P. Kumar Mallikarjunan

P. Kumar Mallikarjunan, ASABE Fellow, is the recipient of the 2025 Sukup Global Food Security award for his innovative solutions to processed foods such as peanuts, maize, and chilis around the world.

As a professor of food engineering within the food science and nutrition department at the University of Minnesota, Mallikarjunan is deeply engaged in both research and teaching. His research interests are diverse and encompass food process modeling and optimization, innovative process development, advanced non-destructive sensing techniques for evaluating food quality and safety, and even applications in cancer diagnostics. In the classroom, Mallikarjunan teaches foundational principles of food processing and guides students through their capstone design projects. He is committed to making a broader impact through his involvement in international development initiatives within sub-Saharan Africa.

Mallikarjunan is a distinguished food scientist known for his innovative work, including a nitrogen-pressurized frying technology that significantly reduces oil in fried foods and extends oil life. He has also advanced non-destructive sensing technologies for food characterization, including assessing fruit maturity, food spoilage, flavor quality, and packaging plasticizers. His research group has pioneered novel extraction methods to recover phytochemicals from food waste like peanut skins and coffee grounds. He holds patents for pulsed electric field processing of dairy proteins and spectroscopic evaluation of protein functionality. Mallikarjunan has worked extensively in sub-Saharan Africa developing food processing technologies and is a leading expert in aflatoxin management in peanuts, creating best practices and providing training to small and medium scale peanut processors. He developed rapid aflatoxin detection technologies and created training for their use. His group also developed solar drying and hermetically sealed storage for peanuts in Africa, and an ultrasound system for detecting insect infestation in stored grains in Tanzania, as well as new peanut-based products in Malawi and Uganda.

A 33-year member of ASABE, Mallikarjunan currently plays a key role in the ASABE initiative, the Alliance for Modernizing African Agrifood Systems and contributes to a World Trade Organization project addressing aflatoxin management in Asia. He has been active on several ASABE committees throughout the years, and was inducted as a Fellow in 2021.

Mallikarjunan has received several awards including the Albert Nelson Marquis Lifetime Achievement award, the Bor S. Luh International award, the ASABE Kishida International award, and recognition as an outstanding alumnus for research excellence from Asian Institute of Technology. His publications include 4 books, 19 book chapters, and over 100 refereed journal papers, and conference and meeting presentations. He is also a member of the Institute of Food Technologists and is the past-president of the Society of Food Engineering.