

Postdoctoral Fellow- Forest Tree Drought Tolerance Auburn University

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Posted May 2, 2025, set to expire Oct. 31, 2025

Job Title	Postdoctoral Fellow- Forest Tree Drought Tolerance
Department	Forestry and Wildlife Sciences
Institution	Auburn University Auburn, Alabama
Date Posted	May 2, 2025
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Environmental Sciences/Ecology/Forestry
Job Website	https://www.auemployment.com/postings/53280

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Job Description

Job Description Summary

The College of Forestry, Wildlife and Environment (CFWE) at Auburn University is seeking a qualified individual for a Postdoctoral Fellow position focused on drought resilience in forest tree species. This two-year appointment may be eligible for renewal contingent upon availability of funds, the need for services and satisfactory performance. The position offers the opportunity to conduct cutting-edge research at the interface of plant physiology, genomics, and environmental stress adaptation.

This position is part of an integrated research program aimed at improving drought tolerance in eucalyptus and poplar. The fellow will lead efforts to establish EMS (ethyl methanesulfonate) mutant libraries, screen for drought-tolerant phenotypes at the seedling stage, and evaluate the impact of biochar applications on drought responses in tree systems. The fellow will also contribute to single-cell omics analysis of wood-forming tissues under drought stress, integrating data across transcriptomic,

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physiological, and anatomical dimensions.

Major Responsibilities include:

- Develop and maintain EMS mutant libraries in eucalyptus and poplar.
- Conduct high-throughput phenotyping of seedling-stage drought tolerance.
- Design and implement experiments to evaluate biochar's role in improving drought resilience in tree species.
- Perform and analyze single-cell transcriptomics and/or multi-omics datasets from wood-forming tissues.
- Mentor graduate and undergraduate students.
- Lead the writing of peer-reviewed publications and assist in grant proposal development.
- Engage in interdisciplinary collaboration with faculty, staff, and industry partners

Minimum Qualifications

- A Ph.D. in Plant Biology, Genetics, Forestry, Plant Physiology, Molecular Biology, or a closely related discipline at time of employment.
- Experience with plant transformation, mutagenesis, or functional genomics.
- Strong knowledge of PCR-based screening, drought physiology, or high-throughput phenotyping.
- Demonstrated experience in analyzing transcriptomic or single-cell omics data.
- A record of publishing peer-reviewed research.
- Excellent communication, organizational, and team collaboration skills
- The successful candidate must meet eligibility requirements for work in the United States at the time the appointment is scheduled to begin and continue working legally for the term of employment.

Desired Qualifications

- Experience working with woody perennials or forest tree species.
- Familiarity with EMS mutagenesis protocols in plants.
- Prior work involving biochar, soil amendments, or sustainable forestry applications.
- Experience with R, Python, or other bioinformatics tools for omics data analysis.
- Evidence of mentoring students or contributing to collaborative research projects.

Special Instructions to Applicants

Applications should be received by May 31, 2025. We anticipate a start date of July 15, 2025.

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Applicants must complete the online application at this link

<https://www.auemployment.com/postings/52782> to include a letter of interest, Curriculum vitae, names and full contact information of at least three professional references, and official transcripts (transcript should show conferral of Doctorate degree and date of conferral.)

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

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