



# Seventh Biennial Plant Breeding Symposium

February 1, 2024, from 8:30 AM to 5:00 PM, at the Talley Student Union and  
February 2, 2024, from 8:30 AM to 11:00 AM, at the Plant Sciences Building.

The NC State University Graduate Student Plant Breeding Club would like to extend an invitation for you and your team to attend our 7th Biennial Plant Breeding Symposium. We are excited to host five speakers from diverse backgrounds in plant breeding, and they are eager to engage with the NC State community and beyond!

The title of our symposium is "[Breeding for Balance: Plant and Human Wellbeing](#)". We have made every effort to include academic, industry, nonprofit, and local speakers representing a diversity of species.

This event will be hosted at the [Talley Student Union](#) on North Carolina State University's campus in Raleigh, North Carolina. The date is set for Thursday, February 1, 2024, from 8:30 AM – 5:00 PM. This event gathers up to 300 attendees, including industry representatives, university faculty and administrators, graduate students and undergraduate students, technical staff, and post-doctoral researchers. We will also have a morning Q+A session on Friday, February 2, 2024, at the [Plant Sciences Building](#) from 8:30 AM – 11:00 AM that will allow graduate students to interact with invited speakers and industry representatives.

## Speakers

### Chris Smith

Chris Smith is the executive director of [The Utopian Seed Project](#), a crop-trialing nonprofit working to celebrate food and farming. Within this work, Smith collaborates on the Heirloom Collard Project, hosts a seasonal Trial to Table event series, and publishes Crop Stories, a crop-specific multimedia project. Smith's book, *The Whole Okra*, won a James Beard Foundation Award in 2020, and he is the co-host of "The Okra Pod Cast." In 2023, Smith received the Organic Educator Award from the Organic Growers School and was named a Champion of Conservation by Garden & Gun. Find more information at [blueandyellowmakes.com](http://blueandyellowmakes.com) and [utopianseed.org](http://utopianseed.org).

### Dr. Natalie Kaiser

Dr. Natalie Kaiser, [Sweet Pepper Design Breeder](#), Bayer Crop Science, Davis, CA, has cultivated a passion for bringing plant products to consumers, growing up in a family organic greenhouse business in Upstate New York. Motivated to stay immersed in horticulture, Natalie completed her bachelor's in Applied Plant Science at SUNY Cobleskill before moving on to a Noble Foundation Research Scholarship devoted to understanding hormone signaling in *Medicago truncatula*. She then joined the Small Grains Breeding Program at Cornell as a research technician, where she developed single-kernel non-destructive tools to select for quality traits and coordinated genetic studies to understand seed fatty acid composition

in oat. Her immersion in the daily functions of a breeding program inspired her to pursue her PhD at Michigan State University in the Douches Potato Genetic and Breeding Program. She was particularly excited to be involved in the ongoing conversion of potato from a vegetatively propagated tetraploid crop to a diploid inbred/F1 hybrid system. Natalie's graduate work focused on diploid inbred line development and utilized combined genetic, genomic, and metabolomic approaches to deploy glycoalkaloid-based insect resistance. Natalie joined Bayer as a pepper design breeder in 2021. In this role, she particularly enjoys pioneering high-throughput digital phenotyping for fruit quality and novel product concept design. Natalie is enthusiastic about bringing an early career perspective to mentoring and energizing the next generation of scientists. Natalie enjoys anything competitive, especially CrossFit and HYROX!

## Dr. Jenny Clement Koebernick

Dr. Jenny Clement Koebernick is an associate professor of [Cotton and Soy Breeding](#) in the department of Crop, Soil and Environmental Science at Auburn University, where she has responsibilities to breed both soybean and cotton. Her PhD was at Texas A&M and she completed a postdoctoral fellowship with CSIRO in Narrabri NSW. Her program's breeding objectives are disease resistance and seed quality parameters across both crops. She is the vice president of the Plant Breeding Coordinating Committee, which is a multistate organization associated with the National Association of Plant Breeders (NAPB) organization. Dr. Koebernick was appointed to the Plant Variety Protection advisory board in 2023. She also leads a large, multi-disciplinary project focused on finding solutions for emerging pests in cotton. Dr. Koebernick is passionate about solving complex problems by utilizing multidisciplinary approaches.

## Dr. Patrick Cumbie

Dr. Patrick Cumbie, is the Director of Product Development at [ArborGen Inc.](#) He has been involved in forest research and development for 23 years and has largely focused on planning and implementing accelerated breeding programs in loblolly pine. Prior to joining ArborGen in 2010, Cumbie was a research forester for Weyerhaeuser Company and worked for the Cooperative Tree Improvement Program at NC State University. In his current role, Cumbie is responsible for managing product development activities in the US and Brazil, including breeding, seed production, and genomics. He received his PhD in Forestry from NC State University and is an Adjunct Assistant Professor in the Department of Forestry & Environmental Resources.

## Dr. Massimo Iorizzo

Dr. Massimo Iorizzo, Associate Professor – [Small Fruit and Vegetable Genetics and Genomics](#), North Carolina State University, Kannapolis, NC. Dr. Iorizzo is a geneticist working with various crops, including blueberry, carrot, banana, pineapple, spinach, sweetpotato, cranberry and potato. We are eager to hear about Dr. Iorizzo's ongoing research in small fruit breeding, and in particular, his research on health-promoting phytoactive compounds.

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Please direct symposium questions or concerns to Dr Carlos Iglesias ([caiglesi@ncsu.edu](mailto: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."