

CURRICULUM VITAE

RAJINDER S MANN

Post-Doctoral Research Associate

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EDUCATION

Ph.D. Entomology, Minor: Plant Pathology, 2001. Punjab Agricultural University, Ludhiana, India.

Dissertation: Relationship of *Cotton leaf curl virus* with its vector whitefly, *Bemisia tabaci* (Gennadius).

M.S. Entomology, Minor: Plant Pathology, 1997. Punjab Agricultural University, Ludhiana, India.

Thesis: Screening and mechanisms of resistance in rice to Yellow stem borer, *Scirpophaga incertulas* (Walker).

B.S. Agriculture (Plant Protection.), 1995. Punjab Agricultural University, Ludhiana, India.

PROFESSIONAL PROFILE

06/2009 to present: Post-Doctoral Research Associate, University of Florida, Citrus Research and Education Centre, Lake Alfred, FL.

09/2006 to 06/2009: Post-Doctoral Research Associate, University of Florida, Entomology and Nematology Department, Gainesville, FL.

04/2006 to 09/2006: Post-Doctoral Research Associate, University of Florida, Gulf Coast Research and Education Center, Wimauma, FL.

05/2001 to 02/2006: Assistant Professor of Entomology (Field crops), Department of Plant Breeding, Genetics & Biotechnology, Punjab Agricultural University, Ludhiana, India.

PATENTS FILED

Kaufman, P.E., **Mann, R.S.** and Butler J.F. 2009. Materials and methods for pest control. Serial No 61/266,318: filed December 3, 2009.

GRANTS ACTIVITY

Grants Funded

Stelinski, L.L., **Mann, R.S.**, Stelinski, K.P. and Dewdney, M. 2010. Is Candidatus Liberibacter asiaticus, the pathogen responsible for Huanglongbing in Florida, sexually transmitted between adult psyllids? Florida Citrus Research and Development Foundation (US \$49,600)

Stelinski, L.L., **Mann, R.S.** and Stelinski, K.P. 2010. How does Liberibacter infection of psyllids affect the behavioral response of this vector to healthy versus HLB-infected citrus trees? Florida Citrus Research and Development Foundation (US \$45,000)

Sharma, K.P., Kapur, M.L. and **Mann, R.S.** 2003. Research and Development in Sugarcane. Sugarfed, Punjab, India. (US \$ 20,000) [Completed]

Grants Submitted

Kaufman, P.E., **Mann, R.S.** and Hoggsette, J. A. 2009. Bioecology of the Stable fly in mixed agricultural landscapes. Agriculture and Food Research Initiative Competitive Grants Program. USA (US \$431,495) [Not funded]

Kaufman, P.E., Maruniak, J.E., **Mann, R.S.** and Allan, S. 2008. Ecological analysis of *Leishmania* arthropod interactions. National Institute of Health (NIH), USA. (US \$ 1,099,780) [Not funded].

COURSES TAUGHT

Ent 530: Insect vectors of plant pathogens, Punjab Agricultural University, Ludhiana, India. 2005-2006.

Ent 425: Insect pest of field crops, Punjab Agricultural University, Ludhiana, India. 2004-2005.

STUDENTS GUIDED

Chair: 1 M.S. Student Jagtar Singh Sidhu. 2003-2005. Thesis: Effect of cotton leaf curl virus on life history of *B. tabaci* (Genn.)

AWARDS/SCHOLARSHIPS ACTIVITY

Crop Research Award, "Gaurav Society of Agricultural Research Information Centre," Hisar, India. 2004.

Qualified "National Eligibility Test in Entomology" Indian Council of Agricultural Research, India. 2001. (*National level competitive exam for determining eligibility for Assistant Professors*).

Punjab Agricultural University Merit Scholarship 1991 to 2001 for high grade point achievement (*Awarded to top 5% students*).

PROFESSIONAL ASSOCIATIONS

Entomological Society of America

Florida Entomological Society

Society for the Advancement of Insect Sciences (Life Member)

Plant Protection Association of India (Life Member)

Indian Ecological Society (Life Member)

Technical Editor- Journal of Entomology

Reviewer- Pest Management Science, Crop Protection, Journal of Insect Behavior, Acta Agriculturae Scandinavica, B, Journal of American Mosquito Control Association, Insect Science, Journal of Insect Science (India), African Journal of Agricultural Sciences, Journal of Biological Sciences, Journal of Entomology.

PUBLICATIONS

Book Chapters

Kooner, B.S., Mann, R.S. and Rubaljot, K. 2005. Insect-Pests of Pulses and their Management. In: *Pulses*, (Eds: Singh, G. S. Sekhon, H.S. and Kolar, J.S.), Agrotech Publishers, Udaipur, RJ, India.

Mann R.S. 2010. *Bemisia tabaci* interaction with *Cotton leaf curl virus*. In: *Bemisia tabaci* interaction with geminivirus-infected host plants, (Ed: Thompson WMO), <http://www.springer.com> (Submitted)

Refereed Journal

Mann, R.S., Tiwari, S., Smoot J.M., Rouseff, R.L., and Stelinski, L.L. 2010. Toxicity and repellency of essential oils and their constituents on *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae). *Journal of Applied Entomology* (In Press).

Kaufman, P.E., **Mann, R.S.** and Butler, J.F. 2010. Insecticidal potency of novel compounds on multiple insect species of medical and veterinary importance. *Pest Management Science*. (In press).

Mann, R.S., Kaufman, P.E. 2010. Colonization of *Lutzomyia shannoni* (Diptera: Psychodidae) utilizing an artificial blood feeding technique. *Journal of Vector Ecology* (In Press).

Mann, R.S., Qureshi, J.A., Stansly, P.A. and Stelinski, L.L. 2010. Behavioral response of *Tamarixia radiata* (Hymenoptera: Eulophidae) to volatiles emanating from *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) and citrus. *Journal of Insect Behavior* (doi 10.1007/S10905-010-9228-6).

Mann, R.S., Smoot J.M., Rouseff, R.L., Castle, W.J. and Stelinski, L.L. 2010. Sulfur volatiles from *Allium* spp. affect Asian citrus psyllid, *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) response to citrus volatiles. *Bulletin of Entomological Research* (doi 10.1017/S0007485310000222).

- Mann, R.S.**, Kaufman, P.E. and Butler, J.F. 2010. Evaluation of semiochemicals toxicity to house flies and stable flies (Diptera:Muscidae). *Pest Management Science*. 66:816-824.
- Mann, R.S.**, Kaufman, P.E. and Butler, J.F. 2010. Seasonal abundance of *Lutzomyia shannoni* and *L. vexator* in Florida. *Journal of American Mosquito Control Association*. 26:10-17.
- Mann R.S.**, Gill, R.S., Dhawan, A.K. and Shera, P.S. 2010. Relative abundance and damage by target and non-target insects on Bollgard and BollgardII cotton cultivars. *Crop Protection*. 29:793-801.
- Schuster, D.J., **Mann, R.S.**, Toapanta, M., Cordero, R., Thompson, S. and Morris, R.F. 2010. Monitoring of imidacloprid and thiamethoxam resistance in Biotype B of *Bemisia tabaci* in Florida. *Pest Management Science*. 66:186-195.
- Kaufman, P.E. **Mann, R.S.** and Butler, J.F. 2010. Evaluation of semiochemicals toxicity to *Aedes aegypti*, *Ae. albopictus* and *Anopheles quadrimaculatus* (Diptera:Culicidae). *Pest Management Science*. 66:497-504.
- Kaufman, P.E. Nunez, S. **Mann, R.S.** Geden, C. and Scharf, M. 2010. Nicotinoid and pyrethroid insecticide resistance in house flies (Diptera: Muscidae) collected from Florida dairies. *Pest Management Science*. 66:290-294.
- Mann, R.S.**, Kaufman, P.E. and Butler, J.F. 2009. Response of *Lutzomyia* spp. to light emitting diodes and olfactory attractants. *Journal of Medical Entomology*. 46:1052-1061.
- Mann, R.S.**, Uppal, S.K., Sharma, S. and Mann, K.K. 2009. Soil efficacy of fipronil on early stage pests of sugarcane and its effect on development of *Chilo infuscatellus* Snellen (Crambidae: Lepidoptera). *International Journal of Pest Management*. 55:307-315.
- Mann, R.S.**, Sidhu, J.S. and Butter, N.S. 2009. Settling preference of *Bemisia tabaci* on healthy versus cotton leaf curl virus infected cotton. *International Journal of Tropical Insect Science*. 29:57-61.
- Sidhu, J.S., **Mann, R.S.** and Butter, N.S. 2009. Deleterious effects of *Cotton leaf curl virus (CLCuV)* on *Bemisia tabaci* (Gennadius). *Journal of Entomology*. 6:62-66.
- Sharma, S., Suri, K.S. and **Mann, R.S.** 2009. Integrated pest management of early shoot borer, *Chilo infuscatellus* Snellen in sugarcane. *Indian Journal of Ecology* 36:201-202.
- Mann, R.S.**, Sidhu, J.S., Butter, N.S., Sohi, A.S. and Sekhon, P.S. 2008. Performance of *Bemisia tabaci* on healthy and *Cotton leaf curl virus (CLCuV)* infected cotton. *Florida Entomologist*. 91:249-255.
- Mann, R.S.** and Singh, J. 2007. Influences of Bt Cotton on Population dynamics of *Bemisia tabaci*. *Journal of Insect Science*. 8:29-30.
- Schuster, D.J., **Mann, R.S.**, Toapanta, M., Cordero, R., Thompson, S. and Morris, R.F. 2007. Monitoring of imidacloprid and thiamethoxam resistance in Biotype B of *Bemisia tabaci* in Florida. *Journal of Insect Science*. 8:42-43.

- Toapanta, M., Schuster, D., **Mann, R.**, Cordero, R., Buckelew, L., Steffens, R., Hand, S., Rudolph, R. and Nauen, R. 2007. Oberon 2SC^(R): A new resistant management tool for whitefly control in vegetables. *Journal of Insect Science*. 8:47.
- Mann, R.S.**, Brar, D.S., Singh, H. and Singh, K. 2007. Efficacy of insecticides against sugarcane whitefly, *Aleurolobus barodensis* (Mask.). *Journal of Insect Science* (India). 20:97-100.
- Sharma, S., **Mann, R.S.** and Uppal, S.K. 2007. Efficacy of fipronil against early shoot borer and termites of sugarcane. *Journal of Insect Science* (India). 20:193-198.
- Schuster, D.J., **Mann, R.S.** and Gilreath, P. 2006. Whitefly resistance up date and proposed mandated burn down rule. *Proceedings of the Florida Tomato Institute*. 6:24-28.
- Mann, R.S.**, Suri, K.S. and Sharma, S. 2006. Population dynamics of insect pests of sugarcane in Punjab. *Indian Journal of Plant Protection*. 34:198-201.
- Duhra, M.S., **Mann, R.S.** and Suri, K.S. 2006. Efficacy of some insecticidal dusts against sugarcane leaf hopper, *Pyrilla perpusilla*. *Journal of Insect Science* (India). 19:107-109.
- Khanna, V., Gupta, V.K., Singh, J., Gill, R.S. and **Mann, R.S.** 2006. Evaluation of native *Bacillus thuringiensis*- isolates against bollworm complex in cotton. *Journal of Insect Science* (India). 19:151-155.
- Mann, R.S.** and Shukla, K.K. 2005. Screening and mechanisms of resistance in rice against yellow stem borer, *Scirpophaga incertulas* (Walker). *Crop Research*. 29:300-305.
- Mann, R.S.** and Singh, L. 2005. Retention of *Cotton leaf curl virus* (CLCuV) in its vector whitefly, *Bemisia tabaci* (Gennadius). *Indian Journal of Entomology*. 66:96-98.
- Mann, R.S.** and Duhra, M.S. 2004. Changing pest status of early shoot borer of sugarcane, *Chilo infuscatellus* Snellen in Punjab (North Western Zone). *Proceedings of 66th annual convention of Sugarcane Technologist Association of India*. August 14-16, Chandigarh. pp 32-39.
- Mann, R.S.** and Singh, L. 2004. Studies on the interaction of *Cotton leaf curl virus* (CLCuV) with its vector *Bemisia tabaci* (Gennadius). *Journal of Cotton Research and Development*. 18:95-98.
- Mann, R.S.** and Singh, L. 2004. Studies on the relationship of *Cotton leaf curl virus* (CLCuV) with its vector, *Bemisia tabaci* (Gennadius). *Indian Journal of Plant Protection*. 32:140-141.
- Mann, R.S.** and Duhra, M.S. 2004. Screening of sugarcane genotypes for their reaction against top borer, *Scirpophaga excerptalis* (Walker). *Indian Journal of Ecology*. 31:175-176.
- Mann, R.S.** and Singh, K. 2003. Screening of Sugarcane genotypes for their reaction against sugarcane whitefly, *Aleurolobus barodensis* (Maskell). *Indian Journal of Sugarcane Technology*. 18:110-111.
- Mann, R.S.** and Shukla, K.K. 1999. Screening of genotypes for their reaction against yellow stem borer, *Scirpophaga insertulas* (Walker). *Crop Improvement*. 26:103-105.

Trade Journals/Web Publications

Mann, K., Schumann A., Waldo, L., Hostler, K. and **Mann. R.** 2010. Estimating relative nutrient uptake by mature citrus trees in field conditions. *Proceedings of Florida State Horticultural Society* (In press).

Mann, R.S., and Stelinski, L.L. 2010. An Asian citrus psyllid parasitoid, *Tamarixia radiata* (Waterston) (Insecta: Hymenoptera: Eulophidae).

http://entnemdept.ifas.ufl.edu/creatures/beneficial/wasps/tamarixia_radiata.htm.

Mann, R.S., Kaufman, P.E. and Butler, J.F. 2007. A sand fly, *Lutzomyia shannoni* (Dyar).

URL: <http://edis.ifas.ufl.edu/pdffiles/IN/IN79700.pdf>

Mann, R.S. and Singh, J. 2005. Adopt Integrated Pest Management to protect cotton from sucking pests. *Progressive Farming*. 3:13-14.

Invited Talks at National Meetings

Mann, R.S., Kaufman, P.E. and Butler, J.F. 2009. Evaluation of insect repellents with the MEDUSA olfactometer. Entomological Society of America. December, 13-16, Indianapolis, IN, USA.

Mann, R.S., Kaufman, P.E. and Butler, J.F. 2008. Using flavor and fragrance compounds as insect attractant, repellents and even insecticides. Entomological Society of America. November 15-19, Reno, NV, USA.

Papers Presented at Conferences/Workshops

Mann, R.S., Qureshi, J.A., Stansly, P.A. and Stelinski, L.L. 2010. Behavioral response of *Tamarixia radiata* (Hymenoptera: Eulophidae) to volatiles emanating from *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) and citrus. Paper presented at Florida Entomological Society. July 26-28, Jupiter, FL, USA.

Kaufman, P.E., Nunez, S.C., **Mann, R.S.**, Geden, C.J., and Scharf, M.E. 2010. Nicotinoid and pyrethroid resistance in house flies from Florida dairies. Livestock Insect Workers Conference. June 29, Knoxville, TN, USA.

Mann, K., Schumann A., Waldo, L., Hostler, K. and **Mann. R.** 2010. Estimating relative nutrient uptake by mature citrus trees in field conditions. Paper presented at Florida State Horticultural Society. June 6-8, Crystal River, FL, USA.

Mann R.S., Onagbola, E.O., Rouseff, R.L., Smoot, J.M. and Stelinski, L.L. 2009. Evaluation of sulfur based plant volatiles as possible repellents for Asian citrus psyllid, *Diaphorina citri* (Hemiptera: Psyllidae). Entomological Society of America. December, 13-16, Indianapolis, IN, USA.

Boina, D.R., **Mann, R.S.**, Clayson, P., Tiwari, S. and Stelinski, L. L. 2009. Effects of two insect growth regulators, buprofezin and diflubenzuron, on Asian citrus psyllid, *Diaphorina citri* Kuwayama. Paper presented at Florida Entomological Society. July 27-29, Fort Myers, FL, USA.

- Kaufman, P.E., Nunez, S., **Mann, R.S.**, Scharf, M.E. and Geden C.J. 2009. Insecticide resistance in house flies collected from Florida dairies. Paper presented at Florida Entomological Society. July 27-29, Fort Myers, FL, USA.
- Mann, R.S.**, Kaufman, P.E. and Butler, J.F. 2008. Attraction of *Lutzomyia* spp. (Diptera: Psychodidae) to olfactory attractants. Entomological Society of America. November 15-19, Reno, NV, USA.
- Mann, R.S.**, Shera, P.S., Singh, J. and Mann, K.K. 2008. Effect of fertilizer-plant spacing combinations on non-target insects of cotton. Crop Science Society of America. October 5-9, Houston, TX, USA.
- Mann, R.S.**, Kaufman, P.E. and Nunez, S. 2008. Comparison of bioassay methods sensitivity to *Aedes aegypti* and *Musca domestica*. Paper presented at 82nd Annual Meeting of the Southeastern Branch Entomological Society of America. March 2-5, Jacksonville, FL, USA.
- Mann, R.S.**, Kaufman, P.E. and Butler, J.F. 2007. Response of *Lutzomyia* spp. to light emitting diode modified Mosquito Magnet X (MMX) traps. Paper presented at Entomological Society of America. December 10-13, San Diego, CA, USA.
- Mann, R.S.**, Shera, P.S. and Singh, J. 2007. Population dynamics of insect pests of cotton. Paper presented at Florida Entomological Society. July 15-18, Sarasota, FL, USA.
- Mann, R.S.**, Suri, K.S., Uppal, S.K., Goyal, G. and Sharma, S. 2007. Field efficacy of fipronil to control early shoot borer and termites of sugarcane. Paper presented at 81st Annual Meeting of Southeast Branch Entomological Society of America. March 4-7, Knoxville, TN, USA.
- Mann, R.S.**, Sidhu, J.S., Butter, N.S., Sohi, A.S. and Sekhon, P.S. 2007. Effect of *Cotton leaf curl virus* (CLCuV) on reproductive ability of *Bemisia tabaci*. Paper presented at 10th International Plant Virus Epidemiology symposium. Controlling epidemics of emerging and established plant virus diseases - The way forward. October 15-19, ICRISAT, Hyderabad, India.
- Mann, R.S.**, Kaufman, P.E. and Butler, J.F. 2007. Response of *Lutzomyia* spp. to light emitting diode modified pickle jar traps. Paper presented at Florida Entomological Society. July 15-18, Sarasota, FL, USA.
- Sidhu, J.S., **Mann, R.S.** and Butter, N.S. 2007. Effect of CLCuV on life history and settling preference of *Bemisia tabaci* (Gennadius). Paper presented at Entomological Society of America. December 10-13, San Diego, CA, USA.
- Sidhu, J.S., **Mann, R.S.**, Butter, N.S., Sohi, A.S. and Sekhon, P.S. 2007. Negative effects of *Cotton leaf curl virus* on host suitability and longevity of *Bemisia tabaci*. Paper presented at 10th International Plant Virus Epidemiology symposium. Controlling epidemics of emerging and established plant virus diseases - The way forward. October 15-19, ICRISAT, Hyderabad, India.
- Mann, R.S.** and Singh, J. 2006. Influences of *Bt* Cotton on population dynamics of *Bemisia tabaci*. Paper presented at Fourth International *Bemisia* and International Whitefly Genomics Workshop. December 3-6, Duck Key, FL, USA.
- Mann, R.S.**, Goyal, G and Sharma, B.K. 2006. The association between sugarcane root borer, *Emmalocera depressela* and wilt disease of sugarcane. Paper presented at Annual meeting of Entomological society of America. December 10-13, Indianapolis, IN, USA.

Schuster, D.J., **Mann, R.S.**, Toapanta, M., Cordero, R., Thompson, S. and Morris, R.F. 2006. Monitoring of imidacloprid and thiamethoxam resistance in Biotype B of *Bemisia tabaci* in Florida. Paper presented at Fourth International *Bemisia* and International Whitefly Genomics Workshop. December 3-6, Duck Key, FL, USA.

Toapanta, M., Schuster, D., **Mann, R.S.**, Cordero, R., Buckelew, L., Steffens, R., Hand, S., Rudolph, R. and Nauen, R. 2006. Oberon 2SC^(R): A new resistant management tool for whitefly control in vegetables. Paper presented at Fourth International *Bemisia* and International Whitefly Genomics Workshop. December 3-6, Duck Key, FL, USA.

Toapanta, M., Schuster, D., **Mann, R.**, Cordero, R., Buckelew, L., Steffens, R., Hand, S., Rudolph, R. and Nauen, R. 2006. Oberon 2SC: A new resistant management tool for whitefly control in vegetables. Paper presented at Florida Entomological Society. July 23-26, Jupiter, FL, USA.

Mann, R.S. and Duhra, M.S. 2005. Efficacy of fipronil against *Chilo infuscatellus* Snellen. Paper presented at Agricultural officers workshop for *Kharif* crops. November 3-4, Ludhiana, India.

Mann, R.S. and Duhra, M.S. 2004. Surveillance of insect pests of sugarcane in Punjab. Paper presented at Agricultural officers workshop for *Kharif* crops. November 3-4, Ludhiana, PB, India.

Mann, R.S. and Duhra, M.S. 2004. Changing pest status of early shoot borer of sugarcane, *Chilo infuscatellus* Snellen in Punjab (North Western Zone). Paper presented at 66th annual convention of Sugarcane Technologist Association of India. August 14-16, Chandigarh, India.

Upcoming presentations

Mann, R.S., Stelinski, K.P., Tiwari, S. and Stelinski, L.L. 2010. How does infection of *Diaphorina citri* with *Candidatus Liberibacter asiaticus* affect the behavioral response of the vector to healthy versus diseased citrus trees? December 12-15, San Diego, CA, USA.

Mann, R.S., Meyer, W., Tiwari, S. and Stelinski, L.L. 2010. Ultra-structural characterization of the genitalial sensilla of Asian citrus psyllid, *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae). December 12-15, San Diego, CA, USA.

Tiwari, S., Stelinski, K.P., **Mann, R.S.** and Stelinski, L.L. 2010. Infection of Asian citrus psyllid, *Diaphorina citri*, with *Candidatus Liberibacter asiaticus* increases susceptibility to insecticide. December 12-15, San Diego, CA, USA.

Tiwari, S., Meyer, W., **Mann, R.S.** and Stelinski, L.L. 2010. β -amino-butyric acid induces resistance against Asian citrus psyllid, *Diaphorina citri*, in citrus. December 12-15, San Diego, CA, USA.