

## CURRICULUM VITAE

### NAME

Peairs, Frank B

### ADDRESS

Bioagricultural Sciences and Pest Management  
College of Agricultural Sciences

Insectary  
Insectary Building

### PHONE

(970) 491-5945

### EDUCATION

1977 Ph D, CORNELL UNIV

1974 MS, UNIV OF MASS

1971 BS, ALLEGHENY COLL

### SABBATICALS

(1998-1999) Colorado State University, On-campus sabbatical to improve knowledge of wheat and wheat pests.

### OTHER POSITIONS

1993 - Present Professor, Colorado State University.

1988 - 1993 Associate Professor, Colorado State University.

### PUBLISHED WORKS

#### **Refereed Journal Articles**

Kerzicnik, L., Peairs, F. B., Cushing, P., Draney, M., Merrill, S. Spider fauna of semiarid eastern Colorado agroecosystems: diversity, abundance, and effects of crop intensification. *Environmental Entomology*, 42, 131-142.

Merrill, S., Walter, S., Peairs, F. B., Schliep, E. The distribution of European corn borer (Lepidoptera: Crambidae) moths in pivot-irrigated corn. *Journal of Economic Entomology*, 106(6), 2084-2092.

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

Puterka, G. J., Giles, K. L., Brown, M. J., Nicholson, S. J., Peairs, F. B., Peairs, F. B., Randolph, T. L., Michels, G. J., Bynum, E. D., Springer, T. L., Armstrong, J. S., Mornhinweg, D. W. (2015). Change in biotypic diversity of Russian wheat aphid (Hemiptera: Aphididae) populations in the United States. *Journal of Economic Entomology*, 108, 798-804.

Fazel-Najafabadi, M., Peng, J., Peairs, F. B., Simkova, H., Kilian, A., Lapitan, N. L. (2015). Genetic mapping of

- resistance to *Diuraphis noxia* (Kurdjumov) biotype 2 in wheat (*Triticum aestivum* L.) accession CI2401. *Euphytica*, 203, 607-614.
- Merrill, S. C., Randolph, T. L., Peairs, F. B., Michels, Jr, G. J., Walker, C. B. (2014). Examining the Competitive Advantage of *Diuraphis noxia* (Hemiptera: Aphididae) Biotype 2 Over Biotype 1. *J. Econ. Entomol.*, 107(4), 5.
- Sotelo, P. A., Hein, G. L., Peairs, F. B., Smith, C. M. Effects of planting date and barley variety on Russian wheat aphid (Hemiptera: Aphididae) populations in Colorado, Kansas, and Nebraska. *Journal of Economic Entomology*, 107, 1969-1976. [www.bioone.org/doi/full/10.1603/EC14055](http://www.bioone.org/doi/full/10.1603/EC14055)
- Puterka, G. J., Nicholson, S. J., Brown, M. J., Cooper, W. R., Peairs, F. B., Randolph, T. L. (2014). Characterization of eight Russian wheat aphid (Hemiptera: Aphididae) biotypes using two-category resistant—susceptible plant responses. *Journal of Economic Entomology*, 107, 1274-1283.
- 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.
- Merrill, S. C., Holtzer, T. O., Peairs, F. B., Lester, P. J. (2014). Validating spatiotemporal predictions of a important pest of small-grains. *Pest Management Science*.
- 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)- $\beta$ -glucanase is a susceptibility factor in compatible Russian wheat aphid – wheat Interactions. *Mol. Plant Microbe Interact.*
- (2012). Cyclical parthenogenetic reproduction in the Russian wheat aphid (Hemiptera: Aphididae) in the United States: Sexual reproduction and its outcome on biotypic diversity. *J Econ Entomol*, 105, 1057-1068.
- (2012). Inheritance and genetic mapping of Russian wheat aphid resistance in Iranian wheat land race accession PI 626580. *Crop Science*, 52, 676-682.
- (2012). Molecular characterization of Russian wheat aphid consumption by spiders in winter wheat. *Journal of Arachnology*, 40, 71-77.
- (2012). Quantifying Russian wheat aphid pest intensity across the Great Plains. *Environmental Entomology*, 41, 1505-1515.
- (2012). Registration of 'Brawl CL Plus' wheat. *J Plant Reg*, 6, 306-310.
- (2012). Registration of 'Denali' wheat. *J Plant Reg*, 6, 311-313.
- (2012). Registration of 'Stoneham' spring feed barley resistant to Russian wheat aphid. *J Plant Registrations*, 6, 5-Jan.
- (2012). Registration of 'Byrd' wheat. *J Plant Reg*, 6, 302-305.
- (2012). Russian wheat aphid (Hemiptera: Aphididae) reproduction and development on five noncultivated grass hosts. *Arthropod-Plant Interactions*, 6, 67-73.
- (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. *Journal of Plant Registrations*, 5, 426-429.
- (2011). Russian wheat aphid (Hemiptera: Aphididae) reproduction and development on five noncultivated grass hosts. *Arthropod-Plant Interactions* DOI: 10.1007/s11829-011-9152-5.
- (2011). Spatial variability of western bean cut worm (Lepidoptera: Noctuidae) pheromone trap captures in sprinkler irrigated corn in eastern Colorado. *Environmental Entomology*, 40, 654-660.
- (2010). Host associations and incidence of *Diuraphis* spp. in the Rocky Mountain region of the United States, and pictorial key for their identification. *J Econ Entomol*, 103, 1875-1885.
- (2010). Implications of Russian wheat aphid, *Diuraphis noxia*, falling rates for biological control in resistant and susceptible winter wheat. *Arthropod-Plant Interactions*, 4, 129-138.
- (2010). Nonlinear Degree-Day Models for Postdiapause Development of the Sunflower Stem Weevil (Coleoptera). *J Econ Entomol*, 103, 302-307.
- (2010). Relationship between Russian wheat aphid abundance and edaphic and topographic characteristics in wheat fields. *Southwestern Entomologist*, 35, 18-Nov.
- (2010). Virus-induced gene silencing of WRKY53 and an inducible phenylalanine ammonia-lyase in wheat reduces aphid resistance. *Plant Biotechnology Journal*, 8, 1023-1032.
- (2009). *Diuraphis noxia* Reproduction and Development With a Comparison of Intrinsic Rates of Increase to Other Important Small Grain Aphids. *Environ Entomol*, 38, 1061-1068.
- (2009). Modeling Spatial Variation of Russian Wheat Aphid Overwintering Population Densities in Colorado Winter Wheat. *J Econ Entomol*, 102, 533-541.
- (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 'Sidney' Spring Feed Barley Resistant to Russian Wheat Aphid. *J Plant Regist*, 3, 214-218.
- (2009). Registration of 'Thunder CL' Wheat. *J Plant Regist*, 3, 181-184.
- (2009). Seasonal Presence of the Russian Wheat Aphid (Hemiptera). *Southwest Entomol*, 34, 121-129.
- Merrill, S. C., Holtzer, T. O., Peairs, F. B. (2009). Russian wheat aphid, *Diuraphis noxia* (Kurdjumov), reproduction and development with a comparison of intrinsic rates of increase to other important small grain aphids: a meta-analysis. *Environ. Entomol.*, 38(4), 1061-1068.
- (2008). Biotypic diversity in Colorado Russian wheat aphid (Hemiptera). *J Econ Entomol*, 101, 569-574.
- (2008). Ground beetle (Coleoptera). *Southwest Entomol*, 33, 31-42.
- (2008). Registration of 'Bill Brown' Wheat. *J Plant Regist*, 2, 218-223.

- (2008). Reproduction and development of Russian wheat aphid Biotype 2 on crested wheatgrass, intermediate wheatgrass, and susceptible and resistant wheat. *J Econ Entomol*, *101*, 541-545.
- (2008). Reproductive rates of Russian wheat aphid (Hemiptera). *J Econ Entomol*, *101*, 955-958.
- (2007). Insect pest densities across site-specific management zones of irrigated corn in northeastern Colorado. *J Econ Entomol*, *100*, 781-789.
- (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). *J Entomol Sci*, *42*, 217-227.
- (2007). Yield response to Russian wheat aphid (Homoptera). *Southwest Entomol*, *32*, 15-Jul.
- (2006). Biotypic variation among North American Russian wheat aphid (Homoptera). *J Econ Entomol*, *99*, 1862-1866.
- (2006). Modeling the effect of Russian wheat aphid, *Diuraphis noxia* (Mordvilko) and weeds in winter wheat as guide to management. *Agr Syst*, *88*, 494-513.
- (2006). Registration of 'Bond CL' wheat. *Crop Sci*, *46*, 993-995.
- (2006). Registration of 'protection' wheat. *Crop Sci*, *46*, 995-996.
- (2006). Response of resistant and susceptible barley to infestations of five *Diuraphis noxia* (Homoptera). *J Econ Entomol*, *99*, 2151-2155.
- (2006). Yield response to Russian wheat aphid (Hemiptera). *Southwest Entomol*, *31*, 25-32.
- Lanier, W. T., Brewer, M. J., Peairs, F. B., Hein, G. L., Schwartz, H. F., Campbell, J. B., Blodgett, S. (2006). Development and assessment of an on-line High Plains Integrated Pest Management Guide for a regional audience. *American Entomologist*, *52*, 30-35.
- (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). Influence of three resistance sources in winter wheat derived from TAM 107 on yield response to Russian wheat aphid. *J Econ Entomol*, *98*, 389-394.
- (2005). Management implications of reduced fallow periods in dryland cropping systems in the Great Plains. *Agron J*, *97*, 373-377.
- (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.
- (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.
- (2003). Above winter wheat. *Can J Plant Sci*, 83, 107-108.
- (2003). AP502 CL winter wheat. *Can J Plant Sci*, 83, 109-110.
- (2003). Categories of resistance at different growth stages in halt, a winter wheat resistant to the Russian wheat aphid (Homoptera). *J Econ Entomol*, 96, 214-219.
- (2003). Categories of resistance at four growth stages in three wheats resistant to the Russian wheat aphid (Homoptera). *J Econ Entomol*, 96, 673-679.
- (2003). Plant damage and yield response to the Russian wheat aphid (Homoptera). *J Econ Entomol*, 96, 352-360.
- (2003). Registration of 'Avalanche' wheat. *Crop Sci*, 43, 432-432.
- (2002). Augmentative releases of commercial biological control agents for Russian wheat aphid management in winter wheat. *Southwest Entomol*, 27, 37-44.
- (2002). Registration of CO960293-2 wheat germplasm resistant to Wheat streak mosaic virus and Russian wheat aphid. *Crop Sci*, 42, 1381-1382.
- (2001). Registration of 'Prairie Red' wheat. *Crop Sci*, 41, 1362-1363.
- (2001). Registration of 'Prowers 99' Wheat. *Crop Sci*, 41, 929-929.
- (2001). Registration of 'Prowers' wheat. *Crop Sci*, 41, 928-929.
- (2001). Registration of 'Yumar' wheat. *Crop Sci*, 41, 1363-1364.
- (1999). Precision farming. *Crop Sci*, 41, 1777-1783.
- (1998). Economic injury levels for the Russian wheat aphid (Homoptera). *J Econ Entomol*, 91, 741-747.
- (1998). Effect of plant phenology and climate on Russian wheat aphid (Homoptera). *Environ Entomol*, 27, 221-231.
- (1996). Environmental parameters related to winter mortality of the Russian wheat aphid (Homoptera). *J Econ Entomol*, 89, 1281-1287.
- (1996). Evaluation of hymenopterous biological control agents of the alfalfa weevil larvae *Hypera postica* (Coleoptera). *J Kansas Entomol Soc*, 69, 326-336.
- (1996). Gustatory and olfactory responses of *Cylindrocopturus adspersus* (Leconte) to various plant species in the laboratory. *Southwest Entomol*, 21, 255-264.
- (1996). Integrated Pest Management of insects, plant pathogens, and weeds in dryland cropping systems of the great plains. *J Prod Agric*, 9, 200-208.
- (1996). Registration of 'Halt' wheat. *Crop Sci*, 36, 210-210.
- (1996). Registration of Russian wheat aphid-resistant wheat germplasm CORWA1. *Crop Sci*, 36, 217-217.

- (1996). Winter wheat planting date effect on Russian wheat aphid (Homoptera). *J Kansas Entomol Soc*, 69, 302-309.
- (1995). Germinating Corn Extracts and 6-Methoxy-2-Benzoxazolinone - Western Corn-Rootworm (Coleoptera, Chrysomelidae) Larval Attractants Evaluated with Soil Insecticides. *J Econ Entomol*, 88, 716-724.
- (1994). Leaf Unrolling of 3 Wheat Genotypes in Russian Wheat Aphid Extracts. *Cereal Res Commun*, 22, 375-379.
- (1993). The Effect of Planting Time Insecticides and Liquid Fertilizer on the Russian Wheat Aphid (Homoptera, Aphididae) and the Lesion Nematode (*Pratylenchus-Thornei*) on Winter-Wheat. *J Kansas Entomol Soc*, 66, 69-74.
- (1992). Binomial Regression-Models for Spring and Summer Infestations of the Russian Wheat Aphid (Homoptera, Aphididae) in the Southern and Western Plains States and Rocky-Mountain Region of the United-States. *J Econ Entomol*, 85, 1779-1790.
- (1992). Comparison of Chemigated and Aerially-Applied Chlorpyrifos and Fenvalerate for Control of European Corn-Borer (Lepidoptera, Pyralidae) Larvae. *J Econ Entomol*, 85, 539-543.
- (1992). Distribution of Overwintering Russian Wheat Aphid (Homoptera, Aphididae) in Furrow-Irrigated Small Grains in Western Colorado. *J Econ Entomol*, 85, 2452-2458.
- (1992). Inheritance of Resistance of 3 Russian Triticale Lines to the Russian Wheat Aphid. *Crop Sci*, 32, 689-692.
- (1991). Alternate Hosts of the Russian Wheat Aphid (Homoptera, Aphididae) in Northeastern Colorado. *J Econ Entomol*, 84, 1691-1694.
- (1991). Inheritance of Resistance of Pi 372129 Wheat to the Russian Wheat Aphid. *Crop Sci*, 31, 905-907.
- (1991). Russian Wheat Aphid Reaction and Agronomic and Quality Traits of a Resistant Wheat. *Crop Sci*, 31, 50-53.
- Brick, M. A., Wood, D. R., Ballarin, M., Schwartz, H. F., Peairs, F. B., Ogg, J. B., Echols, J. W. (1991). Registration of 3 Germplasm Lines of Pinto Bean. *Crop Sci*, 31, 1100-1101.
- (1990). Effect of Vernalization on Russian Wheat Aphid Resistance of Wheat and Triticale in Greenhouse Screening-Tests. *Cereal Res Commun*, 18, 131-134.
- (1990). Gene Location for Russian Wheat Aphid Resistance of Imperial Rye Using Wheat-Rye Addition Lines. *Cereal Res Commun*, 18, 307-313.
- (1990). Russian Wheat Aphid (*Diuraphis-Noxia*) Resistance in Wheat and Related Species. *Can J Plant Sci*, 70, 691-698.
- (1989). Russian Wheat Aphid Resistance of Wheat, Rye, and Triticale in Greenhouse Tests. *Cereal Res Commun*, 17, 227-232.
- (1987). Effects of Cropping System and Insecticide Protection on Insects Associated with Maize (*Zea-Mays-L*) and Cassava (*Manihot-Esculenta Crantz*). *Turrialba*, 37, 147-153.

#### **Non-Refereed Journal Articles**

Haley, S. D., Johnson, J. J., Peairs, F. B. Registration of 'Avery' wheat. *Journal of Plant Registrations*.

Haley, S. D., Johnson, J. J., Peairs, F. B. Registration of 'Sunshine' wheat. *Journal of Plant Registrations*.

Merrill, S. C., Holtzer, T. O., Peairs, F. B., Lester, P. J. (2015). Validating spatiotemporal predictions of an important pest of small grains. *Pest Management Science*, 71, 131-138.

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)- $\beta$ -glucanase is a susceptibility factor in the compatible Russian wheat aphid-wheat interaction. *Mol. Plant-Microbe Int*, 27, 913-922.

### **Non-Refereed Chapters in Books**

Peairs, F. B. (2015). Field key — Insect, mite pests and diseases. In H. Schwartz, M. Brick (Ed.), *Dry bean production and integrated pest management*. (3rd Edition ed., pp. 147-149). Fort Collins: Colorado State University, University of Nebraska, University of Wyoming Regional Publication..

Bradshaw, J., Peairs, F. B. (2015). Insect Management. *Dry bean production and integrated pest management. 3rd Ed.* (3rd Edition ed., pp. 95-110). Fort Collins: Colorado State University, University of Nebraska, University of Wyoming Regional Publication..

(2012). *2011 Colorado field crop insect management research and demonstration trials*. Colorado State Univ Agric Exp Sta Tech Rep TR12-09, 37 pp.

(2012). *Making better decisions: 2012 Colorado wheat variety performance trials*. Colorado State Univ Agric Exp Sta Tech Rep TR12-11, 52 pp.

(2012). *Sustainable dryland agroecosystems management*. Colorado Agricultural Experiment Station Technical Bulletin TB-12-01, 179 pp.

(2012). *Sustainable dryland agroecosystems management: 2006-2007 results*. Colorado Agric Exp Sta Tech Bulletin TB-12-02, 117 pp.

(2011). *2010 Colorado field crop insect management research and demonstration trials*. Colorado State Univ Agric Exp Sta Tech Rep TR11-03, 31 pp.

(2011). *Legume insect pests*. Legume ipm Pipe Diagnostic Pocket Series; Legume Integrated Pest Management Pest Information Platform for Extension and Education.

(2011). *Making better decisions: 2011 Colorado wheat variety performance trials*. Colorado State Univ Agric Exp Sta Tech Rep TR11-07, 44 pp.

(2011). *Other insects and pests*. Legume ipm Pipe Diagnostic Pocket Series; Legume Integrated Pest Management Pest Information Platform for Extension and Education.

(2011). *Wheat stem sawfly: A new pest of Colorado wheat*. Colorado State University Extension Fact Sheet 5612.

(2010). *2009 Colorado field crop insect management research and demonstration trials*. Colorado State Univ Agric Exp Sta Tech Rep TR10-03, 36 pp.

(2010). *Examining the correlation between fall and spring population densities of the Russian wheat aphid*

(*Hemiptera: Aphididae*). Colorado State Univ Agric Exp Sta Tech Rep TR10-15, 17 pp.

(2010). *Wheat production and pest management for the Great Plains region*. Colorado State University Extension Bulletin XCM235, 188 pp.

### **AES Report/Bulletin**

Peairs, F. B., Rudolph, J. B., Randolph, T. L. 2012 *Colorado field crop insect management research and demonstration trials*. (vol. TR13-11, pp. 39). Fort Collins, CO: AES.

Peairs, F. B., Hansen, N. C., Poss, D., Westfall, D. G., Peterson, G. A., Herman, J., Shaver, T., Randolph, T. L., Rudolph, J. B. *Agronomic & entomological results from 7 years of dryland cropping systems research at Briggsdale, Colorado*. (vol. TB-13-01, pp. 34). Fort Collins, CO: AES.

Hansen, N. C., Sherrod, L., Peterson, G. A., Westfall, D. G., Peairs, F. B., Poss, D., Shaver, T., Larson, K., Thompson, D., Ahuja, L. *Sustainable dryland agroecosystems management*. (vol. TB-13-02, pp. 94). Fort Collins, CO: AES.

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.

Peairs, F. B., Rudolph, J. B., Randolph, T. L. (2014). *2013 Colorado field crop insect management research and demonstration trials*. (vol. TR14-07, pp. 37). Fort Collins, CO: Colorado Agricultural Experiment Station. [webdoc.agsci.colostate.edu/aes/AES/pubs/pdf/TR14-7.pdf](http://webdoc.agsci.colostate.edu/aes/AES/pubs/pdf/TR14-7.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.

### **AES Technical Bulletin**

Randolph, T. L., Peairs, F. B., Walker, C. B. (2011). *Occurrence of Russian Wheat Aphid (Homoptera: Aphididae) on Non-cultivated Grasses within Colorado Montane Environments*. Agric Exp Stn Technical Bulletin, TB11-01 Colorado State University, Fort Collins, Colorado 19pp.

### **Book Review**

Schwartz, H. F., Peairs, F. B. (1999). Integrated pest management. In S. P. Singh (Ed.), *Common Bean Improvement for the 21st Century* (0-7923-5887-2 ed., pp. 371-388). Boston, MA: Kluwer Pub, Boston.

### **Technical Report**

Cockrell, D. M., Randolph, T. L., Rudolph, J. B., Peairs, F. B. 2015 *Colorado Field Crop Insect Management Research Demonstration Trials*. Fort Collins: CSU Agricultural Experiment Station Technical Report.

Randolph, T. L., Cockrell, D. M., Rudolph, J. B., Peairs, F. B. 2014 *Colorado Field Crop Insect Management Research Demonstration Trials*. Fort Collins: CSU Agricultural Experiment Station Technical Report.

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



- September 18, 2016, "Changing Distribution of wheat stem sawfly in Eastern Colorado winter wheat", Entomological Society of America.
- November 17, 2015, "Ovipositional preference of wheat stem sawflies, *Cephus cinctus*", Entomology 2015, Entomological Society of America, (Presenter) Altımisani, N.
- November 2014, "Distribution of wheat stem sawfly in Colorado winter wheat", Entomological Society of America, Annual Meeting, Entomological Society of America, (Presenter) Randolph, T. L., Portland, OR.
- November 18, 2014, "Distribution of wheat stem sawfly in Eastern Colorado winter wheat", Entomological Society of America.
- September 22, 2014, "Biology and management of the Russian wheat aphid", Ethiopian Institute for Agricultural Research (EIAR), Kulumsa Agricultural Research Center.
- September 17, 2014, "Biology and management of the Russian wheat aphid", Hawassa University, Ethiopia, Hawassa, Ethiopia.
- June 18, 2013, "Managing Banks grass mite in irrigated field corn", Annual meeting, North Central Branch, Entomological Society of America, Rapid City, SD.
- June 17, 2013, "Biology and management of Russian wheat aphid", Annual meeting, North Central Branch, Entomological Society of America, Rapid City, SD.
- November 14, 2012, "Distribution of wheat stem sawfly in Eastern Colorado winter wheat", Entomological Society of America Annual Meeting, peer-reviewed/refereed.
- 2011, "Randolph, T. L., C. Walker, S. C. Merrill, M. Koch, and F. B. Peairs. 2011. Regulation of Russian wheat aphid (*Diuraphis noxia*) populations with natural enemies present in the wheat system. Poster Presentation, Entomological Society of America national meeting, November 13 - 16, 2011."
- 2011, "Scott C. Merrill, S. C. and F. B. Peairs. 2011. The perils of linear thinking: modeling the effects of climate change on insect pest dynamics. Poster Presentation, Entomological Society of America national meeting, November 13 - 16, 2011, Reno, NV."
- 2010, "Merrill, S. C. and F. B. Peairs. 2010. How will climate change affect the habitat of the Russian wheat aphid, *Diuraphis noxia* (Kurdjumov)? Poster Presentation, Entomological Society of America national meeting, December 12 - 15, 2010, San Diego, CA."
- 2010, "Peairs, F. B. 2010. Russian wheat

aphid biotypes and noncultivated hosts in Colorado. International Russian Wheat Aphid Workshop. Singapore. April 26 - 28, 2010."

2010, "Peairs, F. B. 2010. Russian wheat aphid management. WERA066: Integrated Management of Russian Wheat Aphid and Other Cereal Arthropod Pests, Fort Collins, CO. September 21-22, 2010."

2010, "Pucherelli, S. F., T. L. Randolph, A. A. Weiland, C. B. Walker, and F. B. Peairs. 2010. Russian wheat aphid biotypic diversity on non-cultivated grasses in montane environments in Colorado. Poster presentation, International Plant Resistance to Insects Workshop, 28 - 31 March, 2010, Charleston, SC."

2010, "Puterka, G. J., R. Hammon, J. Burd, F. B. Peairs, T. Randolph, and W. Cooper. 2010. Host associations and incidence of *Diuraphis* spp. in the Rocky Mountain region of the U. S. and pictorial key for their identification. Poster Presentation, Entomological Society of America national meeting, December 12 - 15, 2010, San Diego, CA."

#### **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., 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).

## TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2016	Spring	BSPM799 - Dissertation	18	4
2016	Spring	BSPM487 - Internship	18	1
2016	Spring	BSPM798 - Research	18	14
2016	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	17
2016	Spring	BSPM300 - Topics in Livestock Entomology	1	0
2016	Spring	BSPM310 - Understanding Pesticides	3	0
2015	Fall	BSPM799 - Dissertation	18	6
2015	Fall	BSPM798 - Research	18	9
2015	Spring	BSPM551 - Advanced Integrated Pest Management	4	6
2015	Spring	BSPM551 - Advanced Integrated Pest Management - Recitation	0	6
2015	Spring	BSPM451 - Integrated Pest Management	3	11
2015	Spring	BSPM698 - Research	18	6
2015	Spring	BSPM798 - Research	18	9
2015	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	8
2015	Spring	BSPM300 - Topics in Livestock Entomology	1	1
2014	Fall	BSPM798 - Research	18	8
2014	Spring	BSPM799 - Dissertation	18	5
2014	Spring	BSPM798 - Research	18	9
2014	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	14
2014	Spring	BSPM300 - Topics in Livestock Entomology	1	6
2014	Spring	BSPM310 - Understanding Pesticides	3	13
2013	Fall	BSPM799 - Dissertation	18	4
2013	Fall	BSPM698 - Research	18	8
2013	Fall	BSPM798 - Research	18	11
2013	Summer	BSPM698 - Research	18	2
2013	Summer	BSPM798 - Research	18	1
2013	Spring	BSPM551 - Advanced Integrated Pest Management	4	10
2013	Spring	BSPM551 - Advanced Integrated Pest Management - Recitation	0	10
2013	Spring	BSPM451 - Integrated Pest Management	3	22
2013	Spring	BSPM798 - Research	18	8
2013	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	12
2013	Spring	BSPM300 - Topics in Livestock Entomology	1	5
2012	Fall	BSPM799 - Dissertation	18	5
2012	Spring	BSPM698 - Research	18	10
2012	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	13
2012	Spring	BSPM300 - Topics in Livestock Entomology	1	3

2012	Spring	BSPM310 - Understanding Pesticides	3	9
2011	Fall	BSPM495 - Independent Study	3	2
2011	Fall	BSPM698 - Research	18	9
2011	Spring	BSPM551 - Advanced Integrated Pest Management	4	7
2011	Spring	BSPM551 - Advanced Integrated Pest Management - Recitation	0	7
2011	Spring	BSPM451 - Integrated Pest Management	3	0
2011	Spring	BSPM698 - Research	18	12
2011	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	9
2011	Spring	BSPM300 - Topics in Livestock Entomology	1	6
2010	Fall	BSPM698 - Research	18	18
2010	Summer	BSPM698 - Research	18	3
2010	Spring	BSPM799 - Dissertation	18	3
2010	Spring	BSPM698 - Research	18	14
2010	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	7
2010	Spring	BSPM300 - Topics in Livestock Entomology	1	4
2009	Fall	BSPM799 - Dissertation	18	4
2009	Fall	BSPM699 - Thesis	18	7
2009	Spring	BSPM551 - Advanced Integrated Pest Management	4	8
2009	Spring	BSPM551 - Advanced Integrated Pest Management - Recitation	0	8
2009	Spring	BSPM451 - Integrated Pest Management	3	8
2009	Spring	BSPM798 - Research	18	10
2009	Spring	BSPM699 - Thesis	18	4
2009	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	10
2009	Spring	BSPM300 - Topics in Livestock Entomology	1	1
2008	Fall	BSPM799 - Dissertation	18	6
2008	Fall	BSPM798 - Research	18	11
2008	Spring	BSPM495 - Independent Study	3	2
2008	Spring	BSPM798 - Research	18	10
2008	Spring	BSPM699 - Thesis	18	3
2007	Fall	BSPM698 - Research	18	12
2007	Fall	BSPM798 - Research	18	8

## **EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS**

### **Digital images provided through Bugwood**

Insect pest images. Adult. Number of times program was made: 69. Percent Responsible: 100%. Full Year 2015.

Insect pest images. Adult. Number of times program was made: 62. Percent Responsible: 100%. Full Year 2014.

### **Fact Sheet Downloads**

Field crop insect management. Adult, Colorado. Number of times program was made: 219006. Percent Responsible: 80%. Full Year 2014.

### **Field Day**

Wheat stem sawfly. Adult, Colorado. Number of times program was made: 1. Total number of participants: 108. Percent Responsible: 100%. 2nd Quarter 2015.

Wheat stem sawfly. Adult, Colorado. Number of times program was made: 1. Total number of participants: 35. Percent Responsible: 100%. 2nd Quarter 2015.

Wheat stem sawfly. Adult, New Raymer, Colorado. Number of times program was made: 1. Total number of participants: 16. Percent Responsible: 100%. 2nd Quarter 2014.

Wheat stem sawfly. Adult, New Raymer, Colorado. Number of times program was made: 1. Total number of participants: 19. Percent Responsible: 100%. 2nd Quarter 2014.

### **Presentation**

Agricultural insects. Adult, CO. Number of times program was made: 1. Total number of participants: 85. Percent Responsible: 100%. 1st Quarter 2015.

Field crop pest management. Adult, Colorado. Number of times program was made: 1. Total number of participants: 16. Percent Responsible: 100%. 2nd Quarter 2015.

Wheat insects. Adult, Colorado. Number of times program was made: 1. Total number of participants: 20. Percent Responsible: 100%. 2nd Quarter 2015.

Agricultural insects. Adult, Colorado. Number of times program was made: 1. Total number of participants: 53. Percent Responsible: 100%. 4th Quarter 2015.

Wheat stem sawfly. Adult, Colorado. Number of times program was made: 1. Total number of participants: 40. Percent Responsible: 100%. 4th Quarter 2015.

Alfalfa and small grains insects. Adult, Alamosa (remote), Colorado. Number of times program was made: 1. Percent Responsible: 100%. 1st Quarter 2014.

Research program summary. Adult, Fort Collins, Colorado. Number of times program was made: 1. Total number of participants: 15. Percent Responsible: 100%. 1st Quarter 2014.

Rootworm treatment failures. Adult, Grand Junction, CO. Number of times program was made: 1. Total number of participants: 43. Percent Responsible: 100%. 1st Quarter 2014.

Wheat stem sawfly. Adult, Albin, Wyoming. Number of times program was made: 1. Total number of participants: 60. Percent Responsible: 100%. 1st Quarter 2014.

Akron Field Day - Wheat stem sawfly update. Adult, Akron, Colorado. Number of times program was made: 1. Total number of participants: 74. Percent Responsible: 100%. 2nd Quarter 2014.

Wheat stem sawfly (PRU Tour). Adult, Akron, Colorado. Number of times program was made: 1. Total number of participants: 18. Percent Responsible: 100%. 2nd Quarter 2014.

Wheat stem sawfly. Adult, Haxturn, Colorado. Number of times program was made: 1. Total number of participants: 18. Percent Responsible: 100%. 3rd Quarter 2014.

Harvester ants and WSS. Adult, Fort Collins, Colorado. Number of times program was made: 1. Total number of participants: 23. Percent Responsible: 100%. 4th Quarter 2014.

Agricultural insects. Loveland, CO. Number of times program was made: 1. Total number of participants: 43. Percent Responsible: 100%. 1st Quarter 2013.

Research and demonstration. Loveland, CO. Number of times program was made: 1. Total number of participants: 18. Percent Responsible: 100%. 1st Quarter 2013.

Akron Field Day - Wheat stem sawfly update. Akron, CO. Number of times program was made: 1. Total number of participants: 78. Percent Responsible: 100%. 2nd Quarter 2013.

Agricultural insects. Denver, CO. Number of times program was made: 1. Total number of participants: 74. Percent Responsible: 100%. 1st Quarter 2012.

Research and demonstration. Denver, CO. Number of times program was made: 1. Total number of participants: 38. Percent Responsible: 100%. 1st Quarter 2012.

Rootworm treatment failures. Sterling, CO. Number of times program was made: 1. Total number of participants: 49. Percent Responsible: 100%. 1st Quarter 2012.

Rootworm treatment failures. Denver, CO. Number of times program was made: 1. Total number of participants: 41. Percent Responsible: 100%. 1st Quarter 2012.

Wheat research. Fort Collins, CO. Number of times program was made: 1. Total number of participants: 30. Percent Responsible: 100%. 2nd Quarter 2012.

### **Radio interview**

Wheat stem sawfly. Colorado. Number of times program was made: 1. Percent Responsible: 100%. 2nd Quarter 2015.

### **Website Visit**

High Plains IPM Guide chapter visits. Adult, Colorado. Number of times program was made: 35466. Percent Responsible: 100%. Full Year 2015.

High Plains IPM Guide chapter visits. Adult, Colorado. Number of times program was made: 30474. Percent Responsible: 100%. Full Year 2014.

## **COMMITTEES**

University Grievance Committee, (January 2014 - Present).

Committee on University Programs, (September 1, 2007 - June 2015).

(2010).

(2010).

Computer Information and Technology, (January 2015 - Present).

ARDEC Management Committee, (August 2008 - Present).

Cultivar and Germplasm Release Committee, (January 2000 - Present).

Search Committee, ARDEC Plant Sciences Manager, (December 2015 - April 2016).

(2010).

(2010).

Tenure and Promotion Committees, (July 1, 1988 - Present).

Ad hoc Graduate Curriculum Committee, (September 2014 - 2015).

Ad hoc Positions Committee, (January 2014 - August 2014).

Executive Committee, (September 1, 2011 - August 30, 2014).

Search Committee, Genetics of Complex Traits, (September 5, 2013 - November 26, 2013).

(2010).

(2010).

## **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

Society of Southwestern Entomologists. (1993 - Present).

Entomological Society of America. (1972 - Present).

ARDEC Management Committee. (2009 - Present).

Committee Chair, Cooperative Extension Wheat and other Cropping Systems Work Team. (2008 - Present).

Member, Committee on University Programs. (2006 - Present).

Member, Cultivar Release Committee. (2000 - Present).

Member, Society of Southwestern Entomologists. (1993 - Present).

Member, Tenure and Promotion. (1993 - Present).

Member, Colorado Department of Agriculture Ag Chemical Clearing Committee. (1990 - Present).

Member, Entomological Society of America. (1972 - Present).

Reviewer, Ad Hoc Reviewer, AoB Plants. (November 2015 - December 2015).

Reviewer, Ad Hoc Reviewer, Colorado Agricultural Experiment Station. (January 2015 - December 2015).

Reviewer, Ad Hoc Reviewer, Colorado Department of Agriculture. (January 2015 - December 2015).

Reviewer, Ad Hoc Reviewer, Journal of Economic Entomology. (January 2015 - December 2015).

Reviewer, Ad Hoc Reviewer, The Canadian Entomologist. (June 2015 - July 2015).

Reviewer, Ad Hoc Reviewer, Crop Science journal. (2014).

Reviewer, Ad Hoc Reviewer, CSU Extension. (2014).

Reviewer, Ad Hoc Reviewer, European Journal of Entomology. (2014).

Reviewer, Ad Hoc Reviewer, Journal of Economic Entomology. (2014).

Reviewer, Ad Hoc Reviewer, Precision Agriculture. (2014).

Member, Dean s Faculty Advisory Committee. (2010 - 2014).

Reviewer, P & T Dossier, University of Wyoming. (October 2014).

Reviewer, Ad Hoc Reviewer, USDA-ARS. (October 2014).

Reviewer, P & T Dossier, Iowa State University. (September 2014).

Reviewer, P & T Dossier, Texas A&M University. (June 2014 - July 2014).

Reviewer, P & T Dossier, University of Nebraska. (January 2014 - February 2014).

Member, Cooperative Extension IPM Work Team. (2008 - 2013).

Reviewer, Grant Proposal, Monsanto, St. Louis, MO. (December 1, 2012 - January 30, 2013).

Crop Protection. (2012).

CSU Extension. (2012).

Entomological Society of America. (2012).

Entomological Society of America. (2012).

Environmental Entomology. (2012).

European Conf. on Precision Ag. (2012).

Insect Science. (2012).

J. Ent. Research Society. (2012).

Journal of Economic Entomology. (2012).

Precision Agriculture. (2012).

Entomological Society of America. (2011 - 2012).

Member, Water Strategic Initiative. (2010 - 2012).

Colorado Agricultural Experiment Station. (2011).

Colorado Livestock Association, Fort Collins, CO. (2011).

Crop Protection. (2011).

CSU Extension, Sterling, CO. (2011).

CSU Extension, Fort Morgan, CO. (2011).

CSU Extension, Brush, CO. (2011).

CSU Extension, Brush, CO. (2011).

CSU Extension, Orchard, CO. (2011).

CSU Extension, Grand Junction, CO. (2011).

Entomological Society of America. (2011).

Entomological Society of America, San Diego, CA. (2011).



Great Plains Diagnostic Network, Fort Collins, CO. (2011).  
Journal of Economic Entomology. (2011).  
Journal of Plant Registrations. (2011).  
Colorado Agricultural Experiment Station. (2010).  
Colorado State University Extension. (2010).  
Colorado Wheat Administrative Committee, Fort Collins, CO. (2010).  
Crop Protection. (2010).  
CSU Extension, Sterling, CO. (2010).  
CSU Extension, Fort Collins (online), CO. (2010).  
CSU Extension, Yuma, CO. (2010).  
CSU Extension, Brighton, CO. (2010).  
Independent Agricultural Consultants of Colorado, Denver, CO. (2010).  
Journal of Applied Entomology. (2010).  
Journal of Economic Entomology. (2010).  
Journal of the Kansas Entomological Society. (2010).  
Rocky Mountain Agbusiness Association, Denver, CO. (2010).  
The Philippine Agricultural Scientist. (2010).  
Member, Executive Committee. (2008 - 2010).  
Extension Director's Advisory Committee. (2008 - 2010).

**OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH**

Student competition session moderator, Entomological Society of America, Portland, OR. (November 2014).

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