

The M. S. Swaminathan Centenary Lecture Series

Speaker: Prof. Ronnie Coffman

The First MS Swaminathan Professor-At-Large, TNAU

Time and Date: 03 October, 2024 11:15 am

Talk: 'Essential Adaptation to Climate Change through Plant Breeding'

Speaker Bio: Ronnie Coffman is an esteemed International Professor of Plant Breeding & Genetics (emeritus) at Cornell University's College of Agriculture and Life Sciences (CALs). Currently, he serves as the Vice Chair of the Borlaug Global Rust Initiative (BGRI) and has held numerous influential positions throughout his career, including Director of International Programs and Associate Dean for Research at CALs, as well as Chair of the Department of Plant Breeding and Genetics.

Coffman earned his Ph.D from Cornell, where he conducted research under the guidance of Norman Borlaug in Mexico, and completed his undergraduate studies at the University of Kentucky. His contributions to the development of improved rice varieties have impacted millions of hectares worldwide, particularly in collaboration with institutions in developing countries. He has also served on various boards, including the Board of Trustees of the American University of Beirut and the International Advisory Board of the West Africa Centre for Crop Improvement.

Throughout his career, Coffman has received numerous accolades, including the Chancellor's Award for Faculty Service from the State University of New York in 2006, the Inaugural World Agriculture Prize in 2013, and the Andrew H. & James S. Tisch Distinguished Cornell University Professor title in 2016. He was honored as a Fellow of the American Association for the Advancement of Science (AAAS) in 2019 and received the Distinguished Award for Meritorious Service from the African Plant Breeders Association in 2021. Most recently, in 2023, he was recognized with The Wharton Award for Outstanding Service, Leadership, and Contribution to Economic Progress in Emerging Markets.

Abstract:

Despite global efforts to mitigate climate change, it is a foregone circumstance at this point. It is likely to be decades before we see a moderation in the rate of change, and the impact becomes less severe. Adaptation to this change is the only viable option for sustaining and improving the productivity of our essential food crops. Beginning with a brief tribute to Dr. M.S. Swaminathan and N.E. Borlaug, the presentation will (1) illustrate the global importance of plant breeding to adapt to climate change, (2) explain Total Factor Productivity (TFP) and how plant breeding contributes to it, (3) substantiate the need for a vigorous public plant breeding sector to improve TFP and adapt to climate change, (4) discuss the implications of globalization and disruptive technology on the future of plant breeding and agriculture, (5) enumerate the advantages of adapting to climate change through plant breeding, including emerging opportunities, and (6) portray the future of plant breeding in the context of climate change and artificial intelligence.