



78th Annual Conference
South Padre Island, Texas
February 8 – 9, 2024

Subtropical Agriculture and Environments Society

78th Annual Conference

Oral Presentation Schedule

Thursday, February 8, 2024

START	END	SPEAKER	TITLE
7:00 AM	8:00 AM		Registration/Check in
8:00 AM	9:00 AM		BREAKFAST
9:00 AM	9:05 AM	Machado	Welcome to SAES annual conference
9:05 AM	9:35 AM	Ruiz	Keynote Address by our Potts Award Winner: Dr. Raul Ruiz
9:35 AM	9:50 AM	Thomas	The black hole of cladistics: is <i>Boophilus</i> just <i>Rhipicephalus</i> which is just <i>Ixodes</i> ?
9:50 AM	10:05 AM	Orsborn	The microRNA profile of a specialist tick, <i>Boophilus microplus</i> , during active feeding.
10:05 AM	10:20 AM	Park	Co-occurrence analysis of citrus root bacterial microbiota under citrus greening disease..
10:20 AM	10:35 AM	I. Hernandez	Relative occurrence of two new potyviruses in Texas Lower Rio Grande Valley periwinkle plants.
10:35 AM	10:50 AM		BREAK
10:50 AM	11:05 AM	M. Ramirez	Mahuacata (<i>Ebenopsis ebano</i>) pod residue as a lignocellulosic source of alcohol by fermentation process.
11:05 AM	11:20 AM	Stevens	Evaluating the antibacterial potential of distinct size populations of stabilized zinc nanoparticles for agricultural applications.
11:20 AM	11:35 AM	Quezada	Evaluating recyclable glass material as a substitute for soil in vegetable cultivation: an innovative approach to sustainable agriculture.
11:35 AM	12:35 PM		LUNCH
12:35 PM	1:50 PM		POSTER PRESENTATIONS
1:50 PM	2:05 PM	Guo	Predatory bacteria could be the key measure to control the bacterial pathogens of multidrug resistance for agriculture.
2:05 PM	2:20 PM	Cantu	Molecular diagnosis of bacterial species isolated from infected bones of lame broiler chickens.
2:20 PM	2:35 PM	Chae	A self-eliminating homing gene drive technology for population control of disease-transmitting mosquitoes.
2:35 PM	2:55 PM	Ayala	The behavioral influence of fungal endophytes on yellow fever mosquitoes (<i>Aedes aegypti</i>).
2:55 PM	3:10 PM	Garrett	Factors influencing Tamaulipan thornforest restoration outcomes.
3:10 PM	3:25 PM	Gabler	Effects of different cover crops and ground preparation methods on invasive grass prevalence and the survival and growth of transplanted Tamaulipan thornforest species.
3:25 PM	3:40 PM		BREAK
3:40 PM	3:55 PM	Pilco	Cover crop's vertical soil moisture impacts on rain-fed systems: a meta-analysis across all climatic regions.
3:55 PM	4:15 PM	Feldman	Cover crop adoption in the water-limited Rio Grande Valley.
4:15 PM	4:30 PM	Martinez	Exploring the effects of cover crops on soil health: an on-farm research study.
4:30 PM	4:45 PM	Madrigal	Quantification of leaf trichomes and examination of their consequences for fall armyworm (<i>Spodoptera frugiperda</i>) in soybean genotypes.
4:45 PM	5:00 PM	Bharti	Dynamic insights into sorghum transcriptome: unraveling abiotic stress responses through genome-wide 3'-end sequencing.
5:00 PM	5:15 PM	Soto	ACP color morphology composition and CLas acquisition as effected by tree phenology.
5:15 PM	6:30 PM		BREAK
6:30 PM			DINNER, MUSIC, DANCING

Subtropical Agriculture and Environments Society

78th Annual Conference

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Friday, February 9, 2024

START	END	SPEAKER	TITLE
8:00 AM	9:00 AM		BREAKFAST
9:00 AM	9:05 AM	Kunta	Introduction of Keynote Speaker: Dr. Chandrika Ramadugu
9:05 AM	10:05 AM	Ramadugu	Keynote Address: Developing science-based solutions for a citrus disease.
10:05 AM	10:25 AM		BREAK
10:25 AM	10:40 AM	Amin	Heterogeneity of cover crop adoption: a review on economic, soil, and environmental perspective.
10:40 AM	10:55 AM	Wong	Sustainable specialty mushroom production in South Texas.
10:55 AM	12:30 PM		POSTER PRESENTATIONS
12:30 PM	1:30 PM		LUNCH
1:30 PM	1:45 PM		Announcement for Journal/Society & Officer Elections
1:45 PM	2:00 PM	Yang	Assessing the fiscal impact of environmental policies on governments and industries: a case study of China's channel city policy
2:00 PM	2:15 PM	Valverde	Bi-national partnership for the biological control of the Asian citrus psyllid along the Mexico border.
2:15 PM	2:30 PM	Tidwell	Finding the sex chromosome in the cattle tick, <i>Rhipicephalus (Boophilus) microplus</i>
2:30 PM	2:45 PM	L. Maestas	Do cattle exhibit avoidance behavior to <i>Rhipicephalus microplus</i> in a highly infested pasture.
2:45 PM	3:00 PM		BREAK
3:00 PM	3:15 PM	Farris	The transfer of a molecular diagnostic method for the identification of larval <i>Helicoverpa</i> to a Plant Inspection Station.
3:15 PM	3:30 PM	Raszick	Population genetics for boll weevil eradication: source estimation and molecular diagnostics
3:30 PM	3:45 PM	Da Silva	Exploring new crops for South Texas
3:45 PM	4:00 PM	Rameneni	Gene expression profile in resistant and susceptible tomato (<i>S. lycopersicum</i>) genotypes in response to tomato-potato psyllid [<i>Bactericera cockerelli</i> (Sulc)] infestation.
4:00 PM	4:15 PM	Braswell	Genetic tools to improve Sterile Insect Technique (SIT) pest control programs.
4:15 PM	4:30 PM		Awards Ceremony
4:30 PM	5:00 PM		END OF CONFERENCE

Subtropical Agriculture and Environments Society

78th Annual Conference

Poster Presentations

Thursday, February 8, 2024

#	PRESENTER	TITLE
1	Rector	Dietary preference nature or nurture?
2	Harvey	VEC morphology occurrences and expression of angiogenic hormones during wound healing in prepubescent swine.
3	Tejani	Mature adipocytes from bovine adipose tissue facilitate the progression of morphological changes in vascular endothelial cells.
4	Molina	The effect of endogenous FGF2 on vascular endothelial cell morphology in bovine adipose tissue.
5	Cantu	Molecular diagnosis of bacterial species isolated from infected bones of lame broiler chickens.
6	L. Garcia	Development of biomaterials through biotechnological transformation of water Lily (<i>Eichhornia crassipes</i>) in northern Tamaulipas
7	Vurranki	Effect of silicon application on growth and yield parameters of rice (<i>Oryza sativa</i> L.)
8	Feldman	Cover crop adoption in the water-limited Rio Grande Valley.
9	Pilco	Cover crop's vertical soil moisture impacts on rain-fed systems: a meta-analysis across all climatic regions.
10	M. Martinez	Exploring the effects of cover crops on soil health: an on-farm research study.
11	Amin	Heterogeneity of cover crop adoption: a review on economic, soil and environmental perspective.
12	C. Garcia	Utilizing unmanned aerial systems (UAS) and computer software to calculate effects of cover crops on cash crop biomass and height.
13	Zamora	Analysis of land management practices on soil health and agricultural sustainability in South Texas.
14	Karakala	Biochar, an opportunity to increase soil health in Texas citrus orchards.
15	Y. Ramirez	Persistence of spores of three commercial mycoinsecticides under lower Rio Grande Valley climate variables.
16	Guo	Predatory bacteria could be the key measure to control the bacterial pathogens of multidrug resistance for agriculture.
17	A. Salinas	Greenhouse gas emissions in urban lawn soil amended with biochar and compost under contrasting redox conditions.
18	Stassi	Hydrological and biogeochemical controls on greenhouse gas emissions from resacas across the Rio Grande Delta
19	Espana	Variation of fall army worm tolerance in maize ancestors and their correlation with the host microbiomes.
20	Ponce	Virulence of <i>Metarhizium rileyi</i> produced <i>in vitro</i> and <i>in vivo</i> against fall armyworm (<i>Spodoptera frugiperda</i>) larvae
21	Paxtian	Foraging activity of fire ant (<i>Solenopsis geminate</i>) in a conventional horticultural (muskmelon) field at northern Mexico
22	Diaz	Frequency of bacterial pathogens in Mexican fruit fly (<i>Anastrepha ludens</i> Loew (Diptera:Tephritidae) laboratory reared colonies.
23	Rivera	Sanitation procedure on Mexican fruit fly <i>Anastrepha ludens</i> (Loew); (Diptera:Tephritidae) eggs on bacterial colonies.
24	Wendel	Efficacy and virulence of the mycoinsecticides BioCeres (<i>Beauveria bassiana</i> strain ANT03) and Isarid (<i>Cordyceps fumosorosea</i> strain Ifr9901) selected through screening trials in the management of adult ACP populations in a semi-field setting in the Lower Rio Grande Valley, Texas, USA.
25	Reyes	The effects of <i>Beauveria bassiana</i> on <i>Diaphorina citri</i> nymph mortality and <i>Tamarixia radiata</i> emergence.

Thursday, February 8 th , 2024 (continued)		
#	PRESENTER	TITLE
26	Arellano	Field test comparison of two lures for monitoring wild populations of Mexican fruit fly (<i>Anastrepha ludens</i>) (Loew).
27	Pina	Quality assurance testing on wild Mexican fruit fly, <i>Anastrepha ludens</i> (Loew) (Diptera:Tephritidae), strains.
28	Thompson	Effect of Gamma radiation on nanoparticle-fed Mexican fruit flies.
29	Quibrera	HLB symptoms and detection of CLas by PCE in citrus crop in Veracruz Mexico
30	Sidireddi	Rapid and portable loop-mediated isothermal amplification detection assays for distinctive identification of citrus canker strains A and A ^w
31	Mora	Determination of zebra chip disease resistance present among wild <i>Solanum</i> species.
32	Rojas	Development of lignocellulosic biomaterials from Guamuchil (<i>Pithecellobium dulce</i>) sheat residues from northern Tamaulipas.
33	M. Ramirez	Mahuacata (<i>Ebenopsis ebano</i>) pod residue as a lignocellulosic source of alcohol by fermentation process.
34	Chattopadhyay	Extraction and purification of ergot alkaloids from tall fescue seed.
35	Alam	Visualizing the influence of physical processes and tropical cyclones on the nutrient dynamics and chlorophyll-A around the Saint Martin's Island, Bangladesh.
36	Babarinde	Identifying opportunities for agrivoltaic development in Nigeria

Subtropical Agriculture and Environments Society
78th Annual Conference
Poster Presentations

Friday, February 9, 2024

#	PRESENTER	TITLE
37	Esparza	PANACEAS: Summer research experiences in plant pathology, microbiology and diagnostics.
38	Tidwell	Finding the sex chromosome in the cattle tick, <i>Rhipicephalus (Boophilus) microplus</i> .
39	S. Maestas	Fleas from nilgai and native wildlife in South Texas.
40	Cano	Surface temperature and soil compaction gradient across harvester ant nests.
41	Madrigal	Quantification of leaf trichomes and examination of their consequences for fall armyworm (<i>Spodoptera frugiperda</i>) in soybean genotypes.
42	Zenteno	Automated honeybee swarm trap.
43	Ramos	Network of plants and their butterfly pollinators in the Rio Grande Valley.
44	Amin	Economic, demographic, and farmer's perspective on cover crop adoption: a survey approach.
45	Sharma	Evaluating the heterogeneity of cover crop effects on yield, soil carbon, and nitrogen retention: a comprehensive meta-analysis.
46	Posada	Effects of biocontrol agents on the protection of cover crops.
47	G. Hernandez	Effect of cover crop rotation on plant growth and root-associated fungi on a corn cropping system.
48	Alapati	Exploration of cover crop benefits to citrus production in Texas.
49	J.L. Hernandez	Comparison of germination methods in sour orange seeds.
50	Singh	Studies on greasy spot disease in citrus orchards of the Rio Grande Valley.
51	Kesoju	Examination of efficacy of oxytetracycline (OTC) trunk injection for Huanglongbing (HLB) management in grapefruit trees in Texas.
52	Aguilar	Quality control testing of Mexican fruit fly aerial release machines for three aircraft.
53	Carlson	Quality control testing of Mexican fruit fly (<i>Anastrepha ludens</i> (Loew), Diptera: Tephritidae) utilizing ground release machine.
54	Tovar	Biological control of the Asian citrus psyllid, <i>Diaphorina citri</i> , in the lower Rio Grande Valley of Texas using the ectoparasitoid, <i>Tamarixia radiata</i> .
55	Valverde	Bi-national partnership for the biological control of the Asian citrus psyllid along the Mexico border.
56	Ferguson	Host specificity of a necrotrophic fungal pathogen.
57	Mata	Growth and host specificity of necrotrophic grass pathogens in the lower Rio Grande Valley.
58	Flores	A prospective study: suitability of a CYP monooxygenase assay for assessing detoxification enzyme activity in <i>Osmia californica</i> after exposure to systemic pesticides and mixtures.
59	Kunta	Prickly pear as a reducing agent in the synthesis of metal nanoparticles for antioxidants and antimicrobial applications.
60	Wong	Sustainable specialty mushroom production in South Texas.
61	Duong	Plant tissue culture and temporary immersion bioreactors for micropropagation of turmeric (<i>Curcuma longa</i> L.).
62	Zamora	Efficacy of organic nutrient sources to improve soil water holding capacity (WHC) during Radish production.
63	Silguero	Effects of shade on the growth and reproduction in Guinea grass (<i>Megathyrsus maximus</i>).
64	Garza	Using Brazilian peppertree thrips as a biological control agent: managing the spread of an invasive species in the United States.
65	Elizondo	Mesquite bean harvesting using a wind excitation approach.
66	Del Claro	Water savings and energy generation potential from covering water systems with photovoltaic panels in the semi-arid Rio Grande Valley of Texas.
67	J. Martinez	Implications of different sources of methane fluxes in coastal wetlands.
68	Todd	Diagnostic loci for use with <i>Bactrocera dorsalis</i> complex species.