

Horticulture Undergraduate Research Aide Job Description

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Job Profile and Description

An undergraduate research aide assists with research conducted by a graduate student under the supervision of a university faculty member. While the project is overseen by the faculty member, the research aide will primarily interact with the graduate student on a day-to-day basis.

This project quantifies daily water use (DWU) of nursery plant material growing in eight commercially available biodegradable nursery containers (“bio-pots”) and evaluates the effects of container type on plant growth and water use. Real-time moisture sensors will measure DWU and schedule irrigation according to plant demand, and various plant physiological measurements will be taken to monitor the degree of plant stress. Additionally, effects of the production environment on bio-pots growing above ground and in a pot-in-pot system will be studied to assess container integrity under such conditions throughout the plant production cycle.

Wage: \$9.00 per hour

What the Applicant will Learn

- Research methods and data collection techniques of various plant performance parameters and the impact of water application on plant growth and bio-pot performance
- Industry standard practices for growing containerized nursery stock
- Irrigation scheduling using real-time sensors managed by data acquisition technology

The applicant must be able to:

- work outdoors for 20-30 hours per week beginning shortly after the end of the spring 2011 semester and extending throughout the summer (somewhat flexible hours)
- meet at pre-arranged times either at the MSU Horticulture Teaching and Research Center or Plant and Soil Science building for work depending on the activities planned each day
- collect data in the form of plant growth measurements and leachate EC/pH as well as evaluating pot strength of various bio-pots
- perform moderately heavy lifting of containerized nursery plants as well as bending associated with weeding the containers and assisting with certain data collection
- approach the work with enthusiasm and demonstrate an ethical conduct of research

Required Skills

- Some prior knowledge of basic cultural tasks related to growing containerized plants such as pruning, fertilizing, and irrigating is preferred but can be learned on the job.
- Applicants should be well-organized and systematic in their work.
- A driver’s license and clean driving record are required to drive university vehicles. In addition, a personal vehicle is recommended for travel to work and between worksites.