



National Association for Plant Breeding PUBLIC SECTOR PLANT BREEDING IMPACT AWARD 2026

Jianming Yu
Iowa State University
Ames IA

The Public Sector Plant Breeding Impact Award recognizes an individual whose accomplishments as a scientist in the public sector have had extraordinary impact in the field of plant breeding in areas such as research, technological innovation, germplasm development, cultivar release, education and leadership.

The 2026 recipient of this Award is Dr. Jianming Yu, Distinguished Professor, Pioneer Distinguished Chair in Maize Breeding and Director of the Raymond F. Baker Center for Plant Breeding in the Department of Agronomy, Iowa State University, Ames IA.

Yu and his research team seek to integrate knowledge in quantitative genetics, genomics, plant breeding, molecular genetics and statistics, with the overall goal of developing and implementing new strategies and methods in complex trait dissection and genomics-assisted breeding. Although Yu's research focuses on maize and sorghum, his group has worked through active collaboration and open data sharing for crops like rice, wheat, oat, peanut, soybean and switchgrass.

As a colleague noted in a support letter: *"Yu has been a thought-leader advancing the science of plant breeding. Specifically, he has developed and applied novel and cutting-edge methods in genomic selection to increase the efficiency of plant breeding. His Crop Science article published in 2007 led the way in applying genomic selection approaches, previously developed by animal breeders, to crop plants. He has had numerous important advances in this area related to use of accessions in gene banks and development of hybrid crops."*

Yu's research contributions include: developing the mixed model framework for genome-wide association studies; outlining the nested association mapping strategy; pioneering genomic selection research in crops; prototyping a comprehensive strategy to turbocharge genebanks to mine the natural heritage; quantifying genic and non-genic contributions to quantitative trait variation in maize; identifying the *Shattering1* gene and its homologs underlying the parallel domestication of multiple cereal species (sorghum, maize, rice, and foxtail millet); uncovering the first complete case of domestication triangle involving sorghum tannin and the pair of *Tannin1* and *Tannin2* genes; and developing an integrated framework for both gene discovery underlying phenotypic plasticity and performance prediction across environments. Yu has published 124 papers and trained 17 graduate students, 15 postdoctoral research associates, and 7 visiting students and scholars.



As one colleague summarized: “Yu’s accomplishments capture the very essence of the NAPB Public Sector Plant Breeding Impact Award. His transformative contributions to research, methodological innovation, germplasm utilization, and education have had a profound and lasting impact on plant breeding worldwide. His work bridges fundamental science and practical application, benefiting both the public and private sectors and addressing critical challenges in global agriculture. Further, Jianming is not only doing an outstanding job in mentoring his own team members, but he is engaged at an exceptional level to support the plant breeding community at Iowa State University, both via the annual seminar series that he is leading, oversight of the annual graduate student organized Baker symposium, encouragement of students for awards and engagement in professional organizations.”

Yu’s leadership and service include serving on the Board of Directors for the Crop Science Society of America (CSSA) 2022-2024, Maize Genetics Executive Committee 2015-2020 and CSSA C-8 Division Officer 2015-2017. He was elected a CSSA Fellow and an American Association for the Advancement of Science Fellow in 2018. Yu earned his B.S. from Northwest A&F University in 1994, M.S. at Kansas State University in 2000, and Ph.D. at the University of Minnesota in 2003. He completed two postdocs, at the University of Minnesota and Cornell University before obtaining a faculty position at Kansas State University from 2006 to 2012. Yu moved to Iowa State University in 2013.



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Dr. Jianming Yu, the 2026 recipient of the National Association for Plant Breeding Public Sector Plant Breeding Impact Award, in his research greenhouse, Iowa State University, Ames, IA.