

INTERNSHIP AT THE WSU HORTICULTURAL GREENHOUSES

PULLMAN, WA

TRENT SYBOUTS

SPRING 2018

General Overview of the Operation:

I conducted my internship with the Washington State University horticultural greenhouses that are located on Ferdinand’s Lane. These greenhouses are managed by James Holden, who is also the professor of the greenhouse management class (HORT 357) that is taught at WSU. The greenhouses produce many types of floral and vegetative plants from seed and sells them to the general public. Some of the major items that are produced by these greenhouses include hanging baskets, deck-planters, and assorted vegetable bowls. The greenhouses also sell a wide variety of small flowering plants and vegetable plants in 4-packs as well. The plants are primarily sold during the large sales that take place on-campus, which includes the WSU mom’s-weekend sale event that takes place at Beasley Coliseum.



General Summary of the Internship:

As I plan to work in a greenhouse or vertical farming system after college, there were many things that I took from this internship that will help me with my professional work career. During the internship, I came to understand that the personal and ethical responsibilities of a greenhouse worker are very demanding and time-sensitive. With this knowledge and experience, I plan to be able to handle tough situations throughout my career with an elevated level of professionalism throughout my career.

Overall, one of the biggest things that I learned was how to utilize space efficiently between many different plants in different containers and production stages at the same time. In essence the key to utilizing space properly is to utilize vertical space (such as the hanging baskets) or to maximize space-efficiency by using the smallest amount of flat or cell space for the plant at each development stage. In this, I realized that starting plants after the sale allows for the greenhouse to have them ready for the next sale, while being able to keep the high-value items from the last sale. However, to accomplish the use of space-efficiency, I learned that the operations manager should construct a calendar of operations to help keep track of when each task needs to be performed. By leaning how to do this in practice, I will be able to utilize space-use efficiency, which can make a operation more profitable and increase my value to the work-place.

In addition to learning about space-efficiency, I also learned about how to appropriately manage certain pests in a greenhouse operation. For fungus gnats, I learned that reducing the amount of humidity in the greenhouse and applying sticky traps can prove as effective preventative management strategies. For aphids, I learned that applications of insecticidal soap, alcohol, or water can all be effective management techniques.

Aside from learning about the important concepts and practices of a proficient greenhouse operation, I was also able to improve upon my personal efficiency with carrying out many of the different horticultural tasks that are conducted in the greenhouse, such as transplanting and transporting plants, which will prove to be immediately valuable when I start to work at my first job.

Overall, this internship was able to help me improve on my professionalism, depth of horticultural knowledge, and horticultural techniques, which should all help to make me a more well-prepared individual for my post-collegiate career.

General Overview of the Internship:

In order to produce the plants that are sold at the mother’s-weekend sale event, there are many steps that must be conducted by the greenhouse staff. The first part of getting the plants into production is planting the seeds into the 256-cell-pack-flats, and placing these flats onto the heating mats to increase germination and root growth. Once the seedlings have germinated, the plants are transplanted into 12x4-cell-pack flats, so that their roots can grow and develop further. Some small flowering plants, such as petunias and marigolds, will be sold in these flats; other plants must be transplanted further, such as the geraniums, which are then transplanted into 5.5 inch pots. These pots must be properly spaced out throughout the greenhouse so that they can utilize the drip irrigation system that has been implemented in the greenhouse. Additionally, some of the floral plants will be arranged and transplanted into deck-planters, while vegetable plants will be arranged and transplanted into “salad bowls.” All of these plants must then be transported from the greenhouse to the site of the sale by large tractor equipment, where they are then placed on tables for display. The totals for the plants are manually calculated and the sale is conducted through cash or check. After the sale, the plants must be transported back to the greenhouses, where they are either kept for the next sale or disposed of, depending on the value of the item.



Complete List of Tasks Conducted Throughout the Internship:

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| •Preparing soil for pots/flats | •Arranging plants for the drip emitters |
| •Filling pots/flats with soil | •Setting up the drip-emitter systems |
| •Seeding flats | •Transporting plants between greenhouses |
| •Transplanting plants | •Transporting plants to and from the sale event |
| •Cataloging and organizing tags | •Setting up/taking down the sale event at Beasley Coliseum |
| •Placing tags in flats | •Selling the plants at the sale event |
| •Assembling hanging baskets/tubes | •Cleaning the greenhouse |
| •Arranging plants into hanging baskets/tubes | •Clipping left-over plants from the sale |
| •Hanging the baskets in the greenhouse | |
| •Arranging plants in deck planters | |