin if the beetles or aphids got too vigorous for my liking. Weeds were sprayed with glyphosate both ahead of the vines and carefully under the leaves, where feasible, with some hand pulling as needed. Again this is just what I did, not in any way a recommendation.

Check out my diary on [bigpumpkins.com](http://bigpumpkins.com) – my handle is bathabitat. At some point I hope to add some patch pictures, vine training diagrams, etc. Feel free to post other questions to the squash message board on [bigpumpkins.com](http://bigpumpkins.com).

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# Watermelon Q&A

## With Sue Barber

SUE GREW THE HEAVIEST WATERMELON WEIGHED IN THE USA IN 2015 (296.5 LBS) AND HAS BEEN KIND ENOUGH TO SHARE SOME OF HER KNOW-HOW WITH THE MAGPG!

**Q:** What is the optimal plant size for a giant watermelon?

**A:** It seems like most melon growers use about 250-450 square feet. My growing plots are 15x20 each so that would be 300 sq ft per plant. If I ever grow a world record,

**Q:** How big does the plant need to be before pollinating the keeper?

**A:** The rule of thumb is you want about 65-75 sq ft of plant before setting a fruit.

**Q:** Do you lay down a weed block of any sort? If so, what type? I have heard that the traditional weed block allows some weeds to penetrate through unless there is mulch on top.

**A:** I use a very thin weed fabric (3 oz weight or less) and the brand I prefer is called DeWitt landscape fabric. I buy it by the 250-300 ft long rolls. If you purchase it in the winter, it's usually on sale. Using such a thin fabric the sun can penetrate the fabric and erode the cloth, and also germinate weed seeds... so I do use some type of very loose mulch on top of the fabric. I like sand or pine straw best. I believe that the mulch is pretty important for my climate as I have had little babies burn right off the vine when I didn't use the top dressing. The black cloth can get very hot when the sun is shining.



Sue with her 296.5 lb beast

**Q:** Do you try to encourage secondary rooting? If so, how is the weed barrier dealt with?

**A:** I want lots of secondary rooting. The thin fabric is no issue as the roots will just punch right down thru it and continue to grow. The only real problem with using fabric and secondary roots I have is when its time to pick up the fabric at the end of the season. So many roots have grown thru it that it tears into smaller pieces. It can make clean up quite a chore.

**Q:** Our main club weighoff is typically in late September. When would you recommend that seeds are started for a late September weighoff?

**A:** I live in a climate where I can start my plants about a week to 10 days before I plan to put them in the ground. My goal is always to grow a melon for about 100 days, so for a late September weigh off, I would probably try to be in ground by first week of May. I would start seeds about 7-10 days prior to that. I know that some of the growers that are in cooler climates start their plants earlier and hold them in pots a few weeks. I think both ways can work well and you just have to experiment to find the way that works best for your climate.

**Q:** Do you use pesticides and fungicides on your watermelon plants? Would you recommend that a grower use the same program as used for their giant pumpkins?



**A:** I spray my plants weekly with fungicides and pesticides from an early age on. Some of the products I have used on my pumpkins burned the melon foliage...so I would be doing a test spot on something new before spraying the entire plant. My spray program is pretty simple and probably similar to the pumpkins spray program. I use 2 or 3 fungicides and pesticides and rotate them weekly plus I drench Merit in on a monthly basis. I also use a miticide weekly for spider mites. Because some of the products I use are not food safe, I don't ever plan on eating the watermelons I grow. So keep that in mind when you are deciding what products to use.

**Q:** Do you use fertilizers throughout the growing season, and how often are they applied?

**A:** I try really hard to get my soil right so I don't have to rely on a lot of ferts. With that said, I know plenty of growers that fertilize with something gentle on a weekly basis and they do great. If you overdo the ferts, you will slow the melon down... so my advice to growers always is to watch the melon and see how it responds. And don't be a moreon ;)

**Q:** Is there any concern about splitting watermelons the same way that pumpkins can split due to rapid growth?

**A:** Year before last I split the skin on one melon due to rapid growth but it was only a surface split and it healed over. I have never heard of anyone blowing the blossom end out like you hear about with pumpkins.

**Q:** Have you ever grown grafted watermelon plants? Do you think grafting is needed to compete at the highest levels?

**A:** I grew my first grafted plant last year so I don't have the knowledge others would about the grafted plants. I did not see the great early growth others have talked about. It was pretty much the same as my traditional grown plants (except for the 229, which was just a fabulous plant from the get go). I do not believe grafting is the answer to competing at the highest levels. Despite the fact that the last 2 or even 3 world records were grown from grafted plants, I believe not enough credit is being given to the growers themselves. Both Chris Kent and Gabriele Bartoli are at the top of the melon heap. I think their knowledge and skill deserve the credit for the world records and not the grafted plants. With that said, grafted plants can be another tool we growers can use to help us overcome difficult growing conditions. If I had heavy disease pressure in my patch and could not move to a different area, I would be all over the grafted plants.



**Q:** Do you have any thoughts about what the best watermelon seeds will be for the 2015 season? Will you grow your own seed?

**A:** There are so many good seeds now to choose from that I think you can't go wrong with any of the proven genetics. I had great success with Bill Edwards' 229 so I intend to plant that again and I am growing 2 of my 296.5s. The other two seeds I intend to try this year are Bill Neptune's 272.5 K and the 157 Bright if I can get it to go.

**Q:** Do you train vines and prune your watermelon plants?

**A:** I plant my plants in the center of the plot so I train the vines to go to the corners of my growing space. I want to set the melon at the edge of the plot so I don't have walk into the plant to check on the fruit. Each melon is allowed 15x20 of growing space and I prune anything that goes out of its allowed area. I just use scissors and give them a haircut.

**Q:** Do you recommend placing anything under the growing watermelon?

**A:** I love the closet racks. Air can get under the melon with them and they stay fresh and healthy all season.



**M A G P G**

**RESOURCES !**

<http://greatpumpkincommonwealth.com/>

**GIANT PUMPKIN WEIGH OFF LOCATIONS:**

<http://gpc1.org/index.php/weigh-off/new-england>

<http://gpc1.org/index.php/weigh-off/ny-pa-southeast>

**MORE RESOURCES !**

<http://www.bigpumpkins.com/>