CURRICULUM VITAE
CHARLES MICHAEL SMITH

Department of Entomology, Kansas State University, Manhattan, KS 66506; 785-532-4700;
cmsmith@ksu.edu; http://entomology.k-state.edu/people/faculty/Smith-C-Michael.html

EDUCATION:

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

EMPLOYMENT:

1996-Present: 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 Univ.

RECOGNITION:

2016 Lifetime Achievement Award, International Plant Resistance to Insects Workshop.
2015 Fellow, American Association for the Advancement of Science.
2010 Recognition Award, Entomological Society of America.
2009 Recognition Award, North Central Branch, Entomological Society of America.
2009 Kansas State University Gamma Sigma Delta Distinguished Faculty Award.
2007 President, Kansas State University Chapter, Sigma Xi.
2006 Founding Editor, Arthropod-Plant Interactions, Springer.
2006 Fellow, Entomological Society of America.
2005 Editorial Board, Biopesticides International, Koul Research Foundation.
2004 E. Walter Morrison Award, Kansas State University Foundation.
2004 Subject Editor, Journal of Economic Entomology, Entomological Society of America.
2003 External Examiner, Dissertation Assessment Panel, The Royal Veterinary and Agricultural University (KVL), Copenhagen Denmark.
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.
1982 Participant, ADAB/FAO Monitoring of Progress Mission on the Integrated Pest Control Project for Rice in South and Southeast Asia.

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.
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 University 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.
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. Chuang W-P, Aguirre-Rojas L, Khalaf LK, Zhang G, Fritz AK, Whitfield AE, Smith CM. 201x. Response of wheat genotypes carrying *Cmc4* and *Wsm2* to wheat curl mite, wheat streak mosaic virus, and wheat mosaic virus. *Phytopathology. (In review).*
2. Sinha DK, Chandran P, Timm AE, Rojas LA, Smith CM. 2016. Virulent *Diuraphis noxia* aphids over-express calcium signaling proteins to overcome defenses of aphid-resistant wheat plants. PLoS ONE. DOI:10.1371/journal.pone.0146809 January 27, 2016.
3. 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.* 10:75-79doi:10.3198/jpr2015.04.0026crg.
4. 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.
5. 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/tov183.
6. 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.
7. 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: 5059 | DOI: 10.1038/srep05059.
8. Ananthakrishanan 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.* 8:79-88. DOI:10.1007/s11829-014-9293-4.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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. *Molecular Phylogenetics and Evolution.* 66:928-940.
15. 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.
16. Niide T, Higgins RA, Whitworth RJ, Schapaugh WT, Smith CM, Buschman LL. 2012. Antibiosis resistance in soybean plant introductions to *Dectes texanus. J. Econ. Entomol.* 105:598-607.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. 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. 4: 67–69.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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. Interact.* 3:45-53.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
37. Liu XM, Smith CM, Gill BS. 2005. Allelic relationships among Russian wheat aphid resistance genes. *Crop Sci.* 45:2273-2280.
38. 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.
39. Smith CM, Boyko E, Starkey S. 2005. Differential expression of genes in wheat, *Tritiucum aestivum* L. controlling resistance to the Russian wheat aphid, *Diuraphis noxia* (Mordvilko). *IOBC wprs Bull.* 28:11-20.
40. 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.
41. 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.
42. 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.
43. Smith CM, Belay T, Stauffer C, Stary 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.

44. Smith CM, Havlickova H, Starkey S, Belay T, Holubec V. 2004. Identification of *Aegilops* germplasm with multiple aphid resistance. *Euphytica*. 135:265-273.
45. 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.
46. Smith CM, Starkey S. 2003. Resistance to greenbug (Heteroptera: Aphididae) biotype I in *Aegilops tauschii* synthetic wheats. *J. Econ. Entomol.* 96:1571-1576.
47. Belay T, Smith CM, Stauffer C. 2003. Biotypic status of the Russian wheat aphid *Diuraphis noxia* in Ethiopia. *Mitt. Dtsch. Ges. Allg. Angew. Ent*. (Proc. German Entomol. Congress). 15:1-4.
48. 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.
49. 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.
50. 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.
51. 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.
52. 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.
53. 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.
54. Oppert B, Hartzer K, Smith CM. 2000. Digestive proteinases of alfalfa weevil, *Hypera postica*, (Gyllenhal) (Coleoptera: Curuclionidae). *Trans. Kansas Acad. Sci.* 103:99-110.
55. 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.
56. 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.
57. 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.
58. Zemetra RS, Schotzko DJ, Smith CM, Lauver M. 1993. In vitro selection for Russian wheat aphid (*Diuraphis noxia*) resistance in wheat (*Triticum aestivum*). *Plant Cell Reports* 12:312-315.
59. 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.
60. Schotzko DJ, Smith CM. 1991. Effects of preconditioning host plants on population development of Russian wheat aphids (Homoptera:Aphididae). J. *Econ. Entomol.* 84:1083-1087.
61. 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.
62. 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.
63. Souza, E., Smith CM, D. J. Schotzko and R. S. Zemetra. 1991. Greenhouse evaluation of red wheats for resistance to the Russian wheat aphid (*Diuraphis noxia*, Mordvilko). *Euphytica* 57:221-225.
64. Smith CM. 1990. Adaptation of new technologies to the study of plant resistance to insects. *Bull. Entomol. Soc. Am.* 35:141-146.
65. Hernandez HP, Hsieh TCY, Smith CM, Fischer NH. 1989. Foliage volatiles of two rice cultivars. *Phytochem*. 28:2959-2962.
66. Rose RL, Sparks TC, Smith CM. 1989. The influence of resistant soybean (PI227687) foliage and coumestrol on the metabolism of xenobiotics by the soybean looper, *Pseudoplusia includens* (Walker). *Pestic. Biochem. Physiol.* 34:17-26.
67. Cook CA, Smith CM. 1988. Resistant plants as an alternative to chemical control of insects:

Pitfalls to progress. *Florida Entomol.* 71:546- 553.
68. Lye BH, Smith CM. 1988. Evaluation of rice cultivars for antibiosis and tolerance resistance to fall armyworm (Lepidoptera: Noctuidae). *Fla. Entomol.* 71:254-261.
69. Quisenberry SS, Caballero P, Smith CM. 1988. Influence of bermudagrass leaf extracts on development and survivorship of fall armyworm (Lepidoptera: Noctuidae) larvae. *J. Econ. Entomol.* 81:910- 913.
70. Rose RL, Sparks TC, Smith CM. 1988. Insecticide toxicity to larvae of *Pseudoplusia includens* (Walker) and *Anticarsia gemmatalis* (Hubner) (Lepidoptera) as influenced by feeding on resistant soybean (PI227687) leaves and coumestrol. *J. Econ. Entomol.* 81:1288-1294.
71. Hollay ME, Smith CM, Robinson JF. 1987. Structure and formation of feeding sheaths of the rice stink bug (Hemiptera: Pentatomidae) on rice grains and their association with fungi. *Ann. Entomol. Soc. Am.* 80:212-216.
72. Pantoja, A., Smith CM, Robinson JF. 1987. Development of fall armyworm, *Spodoptera frugiperda* (J. E. Smith), (Lepidoptera: Noctuidae) strains from Louisiana and Puerto Rico. *Environ. Entomol.* 16:116-117.
73. Caballero, P., Smith CM, F. R. Fronczek and N. H. Fischer. 1986. Isoflavonoids from soybean with potential insecticidal activity. *J. Nat. Prod.* 49:1126-1128.
74. Dowd PF, Rose RL, Smith CM, Sparks TC. 1986. Influence of extracts from soybean (*Glycine max* (L.)) Merr.) leaves on hydrolytic and glutathione s-transferase activity in the soybean looper (*Pseudoplusia includens* (Walker)). *J. Agric. Food Chem.* 34:444-447.
75. Layton MB, Boethel DJ, Smith CM. 1986. Resistance to adult bean leaf beetle and banded cucumber beetle (Coleoptera: Chrysomelidae) in soybean. *J. Econ. Entomol.* 80:151-155.
76. Pantoja A, Smith CM, Robinson JF. 1986. Fall armyworm oviposition and egg distribution on rice. *J. Agric. Entomol.* 3:110-115.
77. Pantoja, A., Smith CM, Robinson JF. 1986. Evaluation of rice germplasm for resistance to the fallarmyworm. (Lepidoptera: Noctuidae). *J. Econ. Entomol.* 79:1319-1323.
78. Pantoja, A., Smith CM, Robinson JF. 1986. Effects of the fall armyworm, *Spodoptera frugiperda* (J. E. Smith) (Lepidoptera: Noctuidae), on rice yields. *J. Econ. Entomol.* 79:1324-1329.
79. Smith CM,1986. Trends affecting research strategies in plant resistance to insects. *Agric., Ecosyst. Environ.* 18:1-7.
80. Pantoja, A., Smith CM, Robinson JF. 1985. Natural control agents affecting *Spodoptera frugiperda* (Lepidoptera: Noctuidae) infesting rice in Puerto Rico. *Florida Entomol.* 68:488-490.
81. Reynolds GW, Smith CM. 1985. Effects of leaf position, leaf wounding, and plant age of two soybean genotypes on soybean looper (Lepidoptera: Noctuidae) growth. *Environ. Entomol.* 14:475-478.
82. Smith CM. 1985. Expression, mechanisms and chemistry of resistance in soybean, *Glycine max* L. (Merr.) to the soybean looper, *Pseudoplusia includens* (Walker). *Insect Sci. Appl.* 6:243-248.
83. Cave GL, Smith CM, Robinson JF. 1984. Population dynamics, spatial distribution and sampling of the rice water weevil on resistant and susceptible rice varieties. *Environ. Entomol.* 13:822-827.
84. Kester KM, Smith CM. 1984. Effects of diet on growth, fecundity and duration of tethered flight on *Nezara viridula*. *Entomol. Exp. Appl.* 35:75-81.
85. Kester KM, Smith CM, Gilman DF. 1984. Mechanisms of resistance in soybean (*Glycine max* (L.) Merrill) genotype PI171444 to the southern green stink bug, *Nezara viridula* (L.). *Environ. Entomol.* 13:1208- 1215.
86. Naresh JS, Smith CM. 1984. Feeding preference on the rice stink bug on annual grasses and sedges. *Entomol. Exp. Appl.* 35:89-92.
87. Reynolds GW, Smith CM, Kester KM. 1984. Reductions in consumption, utilization and growth rate of soybean looper larvae fed foliage of soybean genotype PI227687 *J. Econ. Entomol.* 77:1371-1375.
88. Cave GL, Smith CM. 1983. Determination of the number of instars of the rice water weevil, *Lissorhoptrus oryzophilus Kuschel* (Coleoptera: Curculionidae). *Ann. Entomol. Soc. Am.* 76:293-294.
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90. Dowd PF, Rose RL, Smith CM, Sparks TC. 1983. Biochemical detoxification of plant toxins by insects. *Insect Biochem.* 13:453-468.

91. Smith CM, N. H. Fischer. 1983. Chemical factors of an insect resistant soybean genotype affecting growth and survival of the soybean looper. *Entomol. Exp. Appl.* 33:343-345.
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93. Smith CM, Robinson JF. 1983. Effect of rice cultivar height on defoliation by the least skipper, *Ancyloxypha numitor*. *Environ. Entomol.*12:967-969.
94. Naresh JS, Smith CM. 1983. Effects of host plant and temperature on development and survival of the rice stink bug. *Environ. Entomol.*12:1496-1499.
95. Viator HP, Pantoja A, Smith CM. 1983. Damage to wheat seed quality and yield by the rice stink bug and southern green stink bug (Hemiptera: Pentatomidae). *J. Econ. Entomol.* 76:1410-1413.
96. Smith CM, Robinson JF. 1982. Evaluation of North American rice cultivars for resistance to the rice water weevil. *Environ. Entomol.*11:334- 336.
97. Rahim MA, Robinson JF, Smith CM. 1981. Geographic and seasonal responses of rice water weevil, *Lissorhoptrus oryzophilus* Kuschel, adults to selected insecticides. *J. Econ. Entomol.* 74:49-53.
98. Smith CM, Gilman DF. 1981. Comparative resistance of multiple insect resistant soybean genotypes to the soybean looper. *J. Econ. Entomol.* 74:400-403.
99. Smith CM, Brim CA, Wilson RF. 1979. Feeding behavior of Mexican bean beetle on leaf extracts of resistant and susceptible soybean genotypes. *J. Econ. Entomol.* 72:374-377.
100. Smith CM, Brim CA. 1979. Field and laboratory evaluations of soybean lines for resistance to corn earworm leaf feeding. *J. Econ. Entomol.* 72:78-80.
101. Smith CM, Brim CA. 1979. Resistance to Mexican bean beetle and corn earworm in soybean genotypes derived from PI227687. *Crop Sci.* 19:313-314.
102. Smith CM. 1978. Factors for consideration in designing short-term insect-host bioassays. *Bull. Entomol. Soc. Am.* 24:79-81.
103. Smith CM, Knight WE, Frazier JL. 1977. Field evaluations of crimson clover for resistance to clover head weevil oviposition and larval feeding damage. *Crop Sci.* 17:162-164.
104. Smith CM, Frazier JL, Knight WE. 1976. Attraction of the female clover head weevil, Hypera meles (F.), to Trifolium spp. flower volatiles. *J. Insect Physiol.* 22:1517-1521.
105. Smith CM, Frazier JL, Coons LB, Knight WE. 1976. Antennal morphology of the clover weevil, *Hypera meles* (F.) *Int. J. Insect Morph. and Embryol.* 5:349-355.
106. Smith CM, Pitre HN, Knight WE. 1975. Development of a method for evaluation of crimson clover seed damage by the clover head weevil. *Florida Entomol.* 58:113-116
107. Smith CM, Pitre HN, Knight WE. 1974. Evaluation of crimson clover for resistance to leaf feeding by the adult clover head weevil. *Crop Sci.* 15:257-259.
108. Smith CM, Knight WE, Pitre HN. 1974. Feeding preference of the clover head weevil on clovers of the genus *Trifolium. J. Econ. Entomol.* 68:165-166.

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.
2. 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.

EXTRAMURAL SUPPORT:

Kansas State University - $10,360,473 (1996-2015).

Smith CM. A BHEARD PhD Degree Training Grant for Students from Liberia. Borlaug Higher Education for Agricultural Research and Development Program. 2015-18. $171,463.

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.

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.

Rotenberg D, De Wolf E, Johnson W, McCornack B, Smith CM. Integrative and innovative approaches to diminish Barley yellow dwarf epidemics in Kansas wheat. Kansas Wheat Commission, Kansas Wheat Alliance, KCIA. 2015-16. $150,000.

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, Fritz A, Chen M-S, Chuang W-P. Assessment of wheat curl mite virulence and avirulence on mite-resistant wheat. USDA/NIFA/ NC-IPM Program. 2013-16. $100,000.

Smith CM, Whitworth J. Aphid vectors of barley yellow dwarf virus in Kansas wheat. Kansas Wheat Commission. 2012-15. $110,317.

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. 2012-14. $117,753.

Boyer C, Cloyd R, DeWolf E, Kennelly M, McCornack B, Miller F, Moyer J, Phillips T, Schapaugh WT Jr, Smith CM, Upham W, Whitworth J. Extension IPM Coordination Program for Kansas. USDA. 2011-14. $280,809.

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

Buschman LL, 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. 2010-2012. $90,000.

Smith CM. Online Development of ENTOM 312 General Entomology and ENTOM 313 General Entomology Laboratory. Kansas State University. 2010-2012. $12,570.

Smith CM, Whitfield A, Murugan M, Fellers J. Identification of Wheat Curl Mite and Virus-Resistant Wheat Germplasm. Kansas Wheat Commission. 2008-2014. $259,670.

Smith CM. A molecular fingerprinting method to detect biotypes of the Russian wheat aphid. USDA/NRI/CSREES NC-IPM Minigrant. 2008-09. $10,000.

Šimková H, Doležel J, Smith CM. 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 Areawide Pest Management Program. 2006-2011. $25,000.

Smith CM, Peairs FB, Hein GA. 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. State Department/Egyptian Ministry of Scientific Research. 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. 2006-09. $100,000.

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, Boyko EV. A functional genomic approach to identify temperature response genes modulating plant defense responses to arthropod challenge. NSF-EPSCoR. 2003-06. $166,420.

Smith CM, Saker MM. Evaluation, molecular analysis and development of molecular markers linked to pest resistance genes in barley populations. U.S. State Department/Egyptian Ministry of Scientific Research. 2003-05. $59,858.

Reese JC, Higgins RA, Smith CM, Schapaugh WT, Jr, Sloderbeck PE, Wolf RE, Whitworth J, Jardine JD. Management of the soybean aphid: a pro-active approach to a new pest. Kansas Soybean Commission. 2002-04. $118,157.

Smith CM, Zhu L. A cDNA-AFLP system for improved precision of mapping aphid resistance genes in wheat. KSU IPM Minigrant 2002. $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. A plant genomics research & training career advancement program. NSF Integrative Plant Biology. 2001. $56,640
Smith CM, Boyko EV. Molecular diagnosis of wheat aphid resistance. Kansas Wheat Commission. 2000-01. $31,580.
Smith CM Katsar C, Fritz A, Bai G. Diagnostic molecular genetic markers to detect multi-gene greenbug resistance in wheat. KCIA. 1998-2006. $32,500
Smith CM, Martin TJ, Reese JC, Brown-Guedira G. Evaluation of wheat cultivars and advanced generation germplasm with DNA markers. KSU Wheat Research Center. 1998-2000. $24,392.
El-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 techniques for enhanced aphid resistance in wheat. USDA/RSED. 1998, $30,000
Smith CM, Brown-Guedira G, Harvey T. Development of molecular markers for *Aegilops tauschii* resistance to wheat curl mite. KSU Plant Biotechnology Center. 1998. $50,000.

University of Idaho -- $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 --$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,and 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
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.
Phosphoinositide Mediated Signaling Mediates Expression of a Highly Virulent Aphid Biotype. NC Branch Entomological Society of America Meeting Symposium: Plant-aphid Interactions in the "Omics" Era: What Can We Infer from Different Model Systems? May 31-June 3, 2015, Manhattan, KS.

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.

Challenges of Merging Learning Techniques in K-State General Entomology Distance Education. Kansas State University 2012 Teaching, Learning & Technology Showcase. March 13, 2012.

Searching for a Garlic to Stop a Plant Vampire: Collaborative International Research to Develop Aphid Resistant Cereal Plants. Kansas State University College of Agriculture International Seminar. February 21, 2011. Manhattan, KS.

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.

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.

"Identify.. Clarify.. Speak Out !! Land Grant Mission, Organic Agriculture & Host Plant Resistance Programs." Introduction for 2011 Entomological Society of America Annual Meeting Student Debates. November 15, 2011. Reno, NV.

Plant Aphid Damage Symptoms and Plant Aphid Defense Gene Expression – Making Sense of Differences in Barley & Wheat. Mike Smith. Western Educational & Regional Coordinating Committee. September 21-22, 2010, Fort Collins, CO.

Confirmation of Oxylipin-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.

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.

Differential Wheat Plant Gene Expression in Response to Feeding by *Diuraphis noxia*. Columbian Entomological Society (SOCOLEN) Annual Meeting. July 17, 2008, Cali, Colombia.

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. ESA National Meeting, San Diego, CA. December 9-12, 2007.

Expressions of Aphid Virulence - Physiological, Behavioral and Genetic. KSU Ecological Genomics Research Forum, June 19, 2007.

Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. Plant Resistance to Insects class, Dept. of Entomology, University of Nebraska, April 10, 2007.

In Search of a Garlic to Stop Aphid Vampires - - Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. KSU Dept. of Diagnostic Medicine/Pathobiology, College of Veterinary Medicine. February 22, 2007.

Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. KSU-Netherlands Eco-Genomics Workshop Radboud University Soeterbeeck Conference Center, Ravenstein, Netherlands. September 26, 2006.

Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. Laboratory of Molecular Cytogenetics and Cytometry, Czech Institute of Experimental Botany. Olomouc, Czech Republic. September 26, 2006.

Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. KSU Ecological Genomics Workshop. Manhattan, KS. May 6, 2006.

Wheat Plant Gene Expression in Response to Russian Wheat Aphid Feeding. International Plant Resistance to Insects Workshop. Lafayette, IN. April 10, 2006.

The Fulbright Teaching Experience. Mluvim Cesky Malo: Teaching Entomology in a Language with few vowels . Thinking Outside the Borders: Entomology and the International Experience Symposium. NC Branch Entomological Society of America Meeting, Bloomington, IL, March 25-29, 2006.

Signals From the Other Side: The Molecular Basis of Wheat Gene Expression in Response to Aphid Feeding. Department of Entomology, Louisiana State University, Baton Rouge, LA, May 18, 2005.

The Molecular Bases of Plant Gene Expression in Response to Russian Wheat Aphid Feeding. 7th

International Symposium on Aphids, Fremantle, Australia, October 2-7, 2005.

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, Fort Lauderdale, FL, December 15-18, 2005.

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, Bialowieza, Poland, September 16, 2004.

Molecular Mapping of Cereal Aphid Resistance Genes in Wheat. XXII International Congress of Entomology, Brisbane, Australia. August 16, 2004.

Advances in Managing Russian Wheat Aphid (*Diuraphis noxia*). XXII International Congress of Entomology, Brisbane, Australia. August 16, 2004.

Identification of Russian wheat aphid biotypes virulent to resistant U. S. wheat cultivars. Annual Meeting, Entomological Society of America, Cincinnati, OH, October 25-29, 2003.

The Fulbright Experience: Aphid-Plant Resistance Research & Teaching in the Czech Republic. KSU Department of Agronomy Seminar. Manhattan, KS, May 8, 2003.

International Research to Develop Insect Resistant Plants. KSU College of Agriculture General Agriculture 200 Introductory Class. Manhattan, KS, March 6, 2003.

Russian Wheat Aphid Resistance - Conventional & Molecular Developments, KState Research & Extension Fall Cereal Conference. Manhattan, KS, August 8, 2002.

Molecular Mapping of Cereal Aphid Resistance Genes in Wheat. Gordon Conference on Genomics and Structure/Evolutionary Bioinformatics. Mount Holyoke College, South Hadley, MA, July 31, 2002.

Molecular Markers in Wheat Linked to Genes Expressing Resistance to Aphids. Department Plant Physiology, Charles University, Praha, Czech Republic. May 14, 2002.

Application of Modern Molecular Techniques in the Study of Plant Resistance to Insects, Warsaw Agricultural University, Warsaw, Poland, April 26, 2002.

The Status of Plant Resistance Breeding to Insects in the USA. Polish National Institute of Plant Breeding. Radzikow, Poland April 25, 2002,

Molecular Markers in Wheat Linked to Genes Expressing Resistance to Aphids. Department of Entomology, University of South Bohemia, Ceske Budejovice, Czech Republic. April 18, 2002.

Molecular Markers in Wheat Linked to Genes Expressing Resistance to Aphids. Department of Experimental Zoology, Charles University, Praha, Czech Republic. April 17, 2002.

Cutting Edge Research in Insect-Host Plant Interaction (BCE Symposium). 56th Annual Meeting, North Central Branch, Entomological Society of America, Ft. Collins, CO. March 25-28, 2001.

Molecular Markers in Wheat Linked to Genes Expressing Resistance to the Greenbug and the Russian Wheat Aphid. International Maize & Wheat Improvement Center, El Battan, Mexico. April 24, 2001.

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.

Conversion of General Entomology ENTOM312 to a PowerPoint, Web-Based Course: Successes, Failures, and Lessons Learned. KSU College of Agriculture Workshop on Enhancing Teaching Effectiveness. Manhattan, KS, May 18, 2000.

Molecular Selection Techniques for the Development of Arthropod Resistant Cereal Cultivars. XXI International Congress of Entomology, Foz de Iguassu, Brazil. August 22,2000.

Molecular Markers for Aphid Resistance in Wheat: Recent Developments. 2000 Greenbug Research Consortium Meeting, Stillwater, OK, September 19-20, 2000.

Marker Assisted Selection for Greenbug Resistance. (Poster) Annual Meeting, Entomological Society of America. December 12 -17, 1999, Atlanta, GA.

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.

Keynote Address: Merging Genes, Transgenes, and Plant Genomes for Durable Insect Resistant Crops in the Next Century. International Plant Resistance to Insects Workshop, March 15-18, 1998, Memphis, TN.

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.
Insect Resistant Plants: Essential and Valuable Elements of Food Production. Department of Entomology, University of Florida, October 22, 1998, Gainesville, FL.
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.
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.
Molecular-Marker Assisted Selection for Aphid Resistance in Wheat, International Center for Genetic Engineering and Biotechnology, November 14, 1997, New Delhi, India.
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.
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.
Molecular Markers for Wheat Resistance to the Greenbug and Russian Wheat Aphid, Annual Meeting, Entomological Society of America, December 17, 1997, Nashville, TN.
Marker-Assisted Selection for Cereal Aphid Resistance – A Useful Technique? Department of Entomology, University of Nebraska, January 31, 1997 Lincoln, NE.
Techniques for Evaluating Plant Resistance to Arthropods. Guest lecture to Host Plant Resistance course, Department of Entomology, University of Nebraska, January 30, 1997, Lincoln, NE.
Molecular-Marker Assisted Selection for Aphid Resistance in Wheat, Department of Entomology, Kansas State University, October, 24, 1997, Manhattan, KS.
The Science and Economy of Plant Resistance to Insects. Czech National Research Institute for Crop Protection. September 2-4, 1996, Prague, Czech Republic.
The Value of Conserved Wheat Germplasm Evaluated for Arthropod Resistance. XX International Congress of Entomology, August 25-31, 1996, Florence, Italy.
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.
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.

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, EntomologicalSociety 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, Rice Research Institute, People's Republic of China. October 23, 1984. Baton Rouge, LA.

Rice Insect Pest Management in Louisiana. Kelloggs Corporation. 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.

VOLUNTEERED PRESENTATIONS: 100+ since 1978.

MEMBERSHIPS & ACTIVITIES IN PROFESSIONAL ORGANIZATIONS:

American Association for the Advancement of Science

Entomological Society of America:

Professional Service Activities:

Judge, 2005 Pioneer Hi-Bred International Graduate Student Fellowship

Subject Editor, Journal of Economic Entomology, 2004-present

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, 1993 National Meeting.

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.

Kansas Entomological Society, President-2003.
Louisiana Entomological Society, President-1985, President-elect-1984, Membership Committee-1984, Publicity Committee-1983, Nominating Committee-1982, Program Committee-1981. International Plant Resistance to Insects Workshop, Program Committee, 1991-92, Steering Committee, 1987-88, 2000-present.
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.

HONORARY MEMBERSHIPS: Gamma Sigma Delta, Sigma Xi, Beta Beta Beta.

MAJOR RESEARCH INTERESTS: Plant resistance to arthropods, with emphasis on the development of genotypic and phenotypic resistance evaluation techniques; identification of the categories (types) and mechanisms (causes) and genes responsible for resistance.

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, Northhampton, 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. Nov. 1989.
Soft Systems Teaching for Courses in Agriculture & Home Economics, Post Falls, ID, Aug 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.

PUBLIC SERVICE/OUTREACH:
Bugs, Bugs, Bugs – A Public Service Educational Presentation.
90 at-risk students, Cooper Elementary School, South Wichita, KS, 2006.
~30 4th grade students, Northview Elementary School, Manhattan, KS. September 28, 1999.
40 students, Amanda Arnold Elementary, Manhattan, KS, 1992 & 1993.
~270 students, Kansas State Fair, September 1993 & 1994.
~50 6th grade students, McDonald Elementary, Moscow, ID, November, 1989.
Genetically Modified Foods: Risks & Benefits. KState Media Day, March 30, 2000. Manhattan, KS.
Insects and People: Past, Present & Future. Manhattan Kiwanis Club Meeting. November 9, 1999, Manhattan, KS.

UNIVERSITY SERVICE:

Kansas State University:
Steering Committee, Arthropod Genomics Targeted Excellence Institute 2006 - 2010
Steering Committee, Ecological Genomics Targeted Excellence Institute 2005-2007
Faculty Senate, 2001 - 2006, College of Agriculture Caucus Chair, 2003-2004
Pre-Health Professions Evaluation Committee, 2002-present
President's Commission on Multicultural Affairs, 1994-1996
College of Agriculture:
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, 2012-2015
Chair, Search Committee for Medical Veterinary Extension Entomology position, 2008
Planning Committee, 2004-2007, 2015-2017
Tours Committee, 2005-06
Public Relations Committee, 2003-05
Safety Committee, 2000-2003
Graduate Affairs Committee, 1999-2002
Seminar Committee, 1997-98
Awards Committee, 1999-2001
Co-Editor, International Plant Resistance to Insects Newsletter, 1996-2000

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:

2013 USDA/ARS/NP 301 Plant Metabolism and Pathways. 02/20 & 5/29.
2013 USDA/NIFA/IFPS Global Food Security: Mitigating Crop & Livestock Loss. 10/28.
2010 NSF Physiological & Structural Systems, Symbiosis, Defense & Self-recognition. 10/18.
2007 NSF Small Business Innovation Research Agricultural Disease Control. 03/02.
2007 2010 NSF Physiological & Structural Systems, Symbiosis, Defense & Self-recognition. 05/14.
2007 2010 NSF Physiological & Structural Systems, Symbiosis, Defense & Self-recognition. 10/17.
2001 NSF Integrative Plant Biology Program 10/15.
2000 USDA/Biotechnology Risk Assessment Program.

Ad Hoc Reviews

2007 French National Research Agency, Group CSD 7- Environmental Science and Agronomy.
2005 USDA/NRI Arthropod & Nematode Gateways to Genomics Proposal #05-00961
2005 USDA/NRI Integrative Biology or Arthropods & Nematodes Proposal #05-00885
2001 USDA/NRI Plant Genetic Mechanisms #01-01747 & #01-02751;
2001 Grant Agency of the Czech Republic #522021507.
2000 NRI proposals #00-02844 & #00-02751.
1998 USDA/NRI #99-02718, USDA/NRI #99-02629;
1998 USDA/Biotechnology Risk Assessment #99-03996
1998 Indo-Swiss Collaboration in Biotechnology #WN-3.
1996 Grant Agency of the Czech Republic #522/977/0219

Journal Reviews: *Arthropod-Plant Interactions, Crop Sci, Environ Entomol, Euphytica, Exp Appl, Genome, Iran J. Agric Res, J Chem Ecol, J Econ Entomol, Maydica, Planta, Plant Breeding, Plant Physiol, Theor Appl Genet. PLoS ONE, Nature Scientific Reports, Plant Cell Rep.*

POSTDOCTORAL SCIENTISTS SUPERVISED AT KANSAS STATE UNIVERSITY:

Dr. Alicia Timm, Rhodes University (2014-present).
Dr. Wen Po Chuang, Penn State University (2012-14).
Dr. Deepak Sinha, International Center for Genetic Engineering and Biotechnology (2012-14).
Dr. Marimuthu Murugan, Tamil Nadu Agricultural University, Coimbatore, India (2009-12).
Dr. Shah Alam Khan, NWFP Agricultural University, Peshawar, Pakistan (2009-12).
Dr. Sonia Lazzari, Federal University of Paraná, Curitiba, Brazil (2007-08).
Dr. Elena V. Boyko, (Research Asst. Professor), Ukraine University (2004-08).

INSTRUCTIONAL EXPERIENCE:

Kansas State University:

ENTOM 830 Molecular Entomology, guest lectures. (2006-present).
ENTOM 312 ZA General Entomology Distance Online. (2011-present).
AGRON/ENTOM/PLPTH 732 Plant Resistance to Pests. (2000-present.
ENTOM 312 General Entomology & ENTOM 313 General Entomology Laboratory. 2000-2013.
ENTOM 745 Insect Control by Host Plant Resistance. Guest lectures (1992-present).
ENTOM 885 Methods for Evaluation of Plant Resistance to Insects. (2001-present).

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]

Students Graduated:

John Girvin. 2015. Exploring Aphid-Virus-Wheat Interactions Using Current Wheat Varieties, Aphid Control Techniques and Vector Survey. M.S. Thesis. Kansas State University. 50 Pages.

Lina Aguirre. 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. 61 Pages.

Sandra Garces. 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. 84 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.

Lieceng 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.

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, *Lissorhoptrus 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.

Current Student Advisees:
Major advisor: Lina Aguirre (PhD), Luaay Kahtan (PhD), Meco Dopka (PhD)

External Examiner:
Francois Burger, (M.Sc. 2015), Univeristy of Pretoria, South Africa
Leon Van Eck, (M.Sc. 2007), Univeristy of Pretoria, South Africa
Nadia Abd-Allah Ali, (M.Sc. 2005). University of Cairo.

Lynelle Laycock, (Ph.D. 2004), Univeristy of Pretoria, South Africa
Tesfay Belay, (Ph.D. 2003), University of Bodenkultur, Vienna, Austria
Jacob Lage, (Ph.D. 2003), The Royal Veterinary and Agricultural University, Copenhagen, Denmark

CIVIC ACTIVITIES:
Gold Orchestra Parent Support Organization 1992-1998
First United Methodist Church, Manhattan, KS 1990 - present
Staff Parish Relation Comm (4 yrs), Adult Choir (10 yrs), Stewardship Comm (2 yrs)
Manhattan Kansas Arts Center Patron 1999-present

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