

**INTERNSHIP:** Water use optimization in plant nursery production (Summer 2017)

**COMPANY:** Bailey Nurseries, Cottage Grove, MN

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior engineering or environmental science college student to lead a project focused on water conservation at Bailey Nurseries in Cottage Grove, MN. Bailey Nurseries is one of the largest ornamental plant producers in the county. The intern will work on three farms to research and quantify water use options including water use reduction, improved surface water recycling, and more efficient irrigation. The intern will consult with staff to audit, assess, recommend and begin implementing potential procedure and design changes that will lower water use and production costs.

### **JOB DUTIES:**

As part of this project, you will be asked to complete the following tasks:

1. Measure and quantify ground water use at one farm and relate to water needs, and the opportunities to reuse water captured in surface ponds.
2. Research and identify the water application and capture rate, and distribution efficiency on two container farms.
3. Research and make recommendations for irrigation system improvements that will result in more efficient water use on the container farms.
4. Develop economic and feasibility justifications and implementation plans for changes with the highest benefits to the company and present them for approval.
5. As appropriate initiate approved changes and system upgrades, and measure or estimate the performance of upgraded systems.
6. Summarize findings in a detailed report, including recommended procedures and system configuration along with an economic analysis and justification of installation(s).
7. Present findings to the company and at MnTAP-hosted public presentation event.

As an intern, you will be based at the on-site at Bailey Nurseries and report back to MnTAP. The position is full time, 40 hours per week, for three months to start after the conclusion of spring semester or quarter. Pay is \$13/hour, with a lump sum stipend of \$1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to \$15.00/hour when averaged over the project. Candidates must have a valid driver license and pass a background check.

### **QUALIFICATIONS:**

- Cumulative GPA of at least 3.0
- Good oral & written communication skills
- A technical academic background
- Troubleshooting skills
- Self-motivated
- Excel and other software skills
- Appropriate majors: *Engineering, environmental or physical sciences and others as applicable*

### **TO APPLY:**

Apply online at:

[www.mntap.umn.edu/intern/student\\_apply.htm](http://www.mntap.umn.edu/intern/student_apply.htm)

Remember to submit your application form, cover letter, resume, and unofficial transcript.

Cover letters can be addressed to:

Nathan Landwehr, Intern Program Administrator  
200 Oak Street SE, Suite 350-1  
Minneapolis, MN 55455 • [landwehr@umn.edu](mailto:landwehr@umn.edu)

**MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY**