

CURRICULUM VITAE

NAME

Haley, Scott D

ADDRESS

Soil and Crop Sciences
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EDUCATION

1992 Ph D, Colorado State University

1989 MS, Colorado State University

1983 BS, Washington State University

SABBATICALS

(2005-2006) Leslie Research Centre, Toowoomba, Queensland, Six month sabbatical leave in Queensland, Australia

(2013-2014) University of Bologna, John Innes Centre, Six month sabbatical leave in Europe (3 months in Bologna Italy at University of Bologna and 3 months in Norwich UK at John Innes Centre)

OTHER POSITIONS

2005 - Present Professor, Colorado State University.

1999 - 2005 Associate Professor, Colorado State University.

1997 - 1998 Associate Professor, South Dakota State University.

1993 - 1997 Assistant Professor, South Dakota State University.

1992 - 1993 Postdoctoral Research Associate, Michigan State University.

PUBLISHED WORKS

Refereed Journal Articles

Becker, S. R., Byrne, P. F., Reid, S. D., Bauerle, W. L., McKay, J. K., Haley, S. D. (2016). Root traits contributing to drought tolerance of synthetic hexaploid wheat in a greenhouse study. *Euphytica*, 207(1), 213-224.

Haley, S. D., Peairs, F. B., Johnson, J. J. Registration of CO08RWA050 wheat germplasm resistant to Russian wheat aphid. *Journal of Plant Registrations*.

- Ostlie, M., Haley, S. D., Anderson, V. A., Shaner, D., Manmathan, H. K., Beil, C. T., Westra, P. (2015). Development and characterization of mutant winter wheat (*Triticum aestivum* L.) accessions resistant to the herbicide quizalofop. *Theoretical and Applied Genetics*, 128(2), 343-351. <Go to ISI>://WOS:000348447600014
- Byrne, P. F., El-Feki, W., Reid, S. D., Haley, S. D. (2015). Registration of CO940610/'Platte' Wheat Doubled Haploid Mapping Population. *Journal of Plant Registrations*, 9, 419-423.
- Grogan, S. M., Haley, S. D., McMaster, G., Reid, S. D., Byrne, P. F. Allelic Variation in Developmental Genes and Effects on Winter Wheat Heading Date in the U.S. Great Plains. *PLOS ONE*.
- Grogan, S. M., Haley, S. D., McMaster, G., Reid, S. D., Byrne, P. F. Phenotypic plasticity of winter wheat heading date and grain yield across the U.S. Great Plains. *Crop Science*.
- Haley, S. D., Johnson, J. J., Peairs, F. B. (2014). Registration of 'Antero' wheat. *Journal of Plant Registrations*, 8, 165-168.
- Haley, S. D., Johnson, J. J., Peairs, F. B. (2014). Registration of 'Cowboy' wheat. *Journal of Plant Registrations*, 8, 169-172.
- Lopez-Vera, E., Nelson, S., Singh, S., Basnet, B., Singh, R., Haley, S. D., Rouse, M., Bhavani, S., Huerta-Espino, J. (2014). Resistance to Ug99 stem rust in six bread wheat cultivars maps to chromosome arm 6DS. *Theoretical and Applied Genetics*, 127, 231-239.
- Anderson, V. A., Haley, S. D., Peairs, F. B., van Eck, L., Leach, J. E., Lapitan, N. L. (in press). Virus-induced gene silencing suggests that (1,3;1,4)- β -glucanase is a susceptibility factor in compatible Russian wheat aphid – wheat Interactions. *Mol. Plant Microbe Interact.*
- Mortensen, R., Parsons, J., Pendell, D. L., Haley, S. D. (2013). Wheat variety selection: an application of portfolio theory in Colorado. *Western Economic Forum*, 11, 11-21.
- (2012). Consensus-mapping and identification of markers for marker-assisted selection of Wsm2 in wheat. *Crop Sci*, 52, 720-728.
- (2012). Inheritance and genetic mapping of Russian wheat aphid resistance in Iranian landrace accession PI 626580 2011. *2011 Crop Sci*, 52, 676-682.
- (2012). QTL mapping for end-use quality traits in hard winter wheat under contrasting soil moisture levels. *Crop Sci (submitted, in review)*.
- (2012). Registration of 'Brawl CL Plus' wheat. *J Plant Reg*, 6, 306-310.
- (2012). Registration of 'Byrd' wheat. *J Plant Reg*, 6, 302-305.
- (2012). Registration of 'Cowboy' wheat. *J Plant Reg (submitted, in review)*.
- (2012). Registration of 'Denali' wheat. *J Plant Reg*, 6, 311-314.
- (2011). Inheritance of Russian wheat aphid resistance from tetraploid wheat accessions during transfer to hexaploid wheat. *Euphytica*, 179, 247-255.
- (2011). Registration of 'Snowmass' wheat. *J Plant Reg*, 5, 4-Jan.

- (2011). Registration of six wheat-rye addition lines resistant to the Russian wheat aphid. *J Plant Reg*, 5, 426–429.
- (2010). Glutenin allelic variation and 1AL 1RS effects on dough mixing properties of wheat grown in irrigated and rainfed environments. *Euphytica*, 176, 357-369.
- Zheng, S., Byrne, P. F., Haley, S. D., Shan, X., Reid, S. D. (2010). Glutenin allelic variation and 1AL 1RS effects on dough mixing properties of wheat grown in irrigated and rainfed environments. *Euphytica*, 176, 357-369.
- (2010). Population- and genome-specific patterns of linkage disequilibrium and SNP variation in spring and winter wheat (*Triticum aestivum* L). *BMC Genomics*.
- (2009). Association analysis reveals effects of wheat glutenin alleles and rye translocations on dough-mixing properties. *J Cereal Sci*, 50, 283-290.
- (2009). Microsatellite-based molecular diversity of bread wheat germplasm and association mapping of wheat resistance to the Russian wheat aphid. *Genetica*, 135, 95-122.
- (2009). Molecular cytogenetic and agronomic characterization of advanced generations of wheat x triticale hybrids resistant to *Diuraphis noxia* (Mordvilko). *Genome*, 52, 353-360.
- (2009). Registration of 'Thunder CL' Wheat. *J Plant Regist*, 3, 181-184.
- (2008). Biotypic diversity in Colorado Russian wheat aphid (Hemiptera). *J Econ Entomol*, 101, 569-574.
- (2008). Color image based sorter for separating red and white wheat. *Sens & Instrumen Food Qual*, 2, 280-288.
- (2008). Registration of 'Alice' Wheat. *J Plant Regist*, 2, 110-114.
- (2008). Registration of 'Bill Brown' Wheat. *J Plant Regist*, 2, 218-223.
- (2008). Registration of 'Darrell' Wheat. *J Plant Regist*, 2, 115-119.
- (2007). Molecular mapping of the Russian wheat aphid resistance gene Dn2414 in wheat. *Crop Sci*, 47, 2418-2429.
- (2007). Registration of 'Ripper' Wheat. *J Plant Regist*, 1, 6-Jan.
- (2007). Resistance to *Rhopalosiphum padi* (Homoptera: Aphididae) in triticale and triticale-derived wheat lines with resistance to *Diuraphis noxia* (Homoptera: Aphididae). *J Entomol Sci*, 42, 217-227.
- (2007). Trait associations at the Xgwm 261 and Rht-B1 loci in two winter wheat recombinant inbred line populations. *Crop Sci*, 47, 2346-2355.
- (2007). Variation for glutenin and waxy alleles in the US hard winter wheat germplasm. *J Cereal Sci*, 45, 199-208.
- (2006). Biotypic variation among North American Russian wheat aphid (Homoptera). *J Econ Entomol*, 99, 1862-1866.
- (2006). Registration of 'Bond CL' wheat. *Crop Sci*, 46, 993-995.
- (2006). Registration of 'protection' wheat. *Crop Sci*, 46, 995-996.

- (2006). Registration of 'Wendy' wheat. *Crop Sci*, 46, 1389-1390.
- (2006). Response of resistant and susceptible barley to infestations of five *Diuraphis noxia* (Homoptera). *J Econ Entomol*, 99, 2151-2155.
- (2006). Temperature sensitivity and efficacy of Wheat streak mosaic virus resistance derived from CO960293 wheat. *Plant Dis*, 90, 623-628.
- (2005). Agronomic performance of Rht alleles in a spring wheat population across a range of moisture levels. *Crop Sci*, 45, 939-947.
- Butler, J. D., Byrne, P. F., Mohammadi, V., Chapman, P. L., Haley, S. D. (2005). Agronomic performance of Rht alleles in a spring wheat population across a range of moisture levels. *Crop Sci*, 45, 939-947.
- (2005). Biotype 2 Russian wheat aphid resistance among wheat germplasm accessions. *Crop Sci*, 45, 1877-1880.
- (2005). Comparison of Dn4- and Dn7-carrying spring wheat genotypes artificially infested with Russian wheat aphid (Homoptera). *J Econ Entomol*, 98, 1698-1703.
- (2005). Registration of 'Hatcher' wheat. *Crop Sci*, 45, 2654-2656.
- (2005). Yield response and categories of resistance to Russian wheat aphid in four Dn4 hard red winter wheat cultivars. *J Econ Entomol*, 98, 588-594.
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- (2004). Generation means analysis of wheat streak mosaic virus resistance in winter wheat. *Euphytica*, 139, 133-139.
- (2004). Occurrence of a new Russian wheat aphid biotype in Colorado. *Crop Sci*, 44, 1589-1592.
- (2004). Registration of 'Ankor' wheat. *Crop Sci*, 44, 1025-1026.
- (2004). Registration of 'Expedition' wheat. *Crop Sci*, 44, 1470-1471.
- (2003). Above winter wheat. *Can J Plant Sci*, 83, 107-108.
- (2003). AP502 CL winter wheat. *Can J Plant Sci*, 83, 109-110.
- (2003). GPFARM plant model parameters. *T Asae*, 46, 1337-1346.
- (2003). Registration of 'Avalanche' wheat. *Crop Sci*, 43, 432-432.
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- (2002). Repeatability of assays for seedling septoria tritici blotch resistance in winter wheat. *Cereal Res Commun*, 30, 157-163.
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- (2001). Registration of 'Prowers 99' Wheat. *Crop Sci*, 41, 929-929.
- (2000). Registration of 'Harding' wheat. *Crop Sci*, 40, 1500-1501.
- (2000). Repeatability and genotype x environment interaction of coleoptile length measurements in winter wheat. *Crop Sci*, 40, 1233-1237.
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- (1999). Resistance to *Rhopalosiphum padi* (Homoptera). *J Econ Entomol*, 92, 1234-1238.
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- (1998). Methodology for evaluation of chemical desiccation tolerance in winter wheat. *Cereal Res Commun*, 26, 73-79.
- (1998). Registration of 'Crimson' wheat. *Crop Sci*, 38, 1722-1722.
- (1998). Registration of 'Tandem' wheat. *Crop Sci*, 38, 1721-1721.
- (1998). Registration of 'Windstar' wheat. *Crop Sci*, 38, 894-895.
- (1997). Registration of 'Pronghorn' wheat. *Crop Sci*, 37, 1006-1006.
- (1996). Large-scale production of murine bone marrow cells in an airlift packed bed bioreactor. *Biotechnol Bioeng*, 50, 514-520.
- (1996). Registration of 'Nekota' wheat. *Crop Sci*, 36, 803-804.
- (1995). Pyramiding Genes for Resistance to Bean Common Mosaic-Virus. *Euphytica*, 82, 207-212.
- (1994). Registration of Raven Black Bean. *Crop Sci*, 34, 1406-1407.
- (1994). Selection for Monogenic Pest Resistance Traits with Coupling-Phase and Repulsion-Phase Rapd Markers. *Crop Sci*, 34, 1061-1066.
- (1993). Early-Generation Selection for Chemical Desiccation Tolerance in Winter-Wheat. *Crop Sci*, 33, 1217-1223.

Non-Refereed Journal Articles

- Cooper, J. K., Manmathan, H. K., Haley, S. D., Poland, J., Morris, C. Genomic prediction for end-use quality in hard winter wheat. *Molecular Breeding*.
- Haley, S. D. Genotypic differences for nitrogen use efficiency and grain protein deviation in hard winter wheat. *Agronomy Journal*.
- Haley, S. D., Johnson, J. J., Peairs, F. B. Registration of 'Avery' wheat. *Journal of Plant Registrations*.
- Cooper, J. K., Haley, S. D., Manmathan, H. K., Poland, J., Morris, C. Genomic selection models for pre-harvest

- sprouting tolerance are improved by weighting QTL identified via genome-wide association. *Molecular Breeding*.
- Manmathan, H. K., Jahn, C. E., Haley, S. D. TILLING-by-Sequencing – an efficient method to screen induced mutants in wheat. *Plant Methods*.
- Cooper, J. K., Haley, S. D., Poland, J., Morris, C. (in press). End-Use Quality and Agronomic Characteristics Associated with the Glu-B1a1 High Molecular Weight Glutenin Allele in U.S. Hard Winter Wheat. *Crop Science*.
- Manmathan, H. K., Haley, S. D. Relative wheat SNP order from linkage disequilibrium estimates between SNPs and assembly of bins for use in genomic selection and genome-wide association studies. *Genes, Genomes, Genetics*.
- Haley, S. D., Johnson, J. J., Peairs, F. B. Registration of 'Sunshine' wheat. *Journal of Plant Registrations*.
- Ostlie, M., Haley, S. D., Manmathan, H. K., Westra, P. (2015). Development and characterization of mutant winter wheat (*Triticum aestivum* L.) accessions resistant to the herbicide quizalofop. *Theoretical and Applied Genetics*.
- Victoria, V., Haley, S. D., Peairs, F. B., Leach, J. E., Lapitan, N. L. (2014). Virus-induced gene silencing suggests that (1,3;1,4)- β -glucanase is a susceptibility factor in the compatible Russian wheat aphid-wheat interaction. *Mol. Plant-Microbe Int*, 27, 913-922.
- Liu, S., Rudd, J., Bai, G., Haley, S. D., Ibrahim, A., Xue, Q., Hays, D., Graybosch, R., Devkota, R., St. Amand, P. (2014). Molecular markers linked to genes important for hard winter wheat production and marketing in The U.S. Great Plains. *Crop Science*, 54, 1304-1321.
- Edae, E., Byrne, P. F., Haley, S. D., Lopes, M., Reynolds, M. (2014). Genome wide association mapping of yield and yield components of spring wheat under contrasting moisture regimes. *Theoretical and Applied Genetics*, 127, 791-807.
- Edae, E., Byrne, P. F., Manmathan, H. K., Haley, S. D., Moragues, M., Lopes, M., Reynolds, M. (2013). Association mapping and nucleotide sequence variation in five drought tolerance candidate genes in spring wheat. *The Plant Genome*, 6(2). doi:10.3835/plantgenome2013.04.0010
- El-Feki, W., Byrne, P. F., Reid, S. D., Lapitan, N. L., Haley, S. D. (2013). Quantitative trait locus mapping for end-use quality traits in hard winter wheat under contrasting soil moisture levels. *Crop Science*, 53, 1953-1967.
- Johnson, J. J., Haley, S. D. (2013). 2013 Collaborative On-Farm Test (COFT) results. *Colorado Wheat Farmer*, 55(3), 2.
- Johnson, J. J., Haley, S. D. (2013). 2013 eastern Colorado winter wheat variety performance trials. *Colorado Wheat Farmer*, 55(3), 3.
- Johnson, J. J., Haley, S. D. (2013). Winter wheat variety selection in Colorado for Fall 2013 planting. *Colorado Wheat Farmer*, 55(3), 7.
- (2009). 2008 Colorado Winter Wheat Variety Performance Trial Results. *Plainsman Research Center 2008 Research Reports Colorado State University Agric Exp Stn Technical Report TR 09-01. January 2009*.
- (2009). Making better decisions, 2009 Colorado winter wheat performance trials, 2009 Colorado certified seed

directory. *High Plains Journal* - Aug 2009.

- Haley, S. (2014). *Colorado's Wheat Industry and CSU Wheat Breeding – A Partnership that Works* (3rd ed., vol. 8-10, pp. 8-10). Colorado State University Southeast Area Extension Farm and Ranch Newsletter. http://www.extension.colostate.edu/SEA/Farm_&_Ranch_Newsletter/2014/Farm_Ranch_July_2014.pdf
- (2012). *2012 Collaborative On-Farm Test (COFT) results* (3rd ed., vol. 54, pp. 6). Colorado Wheat Farmer - Summer 2012.
- (2012). *2012 eastern Colorado winter wheat variety performance trials* (3rd ed., vol. 54, pp. 3). Colorado Wheat Farmer - Summer 2012.
- (2012). *Active sensing for rapid evaluation of apparent nitrogen use efficiency in winter wheat genotypes*. Agronomy abstracts ASA, Madison, WI.
- (2012). *Advancement of wheat breeding with genomics-assisted technologies: SNP-based trait mutations to genome-wide selections*. Proc. Borlaug Global Rust Initiative Technical Workshop, Beijing, September 2012.
- (2012). *Apparent nitrogen use efficiency for multiple wheat genotypes across dryland and irrigated cropping systems*. 11th Int Conf Prec Agric Indianapolis, July 2012.
- (2012). *Association mapping for drought tolerance traits in spring wheat grown under rainfed and irrigated conditions*. In Agronomy abstracts ASA, Madison, WI.
- (2012). *Can Active Sensor Based NDVI Consistently Classify Wheat Genotypes?*. 11th Int Conf Prec Agric Indianapolis, July 2012.
- (2012). *Gene discovery and pre-breeding in cereals for broad resistance against insects adaptable to variable environments*. Plant Animal Genome Conference, San Diego, January 2012.
- (2012). *Making better decisions, 2012 Colorado winter wheat performance trials, 2012 Colorado certified seed directory*. High Plains Journal - August 2012.
- (2012). *Making Better Decisions, 2012 Colorado Winter Wheat Variety Performance Trials*. Colorado State University Agric Exp Stn Technical Report TR 12-11, August.
- (2012). *Uncertainty in plant traits: integrating crop water deficit field experiments with crop modeling*. Agronomy abstracts ASA, Madison, WI.
- (2012). *Winter wheat variety selection in Colorado for Fall 2012 planting* (3rd ed., vol. 54, pp. 8). Colorado Wheat Farmer - Summer 2012.
- (2011). *2011 Collaborative On-Farm Test (COFT) results* (3rd ed., vol. 53, pp. 10). Colorado Wheat Farmer - Summer 2011.
- (2011). *2011 eastern Colorado winter wheat variety performance trials* (3rd ed., vol. 53, pp. 3). Colorado Wheat Farmer - Summer 2011.
- (2011). *Active remote sensing for rapid evaluation of apparent nitrogen use efficiency in winter wheat (*Triticum aestivum* L) genotypes* (pp. 533-543). Proceedings of the 8th European Conference on Precision Agriculture, Prague, Czech Republic, July 11-14,.

- (2011). *Active sensor based evaluation of multiple wheat genotypes across dryland and irrigated cropping systems*. Agronomy abstracts ASA, Madison, WI.
- (2011). *Development and validation of diagnostic markers for wheat stress traits in the Great Plains of North America*. Plant Animal Genome Conference, San Diego, January 2011.
- (2011). *Gene discovery and molecular pre-breeding for insect resistance in wheat and barley*. Plant Animal Genome Conference, San Diego, January 2011.
- (2011). *High-throughput method to measure seminal root angle in winter wheat*. Agronomy abstracts ASA, Madison, WI.
- (2011). *Identification and validation of molecular markers for marker- assisted selection of Wsm2 in wheat*. Plant Animal Genome Conference, San Diego, January 2011.
- (2011). *Making Better Decisions, 2011 Colorado Winter Wheat Variety Performance Trials*. Colorado State University Agric Exp Stn Technical Report TR 11-07, August 2011.
- (2011). *Molecular mapping of Wsm2 for wheat streak mosaic virus resistance in winter wheat line CO960293-2*. Plant Animal Genome Conference, San Diego, January 2011.
- (2011). *Winter wheat variety selection in Colorado for Fall 2011 planting* (3rd ed., vol. 53, pp. 11). Colorado Wheat Farmer - Summer 2011.
- (2010). *2010 Collaborative On-Farm Test (COFT) results* (3rd ed., vol. 52, pp. 6). Colorado Wheat Farmer - Summer 2010.
- (2010). *2010 Colorado winter wheat variety performance trial results*. Agronomy News, From the Ground Up: Extension Newsletter, Vol 29, Issue 5, p 3-22 Soil and Crop Sciences Dep, Colorado State Univ, August 2010.
- (2010). *2010 Eastern Colorado winter wheat variety performance trials* (3rd ed., vol. 52, pp. 3). Colorado Wheat Farmer - Summer 2010.
- (2010). *Assessment of genetic variation in spring and winter wheat populations using Illumina high-throughput SNP genotyping assay*. Agronomy abstracts ASA, Madison, WI.
- (2010). *Development and characterization of six wheat-rye addition lines resistant to the Russian wheat aphid (Diuraphis noxia, Mordvilko)*. Agronomy abstracts ASA, Madison, WI.
- (2010). *Dryland Winter Wheat Variety Performance Trials at Yellow Jacket, Colorado (2005-2009 Results)*. Southwestern Colorado Research Center Research Report (2005-2009) Colorado State Univ Agric Exp Stn Technical Report TR 10-06, pp 22-31 July 2010.
- (2010). *Identification of a soil- borne wheat mosaic virus resistance QTL and its effect on multiple agronomic and end-use quality traits*. Plant Animal Genome Conference, San Diego, January 2010.
- (2010). *Improving drought stress tolerance in wheat: a grand challenge for the 21st century*. Proc Hard Winter Wheat Workers Workshop, Lincoln, NE, March, 2010.
- (2010). *Integrating genomics, physiology, and field experiments for modeling crop water deficits in winter wheat*. Agronomy abstracts ASA, Madison, WI.

- (2010). *Irrigated Spring Wheat, Oat, and Barley Variety Performance Trials at Yellow Jacket, Colorado (2005-2006 Results)*. Southwestern Colorado Research Center Research Report (2005- 2009) Colorado State Univ Agric Exp Stn Technical Report TR 10-06, pp 32-38 July 2010.
- (2010). *Making Better Decisions, 2010 Colorado Winter Wheat Variety Performance Trials*. Colorado State Univ Agric Exp Stn Technical Report TR 10-08, August 2010.
- (2010). *Phenotypic evaluation of a spring wheat association mapping panel targeted to identification of heat and drought tolerance genes*. Agronomy abstracts ASA, Madison, WI.
- (2010). *QTL detection for bread making quality and agronomic traits in a winter wheat mapping population*. Agronomy abstracts ASA, Madison, WI.
- (2010). *QTL mapping for bread making quality and agronomic traits in winter wheat under different soil moisture levels*. Plant Animal Genome Conference, San Diego, January 2010.
- (2010). *Russian wheat aphid resistance breeding in winter wheat current status*. Proc Intl Plant Res to Insects-18th biennial workshop, Feb 10-Mar 13, 2008, Fort Collins, CO.
- (2010). *Safeguarding world wheat and barley production against Russian wheat aphid: an international pre-breeding initiative*. Plant Animal Genome Conference, San Diego, January 2010.
- (2010). *Validation of molecular markers associated with pre-harvest sprouting tolerance in a winter wheat (*Triticum aestivum* L) doubled haploid population*. Plant Animal Genome Conference, San Diego, January 2010..
- (2010). *Virus-induced gene silencing for durable Russian wheat aphid resistance in wheat*. Plant Animal Genome Conference, San Diego, January 2010.
- (2010). *Virus-induced gene silencing for durable Russian wheat aphid resistance in wheat*. Proc Hard Winter Wheat Workers Workshop, Lincoln, NE, March, 2010.
- (2010). *Water availability and winter wheat yield in eastern Colorado*. Proc Hard Winter Wheat Workers Workshop, Lincoln, NE, March, 2010.
- (2010). *Winter wheat variety selection in Colorado for fall 2010* (3rd ed., vol. 52, pp. 8). Colorado Wheat Farmer.
- (2009). *2008 Colorado Winter Wheat Variety Performance Trial Results* (vol. 11, pp. 27-46). Colorado State University Cooperative Extension Golden Plains Area Agricultural Handbook 2009.
- (2009). *2009 Collaborative On-Farm Test (COFT) Results* (3rd ed., vol. 51, pp. 4). Colorado Wheat Farmer - Summer 2009.
- (2009). *2009 Colorado Winter Wheat Variety Performance Trial Results* (3rd ed., vol. 28). Agronomy News, From the Ground Up Extension Newsletter, Soil and Crop Sciences Department, Colorado State University.
- (2009). *2009 Eastern Colorado Winter Wheat Variety Performance Trials* (3rd ed., vol. 51, pp. 3). Colorado Wheat Farmer - Summer 2009.
- (2009). *CSU winter wheat drought tolerance research program*. WSCS Annual meeting, 22-24 June, 2009, Fort Collins, CO.
- (2009). *Development of molecular markers and pre-emptive breeding for resistance to Russian wheat aphid in*

- wheat and barley: an international collaboration*. Plant Animal Genome Conference, San Diego, January 2009.
- (2009). *Integrating field experiments on crop water deficits with crop modeling*. Agronomy abstracts ASA, Madison, WI.
- (2009). *Making Better Decisions, 2009 Colorado Winter Wheat Variety Performance Trials*. Colorado State University Agric Exp Stn Technical Report TR 09-05 August 2009.
- (2009). *QTL detection for bread making quality traits in a doubled haploid winter wheat population*. WSCS Annual meeting, 22-24 June, 2009, Fort Collins, CO.
- (2009). *Remote sensors to estimate winter wheat growth*. Agronomy abstracts ASA, Madison, WI.
- (2009). *The WheatCAP project delivers genomic resources for improved wheat breeding*. Plant Animal Genome Conference, San Diego, January 2009.
- (2009). *The WheatCAP project: genomics for applied plant breeding*. Agronomy abstracts. ASA, Madison, WI.
- (2009). *Virus-induced gene silencing for RWA resistance in wheat*. WSCS Annual meeting, 22-24 June, 2009, Fort Collins, CO.
- (2009). *Winter Wheat Variety Selection in Colorado for Fall 2009* (3rd ed., vol. 51, pp. 5). Colorado Wheat Farmer - Summer 2009.
- (2009). *Winter wheat yield formation as affected by water availability in Colorado*. Agronomy abstracts ASA, Madison, WI.
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- (2008). *Displacement of Russian wheat aphid, Diuraphis noxia (Kurdjumov), Biotype 1 in Colorado by Russian wheat aphid biotypes virulent to the wheat resistance gene Dn4*. Colorado State University Agric Exp Stn Technical Report TB09-01.
- (2008). *Introgression of Russian wheat aphid resistance from tetraploid wheat germplasm*. Proc Intl Plant Res to Insects- 18th biennial workshop, Feb 10-Mar 13, 2008, Fort Collins, CO.
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University Agric Exp Stn Technical Report TR 08-08 May.

- (2008). *Making Better Decisions, 2008 Colorado Winter Wheat Variety Performance Trials*. Colorado State University Agric Exp Stn Technical Report TR 08-11.
- (2008). *Pre-breeding for resistance to Russian Wheat Aphid, Diuraphis noxia, in wheat and barley in Australia: germplasm characterization against multiple biotypes*. Intl. Congress Entomol, Durban, South Africa, July 2008.
- (2008). *Small Grain Performance Tests at Hayden, Colorado 2007* (pp. 31-33). Western Colorado Research Center 2007 Research Report Colorado State University, Agricultural Experiment Station and Extension, Technical Report TR08-10 Fort Collins, Colorado.
- (2008). *Validation of molecular markers for pre-harvest sprouting tolerance in winter wheat (Triticum aestivum L)*. Plant Animal Genome Conference, San Diego, January 2008.
- (2008). *WheatCAP: Bringing Genomics to the Wheat Fields*. VIII International Oat Conference, Minneapolis MN, June 28 - July 2, 2008.
- (2008). *Winter wheat variety performance trial at Fruita, Colorado 2007* (pp. 36-39). Western Colorado Research Center Research Report 2007 Colorado State University, Agricultural Experiment Station and Cooperative Extension, Technical Report TR08-10 Fort Collins, Colorado.
- (2008). *Winter Wheat Variety Selection in Colorado for Fall 2008* (3rd ed., vol. 50, pp. 5). Colorado Wheat Farmer.

AES Report/Bulletin

- Johnson, J., Haley, S., Meyer, R., Trujillo, W., Kaan, D., Sauer, S., Asfeld, E., Hain, J., Bosley, B., Bartolo, M., Larson, K., Vigil, M., Pettinger, B., Tanabe, K., Novak, R. (2015). *Making Better Decisions, 2015 Colorado Winter Wheat Variety Performance Trials* (Technical Report TR 15-06 ed.). Colorado State University Agric. Exp. Stn..
- Jahn, C., Heuberger, A., Cockrell, D., Manmathan, H., Randolph, T., Haley, S., Peairs, F., Broeckling, C. (2015). *Bringing the lab to the field – how plant biochemistry can improve wheat* (Technical Report, Wheat Field Days Edition ed.). Colorado State University Agric. Exp. Stn..
- Stromberger, J., Johnson, J., Haley, S. (2015). *Wheat quality evaluations from the 2014 CSU dryland and irrigated variety trials* (Technical Report, Wheat Field Days Edition ed.). Colorado State University Agric. Exp. Stn..
- Pearson, C. H., Haley, S. D. (2015). Winter Wheat Variety Performance Trial at Craig, Colorado. *Western Colorado Research Center 2014 Research Report* (vol. TR15-03, pp. 41-44). Colorado Agricultural Experiment Station.
- Larson, K., Pettinger, B. T., Johnson, J. J., Haley, S. D., Sauer, S. M. (2015). *Plainsman Research Center 2014 research reports. Technical Report TR15-02* (TR15-2 ed., pp. 86). Fort Collins: CAS, AES, Extension, Dept. of Soil and Crop Sciences.
- Johnson, J. J., Haley, S. D., Bartolo, M. E., Larson, K., Vigil, M., Bosley, B., Meyer, R., Trujillo, W., Sauer, S. M., Hain, J., Davidson, J. W., Randolph, T. L., Peairs, F. B., Jahn, C. E., Novak, R. A., Davis, J. G., Mostek, G. (2014). *Making better decisions: 2014 Colorado wheat variety performance trials*. (TR14-8 ed., pp. 51). Fort Collins, CO: Colorado Agricultural Experiment Station.

Larson, K., Pettinger, B. T., Harn, D., Johnson, J. J., Haley, S. D., Trujillo, W., Jahn, C. E., Sauer, S. M. (2014). *Plainsman Research Center 2013 Research Reports* (TR14-2 ed.). Colorado Agricultural Experiment Station, CSU. webdoc.agsci.colostate.edu/aes/PRC/pubs/tr14-2.pdf

Johnson, J. J., Haley, S. D., Sauer, S. M., Larson, K., Bartolo, M. E., Davidson, J. W., Peairs, F. B., Tisserat, N. A., Westra, P., Davis, J. G., Novak, R. A., Vigil, M., Mostek, G., Bosley, B., Meyer, R., Trujillo, W., Irell, B. (2013). *Making better decisions: 2013 Colorado wheat variety performance trials*. (vol. TR13-4, pp. 51). Fort Collins, CO: AES.

Larson, K., Pettinger, B. T., Harn, D., Johnson, J. J., Haley, S. D., Jahn, C. E., Sauer, S. M., Trujillo, W. (2013). *Plainsman Research Center 2012 Research Reports* (TR13-2 ed., pp. 95). Fort Collins, Colorado: Agricultural Experiment Station, CSU. www.colostate.edu/depts/prc/pubs/tr13-2.pdf

Abstract

Haley, S. D. (2015). *Development and validation of KASP markers for marker-assisted selection of Wsm2 in wheat*. ASA abstracts.

Haley, S. D. (2015). *Identification of high throughput SNP markers for grain yield, yield components and WSMV resistance in wheat*. ASA abstracts.

Heuberger, A., Haley, S. D. (2015). *Integrating metabolomics profiling and sensory analysis to improve flavor quality in bread wheat*. Proc. Colorado Biological Mass Spectroscopy Society.

Manmathan, H., Haley, S. D. (2015). *Combining genotyping-by-sequencing and functional marker genotyping in wheat*. Proc. CROPS 2015, Improving Agriculture with Genomics, HudsonAlpha Institute for Biotechnology.

Haley, S. D. (2014). *Building a future for hard white winter wheat in the US Great Plains*. Herpenden: Proc. Assoc. Appl. Biol.

Sarah, G., Reid, S., Haley, S. D., Byrne, P. F. (2014). *Characterizing Drought Tolerance and Agronomic Traits in Wheat Using Canopy Spectral Reflectance*. Madison, WI: Agronomy Abstracts.

McMaster, G., Haley, S. D., Byrne, P. F. (2014). *Genes by environment by management (GEM) interaction on winter wheat phenology: opportunities for adaptation to climate change*. Madison, WI: Agronomy Abstracts.

Haley, S. D. (2014). *Genomics-assisted breeding for hard white wheat cultivar development in the US*. Vienna: VISCEA.

Cakir, M., Vitou, J., Haley, S. D. (2014). *Genomics-assisted cereal pre-breeding for pest and diseases for global food and bio-security*. Wernigerode: Proc. EUCARPIA-ITMI Conference.

Storlie, E., Haley, S. D. (2014). *Optimization of calibration sets for genomic selection using historical wheat breeding data*. San Diego: Plant Animal Genome Conference.

Shuyu, L., Haley, S. D. (2014). *Validation and application of molecular markers linked to genes important for hard winter wheat production and marketing in the U.S. Great Plains*. Ciudad Obregón: Borlaug Summit on Wheat for Food Security.

Sarah, G., Reid, S., McMaster, G., Haley, S. D., Byrne, P. F. (2014). *Variation and phenotypic plasticity of*

heading date and yield across multiple U.S. Great Plains environments.. Madison, WI.: Agronomy Abstracts.

Latshaw, S., Manmathan, H. K., Haley, S. D. (2014). *Whole genome prediction of grain yield and grain protein concentration in hard winter wheat..* National Association of Plant Breeders annual meeting.

Eade, E., Byrne, P. F., Haley, S. D., Manmathan, H. K., Moragues, M. (2013). *Association mapping of drought tolerance candidate genes in spring wheat..* San Diego, CA: Plant Animal Genome Conference.

Grogan, S., Byrne, P. F., Reid, S., Haley, S. D., Mahmoud, W. (2013). *Phenological differences contributing to yield in 300 winter wheat lines grown under water stressed and non-stressed conditions..* San Diego, CA: Plant Animal Genome Conference.

Latshaw, S., Haley, S. D., Vigil, M., Storlie, E. (2013). *Assessment of grain protein deviation in hard winter wheat germplasm..* Madison, WI.: Agronomy abstracts..

Byrne, P. F., Reid, S., Haley, S. D. (2013). *Breeding for tolerance to drought in winter wheat..* Madison, WI.: Agronomy abstracts..

McMaster, G., Moragues, M., Haley, S. D., Byrne, P. F., Johnson, J. J., Buchleiter, G. (2013). *Determining winter wheat phenological parameters for phenologymms, a simple model to predict phenology..* Madison, WI.: Agronomy abstracts..

Cooper, J., Haley, S. D., Storlie, E., J. (2013). *Genomic selection for pre-harvest sprouting tolerance in winter wheat..* Madison, WI.: Agronomy abstracts.

Liu, S., Rudd, J., Bai, G., Haley, S. D., Ibrahim, A., Xue, Q., Hays, D., Graybosch, R., Devkota, R., St. Amand, P. (2013). *Molecular markers linked to genes important for hard winter wheat production and marketing in The U.S. Great Plains..* Madison, WI.: Agronomy abstracts..

Awad, W., Grogan, S., Reid, S., Haley, S. D., Byrne, P. (2013). *Relationships among yield, canopy temperature, and root architecture in hard winter wheat..* Madison, WI.: Agronomy abstracts..

Becker, S., Byrne, P. F., Reid, S., Bauerle, W. L., Haley, S. D. (2013). *Synthetic hexaploid wheat improves the yield potential and drought tolerance of bread wheat germplasm..* National Association of Plant Breeders annual meeting.

Technical Report

Johnson, J. J., Haley, S. D., Meyer, R., Trujillo, W., Kahn, D., Sauer, S. M., Asfeld, E., Hain, J., Bosley, B., Bartolo, M. E., Larson, K., Vigil, M., Pettinger, B. T., Tanabe, K. J., Novak, R. A. (2015). *2015 Colorado Winter Wheat Variety Performance Trial- TR15-6* (TR15-6 ed.). Colorado State University - AES - Technical Reports.

Johnson, J. J., Haley, S. D., Sauer, S. M., Asfeld, E., Bartolo, M. E., Larson, K., Bosley, B., Trujillo, W., Meyer, R., Davis, J. G., Novak, R. A. (2015). *Making Better Decisions, 2015 Colorado Winter Wheat Performance Trials.. 2015 Colorado Certified Seed Directory* (pp. 24 pp.). High Plains Journal.

PERFORMANCES, EXHIBITS, PRODUCTIONS (Visual/Performing Arts):

2010, Colorado State University Invention Disclosure 11-046
"An Acetyl Co-Enzyme A Carboxylase Inhibitor Resistant Wheat (*Triticum aestivum* L.) for Use in a Herbicide Tolerant Cropping System"

PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS

- January 2016, "Population genomics of glyphosate-resistant Palmer amaranth (*Amaranthus palmeri*) using genotyping-by-sequencing (GBS)", Plant and Animal Genome XXIV.
- December 11, 2015, "CSU Wheat Breeding and genetics Program Update", Colorado Seed Growers Association Annual Meeting, CSGA, Blackhawk, CO.
- December 2, 2015, "CSU Wheat Breeding Program Update", Colorado Wheat Research Foundation (CWRF), CWRF, Stratton, CO.
- November 17, 2015, "Phenotypic Plasticity of Growing Degree-Days to Heading and Grain Yield in a Multi-Environment Trial of Winter Wheat", CSSA Annual Meeting, Crop Science Society of America, (Presenter) Grogan, S. M.
- August 14, 2015, "CSU Wheat Breeding - New Cultivars, Experimental Lines", Colorado Wheat Research Foundation (CWRF), CWRF, Blackhawk, CO.
- April 4, 2015, "CSU Wheat Breeding and Genetics Program Update", CWAC Wheat Research Review, (Presenter) Haley, S. D., Fort Collins.
- March 3, 2015, "Hard white wheat breeding program update", Meeting with Ardent Mills Representatives, Ardent Mills.
- February 15, 2015, "Entries from Colorado State University", Wheat Quality Council, (Presenter) Haley, S. D., Kansas City.
- February 4, 2015, "CSU Wheat Breeding and Genetics Program Update", Plainsman Research Center Board of Directors Meeting, (Presenter) Haley, S. D., Walsh.
- February 3, 2015, "CSU Wheat Breeding and Genetics Program Update", Plainsman Research Center Annual Meeting, (Presenter) Haley, S. D., Walsh.
- January 26, 2015, "Plainsman Research Center, 2015 Research Reports", Plainsman Research Center Advisory Committee Annual Meeting, Plainsman Research Center, AES, Extension, Dept. of Soil and Crop Sciences, (Presenter) Pettinger, B. T., Haley, S. D., Lamar, Colorado.
- January 25, 2015, "Plainsman Research Center, 2015 Research Results", Plainsman Agri-Search Foundation Annual Meeting, Plainsman Agri-Search Foundation, AES, Dept. of Soil and Crop Sciences, (Presenter) Larson, K., Pettinger, B. T., Haley, S. D., Walsh, Colorado.
- January 20, 2015, "Colorado State University wheat breeding for quality", PNW Wheat Quality Council, (Presenter) Haley, S. D.
- January 13, 2015, "Diversity of Root Traits in Great Plains Winter Wheat Under Drought Stress", Plant and Animal Genome Meeting, PAG, (Presenter) Awad, W.
- December 10, 2014, "CSU Wheat Breeding and genetics Program Update", Colorado Seed Growers Association Annual Meeting, CSGA, Blackhawk, CO.
- December 3, 2014, "CSU Wheat Breeding and Wheat Variety Development Trends", BASF Crop Consultants Annual Meeting, BASF Corporation, Loveland, CO.

December 2, 2014, "CSU Wheat Breeding and Wheat Variety Development Trends", BASF Ag Retailers Annual Meeting, BASF Corporation, Loveland, CO.

November 17, 2014, "Making the Most of CSU Wheat Variety Trial Data", CSU Crop Clinic, CSU Extension, Sterling, CO.

November 4, 2014, "Characterizing Drought Tolerance and Agronomic Traits in Wheat Using Canopy Spectral Reflectance", CSSA annual meeting, Crop Science Society of America, Long Beach, CA.

November 3, 2014, "Fine-Tuning Timing of Reproductive Development in Winter Wheat: Genome-Wide Association Studies of Heading Date Across Multiple U.S. Great Plains Environments", CSSA annual meeting, Crop Science Society of America, Long Beach, CA.

August 24, 2014, "Wheat Breeding and Genetics at Colorado State University - Progress and Prospects", CSU President Tony Frank Visit to Dailey, CO, CWAC, Dailey, CO.

August 14, 2014, "2014 Wheat Variety trial and testing summary", Colorado Wheat Administrative Committee (CWAC), CWAC, Blackhawk, CO.

August 14, 2014, "2015 Wheat Variety trial and testing summary", Colorado Wheat Administrative Committee (CWAC), CWAC, Blackhawk, CO.

August 14, 2014, "CSU Wheat Breeding - New Cultivars, Experimental Lines", Colorado Wheat Research Foundation (CWRF), CWRF, Blackhawk, CO.

August 5, 2014, "Wheat Breeding and Genetics at Colorado State University - Progress and Prospects", Flying Farmers Annual Convention, Flying Farmers, Loveland, CO.

June 27, 2014, "Wheat Breeding and wheat quality improvement at Colorado State University", Visit to CSU of Navajo Agricultural Products Industry (NAPI), Colorado Wheat, Fort Collins, CO.

June 23, 2014, "Wheat Breeding and wheat quality improvement at Colorado State University", Visit of US Wheat Associates Sponsored Nigerian Trade Team to Colorado, Colorado Wheat, Commerce City, Colorado.

June 18, 2014, "Wheat Breeding and Genetics at Colorado State University - Progress and Prospects", Visit to CSU of BASF Corporation Representatives, Fort Collins, CO.

May 14, 2014, "Colorado State University Wheat Breeding Program and Integration of Genomic Selection", Visit to Private Wheat Breeding Company RAGT, RAGT, Ickleton, England.

May 7, 2014, "Wheat Breeding and Genetics at Colorado State University - Progress and Prospects", General Department Seminar, Central Field Crop Research Institute, Ankara, Turkey.

May 2, 2014, "Genomics-Assisted Breeding for Hard White Wheat Cultivar Development in the US Great Plains", Visit to Private Wheat Breeding Company KWS, KWS, Thriplow, England.

April 1, 2014, "A General Overview of Molecular Wheat Breeding at CSU", General Department Seminar, John Innes Centre, Norwich, England.

March 23, 2014, "Wheat Breeding and Genetics at Colorado State University - Progress and Prospects", General Department Seminar, John Innes Centre, Norwich, England.

February 11, 2014, "Genomics-Assisted Breeding for Hard White Wheat Cultivar Development in the US Great

Plains", International Translational Cereal Genomics Conference, Vienna International Science Conferences and Events Association, Vienna, Austria.

January 28, 2014, "Building a Future for Hard White Winter Wheat in the US Great Plains", Wheat Breeding 2014 - Tools, Targets, Progress, Association of Applied Biologists, England, Herpenden, England.

January 21, 2014, "Wheat Breeding and Genetics at Colorado State University - Progress and Prospects", General Department Seminar, University of Bologna, Bologna, Italy.

January 9, 2014, "Winter Wheat Production and Breeding Challenges in the West-Central Great Plains Region of the USA", General Department Seminar, University of Bologna, Bologna, Italy.

November 4, 2013, "Breeding for Tolerance to Drought in Winter Wheat", Crop Science Society of America annual meeting, Tampa, FL.

October 26, 2013, "Wheat End-use quality maintenance and improvement", FTEC 576 - Cereal Science Course (Guest Lecture), (Presenter) Haley, S. D., Fort Collins.

October 24, 2013, "Wheat Breeding and Genetics General overview", FTEC 576 - Cereal Science Course (Guest Lecture), (Presenter) Haley, S. D., Fort Collins.

August 5, 2013, "CSU Wheat Breeding and Genetics Program Overview", BASF Corporation Visit, CWAC, (Presenter) Haley, S. D., Fort Collins.

August 1, 2013, "CSU Wheat Breeding and Genetics Program Overview", Nigerian Trade Team Visit, CWAC, (Presenter) Haley, S. D., Fort Collins.

April 4, 2013, "CSU Wheat Breeding and Genetics Program - Celebrating 50 Years of Success", CWAC Wheat Research Review, (Presenter) Haley, S. D., Fort Collins.

February 15, 2013, "Nutrition and Wheat Breeding – What is Possible in the Modern Era?", Wheat Quality Council, (Presenter) Haley, S. D., Kansas City.

2012, "CSU Wheat Breeding Program - New and Potential Wheat Cultivar Releases (USDA-ARS-CGPRC Akron Stakeholders Meeting, January 2012)", peer-reviewed/refereed.

2012, "CSU Wheat Breeding Program Activities, Progress, Future (CWAC Research Review, April 2012)", peer-reviewed/refereed.

2012, "CSU Wheat Breeding Program Activities, Technology, Products (Two CWRF Grower Meetings, May 2012)".

2012, "CSU Wheat Breeding Program New Varieties & Breeding Research Initiatives Update (CO Seed Growers Assoc, December 2012)".

2012, "CSU Wheat Breeding Program Past, Present, and Future (BSPM Departmental Seminar, January 2012)".

2012, "CSU Wheat Breeding Program Past, Present, and Future (CWRF, CSURF, AES, Asst VP Research Meeting, September 2012)".

2012, "New Stripe Rust Races and New Wheat Varieties (Six Wheat Planting Decision Meetings, August 2012)".

2012, "Wheat Breeding and Genetics at Colorado State University (Cochran Scholars, September 2012)".

2012, "Wheat Breeding and Genetics at Colorado State University (Taiwan Trade Team Visit, July 2012)".

2012, "Wheat Breeding for Drought Stress Tolerance (Colorado Ag Classic, December 2012)".

2012, "Wheat Stem Sawfly in Colorado (Visit to Montana State University, February 2012)".

2012, "Wheat Stem Sawfly Resistance Breeding (CWAC Research Committee Meeting, December 2012)", peer-reviewed/refereed.

2011, "2011 CSU Wheat Trial Results, Selection Strategies, and Planting Tips (Wheat Planting Decision Meetings, 6 presentations, August 2011, multiple locations in eastern CO)".

2011, "CSU Wheat Breeding and Genetics Program (CWAC Wheat Research Review, April 2011, CSU)".

2011, "CSU Wheat Breeding and Genetics Program Update (CWAC Meeting, August 2011, Denver CO)".

2011, "CSU Wheat Breeding Program - New and Potential Wheat Cultivar Releases (CWRF meeting, August 2011, Denver CO)".

2011, "Public Winter Wheat Cultivar Development at CSU (SCC Dept Annual Retreat, January 2011, Fort Collins)".

2011, "Wheat Breeding at Colorado State University (UC Davis, Nov 2011, Davis CA)".

2011, "Wheat Breeding at Colorado State University (Australian farmer visit, March 2011, CSU)".

2011, "Wheat Breeding at Colorado State University (Algerian Visitors to CSU Ag College, Oct 2011, CSU)".

2011, "Wheat Breeding at Colorado State University (Conagra and Papa John's visitors, July 2011, Commerce City CO)".

2011, "Wheat Breeding at Colorado State University (Korean Trade Team visit, June 2011, Fort Collins)".

2011, "Wheat Breeding at Colorado State University (Mexican Millers Trade Team visit, July 2011, Fort Collins)".

2011, "Wheat Breeding at Colorado State University (Tim Burleigh-CDA visit, March 2011, CSU)".

2011, "Wheat Breeding at Colorado State University (Valent Chemical Corporation visit, March 2011, CSU)".

2011, "Wheat Variety Selection and CSU Wheat Breeding (CO Wheat Field Days, 11 Presentations, June 2011, multiple locations in eastern CO)".

2010, "Colorado Wheat Field Days (11 presentations, June 2010)".

2010, "Colorado Wheat Planting Decision Meetings (6 presentations, August 2010)".

2010, "CSU Wheat Breeding and Genetics Program (CWAC Research Review, April 2010)".

2010, "CSU Wheat Breeding and Genetics Program Update (CO Seed Growers Association Annual Meeting, December 2010)".

2010, "CSU Wheat Breeding Program Update (CWRF Meeting, August 2010)".

2010, "Development of GM Wheat - or Whither Public Wheat Breeding? (WERA066 Regional Meeting, September 2010)".

2010, "Wheat Breeding and Genetics at Colorado State University (CO Dept. of Ag Assistant Secretary Visit, December 2010)".

2010, "Wheat Breeding and Genetics at Colorado State University (Cochran Scholars from Turkey, June 2010)".

2010, "Wheat Breeding and Genetics at Colorado State University (Dow Agrosiences Visit, September 2010)".

2010, "Wheat Breeding and Genetics at Colorado State University (IRTA-UDL Seminar, Lleida Spain, May 2010)".

2010, "Wheat Breeding and Genetics at Colorado State University (Philippine Trade Team Visit, August 2010)".

2010, "Wheat Breeding and Genetics at Colorado State University (Visit from Papa John's and Conagra Flour Milling, July 2010)".

2010, "Wheat Breeding and Genetics at Colorado State University (Wyoming Wheat Growers Association Annual Meeting, December 2010)".

2010, "Wheat Breeding for Multiple Traits in a Variable Environment (CSU Drought Shortcourse, June 2010)".

2010, "Wheat Breeding for Russian Wheat Aphid Resistance in the USA (International Russian Wheat Aphid Workshop, Singapore, April 2010)".

OTHER ACTIVITIES/ACCOMPLISHMENTS – PUBLICATIONS/SCHOLARLY RECORD

Haley, S. D., Johnson, J. J., Peairs, F. B. "Avery winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2015, Application: 2015, Approved: 2015, Licensed: 2015).

Haley, S. D., Johnson, J. J., Peairs, F. B. "Sunshine winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2014, Application: 2014, Approved: 2014, Licensed: 2014).

Haley, S. D., Johnson, J. J., Peairs, F. B. "Antero winter wheat (wheat cultivar)," Licensed to: CWRF. (Submitted: 2012, Application: 2012, Approved: 2012, Licensed: 2012).

Haley, S. D., Westra, P. "Patent Application - Acetyl Co-Enzyme A Carboxylase Herbicide Resistant Plants," Licensed to: CWRF. (Submitted: 2012, Application: 2012, Approved: 2012, Licensed: 2012).

Haley, S. D., Westra, P. "Provisional patent application - Herbicide Tolerant Wheat Plants and Methods for Producing and Identifying Such Plants." (Submitted: 2012, Application: 2012, Approved: 2012, Licensed: 2012).

Haley, S. D., Johnson, J. J., Peairs, F. B., Westra, P. "Brawl CL Plus winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2011, Application: 2011, Approved: 2011, Licensed: 2011).

Haley, S. D., Johnson, J. J., Peairs, F. B. "Byrd winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2011, Application: 2011, Approved: 2011, Licensed: 2011).

Haley, S. D., Johnson, J. J., Peairs, F. B. "CO050175-1 winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2011, Application: 2011, Approved: 2011, Licensed: 2011).

Haley, S. D., Johnson, J. J., Peairs, F. B. "CO050337-2 winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2011, Application: 2011, Approved: 2011, Licensed: 2011).

Haley, S. D., Johnson, J. J., Peairs, F. B. "Cowboy winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2011, Application: 2011, Approved: 2011, Licensed: 2011).

Haley, S. D., Johnson, J. J., Peairs, F. B. "Denali winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2011, Application: 2011, Approved: 2011, Licensed: 2011).

Haley, S. D., Westra, P. "Provisional patent application - An Acetyl Co-Enzyme A Carboxylase Inhibitor Tolerant Wheat (*Triticum aestivum* L.) for Use in a Herbicide Tolerant Cropping System." (Submitted: 2011, Application: 2011, Approved: 2011, Licensed: 2011).

"Provisional patent application - Generation of Wheat (*Triticum aestivum* L.) Plants

With Altered Expression of the Drought-Responsive Era1 Gene." (Submitted: 2011, Application: 2011, Approved: 2011, Licensed: 2011).

"Plant Variety Protection Certificate for the Wheat Variety Snowmass PVP Number 201000432," Licensed to: CWRf. (Submitted: 2010, Application: 2010, Approved: 2010, Licensed: 2010).

"Plant Variety Protection Certificate for the Wheat Variety Thunder CL PVP Number 200900400," Licensed to: CWRf. (Submitted: 2009, Application: 2009, Approved: 2009, Licensed: 2009).

"Snowmass winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2009, Application: 2009, Approved: 2009, Licensed: 2009).

"Plant Variety Protection Certificate for the Wheat Variety Bill Brown PVP Number 200800327," Licensed to: CWRf. (Submitted: 2008, Application: 2008, Approved: 2008, Licensed: 2008).

"Thunder CL winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2008, Application: 2008, Approved: 2008, Licensed: 2008).

(March 10, 2014 - March 21, 2014). Workshop, "Quantitative Methods in Plant Breeding," National Institute of Agricultural Botany, Cambridge, England. Approximate Number of Hours Spent Per Year: 80.

TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2016	Spring	SOCR799 - Dissertation	18	12
2015	Fall	SOCR720B - Advanced Plant Breeding: Tools	2	6
2015	Fall	SOCR799 - Dissertation	18	11
2015	Fall	SOCR784 - Supervised College Teaching	18	3
2015	Spring	SOCR799 - Dissertation	18	12
2014	Fall	SOCR720A - Advanced Plant Breeding: Methods	2	8
2014	Fall	SOCR799 - Dissertation	18	15
2014	Spring	SOCR799 - Dissertation	18	15
2013	Fall	SOCR799 - Dissertation	18	19
2013	Spring	SOCR720B - Advanced Plant Breeding: Tools	2	7
2013	Spring	SOCR799 - Dissertation	18	17
2013	Spring	SOCR486 - Practicum	4	6
2012	Fall	SOCR720A - Advanced Plant Breeding: Methods	2	6
2012	Fall	SOCR799 - Dissertation	18	17
2012	Fall	SOCR731 - Plant Breeding Data Management	1	4
2012	Fall	SOCR784 - Supervised College Teaching	18	3
2012	Spring	SOCR799 - Dissertation	18	15
2012	Spring	SOCR792 - Seminar	1	8
2012	Spring	SOCR784 - Supervised College Teaching	18	4
2011	Fall	SOCR799 - Dissertation	18	12
2011	Fall	SOCR486 - Practicum	4	5
2011	Fall	SOCR792 - Seminar	1	10
2011	Spring	SOCR720 - Advanced Plant Breeding	4	10
2010	Fall	SOCR799 - Dissertation	18	12
2010	Fall	SOCR731 - Plant Breeding Data Management	1	7
2010	Fall	SOCR699 - Thesis	18	9

2010	Summer	SOCR799 - Dissertation	18	2
2010	Spring	SOCR799 - Dissertation	18	7
2009	Fall	SOCR799 - Dissertation	18	9
2009	Spring	SOCR720 - Advanced Plant Breeding	4	5
2009	Spring	SOCR486 - Practicum	4	2
2009	Spring	SOCR699 - Thesis	18	7
2008	Fall	SOCR731 - Plant Breeding Data Management	1	4
2008	Fall	SOCR486 - Practicum	4	0
2008	Fall	SOCR699 - Thesis	18	3
2008	Spring	SOCR799 - Dissertation	18	14
2008	Spring	SOCR487 - Internship	12	5
2008	Spring	SOCR486 - Practicum	4	2
2007	Fall	SOCR799 - Dissertation	18	12
2007	Fall	HORT460 - Plant Breeding	3	28
2007	Fall	SOCR460 - Plant Breeding	3	12
2007	Fall	HORT460 - Plant Breeding-Recitation	0	15
2007	Fall	HORT460 - Plant Breeding-Recitation	0	13
2007	Fall	SOCR460 - Plant Breeding-Recitation	0	9
2007	Fall	SOCR460 - Plant Breeding-Recitation	0	3
2007	Fall	SOCR486 - Practicum	4	3
2007	Fall	SOCR784 - Supervised College Teaching	18	4
2007	Fall	SOCR699 - Thesis	18	7

Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2015	Fall	FTEC576 - Cereal Science	2	Mixed (Hybrid) Face to Face
2015	Spring	CIMMYT Wheat Trainees Course	1	Mixed (Hybrid) Face to Face
2014	Summer	SOCR796 - Plant Breeding for Drought Tolerance	1	Face to Face

Evidence of Teaching Effectiveness (Annual Input)

Course Syllabi, Assignments, and Other Materials

Spring 2013, SOCR 720B–Advanced Plant Breeding: Tools
Course syllabus
[SOCR720B Syllabus \(S13\)-1.doc](#)

Fall 2012, SOCR 720A–Advanced Plant Breeding: Methods
Course syllabus
[Syllabus-1.doc](#)

Student Course Surveys

Fall 2015, SOCR 720B–Advanced Plant Breeding: Tools
Course evaluation forms with comments attached.

[Course Evaluation Forms-1.pdf](#)

Fall 2015, SOCR 720B–Advanced Plant Breeding: Tools
Course evaluation summary attached.

[Course Evaluation-2.pdf](#)

Spring 2013, SOCR 720B–Advanced Plant Breeding: Tools
Student course survey

[Course Surveys-2.pdf](#)

Spring 2013, SOCR 720B–Advanced Plant Breeding: Tools
Student course survey

[Course Survey Tabulated-1.pdf](#)

Fall 2012, SOCR 720A–Advanced Plant Breeding: Methods
Student course survey summary

[Course Survey Summary-1.pdf](#)

Fall 2012, SOCR 720A–Advanced Plant Breeding: Methods
Student course surveys

[Course Survey Forms-1.pdf](#)

EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS

Field Day

Colorado wheat field days. Adult, CO. Number of times program was made: 11. Percent Responsible: 50%.
2nd Quarter 2015.

Colorado wheat field days. Adult, CO. Number of times program was made: 11. Percent Responsible: 50%.
2nd Quarter 2014.

Colorado wheat field days. CO. Number of times program was made: 8. Percent Responsible: 50%. 2012.

Wyoming Wheat Field Days. Percent Responsible: 33%. 2012.

Phone Call

Wheat Variety Selection Advice. Percent Responsible: 100%. 3rd Quarter 2014.

Radio Interview

Wheat Field Days. Percent Responsible: 100%. 2nd Quarter 2014.

Wheat Planting Decision Meetings. Percent Responsible: 100%. 3rd Quarter 2014.

Web Database (ramwheatdb.com)

Colorado Wheat Variety Database (ramwheatdb.com). Adult. Percent Responsible: 100%. 2015.

Colorado Wheat Variety Database (ramwheatdb.com). Percent Responsible: 100%. 2014.

Colorado Wheat Variety Database (ramwheatdb.com). Percent Responsible: 100%. 2012.

Web Site (wheat.colostate.edu)

CSU Wheat Breeding and Genetics Web Page. Adult. Percent Responsible: 100%. 2015.

CSU Wheat Breeding and Genetics Web Page. Percent Responsible: 100%. 2014.

CSU Wheat Breeding and Genetics Web Page. Percent Responsible: 100%. 2012.

Workshop

Wheat Planting Decision Meetings. CO. Number of times program was made: 2. Percent Responsible: 50%. 3rd Quarter 2015.

Wheat Planting Decision Meetings. CO. Number of times program was made: 6. Percent Responsible: 50%. 3rd Quarter 2014.

Colorado Wheat Summit Presentation. Percent Responsible: 100%. 2012.

COMMITTEES

BSPM Seminar Presenter, (2012).

DARE Cochran Scholars Program, (2012).

Facilities tour for prospective undergraduate, (December 2015 - Present).

Rocky Mountain High School Student Shadow, (November 2015 - Present).

SCS Department Internal Manuscript Review, (2015).

Crop Functional Genomics Professor Search Committee, (2014 - 2015).

Principal Field Agronomist Search Committee, (2014 - 2015).

Boltz Junior High Science Presentation, (October 2015).

Wheat Breeding Quality lab tour, (August 2015).

Wheat Breeding Quality lab tour for Syngenta/Agripro employees, (February 2015).

Crop Physiology Professor Search Committee, (2013).

SCC Department Internal Manuscript Review, (2013).

SCC Department Internal Manuscript Review, (2012).

Seed Programs Director Search Committee Chair, (2012).

Departmental Seminar Co-Coordinator, (2011).

Provide program tour to Dean Beyrouthy, (2011).

SCC Department Graduate Studies Panel, (2011).

SCC Department Head Search Committee, (2011).

SCC Department Internal Manuscript Review, (2011).

SCC Departmental Retreat, (2011).

Wheat PRSE material preparation, (2011).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Society of Agronomy. (1986 - Present).

Crop Science Society of America. (1986 - Present).

KSIR Radio Fort Morgan. (June 2015).

KSIR Fort Morgan. (2014).

KSIR Fort Morgan. (2013).

KSIR Fort Morgan. (2012).

KSIR Fort Morgan. (2011).

Member, Pacific Northwest Wheat Quality Council. (2000 - Present).

Member, Hard Winter Wheat Improvement Committee. (1993 - Present).

Member, Wheat Quality Council. (1993 - Present).

Editor, Associate Editor, Crop Science Society of America-Journal of Plant Registrations. (January 2016 - December 2018).

Reviewer, Journal Article, Manuscript review, Crop Science. (2015).

Reviewer, Journal Article, Manuscript review, Molecular Breeding. (2015).

Reviewer, Journal Article, Manuscript review, Plant Breeding. (2015).

Reviewer, Journal Article, Manuscript review, Crop Science. (2014).

Reviewer, Journal Article, Manuscript review, Journal of Plant Registrations. (2014).

Reviewer, Journal Article, Manuscript review, Journal of Plant Registrations. (2014).

Reviewer, Journal Article, Manuscript review, Plant Breeding. (2014).

Reviewer, Journal Article, Manuscript review, The Plant Genome. (2014).

Representative to WERA1009 (Wheat Quality Improvement) Regional Committee. (2014).

Reviewer, Journal Article, Manuscript review, Crop Science. (2013).

Reviewer, Journal Article, Manuscript review, Plant Breeding. (2013).

Reviewer, Journal Article, Manuscript review, Crop Science. (2012).

Reviewer, Journal Article, Manuscript review, Euphytica. (2012).

Reviewer, Journal Article, Manuscript review, Journal of Plant Registrations. (2012).

Representative to WERA1009 (Wheat Quality Improvement) Regional Committee. (2012).

Reviewer, Ad Hoc Reviewer, Australian Journal of Plant Pathology. (2011).

Reviewer, Ad Hoc Reviewer, Crop Science. (2011).

Reviewer, Ad Hoc Reviewer, USDA Internal Manuscript Review. (2011).

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

For Profit Organization, Mayer Brown LLP. (2012).

External reviewer for promotion and tenure, Promotion and Tenure review, Oklahoma State. (2015).

External reviewer for promotion and tenure, Promotion and Tenure review, Oregon State. (2013).

External reviewer for promotion and tenure, Promotion and Tenure review, South Dakota State. (2011).

Board Member, Borlaug Training Foundation. (2014 - Present).

CWRF Promotional Materials Development, Colorado Wheat Research Foundation. (2014 - Present).

Board Member, Colorado Seed Growers Association. (2004 - Present).

Adviser, Colorado Wheat Research Foundation. (1999 - Present).

Presenter, Field visit for Senators Gardner and Bennett, Akron, CO. (June 21, 2015).

Attendee, Meeting, Colorado Wheat Research Foundation, Loveland, CO. (December 16, 2014).

Attendee, Meeting, Colorado Wheat Research Foundation, Denver, CO. (December 1, 2014).

Discussant, Field Day Meeting with Senator Michael Bennet. (2013).
