

# How I grew a 2255 lb Giant Pumpkin, indoors, in ALBERTA.

By Eddy Zachkowski

Well 2018 started a few years back.

No matter what I did, I had a hard time getting over 1000 pounds so I started by removing all the dirt to a depth of 24 inches in the greenhouses and running 4" drain tile every 18 in. all across the bottoms. The big greenhouses have 15 runs and the smaller greenhouses have 13 runs. I used a total of around 4000 ft in all. I added an inline fan to each of the runs with the air blowing down and ran solid pipe to the roof at the inside of the greenhouse to draw the hot air from. I can heat my ground from frozen to 55 degrees F in 3 days and 70 degrees in 7 days. After much experimenting 72 degrees is my magic number at a 12 in depth.

Concerning my soil...I had to do a soil change because my native soil had a pH of 7.8 and I could add as much sulfur etc. as I wanted but had minimal change due in part to using water that had a pH of 7.5 or 7.6. My new soil was a mix of 25% loam, 25% compost, 25% blond Pete moss and 25% normal Pete moss. I change out 4-6 inches yearly. (very few weeds this way also).

I also created a dugout to catch all rain water and snow melt. My Ph is very stable at 7. I added propane heat for our cold nights. Didn't work out so well, WAY TOO MUCH MOISTURE. Powdery mildew and diseases stalled me out by end of July, early August So we added wood pellet stoves as primary heat and propane as back up. This stabilized my humidity and disease levels diminished.

Still couldn't get to where I thought I should be. Then came CO2 and then we started blowing things up, but had super growth. With CO2 came the realization I needed to be here literally 24/7 and monitoring it religiously. (picture #1 is the CO2 burner)

I played around with it for 2 years before I got to where I am today. This year I started using CO2 the day I set out my plants which was May 8<sup>th</sup>. The CO2 ran for 5 hrs every day, starting at day break and turned on with a light sensor. So basically from 5 AM to 10 AM. and ran it at 900 ppm. Couple things that are very important, first I was running 2 fans for the CO2 by creating a circular pattern with the air, this is VERY important as the whole plant needs to get the same amount. Second is to expel the heat generated by a propane burner (CO2 burner) Every night I close all the greenhouses because mid 40's is very common this

May 8: Set out Plants  
 June 15: pollinated 1st at 17 ft.  
 June 18: pollinated 2nd at 20 ft.  
 June 25: Blew up 1st Pumpkin  
 June 25: Turned off CO2 for season  
 June 29: Terminated Main Vine  
 July 8: 300 lbs. Day 20, OTT=235.5  
 July 10: Terminated almost all vines, but kept just 2 sides going...  
 July 18: 826# OTT=330 =52.6/day  
 July 28: 1357#OTT=394=53.1/day  
 Aug 7: 1768# OTT=437=41.1/day

time of year and every morning I would open the roofs on the greenhouse as per picture# 2, and then reclose the doors. CO2 is heavier than air so the hot air would go up and out and the CO2 would fall and feed the plants. So in the box (at left) is a time line of the plant starting May 8th: Day 59 (August 16th) was the day we lost the sun for 2 weeks and the rest is history. So why did I shut down the CO2? I had

Blown up the first one and I had such incredible growth rates I would have never sustained it. I also STOPPED feeding overhead and only watered until day 43.(July 31). Absolutely nothing was added. My plant was spectacular, and from what I had read, using CO2 will give

you a super healthy and efficient plant. My 2255 plant was lower, and had smaller leaves than any other plants I had, but it was the greenest and shiniest plant I had ever seen. As much as I believe CO2 helped, I believe it was more of the bonding agent to get all cylinders in the pumpkin plant running perfect.

Part of the success has to go Ron Wallace as he was my go to guy, all year long with Don Young, Dave Stelts and Jim Sherwood. Ron directed me to get tissue tests at day 40 (July 28) and again at day 55 (August 12).

One more thing, kinda off the wall here, and did it as an experiment with an addition to my Vine Bury Mix. I think the

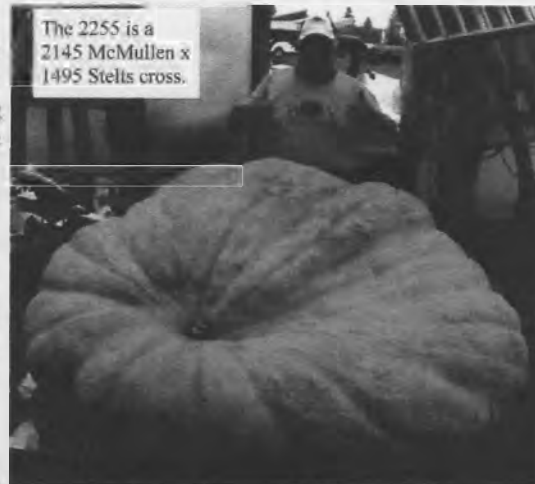
proof is in the tissue test. Ron W wanted a few field trials with his **Super Starter Packs**. So I did a trial. Each leaf node got a super starter pack, WOW Pumpkin Pro, Azos, and I also used Green Gro vine bury mix. All together a pretty good handful. Every 2-weeks I also made a batch of WOW Wonder Brew Compost Tea and drenched the plant with it.

Below are Things I learnt this year and general information

- 1). CO2 is not dangerous to humans at these levels you would need 3 times these levels
- 2). Bugs do not like co2 I had NO bugs, spiders or anything in the CO2 greenhouse
- 3). Powdery mildew seemed to have been less prevalent, or is powdery mildew spread by bugs.
- 4). The cost of all this??? Honestly its not that bad. I work in construction, and have all the equipment and I did all my own labor, made deals and trades with most everyone. For example my dirt, I had 2000 yards mixed and delivered for \$15.00 a yard
- 5). Cost of running the generator. For me zero as I heat anyway. BUT I used 1000 litres of propane for the time it ran and at 30 cents a litre; that's \$300.00, I would have spent this on heating anyway

- 6). Next year a lower base ppm of CO2, probably 600 ppm, and smaller sq ft. I believe 700 to 750 would be ideal with my set up.
- 7). The 2145 seed is key and I believe its offspring are even more important because these genetics will allow for incredible sustained growth.
- 8). YES without a doubt 3000 is achievable and not far off.

So....**What's in the cards for 2019 for me...**  
 4 or 5 plants with all the perks. more for the science than the top weight. I have a complete scale system and a company that will help with set up and calibrations. We will be growing a 2145 on a scale from start to finish. We working on a camera system and a possible web page or an app so everyone that wants to follow, will be able too. Hoping to do this with a picture taken of the scale every hour 24/7 from pollination to harvest.. Best of luck in 2019! **Eddy Z.**



The 2255 is a 2145 McMullen x 1495 Stelts cross.



Picture# 1



Picture# 2