



UNIVERSITY of CALIFORNIA, MERCED

NEWS

NSF Early Career Award Honors Professor's Research and Potential

Merced, Calif. -- The National Science Foundation is honoring UC Merced Professor Asmeret Asefaw Berhe with a Faculty Early Career Development Award to support her examination of how soil helps regulate the climate.



The awards are given to junior faculty members who “exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations,” the NSF said.

“We’d like to congratulate Professor Berhe for receiving this highly selective award,” School of Natural Sciences Dean Juan Meza said. “It also speaks volumes about our highly talented faculty that we’ve added another early career award to our list of honors.”

Several other faculty members have won early career awards from the NSF, Faculty Senate, Presidential career awards and others. This is the most prestigious award the NSF gives to junior faculty members.

Berhe receives \$479,000 for five years, for a project looking at how fire and erosion affect the soil ecosystem’s ability to store carbon and keep carbon dioxide from going into the atmosphere.

The money supports a graduate student and a postdoctoral researcher, and Berhe will also develop an annual seminar course for undergraduates. The course will include a week-long field trip into Yosemite to learn about the critical zone – the thin layer of soil and air that supports life on Earth.

Her goal is to open up the field trip to area high school science teachers, as well, so they can learn more about the critical zone and pass the information along to their students.

“It will be great, because we’ll get to work with a lot of people who might not ordinarily think about the critical zone,” Berhe said.

The award is for a novel research project. Berhe plans to collaborate with Lawrence Livermore and Lawrence Berkeley national labs to learn the latest spectroscopy techniques that can help her and her students learn the effects of fire on soil.

“We’re very proud of the work Professor Berhe is doing, and of her most recent award,” Vice Chancellor for Research Sam Traina said.

How soil’s sequestration of carbon dioxide can be stabilized is one of the bigger-picture questions her work begins to address.

She already has a graduate student working in the field at the site of last year’s Rim Fire and at a 10-year-old burn site in South Lake Tahoe, so they can compare newer and older scorched, eroded soils and see what is happening.

Berhe will soon search for a postdoctoral scholar to work on the collaborations with the national labs.

“It’s really neat to get this grant not just because it supports the work, but because it means the NSF recognizes promise and potential,” she said. “I’ve received other grants, but this one is special.”