

Opportunity Title: Post Graduate Research Opportunity – Genetic Improvement of Fruit Crops

Opportunity Reference Code: ARS-AFRL-2015-0123

Organization U.S. Department of Agriculture (USDA)

Reference Code ARS-AFRL-2015-0123

How to Apply A complete application package consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Selected candidate must provide proof of completion of the degree before the appointment can start. Proof must be sent to ORISE directly from the academic institution including graduation date and degree awarded. All transcripts must be in English or include an official English translation.
- A current resume/CV

If you have questions, send an email to USDA-ARS@orau.org. Please include the reference code for this opportunity in your email.

Description A post graduate research opportunity is available with the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) Appalachian Fruit Research Laboratory (AFRL) in Kearneysville, West Virginia.

The AFRL is investigating the growth, development, and disease resistance of tree fruit species. This work is being pursued through plant tissue culture and genetic engineering. Rapid breeding approaches are being utilized to transfer useful traits into new tree fruit germplasm for breeding improved lines. The project has three main research and development components: 1) the utilization of plant tissue culture for the production of transgenic plants; 2) the utilization of molecular methods for the verification of gene insertion into the cultured plants; 3) growth chamber, greenhouse and field cultivation of transgenic and conventional plants and the collection of data on the growth and development of these plants.

The appointment is full-time for six months and may be renewed based upon recommendation of the ARS and availability of funding. The selected applicant will receive a stipend as support for their living and other expenses during this appointment. Stipend rates are determined by ARS officials, and are based on the applicant's academic and professional background. The participant must show proof of health and medical insurance. Health insurance can be obtained through ORISE. **The participant does not become an employee of ARS or ORISE.**

While participants will not enter into an employment relationship with ARS, this position requires a pre-employment check and a full background investigation.

This opportunity is available to U.S. citizens.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, sex, religion, national origin, mental or physical disability, genetic information, sexual orientation, or covered veteran's status.



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For more information about the ARS Research Participation Program, please visit the [Program Website](#).

Qualifications Eligible applicants must have received a Masters of Science in Horticulture or a related field. Experience in work with tree fruits in the field and greenhouse environments, and/or plant tissue culture is preferred.

Preferred skills include:

For project area (1) the utilization of plant tissue culture for the production of transgenic plants;


- Familiarity with the techniques of plant tissue culture.
- Skill in clean bench techniques, media formulation, and associated laboratory procedures.

For project area (2) the utilization of molecular methods for the verification of gene insertion into the cultured plants;

- Basic molecular skills in DNA and RNA extraction and polymerase chain reaction (PCR)

For project area (3) growth chamber, greenhouse and field cultivation of transgenic and conventional plants and the collection of data on the growth and development of these plants.

- Knowledge of and Skill in the culture and management of fruit trees including:
 - fertilization, pest and disease control,
 - tree training,
 - fruit evaluation,
 - field plot development,
 - familiarity with data organization and statistical procedures used in agriculture, and
 - skills in data presentation and report writing.
 - A candidate with a commercial pesticide applicator license would be desirable.

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Master's Degree.
 - **Discipline(s):**
 - **Life Health and Medical Sciences** ([5](#) )