



In Memoriam: Howard Wayne Rines, PhD



With a heavy heart, I would like to let you know that long-time USDA-ARS oat researcher Dr. Howard Rines passed away on May 23rd after a year in hospice care.

Dr. Rines grew up on a general crops/livestock farm in Indiana and received his BS (Agricultural Science) and MS (Genetics) degrees from Purdue University and PhD (Genetics) from Yale University. Following 2 years of military service and 5 years as an Assistant Professor in the Department of Botany at the University of Georgia, Athens, he joined ARS in 1976 as a Research Geneticist in the Plant Science Research Unit, St. Paul, MN, with an adjunct appointment in the Department of Agronomy and Plant Genetics, University of Minnesota. He was promoted to GS-15 rank in ARS in 2000 and to Adjunct Full Professor at the University of Minnesota in 1989. He retired from ARS in 2009 but continued to stay active in research and interaction with his colleagues. During his retirement, Dr. Rines was able to develop a crown rust resistant oat line with gene(s) derived from *Avena strigosa*, that is in use by many oat breeders today.

Dr. Rines' research in his ARS career focused on oat genetics with emphasis on cellular and molecular approaches to oat improvement. Highlights of this research include recovery of the first haploid oat plant from anther culture, participation in the development of molecular marker maps in oat and the mapping of oat genes for disease resistance and grain quality traits, production of partial hybrids of oat and corn, and sexual transfer of disease resistance genes from related wild species into cultivated oat.

During his career, Dr. Rines provided an important connection between cellular-molecular research and applied cultivar development. His expertise and understanding of germplasm evaluation in the field, coupled with molecular biology expertise, enabled identification of research areas that would benefit applied breeding, and provided important input that drew applied and basic research closer together. He provided extremely valuable service in his careful coordination and reporting of the Uniform Early and Midseason Oat Performance Nurseries. He



was familiar with germplasm lines in the Uniform Nurseries and could discuss the pertinent agronomic characteristics of the lines while readily recognizing traits of genetic interest for further study. In addition to an extensive list of publications, he developed useful germplasm, including crown rust resistance sources that he generously shared with breeding programs. These will continue to benefit oat improvement long into the future. Dr. Rines believed in sharing resources, and helped develop the Oat Workers' Code of Ethics that was used for many years.

Dr. Rines was outstanding in his advocacy for workplace and work assignment adjustments regarding the progressive disability of the technician who worked on his research project. He established a flexible workplace agreement which allowed his technician to work from home as necessary and remain productive in the oat research community. Dr. Rines received the USDA-ARS Midwest Area Equal Opportunity Award for his exemplary efforts in this regard.

In 2010, Dr. Rines received the Award for Distinguished Service to Oat Improvement from the American Oat Workers' Conference. During his career, he authored or co-authored more than 100 journal articles and book chapters and advised or co-advised 17 MS or PhD students and 11 post doctorates. His calm and gentle personality and keen intellect endeared him to many colleagues and students. He was an amazing mentor and colleague.

-Shahryar Kianian, with information from [this article](#), May 2024

(See also: <https://www.legacy.com/us/obituaries/name/howard-rines-obituary?id=55227043>)