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Dr. Herbert W. Ohm
Award for Distinguished Service to Oat Improvement



Herb was born in Albert Lea, Minnesota in 1945. His original intention was to teach, and so he attended the University of Minnesota, where he obtained a B.S. in Agricultural Education. The summer before he graduated, he was the Assistant County Agricultural Agent in Stearns County. He apparently saw the light, because he went to graduate school and, in June of 1969, he received an M.S. in Plant Breeding from North Dakota State University. He then received a Ph.D. in Plant Breeding and Genetics in December 1971 at Purdue University under Dr. Fred Patterson, one of the giants of small grains breeding. Herb tells the story that he arrived in West Lafayette on a Saturday during the height of the wheat breeding season. Fred had asked him to meet him at the Agronomy Research Farm when he arrived, and immediately put Herb to work for the rest of the day! The department clearly saw the promise in Herb and, one month after completing his Ph.D. (January 1972), he became a newly hired Assistant Professor in the Agronomy Department at Purdue University. Herb overlapped with Dr. Patterson, who retired in 1986, and they made a superb team. Herb quickly rose through the ranks to Professor in 1983 and became the Team Leader of the Purdue Interdisciplinary Wheat and Oat Genetics and Breeding Program in 1981. He spent the next 42 years (1972-2014) at Purdue, except for an 8-month stint as Pioneer Station manager in Hutchinson, Kansas, in 1980 and two years as the Team Leader for the Purdue University/USAID Farming Systems Research Project in West Africa from 8/1983-8/1985. He also served as interim Department Head from 2009-2010.

The Purdue oat program, which began in 1940, resulted in outstanding improvements in lodging resistance, disease resistance, and adaptation to the warm temperature conditions in Indiana. After 1954, six spring oat varieties were distributed, including Clintland, Bentland, Newton, Putnam, Clintland 60, and Putnam 61. These varieties at that time made up a substantial part of the oats grown in the North Central region. Herb was diligent about continuing this excellence and released numerous oat varieties throughout his tenure. Oat varieties developed by Dr. Ohm are grown on essentially all the oat acreage in Indiana and are grown widely throughout the upper Midwest and Ontario, Canada. Essentially all oat improvement research programs in the upper U.S. and Canada use Purdue-developed oat varieties as parental donors for yellow dwarf virus resistance. Two of an array of lines that Herb released that I am sure you will recognize are Classic, released in 1996, widely grown with a high level of resistance to yellow dwarf viruses and Jay, released in 1998, that is widely adapted to the upper Midwest, northeast U.S., and Ontario, Canada, and has his signature resistance to yellow dwarf viruses and crown rust. The last public variety he released in the 2000s, Excel, continues to be grown on a fairly substantial acreage all the way into Canada. The last lines he was working on just before his stroke are quintessentially Herb. He was always looking to bring in new sources of alleles for important traits, in this case using *A. strigose* as the donor parent for BYDV resistance. Herb was also a key partner in the oat SNP project that has clearly advanced the tools that can be applied to oat improvement and represents a key advance in how SNP technology can be developed and used in non-sequenced genomes.

Herb obtained over \$4 M in research funding from diverse funding sources. One of these key sources for many years has been Quaker Oats, which provided long term sustainable funding that enabled him to have a simply outstanding oat breeding program. The evidence of this funding and prolific program is the array of public and licensed wheat and oat cultivars released by Herb, which have generated well over \$4 million in research and licensing fees on seed.

As you know, Herb has had a very distinguished career in many aspects of teaching, research, and national leadership. Dr. Ohm served as academic advisor and provided research assistantship support for 50 graduate students, seventeen of whom are from nine countries outside of the U.S.A. His former students are developing successful careers in academia and all major seed companies in the U.S.A. and other countries, and the seed industry in Indiana. He counseled and provided training and work experience for over 60 undergraduate students in plant genetics, plant breeding, and other areas of agronomy. Dr. Ohm co-authored one book, five chapters in books, 135+ refereed journal articles in prestigious international journals, 131+ abstracts of oral and poster presentations, and 26 research bulletins. Herb retired with a flourish - finishing up eight graduate students.

Dr. Ohm is widely recognized nationally and internationally for his innovative and productive genetics and breeding research and instruction, embracing and applying new developments in molecular genetics to carry out plant breeding more efficiently, as evidenced by his numerous lectures, consultations, and other invited activities. Dr. Ohm

is exceptionally, highly regarded in the seed industry throughout the Midwest for his research accomplishments and extensive interactions with these important client groups. He has been a very active member of the oat community over the years, as shown by the elected and appointed positions he has held:

- Chairman, Research Committee American Oat Association, 1990-94
- Chairman, National Oat Improvement Council, 1990-94
- Chairman, American Oat Workers, 1986-1990 (Canada, U.S.A., Mexico, South America)
- Oat Legislative Committee, American Oat Association, 1986-1994
- Member, CSSA C-852, Crop Science Oat Registration, 1999-present
- CSSA: Oat Monograph Committee, 1996-99
- Oat Crop Registration Committee, American Society of Agronomy, 1989-present

In addition to these service activities, he has been the recipient of numerous awards of which I will highlight just a few that I think will resonate with this audience:

- Distinguished Professor, 2004 – The highest award given by Purdue University
- Public Plant Breeding Award, 2010 – National Council of Commercial Plant Breeders
- Fellow, American Association for the Advancement of Science (AAAS), 2001
- Agronomic Achievement Award - Crops, American Society of Agronomy, 1994
- Fellow, American Society of Agronomy, 1991
- Fellow, Crop Science Society of America, 1990
- Crops and Soils Merit Award, Indiana Crop Improvement Association, 1988
- Recognition by The National Council of Commercial Plant Breeders for outstanding contributions in planning a plant breeding workshop, Purdue University, 1983.