

Sixth Biennial Plant Breeding Symposium

Thursday, February 10th, 2022, from 8:15 AM to 5:30 PM.

The symposium will be hosted via ZOOM

The Plant Breeding Symposium is a free biennial event organized entirely by NC State University graduate students to celebrate the fascinating world of plant genetic improvement. We are excited to announce the theme of the 2022 meeting: "specialty crop breeding." Specialty crop breeding is an area of plant breeding that doesn't always get the most attention – covering landscape plants, horticultural commodities, and niche plant products. Attendees of the symposium can expect to hear a wide variety of perspectives, ranging from organic, urban cropping systems to blueberry breeding and highly adapted, beautiful showy flowers for your front yard. The event is virtual only via ZOOM. Save the date for a great day of keynote speakers and engagement with your plant breeding colleagues!

Speakers

Stan Cox

Stan Cox has a Ph.D. in plant breeding and cytogenetics from Iowa State. He joined USDA-ARS in 1984 as a wheat geneticist in Manhattan, Kansas. There, he worked developing new disease-resistant wheat germplasm using hybrids between wheat and its wild ancestral species. He has been at The Land Institute since 2000, working on development of perennial sorghum. In early 2020, he moved within The Land Institute to a new position as a Research Fellow in Ecosphere Studies.

Julie Dawson

Julie Dawson is an Associate Professor in the Department of Horticulture at the University of Wisconsin-Madison. Research interests include the use of genetic resources in plant breeding for organic systems and methods for participatory selection and variety development. She is also the state extension specialist for urban and regional food systems and does applied research for growers serving local food markets. This includes vegetable variety trials, season extension, and reduced tillage methods for small-scale vegetable production. The Seed to Kitchen Collaborative works with plant breeders to test varieties with local farmers and chefs, focused on flavor for local food systems. Before arriving at UW Madison, she worked on wheat breeding for organic systems with farmers in Washington, France and New York.





Pat J. Brown

Pat J. Brown is a tree nut breeder and Associate Professor in the Dept. of Plant Sciences at UC Davis, where he leads the Walnut Improvement Program and the Pistachio Improvement Program. He received his Ph.D. in Plant Biology from Cornell University in 2008, completed a postdoc at Cornell from 2008-2010, and advanced from Assistant to Associate Professor at the University of Illinois, Urbana-Champaign in the Dept. of Crop Sciences from 2010-2017 before coming to UC Davis. Dr. Brown's research focuses on integrating genomic and phenomic data into applied plant breeding programs. Target traits in both walnut and pistachio include precocity, kernel quality and composition, and modifying phenology and abiotic stress tolerance to improve resilience to climate change.

Jessica Gilbert

Jessica Gilbert earned a Ph.D. in Horticultural Sciences from the University of Florida studying blueberry flavor chemistry. Today, she continues to focus on exceptional flavor as the molecular blueberry breeder for Driscoll's in California. Along with the global blueberry and molecular teams, she designs trials to determine the genetic basis of blueberry traits important to Driscoll's breeding program for molecular marker development. Over the past six years she has managed projects that have led to the development of several markers associated with flavor and disease resistance, and thereby the very first blueberry parent and seedling marker screens at Driscoll's. Jessica also has a passion for seeking out wild blueberry species to incorporate genetic diversity and novel traits into Driscoll's blueberry commercial germplasm.

Thomas G. Ranney

Dr. Thomas G. Ranney – Tom is the JC Raulston Distinguished Professor of Horticultural Science at NC State University where he leads a research program at the Mountain Horticultural Crops Research and Extension Center in Mills River, NC. His research program focuses on the evaluation, selection, production, and development of new landscape, bioenergy, and specialty crops. His lab has produced a broad array of research publications (95 refereed) and new cultivars (65 patents awarded or applied for) that have resulted in economic development and competitive advantages for the horticultural industry while generating over \$100 million in retail sales. He has mentored many students (45 graduate students and 22 undergraduate interns) who have become successful faculty members, scientists, teachers, horticulturists, and plant breeders across the country. In collaboration with their partner, Spring

Meadow Nursery, they have raised over \$1.2 million for the Breast Cancer Research Foundation through the sales of their Invincibelle[™] hydrangeas. Along with his colleagues, they have garnered over \$11.1 million in grants to support these activities. Tom lives his motto of "Growing a greener and more prosperous world."

Please direct symposium questions or concerns to Dr Carlos Iglesias (caiglesi@ncsu.edu).

Hosted by the North Carolina State University Plant Breeding Club, affiliated with the NC State Plant Breeding Consortium

Thank you to this year's sponsors!









"The Plant Breeding Club Symposium fundraising efforts operate under the auspices of the NC Agricultural Foundation, Inc., a 501(c)(3) organization."



