Project Title:
Promoting Sprouting/Seed Germination and Plant Growth of Medicinal Herbs Using Heat Pads, Hot Water, and Low-Temperature Plasma

Project Reference Code:
AAMU-Mentreddy1

Host Facility:
Alabama A&M University

Host Facility Location:
4900 Meridian St.
Huntsville, Alabama 35811
https://www.aamu.edu/

Project Description:
Turmeric (Curcuma longa) is a plant that is grown for its rhizomes (similar to ginger) and has been traditionally sued as a medicine, spice, and a source of yellow dye. Turmeric is currently trending as a Number One herbal supplement in the US. More than 90% of the turmeric used in the US is imported from Asian counties. The lack of adapted varieties and a short growing season are the main reasons for the limited production of turmeric in the US.   Due to a short growing season, turmeric grown in the US has low yields and poor quality.

Some ways to expand the crop growing duration is to grow the crop in controlled-environment greenhouses and high tunnels, which can be expensive. A cheaper alternative may be to sprout the rhizomes in early spring using heat pads or hot water treatment. Such a method provides a two-month early advantage to the plants and thus help extend the growing season.

The summer apprenticeship student will compare the effects of heat pads, warm water treatment, and low-temperature plasma as a means of extending crop growing season.

Disciplines:
Plant Science, Plasma Science

Is U.S. citizenship required to participate in this project?
No

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