

# My Summer Internship

## A Brief Intro

This year I was lucky enough to be the recipient of the 2016 Markham-Colegrave International Scholarship, jointly funded by the David Colegrave Foundation and the American Floral Endowment. This money enabled me to travel to the Raker plug nursery in Michigan for a summer internship. Many thanks to Greg and everyone at the Ohio Program for helping with my Visa application, and for running such a superb Cultivate 2016 experience.

My travels took me through several states, where I crossed paths with people from many different walks of life. As well as visiting the largest horticultural trade show in America and several leading herbaceous and annual plug nurseries, I made a large number of friends for life. Throughout the summer I kept a detailed blog: [jamiessummerinternship.wordpress.com](http://jamiessummerinternship.wordpress.com).

## My First Week

What a way to start. After flying into Columbus, Ohio I was met by Rodrigo from the Ohio Program who after orientation provided myself and three others with a tour of the campus. What a site! With a top of the league football team, 120,000 seat stadium and the largest sports complex in America, it was truly something to behold.



Figure 1 (left) – figure 2 (right)

Later that day we were joined by 50 other interns from over 20 countries. The week comprised of various team building activities i.e. kayaking, laser tag and archery (figure 2), as well as joining in the Cultivate trade show, which was a good chance to meet fellow industry professionals and build new contacts. I wouldn't have thought of meeting old faces!!

Syngenta very kindly sponsored TOP's Cultivate experience. As a part of this they provided a circle group event at the nationwide conference centre in Columbus. This enabled all of the students and faculty members to meet with Syngenta lawn and garden international team, where we witnessed several presentations, and then shared details about our schooling and future prospects, including ideas about Syngenta's future (figure 1)!!

After the show finished I caught a lift with Trish, the Head Grower from Rakers Acres. About four hours later and many cornfields passed, we arrived. They very kindly provided accommodation in an old farmhouse on site. After a morning tour of the facilities I was put to work watering plants and dead hanging baskets.

### Raker Dynamics

In order to better understand what I got up to, I thought it best to describe the organisational structure and business dynamics of Raker. The site consists of 12 acres of greenhouses split into several growing areas using north, south, east and west. Around these are several office spaces and the start and shipping areas. Upon entering you can choose two doors: one takes you to the communal staff area, and the other is a very pleasant front desk with displays of Raker's prowess, and a viewing window of the west range.

Each department at Raker is responsible for various processes and areas; the Grow team (also comprising of quality and bench logistics), the Start team (responsible for all sowing and cuttings), Shipping, and Grounds (in charge of trial works). Amongst office staff includes HR, Marketing and Research (very unique!! They carry out various trials for nursery and horticulture).

Fun on the weekends included travelling around the various towns watching small bands play and kayaking down the Kalamazoo River. I'm not much of a fisherman myself, so when I managed to catch a 25-pound koi carp, when the reel snapped I was as shocked as everyone else. In between working and going out, I made good use of the gym that Raker had to offer (figure 3). I will miss the endless hot days and trips to the udder side (drive through an ice cream shop!!!). I was lucky enough to visit Detroit where I watched my first baseball game and ate my first White Castle burger ☺.

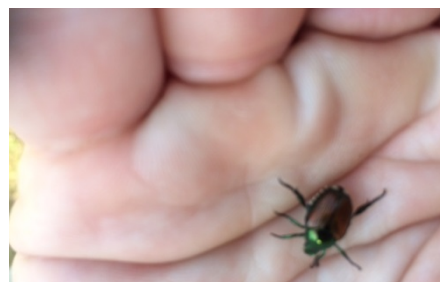


Figure 3 (top left) - figure 4 – figure 5 /Figure 6 (bottom left) - Figure 7 (bottom right)

Starting off in the Grow team where I spent five weeks, I was instructed how to water, feed and spray plants, which was quickly put to good use. I helped out in the trial gardens dead heading hanging baskets and also speaking to customers on various afternoon tours. The Grow team consists of various levels of growers; basic, improved and advanced. These are below the sectional growers and IPM manager, which are below the head grower. The production manager is responsible for overseeing everything on the floor from growing, sowing to shipping. I shadowed various members of management on several occasions, learning how they mark all plants with special signs after they have been sprayed (figure 6). I also learned that there are some unique pests i.e. Japanese beetles, which can be a problem (figure 7).

Working at Raker is unique as they delicately balance work and learning on the job. This is done through various training exercises and PowerPoints, which helps staff understand how to do their jobs better. Various departments assess their workers differently although they all operate on a tiered wage system, generally starting at the bottom and working your way up. For example, in the Start team seasonal workers are timed to see how many cuttings they can stick in one minute. This then dictates what tier they fall into and how much they are then paid.

Ingenuity was one of the biggest shockers at Raker with a lot of the equipment being made up on site. This was done in the Shop (the physical systems base) (figure 9). They built various things around the site such as the water cart (figure 4) and the custom LED light rig used by research (figure 5). When dismantling the shade netting in the trial gardens (seen in figure 8), a custom rig is used (figure 10). This was built on site and attaches to a forklift where the matting is simply rolled up and stacked on to an A frame for later use (very creative!!).



Figure 8 (top left) - figure 9 (top right) / Figure 10 (middle left), Figure 11 (Middle), Figure 12(Middle right) / Figure 13 bottom

While working, I learned many new concepts and ways of carrying out daily activities; this included all of the astonishing pieces of automation on display. All benches were moved around on 3 laterals spanning the width of the houses, with a bench destacker feeding the line at the start building. From here, they then moved around the houses passing over various RFID scanners, which read a card on the bench and marked its lateral run location on the computer system. This meant that any team could find the bench easily without spending excess time looking. The system also displays all of the trays which are allocated to that particular bench, making the picking and shipping very smooth and

easy. They had two major types of booms; these were side rail mounted booms and albatross twin railed booms, all of which were designed in house!! Moving air through the houses was done using extractors at one end, which pulled the air through roof vents. At night the circulation fans would switch on, which pulled air around the houses in a serpentine pattern (figure 12).

I was lucky enough to help with growing the poinsettia crop (figure 11). They had an impressive 50,000 2 litres which are all sold through a not for profit label. Every Intern is given a project and I had the task of tracking the growth (height) of the poinsettias, which involved determining feeding strategies and PGR strategies.

My summer was fantastic and an unforgettable experience. I will never forget all of the people I met and the friendships made along the way. At the end of my time at Raker I spent a week in the glorious city of Chicago, which was very enjoyable.