Top Ten Barriers Limiting Giant Pumpkin Patch Success

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Introduction

Growing giant pumpkins can be a very rewarding hobby. It can also be very frustrating, as pumpkins are fickle and Mother Nature seems to have no limit to the challenges she can throw a gardener's way. In the interest of helping growers understand the primary obstacles limiting success in the pumpkin patch, a survey was undertaken to crowd-source a collection of the biggest challenges modern competitive growers face. Sixty seven participants contributed data to the cause, resulting in a diverse pool of responses that pegged weather, time limitations, and soil & nutrient management as the top three barriers to patch success.

Methods

The question *"What are the top ten obstacles that limit success in your patch?"* was posed to the competitive giant pumpkin grower community on the www.bigpumpkins.com general message forum. Contributors were asked to rank their responses in order from most limiting to least limiting. In sum, 67 participants contributed usable data, presented below. Data was analyzed via two methodologies to extract meaningful outcomes. The first method applied a ranking system, whereby the first obstacle listed by a participant received 10 points, the second obstacle listed 9 points, and so on. The second method simply counted the number of times an obstacle showed up among the 67 participants.

Data

The entries submitted were filtered and ultimately translated into 20 different categories of obstacles. The "Points" column represents the weighted data, where points were assigned based on the ranking of obstacles submitted. The "Count" column represents the total number of times that obstacle was listed in the 67 entries. Of note, 87% of the entries in the Points column are captured in the top ten obstacles. Similarly, 85% of the entries in the Count column are captured in the top ten. Thus, it can be fairly concluded that a "top-ten" represents the majority of the obstacles encountered by the battle-ready competitive giant pumpkin grower.

Rank	Obstacle	Points	% Points	Count	% Count
1	Weather	261	13%	33	12%
2	Time limitations	255	13%	32	12%
3	Soil/Nutrient management	238	12%	30	11%
4	Location	211	11%	25	9%
5	Lack of knowledge/exp	209	10%	25	9%
6	Money	177	9%	24	9%
7	Disease	142	7%	22	8%
8	Bugs	99	5%	16	6%
9	Motivation/commitment	72	4%	12	4%
10	Weeds	71	4%	12	4%
11	Grower Errors	69	3%	9	3%
12	Water limitations	45	2%	7	3%
13	Critters	31	2%	8	3%
14	Seed Genetics	27	1%	4	1%
15	Luck	26	1%	4	1%
16	age/health	23	1%	3	1%
17	Uncontrollable disaster	23	1%	3	1%
18	Regulations	10	1%	1	0%
19	Close-mindedness	6	0%	1	0%
20	Mutants	4	0%	1	0%
	Total:	**1999**	**100%**	**272**	**100%**

Interpretation

Weather was the #1 obstacle cited by pumpkin growers as a barrier to their success. A bit of a catch-all category, this includes most of the curve balls Mother Nature throws at a grower from a local perspective. I did not include climate/location in this class, that is broken out later. This category does include events like wind, storms, hail, early/late frosts, temperature extremes, etc. An entire season's worth of efforts can be evaporated in a 20 minute weather incident. Many of us have suffered these events…multiple times (Can I get an Amen, Colorado?). While we cannot control what nature throws at us, we can control how we "catch" what is thrown. A number of growers have transitioned to "greenhouse" growing, where many of the variables associated with weather can be kept in check. Controlled environments are a subject of controversy, as some perceive this to be an unfair advantage in the upper echelon of competition. Regardless of where one stands on that topic, most growers have the resources necessary to ward against many of the weather variables to a sufficient enough degree to get a pumpkin to scale. Wind fencing, poly hoop houses, soil heating cables, tarps, blankets, and other household staples are effective ways to overcome the obstacle that is Mother Nature and her oft disagreeable temperament.

Time limitation was the #2 obstacle. As with any hobby or professional pursuit, time committed is often the defining factor to success of the activity. Certainly no different here. Growers new and old often ponder the existence of "secrets to success" by those on top of the pumpkin thrones. However, time and time again (pun intended), the greats of this hobby will cite time commitment as the not-so-secret "secret to their success". Time limitation is tied to most of the obstacles on this list, where if more time

was spent working on solutions to overcome the obstacle, more success in the patch would be found. For example, taking the time to erect an effective wind barrier before the plants go into the ground may in fact eliminate or drastically reduce wind as an obstacle to success. Committing more time to the hobby will, by default, diminish the magnitude of many of the other barriers.

Soil/Nutrient management rounds out the top 3. Under this umbrella is included things like soil testing & interpretation, fertilizer application, what to apply, how much to apply, when to apply, etc. Unlike time limitations, which is straightforward and easily understood, soil and nutrient management is a complex topic with few, if any, definitive answers on how to do it "right". While we have access to the experiences and plans of those who have been successful, there does not exist a "playbook" of sorts on how to measure and manage soil and plant fertility. However, by simply following common practices of soil testing and managing nutrients to the ranges provided by soil labs, a good portion of the ambiguity surrounding fertility can be managed. Thus, I believe this obstacle can be mostly overcome by focusing on pH, organic matter, base saturation, and other foundations of soil fertility that are within our realm of control. Once again, committing time to learning fundamental principles of soil & fertility management can pay patch dividends.

Location earns the # 4 spot. The bulk of the respondents grouped here represent climatic limitations. The remainder is characterized by obstacles such as excessive shade/lack of sunlight, lack of space to rotate/expand growing area, a patch located in a low spot with poor drainage, unpleasant neighbors who allow creeping Charlie to grow into patch, and other non-weather related limitations concerning where a pumpkin grower chooses to cultivate his/her patch. Regarding climate, history has shown that the largest pumpkins in the Western hemisphere are typically grown within a few degrees of the 45th parallel. This latitude is, of course, the halfway point between the equator and the North Pole. It can be likened the story of Goldilocks and the three bears, where the middle bowl of porridge had a temperature that was "just right". The 45th parallel slices through Northern Oregon, forms the border between Montana/Wyoming, South Dakota, Minnesota, Wisconsin, Michigan, Ontario, New York, New Hampshire, Vermont, and Maine. Growers south of the 40 degree parallel struggle with excessive summer heat and humidity, unless you are located on one of the coasts, while growers north of the 50 degree line don't thaw in the spring and freeze too early in the fall. This barrier is a tall one, as often the only resolution to overcoming it is by moving.

Lack of knowledge & experience lands at #5. Many contributors cited not having an experienced mentor close by as a limiter of success. This concern is closely tied with #3 soil/fertility management. Further, not knowing the principles of vine management, pruning techniques, watering schedules, and other patch tactics employed by successful growers were given as reasons for limitation. Fortunately, this obstacle and be easily overcome with a dash of curiosity and sprinkle of motivation. Curiosity motivates one to seek knowledge, ask questions, pursue insights and in doing so, many of the answers to questions above can be illuminated. The often cited second "secret" to upper echelon grower success is establishing a network of relationships within the giant pumpkin community. Join a club, visit a neighboring patch, and attend a meeting. All of these actions serve to build relationships with those who have the knowledge you seek to gain. Just a single season's worth of information and relationship pursuits can have you educated enough to grow a world-class fruit.

Money captures the sixth ranking. What does it cost to grow a giant pumpkin? Well, there seems to be no limit to what one can spend on the hobby. However, that's not to say pumpkin size is directly tied to

your budget. Those new to the hobby, who have never gardened in the past, may indeed have significant up-front costs to acquire basic gardening tools and some of the essentials used to protect against weather, critters, bugs, disease, etc. Like any other hobby, acquiring fixed assets is a process and costs are usually spread over time. Many growers in favorable locations with routine gardening equipment can consistently grow competition caliber fruit on a reasonable budget. $500-$1000 per season is a very practical range, spent on building materials for early season wind & temp protection, a soil test and subsequent amendments, bug, critter, & disease controls, and tools to manage weeds and effective watering. Expenditures beyond these fundamentals are often geared towards improving time efficiency, such as automated watering systems, larger scale tillage and weed control machinery, fertility application equipment, etc. These niceties can offer growers an edge by permitting more time to be spent on other patch tasks. If budget is a limitation, then consider the hobby a marathon vs a race, where a slower pace of asset acquisition over time will continually contribute to the likelihood of setting a personal best.

Disease comes in at #7. This category includes the bacterial, fungal, and viral pathogens that infect *C. maxima*. Powdery mildew, gummy stem blight, damping off, mosaic virus, and fusarium are just a few examples of the microbes that can limit pumpkin potential. Many of these diseases are frustratingly untreatable, meaning that once an infection occurs, there's no chance of restoring the plant back to health. Most, however, can be prevented by using good management practices. Once a pathogen has been identified in your patch, measures will need to be taken in future seasons to preventatively control against it. Most of the fungal diseases like fusarium and damping off are soil born, meaning they are in your patch always and forever. Rotating your patch to a different location each year, if you have the space to do so, is the best way to prevent and overcome these disease obstacles.

Bugs are the 8th most pressing obstacle. This class is characterized by three primary nemeses: the squash vine bore (SVB), cucumber beetle, and stink bug. SVB are particularly troublesome, in that a moth lays an egg on the underside of a leaf. The egg hatches and the baby larvae crawls down the leaf stalk, bores a hole in the vine, and continues munching a tunnel through your precious vines. Cucumber beetles feed on new growth, and populations of this bug can decimate a young seedling in a day's time if not controlled. Additionally, cuke beetles can transmit a bacteria that makes pumpkin plants sick. Stink bugs cause their own kind of damage by piercing leaves and stems and feeding off the juice. All three bugs and additional insect pests can be controlled with chemicals and traps readily available online or at local garden centers.

Motivation & Commitment slide in to the #9 spot. Excitement for the hobby often builds during the winter as growers spend time learning, planning, and acquiring assets to grow successfully. Once season arrives, a host of factors can erode the motivation and commitment built up. Life gets in the way, time is always limited, Mother Nature throws a gut punch, vandals strike, or your plant won't set a fruit. The list of factors that get in the way of success is endless. And as more of these factors accumulate through the season, ambition to persevere wanes. More often than not, however, the potency of being "bitten by the bug" overcomes the frustration of setback. The adage "there's always next year" is a silver lining every grower has considered in the face of season-ending adversity.

Weeds round out the top 10. We speak of "death and taxes" as immutable laws of the universe. Weeds should be added to that list. Weeds are weeds because they are the definition of perseverance. They will grow no matter the conditions and no matter the effort we expend to control them. Perhaps

those who struggle with motivation and ambition have something to learn from weeds. As an obstacle to pumpkin success, they can be managed very effectively. Countless tools exist for weed management, including tillage, chemicals, fire, solarization, cover crops, etc. If weeds are truly a limiting factor, then it's likely that time is the underlying issue.

Grower errors represents circumstances where the gardener himself/herself is the problem, making poor decisions or stumbling over a vine and crushing the main vine tip. Easily avoided by being more careful. **Water limitations** refer to those who do not have access to convenient watering system and/or those who received too much precipitation, thereby drowning out their patches. **Critters** includes all animal life larger than bugs, such as dogs, cats, rodents, birds, deer, bear, and other beasties that see your pumpkin as an object of their affection. **Seed genetics** was listed by those who felt success was limited because of a genetic ceiling. I personally believe that maximum genetic potential is available to any grower for little to no cost. **Luck** was cited as limiting factor and this appears to be absolutely true. One can go down the path that we shape our own luck through our belief system, when preparation meets opportunity, blah blah blah, but that's a topic for another day. **Age & health** appeared on the list. A legitimate concern, as growing a giant pumpkin is an active hobby that requires good physical health. Lots of bending, squatting, reaching, and balance are required to perform routine patch tasks. **Uncontrollable disasters** are an uncommon but very real occurrence. The neighbor's cows got out one spring a few years back and a hoof stepped squarely on my three-day old seedling, ending its short life. True story, $^*# happens. **Regulations** had only one appearance, but it was at the top of that contributor's list. Not so long ago, California was in a severe drought where residents were not permitted to water their lawns (or giant pumpkin patches). As such, regulations were a frustrating season limiting obstacle. **Close-mindeness** was also a single hit on the list. It brings up a good point, in that in order to grow (literally and figuratively), we must have an open mind to doing so. Certainly applies to this hobby, as the growing practices used to achieve top weights today look very much different than those used even a decade ago. Lastly, **mutants** only scored 4 points, but it too is a relevant, albeit rare, obstacle. Sometimes the plant genetics suffer a complication that results in double vine, flat vine, club root, or any other odd manifestation. Some of these can be managed to produce respectable fruit.

Conclusion

Many thanks to the 67 contributors who enabled me to perform this analysis. You are, by BP username: Vineman, Wile Coyote, Keubiko, Farmer Brown, Hobbit, Garden Rebel, Zebra Mussel, The Borer, Wolf3080, 26 West, Big Moon, Pumpkinman Dan, Q Tip, So.Cal.Grower, Baker's Man, Linus Van Pelt, BillF, Team Wexler, GEOD, Jay Yohe, Wizzy, Gads, Glenomkins, agteacher, Crappie, Peace,Wayne, HankH Bubba, Spudder, Big City Grower, pumpconn, Ralph, Nic Welty, Stellern, The Pumpkin, GrimreapersPumpkin, Vineman, PumpkinBrat, Dutch Brad, Orangeneck, Frank and Tina, Michigan Masher, Wildcat83, Pooh-bear, Jane & Phil, bathabitat, PumpkinFanatic, PatchMaster, Whidbey, Jake, Orv, Lipumpkin, Evandy, don young, Kerry Gross, Ron Rahe, spudder, VTJohn, Barbeetoo, Iowegian, Bcbf, Wizzy, DONKIN, iceman, baitman, pumpkin carver, Pcaspers.