

Michael G. Klein

Professional Preparation

University of Wisconsin-Madison Agriculture B.S. 1963
University of Wisconsin-Madison Entomology M.S. 1965
University of Wisconsin-Madison Entomology Ph. D. 1972



Appointments

1969-2004: Research Entomologist - USDA-ARS, Moorestown, NJ & Wooster, OH
1979-present: Adjunct Associate Professor - OSU, OARDC, Wooster, OH
1973-79: Adjunct Assistant Professor - OSU, OARDC, Wooster, OH
1971-73: Adjunct Instructor - OSU, OARDC, Wooster, OH
1963-69: Research Assistant - University of Wisconsin-Madison, Madison, WI

Top Honors and Awards

Lifetime VIP Member of Strathmore's Who's Who.

IR-4 Meritorious Service Award, 2003.

1999 Trécé Incorporated "Most Valuable New Commercial Technology -- Consumer Products" and 1999 Trécé Incorporated "Most Notable Team Effort Consumer Products"

Program capsules

Research: Biological control of turf and ornamental insect pests with emphasis on the discovery and efficacy of new bacterial and nematode pathogens of white grubs and development of new lures and traps.

Three Most Important Scholarly Accomplishments, Last Five Years

Production of video on Entomopathogenic Nematodes as tools for pest management which has been distributed to over 3000 customers.

Cooperative efforts to find new methodology and materials to solve problems dealing with quarantine shipment of nursery stock.

Development and implementation of program for suppression/eradication of the emerald beetle from the Midway Atoll and Guam.

Five Selected Publications (142 total)

Tumlinson, J. H., M. G. Klein, R. E. Doolittle, J. L. Ladd, and A. T. Proveaux. 1977.

Identification of the female Japanese beetle sex pheromone: inhibition of male response by an enantiomer. *Science* 197: 789-792.

Klein, M. G., J. H. Tumlinson, T. L. Ladd, Jr., and R. E. Doolittle. 1981. Japanese beetle (Coleoptera: Scarabaeidae): response to synthetic sex attractant plus phenethyl propionate: eugenol. *J. Chem. Ecol.* 7: 1-7.

Stahly, D. P. and M. G. Klein. 1992. Problems with in vitro production of spores of *Bacillus popilliae* for use in biological control of the Japanese beetle. *J. Invert. Pathol.* 60: 283-291.

- Klein, M. G. and L. A. Lacey. 1999. An attractant trap for the autodissemination of entomopathogenic fungi into populations of the Japanese beetle, *Popillia japonica* (Coleoptera: Scarabaeidae). *Biocont. Sci. & Tech.* 9: 151-158.
- Klein, M. G., P. Grewal, and T. Jackson. 2000. Lawn, Turf, and Grassland Pests. Pp. 681-706. In: *Field Manual of Techniques in Invertebrate Pathology*. (L. A. Lacey and H. H. Kaya, Eds.) Kluwer Academic Publishers, Dordrecht, The Netherlands.

Five Selected Grants (\$1,191,827 total; \$667,375 as PI)

- Principal U.S. Investigator (with V. Garcia and A. Carvao), "Japanese beetle control on Terceira (Azores) - phase I". \$81,200. Department of Defense, 1985-1986.
- Principal Investigator (with R. Gaugler, H. K. Kaya, L. A. Lacey, and W. A. Gardner), "Development of entomopathogenic nematodes as biological insecticides of white grubs in turf". \$226,600. USDA-ARS, Pilot Project, 1990-1993.
- ARS Cooperator (with R. E. Harrison, R. Gaugler, and H. K. Kaya), "Entomopathogenic nematodes as biocontrol agents of Japanese beetle in Tennessee". \$183,160. USDA-CSRS 1890 Institution Capacity Building Grant, 1990-1993.
- Cooperating Scientist, "Genetic improvement and agricultural application of entomopathogenic nematodes in Hungary and the U.S.". \$54,960. Hungarian Research Project HU-ARS-75, 1995-1997.
- Co-PI (with E.E. Lewis, M. J. Raupp, P. S. Grewal, G. L. Tylka, and S. R. Alm), "Implementation of a Novel Biological Strategy for Plant-Parasitic Nematodes" USDA-Fund for Rural America, 1998-2000.

Professional Service Highlights, Last 5 Years

- Entomological Society of America, Chair Subsection Ce 2003
- Society for Invertebrate Pathology, Chair Microbial Control 1999.
- USDA S-301 Nematode Subcommittee Chair 1995- 2001

Key Collaborations

- Departmental of Interior, FWS, and Department of Defense collaboration on suppression of scarab beetles from Midway, Guam, and the Azores
- Collaboration with APHIS, State Governments, and private industry to prevent the movement of Japanese beetle adults to protected state in the west by aircraft.
- Use, production, antibiotics and genomics of entomopathogenic nematodes, in collaboration with Parwinder Grewal lab.
- Research with Tennessee State University and APHIS for control and eradication methods for Japanese beetle and other scarab larvae in nursery crops.
- Collaboration with Dr. Roger Williams, Dr. Catharine Mannion, UF, and Trece, Inc. to develop scarab lures in the U.S., Ecuador, Moldova, Hungary, and Guam.