

2018 North American record holder Steve Geddes of Boscawen, NH took some time to answer questions from PNWGPG reporter Gerry Gadberry that will be appear in our newsletter and on our website for our members. Thank you for your contribution Steve, we appreciate the time you have taken to share some of your knowledge and growing techniques with us!



1: What got you started in this hobby and how long have you been growing giants?

I've been growing since 2008. A friend/coworker who was part of the NHGPGA had tried to convince me for years to grow and finally dropped a plant off in my office in June of 2008 and that is all that it took to get me hooked.

2: What is your typical weather like and how big is your growing area?

I wish I could say that we have typical weather here in NH but we often have snow still on the ground when the plants are going into the patch (usually around 4/18). We also have frosts threats usually right up until 6/1 and the temps usually start dipping back into the 30's at the end of August & beginning of Sept. Mid-summer day time temps are generally in the 80's and we usually experience 3 or 4 heat waves (above 90 for more than 3 consecutive days) during the summer.

I grow 3 plants each year and set aside around 1200 sq. feet per plant.

3: Can you describe your soil type and typical amendments, cover crops, and patch prep techniques you use?

When I first started growing in 2008 I would have described my soil as sandy. With the addition of organic matter (composted horse manure/shavings & maple leaves) each year I can now describe it as sandy loam. My organic matter in 2008 was 5% and my CEC was 7. My organic matter this past year was 8% and my CEC has been brought up to 15. At the end of each season I will pull all my plant material out of the patches and spread 1-2 inches of compost over the area and till it in. I will then follow that with a cover crop of winter rye. If I lose a plant earlier in the summer like I did this year I will get in a cover crop of mustard in an attempt to reduce soil pathogens. Once the mustard is tilled in I will wait a few weeks before following up with winter rye. If my fall soil test indicates that my PH is dropping or if my calcium levels are low I will add the correct amounts of lime and gypsum prior to tilling in the compost that I spread.

4: What is your water source, how much water do you typically use a week and do you use “fertigation” to inject nutrients into the water?

We are on town water so that means chlorinated water. I don't store the water in an attempt to let it gas off or warm up. All of my watering is done straight out of the hose. All of my watering & fertilizing is done by hand. I use a water soluble fertilizer which I mix in a 10 gallon sprayer. I do not foliar spray but instead attempt to spray every inch of soil under the canopy as evenly as possible. Once the fertilizer has been applied (done daily) I follow up with watering by hand under the canopy. Once the plants are 600 sq. feet or more I use a minimum of 100 gallons per plant. On hot, dry, windy days that will often be closer to 200 gallons per plant.

5: Your 2528 was an amazing accomplishment was it grown under a greenhouse or outdoors? How did you decide on what seeds to grow and do you think the World Record will be beat this year?

Other than the small 5' x 10' hoop houses that the plants are in until the 3rd week of May they are grown outside.

When it comes to seeds I think that most of the seeds that are available today will produce over 2000 lbs. if all the conditions are right. The only factor that would cause me to not consider growing a seed is if it came off a plant that was diseased.

I think it is possible that we will see a pumpkin go over the 2624 mark but I think the chances are quite low. I think that when you look closely at the numbers over the 6 or so years you will notice that the trend line is in the 2100-2300 range. I believe that you need pretty unique conditions to produce something over that range.

6: Can you share your early season planting site layout for us (hoop houses, soil heating cables, growing pit/ mounds, magic ferry dust) ☺

I generally start my plants right around April 1st and at that time there is often still a foot or more of snow covering my garden. This means that in early May I start spreading a very light coating of wood ash or any other dark material (potting soil/compost) over the snow. This melts the snow incredibly fast and I can usually setup my hoop houses at the end of May. By keeping the hoop houses closed I often get temps exceeding 110 degrees which thaws out the soil pretty quick. As soon as the soil is thawed I move the hoop houses so I can turn over the winter rye in that 5 x 10 area and then move the hoop houses back to continue warming up the soil so the microbes can break down the winter rye. A few days before I put the plants into the hoop houses I move them again so I can install heat cables. I run 60' roof heating cables that are connected to a soil probe thermostat that I can set at any temp. I run the cables 6 to 8 inches down and keep them tightly spaced. The cables will cover about a 5 x 5 area. I do not make a mound to plant on or add any additional amendments when planting. Since I fertilize daily with what I believe is a very well balanced fertilizer I've never seen a reason to be adding anything else (no magic ferry dust).

7: What does your fertilizer / fungicide / insect program typically look like? Are you an organic gardener, commercial fertilizer user or both and is you're fertilizing based on tissue and soil tests?

I wish I could say that I was growing organically but I think it would be impossible to get the same results with organic fertilizers, fungicides and pesticides. As mentioned above I do maintain a large compost pile of horse manure and maple leaves but I use that mostly to maintain or improve the structure of my soil and not so much to feed the plants. The fertilizer that I use is a water soluble fert. with an NPK of 12-5-19 along with a well-balanced group of micro nutrients. I added a protein based fertilizer (Origin 360) for the addition of amino acids. When the plants were 650 sq. feet or more I was using 1/3 to 1/2 cup of each product per plant. As I mentioned above in question #6 I do not use a vine burying mix or use amendments like mycorrhizae or azospirillum.

During the early part of the growing season when heat and humidity are generally low as well as disease and insect pressure I try to minimize my use of pesticides and fungicides. From mid-June on I generally spray every 7 to 10 days and will use whatever is most appropriate for either the insect(s) or disease(s) that is present at that time. I hesitate to recommend any specific products since what was effective over the past few years may no longer be effective. My suggestion is to do a little research through either your local University or Extension Agency as to what is currently the most effective product to use as well as what insects and diseases are currently threatening crops in your area.

8: What factors do you think contributed the most to your phenomenal success this year? Can you walk us through some of your growing techniques / cultural practices?

I believe the biggest factor was that we experienced tropical like weather for much of the growing season. I was able to manage the extreme heat during the day by misting by hand whenever I noticed any of the plants getting stressed. Excessive heat during the day is a variable that I can control but when we start having consecutive night time temps dropping below 55 there is not much I can do without a greenhouse. We experienced night time temps over 65 all the way into the middle of September.

My growing techniques are about as basic as you can get. When starting my plants I never file or soak my seeds. They go directly into one or two gallon pots that have what I would consider a good potting soil (Pro-Mix). From there they go into a germination box with a constant temp of 90 degrees. Cots are almost always breaking the ground between 60-72 hours. I always try to get them under my grow light (600 watt Metal Halide) before the cots are completely out of the ground. This reduces the chances of ending up with leggy plants. I try not to keep the plants in the pots for more than 2 weeks. Unlike a lot of growers I never keep a fan going to get them to harden off. Since my plants always go into a hoop house and are protected from winds I prefer to have the stems flexible so they can lay down with less risk of spitting or damaging the vascular system. If I was transplanting directly to the outside without protection it would make sense to harden them off.

Prior to transplanting into the 5 x 10 hoop houses I run a 60 foot roof heating cable 6 inches into the soil within the hoop houses. The heating cables are controlled by a digital thermostat with a soil probe. I run the thermostat at 85 degrees. Whenever I have plant in the hoop houses I will also have a transmitting thermometer next to the plant. I have the receiver unit which can take up to 8 transmitting thermometers in the house so I can track what the temps are at any time. I spend a lot of time running out to the garden to either open or close the ends of the hoop house in an attempt to keep the temps between 70-85 degrees. From the very beginning I water and fertilize daily. I use a water soluble fertilizer that is sold by one of our local Ag. supply stores and used by most of the local farmers who use fertigation as their way of fertilizing and watering. Once the plant is down and running I attempt (carefully) to get all leaf nodes down and rooted as quickly as possible. I prune and bury vines daily but do not use any vine burying mix. Since I feed daily and use a fertilizer that I believe has a well-balanced blend of macro and micro nutrients I've never found a reason to be adding anything else. I generally set aside a 30' x 40' space for each plant and grow in a Christmas tree pattern. I terminate side vines at about 12 feet knowing that they will continue to fill out to the 15 ft. that I've allowed for them. If I've timed things correctly and the weather has cooperated I will have terminated my first couple of side vines around the time that I'm pollinating. As I near the time that I will be pollinating I do not decrease nitrogen rates but I might increase P & K by adding small amounts of a bloom booster fertilizer to my daily fertilizer mix. I do place ice around the newly pollinated pumpkin even when temps climb above 90. Unless you can be sure you're not dropping the temps on the pumpkin below 60 I believe you're likely reducing cell division rates. If the temps are that high I do the same as I would later in the season and that is to hand mist the entire area to reduce the temps by a few degrees. I keep the sun off the pumpkin from day one right up until it is on the trailer headed to a weigh-off. I use several layers of sheets to do this.

My one recommendation for spray programs for insects and disease is to know what you are spraying for and know whether the product you are using is effective. Many insects and diseases have built up resistance to products that were very effective just a few years ago.

9: Steve you have been doing this a long time now and your weights keep going up every year. What are some of the biggest mistake you've made in this hobby and how have they changed your current practices?

Back in 2014 the farm supply store that I had been purchasing my fertilizer from for the previous 4 years stopped carrying what I had been using. They began carrying a custom blend which they promised me was the same (macro + micro % and rations) as what I had been using. After comparing labels I had to agree that they were pretty much a match. I had always struggled to get really healthy green plants but by mid-July my plants were just not thriving and I could not get a pumpkin to set. By mid-August I threw in the towel and called it quits. For the rest of the season, I spent a lot of time trying to determine what the problem was. And then, in one of those aha moments, I decided to more closely compare the ingredients of the previous fertilizer, with the one I just started to use. What I found was that the new fertilizer ingredients matched everything from the old with the exception that the new fertilizer had zero molybdenum. The fertilizer I had been using contained such a small amount of molybdenum that I really did not think this could be causing the problems that I had that summer. After doing a lot of reading on molybdenum's role in plant growth and what happens if it is not available to plants (very rare in most U.S. soils) I decided it would make sense to test my soil for it. Most soil tests do not include molybdenum testing in their standard tests so I had to ask for it to be tested for. The test results showed that my soil was almost completely deficient of molybdenum. I have since gone over to a fertilizer that does contain trace elements of Molybdenum, as well as adding it (micro amounts) to my fertilizing program. A lot of growers would likely have called that year a disaster and failure but I see it as one of my best years because it forced me to discover a problem that had existed for a long time, and a solution to it.

10: What advice do you have for growers looking to increase their personal bests in the patch?

This is probably going to sound overly simple or even silly but I would suggest that if you want a personal best than do everything you can to understand what you would need to do to get a WR. Once you've figured that out you can decide what is possible or reasonable to implement within your patch. The most important advice that I could give to anyone is to enjoy what you are doing. If you end up finding yourself overly stressed from trying to grow a pumpkin it is a sign that maybe another hobby is in order.

11: What is your favorite seed stock and what seeds out there do you think have the most potential?

I truly believe that most of the seeds out there are capable of now producing 2000 lb. or heavier pumpkins. I do attempt to find seeds that will likely be disease free and did well for the grower in their growing environment.



Logan Labs, LLC

Job Name: Steven Geddes		Company: Steven Geddes	
Date: 9/12/2018		Submitted By:	
Sample Location	Middle	Sample ID	
Lab Number	32	Sample Depth in inches	6
Total Exchange Capacity (M.E.)	13.82	pH of Soil Sample	7.2
Organic Matter, Percent	7.32	SULFUR:	p.p.m.
		Mellich III Phosphorous:	lbs / acre (P ₂ O ₅)
			2896
ANIONS			
CALCIUM:	Desired Value	Value Found	Deficit
	3758	3868	
MAGNESIUM:	Desired Value	Value Found	Deficit
	397	653	
POTASSIUM:	Desired Value	Value Found	Deficit
	431	521	
SODIUM:	lbs / acre		82
BASE SATURATION %			
Calcium (60 to 70%)	69.99		
Magnesium (10 to 20%)	19.69		
Potassium (2 to 5%)	4.83		
Sodium (.5 to 3%)	1.29		
Other Bases (Variable)	4.20		
Exchangable Hydrogen (10 to 15%)	0.00		
TRACE ELEMENTS			
Boron (p.p.m.)	0.79		
Iron (p.p.m.)	147		
Manganese (p.p.m.)	46		
Copper (p.p.m.)	8.15		
Zinc (p.p.m.)	39.84		
Aluminum (p.p.m.)	1223		
Ammonium (p.p.m.)	0.8		
Nitrate (p.p.m.)	16.4		
OTHER			

Soil Report

