

Curriculum Vitae
Herbert W. Ohm
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EDUCATION

B.S. Agricultural Education, June 1967, University of Minnesota

M.S. Plant Breeding, June 1969, North Dakota State University

Ph.D. Plant Genetics and Breeding, December 1971, Purdue University

PROFESSIONAL POSITIONS

Purdue University

Assistant Professor, 1/1972 - 6/1977

Associate Professor, 7/1977 - 6/1983

Professor of Agronomy, 7/1983 - 11/2004

Distinguished Professor, 11/2004 - present

ADDITIONAL EXPERIENCE

Pioneer Hi-Bred International

Research Station Manager, Hard Winter Wheat, Hutchinson, KS, 1/1980 - 8/1980

Team Leader, Purdue University/USAID Farming Systems

Research Project, West Africa, 8/1983 - 8/1985

Completed an intensive course in "Plant Molecular Biology" at the Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 7/1-21, 1991

Sabbatical leave at Plant Gene Expression Center, USDA-ARS, University of California-Berkeley; lab experience with a project to localize the N gene in tobacco conditioning resistance to tobacco mosaic virus; 11/1991-4/1992

Sabbatical leave at CSIRO, Canberra, Australia; characterization of resistance to yellow dwarf viruses (YDV) in wheat derived from wheatgrass (*Agropyron intermedium*); lab experience using existing RFLP and E genome-specific repetitive sequences, development of low copy RAPD markers associated with YDV resistance, and cloning of DNA fragments; 11/1992-4/1993

Research leave at Western Australia Department of Agriculture and Murdoch University, Perth, WA. Develop collaboration with wheat research group on mapping of glume blotch resistance genes in wheat and develop capability to utilize wheat and rice gene databases to identify and fine-map genes of interest in wheat. 10/27 - 11/27, 2003.

ADMINISTRATIVE/LEADERSHIP EXPERIENCE

Interim Head of Department of Agronomy, Purdue, 2009-2010

Team Leader, Interdisciplinary Wheat and Oat Genetics and Breeding Program, 1981-present

- Coordinated collaborative research activities among scientists in Departments of Agronomy, Botany and Plant Pathology, Entomology, and USDA-ARS
 - Develop research program with broad range of fundamental to applied research
- Team Leader, Purdue/USAID Development Project, Burkina Faso, 1983-1985
- Supervised 31 field and office staff
 - Developed collaborations with other int'l res. projects and National Extension Service
 - Organized an international workshop on 'Appropriate Technologies for Farming Systems in West Africa'
 - Edited proceedings of international workshop published in French and English
 - Provided primary leadership to transfer 17 host-country project staff into the Burkina Faso national research structure prior to project completion
- Member, Board of Directors, Indiana Crop Improvement Association, 1975-1983
 Superintendent, Intercollegiate Crops Contest, Chicago Board of Trade, 1977-1983
 Presided over program sessions, organized symposia sessions and presented research papers on wheat and oat genetics and breeding at CSSA annual meetings
 Chair, American Oat Workers Conference; Editor of the annual Oat Newsletter, 1990-94

AWARDS AND HONORS

Outstanding Graduate Educator Award, Purdue Dept. of Agronomy, 2004, 05, 06, 07
 Certificate of Distinction, Purdue Agricultural Alumni Association, 2005
 Fellow, American Association for the Advancement of Science (AAAS), 2001
 School of Agriculture Team Award, Purdue University, May 2000
 Agronomic Achievement Award-Crops, American Society of Agronomy, 1994
 Fellow, American Society of Agronomy, 1991
 Fellow, Crop Science Society of America, 1990
 Meritorious Service Award; Scientific, Technical and Research Commission of the Organization of African Unity for contributions to Semi-Arid Food Grains Research and Development, West Africa, 1989
 Crops and Soils Merit Award, Indiana Crop Improvement Association, 1988
 Strathmore's Who's Who, 2003-2004 Registry; American Men and Women of Science; Dictionary of International Biography, Cambridge, England;
 Who's Who in Science and Engineering; Who's Who in the Midwest
 Who's Who in Technology Today; Marquis Who's Who in America

PROFESSIONAL ASSOCIATIONS

American Association for the Advancement of Science (AAAS)
 American Society of Agronomy (ASA); Crop Science Society of America (CSSA)
 Council of Agriculture, Science and Technology (CAST)
 American Registry of Certified Professionals in Agronomy, Crops and Soils (ARCPACS)
 Alpha Tau Alpha; Gamma Sigma Delta; Sigma Xi; National Oat Improvement Council;
 American Oat Association; National Wheat Quality Council; National Wheat Improvement Council

PUBLICATIONS: (155+ refereed publications; wheat and oat genetics and breeding)

Refereed papers published

- Francki MG, E Walker, AC Crawford, S Broughton, H Ohm, I Barclay, RE Wilson, and R McLean. 2009. Comparison of genetic and cytogenetic maps of hexaploid wheat (*Triticum aestivum* L.) using SSR and DArT markers. MGG 281:181-191.
- Kong L, JM Anderson, and HW Ohm. 2009. Segregation distortion in common wheat of a segment of *Thinopyrum intermedium* chromosome 7E carrying *Bdv3* and development of a *Bdv3* marker. PBR 128:591-597.
- Saltzmann KD, MP Giovanini, HW Ohm, and CE Williams. 2009. Transcript profiles of two wheat lipid transfer protein-encoding genes are altered during attack by Hessian fly larvae. Plant Physiology and Biochemistry 48: 54-61.
- Kong L, SE Cambron, and HW Ohm. 2008. Hessian fly resistance genes *H16* and *H17* are mapped to a resistance gene cluster in the distal region of chromosome 1AS in wheat. Molecular Breeding 21:183-194.
- Bonafede M, L Kong, G Tranquilli, H Ohm, and J Dubcovsky. 2007. Reduction of a *Triticum monococcum* chromosome segment carrying the softness genes *Pina* and *Pinb* translocated to bread wheat. Crop Sci 47:821-828.
- Giovanini MP, KD Saltzmann, DP Puthoff, M Gonzalo, HW Ohm and CE Williams. 2007. A novel wheat gene encoding a putative chitin-binding lectin is associated with resistance against Hessian fly. Mol Plant Pathology 8:69-82.
- Kong L, HW Ohm and JM Anderson. 2007. Expression analysis of defense-related genes in wheat in response to infection by *Fusarium graminearum*. Genome 50:1038-1048.
- Kong L, Dong Y, and Ohm H. 2007. Characterization of resistance to deoxynivalenol (DON) accumulation in different wheat lines. P83. Proceedings of the 2007 National Fusarium Head Blight Forum, 2 – 4 Dec, KC, MO.
- Kong L, Ohm HW, and Anderson JM. 2007. Expression analysis of defense-related genes in wheat in response to infection by *Fusarium graminearum*. Purdue University Genomics Conf, 10-12 Sept.
- Ohm H. 2007. Plant Breeding and Genetics Research and Education at Purdue University. Plant Breeding Workshop. 8-9 Feb, Raleigh, NC.
- Perugini L Sneller C, Kolb F, VanSanford D, Griffey C, Ohm H, and Brown-Guedira G. 2007. Haplotype structure and genetic diversity at Fusarium head blight resistance QTLs in soft winter wheat germplasm. P96. Proceedings of the 2007 National Fusarium Head Blight Forum, 2 – 4 Dec, KC, MO.
- Shen X and H Ohm. 2007. Molecular mapping of *Thinopyrum*-derived Fusarium head blight resistance in common wheat. Mol Breeding 20:131-140.
- Shen X and Ohm H. 2007. Molecular mapping of a QTL for resistance to Fusarium head blight introgressed from *Thinopyrum ponticum* into wheat. PAG XV Abstracts, P307, p. 178.

- Saltzman KD, Giovanini MP, Ohm HW, and Williams CE. 2007. Expression of a wheat gene encoding a type-1 lipid transfer protein is suppressed by virulent Hessian fly larval feeding. PAG XV Abstracts, P300, p. 176.
- Soria M, Anderson J, Baenziger P, Berzonsky B, Brown-Guedira G, Campbell K, Carver B, Chao S, Dubcovsky J, Fritz A, Griffey C, Bai G, Haley S, Johnson J, Kianian S, Kidwell K, Mergoum M, Ohm H, Peterson J, Riera Lizarazu O, Rudd J, Talbert L, Sherman J, Sorrells M, Souza E, Zemetra R. 2007. Wheat Coordinated Agricultural Project: Applying Genomic Technologies to Wheat Improvement. Purdue University Genomics Conf, 10-12 Sept.
- Uphaus J, E Walker, M Shankar, H Golzar, R Loughman, M Francki and H Ohm. 2007. QTLs associated with resistance to glume blotch in wheat caused by *Stagonospora nodorum*. Crop Sci 47:1813-1822.
- Zila C and Recker JR. 2007. Haplotyping wheat lines for Fusarium head blight resistance. In: p. 2. Purdue University 2007 Undergraduate Research and Poster Symposium Abstracts. Poster Symposium, 4 April.
- Zila C, Recker J, Shen X, Kong L, and Ohm H. 2007. Novel Fusarium head blight resistance in *Triticum aestivum* revealed by haplotyping with DNA markers associated with known resistance QTL. ASA-CSSA-SSSA Annual Meeting, 4-8 Nov, New Orleans, LA.
- Giovanini MP, DP Putoff, JA Nemacheck, O Mittapalli, KD Saltzman, HW Ohm, RH Shukle, and CE Williams. 2006. Gene-for-gene defense of wheat against the Hessian fly lacks a classical oxidative burst. MPMI 19:1023-1033.
- Kong L, JM Anderson, and HW Ohm. 2006. Segregation distortion in bread wheat of *Thinopyrum intermedium* 7E segment carrying *Bdv3*. Plant Breeding (submitted).
- Kong L, HW Ohm, and JM Anderson. 2006. Expression analysis of defense-related genes in wheat in response to infection by *Fusarium graminearum*. Genome (submitted).
- Shen X, MG Francki, and HW Ohm, 2006. A resistance-like gene identified by EST mapping and its association with a QTL controlling Fusarium head blight infection on wheat chromosome 3BS. Genome 49:631-635.
- Shen X and H Ohm. 2006. Fusarium head blight resistance derived from *Lophopyrum elongatum* chromosome 7E and its augmentation with *Fhb1* in wheat. Plant Breed. 125:424-429.
- Shen X and H Ohm. 2006. Linkage mapping of *Thinopyrum*-derived Fusarium head blight resistance in common wheat. Molecular Breeding (submitted).
- Kong L, JM Anderson, and HW Ohm. 2005. Induction of wheat defense and stress-related genes in response to *Fusarium graminearum*. Genome 48:29-40.
- Kong L, H Ohm, S Cambron, and C Williams. 2005. Molecular mapping determines that Hessian fly resistance gene *H9* is located on chromosome 1AS of wheat. Plant Breed. 124: 525-531.
- Ohm, HW, JM Anderson, HC Sharma, L Ayala, N Thompson, and JJ Uphaus. 2005. Registration of yellow dwarf viruses resistant wheat germplasm line P961341. Crop Sci. 45:805-806.

- Gilsinger, J, L Kong, X Shen, and H Ohm. 2005. DNA markers associated with low Fusarium head blight incidence and narrow flower opening in wheat. *Theor. Appl. Genet.* 110:1218-1225.
- Kong, L, H Ohm, S Cambron, and CE Williams. 2005. Molecular mapping determines that Hessian fly resistance gene *H9* is located on chromosome 1A of wheat. *Plant Breeding*: 124:525-531.
- Ohm, HW, JM Anderson, HC Sharma, L Ayala, N Thompson, and JJ Uphaus. 2005. Registration of yellow dwarf viruses resistant wheat germplasm line P961341. *Crop Sci.* 45:805-806.
- Ohm, HW, FL Patterson, RH Ratcliffe, SE Cambron, and CE Williams. 2004. Registration of Hessian fly resistant wheat germplasm line P921696. *Crop Sci.* 44:2272-2273.
- Boukar, O, L Kong, BB Singh, L Murdock, and HW Ohm. 2004. AFLP and AFLP-derived SCAR markers associated with *Striga gesnerioides* resistance in cowpea. *Crop Sci.* 44: 1259-1264.
- Shen, X, L Kong, and H Ohm. 2004. Fusarium head blight resistance in hexaploid wheat (*Triticum aestivum*)-*Lophopyrum* genetic lines and tagging of the alien chromatin by PCR markers. *Theor. Appl. Genet.* 108:808-813.
- Bourdoncle W and HW Ohm. 2003. Quantitative trait loci for resistance to Fusarium head blight in recombinant inbred wheat lines from the cross Huapei 57-2 / Patterson. *Euphytica* 131:131-136.
- Shen, X, M Ittu and HW Ohm. 2003. Quantitative Trait Loci Conditioning Resistance to Fusarium Head Blight in Wheat Line F201R. *Crop Sci.* 43:850-857.
- Shen, X, M Zhou, W Lu and H Ohm. 2003. Detection of Fusarium head blight resistance QTL in a wheat population using bulk segregant analysis. *Theor. Appl. Genet.* 106:1041-1047.