

Anthesis [an-thee-sis] 2015 Growing Season Review

By: *Matthew DeBacco*

Through scientific literature research, I am trying to push the limits of giant pumpkin growing, and I am fortunate to have support from the community that are willing to try my ideas and also share their findings. Thanks to all who provided replies. Below is the data summary of my Anthesis for the 2015 growing season.



What I have developed from reading many scientific papers is a spray called “Anthesis” that, when applied 48 hrs. post-pollination, should help increase the rate and duration of cell division. Normally, cell division slows around day 20, meaning the total number of cells in a pumpkin around day 20 and at harvest would be the same. The goal of Anthesis is to add more cells, which should increase the final potential weight.

Initially, many growers complained that the Anthesis-applied pumpkins were slow growers during the first 20 days, which actually indicated the spray was working. The slower initial growth is potentially a result of the increase in time the pumpkin spends on cell division, which delays cell expansion that is associated with growth. Based on the data collected, for the first 35 days, Anthesis-treated pumpkins will be smaller than untreated (control) pumpkins. Around day 40, the estimated weights will be very similar, and then after day 45, the Anthesis-treated pumpkins outpace the growth of the untreated controls for the rest of the season. (Fig. 1 + 2) The supporting science suggests an increase in the duration and frequency in cell division early on that can delay fruit expansion. Later in the season, the potentially greater cell number can be the reason for the continued growth that is more the result of cell expansion. Many growers reported growth of some kind right up to the weigh off, which they had never seen in the past. This could have helped growers obtain the numerous new personal best weights, as well as top weight for growers during the 2015 season. This data supports the intention of Anthesis, and it shows that all of the time spent researching and selecting the hormone types, ratios, concentrations, and timing came out as expected.

What separates Anthesis from other products is the highest grade of ingredients that are used and, as a result, there are special storage instructions and a limited shelf life. Many growers that did not report any effect did not follow all the directions. I cannot stress enough that the instructions must be followed *exactly*. Anthesis works on the internal cellular signal level and, as a result, there are some very specific directions to get the maximum effectiveness. My directions are easy to follow, and simply reading (and rereading) the instructions should ensure the proper steps are carried out by those using the product.

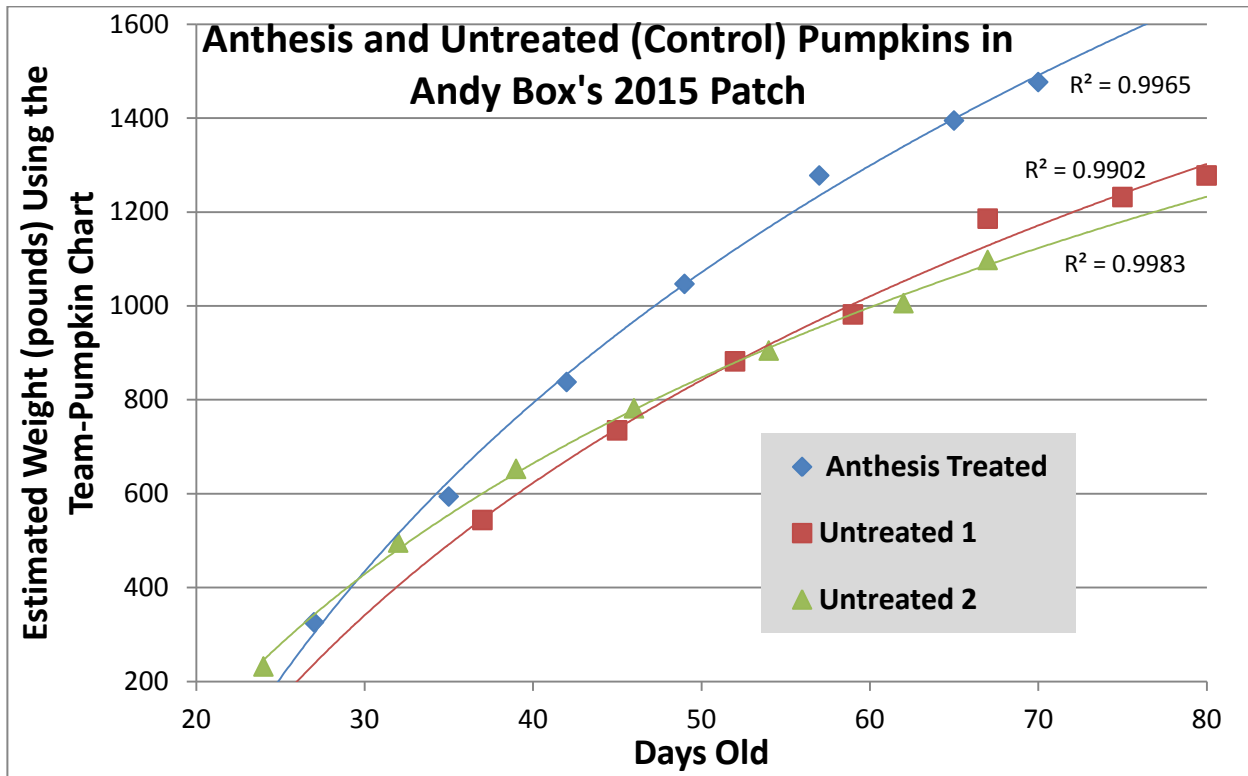


Figure 1: This graph uses the Team-Pumpkin estimated weights and compares one Anthesis-treated pumpkin to two untreated (control) pumpkins that were all grown by Andy Box with permission to share the results from his 2015 growing season. It is clearly evident that the Anthesis-treated pumpkin was of comparable size up to the critical day 35. After this time, the Anthesis-treated pumpkin had an increased growth rate that was sustained for the remainder of the season, resulting in his top producing pumpkin for the year. Both of the untreated control pumpkins have a very similar growth curve for the season and ended up within 4.9% of each other, while the Anthesis-treated is noticeably greater past day 40 and finished 13.0% greater than the average of the untreated pumpkins. This demonstrates the difference that an Anthesis treatment can make, and the graph supports the grower's comments that the Anthesis-treated pumpkin continued to grow while the other fruits decreased in growth rate. Trend lines use the Logarithmic Regression with R^2 values provided.

“I will say the Anthesis-applied pumpkin was still growing, where the other fruits slowed way down.”
-Andy Box-

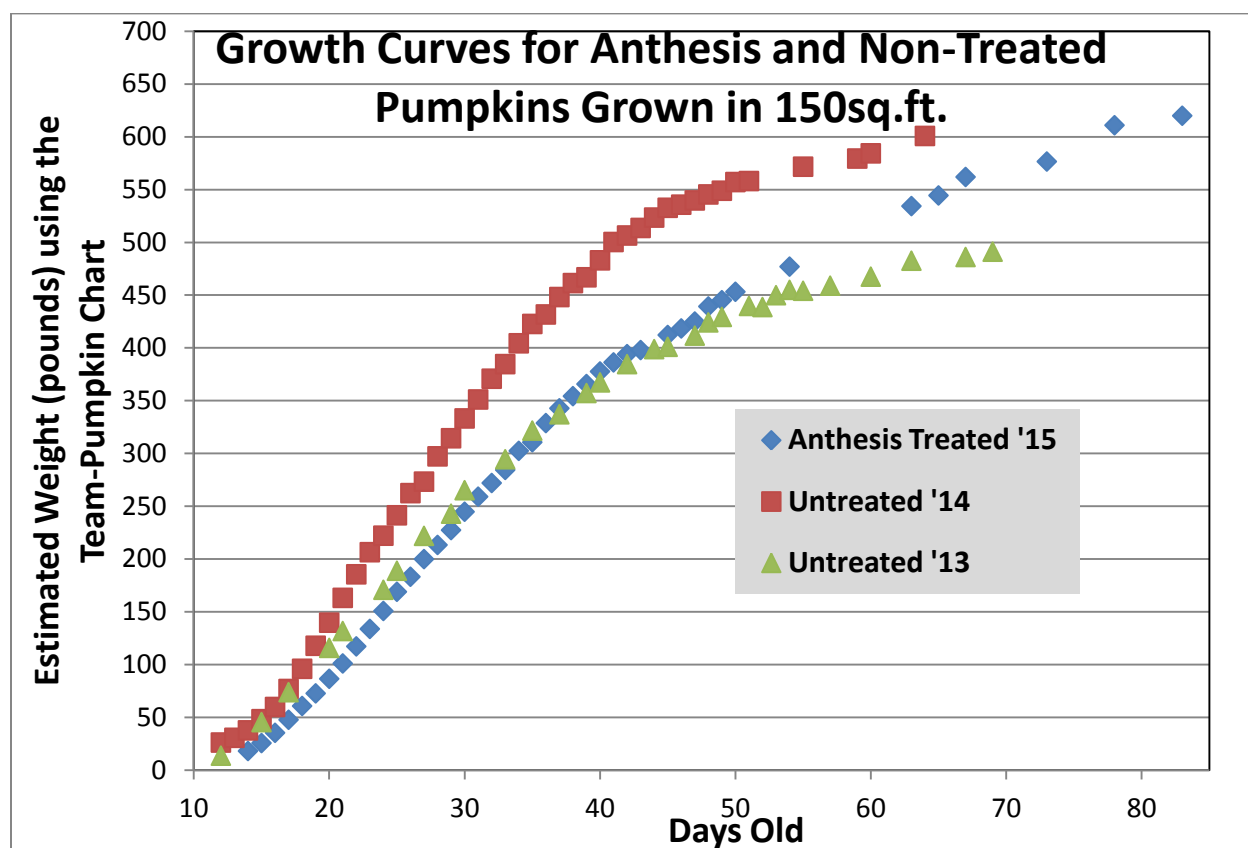


Figure 2: Growth curves for Anthesis-treated and untreated (control) pumpkins grown in the same 150 sq.ft. location by Bart Toftness during three different years with almost daily measurements taken. The Team-Pumpkin chart was used to generate the estimated weights plotted. The growth curve shows that the Anthesis-treated pumpkin (diamond shape) was smaller up to day 37 than the untreated ones, suggesting a delay in cell expansion. After this time, the growth rate is accelerated and continues for an extended period of time leading to an improvement in late season growth that increases final size of the pumpkin. Looking at the day 60 and beyond, there is a continual upward trend of growth with no indication of a plateau. Even though the Anthesis-treated pumpkin is the oldest, the delay in harvest was grower’s choice, as it was still showing positive gains and was allowed to remain on the vine until a later weigh-off. The Anthesis-applied pumpkin grew the biggest pumpkin out of this space, even though, up to day 30, it was the smallest.

Anthesis 2015 Harvest Data Summary	
Top 10 Average for Anthesis Treated Pumpkins	1819.85 lbs.
Top 20 Average for Anthesis Treated Pumpkins	1643.25 lbs.
Total Number of Personal Best for growers using Anthesis	8
Total Number of Top 2015 pumpkins using Anthesis (not counting personal bests)	6
Pumpkins over 2,000 pounds	2
Pumpkins 1,900-2,000 pounds	2
Tomatoes grown over 5 pounds	4

Table 1: The overall success growers had during the 2015 season while having Anthesis as part of their program. This was the first year Anthesis was publically available to a wide variety of growers, and truly indicates the potential of this product.

These are just some of the examples that show the possible effectiveness of Anthesis (Table 1). I do plan on having Anthesis available for the 2016 growing season, but I will only be taking advanced orders due to the labor to prepare the samples. Watch for my advertisement on the homepage of bigpumpkins.com during the month of January. Also, the components have a shelf-life (about 4 months), so I have to wait until the early spring (mid-April) to ship them out to ensure everyone is getting a product of maximum effectiveness when they need it. Orders will only be accepted until March 15th, 2016. I do my best to offer this at a low cost with each application of both components costing the same as last year at only \$6 plus shipping.

For those seeking more information:

Matthew DeBacco: **DeBacco@cox.net**

*“The Anthesis-treated pumpkins that I had going grew better than anything I ever had”
-Allen Bradly-*