

From the Oat Newsletter, volume 48, 2002:

Dr. Milton (Mac) E. McDaniel – Texas A&M University
Award for Distinguished Service to Oat Improvement



Dr. Milton McDaniel has devoted a lifetime to genetic improvement of small grains, particularly oats. Dr. McDaniel grew up on a family farm in Oklahoma. He learned at a young age to respect the land and appreciate hard work. By the age of ten he was driving trucks during wheat harvest. Dr. McDaniel was very active in 4-H throughout his school years. His accomplishments were recognized in 2001 when he was elected to the Oklahoma 4-H “Circle of Champions”.

He was the top graduate in his class at Oklahoma State University, where he received a B.Sc. in Agronomy in 1960. He then went to Virginia Polytechnic Institute & SU where he worked under the tutelage of Drs. Tom Starling and Curt Roane. He received a Ph.D. in Plant Breeding with a minor in Plant Pathology in 1965. Dr. McDaniel began his distinguished career at Texas A&M University that same year.

Dr. McDaniel developed improved oat germplasm and varieties adapted to the winter oat region of the US and similar environments. He released ‘Coronado’ and ‘Cortez’ oats soon after employment by Texas A&M. These varieties were widely grown across Texas and are still used as forage oats. TAMO 397, a recent release, is highly resistant to prevalent races of crown and stem rust. This variety serves as the rust resistant check in the USDA Uniform Winter Oat Yield Nursery.

Dr. McDaniel was a leader in the Quaker International Oat Improvement program from 1980 through 1997. This project led to the release of numerous oat varieties adapted to Brazil, Argentina, Uruguay, Chile, and Colombia. Thirteen oat lines from his program have been released in Australia. He served on organizing committees for three International Oat Conferences and is active in cooperative oat research efforts such as the Southern Regional Oat Screening Nursery.

Milton's contributions to oat improvement are not limited to a highly successful variety development program; he has been a pioneer in development of crown and stem rust resistant germplasm through introgression of genes from wild relatives. Varieties and germplasm developed by Dr. McDaniel have been widely used by oat breeders across the southern US, in South America, and across the continent as sources of disease resistance in a high-yielding background. A large proportion of the germplasm in the winter oat region of the US has contains some parentage that originated in Dr. McDaniel's program. His generous sharing of germplasm with other breeders has magnified the impact his breeding efforts and benefited the entire American oat improvement endeavor.

Dr. McDaniel mentored quite a few graduate and undergraduate students. He made plant breeding classes interesting even to undergraduates. His first attempt at teaching was an immediate success partly due to his ability to incorporate a practical spin on theoretical plant breeding techniques, and be funny at it. He spent considerable time educating student workers about crown rust, stem rust, blast, cold tolerance, etc. He and graduate students published research on heterosis in oats, approach method crossing, male sterility, and other topics of interest to oat breeders.

Those who know Dr. McDaniel appreciate his sense of humor and enjoyment of life. Dr. McDaniel is an accomplished pianist and enjoys tinkering with anything mechanical. Dr. McDaniel is indeed a worthy recipient of the "Award for Distinguished Service to Oat Improvement".