

**Curriculum Vitae**  
**Herbert W. Ohm**  
Department of Agronomy  
Purdue University

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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, 1/72 - 6/77  
Associate Professor, 7/77 - 6/83  
Professor of Agronomy, 7/83 - 11/04  
Distinguished Professor, 11/2004-present

**ADDITIONAL EXPERIENCE**

Pioneer Hi-Bred International  
Research Station Manager, Hard Winter Wheat, Hutchinson, KS, 1/80 - 8/80  
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; November 1992-April 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:**

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 Faculty Mentor, Dept. of Agronomy, 2006  
 Outstanding Graduate Educator, Dept. of Agronomy, 2004, 2005  
 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:** (145+ refereed publications since 1972; wheat and oat genetics and breeding)

**Refereed papers published** (since 2000)

- Uphaus J, Walker E, Shankar M, Golzar H, Loughman R, Francki M and Ohm H. 2006. QTL identified for resistance to *Stagonospora glume blotch* in wheat in the USA and Australia. *Crop Sci* (in press).
- Bonafede M, L Kong, G Tranquilli, H Ohm, and J Dubcovsky. 2006. Reduction of a *Triticum monococcum* chromosome segment carrying the softness genes *Pina* and *Pinb* translocated to bread wheat. *Crop Sci* (in press).
- Giovanini MP, DP Putoff, JA Nemacheck, O Mittapalli, KD Saltzmann, 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.
- Giovanini MP, KD Saltzmann, DP Puthoff, M Gonzalo, HW Ohm, and CE Williams. 2006. A novel wheat gene encoding a putative chitin-binding lectin is associated with resistance against Hessian fly. *Molecular Plant Path* 8:69-82.
- 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* (in press).
- Kong L, SE Cambron, and HW Ohm. 2007. 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* (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. Molecular mapping of *Thinopyrum*-derived Fusarium head blight resistance in common wheat. *Molecular Breeding* (in press).
- Gilsinger J, Kong L, Shen X and Ohm H. 2005. DNA markers associated with low Fusarium head blight incidence and narrow flower opening in wheat. *Theor Appl Genet* 110:1218-1225.
- Kong L, Anderson JM, and Ohm HW. 2005. Induction of wheat defense and stress-related genes in response to *Fusarium graminearum*. *Genome* 48:29-40.
- Kong L, Ohm HW, Cambron SE and Williams CE. 2005. Molecular mapping determines that Hessian fly resistance gene *H9* is located on chromosome 1A of wheat. *Plant Breeding* 124:1-7.
- Ohm HW, Anderson JM, Sharma HC, L. Ayala L, Thompson N, and Uphaus JJ. 2005. Registration of yellow dwarf viruses resistant wheat germplasm line P961341. *Crop Science* 45:805-806.
- Shen X and Ohm H. 2005. Augmentation between Fusarium head blight resistance derived from *Lophopyrum elongatum* and a resistance QTL in wheat. *Theor Appl Genet* (in review).
- Adhikari TB, Yang X, Cavaletto JR, Hu X, Buechley G, Ohm HW, Shaner G, and Goodwin SB. 2004. Molecular mapping of *Stb1*, a potentially durable gene for resistance to septoria tritici blotch in wheat. *Theor. Appl. Genet.* 109:944-953.

- Boukar O, Kong L, Singh BB, Murdock L, and Ohm HW. 2004. AFLP and AFLP-derived SCAR markers associated with *Striga gesnerioides* resistance in cowpea. *Crop Sci.* 44:1259-1264.
- Ohm HW, Patterson FL, Ratcliffe RH, Cambron SE, and Williams CE. 2004. Registration of Hessian fly resistant wheat germplasm line P921696. *Crop Sci.* 44:2272-2273.
- Sharma HC, Ohm H, and Shaner G. 2004. Resistance to barley yellow dwarf virus, powdery mildew and leaf rust in wheat x *Thinopyrum* backcrosses. *Phytoprotection*: 85: 27-32.
- Shen X, Kong L, and Ohm H. 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.
- Bourdoncle W and H Ohm. 2003. Fusarium head blight-resistant wheat line 'Bizel' does not contain rye chromatin. *Plant Breeding* 122:281-282.
- Lu, HJ, R Bernardo, and HW Ohm. 2003. Mapping QTL for popping expansion volume in popcorn. *Theor. Appl. Genet.* 106:423-427.
- 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.
- Williams, CE, CC Collier, N Sardesai, HW Ohm and SE Cambron. 2003. Phenotypic assessment and mapped markers for *H31*, a new wheat gene conferring resistance to Hessian fly (*Diptera: Cecidomyiidae*). *Theor. Appl. Genet.* 107:1516-1523.
- Dweikat, I, W Zhang and H Ohm. 2002. Development of STS markers linked to Hessian fly resistance gene *H6* in wheat. *Theor. Appl. Genet.* 105:766-770.
- Francki, MG, WA Berzonsky HW Ohm, JM Anderson. 2002. Physical Location of a *HSP70* Gene Homologue on the Centromere of Chromosome 1B of Wheat (*Triticum aestivum* L.), *Theor. Appl. Genet.* 104:184-191.
- Ohm, H, J Anderson, H Sharma, L Ayala-Navarrete and D Bucholtz. 2002. Spring oat and soft winter wheat lines with BYDV resistance. In: *Intl. Symp. on BYDV Disease: Recent Advances & Future Strategies*. CIMMYT, El Batan, Mexico, Sept. 1-5. p. 58-59.
- Ratcliffe, RH, F L Patterson, SE Cambron and HW Ohm. 2002. Resistance in durum wheat sources to Hessian fly (*Diptera: Cecidomyiidae*) populations in eastern USA. *Crop Science* 42:1350-1356.
- Ratcliffe, RH, HW Ohm, and FL Patterson. 2002. Breeding wheat for resistance to insects: Hessian fly. In: J Janick (ed) *Plant Breeding Reviews* 22:247-260. John Wiley and Sons, Inc. New York.
- Sharma, H, Y Yang and H Ohm. 2002. An assessment of doubled haploid production in soft red winter wheat by wheat x corn wide crosses. *Cereal Research Communications* 30(3-4):269-275.
- Williams, C, D Bucholtz, J Anderson, S Goodwin and H Ohm. 2002. Disease resistance in wheat x wheatgrass (*Lophopyrum elongatum*) disomic substitution lines.

- Proceedings: Plant, Animal & Microbe Genome X:P373. San Diego, CA.  
[http://www.intl-pag.org/pag/10/abstracts/PAGX\\_P373.html](http://www.intl-pag.org/pag/10/abstracts/PAGX_P373.html).
- Francki, MG, HW Ohm, JM Anderson. 2001. Novel germplasm providing resistance to barley yellow dwarf virus in wheat, Aust. J. Agric. Res. 52:1375-1382.
- Bai G, R Plattner, G Shaner, and H Ohm. 2000. Molecular mapping of a QTL for deoxynivalenol tolerance in wheat. Theor. Appl. Genet. 100:1-8.
- Berzonsky WA and HW Ohm. 2000. Breeding cereal small grains for value-added uses. American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, 677 S. Segoe Rd., Madison, WI 53711, USA, Designing Crops for Added Value, Agronomy Monograph no. 40.
- Crasta OR, MB Francki, DB Bucholtz, HC Sharma, J Zhang, RC Wang, HW Ohm, and JM Anderson. 2000. Identification and characterization of wheat-wheatgrass translocation lines and localization of barley yellow dwarf virus resistance. Genome 43:698-706.
- Ohm HW, GE Shaner, RH Ratcliffe, DM Huber, H Sharma, KL Perry, GC Buechley, and SE Cambron. 2000. Registration of Goldfield wheat. Crop Sci 40:581-582.
- Ohm HW, VM Cook, GE Shaner, GC Buechley, H Sharma, KL Perry, RH Ratcliffe, and SE Cambron. 2000. Registration of Jay oat. Crop Sci 40:569.
- Perry KL, FL Kolb, B Sammons, C Lawson, G Cisar, and H Ohm. 2000. Yield effects of barley yellow dwarf virus in soft red winter wheat. Phytopathology 90:1043-1048.
- Ratcliffe RH, SE Cambron, KL Flanders, NA Bosque-Perez, SL Clement, and HW Ohm. 2000. Biotype composition of Hessian fly (*Diptera: Cecidomyiidae*) populations from the Southeastern, Midwestern, and North western United States and virulence to resistance genes in wheat. J. Econ. Entomol 93:1319-1328.
- Sharma H, O Benlhabib, and H Ohm. 2000. Anther culture and chromosome reduction in wheat x *Thinopyrum* wide crosses. Plant Cell, Tissue and Organ Culture 57:215-218.
- Sharma H, Z Jekkel, O Benlhabib, and H Ohm. 2000. Effect of concomitant ovule culture on anther culturability in wheat and wheat x wheatgrass backcrosses. Acta Agronomica Hungarica 47:377-382.