

South Dakota Soybean Research & Promotion Council

FY25 Research Proposal Review

South Dakota State University

Raven Precision Agricultural Center

South Dakota Soybean Conference Room 236

April 4, 2024

9:00	Pledge of Allegiance Welcome	John Blanton, Jr.
9:15	Year 2 of 3: Addressing Problem of Soybean White Mold Disease in South Dakota	Shyam Solanki
9:30	Year 2 of 2: Soybean Cyst Nematode Diagnostics	Madalyn Shires
9:45	Achieving 100 bu/a Soybeans	David Clay
10:00	Cattle Feeding in the Renewable Diesel Era: Soybean Hulls and Soybean Meal as Replacements in Cattle Diets	Zachary Smith
10:15	Enhancing Markets and Adding Value to Soybeans: Can Extruded Soybeans Add Fat to Cattle Diets	Zachary Smith
10:30	Break	
10:45	Soybean Oil-Derived High-Performance Bio-Asphalt: A Sustainable Plant-Based Material for Highway Construction	Rouzbeh Ghabchi
11:00	Year 2 of 3: Evaluation/Management of Dectes Stem Borer Infestations in Southeastern SD	Adam Varenhorst
11:15	Early Detection of Sclerotinia by VOCs and CRISPR Sensors	ZhengRong Gu
11:30	Green Synthesis of Environmentally Friendly and Recyclable Biopolymers Derived from Soybean Oil and Biomass for Food Packaging	ZhengRong Gu
11:45	Commodity Classic Student Experience Recap	Nicholas Uilk Jesse Enstad
12:00	Invocation Lunch	David Struck
1:00	Implementation of a Drought Stress Mitigation Strategy in South Dakota Soybean Plants for Higher Yield and Better Grain Quality	Mazhar Sher
1:15	Smartphone-Based Early-Stage Detection of Soybean White Mold Disease	Mazhar Sher
1:30	Detection of Sudden Death Syndrome Disease in Soybean using Portable Hyperspectral Imaging System and AI-Driven Computer Vision	Pappu Kumar Yadav

1:45	Botanix Explorer (BX): Budget-Friendly, Precision Plant Inspection Robot Detecting Drought Stress and Lower-side Disease/Insects in Soybean Field	Young Chang
2:00	Year 4 of 5: Increasing Data for Pesticide Application in Soybean Production	Laura Edwards
2:15	Assessment of Mid-Late Season Foliar Diseases of Soybeans	Shyam Solanki
2:30	Break	
2:45	Effects of Different Forms of Soybean Oil on Early Embryonic Nutrition and Embryo Quality	Ana Clara Baiao Menezes
3:00	Effects of Extruded and Expelled Soybean Meal on Early Embryonic Nutrition and Embryo Quality	Ana Clara Baiao Menezes
3:15	Improving Weed Control in Soybean with Demonstration and Research Using Chemical and Non-Chemical Control Tactics	Eric Jones
3:30	Re-Imagining Soybean Meal - Value Added Feed for Higher Value Cattle	Warren Rusche
3:45	<ol style="list-style-type: none"> 1. Improving Agronomics of High Protein Soybean Varieties and Recycling of Soybean Processor Co-Products 2. Soybean Production with Strip-Tillage 	Peter Kovacs – Recorded Video
4:00	Development of a Bioadjuvant for Improved White Mold Treatment Efficacy	Matthew Cole – Pioneer Biotech
4:15	Dakota BioWorx Update	Craig Arnold
4:30	Public Input	
4:35	Other Items	
4:45	Discussion	
5:00	Adjourn	
6:30	Group Dinner – TBD	