

CURRICULUM VITA

John C. Palumbo

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Education

Ph.D., Entomology, Oklahoma State University, Stillwater, OK, 1989; Dissertation Title: Development of Management Strategies for Squash Bug, *Anasa tristis* (De Geer) Populations in Cucurbits;
Dissertation Director, W. Scott Fargo.

M.S., Entomology, University of Arizona, Tucson, AZ, 1985; Thesis Title: Influence of *Sphaeralcea* spp. on Survival and Reproductive Behavior of Boll Weevil, *Anthonomous grandis* Boheman, in Arizona;
Thesis Director, Theo F. Watson.

B.S., Entomology, University of Arizona, Tucson, AZ, 1982

Major Fields

The goal of my applied research/extension program is to gain a fundamental understanding of insect ecology and apply this knowledge to the development of innovative pest management strategies in vegetable cropping systems. I have ongoing projects to investigate pest-crop interactions, both in the field and laboratory. The goal of this work is to determine the relationships between insect feeding and plant injury. I have also concentrated my efforts on examining ways to monitor and sample insects on vegetable crops. The goal of this work is to quantify and statistically describe spatial distribution patterns of insect populations for the development of sampling protocols that provide precise estimates of species abundance for use in ecological research and IPM programs. Most recently, I have devoted a significant amount of effort in examining the chemical management of insects and investigating techniques to better utilize pesticides in crop production. My goals are to optimize pesticide performance by gaining a better understanding of insecticide chemistries and their interactions with the target pest and cropping system. We continually evaluate chemistries with new modes of action, as well as investigate alternative uses for existing insecticides and biological control tactics. My goals in extension have been to provide empirically-based information on the management of insect populations in vegetable crops that can be directly applied by growers throughout the southwestern United States. My extension efforts are closely associated with my applied-research program, both of which address immediate insect problems occurring in local cropping systems.

Employment

2002-Present	Research Entomologist / Extension Specialist, University of Arizona, Department of Entomology, Yuma Valley Agricultural Center, Yuma
1996 – 2002	Associate Research Entomologist/Extension Specialist (IPM Coordinator), University of Arizona, Department of Entomology, Yuma Valley Agricultural Center, Yuma
1990 – 1996	Assistant Research Entomologist / Extension Specialist, University of Arizona, Department of Entomology, Yuma Valley Agricultural Center, Yuma

Awards and Recognition

Distinguished Service to Agriculture Award, Arizona Farm Bureau Association, 10/18/2001
Distinguished Service Award, Yuma Fresh Vegetables Association, 12/1/2005

Select Publications

- Palumbo, J.C., T.F. Watson, & D.K. Bergman. 1990. Globemallows, *Sphaeralcea* spp., as reproductive hosts for the boll weevil (Coleoptera:Curculionidae) in Arizona. J. Econ. Entomol. 83: 392-397.
- Palumbo, J.C., W.S. Fargo, & E.L. Bonjour. 1991. Spatial dispersion patterns and sequential sampling plans for squash bug (Heteroptera:Coreidae) on summer squash. J. Econ. Entomol. 84 (6) 1796-1802.
- Palumbo, J.C. 1992. Identification and occurrence of *Liriomyza* species associated with cotton in Arizona. Southwest. Entomol. 17: 69-70.
- Palumbo, J.C., C.H. Mullis, & F.J. Reyes. 1994. Composition, seasonal abundance, and parasitism of *Liriomyza* (Diptera: Agromyzidae) species on Lettuce. J. Econ. Entomol. 87: 1070-1077.
- Tonhasca, A., J.C. Palumbo, & D.N. Byrne. 1994. Binomial sampling plans for *Bemisia tabaci* populations in cantaloupes. Res. Popul. Ecol. 36: 159-164.
- Palumbo, J.C., and D.N. Kern. 1994. Effects of imidacloprid soil treatment on colonization of *Mysus persicae* and marketability of lettuce. Southwestern Entomol. 19: 339-346.
- Palumbo, J.C., A.Tonhasca, and D.N. Byrne. 1994. Sampling Plans and Action Thresholds for Whiteflies on Spring Melons, IPM Series Number 1, Publication. no. 194021. Cooperative Extension, College of Agriculture and Life Sciences, University of Arizona, Tucson, Arizona.
- Palumbo, J.C. and C.A. Sanchez. 1995. Imidacloprid does not enhance growth and yield of cantaloupe in the absence of sweetpotato whitefly. HortScience 30: 997-1000.
- Palumbo, J.C., A. Tonhasca, & D.N. Byrne. 1995. Evaluation of sampling methods for estimating adult sweetpotato whitefly populations in cantaloupes. J. Econ. Entomol. 88: 1393-1400.
- Riley, D.G. and J.C. Palumbo. 1995 Action thresholds for silverleaf whitefly (Homoptera: Aleyrodidae) in cantaloupe. J. Econ. Entomol. 88:1733-1738.
- Kerns, D.L. and J.C. Palumbo. 1995. Using Admire on Desert Vegetable Crops. IPM Series Number 5, Publication. no. 195017. Cooperative Extension, College of Agriculture and Life Sciences, University of Arizona, Tucson, Arizona.
- Palumbo, J.C. and W.E. Coates. 1996. Air-assisted electrostatic application of pyrethroid and endosulfan mixtures for sweetpotato whitefly, (Homoptera: Aleyrodidae) control, and spray deposition in cauliflower. J. Econ. Entomol. 89: 970-980.
- Palumbo, J.C., D.L. Kerns, C.E. Engle, C.A. Sanchez, and M. Wilcox. 1996. Imidacloprid formulation and soil placement effects on colonization by sweetpotato whitefly (Homoptera:Aleyrodidae) populations: Head size and incidence of chlorosis in lettuce. J. Econ. Entomol. 89: 735-742.
- Tonhasca, A., J.C. Palumbo, D.N. Byrne. 1996. Evaluation of the power law and patchiness regression with regression diagnostics. J. Econ. Entomol. 89:1477-1484.
- Williams, L, T.J. Dennehy, and J.C. Palumbo. 1996. Whitefly control in Arizona: Developing a resistance management program for imidacloprid. Resistant Pest Management 8:48-52.
- Palumbo J.C., and D.L. Kerns. 1996. Melon Pest Management in the Southwestern USA. In E. B. Radcliffe and W. D. Hutchison [eds.], Radcliffe's IPM World Textbook, URL: [http:// ipmworld.umn.edu](http://ipmworld.umn.edu), University of Minnesota, St. Paul, MN.
- Kerns, D.L. and J.C. Palumbo. 1997. Confirm and Success: New Tools for Insect Management in Cole Crops and Leafy Green Vegetables in Arizona. IPM Series Number 10. Publication no. 197008. Cooperative Extension, College of Agriculture and Life Sciences, University of Arizona, Tucson, Arizona.
- Palumbo, J. C. and D.L. Kerns. 1998. Melon Insect Pest Management in Arizona . IPM Series No. 10. Publication no. AZ 1028, Cooperative Extension, College of Agriculture and Life Sciences, University of Arizona, Tucson, Arizona.
- Yee, W.L, Palumbo, J.C., N.C. Toscano, M.J. Blua, and H.A. Yoshida. 1997. Seasonal population trends and densities of *Bemisia argentifolii* (Homoptera: Aleyrodidae) on Alfalfa in southern California and Arizona. Environ. Entomol. 26: 241-249.
- Kerns, D.L., J.C. Palumbo and T. Tellez. 1998. Resistance of field strains of beet armyworm (Lepidopterous : Noctuidae) from Arizona and California to carbamate insecticides. J. Econ. Entomol. 91: 1038-1043.
- Kerns, D. L., M. Matheron, J. Palumbo, C. Sanches, D. Still, B. Tickes, K. Umeda, and M. Wilcox. 1999.

- Guidelines for Head Production in Arizona. IPM Series Number 12. Publication number az1099. Cooperative Extension, College of Agriculture and Life Sciences, University of Arizona, Tucson, Arizona.
- Palumbo, J.C., D.L. Kerns, and K.Umeda. 2000. Whitefly management on desert melons. IPM Series Number 13, Publication. no. AZ1190. Cooperative Extension, College of Agriculture and Life Sciences, University of Arizona, Tucson, Arizona.
- Palumbo, J.C. 2000. Management of Aphids and Thrips on Leafy Vegetables. Cooperative Extension, College of Agriculture and Life Sciences, University of Arizona, Tucson, Arizona. ACIS [http://ag.arizona.edu/crops/vegetables/insects/aphid/aphidsand thrips.html](http://ag.arizona.edu/crops/vegetables/insects/aphid/aphidsand%20thrips.html)
- Palumbo, J.C., N.C. Toscano, M.J. Blua and H.A. Yoshida . 2000. Impact of *Bemisia* Whiteflies (Homoptera:Aleyrodidae) on Alfalfa Growth Forage Yield and Quality . J. Econ. Entomol. 93: 1688-1694.
- Palumbo, J.C., A. R. Horowitz, and N. Prabhaker. 2001. Insecticidal Control and Resistance Management for *Bemisia tabaci*. In S. Naranjo and P. Ellsworth (eds.), Special Issue: Challenges and Opportunities for Pests Management of *Bemisia tabaci* in the New Century. Crop Prot. 20:835-852.
- Palumbo, J.C., P.C. Ellsworth, T.J. Dennehy, and R.L. Nichols. 2003. Cross-Commodity Guidelines for Neonicotinoid Insecticides in Arizona. IPM Series 17. Publ. No. AZ1319. University of Arizona, College of Agriculture and Life Sciences, Cooperative Extension, Tucson, Arizona. 4 pp. URL: <http://cals.arizona.edu/pubs/insects/az1319.pdf>
- Johnson, M.W., Toscano, N.C., Palumbo, J. C. and H. Costa. 2004. Integrated Pest Management PM in Vegetables and Ornamentals in the Western United States, pp. 279-299. In: R. Horowitz and I. Ishaaya (Eds.): Insect Pest Management - Field and Protected Crops. Springer-Verlag, Heidelberg.
- Foster, R., G. Brust and J. Palumbo. 2005, Watermelon, Muskmelon and Cucumber, pp.198-215. In: R. Foster and B. Flood (eds.). Vegetable Insect Management. Meister Publishing Company, Willoughby, Ohio.
- Brust, G. and J. Palumbo. 2005, Squash and Pumpkins, 216-229. In: R. Foster and B. Flood (eds.). Vegetable Insect Management. Meister Publishing Company, Willoughby, Ohio.
- Ellsworth, P.E., J.C. Palumbo, S.E. Naranjo, T.J. Dennehy, and R.L. Nichols. 2006. Whitefly Management in Arizona Cotton 2006. IPM Series 18. Publ. No. AZxxx. University of Arizona, College of Agriculture and Life Sciences, Cooperative Extension, Tucson, Arizona. 4 pp. URL: <http://cals.arizona.edu/pubs/insects.pdf>
- Palumbo, J.C. 2006 Comparison of Sampling Methods for Estimating Western Flower Thrips Abundance in Lettuce J.C. Palumbo, J. Econ. Entomol. Submitted.