NATIONAL COALITION FOR FOOD & AGRICULTURAL RESEARCH (NCFAR)
Program:

SOY-FREE CHICKEN?
ROLE OF SOYBEAN GENETIC IMPROVEMENTS AS PART OF U.S. FOOD SECURITY

October 25, 2019
PROGRAM

Welcome and Introduction

DR. JEFF ROSICHAN
NCFAR REPRESENTATIVE

Distinguished Speaker

DR. KATY MARTIN RAINEY
PURDUE UNIVERSITY

Open Forum

Closing

DR. JEFF ROSICHAN

NCFAR is a nonprofit, nonpartisan, consensus-based and customer-led coalition that brings food, agriculture, nutrition, conservation and natural resource stakeholders together with the food and agriculture research and extension community, serving as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension, and education.
ABSTRACT

The global plant-based protein market is expected to reach $14.32 billion by 2025. Soybean is the most important global source of plant-based protein. Although not typically consumed directly by humans, when processed into meal, oil, vegetable protein and other products soybean becomes extremely valuable. The Foundation for Food and Agricultural Research recently granted $1.5 million to match soybean farmers’ investments to increase soybean nutritional and economic value. Much more could be done to make soybean more palatable as a human food. Soybean is also the fastest growing crop globally, but much remains to be discovered regarding its potential to expand. Genome-editing, -omic technologies, modeling and predictive analytics can accelerate variety development, data-enabled solutions, and ultimately profitability for farmers.

SPEAKER BIOGRAPHY

Katy Martin Rainey, Ph.D., is an Associate Professor of Soybean Genetics & Breeding in the Agronomy Department at Purdue University. She received her Ph.D. in the Field of Plant Breeding from Cornell University. Dr. Rainey leads an applied soybean breeding program focused on germplasm and variety development, and her lab integrates diverse data to demonstrate innovative approaches to soybean breeding. Her research goals include describing traits that can be measured using precision and high-throughput phenotyping from unmanned aerial vehicles (UAVs). She also explores how to predict and maximize genetic gain of complex traits using mixed linear statistical models, resulting in innovative analyses of large data sets that combine phenotypes, pedigree information, and genome-wide markers. In support of data-driven selection generally in crop improvement, her scholarly work includes development of analytical tools for image analysis and phenomic inference from UAVs. Her lab also addresses optimizing soybean seed composition and she released food-grade soybean varieties. She teaches genetics, plant genetics, plant breeding, advanced plant breeding, and statistical genetics. Dr. Rainey is the Director of the Purdue Soybean Center and co-founder of Progeny Drone, Inc.
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