



The Pumpkin Vine

May 2013

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And They're Off!

Springtime in the Wasatch is at its finest! One day we get to enjoy beautiful 60° to 70° temperatures and the next we enjoy 60 to 70mph winds with snow mixed in. Growing a giant pumpkin in our Utah climate takes a lot of effort, but it is well worth it.



During this time of year a grower can be full of questions. Jump on Facebook and join the Utah Giant Pumpkin Growers group (see page 3 links). You'll get any questions answered almost immediately. It is a great place to meet and talk to other growers.

I have really enjoyed getting to know many of you new growers. It has been fun to watch you going to the extreme to get that personal best.

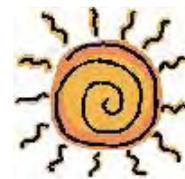
There are so many great things that will be happening with giant pumpkins this year. I'm excited to experience it with such a great

group of people. Together we will break records!



Sincerely,
Kyle Fox
UGPG President

Pumpkin Vine Summer Tips



May

Winning the battle of maintaining proper temperature for your seedling is vitally important. Open your hoop during the day and close it at night. A heat lamp or small heater is a great idea. 80 degrees for day & 60 degrees for night. Start a light feeding and increase as plant grows. Keep soil around seedling moist and remember roots extend far beyond the leaf canopy. Get walking boards!

June

Big, healthy plants produce big, healthy pumpkins. Make sure to feed and water at least once a day. Prune and bury vines. Try for a pumpkin between 10' & 20' from the stump on the main vine. Aim for pollination at the end of June or beginning of July. Shade cloth covering the plant is helpful as temperatures rise. Apply GrubX to the soil and spray Talstar as a contact to kill those pests!

*other types of contact insecticides may be used.

July

Once your pumpkin is growing, adjust daily to optimize the positioning on the vine. Use shade cloth or misting to alleviate heat stress on the plant. Weekly plant needs to be treated with insecticide and fungicide (hollandsgiants.com or extremepumpkin-store.com). Feed steady and regular this month.

August

Your pumpkin should really take off this month. Keep the plant healthy and free of disease and you should be able to enjoy the ride. To fight season ending disease, research the following: Subdue, Daconil, Eagle 20, and Cleary's 3336. You will fight powdery mildew, fusarium, and pythium to name a few.

September

Load up the pumpkin and register for the Weigh Off.

Pre-register your pumpkin on the GPC website: greatpumpkincommonwealth.com

Print off the filled out registration form and bring it to the weigh off with you. This saves our volunteers a lot of time at the weigh off entering the info for you.

Pick a pallet that has all four sides open to make it easier on our weigh off crew. Make this pallet a work of art: add grass or paint your pumpkin's new resting place.

Growers - *Mark Your Calendars*

June

Saturday (date to be determined) - Spring mini tour (3) separate tours in each valley across the Wasatch front. Watch your email and the Facebook page for more info.



July

Get a KIN set on the VINE!

August

Saturday, the 10th - Club BBQ and the PATCH TOUR



September

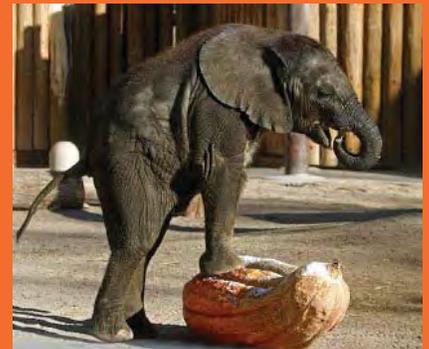
Saturday, the 28th - Weigh Off @ Thanksgiving Point

October

Saturday, the 19th - 3rd Annual Regatta (<http://www.myseeds.com/regatta.html>)



Saturday, the 26th - 5th Annual Giant Pumpkin Drop at Hee Haw Farms (a charity event for babies with the March of Dimes) (<http://www.heehawfarms.com/activities/giant-pumpkin-drop/>)



November

Thursday, the 28th - Hogle Zoo Feast with the Beast (www.hoglezoo.org)

Fun Links

Pumpkin Drop: <http://www.youtube.com/watch?v=l7h5MtT6F2g>

Find us on Facebook: Utah giant pumpkin growers



Grower diaries: www.bigpumpkins.com

Heavy Hitters *Big Timers across the Globe*

Nick and Christy Harp may have grown a pumpkin that was heard around the world, but nothing compares to the record breaking and news cameras like the pride and joy of their



life, their little boy, Blaine. The Harps can be found sowing every bit of dirt they can get their hands on and floating in giant pumpkins on the pond just out their back door. This family loves to harvest pumpkins of all shapes and sizes. People from all around are known to visit the Harp home for Fall decorations,

jack-o-lanterns, and a chance to see the biggest pumpkin ever. Life on the farm in little Blaine's shoes is as normal as any, where giant pumpkins, John Deere tractors and Geo cashing are the norm. For most of us, we stumbled upon giant pumpkins, but this new generation will be raised on the giant gourd. I have no doubt that the weight of the big orange globe will continue to get bigger and bigger until one day Blaine will take the new title home by surpassing the famous 1,725 Harp.

The Utah Giant Pumpkin Growers thank Nick, Christy, and Blaine Harp as our spotlight Heavy Hitters this Spring of 2013. Grow'em O so Big!

There is no "Secret"

Christy and I have been growing for about 10 years, we spent the first couple of years growing some 400-800 lb pumpkins and then managed to grow a few that were bigger. We are heavy hitters by no means, but we have discovered that there is no "Secret". Until 2009, we wondered what the "Secret" was, there isn't one. We always wanted to know what the heavy hitters were doing that we weren't.

After 2009, we startlingly discovered that what we were being told was correct. There isn't one secret, but there are several cornerstones which constitute a foundation on which to build your world record.

Education

We always attend the club seminar, and the OVGPG does an excellent job of presenting pertinent current information. We had always heard Quinn, Jerry, Dave, and Tim, outline what they did, it was tough to believe them until 2009, now we do. I firmly believe that Ron Wallace accurately described what he did on the seminar circuit this year to grow a 2009 pound pumpkin. He did make clear that he has done what works best for him. Ron is the World Champion, but he is also Champion of asking questions to anyone in an attempt to educate himself to be a better grower. A crucial part that I can not understate is the development of a "plan". This plan needs to record what was done last year, what I need to do this year and how I am going to get ready for next year. This plan needs to include amendments, soil results, start dates, pest management, etc. Execution of the plan is crucial.



Patch Preparation

We are fortunate to be able to rotate through three patches. Of course they are not

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necessarily created equal, but they generally have a balanced pH, soil nutrient levels, and a moderate, but not excessive amount of organic matter. It's possible I think to grow a neighborhood record in just about any soil, but to grow one of world class proportions requires some planning and balance in the soil. Patch prep is almost a year round activity. Ideally, the patch prep for next year in my opinion is completed through amending and cover crop rotations the year before.

Disease and Insect Management

Ohio has a water problem, we generally have too much and it can be unpredictable, this predisposes us to some incredible disease pressure. Powdery Mildew is easy to deal with, we don't even worry about it anymore. The OVGPG has published an excellent disease and insect management program for soil and foliar issues. Prevention is much better than the cure for all of these problems. However, we seem to be entering an era where we start softer with more biologicals early, to maximize mycorrhizae health, and then transition to harsher fungicides later, but you have to educate yourself through research and experience to make this program work for you. Parts of it may not be applicable to all parts of the country.

Weather

Weather, I think, is critical. In 2009 we had two days over 90 degrees. I firmly believe that anything much over 90 is detrimental to plant health. I have one crazy uncorroborated idea that blossom end splits are due to evapotranspiration stress in the plant. In other words if you have leaf burn, your 10 day old pumpkin probably isn't getting enough water to fully enlarge the cells in the blossom end of the fruit leading to a thin wall. Christy had her's split last year in a fairly hot summer at 1200 lbs in the first half of August. I tissue tested the blossom and stem end, the blossom had more nutrients, but I don't think that it had enough water to utilize the nutrients. Misting and temperature management may be more important than I thought.

Genetics

5 years ago I would have been very seed specific. I think there are a lot of excellent genetics out there. Remember you are looking for the one seed in a pumpkin that has superior genetics to another and then giving it the best possible growing conditions. Proven seeds are probably better at winning a weighoff than growing a world record. I think genetics are still too unstable to reliably predict what seed will grow a world record. The 1725 was selfed because the plant was 3 times bigger than anything else in the patch. Hope to cross your best with your best because what looks great on paper may look like a dud in the patch before and after pollination.

Luck

A little bit of old fashioned luck never hurts either.

Hard Work

In conclusion, weigh offs are won with hard work. There is no substitute for time doing research, networking with other growers, and time spent in the patch. At the end of the year you hope to be able to say, I did my research, I developed and executed my plan (Avoid at all costs saying "That was stupid."), I managed the weather given to me as best as I could, and I grew the largest pumpkin I could by dedicating myself to my goal.



Temperature and Pumpkins

By Matt McConkie

Have you ever asked yourself why the regions of the Northwest, the Northeast, and Great Lakes have had such great success in growing giant pumpkins over the last 3 decades? The purpose of this article is to both explore the reasons behind this as well as discuss ways that we can manipulate our plant's growing conditions despite our natural weather challenges.

Meteorologists use the term "diurnal temperature variation" to describe the difference in the high and low temperature over a 24 hour period. For example, if on a given day, Salt Lake City has a high of 80°F, and a low of 51°F, the diurnal temperature variation would be 29°F. Locations with high elevations and low humidity typically have the greatest diurnal temperature variation. On average, Salt Lake City has a diurnal temperature variation of 30°F during summer months. In the high deserts of Colorado and Idaho, the temperature routinely varies by 40°F or more in a 24 hour period. This presents a challenge for pumpkin growers. In contrast, coastal cities with high humidity can have a diurnal temperature variation of less than 15°F. The moisture in the air coupled with the energy stored large bodies of water such as lakes and oceans greatly moderates the temperature variation. Some growers use walls-of-water or milk jugs filled with water to try to store the sun's energy of the day and slowly release it at night. If you live next to Lake Michigan, you essentially have a wall-of-water that holds 1.3 quadrillion gallons of water that stores the sun's energy and releases it at night.

How does this affect plant growth? As shown by the graph, the rate of photosynthesis is greatly affected by temperature. Most plants operate at optimum levels near 25°C (78°F) and good levels between 18° and 30°C (64° and 86°F). Now we begin to see the real challenge that Utah growers face--the mid-summer daytime high temperatures stress the plant and greatly hinders photosynthesis. At temperatures above 35°C (95°F) the plant is simply trying to survive and cannot operate anywhere near optimum levels. To compound matters, the night time temperatures can plummet 30°F or more.

The plant doesn't know if it's winter or summer!

We can combat these scorching temperatures by misting and shading our plants. Misting should be done frequently throughout the heat of the day. Ideally, the grower will install specific misting nozzles that deliver a low volume mist above the surface of the plant. The evaporative cooling effect can drop surface temperatures by up to 20°F. You can imagine how much better your plant function is at 80°F instead of 100°F. In the absence of misting nozzles, growers have been known to use micro sprinkler heads. This misting should be

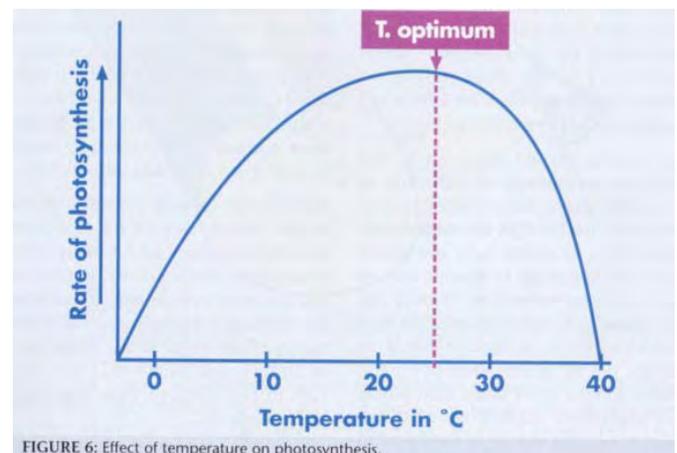


FIGURE 6: Effect of temperature on photosynthesis.

done regularly, but not so much that standing water appears on the ground. You should stop misting before the sun goes down to allow the leaves to dry completely before nightfall. A timer is crucial to any regular misting routine. More advanced timers allow for a misting window in addition to full irrigation cycles.

There are other meteorological conditions that should be taken into consideration as we contemplate how to maximize our plants' performance. The angle of the sun's rays can greatly impact plant stress and leaf burn. In Utah, the UV index (a measure of the radiation of the sun's rays) is higher than it is along the US/Canadian border. The further north you travel, the flatter the angle of the sun's rays. This causes them to travel through more of the earth's atmosphere and filters out a portion of the UV

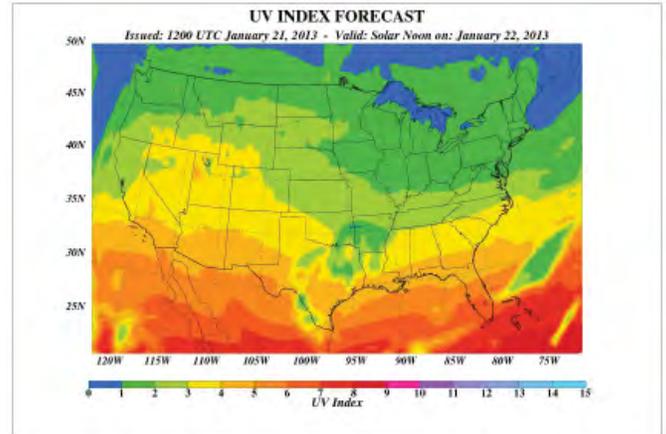
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radiation. Also, lower elevations have more atmosphere between them and the sun which further lowers the UV radiation. The problem with UV radiation is that it causes sunburn damage to leaves.

Additionally, the northern latitudes enjoy more hours of sunlight. Anyone who has been fishing in Alaska will tell you that the sun is only down for a few hours a day. Pumpkin plants like this long duration, low intensity light that northern climates provide. So what can we do to change our naturally occurring light?

Shading is a technique first implemented in Utah by Gordon Tanner in the early 2000's. A mesh cloth is suspended over the entire area of the plant so as to screen out a percentage of light. This mesh allows enough of the sun's rays to pass through the shade cloth such that the UV intensity reaching the leaves is similar to the intensity that occurs naturally between the North American Latitudes of 42 and 46 (the areas that grow the largest pumpkins). Additionally, the temperature beneath the shade tent is significantly reduced. In short, shade cloth is a proven method of reducing sunburned leaves and overall plant stress.



Kevin Card's shade setup.

The table illustrates the top 10 pumpkins grown in Utah and the type of shade cloth that was used. Of the current top 10 pumpkins, 9 of them have been grown under shade cloth.

1600	McConkie	22% Shade
1454.5	Quigley	40% Shade
1338	McConkie	40% Shade
1182	Israelsen	Intermittent 66% Shade
1174	Bowman	40% Shade
1171	Fox	40% Shade
1169	McConkie	40% Shade
1104	Blair	No Shade
1097.5	Israelsen	Intermittent 66% Shade
1082	Bowman	40% Shade

If it is your goal to grow the largest possible pumpkin, you don't have to move to the Ohio Valley or Rhode Island. Growing big in Utah can happen, it just takes a little extra effort to manage our sun's intense summer rays. By shading and misting your plants, you are giving yourself the best shot at victory.