

## **CURRICULUM VITAE**

**Scott D. Haley, Ph.D.**

### **Contact**

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### **Education**

- 1992 Doctor of Philosophy, Colorado State University, Fort Collins, Colorado  
Agronomy, Specialization in Plant Breeding and Genetics  
*Dissertation:* Selection for chemical desiccation tolerance in winter wheat.
- 1989 Master of Science, Colorado State University, Fort Collins, Colorado  
Agronomy, Specialization in Plant Breeding and Genetics  
*Thesis:* Variation among winter wheats for traits associated with drought resistance.
- 1983 Bachelor of Science, Washington State University, Pullman, Washington  
Biology, Specialization in Botany

### **Employment History**

- 2021-present Professor Emeritus, Soil and Crop Sciences Department, Colorado State University  
2005-2020 Professor, Soil and Crop Sciences Department, Colorado State University  
1999-2005 Associate Professor, Soil and Crop Sciences Department, Colorado State University  
1997-1998 Associate Professor, Plant Science Department, South Dakota State University  
1993-1997 Assistant Professor, Plant Science Department, South Dakota State University  
1992-1993 Postdoctoral Fellow, Crop and Soil Sciences Department, Michigan State University  
1986-1991 Graduate Research Assistant, Department of Agronomy, Colorado State University  
1983-1985 U.S. Peace Corps Volunteer, Ouagadougou, Burkina Faso, West Africa

### **Sabbatical Leave Experiences**

- 2014 Visiting Scientist, John Innes Centre, Norwich, England (Uauy Lab, 3 months)  
2014 Visiting Scientist, University of Bologna, Bologna, Italy (Tuberosa Lab, 3 months)  
2006 Visiting Fellow, Leslie Research Ctr., Toowoomba, QLD, Australia (Sheppard Lab, 6 months)

### **Professional Accomplishments in Brief**

Scott Haley is a Professor Emeritus in the Department of Soil and Crop Sciences at Colorado State University. In 27 years as a public wheat breeder, he led teams responsible for the development and release of 39 improved winter wheat cultivars (35 at CSU, 4 at SDSU), two novel germplasm lines, and one patented herbicide tolerance technology (as co-developer). He has served as major professor for 13 M.S. and 9 Ph.D. students and as graduate committee member for an additional 10 M.S. and 15 Ph.D. students. He has authored or co-authored 3 refereed book chapters, 113 peer reviewed journal articles, and over 230 non-refereed abstracts, research/extension bulletins, or popular press articles.

He has provided many invited presentations, including 330 field day or grower meeting talks since 1993 and 54 presentations to scientific or industry audiences. He has also been active in undergraduate student mentoring and service for the wheat industry in Colorado, nationally, and internationally.

### Primary Research Accomplishments

- Deployed novel end-use quality traits in hard white wheat varieties Snowmass (2009), Sunshine (2014), Breck (2017), and Snowmass 2.0 (2018) for improved performance in whole-grain flour products (*Ultragrain High Performance™*, <https://www.ardentmills.com/products/ultragrain/hp/>)
- Identified novel, sequence-based DNA markers for resistance to the wheat curl mite, the vector of wheat streak mosaic and other viruses (Dhakal et al., 2018)
- Led development and release of first wheat varieties in the world carrying tolerance to quizalofop herbicide – *CoAXium™ wheat* (Incline AX, LCS Fusion AX, released 2017)
- Characterized genomic selection accuracy for pre-harvest sprouting tolerance (Moore et al., 2017) and winter injury of eastern European winter wheat germplasm resources (Beil et al., 2019)
- Co-leader of development of novel, patented wheat traits conferring tolerance to quizalofop herbicide – *CoAXium™ Wheat* (Ostlie et al., 2015; <http://coaxiumwps.com>)
- Led development and release of first publicly-developed “two-gene” winter wheat variety in the US with tolerance to imazamox herbicide – *Clearfield™ Wheat* (Brawl CL Plus, Haley et al., 2012)
- Identified DNA markers linked with major gene for resistance to wheat streak mosaic virus (Lu et al., 2012) and Russian wheat aphid biotype 2 (Valdez et al., 2011)
- Characterized virulence profile and resistant wheat germplasm sources for first new biotype of Russian wheat aphid identified in North America (Haley et al., 2004; Collins et al., 2005)
- Led development and release of first wheat varieties in the world with tolerance to imazamox herbicide – *Clearfield Wheat* (Above, Haley et al., 2003; AP 502 CL, Lazar et al., 2003)
- Characterized antioxidant and free-radical scavenging properties of wheat flours (Yu et al., 2002a, 2002b, 2003)
- Led development and release of wheat germplasm carrying the first wheat-based source of resistance to wheat streak mosaic virus (Haley et al., 2002)
- Developed a relational database system for reporting and summarization of wheat end-use quality data from the US hard winter wheat regional testing program (Haley et al., 1999)
- Developed novel strategies for identification and utilization of DNA markers linked to major disease resistance genes in common bean (Haley et al., 1994b, 1994c)
- Identified DNA markers for the *I* gene” (Haley et al., 1994a) and *bc-3* gene (Haley et al., 1994b) for resistance to bean common mosaic virus and the *Ur-5* gene (Haley et al., 1993) and *Ur-3* gene (Haley et al., 1994c) for resistance to bean rust

### Patents

Ostlie, M., S.D. Haley, P. Westra, V.A. Valdez. Acetyl co-enzyme A carboxylase herbicide resistant plants. U.S. Patent No. 9,578,880. Filing date 01/31/2012, publication date 02/28/2017.

Ostlie, M., P. Westra, S.D. Haley, V.A. Valdez. Herbicide tolerant wheat plants and methods for producing and identifying such plants. U.S. Provisional Patent Application No. 61,642,567. Filing date 05/04/2012, full patent application not submitted.

### Plant Variety Protection Certificates

Guardian hard red winter wheat. 2020. Plant Variety Protection Certificate No. 202100003.  
 Fortify SF hard red winter wheat. 2020. Plant Variety Protection Certificate No. 202100004.  
 Battle AX hard red winter wheat. 2019. Plant Variety Protection Certificate No. 201900406.  
 Byrd CL Plus hard red winter wheat. 2019. Plant Variety Protection Certificate No. 201900407.  
 Canvas hard red winter wheat. 2019. Plant Variety Protection Certificate No. 201900408.  
 Crescent AX hard red winter wheat. 2019. Plant Variety Protection Certificate No. 201900409.  
 Monarch hard white winter wheat. 2019. Plant Variety Protection Certificate No. 201900410.  
 Snowmass 2.0 hard white winter wheat. 2019. Plant Variety Protection Certificate No. 201900411.  
 Whistler hard red winter wheat. 2019. Plant Variety Protection Certificate No. 201900412.  
 Breck hard white winter wheat. 2018. Plant Variety Protection Certificate No. 201800521.  
 Incline AX hard red winter wheat. 2018. Plant Variety Protection Certificate No. 201800522.  
 LCS Fusion AX hard red winter wheat. 2018. Plant Variety Protection Certificate No. 201800523.  
 Langin hard red winter wheat. 2017. Plant Variety Protection Certificate No. 201700298.  
 Avery hard red winter wheat. 2016. Plant Variety Protection Certificate No. 201600244.  
 Sunshine hard white winter wheat. 2015. Plant Variety Protection Certificate No. 201500387.  
 Antero hard white winter wheat. 2013. Plant Variety Protection Certificate No. 201300476.  
 Cowboy hard red winter wheat. 2013. Plant Variety Protection Certificate No. 201300477.  
 LCS Mint hard red winter wheat. 2013. Plant Variety Protection Certificate No. 201300481.  
 Brawl CL Plus hard red winter wheat. 2012. Plant Variety Protection Certificate No. 201200434.  
 Byrd hard red winter wheat. 2012. Plant Variety Protection Certificate No. 201200432.  
 Denali hard red winter wheat. 2012. Plant Variety Protection Certificate No. 201200433.  
 Snowmass hard white winter wheat. 2010. Plant Variety Protection Certificate No. 201000432.  
 Thunder CL hard white winter wheat. 2009. Plant Variety Protection Certificate No. 200900400.  
 Bill Brown hard red winter wheat. 2008. Plant Variety Protection Certificate No. 200800327.  
 Ripper hard red winter wheat. 2007. Plant Variety Protection Certificate No. 200700302.  
 Bond CL hard red winter wheat. 2005. Plant Variety Protection Certificate No. 200500339.  
 Hatcher hard red winter wheat. 2005. Plant Variety Protection Certificate No. 200500340.  
 Protection hard red winter wheat. 2005. Plant Variety Protection Certificate No. 200500338.  
 Ankor hard red winter wheat. 2003. Plant Variety Protection Certificate No. 200300333.  
 AP 502 CL hard red winter wheat. 2003. Plant Variety Protection Certificate No. 200300044.  
 Above hard red winter wheat. 2002. Plant Variety Protection Certificate No. 200200206.  
 Avalanche hard white winter wheat. 2002. Plant Variety Protection Certificate No. 200200205.  
 Harding hard red winter wheat. 2001. Plant Variety Protection Certificate No. 200100268.  
 Tandem hard red winter wheat. 1998. Plant Variety Protection Certificate No. 9800369.  
 Crimson hard red winter wheat. 1998. Plant Variety Protection Certificate No. 9800368.

### Grants Funded (last 10 years) – \$7,083,828 total

#### *As Lead PI*

2019-2020 Wheat Breeding, Colorado Wheat Administrative Committee, \$368,776.  
 2018-2019 Wheat Breeding, Colorado Wheat Administrative Committee, \$276,000.  
 2015-2018 Multiple Rust-Resistant Wheat, USDA-ARS Cooperative Agreement, \$48,590.  
 2015-2018 Effect of Priaxor on Physiological, Metabolic, and Yield Components of Colorado Wheat, BASF Corporation, \$213,164.  
 2015-2017 Wheat Breeding - A Marker-Assisted Selected Program, Colorado Wheat Administrative Committee, \$120,120.

- 2015-2017 Research Associate in the Dept of Soil & Crop Sciences, Colorado Wheat Administrative Committee, \$33,340.
- 2015-2017 Quality Improvement Through the Milling and Baking Quality Evaluation of Colorado Wheat Varieties, Colorado Wheat Administrative Committee, \$53,340.
- 2015-2017 Northwest Colorado Winter Wheat Testing, Colorado Wheat Administrative Committee, \$6,000.
- 2015-2017 Development of Improved Quality, High Yield and Disease Resistant Winter Wheat Germplasm, Colorado Wheat Administrative Committee, \$276,900.
- 2015-2016 TILLING-Derived Human Health Traits, Colorado Wheat Administrative Committee, \$34,000.
- 2014-2015 Wheat Genetics Lab Renovation, Colorado Wheat Administrative Committee, \$35,598.
- 2010-2019 Wheat Breeder Salary, Colorado Wheat Administrative Committee, \$588,084.
- 2010-2015 Wheat Stem Rust Cooperative Research, USDA-ARS Cooperative Agreement, \$135,381.
- 2010-2015 Wheat Breeding - A Marker-Assisted Selected Program, Colorado Wheat Administrative Committee, \$290,300.
- 2010-2015 TILLING: Validation of TILLING - Derived Mutants & Transfer to Wheat Breeding Germplasm, Colorado Wheat Administrative Committee, \$473,412.
- 2010-2015 TILLING-derived Human Health Traits, Colorado Wheat Administrative Committee, \$68,000.
- 2010-2015 Research Associate in the Dept of Soil & Crop Sciences, Colorado Wheat Administrative Committee, \$83,350.
- 2010-2015 Quality Improvement Through the Milling and Baking Quality Evaluation of Colorado Wheat Varieties, Colorado Wheat Administrative Committee, \$133,350.
- 2010-2015 Drought and High Temperature Stress Tolerance Research, Colorado Wheat Administrative Committee, \$317,000.
- 2010-2015 Development of Improved Quality, High Yield and Disease Resistant Hard Red and Hard White Winter Wheat, Colorado Wheat Administrative Committee, \$308,500.
- 2010-2015 Crops Testing Program - Northwest Colorado Winter Wheat Testing, Colorado Wheat Administrative Committee, \$9,500.
- 2009-2011 Training Plant Breeders for the 21st Century, USDA-NRI, \$36,000.
- 2008-2011 Pre-emptive breeding for Russian wheat aphid resistance, Grains Research Development Corporation (Australia), \$126,200.
- 2008-2010 Development of Improved Quality, High Yield and Disease Resistant Hard Red and Hard White Winter Wheat, Colorado Wheat Administrative Committee, \$419,061.

*As Co-PI*

- 2019-2020 CRIPSR Cas9 and TILLING, Colorado Wheat Administrative Committee, Pearce PI, \$155,000.
- 2019-2020 Wheat Quality - Aroma and Sensory Traits, Colorado Wheat Administrative Committee, Heuberger PI, \$20,000.
- 2018-2019 CRIPSR Cas9 and TILLING, Colorado Wheat Administrative Committee, Pearce PI, \$193,000.
- 2017-2020 Nitrogen-Rich Strip: A Strategy for Profit-Maximizing Winter Wheat Yield and Grain Protein Improvement in Colorado, Colorado Wheat Research Foundation, Trujillo PI, \$45,732.
- 2017-2019 Wheat Scholar in Residence, CSU Office of Vice President for Research, Haley co-PI and Peairs co-PI, \$32,000.
- 2017-2019 Northwest Colorado Winter Wheat Testing, Colorado Wheat Administrative Committee, Keshavarz Afshar PI, \$4,000.

- 2016-2021 Validation, Characterization and Deployment of QTL for Grain Yield Components in Wheat, USDA-NIFA, Pearce PI, \$158,831.
- 2015-2018 Identification of Novel Broadleaf Herbicide Resistance Traits in Wheat, Colorado Wheat Research Foundation, Gaines PI, \$45,000.
- 2015-2017 TILLING: Validation of TILLING-Derived Mutants and Transfer to Wheat Breeding Germplasm, Colorado Wheat Administrative Committee, Pearce PI, \$548,412.
- 2014-2019 Plant breeding for improved water productivity, USDA-NIFA-National Needs Fellowships Grants Program, Byrne PI, \$223,200.
- 2014-2015 High Throughput Phenotyping for Wheat Breeding and Wheat-Related Research, Colorado Wheat Administrative Committee, Byrne PI, \$25,000.
- 2013-2019 Collaborative Research: Wheat Genetics Resource Center: A Public-Private Consortium, Byrne PI, \$306,000.
- 2012-2014 Integrating genomics, breeding, and physiology to improve understanding and prediction of wheat phenology in Colorado, Colorado Wheat Research Foundation, Byrne PI, \$10,000.
- 2011-2016 Improving barley and wheat germplasm for changing environments, USDA-NIFA, Byrne PI, \$608,974.
- 2010-2012 Evaluating CIMMYT Winter and Spring Wheat Germplasm as Sources of Drought Tolerance for the U.S. Great Plains, Texas A&M University, Byrne PI, \$156,796.
- 2009-2012 TILLING - a technology to create novel traits for wheat breeding, Colorado Wheat Research Foundation, Lapitan PI, \$29,034.
- 2008-2010 Miscellaneous Equipment Proposals, Colorado Wheat Research Foundation, Byrne and Moragues PI, \$25,383.
- 2008-2010 Developing ACCase (Select) resistant winter wheat for selective grass control, Colorado Wheat Research Foundation, Westra PI, \$37,500.
- 2008-2010 Continued support for collaborative on-farm testing, Colorado Wheat Research Foundation, Johnson PI, \$6,000.

### Publications Summary

Book chapters: 3	Google Scholar page: <a href="https://col.st/NgqMk">https://col.st/NgqMk</a>
Refereed journal articles: 113	Google Scholar citations: 6115 (2513 since 2015)
Abstracts and proceedings: 136	h-index: 39 (24 since 2015)
Extension/Experiment Station bulletins: 59	i10-index: 90 (58 since 2015)
Non-technical/popular press papers: 40	Last Updated: 12/16/2020

### Classroom Teaching

- 2012-2020 Advanced Plant Breeding – Methods (SOCR720A, 2 cr, alternating spring semesters)
- 2013-2019 Advanced Plant Breeding – Tools (SOCR720B, 2 cr, alternating spring semesters)
- 2001-2012 Plant Breeding Data Management (SOCR731, 1 cr, alternating fall semesters)
- 2000-2011 Advanced Plant Breeding (SOCR720, 4 cr, alternating spring semesters)
- 1999-2007 Plant Breeding (SOCR460, 3 cr, alternating spring semesters)
- 1999-2003 Plant Breeding Laboratory (SOCR461, 1 cr, alternating spring semesters)
- 1994-1998 Population/Quantitative Genetics (SDSU PS756, 3 cr, alternating spring semesters)
- 1996-1998 Crop Breeding Techniques (SDSU PS741, 1 cr, alternating summer semesters)
- 1991 Principles of Genetics (CSU AG330, 3 cr, summer term)

**Academic Advising and Mentoring**

MS theses supervised: 13

PhD dissertations supervised: 9

MS Advisory committees: 10

PhD advisory committees: 15

Post-doctoral scientists supervised: 4

Visiting scientists hosted: 4

Undergraduate Honors Thesis supervised: 2

Undergraduate students formally mentored: 7

**Leadership and Service***Professional Society*

2019-2021 Associate Editor, *Journal of Plant Registrations*, Crop Science Society of America  
 2016-2018 Associate Editor, *Journal of Plant Registrations*, Crop Science Society of America  
 2007-2009 Technical Editor, *Crop Science*, Crop Science Society of America  
 2000-2002 Associate Editor, *Crop Science*, Crop Science Society of America  
 1997-1999 Member, Crop Science Teaching Award Committee, Crop Science Society of America  
 1995-1997 Member, G.O. Mott Scholarship Committee, Crop Science Society of America

*Industry*

2014-present Board of Directors, Borlaug Training Foundation  
 2016-2022 Board of Directors, Wheat Quality Council  
 2018-2021 Member, Arcadia Biosciences Scientific Advisory Board  
 2002-2020 Board of Directors, Colorado Seed Growers Association  
 1993-2020 Member, Hard Winter Wheat Improvement Committee  
 2008 US Wheat Associates Wheat Quality Improvement Team to Central America  
 2005 US Wheat Associates Wheat Quality Improvement Team to Asia  
 2004-2005 Secretary, Hard Winter Wheat Quality Council  
 2004 Chair, North American Wheat Workers Workshop Organizing Committee  
 2003-2006 Member, National Karnal Bunt Advisory Committee  
 2003-2004 Vice-Chair, Hard Winter Wheat Quality Council  
 2001-2004 Chair, Hard Winter Wheat Improvement Committee  
 1998-2004 Member, National Wheat Improvement Committee

*Department/College*

2019-2020 Chair, Crop Quantitative Genomics Professor Search Committee  
 2018-2020 Faculty Adviser, CSU Undergraduate Agronomy Club  
 2017-2020 Member, Department Scholarship Awards Committee  
 1999-2020 Member, Agronomy Foundation Seed Committee  
 2017-2018 Chair, Crop Breeding and Genetics Professor Search Committee  
 2014-2016 Member, Soil and Crop Sciences Department Research Panel  
 2014-2015 Member, Principal Field Agronomist Search Committee  
 2014-2015 Chair, Crop Functional Genomics Professor Search Committee  
 2013 Member, Crop Physiology Professor Search Committee  
 2012 Chair, Soil and Crop Sciences Department Seminar Committee  
 2012 Chair, Colorado Seed Programs Director Search Committee  
 2010 Member, Soil and Crop Sciences Department Head Search Committee  
 2005-2010 Member, Soil and Crop Sciences Department Research Panel  
 2004-2011 Member, Soil and Crop Sciences Department Graduate Studies Panel  
 2004-2010 Member, College of Agriculture Web Committee (2004-2010)  
 2004 Member, Colorado Seed Programs Director Search Committee  
 2004 Chair, Soil and Crop Sciences Department Seminar Committee

2003-2010	Member, College of Agriculture Computer Technology Information Committee
2003	Member, Soil and Crop Sciences Department Head Search Committee
2002-2004	Member, Soil and Crop Sciences Department Research Panel
2001-2017	Member, WERA-1009 Regional Committee ( <i>Systems to Improve Wheat Quality</i> )
2001-2010	Member, Soil and Crop Sciences Department Internet Committee
2001-2004	Member, Soil and Crop Sciences Department Resident Instruction Panel
1997-1999	Secretary/Treasurer, SDSU Chapter Sigma Xi – The Scientific Research Society
1996-1997	Chair, SDSU Chapter Sigma Xi Program Committee
1996	Member, SDSU Plant Science Extension Forage Specialist Selection Committee
1995-1998	Chair, SDSU Plant Science Department Computer Utilization Committee
1995-1996	Chair, SDSU Chapter Sigma Xi Awards Committee
1995	Coordinator, SDSU Plant Science Department Plant Breeding Group
1994-1995	Member, SDSU Chapter Sigma Xi Awards Committee
1994	Member, SDSU Plant Science Department Space Allocation Committee
1994	Member, SDSU Plant Science Department Computer Utilization Committee

*Other*

2002	Ad Hoc Reviewer, USDA-SBIR Grant Program
2002	Ad Hoc Reviewer, USDA-NRI Grant Program
2002	Panel Member, Expert Site Review, USDA-ARS-NPA-USGMPRC (Manhattan KS)
1997	Ad Hoc Reviewer, USDA-SBIR Grant Program
1997	Ad Hoc Reviewer, USDA-NRI Grant Program
1996	Ad Hoc Reviewer, USDA-SBIR Grant Program
1996	Ad Hoc Reviewer, USDA-NRI Grant Program
1995	Ad Hoc Reviewer, USDA-SBIR Grant Program

**Invited Presentations**

2021	CIMMYT Basic Wheat Improvement Course, online presentation (April)
2021	Iowa State University, Department of Agronomy seminar series (March)
2020	Kansas State University, Department of Plant Pathology seminar series (November)
1999-2020	Colorado Wheat Field Days (June, annually)
2020	CIMMYT Basic Wheat Improvement Course, online presentation (March)
2020	Wheat Quality Council Annual Meeting (February)
2020	Pacific Northwest Wheat Quality Council annual meetings (January)
1999-2019	Colorado Seed Growers Association (December, annually)
2019	CIMMYT Basic Wheat Improvement Course, Ciudad Obregón, Mexico (March)
2019	Wyoming Wheat Growers Annual Meeting (January)
2018	MonoGram Network UK – Keynote Speaker, Norwich England (April)
2018	Eastern CO Crop Production Conference (December)
2018	Plainsman Research Center Annual Meeting (February)
2018	CIMMYT Basic Wheat Improvement Course, Ciudad Obregón, Mexico (March)
2017	CIMMYT Basic Wheat Improvement Course, Ciudad Obregón, Mexico (March)
2017	American Bakers Association (June)
2016	Colorado Wheat Winter County Election Meetings (January)
2016	Colorado Agricultural Summit (November)
2016	Achieving Durable Resistance to Wheat Diseases and Pests Symposium (November)
2015	CIMMYT Basic Wheat Improvement Course, Ciudad Obregón, Mexico (March)
2014	CSU Crop Clinic (November)

2014	CIMMYT Basic Wheat Improvement Course, Ciudad Obregón, Mexico (March)
2013	Wheat Quality Council Annual Meeting (February)
2013	Colorado Wheat Summit (February)
2012	Colorado Ag Classic Drought Panel (December)
2011	University of California-Davis Wheat Group (November)
2011	Korean Trade Team visit (June)
2010	Wyoming Wheat Growers Annual Meeting (December)
2010	Phillipine Trade Team visit (August)
2010	International Russian Wheat Aphid Workshop, Singapore (April)
2010	Department Seminar, Lerida, Spain (May)
2010	Cochran Scholars visit (June)
2009	Nigerian Trade Team visit (June)
2008	International Plant Resistance to Insects Worskhop (February)
2008	CSU Soil and Crop Sciences Departmental Seminar (April)
2007	Horticulture Departmental seminar (April)
2007	CSIRO-Canberra, Australia (October)
2006	Phillipine Trade Team visit (August)
2006	Japanese Trade Team visit (August)
2006	Colorado Farm Bureau (July)
2006	Department of Agriculture, Western Australia, Perth (May)
2006	University of Southern Queensland, Toowoomba, Australia (May)
2006	Camden Rust Lab, Cobbitty, Australia (April)
2006	Australian Winter Cereals Molecular Marker Program, Adelaide, Australia (February)
2005	CSU BSPM Departmental Seminar (April)
2005	Hard White Wheat Summit, Colby KS (January)
2005	CSU Extension Forum (September)
2004	Taiwan Trade Team visit (August)
2004	Departmental seminar, Crop and Soil Sciences Dept., Washington State (November)
2004	CSU Soil and Crop Sciences Departmental Seminar (March)
2004	Akron Maximum Economic Yield Group (March)
2003-2016	Colorado Wheat Planting Decision Meetings (August, annually)
2003	Western Society of Crop Science (June)
2002	Kansas State Fall Cereal Conference (August)
2002	Colorado Crop Consultants Association Annual Meeting (February)
2001	Hard Winter Wheat Workers Workshop (February)
2000	Colorado Wheat Winter County Election Meetings (January)
1999	Nebraska Crop Improvement Association Annual Meetings (March)
1997	South Dakota Crop Improvement Association District Meetings (January)
1997	South Dakota Crop and Pest Conference (March)
1995	South Dakota Crop Improvement Association District Meetings (January)
1994-1998	South Dakota Wheat Horizons Conference (December, annually)
1994	South Dakota Seed Trade Association (December)
1993-1998	South Dakota Field Plot Tours (June, annually)

### Awards and Recognitions

2020	Crop Science Research Award, Crop Science Society of America
2020	Outstanding Associate Editor, Journal of Plant Registrations
2019	Who's Who in Colorado Agriculture, Colorado Farm Bureau



- 2019 Innovative Excellence Award, Colorado State University Research Foundation
- 2018 Interdisciplinary Scholarship Team Award, CSU Vice President for Research
- 2016 Director-Wheat Research, Outreach, and Education Program PRSE, CSU OVPR
- 2014 Honored Researcher, Colorado State University Research Foundation
- 2010 CSU College of Agricultural Sciences Team Award
- 2010 Fellow, American Society of Agronomy
- 2010 Fellow, Crop Science Society of America
- 2010 Honored Researcher, Colorado State University Research Foundation
- 2010 Annual Miller's Award, Hard Winter Wheat Quality Council
- 2008 Annual Miller's Award, Hard Winter Wheat Quality Council
- 2001 Honored Researcher, Colorado State University Research Foundation
- 1999 Annual Miller's Award, Hard Winter Wheat Quality Council
- 1991 Gerald O. Mott Scholarship, Crop Science Society of America
- 1990 Faculty Memorial Award, CSU Department of Agronomy

### **Society and Honorary Affiliations**

- 2015 Member, National Association of Plant Breeders
- 1991 Member, Sigma Xi
- 1989 Member, Honor Society of Phi Kappa Phi
- 1987 Member, Honor Society of Agriculture, Gamma Sigma Delta
- 1986 Member, American Society of Agronomy
- 1986 Member, Crop Science Society of America

## Complete List of Publications

### *Book Chapters (3)*

Santra, M., H. Wang, S. Seifert, and **S.D. Haley**. 2017. Doubled haploid laboratory protocol for wheat using wheat-maize wide hybridization. *In* P.L. Bhalla and M.B. Singh (eds.) *Wheat Biotechnology: Methods and Protocols, Methods in Molecular Biology*, Vol. 1679. Springer Science+Business Media LLC. New York.

Berzonsky, W.A., H. Ding, **S.D. Haley**, M.O. Harris, R.J. Lamb, R.I.H. McKenzie, H.W. Ohm, F.L. Patterson, F.B. Peairs, D.R. Porter, R.H. Ratcliffe, and T.G. Shanower. 2002. Breeding wheat for resistance to insects. p. 221-296. *In* J. Janick (ed.) *Plant Breeding Reviews*, John Wiley & Sons, Hoboken, NJ.

Aggarwal, V.D., **S.D. Haley**, and F.E. Brockman. 1986. Present status of breeding cowpea for resistance to *Striga* at IITA. p. 176-180. *In* S.J. ter Borg (ed.) *Biology and control of Orobanche*, Wageningen, Netherlands.

### *Refereed Journal Articles (113)*

Peirce, E., D.M. Cockrell, L. Neward, P.J. Ode, F.B. Peairs, **S.D. Haley**, and P. Nachappa. 2021. A novel and efficient screening method to evaluate wheat stem sawfly (Hymenoptera: Cephidae) host selection and suitability. *J. Econ. Entomol.* (submitted)

Hildebrandt, C., **S.D. Haley**, C. Shelton, E.P. Westra, P. Westra, and T.A. Gaines. 2021. Crop safety and control of winter annual grasses in two-mutation quizalofop-resistant wheat varieties. *Agron J.* (submitted)

Nachappa, P., **S.D. Haley** and S. Pearce. 2020. Interactions between the wheat curl mite and wheat streak mosaic virus: resistance status and mechanisms. *Curr. Opin. Insect Sci.* 45:21-27.

Zhang, G., A.K. Fritz, **S.D. Haley**, Y. Li, G. Bai, R.L. Bowden, M.-S. Chen, Y. Jin, X. Chen, J.A. Kolmer, B.W. Seabourn, R.Y. Chen, and D.S. Marshall. 2020. Registration of 'KS Western Star' hard red winter wheat. *J. Plant Reg.* 15:140-146.

Munaro, L.B., E. DeWolf, **S.D. Haley**, A.K. Fritz, G. Zhang, L.A. Haag, A.J. Schlegel, J.T. Edwards, D. Marburger, P. Alderman, S.M. Jones-Diamond, J. Johnson, J.E. Lingenfelter, S.H. Unêda-Trevisoli, and R.P. Lollato. 2020. Exploring long-term variety performance trials to improve genotype, management, and environment recommendations: a case-study for winter wheat. *Field Crops Res.* 255:107848.

Lavergne, F.D., C.D. Broeckling, K. Brown, D.M. Cockrell, **S.D. Haley**, F. B. Peairs, S. Pearce, L.M. Wolfe, C.E. Jahn, and A.L. Heuberger. 2020. Differential stem proteomics and metabolomics profiles for four wheat cultivars in response to the insect pest Wheat Stem Sawfly. *J. Proteome Res.* 19:1037-1051.

Cockrell, D.M., T.L. Randolph, C.B. Walker, R. Sitz, **S.D. Haley**, and F.B. Peairs. 2020. Yield response of wheat lines carrying the *Dn4* and *Dn7* resistance genes to Russian wheat aphid biotype RWA2 (Hemiptera: Aphididae). *Soutwest. Entomol.* 45:369-379.

McMaster, G.S., D.A. Edmunds, R. Marquez, **S.D. Haley**, G.W. Buchleiter, P.F. Byrne, T.R. Green, R.H. Erskine, N.P. Lighthart, H. Kipka, F.A. Fox, L.E. Wagner, J. Tatarko, M. Moragues, and J.C. Ascough II. 2019. Winter wheat phenology simulations improve when adding responses to water stress. *Agron. J.* 111:2350-2360.

Beil, C.T., V.A. Anderson, A. Morgounov, and **S.D. Haley**. 2019. Genomic selection for winter survival ability among a diverse collection of facultative and winter wheat genotypes. *Mol. Breed.* 39:29.

Nyine, M., S. Wang, K. Kiani, K. Jordan, S. Liu, P. Byrne, **S.D. Haley**, P.S. Baenziger, S. Chao, R. Bowden, and E. Akhunov. 2018. Genotype imputation in winter wheat using first-generation haplotype map SNPs improves genome-wide association mapping and genomic prediction of traits. *G3 (Genes, Genomes, Genetics)* 9:125-133.

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