



# PSS Student Research Symposium

Date: April 18, 2022

Location: MCOM 359

## Program Schedule

| Time   | Presentation Title  | Speaker  | Student Level | Program Area  |
|--|---|--|---------------|---|
| <b>Pre-symposium</b>   |   |  |               |   |
| <b>Candidate Interview for B.L. Allen Endowed Chair in Pedology</b>      |   |  |               |   |
| 8:30 - 9:30 AM   | Research Seminar: Integrating Climate, Landscape, and Hydrological Processes with Quantitative Pedology   | Dr. Daniel Hirmas (University of California-Riverside) |               |   |
| 9:30 - 10:00 AM Coffee social  |   |  |               |   |
| 10:00 AM PSS Student Research Symposium: Opening Remarks & Introductions |   |  |               |   |
| <b>Session 1 Oral Session (Student Moderator: Billi Jean Petermann)</b>  |   |  |               |   |
| 10:05 AM   | Understanding the Dynamics of Soybean Root Nodule Development Using Single Cell Transcriptome Technology  | Leonidas D'Agostino                                    | MS            | Institute of Genomics for Crop Abiotic Stress Tolerance |
| 10:20 AM   | Crop Response and Control of <i>Amaranthus palmeri</i> in HPPD-tolerant Cotton using Isoxaflutole   | Maxwell Smith  | MS            | Weed Science  |
| 10:35 AM   | Development of tissue culture free genetic transformation and gene-editing platform in crops  | Arjun Ojha   | PhD           | Institute of Genomics for Crop Abiotic Stress Tolerance |
| 10:50 AM   | Comparison of Yields under Organic and Inorganic Vegetable Cultivation: Meta-analysis   | Azeez Shaik  | PhD           | Horticulture  |
| 11:05 AM Break   |   |  |               |   |
| <b>Session 2 Oral Session (Student Moderator: Nathan Turner)</b>         |   |  |               |   |
| 11:20 AM   | Simulating cotton growth and yield in different nitrogen rates using DSSAT in dryland cotton farming in West Texas  | Bishnu Ghimire   | PhD           | Plant and Soil Science                                  |
| 11:35 AM   | Influence of legume inclusion on greenhouse gas emissions from pasture systems in the southern high plains of Texas   | Raavi Arora  | PhD           | Soil Science  |
| 11:50 AM   | Microwave plasma pre-treatment: a promising approach to improve cotton cellulose dissolution  | Shaيدا Rumi  | PhD           | Fibers & Biopolymers                                    |
| 12:05 PM   | Genomic interactions governing novel salinity tolerance mechanisms in chromosome segment substitution lines of <i>Oryza sativa</i> x <i>Oryza rufipogon</i> | Swarupa Mandal   | PhD           | Crop Science  |
| <b>Lunch Break</b>   |   |  |               |   |
| <b>Session 3 Poster Session</b>  |   |  |               |   |
| 1:30 - 3:00 PM   | Exploring the Physicochemical Properties of Arsenic in Water Filtration Waste from Northwestern Costa Rica  | Danira Garcia Gutierrez                                | BS            | Soil Science  |
|  | Growth and Yield of Greenhouse Grown Lettuce in Response to Secondary Metabolite in Organic Soilless Production System                                      | Fischel Lee  | BS            | Horticulture  |
|  | Competitive Ability in Silverleaf Nightshade, an Invasive Weed  | Justin Dawsey  | BS            | Natural Resources Management                            |
|  | Interactions between beneficial fungal symbionts in greenhouse tomatoes.  | Nicholas Wilson  | BS            | Plant and Soil Science                                  |
|  | How environmental conditions affect nutrient availability in soils treated with swine waste   | Noah Harrell; Madison Hernandez                        | BS            | Agriculture   |
|  | Development of an efficient method for protoplast isolation, transfection, and gene editing form soybean roots  | Chidinma Lois Nwoko                                    | MS            | Institute of Genomics for Crop Abiotic Stress Tolerance |
|  | Evaluating the potential of hemp varieties in the West Texas conditions   | Preetaman Bajwa  | MS            | Agronomy and Crop Science                               |
|  | Biomass partitioning and water use efficiency of sweet corn under growth stage based irrigation and biochar rates in West Texas                             | Arjun Kaffle   | PhD           | Horticulture  |
|  | Utilization of the landrace Hopi to identify novel genes regulating reduced gland formation in upland cotton ( <i>Gossypium hirsutum</i> )                  | Avinash Shrestha                                       | PhD           | Plant Breeding  |
|  | Does biochar application affect soil properties and sweet corn production under deficit irrigation?   | Manpreet Singh   | PhD           | Plant and Soil Science                                  |
|  | Ethanol Positively Modulates Photosynthetic Traits, Antioxidant Defense and Osmoprotectant Levels to Enhance Drought Acclimatization in Soybean             | Md. Mezanur Rahman                                     | PhD           | Institute of Genomics for Crop Abiotic Stress Tolerance |
|  | Effects of glutathione on waterlogging-induced damage in sesame crop (abstract withdrawn)   | Sanjida Keya   | PhD           | Institute of Genomics for Crop Abiotic Stress Tolerance |
| <b>3:00 PM Awards Ceremony</b>   |   |  |               |   |