

From the Oat Newsletter, volume 44, 1998:

Richard Halstead
Award for Distinguished Service to Oat Improvement



Richard Halstead has served for over 25 years as USDA-ARS agricultural research technician and "right hand man" to ARS scientists Lee Briggie (1973-1976) and Howard Rines (1976-present) in the USDA-ARS oat research project at the University of Minnesota. In that position Richard has served the larger oat community through his meticulous coordination of the Uniform Midseason and Uniform Early Oat Nurseries involving seed distribution, seed quality analysis, data accumulation, and processing and distribution of reports. Through the years he has enhanced the Uniform Nursery program by testing alternative procedures for groat percent determination, introducing new computer procedures, and recently developing a website for the nursery data and reports. Beyond his dedicated and skilled direct efforts in the oat projects, he has helped guide numerous graduate students in the oat improvement program at the University of Minnesota through their field, laboratory, and computer activities.

Richard received his B.S. from the University of Minnesota in the spring of 1972 in the College of Forestry. At that time the USDA was the major employer of Forestry graduates, but the spring he graduated the USDA placed a moratorium on forestry hires. He then applied for a USDA technical position and in the meantime he became acquainted with Quaker Oats through the pet food division. Dr. Briggie called him and

offered him a job without ever having interviewed him. In September of 1973 he returned to Minnesota from his home in northern Illinois. Deon Stuthman's former technician, Jim Stage, served as a good mentor, since the only prior contact Richard had with oats was putting bundles in shocks on his uncle's farm. Jim taught him how to cross and the daily routines necessary in a research project.

The summers of 1975 and 1976 Richard spent on the road collecting wild oat samples from Minnesota to Idaho and as far south as southern Utah and north to the Canadian border. During this time he traveled 10,000 miles and while in Idaho assisted Darrell Wesenberg with the harvest at Aberdeen. Richard's accessions formed the major portion of a collection of 2,200 *Avena fatua* samples that were subsequently evaluated for protein and oil content and for resistances to crown and stem rust, barley yellow dwarf virus, and cereal leaf beetles in a collaborative program to identify potential germplasm donors to oat improvement. Other research projects that Richard has contributed to over the years include agronomic evaluation of introgressed alien *Avena* species cytoplasm, evaluation and introgression of crown rust resistance genes, development of oat tissue culture and anther culture systems, crosses of oat x corn, and evaluation of crown rust effects on seed quality traits. In addition Richard has been a part of many aspects of the University of Minnesota oat breeding and variety release program of Dr. Stuthman.

One of the major responsibilities of Richard throughout his oat career has been working with the Uniform Early and Midseason Oat Performance Nurseries. The regional nursery data were all processed on a mechanical calculator in the mid to late 70's. The next step was using a computer in Beltsville, MD, with a teletype terminal connected by phone. The phone connection or the computer would go down and all the data from that session would be lost. It might be fair to say that by the time that year's report was finished, the data had been processed at least three times. Analysis of Variance was calculated on the University of Minnesota's computer with SAS and all commands were entered with punch cards. Currently, the Regional Nurseries are processed on a personal computer, and Richard has placed the reports on a GrainGenes website at <http://wheat.pw.usda.gov/ggpages/UE-MOPN.html>.

Richard's physical activities have become more limited over the past few years from progressive neurological effects to his lower extremities due to an inherited condition of adult-onset leukodystrophy. In spite of those limitations, he has continued to provide high quality performance in coordinating the regional nurseries and to use his computer and statistical expertise to help with research and breeding as well as assisting many graduate students and colleagues in those areas. Close interactions and friendship with Roger Casper, field plot technician for Dr. Stuthman, has made this arrangement

effective.

In his career Richard has received several USDA Certificates of Merit for superior annual job performance. He was recently awarded a special Certificate of Merit for "perseverance and dedication to high quality job accomplishment in spite of health limitations, and in so doing serves as inspiration and a model for co-workers and students."