



Project Title:

The evaluation of low temperature plasma as a tool for increasing seed germination and minimizing seed-borne diseases in microgreens and microbeans

Project Reference Code:

AAMU-Mentreddy

Host Facility:

Alabama A&M University

Host Facility Location:

4900 Meridian St.
Huntsville, Alabama 35811
<https://www.aamu.edu/>

Project Description:

Microgreens and microbeans are gaining popularity as nutrient-dense sprouts for consumption either directly or added ingredients in soups, salads, and sandwiches. When a mixture of seeds of various greens and beans are germinated as high-density seedlings or sprouts, slow or late germination of some of the seeds and potential infection of seedlings due to seed-borne diseases could limit their production. In this project, the low-temperature plasma will be evaluated as a potential tool for increasing seed germination and killing seed-borne pathogens. Experiments will be designed to compare the direct treatment of seeds and plasma-activated water against untreated control for achieving the project objective.

Disciplines:

Plant Science

Is U.S. citizenship required to participate in this project?

No

Internship Location and COVID-19 related Backup Plan

Due to the COVID-19 pandemic, we are preparing multiple options to ensure that the internship will take place. We are looking at least at an in-person, hybrid, and fully virtual option. For any in-person component we will ensure that there is adequate physical spacing between workspaces, following all university cleaning protocols. If the lab is open, but undergrads are not allowed, then it's possible to have the grad students do the experiment and send the data to the undergrad to analyze.

Name(s) of Mentor(s) and contact information:

Srinivasa Rao Mentreddy (srinivasa.mentreddy@aamu.edu)

The name and contact information of personnel at the host facility is provided for further assistance with questions regarding the host facility or the project.

Interns will not enter into an employee/employer relationship with the host facility. No commitment with regard to later employment is implied or should be inferred.