

CURRICULUM VITAE
CHARLES MICHAEL SMITH
UNIVERSITY DISTINGUISHED PROFESSOR EMERITUS

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EDUCATION:

Ph.D. 1976, Mississippi State University
M.S. 1973, Mississippi State University
B.S. 1971, Southwestern Oklahoma State University

EMPLOYMENT:

Present: University Distinguished Professor Emeritus, Kansas State University
1996-2020: Professor, Department of Entomology, Kansas State University
1990-96: Professor and Head, Department of Entomology, Kansas State University.
1988-90: Entomology Division Chair, Dept. Plant, Soil & Entomological Sciences, Univ. of Idaho
1978-88: Professor, Dept. of Entomology, Louisiana State University
1976-78: Postdoctoral Research Associate, Dept. of Entomology, North Carolina State University
1972-76: Graduate Research Associate, Dept. of Entomology, Mississippi State University
1971-72: Active duty, U.S. Army Reserve; Ready Reserve 1972-1978
1967-71: General Laboratory Assistant, Biology Department, Southwestern Oklahoma State University

RECOGNITIONS:

2020 University Distinguished Professor, Kansas State University.
2019 North Central Branch C. V. Riley Award, Entomological Society of America.
2016 Lifetime Achievement Award, International Plant Resistance to Insects Workshop.
2015 Fellow, American Association for the Advancement of Science.
2010 National Recognition Award, Entomological Society of America.
2009 North Central Branch Recognition Award, Entomological Society of America.
2009 Kansas State University Gamma Sigma Delta Distinguished Faculty Award.
2007 President, Kansas State University Chapter, Sigma Xi.
2006 Fellow, Entomological Society of America.
2004 E. Walter Morrison Award, Kansas State University Foundation.
2004 Subject Editor, *Journal of Economic Entomology*, Entomological Society of America.
2004 Graduate Faculty Fellow, University of Nebraska
2003 External Examiner, Dissertation Assessment Panel, The Royal Veterinary and Agricultural University (KVL), Copenhagen Denmark.
2003 President, Kansas Entomological Society.
2002 Fulbright Scholar, Czech Agricultural University, William J. Fulbright Commission, Research Council for International Exchange of Scholars.
2000 President, Kansas State University Eta Chapter, Gamma Sigma Delta.
1999 Graduate Faculty Fellow, University of Nebraska.
1999 MIAC Mexico Faculty Development Program.
1999 Research and Study leave, Research Institute of Crop Production, Prague, Czech Republic.
1997 Sabbatical leave, Kansas State University Wheat Genetic Resources Center.
1985 President, Louisiana Entomological Society.
1982 Participant, ADAB/FAO Monitoring of Progress Mission IPM for Rice in Southeast Asia.

Editorial Boards and Editorships:

Journal of Economic Entomology, Subject Editor, 2004-2015.
Arthropod-Plant Interactions, Founding Editor, Associate Editor, 2007-2017.
Biopesticides International, Editorial Board, 2002-present.
Insects Editorial Board, 2015-present.
Nature Scientific Reports (Ecology and Evolutionary Biology) Editorial Board, 2015-present.

PUBLICATIONS

Books:

1. Smith CM. 2005. *Plant Resistance to Arthropods – Molecular and Conventional Approaches*. Springer, The Netherlands. 423 pp.
2. Smith CM, Khan ZR, Pathak MD. 1994. *Techniques for Evaluating Insect Resistance in Crop Plants*. CRC Press, Boca Raton, FL. 320 pp.
3. Smith CM. 1989. *Plant Resistance to Insects - A Fundamental Approach*. John Wiley & Sons, NY. 286 pp. (Translated to Chinese by the Chinese Agricultural Science & Technology Press. 1992, and to Farsi by G. N. Ganbalani, M. Hosseini, and F. Yaghmaee, 1995).

Book Chapters:

1. Smith CM, Clement SL. 2012. Molecular Bases of Plant Resistance to Arthropods. *Annu. Rev. Entomol.* 57:309-328. **Impact factor [IF] 12.18, cited half-life of >10 years.**
2. Smith CM. 2010. Biochemical Plant Defenses Against Herbivores: From Poisons to Spices. pp. 1-20. In Dubinsky Z, Seckbach J. (eds.) *All Flesh is Grass: Plant-Animal Interactions. "Cellular Origins, Life in Extreme Habitats and Astrobiology"* (COLE) Book Series, Springer, Berlin. Vol 13: Red Algae in the Genomic Age. Springer, New York.
3. Smith CM. 2009. Advances in Breeding for Host Plant Resistance. pp. 235-246, In: Radcliffe EB, Hutchison WD, Cancelado WF (eds.) *Integrated Pest Management*, Cambridge Press.
4. Dhillon MK, Sharma HC, Smith CM. 2008. Implications of cytoplasmic male-sterility systems for development and deployment of pest resistant hybrids in cereals. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources.* 3(068). <http://www.cababstractsplus.org/cabreviews>.
5. Smith CM. 2007. Plant Resistance to Insect and Mites. pp. 17-18, In: Buntin DG, Weiss M, Pike KD, Webster JA. (Eds.). *ESA Handbook of Small Grain Insects*. Entomological Society of America, Lanham, MD.
6. Smith CM. 2004. Plant Resistance Against Pests: Issues and Strategies, pp. 147-167. In: Koul O, Dhaliwal GS, Cuperus G. (Eds.), *Integrated Pest Management: Potential, Constraints And Challenges*. CABI Publ., Oxon, UK.
7. Smith CM. 2004. Host Plant Resistance in Crop Plants. pp. 605-608. In: Goodman RM, (Ed.), *The Encyclopedia of Plant and Crop Science*. Marcel Decker, New York.
8. Dhaliwal GS, Dilwari VK, Smith CM. 1999. Host Plant Defense Against Insects. pp. 172-210. In: Dhaliwal GS, Arora R. (Eds.). *Environmental Stress in Crop Plants*. Commonwealth Publishers, New Delhi.
9. Smith CM, S. S. Quisenberry and F. du Toit. 1999. The Value of Conserved Wheat Germplasm Possessing Arthropod Resistance. pp. 25 – 49. In: Clement, S. L. and Quisenberry, S. S. (Eds.) *Global Plant Genetic Resources for Insect Resistant Crops*. CRC Press, Boca Raton, Florida.
10. Smith CM. 1999. Plant Resistance to Insects. pp. 171-205. In: Rechcigl J, Rechcigl N. (Eds.) *Biological and Biotechnological Control of Insects*. Lewis, Boca Raton, FL.
11. Smith CM, 1998. Global Aspects of Insect Resistant Crop Plants. pp. 37-52. In: Dhaliwal GS, Arora R, Randhawa NS, Dhawan AK. (Eds.). *Integrated Pest Management: An Ecological Perspective of Plant - Insect Interactions, Ecological Agriculture and Sustainable Development*. Vol. 2. Indian Ecological Society, Punjab Agricultural University Ludhiana and Centre for Research in Rural and Industrial Development, Chandigarh, India.
12. Smith CM. 1997. An Overview of the Mechanisms and Bases of Resistance in Maize. pp. 1-12. In: Mihm JA. (Ed) *Insect Resistant Maize: Recent Advances and Utilization*, Proceedings of an International Symposium, International Maize and Wheat Improvement Center (CIMMYT), Mexico, D. F., 1994, CIMMYT, El Batan, Mexico.
13. Smith CM. 1994. Integration of rice insect control strategies and tactics. pp. 681-692. In: Heinrichs EA. (Ed.) *Biology and Management of Rice Insects*. John Wiley & Sons, New York.
14. Smith CM, Quisenberry SS. (Eds.). 1994. The Value and Use of Plant Resistance to Insects in Integrated Crop Management. *J. Agric. Entomol.* Vol. 11(3): entire issue, 250pp.

15. Smith CM, Khan ZR, Caballero P. 1991. Techniques and Methods to Evaluate the Chemical Bases of Insect Resistance in the Rice Plant. pp. 235-274. In: Heinrichs EA, Miller TA. (Eds.) *Rice Insects Management Strategies*. Springer-Verlag, New York.
16. Smith CM. 1988. Effects of Mechanical Damage to Plants on Insect Populations. pp. 321-340. In: Heinrichs EA. (Ed.) *Plant Stress-Insect Interactions*. John Wiley & Sons, New York.
17. Smith CM. 1983. The Rice Water Weevil, *Lissorhoptrus oryzophilus* Kuschel. pp. 21-28. In: Singh KG. (Ed.) *Exotic Plant Quarantine Pests and Procedures for Introduction of Plant Materials*. ASEAN (PLANTI). Selangor, Malaysia.

Refereed Journal Manuscripts:

1. Smith CM. 2021. Conventional breeding of insect-resistant crop plants: still the best way to feed the world population. *Current Opinion in Insect Science* 45:7–13. <https://doi.org/10.1016/j.cois.2020.11.008>.
2. Aguirre-Rojas LM, Scully ED, Trick HN, Zhu KY, Smith CM. 2021. Comparative analyses of transcriptional responses of *Dectes texanus* LeConte (Coleoptera: Cerambycidae) larvae fed on three different host plants and artificial diet. *Sci Rep* 11, 11448. <https://doi.org/10.1038/s41598-021-90932-x>.
3. Aguirre-Rojas LM, Buschman LL, McCornack B, Schapaugh WT, Scully ED, Zhu KY, Trick HN, Smith CM. 2021. Inheritance of antibiosis resistance to the *Dectes* stem borer, *Dectes texanus*, in soybean PI165673 *Agronomy* 11: 738. <https://doi.org/10.3390/agronomy11040738>.
4. Klein P, Smith CM. 2020. Host plant selection and virus transmission by *Rhopalosiphum maidis* are conditioned by potyvirus infection in *Sorghum bicolor*. *Arthropod-Plant Interactions* 14, 811–823. <https://doi.org/10.1007/s11829-020-09783-4>.
5. Klein P, Smith CM. 2020. Invasive Johnsongrass, a threat to native grasslands and agriculture. *Biologica*. <https://doi.org/10.2478/s11756-020-00625-5>.
6. Dommel M, Oh J, Huguët-Tapia JC, Guy E, Boulain H, Sugio A, Murugan M, Legeai F, Heck M, Smith CM, White FF. 2020. Big genes, small effectors: Pea aphid cassette effector families composed from miniature exons. *Front. Plant Sci.* <https://doi.org/10.3389/fpls.2020.01230>.
7. Khalaf L, Timm A, Chuang W-P, Enders L, Hefley TJ, Smith CM. 2020. Modeling *Aceria tosichella* biotype distribution over geographic space and time. *PLoS ONE* 15(5): e0233507. <https://doi.org/10.1371/journal.pone.0233507>.
8. Khalaf L, Chuang W, Aguirre-Rojas L, Klein P, Smith CM. 2019. Differences in *Aceria tosichella* population responses to wheat resistance genes and wheat virus transmission. *Arthropod-Plant Interactions* 13: APIS-D-18-00216R2 09/09/19.
9. Aguirre-Rojas LM, Khalaf LK, Smith CM. 2019. Barley varieties Stoneham and Sydney exhibit mild antibiosis and antixenosis resistance to the wheat curl mite, *Aceria toschiella* (Keifer). *Agronomy* 9, 748; <https://doi.org/10.3390/agronomy9110748>.
10. Zhao J, Abdelsalam NR, Khalaf L, Chuang W, Zhao L, Smith CM, Carver B, Bai G. 2019. Development of single nucleotide polymorphism markers for the wheat curl mite resistance gene *Cmc4*. *Crop Sci.* 0. doi:10.2135/cropsci2018.11.0695.
11. Boulain H, Legeai F, Guy E, Morlière S, Douglas NE, Oh J, Murugan M, Smith M, Jaquier J, Peccoud J, White FF, Carolan JC, Simon J-C, Sugio A. 2018. Fast evolution and lineage-specific gene family expansions of aphid salivary effectors driven by interactions with host-plants. *Genome Biol Evol.* 10: 1554–1572. <http://doi.org/10.1093/gbe/evy097>.
12. Aguirre-Rojas L, Khalaf LK, Garcés-Carrera S, Sinha DK, Chuang W-P, Smith CM. 2018. Resistance to wheat curl mite in arthropod-resistant rye-wheat translocation lines. *Agronomy* 7, 74. doi:10.3390/agronomy7040074.
13. Enders LS, Hefley TJ, Girvin JJ, Whitworth JR, Smith CM. 2018. Spatiotemporal distribution and environmental drivers of barley yellow dwarf virus and vector abundance in Kansas. *Phytopathol.* 108:10, 1196-1205.
14. Ramos OF, Smith CM, Fritz AK, Madl RL. 2017. Salicylic acid-mediated synthetic elicitors of systemic acquired resistance administered to wheat plants at jointing stage induced phenolics in mature grains. *Crop Sci.* 57:3122-3128. doi:10.2135/cropsci2015.11.0697.

15. Ramos OF, Smith CM, Fritz AK, Madl RL. 2017. Bird-cherry oat aphid (*Rhopalosiphum padi*) feeding stress induces enhanced levels of phenolics in mature wheat grains. *Crop Sci.* 57:2073-2079. doi: 10.2135/cropsci2015.08.0476.
16. Ramos OF, Smith CM, Fritz AK, Madl RL. 2017. Effect of insect feeding, pathogen infection, and heat stress on antioxidant properties of wheat bran. *Crop Sci.* 57:1-9. doi:10.2135/cropsci 2015.06.0363.
17. Girvin J, Whitworth RJ, Aguirre Rojas LM, Smith CM. 2017. Resistance of select winter wheat (*Triticum aestivum*) cultivars to *Rhopalosiphum padi* (Hemiptera: Aphididae). *J. Econ. Entomol.* 110: 1886–1889 doi: 10.1093/jee/tox164.
18. Chuang W-P, Aguirre-Rojas L, Khalaf LK, Zhang G, Fritz AK, Whitfield AE, Smith CM. 2016. Response of wheat genotypes carrying *Cmc4* and *Wsm2* to wheat curl mite, wheat streak mosaic virus, and wheat mosaic virus. *J. Econ. Entomol.* 109: doi: 10.1093/jee/tow255.
19. Carver BF, Smith CM, Chuang W-P, Hunger RM, Edwards JT, Yan L, Brown-Guedira G, Gill BS, Bai G, Bowden RL. 2016. Registration of OK05312, a high-yielding hard winter wheat donor of *Cmc4* for wheat curl mite resistance. *J. Plant Reg.* 10:7579. doi:10.3198/ jpr2015.04 .0026crg.
20. Petrova A, Smith CM. 2015. Application of brown planthopper salivary gland extract to rice plants induces systemic host mRNA patterns associated with nutrient remobilization. *PLoS ONE* 10(12): e0141769. doi: 10.1371/journal.pone.0141769.
21. Khan SA, Marimuthu M, Predeesh C, Aguirre-Rojas LM, Reese JC, Smith CM. 2015. Electrical penetration graph recording of Russian wheat aphid Hemiptera: Aphididae) feeding on aphid-resistant wheat and barley. *J. Econ. Entomol.* 108: 2465-2470. doi: 10.1093/ jee/ tov 183.
22. Crespo-Herrera LA, Akhunov E, Garkava-Gustavsson L, Jordan KW, Smith CM, Singh RP, Åhman I. 2014. Mapping resistance to the bird cherry-oat aphid and the greenbug in wheat using sequence-based genotyping. *Theor Appl Genet.* 127:1963-73. DOI 10.1007/s00122-014-2352-5.
23. Sinha DK, Smith CM. 2014. Selection of reference genes for expression analysis in *Diuraphis noxia* (Hemiptera: Aphididae) fed on resistant and susceptible wheat plants. *Nature Scientific Reports* 4, Article number: 5059 doi:10.1038/srep05059.
24. Ananthakrishnan R, Sinha DK, Murugan M, Zhu KY, Chen M-S, Zhu YC, Smith CM. 2014. Comparative gut transcriptome analysis reveals differences between virulent and avirulent Russian wheat aphids. *Arthropod Plant Interactions.* 8, DOI: 10.1007/s11829-014-9293-4.
25. Garcés-Carrera S, Knutson A, Wang H, Giles KL, Huang F, Whitworth RJ, Smith CM, Chen M-S. 2014. Virulence and biotype analyses of Hessian fly (*Mayetiola destructor*) populations from Texas, Louisiana, and Oklahoma. *J. Econ. Entomol.* 107:417-23.
26. Sotelo PA, Peairs FE, Hein, GA, Starkey S, Smith CM. 2014. Interactions among biological control, cultural control and barley resistance to the Russian wheat aphid in Colorado, Kansas and Nebraska. *J. Econ. Entomol.* 107: 1969-1976.
27. Crespo Herrera, LA, Smith CM, Singh, RP, Ahman, I. 2013. Resistance to multiple cereal aphids in wheat–alien substitution and translocation lines. *Arthropod-Plant Interactions* 7:535- 545.
28. Arthur FH, Starkus L, Smith CM, Phillips TW. 2013. Methodology for determining susceptibility of rough rice to *Rhyzopertha dominica* (L.) and *Sitotroga cerrella* (Olivier). *J. Pest Science.* 86:499-505. Doi 10.1007/s10340-013-0481-2.
29. Smith, CM, Chuang W-P. 2013. Plant Resistance to Aphid Feeding: Behavioral, Physiological, Genetic and Molecular Cues Regulate Aphid Host Selection and Feeding. *Pest Science and Management.* Invited Review. DOI 10.1002/ps.3689.
30. Petrova A, Smith M. 2013. Immunodetection of a brown planthopper (*Nilaparvata lugens* Stål) salivary catalase-like protein into tissues of rice, *Oryza sativa*. *Insect Mol. Biol.* DO 10.1111 /imb.12058.
31. Miller AD, Skoracka A, Navia D, Santos de Mendonca R, Szydlo W, Smith CM, Schultz MB, Denizhan E, Hoffmann AA. 2012. Molecular markers reveal extensive cryptic speciation and host specialization in an economically important mite taxon. *Mol. Phylogenet Evol.* 66:928-940.
32. Garcés Carrera S, Davis H, Aguirre-Rojas L, Murugan M, Smith M. 2012. Multiple categories of resistance to wheat curl mite expressed in *Aegilops* species accessions. *J. Econ. Entomol.* 105: 2180-2186.
33. Niide T, Higgins RA, Whitworth RJ, Schapaugh WT, Smith CM, Buschman LL. 2012. Antibiosis resistance in soybean plant introductions to *Decetes texanus*. *J. Econ. Entomol.* 105:598-607.

34. Cui F, Smith CM, Reese J, Edwards O, Gerald Reeck. 2012. Polymorphisms in salivary-gland transcripts of Russian wheat aphid biotypes 1 and 2. *Insect Science*. 19:429-440.
35. Murugan M, Smith CM. 2012. Barley tolerance of Russian wheat aphid biotype 2 herbivory involves expression of defense response and developmental genes. *Plant Signaling and Behavior*. 7:382-391.
36. El Bouhssini M, Ogbonnaya FC, Ketata H, Mosaad MM, Street K, Amri A, Keser M, Rajaram S, Morgounov A, Rihawi F, Dabus A, Smith CM. 2011. Progress in host plant resistance in wheat to Russian wheat aphid in North Africa and West Asia. *Australian J. Crop Science*. 5:1108-1113.
37. Murugan, M, Sotelo PA, Duraimurugan P, Whitfield AE, Schneweis D, Starkey S, Smith CM. 2011. Wheat curl mite resistance: Interactions of mite feeding with wheat streak mosaic virus infection. *J. Econ. Entomol.* 104:1406-1414.
38. Liu X, Meng J, Starkey S, Smith CM. 2011. Wheat gene expression is differentially affected by a virulent Russian wheat aphid biotype. *J. Chem. Ecol.* 37: 472-482.
39. Liu X, Marshall JP, Stary P, Edwards O, Puterka G, Dolatti L, Bouhssini ME, Malinga J, Smith CM. 2010. Global phylogenetics of an invasive aphid species: Evidence for multiple invasions into North America. *J. Econ. Entomol.* 103: 958-965.
40. Murugan M, Khan SA, Sotelo Cardona P, Vargas Orozco G, Viswanathan P, Reese J, Starkey S, Smith CM. 2010. Variation of resistance in barley against biotypes 1 and 2 of the Russian wheat aphid. *J. Econ. Entomol.* 103: 938-948.
41. Schapaugh WT, Todd T, Reese J, Diaz-Montano J, Meng J, Smith CM. 2010. Registration of K1639-2 soybean germplasm resistant to soybean cyst nematode and soybean aphid. *J. Plant Reg.* 2010 4: 67-69.
42. Smith CM, Liu XM, Wang LJ, Liu X, Chen MS, Starkey S, Bai J. 2010. Aphid feeding activates expression of a transcriptome of oxylipin-based defense signals in wheat involved in resistance to herbivory. *J. Chem. Ecol.* 36: 260-276.
43. Khan SA, Murugan M, Starkey S, Manley A, Smith CM. 2009. Inheritance and categories of resistance in wheat to Russian wheat aphid biotypes 1 and 2. *J. Econ. Entomol.* 102:1654- 1662.
44. Lazzari S, Starkey S, Reese J, Ray-Chandler A, Smith CM. 2009. Feeding behavior of Russian wheat aphid biotype 2 in response to wheat genotypes exhibiting antibiosis and tolerance. *J. Econ. Entomol.* 102:1291-1300.
45. Sotelo P, Starkey S, Voothuluru P, Wilde G, Smith CM. 2009. Resistance to Russian wheat aphid biotype 2 in CIMMYT synthetic hexaploid wheat lines. *J. Econ. Entomol.* 102: 1255-1261.
46. Enali S, Anathakrishnan R, Niide T, Starkus L, Starkey S, Smith CM. 2009. Comparisons of wheat and barley resistance to Russian wheat aphid biotype 2. *Arthropod Plant. Interactions*. 3:45-53.
47. Saker MM, Adawy S, Smith CM 2008. Entomological and genetic variation of cultivated barley (*Hordeum vulgare*) from Egypt. *GAPP Arch. Phytopathol. Plant Protect.* 41: 526-536.
48. Prabhakar S, Chen MS, Elpidina EN, Vinokurov KS, Smith CM, Marshall J, Oppert B. 2007. Transcriptome analysis of digestive proteases from the yellow mealworm, *Tenebrio molitor* L. *Insect Mol. Biol.* 16: 455-468.
49. Smith CM, Boyko EV. 2007. Mini Review: The molecular bases of plant resistance and defense responses to aphid feeding: current status. *Entomol. Exp. Appl.* 122: 1-16.
50. Voothuluru P, Meng J, Khajuria C, Louis J, Zhu L, Starkey S, Wilde GE, Baker CA, Smith CM. 2006. Categories and inheritance of resistance to Russian wheat aphid (Homoptera: Aphididae) Biotype 2 in a selection from wheat cereal introduction 2401. *J. Econ. Entomol.* 99: 1854- 1861.
51. Boyko EV, Smith CM, Vankatappa T, Bruno J, Deng Y, Starkey SR, Klaahsen D. 2006. The molecular basis of plant gene expression during aphid invasion: wheat Pto- and Pti-like sequences modulate aphid-wheat interaction. *J. Econ. Entomol.* 99:1430-1445.
52. Tolmay V, du Toit F, Smith CM. 2006. Registration of Russian wheat aphid resistant near isogenic lines developed in South Africa. *Crop Sci.* 46:478-480.
53. Boina D, Prabhakar S, Smith CM, Starkey S, Zhu L, Boyko E, Reese JC. 2005. Categories of resistance to greenbug (Homoptera: Aphididae) biotype I in wheats expressing the *Gby* and *Gbz* genes. *J. Kansas Entomol. Soc.* 78: 252-260.
54. Liu XM, Smith CM, Gill BS. 2005. Allelic relationships among Russian wheat aphid resistance genes. *Crop Sci.* 45:2273-2280.
55. Nagaraj N, Reese JC, Tuinstra MR, Smith CM, St. Amand P, Kirkham MB, Kofoid KD, Campbell LR,

- Wilde GE. 2005. Molecular mapping of sorghum genes expressing tolerance to damage by greenbug (Homoptera: Aphididae). *J. Econ. Entomol.* 98:595-602.
56. Smith CM, Boyko E, Starkey S. 2005. Differential expression of genes in wheat, *Triticum aestivum* L. controlling resistance to the Russian wheat aphid, *Diuraphis noxia* (Mordvilko). *IOBC wprs Bull.* 28:11-20.
 57. Zhu LC, Smith CM, Fritz A, Boyko EV, Gill BS. 2005. Inheritance and molecular mapping of new greenbug resistance genes in wheat germplasms derived from *Aegilops tauschii*. *Theor. Appl. Genet.* 111: 831-837.
 58. Zhu LC, Smith CM, Reese JC. 2005. Categories of resistance to greenbug (Homoptera: Aphididae) biotype K in wheat lines containing *Aegilops tauschii* genes. *J. Econ. Entomol.* 98:2260-2265.
 59. Boyko E, Starkey S, Smith CM. 2004. Genetic mapping of genes expressing resistance to greenbug and Russian wheat aphid in bread wheat. *Theor. Appl. Genet.* 109:1230-1236.
 60. Smith CM, Belay T, Stauffer C, Sary P, Kubeckova I, Starkey S. 2004. Identification of Russian wheat aphid (Homoptera: Aphididae) biotypes virulent to the *Dn4* resistance gene. *J. Econ. Entomol.* 97:1112 - 1117.
 61. Smith CM, Havlickova H, Starkey S, Belay T, Holubec V. 2004. Identification of *Aegilops* germplasm with multiple aphid resistance. *Euphytica.* 135:265-273.
 62. Zhu L, Smith CM, Boyko EV, Fritz A, Flinn MB. 2004. Genetic analysis and molecular mapping of a wheat gene conferring tolerance to the greenbug (*Schizaphis graminum* Rondani). *Theor. Appl. Genet.* 109: 289-293.
 63. Smith CM, Starkey S. 2003. Resistance to greenbug (Heteroptera: Aphididae) biotype I in *Aegilops tauschii* synthetic wheats. *J. Econ. Entomol.* 96:1571-1576.
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 65. Malik R, Smith CM, Harvey TL, Brown Guedira GL. 2003. Assessment of *Aegilops tauschii* for resistance to diverse strains of wheat curl mite. *J. Econ. Entomol.* 96:1329-1333.
 66. Malik R, Smith CM, Harvey TL, Brown Guedira GL. 2003. Genetic mapping of wheat curl mite resistance genes *Cmc3* and *Cmc4* in common wheat. *Crop Sci.* 43:644-650.
 67. Liu XM, Smith CM, Gill BS. 2002. Mapping of microsatellite markers linked to the *Dn4* and *Dn6* genes expressing Russian wheat aphid resistance in wheat. *Theor. Appl. Genet.* 104:1042-1048.
 68. Liu X, Smith CM, Belay T, Tolmay V. 2001. Microsatellite markers linked to six Russian wheat aphid resistance genes in wheat. *Theor. Appl. Genet.* 102:504-510.
 69. Srinivas P, Danielson SD, Smith CM, Foster JD. 2001. Cross-resistance and resistance longevity as induced by bean leaf beetle, *Cerotoma trifurcata* and soybean looper, *Pseudoplusia includens* herbivory on soybean. *J. Insect Science*, 1.5.
 70. Flinn MF, Smith CM, Reese JC, Gill BS, 2001. Categories of resistance to greenbug (Homoptera: Aphididae) biotype I in *Aegilops tauschii* germplasm. *J. Econ. Entomol.* 94: 558-563.
 71. Oppert B, Hartzer K, Smith CM. 2000. Digestive proteinases of alfalfa weevil, *Hypera postica*, (Gyllenhal) (Coleoptera: Curculionidae). *Trans. Kansas Acad. Sci.* 103:99-110.
 72. Souza E, Windes JM, Quisenberry SS, Schotzko DJ, Lamb PF, Halbert S, Zemetra RS, Smith CM. 1997. Registration of IDAHO 472 wheat germplasm. *Crop Sci.* 37:1032.
 73. Souza E, Windes JM, Quisenberry SS, Schotzko DJ, Lamb PF, Halbert S, Zemetra RS, Smith CM. 1997. Registration of IDAHO 471A and IDAHO 472B wheat germplasm. *Crop Sci.* 37:1031.
 74. Schroederteeter S, Zemetra RS, Schotzko DJ, Smith CM, Rafi M. 1994. Monosomic analysis of Russian wheat aphid (*Diuraphis noxia*) resistance in *Triticum aestivum* line PI137739. *Euphytica* 74:117-120.
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 76. Smith CM, Schotzko DJ, Zemetra RS, Souza EJ. 1992. Categories of resistance in wheat plant introductions resistant to the Russian wheat aphid (Homoptera: Aphididae). *J. Econ. Entomol.* 85:1480-1484.
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 78. Schotzko DJ, Smith CM. 1991. Effects of host plants on the between-plant spatial distribution of the

- Russian wheat aphid (Homoptera:Aphididae). *J. Econ. Entomol.* 84:1725-1734.
79. Smith CM, Schotzko DJ, Zemetra RS, Souza EJ, Schroeder- Teeter S. 1991. Identification of Russian wheat aphid (Homoptera: Aphididae) resistance in wheat. *J. Econ. Entomol.* 84:328-332.
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 81. Smith CM. 1990. Adaptation of new technologies to the study of plant resistance to insects. *Bull. Entomol. Soc. Am.* 35:141-146.
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Extension Publications

1. Sloderbeck PE, Reese JC, Whitworth RJ, Smith CM, Higgins RA, Schapaugh WT, Wolf RE, Jardine DJ. 2003. The soybean aphid: A new pest in Kansas soybeans. Kansas State Univ. Agric. Expt. Sta. & Coop. Extn. Serv. Publ. MF-2582. <http://www.oznet.ksu.edu/library/entml2/MF2582.pdf>.

- Pike KS, Allison D, Tanigoshi LK, Harwood RF, Clement SL, Halbert SE, Smith CM, Johnson JB, Reed GL, Zwer PK. 1991. Russian wheat aphid-biology, damage and management. Pacific Northwest Ext. Publ. PNW371. 24 pp.

Teaching Publication

Adams B, Aghaee M-A, Ballenger J, Bardunias P, Bednar D, Durden KP, Carlson J, Gordon J, Hadi BA, Hartshorn JA, Houle JL, Kakkar G, Jacobson A, Kumar V, Lahiri S, Lynn-Miller AJW, Merwin A, Nyoike T, Oten KLF, Parker JL, Perkins G, Petty BM, Pulajjatu-Thodi I, Shelomi M, Silcox DE, Smith CM, Tripodi AD, Van Weelden MT, Vieira LC, and Weldon S. 2013. ESA Student Debates 2011 – Identify, Clarify and Speak Out about the Land Grant Mission, Organic Agriculture and Host Plant Resistance Programs. *American Entomologist* 59: 214-228.

Extramural Support Acquired at Kansas State University (1996-present): - \$10,214,037

Paterson AH, Barney J, Dahlberg JA, Everman W, Magill C, Odvody GN, Rout ME, Smith CM. Principles Underlying The success of the weedy invader *Sorghum halepense* ('Johnsongrass'), toward its containment and mitigation. USDA/AFRI Food Security Challenge Program. 2015-20. \$4,800,000.

Poland J, Johnson W, Smith CM, McCornack B. Integrative and Innovative Approaches to Diminish Barley Yellow Dwarf Epidemics in Kansas Wheat. Kansas Wheat Commission. 2017-2019. \$94,061.

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Smith CM, Whitworth J, McCornack B. Effect of chinch bug feeding and drought on sorghum stand establishment and yield. Kansas Grain Sorghum Commission. 2013-14. \$22,344.

Smith CM, Whitfield A. Identification of Wheat Curl Mite and Virus-Resistant Wheat Germplasm. Kansas Wheat Commission. 2009-14. \$225,892.

Smith CM, McCornack B, Whitworth J, Schapaugh WT Jr. Development of genetic and chemical tactics for management of the *Dectes* stem borer in soybean. Kansas Soybean Commission. 2008-20. \$497,733.

Smith CM, Chen M-S, Whitworth J, Schwarting H. Impact of temperature on genetic resistance to Hessian fly, wheat curl mite and Russian wheat aphid. Kansas Wheat Commission, Kansas Wheat Alliance, KCIA. 2015-18 \$150,000.

Garces S, Chen M-S, Smith CM. Identification of Russian Wheat Aphid and Hessian Fly-Resistant Wheat Germplasm. Kansas Wheat Commission. 2012-13. \$7,000.

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Madl R, Fritz A, Smith CM. Induction of wheat antioxidants to consistent commercial levels. Kansas Wheat Commission. 2010-14. \$140,000.

Smith CM. Online Development of ENTOM 312 General Entomology. Kansas State University. 2010-11. \$5,079.

Smith CM. Development of ENTOM 313 General Entomology Online Digital Laboratory. Kansas State University. December 2010-12. \$7,494.

Smith CM. A Molecular Fingerprinting Method to Detect Biotypes of the Russian Wheat Aphid. CSREES NC-IPM Minigrant. 2008-09. \$10,000.

Smith CM, A. Whitfield, and J. Fellers. Identification of Wheat Curl Mite and Virus-Resistant Wheat Germplasm. Kansas Wheat Commission. 2008-09. \$33,842.

H. Šimková, J. Doležel & C. M. Smith. Creation of resources for wheat genomics and map-based cloning of resistance genes from chromosome 7D. Czech Science Foundation. 2007-09. \$2,000.

Wilde G, Smith CM, Sloderbeck PE. Areawide Pest Management Program for Russian Wheat Aphid and Greenbug. USDA-ARS. 2006-11. \$25,000.

Smith CM, Pears FB, Hein G. Improved Management of Russian Wheat Aphids in Barley by Integration of Biological and Cultural Controls with Aphid- Resistant Cultivars. USDA NRI, CSREES Crops at Risk Program. 2006-09. \$433,000.

Smith CM, Saker MM. Mapping and Cloning of Genes Controlling Insect Resistance in Barley. U.S. Department of State/Egyptian Ministry of Scientific Research Science and Technology Program. 2006-08. \$60,000.

Brown S, Kanost M, Ganta R, Smith CM, Chen MS, Clem R. Center for Genomic Studies on Arthropods Affecting Human, Animal and Plant Health. Kansas State University Targeted Excellence Program. 2006-11. \$2,000,000.

Higgins RA, Buschman LL, Smith CM, Sloderbeck PE, Schapaugh WT, Jr., Trick H. Development of Soybean Host Plant Resistance and Other Management Options for the Soybean Stem Borer. Kansas Soybean Commission. 2006-08. \$65,000.

Reese JC, Higgins RA, Smith CM, Schapaugh WT, Jr., Sloderbeck PE, Whitworth J. Integrated Pest Management of the Soybean Aphid in Kansas. Kansas Soybean Commission. 2005-08. \$83,000.

Higgins RA, Reese JC, Schapaugh WT, Jr., Smith CM, Whitworth J. Kansas Subcontract for Soybean Aphid Management in the North Central States. North Central Soybean Research Program. 2006-08. \$47,000.

Smith CM, Fritz A. Fine Mapping the Gbz Gene on Wheat Chromosome 7D: the Next Step Toward Cloning a Greenbug Resistance Gene. Kansas Crop Improvement Association. 2006. \$5,000.

Smith CM, Boyko EV. A Functional Genomic Approach to Identify Temperature Response Genes Modulating Plant Defense Responses to Arthropod Challenge. NSF-EPSCoR. 2003-2006. \$166,420.

Smith CM, Saker M. Evaluation, Molecular Analysis and Development of Molecular Markers Linked to Pest Resistance Genes in Barley Populations. U.S. Department of State/Egyptian Ministry of Scientific Research Science and Technology Program. 2003-05. \$59,858.

Smith CM, Bai G. An Aphid Resistance DNA Marker Selection System for Improved Kansas Wheat Variety Development. Kansas Crop Improvement Association. 2003-04. \$8,000.

Reese JC, Higgins RA, Smith CM, Schapaugh WT, Jr., Sloderbeck PE, Wolf RE, Jardine D. Management of the Soybean Aphid: A Pro-Active Approach to a New Pest. Kansas Soybean Commission. 2002-04. \$35,157.

Smith CM, Zhu, L. A cDNA-AFLP System for Improved Precision of Mapping Aphid Resistance Genes in Wheat. KSU IPM Minigrant \$5,000.

Smith CM, Boyko EV. Functional Genomics of Dn4 and Dn6 Genes Expressing Russian Wheat Aphid Resistance. KSU Plant Biotechnology Center. 2002-04. \$60,000.

Smith CM, Boyko EV. Molecular Diagnosis of Wheat Aphid Resistance. Kansas Wheat Commission. 2002. \$24,683

Smith CM, Fritz A. Diagnostic Molecular Genetic Markers to Detect Multi-Gene Greenbug Resistance in Wheat. Kansas Crop Improvement Association. 2002. \$5,000

Smith CM, Boyko EV. A Plant Genomics Research & Training Career Advancement Program National Science Foundation (Integrative Plant Biology). 2001. \$56,640

Smith CM. Molecular Diagnosis of Wheat Aphid Resistance. Kansas Wheat Commission. 2001. \$25,475.

Smith CM. Diagnostic Molecular Genetic Markers to Detect Multi-Gene Greenbug Resistance in Wheat. Kansas Crop Improvement Association. 2001. \$4,000

Smith CM, Katsar C. Diagnostic Molecular Genetic Markers to Detect Multi-Gene Greenbug Resistance in Wheat. Kansas Crop Improvement Association. 2000. \$4,500.

Smith CM, Martin TJ. Evaluation of Wheat Cultivars and Advanced Generation Germplasm with Markers. KSU Wheat Research Center. 2000. \$9,460.

Al-Khatib KM, St. Amand PC, Miller JF, Smith CM. Potential for Imidazolinone-Resistance Sunflower Gene Escape and Altered Fitness of Related Wild Species. USDA Biotechnology Risk Assessment Research Grants Program. 1999. \$160,000.

Smith CM, Gill BS, Havlickova H, Holubec V, Cvikova M. Exchange of *Aegilops* Germplasm and Molecular Biochemical Techniques for Enhanced Aphid Resistance in Wheat. USDA, Research & Scientific Exchanges Division. February 1998, \$30,000.

Smith CM, Brown-Guedira G, Harvey T. Development of Molecular Markers for *Aegilops tauschii* Resistance to Wheat Curl Mite, *Aceria toeschilla* Keifer. KSU Plant Biotechnology Center. 1998.

\$50,000.

Smith CM, Reese JC, Brown-Guedira G. Wheat Tolerance to Greenbug Feeding Damage: Enhanced Search Through DNA Marker-Assisted Selection. KSU Wheat Research Center. 1998.

\$14,932.

Smith CM. Evaluation of Hexaploid Wheats from the KSU Wheat Genetic Resource Center for Cereal Aphid Resistance. Kansas Crop Improvement Association. 1998. \$6,000

KSU Faculty Development Grant for travel to the International Congress of Ecological Agriculture. 1997. \$1,500.

KSU Faculty Development Grant for XX International Congress of Entomology. 1996. \$900.

University of Idaho (1988-1990) - \$101,394

Smith CM, P. H. Berger and T. M. Mowry. Transformation of Russet Burbank Potato for Colorado Potato Beetle Resistance Using Microprojectile Particle Acceleration. USDA/ARS Special Grants Program on Horticultural & Sugar Crops. 1990-1991. \$25,110.

Smith CM, J. Johnson and R. S. Zemetra. An Integrated Program for Management of the Russian Wheat Aphid in the Pacific Northwest. USDA/CSRS Special Grant #89-34205-4296. 1988-1989. \$31,284.

Smith CM, and R. S. Zemetra. Development of Russian Wheat Aphid Resistance in Wheat Using Cell Culture Techniques. IMAGE Agricultural Biotechnology Grant. 1988-1990. \$45,000.

Louisiana State University (1978-1988) - \$702,553

Smith CM, T. C. Sparks and S. A. Quisenberry. Computerized High-Pressure Liquid Chromatographic Determination of Plant Allelochemicals and Insect Neurotransmitters. Louisiana Board of Regents Research and Development Program. 1988. \$75,000.

N. Murai, M. C. Rush and C. M. Smith. Rice Genetic Engineering for Herbicide and Pest Resistance. Louisiana Board of Regents Research and Development Program. 1988. \$96,000.

C. M. Smith. Varietal Resistance to Insect Pests of Rice in the Caribbean Basin. USDA Tropical/Subtropical Agriculture Grant no. 85-CRSR-2-2621. 1985. \$95,600.

Smith CM, L. Ke. Elucidation of the Mitochondrial Genome and Partial Gene Structure in Flight Muscles of the Fall Armyworm, *Spodoptera frugiperda* (J. E. Smith). Louisiana State University College of Agriculture Training Grant for L. Ke. 1985. \$36,160.

C. M. Smith. Selection of Insect Resistant Rice Through Cell Culture Techniques. Louisiana State University College of Agriculture. 1984. \$10,000.

Smith CM, and T. C. Sparks. Control of Pest Lepidoptera by Insecticide- Soybean Genotype Combinations. USDA/SEA Special Grant no. 83-CRSR-2-2304. 1983. \$89,700.

Smith CM, D. F. Gilman and N. H. Fischer. The Chemical Basis of Resistance to the Soybean Looper, *Pseudoplusia includens* (Walker) in Genotypes of Soybean, *Glycine max* L. Merr., USDA/SEA Special Grant no. 59-2221-1-2-0150. 1981. \$100,000.

J. F. Robinson and C. M. Smith. Rice Water Weevil Control. Louisiana Rice Research Board. 1981. \$150,093.

Industrial Grants ~ \$50,000.

INVITED PRESENTATIONS:

Kansas State University (59 since 1996)

1. Smith, CM. Arthropod resistance in wheat: Traditional and molecular approaches. Invited presentation, Department of Entomology, Ohio Agricultural Research and Development Center, April 17-19, 2018, Wooster, OH.
2. Russian wheat aphid resistance in wheat: 30 years of traditional and molecular approaches. Pacific Branch Meeting, Entomological Society of America, April 2-5, 2017, Portland, OR.
3. Friends, Family and Faith: from Mayhew Junction to Moscow to Manhattan. 22nd Biennial International Plant Resistance to Insects Research Workshop. March 5-8, 2016, Stellenbosch, South Africa.
4. Virulent Aphids Over Express Phosphoinositide Signaling to Deplete Plant Calcium Defenses. ESA North Central Branch Meeting, May 31-June 3, 2015, Manhattan, KS.

5. How Knowledge of the Molecular Bases of Plant Resistance to Arthropod Pests Increases Efficiency of Breeding for Crop Resistant Cultivars. European Union Symposium on Opportunities for Enhancement of Integrated Pest Management. Warsaw University of Life Sciences, April 1-3, 2014, Warsaw, Poland.
6. Differences in Barley and Wheat Plant Defense Transcriptomes Produced in Response to Russian Wheat Aphid Herbivory and Global Phylogenetics of an Invasive Aphid Species: Evidence for Multiple Invasions into North America. September 9, 2011. South African Small Grains Institute, Bethlehem, South Africa.
7. Introduction for 2011 Entomological Society of America Annual Meeting Student Debates. "Identify, Clarify, Speak Out, Land Grant Mission, Organic Agriculture & Host Plant Resistance Programs." November 15, 2011. Reno, NV.
8. Searching for a Garlic to Stop a Plant Vampire: Collaborative International Research to Develop Aphid Resistant Cereal Plants, K-State College of Agriculture International Brown Bag Lunch seminar. February 21, 2011. Manhattan, KS.
9. Plant Aphid Damage Symptoms and Plant Aphid Defense Gene Expression – Making Sense of Differences in Barley & Wheat. Western Educational & Regional Coordinating Committee. September 21-22, 2010, Fort Collins, CO.
10. Wheat Gene Expression is Differentially Induced by a Virulent Russian Wheat Aphid Biotype. Entomological Society of America Southwestern Branch Meeting. April 11-15, 2010, Cancun, México.
11. Confirmation of Oxylinin-Based Defense Signals in Wheat Mediating Resistance to the Russian Wheat Aphid, *Diuraphis noxia* (Kurdjumov). Central States Entomological Society Annual Meeting. April 25, 2008, Manhattan, KS.
12. Global Phylogenetics of an Invasive Aphid Species: Evidence for Multiple Invasions into North America. Joint Meeting of Southwestern Branch Entomological Society of America and Western Educational & Regional Coordinating Committee. February 25, 2008, Stillwater, OK.
13. Differential Wheat Plant Gene Expression in Response to Feeding by *Diuraphis noxia*. Columbian Entomological Society (SOCOLEN) Annual Meeting. July 17, 2008, Cali, Colombia.
14. Making Connections Between Traditional and New Approaches for Host Plant Resistance Research -- Finding Resistance through Susceptibility - Lessons to be Learned from Gene Expression in Susceptible Plants. National Meeting, Entomological Society of America December 9-12, 2007, San Diego, CA.
15. Expressions of Aphid Virulence - Physiological, Behavioral and Genetic. June 19, 2007, KSU Ecological Genomics Research Forum.
16. Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. April 10, 2007, Dept. of Entomology, University of Nebraska, Lincoln NE.
17. In Search of a Garlic to Stop Aphid Vampires - - Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. February 22, 2007, KSU Diagnostic Medicine/Pathobiology.
18. Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. KSU-Netherlands Eco-Genomics Workshop. September 26, 2006, Radboud University, Ravenstein, Netherlands.
19. Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. Laboratory of Molecular Cytogenetics and Cytometry, Czech Institute of Experimental Botany. September 26, 2006, Olomouc, Czech Republic.
20. Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. KSU Ecological Genomics Workshop. May 6, 2006, Manhattan, KS.
21. Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. International Plant Resistance to Insects Workshop. April 10, 2006, Lafayette, IN.
22. The Fulbright Teaching Experience. Mlúvim Cesky Malo: Teaching Entomology in a Language with few Vowels. Thinking Outside the Borders: Entomology and the International Experience Symposium. North Central Branch Entomological Society of America Meeting, March 25-29, 2006, Bloomington, IN.
23. Publishing in the Journal of Economic Entomology: Pitfalls to Progress. Department of Entomology, Louisiana State University, May 17, 2005, Baton Rouge, LA.
24. Signals from the Other Side: The Molecular Basis of Wheat Gene Expression in Response to Aphid Feeding. Department of Entomology, Louisiana State University, May 18, 2005, Baton Rouge, LA.

25. The Molecular Bases of Plant Gene Expression in Response to Russian Wheat Aphid Feeding. 7th International Symposium on Aphids, October 2-7, 2005, Fremantle, Australia.
26. Dr. Frank Davis: Scientist, Teacher, Mentor, Friend. Student Symposium "The Role of Mentors in Science and Their Impact in Students". Entomological Society of America National Meeting, December 15-18, 2005, Fort Lauderdale, FL.
27. Gene Expression in Wheat Plants Resistant to the Russian Wheat Aphid, *Diuraphis noxia* Mordvilko. IOBC Conference on Breeding for Plant Resistance to Insects, Mites and Pathogens, September 16, 2004, Bialowieza, Poland.
28. Molecular Mapping of Cereal Aphid Resistance Genes in Wheat. XXII International Congress of Entomology, August 16, 2004, Brisbane, Australia.
29. Advances in Managing Russian Wheat Aphid (*Diuraphis noxia*). XXII International Congress of Entomology, August 16, 2004, Brisbane, Australia.
30. Wheat - Russian Wheat Aphid Interactions. Department of Entomology, April 22, 2004, University of Arkansas, Fayetteville, AR.
31. The Fulbright Experience: Aphid-Plant Resistance Research & Teaching in the Czech Republic. KSU Agronomy Seminar. May 8, 2003, Manhattan, KS.
32. Molecular Mapping of Cereal Aphid Resistance Genes in Wheat. Gordon Conference on Genomics and Structure/Evolutionary Bioinformatics. July 31, 2002, Mount Holyoke College, South Hadley, MA.
33. Molecular Markers in Wheat Linked to Genes Expressing Resistance to Aphids. Department Plant Physiology, Charles University, May 14, 2002, Praha, Czech Republic.
34. Application of Modern Molecular Techniques in the Study of Plant Resistance to Insects, Warsaw Agricultural University, April 26, 2002, Warsaw, Poland.
35. The Status of Plant Resistance Breeding to Insects in the USA. Polish National Institute of Plant Breeding. April 25, 2002, Radzikow, Poland.
36. Molecular Markers in Wheat Linked to Genes Expressing Resistance to Aphids. Department of Entomology, University of South Bohemia, April 18, 2002, Ceske Budejovice, Czech Republic.
37. Molecular Markers in Wheat Linked to Genes Expressing Resistance to Aphids. Department of Experimental Zoology, Charles University, April 17, 2002, Praha, Czech Republic.
38. Cutting Edge Research in Insect-Host Plant Interaction (BCE Symposium). 56th Annual Meeting, North Central Branch, Entomological Society of America, March 25-28, 2001, Ft. Collins, CO.
39. Molecular Markers in Wheat Linked to Genes Expressing Resistance to the Greenbug and the Russian Wheat Aphid. April 24, 2001, International Maize and Wheat Improvement Center, El Battan, Mexico.
40. Genetically Modified Foods: A Recent Timeline. Introduction to the Symposium "Genetically Modified Foods: Current Perceptions of Safety and Acceptance. Entomological Society of America, North Central Branch Annual Meeting. March 27, 2000, Minneapolis, MN.
41. Molecular Selection Techniques for the Development of Arthropod Resistant Cereal Cultivars. XXI International Congress of Entomology, August 22, 2000, Foz de Iguassu, Brazil.
42. Molecular Markers for Aphid Resistance in Wheat: Recent Developments. 2000 Greenbug Research Consortium Meeting, September 19-20, 2000, Stillwater, OK.
43. Marker Assisted Selection for Greenbug Resistance. (Poster) Annual Meeting, Entomological Society of America. December 12 -17, 1999, Atlanta, GA.
44. DNA Marker-Assisted Selection of Cereal Aphid Resistance Genes: Improving the Accuracy of their Inclusion in Wheat Insect Pest Management. North Central Branch, Entomological Society of America Symposium "Host Plant Resistance as a Component of Pest Management", March 28-31, 1999, Des Moines, IA.
45. Keynote Address: Merging Genes, Transgenes, and Plant Genomes for Durable Insect Resistant Crops in the Next Century. International Plant Resistance to Insects Biennial Workshop, March 15-18, 1998, Memphis, TN.
46. Physiological/Biochemical Responses to Aphid Feeding: How Do We Measure It and What Does It Mean? Joint Meeting: Greenbug Research Consortium & Western Coordinating Committee 66. September 16, 1998, Stillwater, OK.
47. Insect Resistant Plants: Essential and Valuable Elements of Food Production. Department of

- Entomology, University of Florida, October 22, 1998, Gainesville, FL.
48. Host Plant Resistance to the Wheat Curl Mite, *Aceria tosichilla* Keifer, as a Control Mechanism for Cereal Viruses. Joint Symposium, Annual Meeting of American Phytopathological Society & Entomological Society of America. November 7, 1998, Las Vegas, NV.
 49. Global Aspects of Insect Resistant Crop Plants in Integrated Pest Management: An Ecological Perspective of Plant-Insect Interactions, International Conference on Ecological Agriculture, November 15-17, 1997, Chandigarh, India.
 50. Molecular-Marker Assisted Selection for Aphid Resistance in Wheat, International Center for Genetic Engineering and Biotechnology, November 14, 1997, New Delhi, India.
 51. Progress in the Development of Cereal Aphid Resistant Wheat in the United States, Department of Entomology and Nematology, IACR-Rothamsted, June 30, 1997, Harpenden, UK.
 52. Molecular and Conventional Techniques for Developing Wheat Resistance to the Greenbug and Russian Wheat Aphid, Department of Agricultural and Environmental Science, University of Newcastle, June 27, 1997, Newcastle, UK.
 53. Molecular Markers for Wheat Resistance to the Greenbug and Russian Wheat Aphid, Annual Meeting, Entomological Society of America, December 17, 1997, Nashville, TN.
 54. Marker-Assisted Selection for Cereal Aphid Resistance – A Useful Technique? Department of Entomology, University of Nebraska, January 31, 1997 Lincoln, NE.
 55. Molecular-Marker Assisted Selection for Aphid Resistance in Wheat, Department of Entomology, Kansas State University, October 24, 1997, Manhattan, KS.
 56. The Science and Economy of Plant Resistance to Insects. Czech National Research Institute for Crop Protection. September 2-4, 1996, Prague, Czech Republic.
 57. The Value of Conserved Wheat Germplasm Evaluated for Arthropod Resistance. XX International Congress of Entomology, August 25-31, 1996, Florence, Italy.
 58. An Overview of the Mechanisms and Bases of Insect Resistance in Maize. 2nd International Workshop on Insect resistance in Maize. CIMMYT, November 27-Dec 2, 1994, El Battan, Mexico.
 59. Plant Resistance to Insects as a Component of Integrated Insect Pest Management and Physical and Chemical Mechanisms of Plant Resistance to Insects. Zagazig Agricultural University, October 17-19, 1992, Moshtohor, Egypt.

Volunteered Presentations (107 since 1996)

1. Khalaf L, Aguirre-Rojas LM, Hefley T, Klein P, Smith M. Distribution of wheat curl mite (*Aceria tosichella*) virulence and mite-vectored viruses in the North-Central United States. Entomological Society of America Meeting, November 11-14, 2018, Vancouver, BC, Canada.
2. Klein P, Smith CM. Johnsongrass ecotype dependent susceptibility to pest and volatile induced *R. maidis* host plant choice. Entomological Society of America Meeting, November 11-14, 2018, Vancouver, BC, Canada. (poster).
3. Timm A, Khalaf L, Tembrock L, Smith CM. Low genetic differentiation among *Rhopalosiphum maidis* (Homoptera: Aphididae) populations feeding on *Sorghum* spp. Entomological Society of America Meeting, November 11-14, 2018, Vancouver, BC, Canada. (poster).
4. Aguirre-Rojas LM, Scully E, Smith CM. Comparison of the transcriptomes of *Dectes texanus* larvae fed soybean, sunflower and ragweed. Entomological Society of America Meeting, November 11-14, 2018, Vancouver, BC, Canada.
5. Aguirre-Rojas LM, Scully E, Smith CM. Comparison of the transcriptome of *Dectes texanus* (Coleoptera: Cerambycidae) larvae feeding in soybean, sunflower and giant ragweed. 23rd Biennial International Plant Resistance to Insects Workshop, March 7-9, 2018, Harpenden, UK.
6. Aguirre-Rojas LM, Khalaf L, Smith M, Stewart C, Sinha D, Garcés-Carrera S, ChuangW-P. Multiple arthropod resistance in rye-wheat translocation lines -new developments in old genotypes. 23rd Biennial International Plant Resistance to Insects Workshop, 7-9, 2018, Harpenden, UK.
7. Klein P, Smith CM. Johnsongrass Ecotype-Dependent Susceptibility to *R. maidis* Herbivory as Affected by Volatile-Induced *R. maidis* Host Selection. 23rd Biennial International Plant Resistance to Insects Workshop, March 7-9, 2018, Harpenden, UK. (poster).

8. Khalaf LK, Enders L, Klein P, Smith CM. Assessment of potential reference genes in the wheat curl mite, *Aceria tosichella* Keifer. North Central Branch Meeting, Entomological Society of America, March 18-21, 2018, Madison, WI. (poster).
9. Stewart C, Smith CM. Greenbug resistance and the *Dn7* gene from rye - potential cross-taxa insect resistance in wheat. North Central Branch Meeting, Entomological Society of America, March 18-21, 2018, Madison, WI. (poster).
10. Smith CM, Aguirre-Rojas LM, Stewart C, Scully E, Enders L, Sinha D. Comparative transcriptomics of *Diuraphis noxia* and *Schizaphis graminum* fed wheat genotypes with different aphid-resistance genes. Entomological Society of America Meeting, November 5-8, 2017, Denver, CO.
11. Stewart CL, Smith CM. Greenbug Resistance and the *Dn7* Gene from Rye - Potential Cross-Taxa Insect Resistance in Wheat. Entomological Society of America Meeting, November 5-8, 2017, Denver, CO.
12. Aguirre-Rojas LM, Smith CM. Comparison of the transcriptome of *Dectes texanus* (Coleoptera: Cerambycidae) larvae feeding in soybean, sunflower and giant ragweed. Entomological Society of America Meeting, November 5-8, 2017, Denver, CO.
13. Enders L, Girvin J, Whitworth RJ, Hefly T, Smith CM. Factors affecting the distribution and abundance of Barley Yellow Dwarf Virus vectors in the Great Plains. North Central Branch Meeting, Entomological Society of America, June 4 - 7, 2017. Indianapolis, IN.
14. Khalaf L, Chuang W-P, Aguirre-Rojas LM, Timm A, Enders L, Klein P, Hefley TJ, Fritz AK, Smith CM. Composition and prediction of wheat curl mite biotypes prevalent in the U.S. Great Plains. Entomological Society of America Meeting, November 5-8, 2017, Denver, CO.
15. Klein P, Smith CM. Johnsongrass and sorghum ecotype dependent susceptibility to pest infestation and viral infection. Entomological Society of America Meeting, November 5-8, 2017, Denver, CO.
16. Smith CM. Virulent *Diuraphis noxia* Over Express Phosphoinositide Signaling to Deplete Plant Calcium Defenses - A New Piece in the Puzzle of Aphid Virulence. 22nd Biennial International Plant Resistance to Insects Research Workshop. March 5-8, 2016, Stellenbosch, South Africa.
17. Smith CM, Girvin J, Whitworth J. Factors Affecting Barley Yellow Dwarf Virus and Vector Occurrence in Kansas (Poster). Wild Plant Pathosystems, August 29-31, 2016, University of Helsinki, Helsinki Finland.
18. Aguirre-Rojas L, Smith CM. Silencing *Laccase2* in *Dectes texanus* (Coleoptera: Cerambycidae) by RNA Interference. International Congress of Entomology, September 25-30, 2016, Orlando FL. (2nd place. Graduate Student Poster Competition).
19. Khalaf LK, Chuang W-P, Aguirre-Rojas L, Timm AE, Smith CM. Assessment of Wheat Curl Mite Virulence to Wheat Genotypes and Distribution of Mite-Vectored Viruses in The North Central United States (Poster). International Congress of Entomology, September 25-30, 2016, Orlando FL.
20. Timm A, Smith CM. Genetic Diversity of Corn Leaf Aphid and Sugarcane Aphid Populations in Kansas. (Poster). International Congress of Entomology, September 25-30, 2016, Orlando FL.
21. Costa E, Zukoff S, Smith CM, de Souza BS, Nogueira L, Ribeiro Z, Boiça A Jr. Antibiosis of Brazilian Maize Landraces to *Diabrotica speciosa* (Coleoptera: Chrysomelidae). ESA North Central Branch Meeting, May 31-June 3, 2015, Manhattan, KS.
22. Aguirre L, Sinha D, Chuang W-P, Khalaf LK, Smith CM. The *Dn7* Gene Confers Antibiosis Resistance to Wheat Curl Mite and Russian Wheat Aphid in Bread Wheat. ESA North Central Branch Meeting, May 31-June 3, 2015, Manhattan, KS.
23. Khalaf LK, Smith CM. Assessment of Virulence in the Wheat Curl Mite, *Aceria tosichella* Keifer, to wheat genes for mite and virus resistance in the North Central United States. ESA North Central Branch Meeting, May 31-June 3, 2015, Manhattan, KS.
24. Sinha D, Smith CM. RNA-seq Profiles of Virulent and Avirulent *Diuraphis noxia* Feeding on *D. noxia* Resistant and Susceptible Wheat. International Plant Resistance to Insects (IPRI) Workshop. April 14 -16, 2014, Marrakech, Morocco.
25. Crespo-Herrera LA, Akhunov E, Garkava-Gustavsson I, Jordan K, Smith CM, Singh RP, Åhman I. Mapping Resistance to Cereal Aphids in Wheat Using Sequence-Based Genotyping. IPRI Workshop. April 14 -16, 2014, Marrakech, Morocco.
26. Aguirre L, Smith CM. Inheritance of antibiosis resistance in soybean PI165673 to *Dectes texanus* Leconte. IPRI Workshop. April 14 -16, 2014, Marrakech, Morocco. (Poster).

27. Neves Costa E, Smith CM, Ribero ZA, Leal Boica A, Jr. Research Methodology for Evaluating Non-preference for Oviposition of *Diabrotica speciosa* on Maize Plants. European Congress of Entomology. August 3-8, 2014, York, UK. (Poster).
28. Chuang WP, M Marimuthu, R Malik, A Whitfield, A Fritz, CM Smith. Two Wheat Curl Mite, *Aceria tosichella* Keifer, Biotypes Have Different Responses on Wheat. National Meeting Entomological Society of America, November 9-14, 2013, Austin, TX.
29. Chuang WP, M Marimuthu, R Malik, A Whitfield, A Fritz, CM Smith. Current Studies of Interactions Between Wheat and the Wheat Curl Mite, *Aceria tosichella* Keifer. 7th Annual Arthropod Genomics Symposium and VectorBase Workshop. June 12 - 15, 2013, South Bend, IN.
30. Oh J, Marimuthu M, Cilia M, Reeck G, Reese J, Smith CM, White FF. Large gene structures of salivary gland secretion protein candidates from pea aphid (*Acyrtosiphon pisum*) 7th Annual Arthropod Genomics Symposium and VectorBase Workshop. June 12-15, 2013, South Bend, IN.
31. Aguirre-Rojas L, Schapaugh WT, Smith CM. Inheritance of resistance in soybean PI165673 to Dectes stem borer, *Dectes texanus* LeConte (Coleoptera: Cerambycidae). D0583. National Meeting Entomological Society of America, November 9-14, 2013, Austin, TX.
32. Anna-Maria Botha A-M, Burger NFV, Castro A-M, El-Bouhssini M, Jankielsohn A, Lapitan NLV, Peairs F, Puterka G, Smith CM, Zurovcova M. Next Generation Sequencing of the Genomes of Ten International Russian Wheat Aphid Biotypes. International Plant Resistance to Insects Workshop. April 1-4, 2012. Minneapolis, MN. (poster).
33. Aguirre-Rojas L, Smith CM, Schapaugh W, McCornack B, Buschman L. Inheritance of Resistance to Soybean Stem Borer (*Dectes texanus* LeConte) in Soybean PI165673. International Plant Resistance to Insects Workshop. April 1-4, 2012. Minneapolis, MN. (poster).
34. Garcés Carrera S, Davis H, Aguirre-Rojas L, Murugan M, Smith CM. Multiple Categories of Resistance to Wheat Curl Mite (Acari: Eriophyidae) Expressed in *Aegilops* spp. Accessions. International Plant Resistance to Insects Workshop. April 1-4, 2012. Minneapolis, MN. (poster).
35. Marimuthu M, Oh J, Cilia M, Ruse C, Pappin D, Reeck G, Reese J, Smith CM, White FF. Comparative Analysis of Aphid Salivary Transcriptomes. 5th Annual Arthropod Genomics Symposium. June 9-12, 2011. Kansas City, KS. (poster).
36. Starkus L, Murigan M, Smith CM. Virus-Induced Silencing of Genes for Resistance to *Diuraphis noxia* (Kurdjumov). 5th Annual Arthropod Genomics Symposium. KState Center for Genomic Studies on Arthropods Affecting Human, Animal and Plant Health. June 9-12, 2011. Kansas City, KS. (poster).
37. Smith CM. Differences in Barley and Wheat Plant Defense Transcriptomes Produced in Response to Russian Wheat Aphid Herbivory. September 14, 2011. University of Stellenbosch, Stellenbosch South Africa.
38. Sotelo PA, Smith CM. Wheat Aphid, *Diuraphis noxia* (Kurdjumov), in Colorado, Kansas and Nebraska. Entomological Society of America Annual Meeting. December 12- 15, 2010, San Diego, CA (oral presentation).
39. Liu X, Marimuthu M, Ming J, Starkey S, Smith CM. Differential Gene Expression in Barley and Wheat Genotypes Resistant to the Russian Wheat Aphid, *Diuraphis noxia* (Kurdjumov). International Plant Resistance to Insects Workshop March 28- 31, 2010, Charleston, SC (poster presentation).
40. Marimuthu M, Sotelo PA, Ponnusamy D, Smith CM. Wheat Resistance to Wheat Curl Mite is Independent of Initial Infestation Level. Duraimurugan Ponnusamy and C. Michael Smith. International Plant Resistance to Insects Workshop March 28- 31, 2010, Charleston, SC (oral presentation).
41. Smith CM, Ponnusamy D, Marimuthu M, Malik R. Intra-Specific Variation in Populations of Wheat Curl Mite, *Aceria tosichella* Keifer. International Plant Resistance to Insects Workshop March 28- 31, 2010, Charleston, SC (oral presentation).
42. Marimuthu M, Khan SA, Smith CM. Resistance responses of barley (*Hordeum vulgare*) genotypes to Russian wheat aphid, *Diuraphis noxia*) biotypes 1 and 2. National Meeting, Entomological Society of America. December 12-16, 2009, Indianapolis, IN. (oral presentation).

43. Smith CM, Starkey S, Meng J, Marimuthu M, Liu X. Differential Gene Expression in Barley and Wheat Genotypes Resistant to the Russian Wheat Aphid, *Diuraphis noxia*. National Meeting, Entomological Society of America. December 12-16, 2009, Indianapolis, IN. (oral presentation).
44. Sotelo PA, Smith CM. Interactions Among Biological Control, Cultural Control and Barley Resistance to the Russian Wheat Aphid, *Diuraphis noxia* (Kurdjumov), in Colorado, Kansas and Nebraska. Kansas Entomological Society Meeting. April 2009, Manhattan, KS. (poster presentation).
45. Smith CM, Liu X, Liang G, Wang LJ, Chen M-S, Starkey S, Bai G, Meng J. Confirmation of Oxylypin-Based Defense Signals in Wheat Mediating Resistance to the Russian Wheat Aphid, *Diuraphis noxia* (Kurdjumov). Kansas Entomological Society Meeting. April 2009, Manhattan, KS. (oral presentation).
46. Khan SA, Marimuthu M, Starkey S, Manley A, Smith CM. Inheritance and Categories of Resistance in Wheat to Russian Wheat Aphid Biotype 1 and Biotype 2. S. Kansas Entomological Society Meeting. April 2009, Manhattan, KS. (poster presentation).
47. Smith CM. Global Phylogenetics of an Invasive Aphid Species: Evidence for Multiple Invasions into North America. Mike Smith. ESA Southwestern Branch - WERA66 Joint Meeting. February 25, 2009, Stillwater, OK. (oral presentation).
48. Smith CM, Liu Xu, Liu Xi, Starkey S, Bai JF, Wang LJ, Chen M-S. Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. ESA Southwestern Branch - WERA66 Joint Meeting. February 25, 2009, Stillwater, OK. (poster presentation).
49. Liu X, Marshall J, Starkey S, Starry P, Burd J, Puterka G, Dolatti L, Edwards O, El Bouhssini M, Malinga J, Lage J, Smith CM. Global Phylogenetics of an Invasive Aphid Species: Evidence for Multiple Invasions into North America. Entomological Society of America Southwestern Branch - WERA66 Joint Meeting. February 25, 2009, Stillwater, OK. (poster presentation).
50. Cui F, Dittmer N, Pierson M, Smith CM, Reese J, Edwards O, Reeck G. Molecular Analysis of Salivary Transcripts in Russian Wheat Aphid Biotypes 1 and 2. Annual Meeting of American Society Biochemistry & Molecular Biology. April 5-9, 2008, San Diego, CA.
51. Niide T, Buschman LL, Smith CM, Whitworth RJ. Evaluation of Selected Soybean Lines for Resistance to the Stem Borer, *Dectes texanus texanus* LeConte. North Central Branch Entomological Society of America Meeting, March 25-28, 2007, Winnipeg, Manitoba, Canada (Poster presentation).
52. Smith CM, Lazzari SM, Starkey S, Boyko E. Wheat Defense Volatiles Released in Response to Feeding by the Russian Wheat Aphid. North Central Branch Entomological Society of America Meeting, March 25-28, 2007, Winnipeg, Manitoba, Canada.
53. Lazzari SM, Smith CM, Breth D, Metcalf J, Milliken G. Categories of Russian Wheat Aphid, *Diuraphis noxia* (Mordvilko), Biotype 2 Resistance in Wheat Genotypes. North Central Branch Entomological Society of America Meeting, March 25-28, 2007, Winnipeg, Manitoba, Canada (Poster presentation).
54. Meng J, Schapaugh WT, Reese J, Smith CM. Mapping an Aphid Resistance Gene In Soybean Genotype K1621. ASA-CSSA-SSSA 2007 International Meeting, November 4-8, 2007, New Orleans, LA. (Poster presentation).
55. Starkus L, Zhu KY, Chen M-S, Liu X, Smith CM, Huang L. Virus-Induced Gene Silencing to Identify Genes in Wheat Controlling Resistance to the Russian Wheat Aphid, *Diuraphis noxia* (Kurdjumov). Entomological Society of America National Meeting. December 9-12, 2007, San Diego, CA (Poster presentation).
56. Ananthakrishnan R, Zhu KY, Chen M-S, Smith CM, Zhu Y, Anderson J. Comparative Gut Transcriptome Analysis of Biotype 1 and 2 Russian Wheat Aphid, *Diuraphis noxia* (Kurdjumov). Entomological Society of America National Meeting, San Diego, CA. December 9-12, 2007 (Poster presentation).
57. Smith CM, Liu X, Boyko E, Starkey S, Bai JF, Wang LJ, Chen M-S. Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. Mike Smith, Xuming Liu, Elena Boyko, Sharon Starkey, JianFa Bai, L. J. Wang and Ming-Shun Chen. oral presentation. KSU – Netherlands Eco-Genomics Workshop September 26, 2006. Radboud University Soeterbeek Conference Center, Ravenstein, Netherlands.

58. Oppert B, Lorenzen M, Chen M-S, Beeman R, Elpidina E, Vinokurov K, Prabhakar S, Smith CM. Digestive Proteases in Tenebrionid Insects. Fifth International Symposium on Molecular Insect Science May 20-24, 2006, Tucson, AZ.
59. Reese JC, Diaz J, Schapaugh WT, Jr., Smith CM, Higgins RA, Sloderbeck PE, Campbell L, Whitworth RJ. Status of soybean aphid investigations in Kansas. 5th U. S. National IPM Symposium. April 2006, St. Louis, MO.
60. Randall A. Higgins, Phillip E. Sloderbeck, Robert J. Whitworth, John C. Reese, C. Michael Smith, William T. Schapaugh, Jr., and John Diaz-Montano. Soybean aphid in Kansas: Occurrence, current status and educational efforts. North Central Branch Entomological Society of America Meeting, March 25-29, 2006, Bloomington, IL.
61. Niide T, Randall A. Higgins RA, Buschman LL, Schapaugh WT Jr, Sloderbeck PE, Smith CM. Evaluation of selected soybean commercial varieties and plant introductions against the soybean stem borer in Kansas. North Central Branch Entomological Society of America Meeting, March 25-29, 2006, Bloomington, IL.
62. Voothuluru P, Smith CM, Wilde G. Categories of Resistance in Wheat Cereal Introduction Ctr2401 against Russian Wheat Aphid, *Diuraphis noxia* Mordvilko, Biotype 2. Oral presentation. USDA AreaWide Wheat Aphid Pest Management Workshop, January 11, 2006, Colby, KS
63. Liu X, Smith CM, Gill BS, Chen M-S. Genomic Organization of Insect Resistance Genes in Wheat. Plant Animal Genome Meeting. January 2006, San Diego, CA.
64. Smith CM, Boyko EV. A Functional Genomic Approach to Identify Temperature Response Genes Modulating Plant Defense Responses to Arthropod Challenge. KSU NSF-EPSCoR Ecological Genomics Workshop, May 6, 2005, Manhattan, KS.
65. Smith CM, Liu XM, Boyko EV, Starkey S, Reese J, Ray-Chandler A, Wang LJ. The Molecular Bases of Plant Gene Expression in Response to Russian Wheat Aphid Feeding. 7th International Symposium on Aphids, October 2-7, 2005, Fremantle, Australia.
66. Smith CM, Boyko EV, Kambampati S, Wang LJ. Functional Genomics of Cereal Aphids. 7th International Symposium on Aphids, October 2-7, 2005, Fremantle, Australia.
67. Boyko EV, Smith CM, Ray-Chandler A, Starkey S. A Functional Genomic Approach to Identify Temperature Response Genes Modulating Plant Defense Responses to Arthropod Challenge (poster). Ecological Genomics Symposium, November 5-6, 2005, Overland Park, KS,
68. Prabhakar S, Chen M-S, Park Y, Ding Y, Smith CM, Elpidina EN, Vinokurov KS, Oppert BS. Molecular characterization of digestive proteinases of the yellow mealworm, *Tenebrio molitor* L. Entomological Society of America National Meeting, December 15-18, 2005, Fort Lauderdale, FL.
69. Boyko EV, Smith CM. Expression of Pto and Pti-Like Genes is Involved in Wheat Resistance Response to Aphid Attack. Plant & Animal Genome XII. Final Abstracts Guide. Workshop abstracts, W200. January 10-14, 2004, San Diego, CA.
70. Boyko EV, Smith CM. An SSH library of Russian wheat aphid gene sequences expressed during feeding on aphid resistant wheat plants. Plant & Animal Genome XII. Final Abstracts Guide. Poster abstracts, P855. January 10-14, 2004, San Diego, CA.
71. Smith CM, Global Patterns of Russian Wheat Aphid Virulence to Aphid Resistance Genes in Wheat. Kansas State University. National Wheat Workers Workshop, February 24, 2004, Kansas City, MO.
72. Smith CM, Boyko EV. Molecular Mechanisms of Russian Wheat Aphid (RWA) and RWA Resistant Wheat Interactions. 16th Biennial International Plant Resistance to Insects Workshop, March 21-24, 2004, Baton Rouge, LA.
73. Smith CM. Global Variations in Russian Wheat Aphid Virulence – the Plot Thickens. 16th Biennial International Plant Resistance to Insects Workshop, March 21-24, 2004, Baton Rouge, LA.
74. Boyko EV, Smith CM. Molecular Mechanisms of Wheat-Aphid and Aphid-Wheat Interactions. (Poster #3). 16th Biennial International Plant Resistance to Insects Workshop, March 21-24, 2004, Baton Rouge, LA.
75. Zhu L, Smith CM. Genetic and Physical Mapping of Greenbug Resistance Genes in Wheat. (Poster #24). 16th International Plant Resistance to Insects Workshop, March 21-24, 2004, Baton Rouge, LA.

76. Boyko EV, Smith CM. A Basic Molecular Model of Russian Wheat Aphid (RWA) and RWA Resistant Wheat Interactions. KSU NSF-EPSCoR Ecological Genomics Workshop, April 3, 2004, Topeka, KS,
77. Smith CM. Molecular Mapping of Cereal Aphid Resistance Genes in Wheat. C. M. Smith. International Congress of Entomology, August 16, 2004, Brisbane, Australia.
78. Smith CM, El Bouhssini M, Porter D, Lhaloui S, Ketata H, Nachit M, Mosaad M. Advances in Managing Russian Wheat Aphid (*Diuraphis noxia* Mordvilko) International Congress of Entomology, August 16, 2004, Brisbane, Australia.
79. Voothuluru P, Smith CM, Wilde GE, Baker CE. Categories of Resistance in Wheat Plant Introduction CI2401 Against Russian Wheat Aphid (*Diuraphis noxia* Mordvilko) Biotype 'B'. Entomological Society of America National Meeting, November 16, 2004, Salt Lake City, UT.
80. Prabhakar S, Chen M-S, Park Y, Ding Y, Smith CM, Elpidina EN, Vinokurov KS, Oppert BS. Molecular characterization of digestive proteinases of the yellow mealworm, *Tenebrio molitor* L. Entomological Society of America National Meeting, November 15, 2004, Salt Lake City, UT.
81. Nagaraj N, Reese J, Tuinstra M, Smith CM, Kirkham MB, Kofoid KE, Campbell LE. Mapping QTLs for Greenbug, *Schizaphis graminum* (Rondani) Tolerance in Sorghum. Entomological Society of America Annual Meeting, November 18, 2002, Ft. Lauderdale, FL.
82. Smith CM. Identification of Russian Wheat Aphid Biotypes Virulent to Resistant U.S. Wheat Cultivars. Annual Meeting, Entomological Society of America, October 25-29, 2003, Cincinnati, OH.
83. Boyko EV, Starkey S, Smith CM. Genetic mapping of genes expressing resistance to greenbug and Russian wheat in bread wheat. PAGM X, January 12-16, 2002, San Diego, CA.
84. Smith CM, Flinn MB, Starkey S, Gill BS. Wheat Chromosome Location of Genes Expressing Greenbug Resistance. (Poster). 22nd Hard Winter Wheat Workers Workshop, February 18-20, 2001, Kansas City, MO.
85. Liu XM, Smith CM, Gill BS, Tolmay V. Molecular Mapping of Eight Russian Wheat Aphid Resistance Genes in Wheat. (Poster). 22nd Hard Winter Wheat Workers Workshop, February 18-20, 2001, Kansas City, MO.
86. Malik R, Smith CM, Brown Guedira GL, Howell KD, Harvey TL. Genetic Mapping of an *Ae. tauschii* Gene Transferred to Common Wheat Conferring Resistance to All Strains of Wheat Curl Mite. (Poster). 22nd Hard Winter Wheat Workers Workshop, February 18-20, 2001, Kansas City, MO.
87. Smith CM, Flinn MB, Starkey S, Gill BS. Wheat Chromosome Location of Genes Expressing Greenbug Resistance. (Poster). North Central Branch Meeting, Entomological Society of America, Ft. Collins, CO. March 25-28, 2001.
88. Liu XM, Smith CM, Gill BS, Tolmay V. Molecular Mapping of Eight Russian Wheat Aphid Resistance Genes in Wheat. (Poster). North Central Branch Meeting, North Central Branch, Entomological Society of America, Ft. Collins, CO. March 25-28, 2001.
89. Malik R, Smith CM, Brown Guedira GL, Howell KD, Harvey TL. Genetic Mapping of an *Ae. tauschii* Gene Transferred to Common Wheat Conferring Resistance to All Strains of Wheat Curl Mite. (Poster). North Central Branch Meeting, Entomological Society of America, Ft. Collins, CO. March 25-28, 2001.
90. Liu XM, Smith CM, Gill BS. Molecular Mapping of the Russian Wheat Aphid Resistance Genes *Dn4* and *Dn6*. (Poster). 2nd Place Award, Section Fa. Entomological Society of America National Meeting, December 9-12, 2001, San Diego, CA.
91. Liu XM, Smith CM, Gill BS, Tolmay V. Chromosome location and genetic mapping of Russian wheat aphid resistance genes *Dn1*, *Dn2*, and *Dn5* in wheat using molecular markers. International Plant Resistance to Insects Workshop, Fort Collins, CO, March 1, 2000.
92. Flinn MB, Smith CM, Reese J, Gill BS. Molecular Markers Linked to Greenbug (Homoptera: Aphididae) Biotype I Tolerance in *Aegilops tauschii*. 14th International Plant Resistance to Insects Workshop, Fort Collins, CO, March 1, 2000. (1st Place Award, M. S. Student Competition).
93. Smith CM. Genetically Modified Foods: A Recent Timeline. Introduction to the Symposium "Genetically Modified Foods: Current Perceptions of Safety and Acceptance. Entomological Society of America North Central Branch Annual Meeting. March 27, 2000, Minneapolis, MN.

94. Smith CM. Molecular Selection Techniques for the Development of Arthropod Resistant Cereal Cultivars. XXI International Congress of Entomology, August 22, 2000, Foz de Iguassu, Brazil.
95. Smith CM. Molecular Markers for Aphid Resistance in Wheat: Recent Developments. Greenbug Research Consortium Meeting, September 19-20, 2000, Stillwater, OK.
96. Liu XM, Smith CM, Gill BS. Genetic Mapping of Russian Wheat Aphid Resistance Gene *Dn6* in Wheat Accession PI 243781. 2000 Joint Meeting, Entomological Society of America, Entomological Society of Canada, and Entomological Society of Quebec. December 4, 2000, Montreal, Canada.
97. Malik R, Smith CM, Harvey TL, Brown Guedira GL. Genetic Mapping of an *Ae. tauschii* gene transferred to Common Wheat Conferring Resistance to All Strains of Wheat Curl Mite. 2000 Joint Meeting, Entomological Society of America, Entomological Society of Canada, and Entomological Society of Quebec. December 4, 2000, Montreal, Canada (1st Place, Section Fa Display).
98. Flinn MB, Smith CM, Reese J, Gill BS. An *Aegilops tauschii* Accession Resistant to Greenbug (Homoptera: Aphididae): Classification of Plant Resistance Categories. Annual Meeting, North Central Branch of the Entomological Society of America. March 28 – 31, 1999, Des Moines, IA.
99. Flinn MB, Smith CM, Reese J, Gill BS. Categories of Resistance in Wheat to Greenbug Biotype I. Central States Entomological Society, April 1999, Manhattan, KS.
100. Flinn MB, Smith CM, Reese J, Gill BS. A Molecular Marker for an *Aegilops tauschii* Accession resistant to Greenbug Biotype I (Homoptera: Aphididae), (Poster) Annual Meeting of Entomological Society of America. December 12 -17, 1999, Atlanta, GA. (First Place Award)
101. Parimi S, Danielson SD, Smith CM. Induced Resistance to Bean Leaf Beetle, *Cerotoma trifurcata* (Forster) (Coleoptera: Chrysomelidae), in Two Varieties and a Germplasm Line of Soybean. (Poster). Central States Entomological Society, April 1999, Manhattan, KS.
102. Parimi S, Danielson SD, Smith CM. Induced Resistance to Bean Leaf Beetle, *Cerotoma trifurcata* (Forster) (Coleoptera: Chrysomelidae), in Two Varieties and a Germplasm Line of Soybean. (Poster). Annual Meeting, North Central Branch of the Entomological Society of America. March 28 – 31, 1999, Des Moines, IA.
103. Parimi S, Danielson SD, Smith CM. Induced Resistance to Bean Leaf Beetle, *Cerotoma trifurcata* (Forster) (Coleoptera: Chrysomelidae), in Soybean. 1999 World Soybean Conference, August 12, 1999, Chicago, IL.
104. Smith CM, Flinn MB. Marker Assisted Selection for Greenbug Resistance. (Poster) Annual Meeting of Entomological Society of America. December 12 -17, 1999, Atlanta, GA.
105. Liu XM, Smith CM, Gill BS, Tolmay V. Identification and Location of Genes in Wheat for Resistance to Russian Wheat Aphid Using Molecular Markers. (Poster) Annual Meeting of Entomological Society of America. December 12 -17, 1999, Atlanta, GA.
106. Parimi S, Danielson SD, Smith CM. Induced Resistance to Bean Leaf Beetle, *Cerotoma trifurcata* (Forster) (Coleoptera: Chrysomelidae), in Soybean. (Poster). International Plant Resistance to Insects Biennial Workshop, March 15-18, 1998, Memphis, TN.
107. Parimi S, Danielson SD, Smith CM. Induced Resistance to Bean Leaf Beetle, *Cerotoma trifurcata* (Forster) (Coleoptera: Chrysomelidae), in Soybean. (Poster). Central States Entomological Society Meeting, April 26, 1998, Lincoln, NE.

University of Idaho

Resistance of Host Crop Plants and Conservation Reserve Program Grasses to Russian Wheat Aphid.

Tri-State County Agent Training Session on Management Strategies for the Russian Wheat Aphid., February 6, 1989, Pullman, WA.

Russian Wheat Aphid Research and Pesticide Use. Moscow, ID Chamber of Commerce Agriculture and Natural Resources Committee. March 1 and September 15, 1989.

Progress and Developments in Russian Wheat Aphid Resistance and Biological Control. Tri-State Wheat Worker's Workshop, June 27-27, 1989, Pullman, WA.

Louisiana State University

The Future of Plant Resistance to Insects Research. Seventh Biennial Plant Resistance to Insects Workshop, March 18-20, 1986. Manhattan, KS.

Interactions Between Mechanical Damage to Plants and Insect Populations. Annual Meeting Entomological Society of America. December 7-11, 1986. Reno, NV.

Rice Insect Control. Louisiana Extension-Research Rice Conference. January 10, 1985. Crowley, LA. Varietal Resistance as a Control Tactic in the Integrated Management of Rice Pests. International Rice Research Conference. International Rice Research Institute. June 1-5, 1985. Los Banos, Laguna, The Philippines.

Insect Resistance in Rice. Symposium on "The Genetic Improvement of Rice." E.I. DuPont DeNemours and Co., September 12 & 13, 1985. Wilmington, DL.

How Reviewers Assess Proposals. Seminar on "The Competitive Grant Process." Louisiana Agricultural Experiment Station. September 27, 1985. Baton Rouge, LA.

Biology and Behavior of the Rice Water Weevil, *Lissorhoptrus oryzophilus* Kuschel, on Rice, *Oryza sativa* (L.). Symposium on Aquatic Plant-Insects Interactions. Annual Meeting, Entomological Society of America, December 8-12, 1985. Hollywood, FL.

Development of Insect Resistant Germplasm in Rice: A Case History. Sixth Biennial Plant Resistance to Insects Workshop, February 21-23, 1984. Charleston, SC.

Mechanisms of Plant Resistance in Soybean to the Soybean Looper. Entomology Departmental Seminar Series, North Carolina State University. February 24, 1984. Raleigh, NC.

Mechanisms of Resistance in Soybean (*Glycine max* L. (Merr.), to the Soybean Looper, *Pseudoplusia includens* (Walker) (Lepidoptera: Noctuidae). International Study Workshop on Host Plant Resistance to Insects. June 11-15, 1984. Nairobi, Kenya.

Rice Stink Bug Research. General Foods Rice Research Review Session. June 28, 1984. Crowley, LA.

Rice Insect Pest Management Research in Louisiana. Address to the Plant Genetics & Breeding Delegation, People's Republic of China. October 23, 1984. Baton Rouge, LA.

Rice Insect Pest Management in Louisiana. Kellogg Corp. December 19, 1984. Baton Rouge, LA.

Current Status of Rice Insect Pest Management in Louisiana. Rice Pest Management Symposium. Annual Meeting, Louisiana Entomological Society, March 10, 1983. Baton Rouge, LA.

Invited Lectures, West African Rice Development Association Short Course, January 10-28, 1982. Monrovia, Liberia (See publications for specific titles).

Current Aspects of Rice and Soybean Host Plant Resistance Research in Louisiana. Monsanto Agricultural Research Center, December 2 & 3, 1982. St. Louis, MO.

Integrated Pest Management of Rice Insect Pests of the United States. XVI International Congress of Entomology, August 3-8, 1980. Kyoto, Japan.

Development of Insect Resistant Varieties of Rice in Louisiana. Saturday Seminar Series. The International Rice Research Institute, August 9, 1980. Los Banos, Laguna, The Philippines.

MEMBERSHIPS & ACTIVITIES IN PROFESSIONAL ORGANIZATIONS:

American Association for the Advancement of Science

Entomological Society of America:

Starks Plant Resistance to Insects Student Research Award Committee, 2014.

ESA National Meeting Graduate Student Poster Competition Judge, PIE Section, 2014.

Starks Plant Resistance to Insects Student Research Award Committee, 2012.

Chair, Resolutions Committee, National Meeting, 2009

Co-Moderator, Plant Resistance Paper Session #141, National Meeting, 2009.

Session Moderator, Host Plant Resistance, National Meeting, 2005.

Judge, Pioneer Hi-Bred International Graduate Student Fellowship, 2005.

Member, Education & Youth Committee, 2005.

Chair, North Central Branch C. V. Riley Award of Merit Committee, 2001

Member, S. D. Beck Scholarship Selection Committee, 2000-2002.

Governing Board Representative, Section F, 1995-97.

Council of Entomology Department Administrators, Chair, 1995

Head Judge, Section Cd, President's Prize Student Competition, National Meeting, 1993.

Chair, Section Fa, 1992.

Chair, Resolutions Committee, 47th Annual Meeting, North Central Branch, 1992.

Member, Registration Committee, 47th Annual Meeting, North Central Branch, 1992.

Member, Travel Grants Committee and Youth Science Development Committees, 1991-93.
Head Judge, Section F President's Prize Student Competition 1991 National Meeting.
Chair, Program Committee for 74th Annual Pacific Branch Meeting, 1990.
Member, Section F Program Committee, 1989 & 1990 National Meetings.
Program Committee for 73rd Annual Pacific Branch Meeting, 1989.
Member, Southeastern Branch Student Awards Committee, 1987-88.
Linnaean Games Judge, 1985 National Meeting.
Developed and chaired the Section F Symposia:
"The Chemical Basis of Insect Resistance in Crop Plants," National Meeting, Entomological Society of America, December 3, 1980, Atlanta, GA.
"Plant Resistance to Insects: Research Strategies for the 21st Century," National Meeting, Entomological Society of America, December 10, 1984, San Antonio, TX.
"Value and Use of Plant Resistance to Insects in Integrated Crop Management" Robert H. Nelson Memorial Symposium, National Meeting, Entomological Society of America, December 9, 1992, Baltimore, MD.

UNIVERSITY SERVICE:

Kansas State University:

Judge, 15th Annual K-State Research Forum, 2010.
Steering Committee, Arthropod Genomics Targeted Excellence Institute 2006-2010.
Steering Committee, Ecological Genomics Targeted Excellence Institute 2005-2007.
Interdisciplinary Genetics Committee, 2005.
KSU Plant Biotechnology Center, 2005.
Faculty Senate, 2001 - 2006, College of Agriculture Caucus Chair, 2003-2004.
Pre-Health Professions Evaluation Committee, 2002-2013.
President's Commission on Multicultural Affairs, 1994-1996.

College of Agriculture:

Virologist Search Committee, Dept. of Plant Pathology, 2017.
Technology in the Classroom and Distance Education Advisory Committee, 1999-2002.
Honors Advisory Committee, 1997-2004.
Diversity Committee, 1994-96, Chair, 1995.
Search Committees: Interim Dean, 1992, 2003; Plant Pathology Department Head, 1993-94.
International Agricultural Advisory Committee, 1992-2003.
Kansas AES-CES Annual Conference, Vice Chair, 1992, Chair, 1993.
Selection Committee, Outstanding Agricultural Alumni Service Award, 1992.
Committee for Kansas Board of Regents Mission, Role & Aspirations Report, 1992.
Selection Committee, Outstanding Undergraduate Teaching Award in Agriculture, 1991.
Cultural Diversity Task Force, Kansas Cooperative Extension Service, 1991-96.

Department of Entomology:

Greenhouse Space Committee, 2012
Graduate Affairs Committee, Public Relations Committee, 2010
Chair, Search Committee for Medical Veterinary Extension Entomology position, 2008
Planning Committee, 2004-2006, Chair 2007
Tours Committee, 2005-06, Chair 2006
Public Relations Committee, 2003-05, Chair 2005
Safety Committee, 2000-2003, Chair 2003
Graduate Affairs Committee, 1999-2002, Chair 2002
Seminar Committee, 1997-98, Chair 1998
Awards Committee, 1999-2001, 2006-2008
Co-Editor, International Plant Resistance to Insects Newsletter, 1996-2000

2006 External reviewer for tenure & promotion applications of Dr. Fiona Goggin, Department of Entomology, University of Arkansas and Dr. Heather MacAuslane, Department of Entomology and Nematology, University of Florida.

Outreach:

K-State Entomologist Studying Wheat Plant Genes Affected by Aphids to Create Low-Risk Method of Pest Management. KSU Media Services Story. Monday, Nov. 24, 2008, Manhattan, KS.

Bugs, Bugs, Bugs – A Public Service Educational Presentation. 90 at-risk students, Cooper Elementary School, South Wichita, KS (Derby Recreation Commission) June 5, 2006.

Genetically Modified Foods: Risks and Benefits. KState Research & Extension Media Day, March 30, 2000. Manhattan, KS.

30 students, Karen Bargabus' 4th grade class, Northview Elementary School, Manhattan, KS. September 28, 1999.

Insects and People: Past, Present & Future. Manhattan Kiwanis Club Meeting. November 9, 1999, Manhattan, KS.

270 students (9 sessions), Kansas State Fair, September 1993 & 1994.

40 Gifted/Talented students, Amanda Arnold Elementary School, Manhattan, KS, November 1992 & April 1993.

Louisiana State University:

Member, Search Committees for Veterinary, Forages, Genetics, & Department Head positions
Chair, Department Committee for "Peterson's Guide to Graduate Study"

Member, Distinguished Lecturer Selection Committee, 1983-84, Chairman, 1983

Speaker, LSU Rice Research Station Field Day, 1979, 1981, 1983, 1985

Panel Review Member, USDA Special Grants Program for Soybeans, 1981

Peer Reviewer, USDA Special, Competitive, & Tropical Agriculture Grants Programs, 1982-88

LSU Agricultural Center Self-Study Committee for Rice Integrated Pest Management, 1982

Member, L. D. Newsom Graduate Student Award Committee, 1984-88

Member, Louisiana Biotechnology Institute Advisory Committee, 1986-87

Member, Entomology Department Seminar Committee, 1984-86; Chair, 1986

Program Area and Departmental Goals Committees, CSRS Departmental Review, April 1984

Member, Louisiana Rice Variety Recommendation Committee, 1984-86

Member, Faculty Evaluation Procedure Committee, 1986

Member, Entomology Department Student Admissions Committee, 1986-89

Member, LAES Staff Conference Planning Committee, 1986-87

University of Idaho:

Executive Council, College of Agriculture, 1989-90

Plant, Soil and Entomological Sciences Executive Committee, 1989-90

Participating faculty member Institute for Molecular and Genetic Engineering, 1989-90

Search Committee for DP Programming position to support IPM Coordinator, 1989

Tenure Review Committee, Department of Plant, Soil and Entomological Sciences, 1989

Centennial Field Day Committee, 1989

PSES Undergraduate & Graduate Recruiting Brochures, 1989

Idaho Gypsy Moth Technical Advisory Committee, 1990

Sabbatical Leave Evaluation Committee, 1990

Government Agency Grant Review Panels:

Green Genetics Program, Netherlands Scientific Research Council for Earth and Life Sciences, 2016.

USDA/ARS/NP 301 Plant Metabolism and Pathways Panel 4C. 2013.

USDA/NIFA/IFPS Global Food Security: Mitigating Crop and Livestock Losses. 2013.

NSF Physiological and Structural Systems, Symbiosis, Defense and Self-Recognition Panel. 2010.

French National Research Agency, Environmental Science and Agronomy Group. 2007.

NSF Small Business Innovation Research/Small Business Technology Transfer 2007.
NSF Physiological and Structural Systems, Symbiosis, Defense and Self-Recognition 2007.
NSF Integrative Plant Biology Program. 2001.
USDA/Biotechnology Risk Assessment Program. 2000.

Ad Hoc Reviews

USDA/NRI Arthropod & Nematode Gateways to Genomics. 2005
USDA/NRI Integrative Biology of Arthropods & Nematodes. 2005
USDA/NRI Plant Genetic Mechanisms. 2001.
Grant Agency of the Czech Republic. 2001.
USDA/NRI Biotechnology Risk Assessment, Indo-Swiss Collaboration in Biotechnology. 1998.
Grant Agency of the Czech Republic. 1996.

183 Referred Journal Manuscript Reviews (1990-present):

Arthropod-Plant Interactions, Biopesticides International, BioScience, Crop Protection, Crop Science, DNA Sequence, Ecological Entomology, Entomologica Experimentalis et Applicata, Environmental Entomology, Euphytica, European Journal of Entomology, Experimentalis et Applicata, Frontiers in Plant Science, Genome, International Journal of Molecular Sciences, Iran Journal of Agricultural Research, Journal of Applied Entomology, Journal of Agricultural & Food Chemistry, Journal of Chemical Ecology, Journal of Economic Entomology, Maydica, Nature Scientific Report, Neotropical Entomology, New Phytologist, New Zealand Journal of Crop & Horticultural Sciences, Plant Biotechnology Journal, Plant Breeding, Plant Physiology, Planta, PLoS ONE, Theoretical & Applied Genetics.

Students Graduated at Kansas State University:

Lina Maria Aguirre Rojas. 2019. Towards the development of soybean resistance to *Dectes texanus* LeConte (Coleoptera: Cerambycidae): Evaluation of conventional soybean resistance in the soybean plant introduction 165673, transcriptomic analyses, and gene silencing by RNA interference. Ph.D. Dissertation. Kansas State University. 138 pages.

Luaay Kahtan Khalaf. 2018. Biotype composition and virulence distribution of wheat curl mite in the North Central United States.

John Girvin. 2015. Exploring Aphid Virus Wheat Interactions Using Current Wheat Varieties, Aphid Control Techniques, and Landscape Observations. M.S. Thesis. Kansas State University. 43 pages.

Lina Aquirre Rojas. 2013. Inheritance of Resistance to the *Dectes* Stem Borer, *Dectes Texanus* Leconte (Coleoptera: Cerambycidae), in Soybean Plant Introduction PI165673. M.S. Thesis. Kansas State University. 60 pages.

Sandra Garces Carrera. 2013. Virulence of *Mayetiola Destructor* (Say) Field Populations in the Great Plains and Levanase/Inulase-Like Genes in the Hessian Fly Genome. Ph.D. Dissertation. Kansas State University. 100 pages.

Paola Sotelo. 2010. Interactions Among Biological Control, Cultural Control and Barley Resistance to the Russian Wheat Aphid in Colorado, Kansas and Nebraska. Ph.D. Dissertation. Kansas State University. 181 pages.

Laura Starkus. 2010. Virus-Induced Gene Silencing of Putative *Diuraphis noxia* (Kurdjumov) Resistance Genes in Wheat. M. S. Thesis. Kansas State University. 68 Pages.

Teru Niide. 2009. Development of Soybean Host Plant Resistance and Other Management Options for the Stem Borer, *Dectes Texanus* Leconte. Ph.D. Dissertation. Kansas State University. 123 pages.

Sheila Prabaker. 2006. Molecular Characterization of Digestive Proteases of the Yellow Mealworm, *Tenebrio molitor* L. Ph.D. Dissertation. Kansas State University. 160 pages.

Priyavada Voothuluru. 2005. Categories and Inheritance of Resistance in Wheat Cereal Introduction 2401 to Russian Wheat Aphid (Homoptera: Aphididae) Biotype 2. M. S. Thesis. Kansas State University. 72 pages.

Liceng Zhu. 2005. Molecular Mapping and Categorization of Wheat Genes Expressing Resistance to the Greenbug, *Schizaphis graminum* (Rondani). Ph.D. Dissertation. Kansas State University. 99 pages.

Xuming Liu. 2001. Molecular Mapping of Wheat Genes Expressing Resistance to the Russian Wheat

Aphid, *Diuraphis noxia* (Mordvilko) (Homoptera: Aphididae) Ph.D. Dissertation. Kansas State University. 144 pages.

Renu Malik 2001. Molecular Genetic Characterization of Wheat Curl Mite, *Aceria tosichella* Keifer (Acari: Eriophyidae), and Wheat Genes Conferring Wheat Curl Mite Resistance. Ph.D. Dissertation. Kansas State University. 144 pages.

Michael Flinn. 2000. A Molecular Marker Linked to Tolerance in *Aegilops tauschii* Accession 1675 to Greenbug (Homoptera : Aphididae). M.S. Thesis. Kansas State University. 59 pages.

KSU Graduate School Doctoral Examination Outside Chair:

C. J. Aducci, School of Family Studies & Human Services. 2013.

Susan Holmberg, School of Music. 2010.

Jonathan Conard, Division of Biology. 2009.

Xin Zhao, Division of Biology. 2006.

Mohaned Talib Al-Handi. Department of Economics. 2005.

Ryan Lynn Reheimer, Division of Biology. 2005.

External Examiner at Kansas State University:

Vittorio Nicolis, PhD Genetics, University of Johannesburg, South Africa. 2018.

Francois Burger, MSs Genetics, University of Pretoria, South Africa. 2016.

Vittorio Nicolis, MSc Genetics, University of Johannesburg, South Africa. 2013.

Thia Schultz, MSC Genetics, University of Pretoria, Pretoria South Africa, 2009.

Leon Van Eck, MSc Genetics, University of Pretoria, South Africa. 2007.

Nadia Abd-Allah Ali, MSc Entomology, University of Cairo. 2005.

Lynelle Laycock, PhD Genetics, University of Pretoria, South Africa. 2004.

Tesfay Belay, PhD Entomology, University of Bodenkultur, Vienna, Austria. 2003.

Jacob Lage, PhD Entomology, The Royal Veterinary and Agricultural University, Copenhagen, Denmark. 2003.

POSTDOCTORAL SCIENTISTS SUPERVISED AT KANSAS STATE UNIVERSITY:

Dr. Peter Klein, (2017-present).

Dr. Laramy Enders, Dept. of Entomology, Purdue University (2016).

Dr. Alicia Timm, Colorado State University (2014-2015).

Dr. Leo Crespo, Monsanto Bourlag/Beachel Visiting Scholar, Predoctoral from Swedish University of Agricultural Sciences (2012).

Dr. Wen Po Chuang, Dept. of Agronomy, National Taiwan University, Taipei, Taiwan (2012-15).

Dr. Deepak Sinha, International Center for Genetic Engineering and Biotechnology (2012-16).

Dr. Marimuthu Murugan, Department of Plant Molecular Biology & Biotechnology, Tamil Nadu Agricultural University, Coimbatore, India (2009-12).

Dr. Shah Alam Khan, NWFP Agricultural University, Peshawar, Pakistan (2009-12).

Dr. Sonia Lazzari, Departament of Zoology, Federal University of Paraná, Curitiba, Brazil (2007-08).

Dr. Elena Boyko, Research Asst. Professor, Dept. of Entomology, Kansas State University (2004-08).

Students Graduated at Louisiana State University:

Hildelisa Hernandez. 1988. Search for Allelochemicals in Rice (*Oryza sativa*) and Structure Determination of External Flavonoids of *Calamintha ashei*. Ph.D. Dissertation. Louisiana State University. 135 pages.

Marieanne E. Hollay. 1987. Rice Stink Bug, *Oebalus pugnax* (F.), on Rice: Evaluation for Plant Resistance, Interaction of Field Fungi with Feeding Damage, and Evaluation of Insecticides for Control. Ph.D. Dissertation. Louisiana State University. 156 pages.

Colwell A. Cook. 1987. Categories of Resistance in Rice to the Rice Water Weevil, *Lissorhoptus oryzophilus* Kuschel. M.S. Thesis. Louisiana State University. 87 pages.

Alberto Pantoja. 1985. Biology, Economic Injury, and Plant Resistance Studies with the Fall Armyworm, *Spodoptera frugiperda* (J. E. Smith), on Rice, *Oryza sativa* L. Ph.D. Dissertation. Louisiana State University. 85 pages. p62

- Porfirio Caballero. 1985. Allelochemicals from Soybean Affecting *Pseudoplusia includens* (Walker) Biology and the Pheromone from *Chilo plejadellus* Zincken Mediating *C. plejadellus* Sexual Behavior. Ph.D. Dissertation. Louisiana State University. 100 pages.
- Gary L. Cave. 1983. Biological, Ecological and Morphological Investigations of the Rice Water Weevil, *Lissorhoptrus oryzophilus* Kuschel, on Two Rice Genotypes. Ph.D. Dissertation. Louisiana State University. 78 pages.
- Karen M. Kester. 1983. The Southern Green Stinkbug, *Nezara viridula* (L.): Growth, Development, Nutrition and Mechanisms of Resistance in Soybean (*Glycine max* (L.) Merrill) Genotype P171444. M.S. Thesis. Louisiana State University. 84 pages.

Regional Research Groups

- NCS-3 North Central Regional Integrated Pest Management, 1990-96.
- NCA-15 North Central Region Entomology Department Administrators, 1990-96, Chair, 1996.
- WCC-66 Biology & Management of Russian Wheat Aphid, 1988-91, 1998-present.
- SRIEG32 Host Plant Resistance to Soybean Insect Pests, 1983-88, Chair, 1983.
- SR-162 Rice Insect Pests of the Southern United States, 1980-88, Chair 1981 and 1986.

ADMINISTRATIVE EXPERIENCE:

- 1994 Acting Dean & AES Director, College of Agriculture, Kansas State University, November.
- 1993 ESCOP/ACOP Leadership Development Class 3.
- 1990-96 Head, Dept. of Entomology, Kansas State University, responsible for professional development of 19 faculty, 11 research associates, 30 graduate students, 6 professional staff.
- 1988-90 Chair, Division of Entomology, Dept. of Plant, Soil and Entomological Sciences, University of Idaho, responsible for the professional development of 13 faculty and 5 technicians.

CONTINUING EDUCATION:

- Microarray Analysis and Bioinformatics Workshop, Ecological Genomics Institute, Kansas State University, Manhattan, KS, July 9 - 12, 2007.
- Gordon Conference Genomics & Evolutionary Bioinformatics, South Hadley, MA, July 2002.
- New England Biolabs Molecular Biology Workshop, Northampton, MA, July 1996.
- Successful Presentation Skills, Pryor & Associates, Topeka, KS, February 1993.
- How to Manage Priorities and Meet Deadlines, Pryor Resources, Inc., Topeka, KS, July 1992.
- Conducting Personnel Evaluations, Kansas State University, Manhattan, November 1991.
- The Manager as Coach, Career Track Group Seminars, Topeka, KS, September 1991.
- North Central Administrative Workshop, University of Nebraska, Lincoln, June 1991.
- Insect Bites and Stings, SW Okla. St. Univ. Pharmacy School. Winter Park, CO. March 1991.
- How to Handle Difficult People, National Seminars Presentation. Manhattan, KS. October 1990.
- Biotechnology for Agriculture, Monsanto Corp. Roundtable. Pasco, WA. March 1990.
- Performance Appraisal, University of Idaho Human Resources Office. March 1990.
- How to Work With People, National Seminars Group Presentation, Spokane, WA. November 1989.
- Soft Systems Teaching for Courses in Agriculture & Home Economics, Post Falls, ID, August 1988.
- Stress Management in the Home and Workplace, Louisiana State University, October 1987.
- Biotechnology in Entomology, Board Certified Entomologists, Jackson, MS, January 1987.
- Leadership Skills, Louisiana State University Continuing Education Course. Spring 1987.

INSTRUCTIONAL EXPERIENCE:

Kansas State University:

- ENTOM 830 Molecular Entomology. Guest lectures biennially since 2006.
- ENTOM 312 ZA General Entomology Distance Online. Each semester since Fall 2011.
- Plant Resistance to Insects, Czech Agricultural University, Praha, Czech Republic, March-May, 2002.
- AGRON/ENTOM/PLPTH 732 Plant Resistance to Pests. Coordinated biennially since 2000.
- ENTOM 312 General Entomology. Biennially since 2000.
- ENTOM 313 General Entomology Laboratory. Biennially since 2000.
- ENTOM 745 Insect Control by Host Plant Resistance. Guest lectures biennially since 1992.

ENTOM 885 Conventional and Molecular Methods of the Evaluation of Plant Resistance to Pests.
Organized course & taught biennially since 2001.

University of Idaho:

Ent 115 Insects & Man, Spring 1989-90.

Ent 501 Entomology Seminar; Spring 1989.

Ent 445/546 Host Plant Resistance & Cultural Suppression of Insects; 1990 [Evaluation 4.3/5.0]

Guest Lecturer, PltSc 446 Plant Breeding. Spring 1989.

Louisiana State University:

Guest Lecturer HEC 7065 Management of Family Resources.1983-86.

Guest Lecturer AGRO 4061 Rice Production. 1980-87.

ENTM 8000, Writing Techniques for Entomologists. Fall 1983 (Jointly with T. C. Sparks).

ENTM 7002, Plant Resistance to Arthropods. 1978-85. [Average evaluation rating 4.1/5.0]

CIVIC ACTIVITIES:

First United Methodist Church, Manhattan, KS (1990-present) -- Staff Parish Relation Committee (1996-2000), Adult Choir (1990-present), Stewardship Committee (200-2002), Organ renovation Committee (2015-2016), Church Orchestra (2015-present).

Manhattan Kansas Arts Center Patron 1999-present.

Gold Orchestra Parent Support Organization 1992-1998.

OUTSIDE INTERESTS AND HOBBIES: International travel, vocal and instrumental music, gardening, photography.