

CURRICULUM VITAE

NAME

Frank Peairs

ADDRESS

Bioagricultural Sciences and Pest Management
College of Agricultural Sciences

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EDUCATION

1977 Ph D, CORNELL UNIV

1974 MS, UNIV OF MASS

1971 BS, ALLEGHENY COLL

ACADEMIC POSITIONS

2017-2018 - Professor (College of Agricultural Sciences)

2016-2017 - Professor (College of Agricultural Sciences)

2015-2016 - Professor (College of Agricultural Sciences)

2014-2015 (College of Agricultural Sciences)

2013-2014 (College of Agricultural Sciences)

2012-2013 (College of Agricultural Sciences)

2011-2012 (College of Agricultural Sciences)

2010-2011 (College of Agricultural Sciences)

2009-2010 (College of Agricultural Sciences)

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.

1987 - 1988 Acting Department Head, Colorado State University.

1983 - 1988 Assistant Professor, Colorado State University.

1982 - 1983 Training Officer/Entomologist, CATIE (Costa Rica).

1977 - 1980 Entomologist, Ministry of Natural Resources, Honduras.

PUBLISHED WORKS

Books

Walter, S. M., Peairs, F. B., Gebre-Amlak, A. (2001). *2003 Colorado field crop insect management research and demonstration trials.*: University of Colorado Agricultural Experiment Station., Not Peer Reviewed/Refereed

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., Peer Reviewed/Refereed

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., Peer Reviewed/Refereed

Cockrell, D. M., Griffin-Nolan, R. J., Rand, T. A., Altilmisani, N., Ode, P. J., Peairs, F. B. (2017). Host plants of the wheat stem sawfly (Hymenoptera: Cephidae). *Environmental Entomology*, *46*, 847-854., Peer Reviewed/Refereed

Lesieur, V., Martin, J.-F., Weaver, D. K., Hoelmer, K. A., Smith, D. R., Morrill, W. L., Kadiri, N., Peairs, F. B., Cockrell, D. M., Randolph, T. L., Waters, D. K., Bon, M.-C. (2016). Phylogeography of the wheat stem sawfly, *Cephus cinctus* Norton (Hymenoptera: Cephidae): Implications for pest management. *PLoS ONE*, *11*(12), e0168370. doi:10.1371/journal.pone.0168370., Peer Reviewed/Refereed

Merrill, S. C., Peairs, F. B. (2016). Temperature variability is a key component in accurately forecasting the effects of climate change on pest phenology. *Pest Management Science.*, Peer Reviewed/Refereed

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., Peer Reviewed/Refereed

Fazel-Najafabadi, M., Peng, J. B., 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., Peer Reviewed/Refereed

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., Peer Reviewed/Refereed

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, Peer Reviewed/Refereed

- 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., Peer Reviewed/Refereed
- Haley, S. D., Johnson, J. J., Peairs, F. B. (2014). Registration of 'Antero' wheat. *Journal of Plant Registrations*, 8, 165-168., Peer Reviewed/Refereed
- Haley, S. D., Johnson, J. J., Peairs, F. B. (2014). Registration of 'Cowboy' wheat. *Journal of Plant Registrations*, 8, 169-172., Peer Reviewed/Refereed
- 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*., Peer Reviewed/Refereed
- 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.*., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (2012). Inheritance and genetic mapping of Russian wheat aphid resistance in Iranian wheat land race accession PI 626580. *Crop Science*, 52, 676-682., Peer Reviewed/Refereed
- (2012). Molecular characterization of Russian wheat aphid consumption by spiders in winter wheat. *Journal of Arachnology*, 40, 71-77., Peer Reviewed/Refereed
- (2012). Quantifying Russian wheat aphid pest intensity across the Great Plains. *Environmental Entomology*, 41, 1505-1515., Peer Reviewed/Refereed
- (2012). Registration of 'Brawl CL Plus' wheat. *J Plant Reg*, 6, 306-310., Peer Reviewed/Refereed
- (2012). Registration of 'Denali' wheat. *J Plant Reg*, 6, 311-313., Peer Reviewed/Refereed
- (2012). Registration of 'Stoneham' spring feed barley resistant to Russian wheat aphid. *J Plant Registrations*, 6, 5-Jan., Peer Reviewed/Refereed
- (2012). Registration of 'Byrd' wheat. *J Plant Reg*, 6, 302-305., Peer Reviewed/Refereed
- (2012). Russian wheat aphid (Hemiptera: Aphididae) reproduction and development on five noncultivated grass hosts. *Arthropod-Plant Interactions*, 6, 67-73., Peer Reviewed/Refereed
- Mornhigweg, D.**, Bregitzae, P., Porter, D., Peairs, F. B., Baltensperger, D., Hein, G., Randolph, T. L., Koch, M., Walker, C. B. (2012). Registration of 'Stoneham' spring feed barley resistant to Russian wheat aphid. *Journal of Plant Registrations*, 6, 1-5., Peer Reviewed/Refereed
- (2011). Inheritance of Russian wheat aphid resistance from tetraploid wheat accessions during transfer to hexaploid wheat. *Euphytica*, 179, 247-255., Peer Reviewed/Refereed
- (2011). Registration of 'Snowmass' wheat. *J Plant Reg*, 5, 4-Jan., Peer Reviewed/Refereed

- (2011). Registration of six wheat-rye addition lines resistant to the Russian wheat aphid. *Journal of Plant Registrations*, 5, 426–429., Peer Reviewed/Refereed
- (2011). Russian wheat aphid (Hemiptera: Aphididae) reproduction and development on five noncultivated grass hosts. *Arthropod-Plant Interactions* DOI: 10.1007/s11829-011-9152-5., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (2010). Implications of Russian wheat aphid, *Diuraphis noxia*, falling rates for biological control in resistant and susceptible winter wheat. *Arthropod-Plant Inte*, 4, 129-138., Peer Reviewed/Refereed
- (2010). Nonlinear Degree-Day Models for Postdiapause Development of the Sunflower Stem Weevil (Coleoptera). *J Econ Entomol*, 103, 302-307., Peer Reviewed/Refereed
- (2010). Relationship between Russian wheat aphid abundance and edaphic and topographic characteristics in wheat fields. *Southwestern Entomologist*, 35, 18-Nov., Peer Reviewed/Refereed
- (2010). Virus-induced gene silencing of WRKY53 and an inducible phenylalanine ammonia-lyase in wheat reduces aphid resistance. *Plant Biotechnology Journal*, 8, 1023-1032., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (2009). Modeling Spatial Variation of Russian Wheat Aphid Overwintering Population Densities in Colorado Winter Wheat. *J Econ Entomol*, 102, 533-541., Peer Reviewed/Refereed
- (2009). Molecular cytogenetic and agronomic characterization of advanced generations of wheat x triticale hybrids resistant to *Diuraphis noxia* (Mordvilko). *Genome*, 52, 353-360., Peer Reviewed/Refereed
- (2009). Registration of 'Sidney' Spring Feed Barley Resistant to Russian Wheat Aphid. *J Plant Regist*, 3, 214-218., Peer Reviewed/Refereed
- (2009). Registration of 'Thunder CL' Wheat. *J Plant Regist*, 3, 181-184., Peer Reviewed/Refereed
- (2009). Seasonal Presence of the Russian Wheat Aphid (Hemiptera). *Southwest Entomol*, 34, 121-129., Peer Reviewed/Refereed
- Mornhigweg, D.**, Bregitzae, P., Porter, D., Peairs, F. B., Baltensperger, D., Hein, G., Randolph, T. L., Koch, M., Walker, C. B. (2009). Registration of 'Sidney' spring feed barley resistant to Russian wheat aphid. *Journal of Plant Registrations*, 3, 214-218. https://www.researchgate.net/publication/43289052_Registration_of_'Sidney'_Spring_Feed_Barley_Resistant_to_Russian_Wheat_Aphid, Peer Reviewed/Refereed
- 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., Peer Reviewed/Refereed
- (2008). Biotypic diversity in Colorado Russian wheat aphid (Hemiptera). *J Econ Entomol*, 101, 569-574., Peer

Reviewed/Refereed

- (2008). Ground beetle (Coleoptera). *Southwest Entomol*, 33, 31-42., Peer Reviewed/Refereed
- (2008). Registration of 'Bill Brown' Wheat. *J Plant Regist*, 2, 218-223., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (2008). Reproductive rates of Russian wheat aphid (Hemiptera). *J Econ Entomol*, 101, 955-958., Peer Reviewed/Refereed
- (2007). Insect pest densities across site-specific management zones of irrigated corn in northeastern Colorado. *J Econ Entomol*, 100, 781-789., Peer Reviewed/Refereed
- (2007). Molecular mapping of the Russian wheat aphid resistance gene Dn2414 in wheat. *Crop Sci*, 47, 2418-2429., Peer Reviewed/Refereed
- (2007). Registration of 'Ripper' Wheat. *J Plant Regist*, 1, 6-Jan., Peer Reviewed/Refereed
- (2007). Resistance to *Rhopalosiphum padi* (Homoptera). *J Entomol Sci*, 42, 217-227., Peer Reviewed/Refereed
- (2007). Yield response to Russian wheat aphid (Homoptera). *Southwest Entomol*, 32, 15-Jul., Peer Reviewed/Refereed
- (2006). Biotypic variation among North American Russian wheat aphid (Homoptera). *J Econ Entomol*, 99, 1862-1866., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (2006). Registration of 'Bond CL' wheat. *Crop Sci*, 46, 993-995., Peer Reviewed/Refereed
- (2006). Registration of 'protection' wheat. *Crop Sci*, 46, 995-996., Peer Reviewed/Refereed
- (2006). Response of resistant and susceptible barley to infestations of five *Diuraphis noxia* (Homoptera). *J Econ Entomol*, 99, 2151-2155., Peer Reviewed/Refereed
- (2006). Yield response to Russian wheat aphid (Hemiptera). *Southwest Entomol*, 31, 25-32., Peer Reviewed/Refereed
- 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., Peer Reviewed/Refereed
- (2005). Biotype 2 Russian wheat aphid resistance among wheat germplasm accessions. *Crop Sci*, 45, 1877-1880., Peer Reviewed/Refereed
- (2005). Comparison of Dn4- and Dn7-carrying spring wheat genotypes artificially infested with Russian wheat aphid (Homoptera). *J Econ Entomol*, 98, 1698-1703., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed

- (2005). Management implications of reduced fallow periods in dryland cropping systems in the Great Plains. *Agron J*, 97, 373-377., Peer Reviewed/Refereed
- (2005). Registration of 'Hatcher' wheat. *Crop Sci*, 45, 2654-2656., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (2004). Occurrence of a new Russian wheat aphid biotype in Colorado. *Crop Sci*, 44, 1589-1592., Peer Reviewed/Refereed
- (2004). Registration of 'Ankor' wheat. *Crop Sci*, 44, 1025-1026., Peer Reviewed/Refereed
- (2003). Above winter wheat. *Can J Plant Sci*, 83, 107-108., Peer Reviewed/Refereed
- (2003). AP502 CL winter wheat. *Can J Plant Sci*, 83, 109-110., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (2003). Categories of resistance at four growth stages in three wheats resistant to the Russian wheat aphid (Homoptera). *J Econ Entomol*, 96, 673-679., Peer Reviewed/Refereed
- (2003). Plant damage and yield response to the Russian wheat aphid (Homoptera). *J Econ Entomol*, 96, 352-360., Peer Reviewed/Refereed
- (2003). Registration of 'Avalanche' wheat. *Crop Sci*, 43, 432-432., Peer Reviewed/Refereed
- (2002). Augmentative releases of commercial biological control agents for Russian wheat aphid management in winter wheat. *Southwest Entomol*, 27, 37-44., Peer Reviewed/Refereed
- (2002). Registration of CO960293-2 wheat germplasm resistant to Wheat streak mosaic virus and Russian wheat aphid. *Crop Sci*, 42, 1381-1382., Peer Reviewed/Refereed
- (2001). Registration of 'Prairie Red' wheat. *Crop Sci*, 41, 1362-1363., Peer Reviewed/Refereed
- (2001). Registration of 'Prowers 99' Wheat. *Crop Sci*, 41, 929-929., Peer Reviewed/Refereed
- (2001). Registration of 'Prowers' wheat. *Crop Sci*, 41, 928-929., Peer Reviewed/Refereed
- (2001). Registration of 'Yumar' wheat. *Crop Sci*, 41, 1363-1364., Peer Reviewed/Refereed
- (1999). Precision farming. *Crop Sci*, 41, 1777-1783., Peer Reviewed/Refereed
- (1998). Economic injury levels for the Russian wheat aphid (Homoptera). *J Econ Entomol*, 91, 741-747., Peer Reviewed/Refereed
- (1998). Effect of plant phenology and climate on Russian wheat aphid (Homoptera). *Environ Entomol*, 27, 221-231., Peer Reviewed/Refereed
- (1996). Environmental parameters related to winter mortality of the Russian wheat aphid (Homoptera). *J Econ Entomol*, 89, 1281-1287., Peer Reviewed/Refereed

- (1996). Evaluation of hymenopterous biological control agents of the alfalfa weevil larvae *Hypera postica* (Coleoptera). *J Kansas Entomol Soc*, 69, 326-336., Peer Reviewed/Refereed
- (1996). Gustatory and olfactory responses of *Cylindrocopturus adspersus* (Leconte) to various plant species in the laboratory. *Southwest Entomol*, 21, 255-264., Peer Reviewed/Refereed
- (1996). Integrated Pest Management of insects, plant pathogens, and weeds in dryland cropping systems of the great plains. *J Prod Agric*, 9, 200-208., Peer Reviewed/Refereed
- (1996). Registration of 'Halt' wheat. *Crop Sci*, 36, 210-210., Peer Reviewed/Refereed
- (1996). Registration of Russian wheat aphid-resistant wheat germplasm CORWA1. *Crop Sci*, 36, 217-217., Peer Reviewed/Refereed
- (1996). Winter wheat planting date effect on Russian wheat aphid (Homoptera). *J Kansas Entomol Soc*, 69, 302-309., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (1994). Leaf Unrolling of 3 Wheat Genotypes in Russian Wheat Aphid Extracts. *Cereal Res Commun*, 22, 375-379., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (1992). Distribution of Overwintering Russian Wheat Aphid (Homoptera, Aphididae) in Furrow-Irrigated Small Grains in Western Colorado. *J Econ Entomol*, 85, 2452-2458., Peer Reviewed/Refereed
- (1992). Inheritance of Resistance of 3 Russian Triticale Lines to the Russian Wheat Aphid. *Crop Sci*, 32, 689-692., Peer Reviewed/Refereed
- (1991). Alternate Hosts of the Russian Wheat Aphid (Homoptera, Aphididae) in Northeastern Colorado. *J Econ Entomol*, 84, 1691-1694., Peer Reviewed/Refereed
- (1991). Inheritance of Resistance of Pi 372129 Wheat to the Russian Wheat Aphid. *Crop Sci*, 31, 905-907., Peer Reviewed/Refereed
- (1991). Russian Wheat Aphid Reaction and Agronomic and Quality Traits of a Resistant Wheat. *Crop Sci*, 31, 50-53., Peer Reviewed/Refereed
- 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., Peer Reviewed/Refereed

- (1990). Effect of Vernalization on Russian Wheat Aphid Resistance of Wheat and Triticale in Greenhouse Screening-Tests. *Cereal Res Commun*, 18, 131-134., Peer Reviewed/Refereed
- (1990). Gene Location for Russian Wheat Aphid Resistance of Imperial Rye Using Wheat-Rye Addition Lines. *Cereal Res Commun*, 18, 307-313., Peer Reviewed/Refereed
- (1990). Russian Wheat Aphid (Diuraphis-Noxia) Resistance in Wheat and Related Species. *Can J Plant Sci*, 70, 691-698., Peer Reviewed/Refereed
- (1989). Russian Wheat Aphid Resistance of Wheat, Rye, and Triticale in Greenhouse Tests. *Cereal Res Commun*, 17, 227-232., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed

Refereed Chapters in Books

- Harris, M. O., Anderson, K., El-Bouhssini, M., Peairs, F. B., Hein, G. L., Xu., S. (2017). Wheat pests: insects, mites and prospects for the future. In P. Langridge (Ed.), *Achieving sustainable cultivation of wheat. Volume 1: Breeding, quality traits, pests and diseases*. (vol. 1, pp. 467-544).: Burleigh Dodds Science Publishing., Peer Reviewed/Refereed

Non-Refereed Journal Articles

- Lavergne, F. D., Broeckling, C. D., Cockrell, D. M., Haley, S. D., Peairs, F. B., Jahn, C. E., Heuberger, A. (2018). GC-MS Metabolomics to Evaluate the Composition of Plant Cuticular Waxes for Four *Triticum aestivum* Cultivars. *International Journal of Molecular Sciences*, 19(2). <http://www.mdpi.com/1422-0067/19/2/249>, Not Peer Reviewed/Refereed
- Haley, S. D., Johnson, J. J., Peairs, F. B. Registration of 'Avery' wheat. *Journal of Plant Registrations.*, Not Peer Reviewed/Refereed
- Haley, S. D., Johnson, J. J., Peairs, F. B. Registration of 'Langin' wheat. *Journal of Plant Registrations.*, Not Peer Reviewed/Refereed
- Haley, S. D., Johnson, J. J., Peairs, F. B. (2017). Registration of 'Sunshine' wheat. *Journal of Plant Registrations.*, Not Peer Reviewed/Refereed
- Lestina, J., Cook, M., Kumar, S., Morisette, J., Ode, P. J., Peairs, F. B. (2016). MODIS Imagery Improves Pest Risk Assessment: A Case Study of Wheat Stem Sawfly (*Cephus cinctus*, Hymenoptera: Cephidae) in Colorado, USA. *Environmental Entomology*, nvw095., Not Peer Reviewed/Refereed
- Lesieur, V. R., Martin, J.-F., Weaver, D., Hoelmer, K., Smith, D., Morrill, W., Kadiri, N., Peairs, F. B., Cockrell, D. M., Randolph, T. L., Waters, D., Bon, M.-C. (2016). Phylogeography of the Wheat Stem Sawfly, *Cephus cinctus* Norton (Hymenoptera: Cephidae): Implications for Pest Management. *PLOS ONE.*, Not Peer Reviewed/Refereed
- Haley, S. D., Johnson, J. J., Peairs, F. B. Registration of 'Sunshine' wheat. *Journal of Plant Registrations.*, Not Peer Reviewed/Refereed
- 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., Not Peer Reviewed/Refereed

- 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., Not Peer Reviewed/Refereed
- Anderson, V. A., Byrne, P. F., Lapitan, N. L., Peairs, F. B., Bernardo, A., Bai, G., Haley, S. D. (2012). Inheritance and genetic mapping of Russian wheat aphid resistance in Iranian wheat landrace accession PI 626580. *Crop science*, 52(2), 676–682., Not Peer Reviewed/Refereed
- Merrill, S. C., Walter, S. M., Peairs, F. B., Hoeting, J. A. (2011). Spatial Variability of Western Bean Cutworm (Lepidoptera: Noctuidae) Pheromone Trap Captures in Sprinkler Irrigated Corn in Eastern Colorado. *Environmental Entomology*, 40(3), 654–660., Not Peer Reviewed/Refereed
- Merrill, S. C., Gebre-Amlak, A., Armstrong, J. S., Peairs, F. B. (2010). Nonlinear degree-day models for postdiapause development of the sunflower stem weevil (Coleoptera: Curculionidae). *Journal of economic entomology*, 103(2), 302–307., Not Peer Reviewed/Refereed
- Harrington, J. E., Byrne, P. F., Peairs, F. B., Nissen, S. J., Westra, P., Ellsworth, P. C., Fournier, A., Mallory-Smith, C. A., Zemetra, R. S., Henry, W. B. (2010). Perceived consequences of herbicide-tolerant and insect-resistant crops on integrated pest management strategies in the western United States: Results of an online survey. *AgBioForum.*, Not Peer Reviewed/Refereed
- Zemetra, R., Brown, J., Byrne, P. F., Harrington, J. E., Nissen, S. J., Peairs, F. B., Westra, P., Riera-Lizarazu, O., Mallory-Smith, C., Ellsworth, P. (2005). Integrated Pest Management for Herbicide Tolerant and Insect Resistant Crops: Assessing Information and Research Needs., Not Peer Reviewed/Refereed

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).: Colorado State University, University of Nebraska, University of Wyoming Regional Publication., Not Peer Reviewed/Refereed
- Bradshaw, J., Peairs, F. B. (2015). Insect Management. *Dry bean production and integrated pest management. 3rd Ed.* (3rd Edition ed., pp. 95-110).: Colorado State University, University of Nebraska, University of Wyoming Regional Publication., Not Peer Reviewed/Refereed

Non-Refereed Proceedings or Transactions

- Peairs, F. B. (2017). Development of integrated pest management approaches for Russian wheat aphid in Colorado, USA. *GRDC Grains Research Update* (pp. 243-248).: GRDC., Not Peer Reviewed/Refereed
- Gebre-Amlak, A., Peairs, F. B. (2003). Degree day model for sunflower stem weevil (Coleoptera: Curculionidae) management. *The 2003 ESA Annual Meeting and Exhibition.*: Not Peer Reviewed/Refereed
- (2012). *2011 Colorado field crop insect management research and demonstration trials.*: Colorado State Univ Agric Exp Sta Tech Rep TR12-09, 37 pp., Peer Reviewed/Refereed
- (2012). *Making better decisions: 2012 Colorado wheat variety performance trials.*: Colorado State Univ Agric Exp Sta Tech Rep TR12-11, 52 pp., Peer Reviewed/Refereed
- (2012). *Sustainable dryland agroecosystems management.*: Colorado Agricultural Experiment Station Technical Bulletin TB-12-01, 179 pp., Peer Reviewed/Refereed

- (2012). *Sustainable dryland agroecosystems management: 2006-2007 results.*: Colorado Agric Exp Sta Tech Bulletin TB-12-02, 117 pp., Peer Reviewed/Refereed
- (2011). *2010 Colorado field crop insect management research and demonstration trials.*: Colorado State Univ Agric Exp Sta Tech Rep TR11-03, 31 pp., Peer Reviewed/Refereed
- (2011). *Legume insect pests.*: Legume ipm Pipe Diagnostic Pocket Series; Legume Integrated Pest Management Pest Information Platform for Extension and Education., Not Peer Reviewed/Refereed
- (2011). *Making better decisions: 2011 Colorado wheat variety performance trials.*: Colorado State Univ Agric Exp Sta Tech Rep TR11-07, 44 pp., Peer Reviewed/Refereed
- (2011). *Other insects and pests.*: Legume ipm Pipe Diagnostic Pocket Series; Legume Integrated Pest Management Pest Information Platform for Extension and Education., Not Peer Reviewed/Refereed
- (2011). *Wheat stem sawfly: A new pest of Colorado wheat.*: Colorado State University Extension Fact Sheet 5612., Peer Reviewed/Refereed
- (2010). *2009 Colorado field crop insect management research and demonstration trials.*: Colorado State Univ Agric Exp Sta Tech Rep TR10-03, 36 pp., Peer Reviewed/Refereed
- (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., Peer Reviewed/Refereed
- (2010). *Wheat production and pest management for the Great Plains region.*: Colorado State University Extension Bulletin XCM235, 188 pp., Not Peer Reviewed/Refereed

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): AES., Peer Reviewed/Refereed
- 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): AES., Peer Reviewed/Refereed
- 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): AES., Peer Reviewed/Refereed
- Johnson, J. J., Haley, S. D., Jones, S., Asfeld, E., Meyer, R. F., Trujillo, W., Kaan, D. A., Roesch, K., Larson, K., Vigil, M. F., Pettinger, B. T., Novak, R. A., Peairs, F. B., Broders, K. D., Byrne, P. F., Gaines, T., Westra, P., Walker, T., Erker, B. (2017). *TR17-4: Making Better Decisions, 2017 Colorado Winter Wheat Variety Performance Trials.*: Colorado Agricultural Experiment Station. PO Box 967, Not Peer Reviewed/Refereed
- Johnson, J. J., Haley, S. D., Bartolo, M. E., Larson, K., Vigil, M., Bosley, B., Meyer, R., Trujillo, W., Jones, 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): Colorado Agricultural Experiment Station., Peer Reviewed/Refereed
- 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): Colorado Agricultural Experiment Station. webdoc.agsci.colostate.edu/aes/AES/pubs/pdf/TR14-7.pdf, Peer Reviewed/Refereed

Johnson, J. J., Haley, S. D., Jones, 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): AES., Peer Reviewed/Refereed

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., Peer Reviewed/Refereed

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): Kluwer Pub, Boston., Peer Reviewed/Refereed

Technical Report

Cockrell, D. M., Randolph, T. L., Rudolph, J. B., Peairs, F. B. *2015 Colorado Field Crop Insect Management Research Demonstration Trials.*: CSU Agricultural Experiment Station Technical Report., Not Peer Reviewed/Refereed

Randolph, T. L., Cockrell, D. M., Rudolph, J. B., Peairs, F. B. *2014 Colorado Field Crop Insect Management Research Demonstration Trials.*: CSU Agricultural Experiment Station Technical Report., Not Peer Reviewed/Refereed

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

March 18, 2018, "Emergence of wheat stem sawfly (*Cehpus cinctus*) as a pest of winter wheat in Colorado", 2018 Entomological Society of America North Central Branch Meeting.

May 3, 2017, "Variation in Epicuticular Wax Composition and Structure Among Tissues and Cultivars of *Triticum aestivum*", Colorado Biological Mass Spectrometry Society Meeting.

February 23, 2017, "Development of integrated pest management approaches for Russian wheat aphid in Colorado, USA.", GRDC Grains Research Update, GRDC.

February 22, 2017, "Development of integrated pest management approaches for Russian wheat aphid in Colorado, USA.", GRDC Grains Research Update, GRDC.

February 20, 2017, "Development of integrated pest management approaches for Russian wheat aphid in Colorado, USA.", GRDC Grains Research Update, GRDC.

February 16, 2017, "Development of integrated pest management approaches for Russian wheat aphid in Colorado, USA.", GRDC Grains Research Update, GRDC.

February 14, 2017, "Development of integrated pest management approaches for Russian wheat aphid in Colorado, USA.", GRDC Grains Research Update, GRDC.

February 9, 2017, "Development of integrated pest management approaches for Russian wheat aphid in Colorado, USA.", GRDC Grains Research Update, GRDC.

February 7, 2017, "Development of integrated pest management approaches for Russian wheat aphid in Colorado, USA.", GRDC Grains Research Update, GRDC.

November 1, 2016, "Manejo de plagas insectiles de alfalfa en Colorado", Seminario, Estacion Experimental La Estanzuela, Institucion Nacional de Investigacion Agropecuaria.

October 28, 2016, "Manejo de *Cephus cinctus* en el estado de Colorado", Seminario, Estacion Experimental La Estanzuela, Institucion Nacional de Investigacion Agropecuaria.

October 26, 2016, "Manejo integrado de plagas", Curso corto, UTEC, UTEC campus.

November 17, 2015, "Ovipositional preference of wheat stem sawflies, *Cephus cinctus*", Entomology 2015, Entomological Society of America, (Presenter) Altimisan, 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. "Breck winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2017, Application: 2017, Approved: 2017, Licensed: 2017).

Haley, S. D., Johnson, J. J., Peairs, F. B., Westra, P. "Incline AX winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2017, Application: 2017, Approved: 2017, Licensed: 2017).

Haley, S. D., Johnson, J. J., Peairs, F. B., Westra, P. "LCS Fusion AX winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2017, Application: 2017, Approved: 2017, Licensed: 2017).

Haley, S. D., Johnson, J. J., Peairs, F. B. "Langin winter wheat (wheat cultivar)," Licensed to: Colorado Wheat Research Foundation. (Submitted: 2016, Application: 2016, Approved: 2016, Licensed: 2016).

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).

(June 2017 - March 9, 2020). Qualified Supervisor Pesticide App, Colorado Department of Agriculture.

TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2017	Fall	BSPM798 - Research	67	14
2017	Spring	BSPM551 - Advanced Integrated Pest Management	4	9
2017	Spring	BSPM551 - Advanced Integrated Pest Management - Recitation	0	9
2017	Spring	BSPM451 - Integrated Pest Management	3	14
2017	Spring	BSPM798 - Research	86	16
2017	Spring	ANEQ300B - Topics in Animal Sciences-Livestock Entomology	1	18
2017	Spring	BSPM300 - Topics in Livestock Entomology	1	0
2016	Fall	BSPM487 - Internship	18	1
2016	Fall	BSPM798 - Research	18	18
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

Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2017	Fall	Soil & Crop Sciences-SOCR421 - Crop and Soil Management Systems	1	Face to Face
2016	Fall	Soil & Crop Sciences-SOCR421 - Crop and Soil Management Systems	1	Face to Face

Evidence of Teaching Effectiveness (Annual Input)

Other Evidence

Spring 2013, BSPM 551–Advanced Integrated Pest Management

Spring 2013, BSPM 451–Integrated Pest Management

Spring 2013, ANEQ 300B–Topics in Animal Sciences-Livestock Entomology

Spring 2013, BSPM 300–Topics in Livestock Entomology

EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS

Digital images provided through Bugwood

Pest insects. Adult. Number of times program was made: 89. Total number of participants: 89. Percent Responsible: 100%. Full Year 2017.

Pest insects. Adult. Number of times program was made: 100. Total number of participants: 100. Percent

Responsible: 100%. Full Year 2016.

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.

Fact sheet pageviews

Pest insects. Adult. Percent Responsible: 100%. Full Year 2016.

Fact sheet unique page views

Pest insects. Adult. Percent Responsible: 100%. Full Year 2017.

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, Yuma, Colorado. Number of times program was made: 1. Total number of participants: 23. Percent Responsible: 100%. 1st Quarter 2017.

Wheat stem sawfly. Adult, Akron, Colorado. Number of times program was made: 1. Total number of participants: 76. Percent Responsible: 100%. 2nd Quarter 2017.

Wheat stem sawfly. Adult, ARDEC, Colorado. Number of times program was made: 1. Total number of participants: 35. Percent Responsible: 100%. 2nd Quarter 2017.

Alfalfa weevil. Adult, Fort Morgan, Colorado. Number of times program was made: 1. Total number of participants: 63. Percent Responsible: 100%. 4th Quarter 2017.

Wheat stem sawfly. Adult, ARDEC, Colorado. Number of times program was made: 1. Total number of participants: 25. Percent Responsible: 100%. 4th Quarter 2017.

Ag insects. Adult, Akron, CO. Number of times program was made: 1. Total number of participants: 8. Percent Responsible: 100%. 1st Quarter 2016.

Ag insects. Adult, Lamar, CO. Number of times program was made: 1. Total number of participants: 48. Percent Responsible: 100%. 1st Quarter 2016.

IPM. Adult, Fort Collins, CO. Number of times program was made: 1. Total number of participants: 8. Percent Responsible: 100%. 1st Quarter 2016.

Ag insects. Adult, Loveland, CO. Number of times program was made: 1. Total number of participants: 47. Percent Responsible: 100%. 2nd Quarter 2016.

Wheat stem sawfly. Adult, Fort Collins, CO. Number of times program was made: 1. Total number of

participants: 21. Percent Responsible: 100%. 2nd Quarter 2016.

Wheat stem sawfly. Adult, Akron, CO. Number of times program was made: 1. Total number of participants: 81. Percent Responsible: 100%. 3rd Quarter 2016.

Ag insects. Adult, Loveland, CO. Number of times program was made: 1. Total number of participants: 53. Percent Responsible: 100%. 4th Quarter 2016.

Ag insects. Adult, Fort Morgan, CO. Number of times program was made: 1. Total number of participants: 37. Percent Responsible: 100%. 4th Quarter 2016.

Wheat stem sawfly. Adult, Fort Collins, CO. Number of times program was made: 1. Total number of participants: 23. Percent Responsible: 100%. 4th Quarter 2016.

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. Denver, CO. Number of times program was made: 1. Total number of participants: 41. 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.

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

Ask An Expert. Adult, Colorado. Number of times program was made: 78. Total number of participants: 78. Percent Responsible: 100%. Full Year 2017.

Pest insects. Adult. Number of times program was made: 58159. Total number of participants: 52326. Percent Responsible: 100%. Full Year 2017.

Ask An Expert. Adult, Colorado. Number of times program was made: 38. Total number of participants: 38. Percent Responsible: 100%. Full Year 2016.

Pest insects. Adult. Number of times program was made: 23729. Total number of participants: 21291. Percent Responsible: 100%. Full Year 2016.

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).

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

Search Committee, Deputy Director and Associate Dean for Extension, (2016).

ARDEC Management Committee, (August 2008 - December 2016).

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

(2010).

(2010).

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

Department Undergraduate Major Committee, (September 2017 - 2018).

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).

Various.

Various.

Various.

Various.

Editor, Associate Editor, Entomological Society of America. (October 2016 - Present).

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

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

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

Reviewer, Ad Hoc Reviewer, Colorado Agricultural Experiment Station. (January 2017 - December 2017).

Reviewer, P & T Dossier, University of Minnesota. (August 2017).

Reviewer, P & T Dossier, Washington State University. (June 2017 - July 2017).

Reviewer, Grant Panel, NIFA (Crop Protection and Pest Management). (May 2017 - July 2017).

Reviewer, Ad Hoc Reviewer, Canadian National Wheat Cluster. (June 2017).

Reviewer, Grant Panel, Southern Region IPM Center. (January 2016).

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).

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

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

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