

## Public Service (137)

1. Presenter, Mississippi Agricultural Consultants Association, Delta Research and Extension Center, Stoneville, MS, 30 participants attended, September 27, 2019.
2. Speaker, given talk on wireworms and wheat midge research information to the Glacier County Growers Field Day, Glacier County Conservation District, Cut Bank, MT, 15 participants attended, July 17, 2019.
3. Speaker, Research work done on wheat stem sawfly, wheat midge and wireworms, 20 participants attended, Field Day, Knees, MT, June 09, 2019.
4. Presenter, Bugs of Montana, STEAM Challenge program, Youth Services at the Great Falls Public Library, 25 students attended, June 21, 2019.
5. Presenter, Havre Middle School Seventh Grade STEM day, MSU-Northern Agricultural Research Center, Havre. 120 members attended, May 29, 2019.
6. Speaker, Annual Crop and Pest Management School, Bozeman, MT - Small grains crops. 70 attendees attended, January 14-16, 2019.
7. Presenter, Pulse insect pests, Members of the Agricultural Advisory Council Meeting, Fort Benton, MT, 15 attendees attended, November 05, 2018.
8. Presenter, Bugs of Montana, STEAM Challenge program, Youth Services at the Great Falls Public Library, 20 students attended, June 14, 2018.
9. Speaker, Research work done on wheat stem sawfly and wheat midge, 23 participants attended, Field Day, Knees, MT, June 06, 2018.
10. Presenter, Annual STEM Field Day, Bio-control of Montana Pests, Northern Agricultural Research Center, Havre, MT, 140 participants attended, May 01, 2018.
11. Presenter, Toole County Extension, Shelby, MT, 15 participants attended, February 12, 2018.
12. Speaker, Association of Montana Aerial Applicators, AMAA Convention, January 23, 2018.
13. Judge, Sigma Xi, Students Research Conference, The Scientific Research Honor Society, Raleigh Convention Center, Raleigh, NC, November 11, 2017.
14. Montana Ag Alerts, High level of cereal leaf beetle incidence in Choteau, MT, June 12, 2017, <http://www.mtagalert.org/>
15. Speaker, Wheat stem sawfly. Knees Area Field Day, 23 participants attended, June 07, 2017.
16. Speaker, Biological Control of Montana Pests, Northern Ag Research Center Ag Technology and Science Tour, Havre, MT, 140 students attended, May 26, 2017.
17. Presenter, Good and Bad Bugs, Elementary School Children, Youth Services at the Great Falls Public Library, 30 students attended, May 24, 2017.
18. Speaker, 2017 Spring Pest Update, Broadwater County Extension, April 06, 2017.
19. Speaker, Pulse Insect Pests and Their Management, 120 participants attended, Hill County Pulse Meeting, Havre, MT, January 13, 2017.
20. Speaker, Cropping seminars, Shelby, MT, Integrated Pest Management Updates in the Golden Triangle Areas of Montana, 40 participants attended, January 10, 2017.
21. Attended and given feedback during the Pulse Crop Pest Management Strategic Planning Workshop, Bozeman, MT, 35 participants attended, November 09–10, 2016.
22. Presenter, Western Triangle Ag Research Center-Insect and crop updates, (organized by Harvey Hollandsworth Enterprises), Knees School, 25 participants attended, Montana, March 10, 2016.

23. Given talk on the entomology research work at Western Triangle Ag Research Center to the Glacier County Growers Field Day, Glacier County Conservation District, Cut Bank, MT, 30 participants attended, July 28, 2015.
24. Presenter, Knees area field day, 25 participants attended, June 25, 2015.
25. Presenter, Alternative Crop Entomology Program, Kremlin, MT, 35 participants attended, June 23, 2015.
26. Montana Ag Alerts, Canola Flea Beetle Damaging Canola, June 10, 2015, <http://www.mtagalert.org/>
27. Given talks on Developing Integrated Pest Management Program for insect in the Golden Triangle Agricultural Areas of Montana during “2015 Golden Triangle Cropping Seminars” at different locations in Montana (Fort Benton, Chester, Shelby, Cut Bank, Conrad, Chouteau, Great Falls, and Stanford) January 12–15, 2015.
28. Exhibitor (MSU), MGGA Annual Convention and Trade Show, Great Falls, MT, December 02–04, 2014
29. Speaker, Insect pest problems on cereal and canola crops, Growers meeting, Cut Bank, MT, July 01, 2014
30. Speaker (Orange wheat blossom midge biological control update) at the Solo Grower meeting, Valier, MT, March 27, 2014.
31. Speaker (Integrated control methods for wheat stem sawfly and wireworms) at the Crop and Pest Management School, Montana State University, January 03, 2014.
32. Radio interview with Dan Picard given on the Updates on WTARC, KSEN Radio, September 27, 2013.
33. Consulting provided to Mr. Bob Hurley, Liberty County, MT, regarding Wheat stem sawfly and Hessian fly, August 14, 2013.
34. Speaker at the Bjelland cover crop/WTARC site, Conrad, MT, August 13, 2013.
35. Montana Ag Alerts, Added Insect Pest on Canola in Montana? July 07, 2013, <http://www.mtagalert.org/>
36. Speaker (Wireworm Worries in Wheat and Pea Production Problems-The Pea Leaf Weevil) at the Northwest Agricultural Research Center Field Day, July 11, 2013.
37. Organized Pesticide Recertification Applicator Course, Montana Dept. of Ag training course (#13-410), 2013 Western Triangle Ag Res Center Field Day, July 10, 2013.
38. Montana Ag Alerts, High Incidence of Orange Wheat Blossom Midge in Pondera and Flathead Counties, MT, July 01, 2013, <http://www.mtagalert.org/>
39. Presenter, Midge problem in Pondera country, sponsored by Solo-Air, Valier, MT, July 02, 2013.
40. Advisor, Scouting Crops for Insects and Disease, Agriculture Agent Update, Northern Agricultural Research Center, Havre, Montana, June 27, 2013.
41. Speaker at the Sheridan County Crop Counting Field Day, Plentywood, MT, June 12, 2013.
42. Presenter to the 7–12<sup>th</sup> graders at The Career Day in the Dutton/Brady School and Lincoln School, April 25, 2013.
43. Invited guest lecture during the 2013 Triangle Cropping Seminar, Pondera Shooting Sports Club, Conrad, MT, January 16, 2013.
44. Invited Speaker, Brown Bag Seminar, USDA-ARS, Sidney, December 15, 2012.
45. Speaker at the Lethbridge Research Center, Canada, November 28, 2012.
46. Speaker at the Conrad Area of Commerce, Conrad, Montana, July 11, 2012.

47. Presenter to the Upward Bound's Summer School Program on Guam Invasive Insect Pests and Their Management, Upward Bound Program, University of Guam, June 27, 2011.
48. Presenter to the Sixth Graders on Guam Invasive Insect Pests, Harvest Christian Academy, Barrigada, Guam, March 14, 2011.
49. Presenter to High School Students on How to Accomplish Successful Science Projects, Saint Francis Catholic School, Yona, Guam, February 24, 2011.
50. Presenter on the major invasive weeds in Guam and its control methods, Guam Department of Agriculture, Mangilao, GU, February 16, 2010.
51. Organized a field day and presentation on IPM vs. traditional insecticidal sprays on cabbage to farmers from Guam and CNMI, University of Guam's Agricultural Experiment Station, November 25, 2009.
52. Presentation on current NRCS projects and its impact on the farming community, USDA-NRCS Field House, Barrigada, Guam, November 05, 2009.
53. Presentation on the control of cabbage pests using neem-based pesticides for the Farmer Rancher Program, Northern Marianas College, Rota, March 17, 2009.
54. Presentation on spider and broad mites problem on eggplant and tomato, Northern Marianas College, Saipan, MP, November 12, 2008.
55. Presentation on Monitoring and Identification of Key Pests found in Guam, Farmer's day, Mangilao, Guam, June 2008.
56. Provision of a workshop and presentation on neem tree production for alternative pesticides, nematode control, and use of fertilizers to farmers, growers, and extension personnel at the Northern Marianas College in Rota, CNMI, in collaboration with the Northern Marianas, Saipan, Mr. Frank Atalig (Rota) and Dr. Jack Tenorio (Saipan), May 2008.
57. Presentation on release of *Melittia oedipus* for biocontrol of ivy gourd in Guam to the farmers and extension personnel at the Guam Department of Agriculture, Mangilao, GU, August 2007.
58. Presentation on release of *Melittia oedipus* for the control of ivy gourd in Saipan, Extension Personnel, Northern Marianas College, Saipan, CNMI, June 2007.
59. Presentation on development of mite IPM on eggplant in Mariana Islands, Guam Department of Agriculture, Mangilao, GU, April 2007.
60. Presentation on biological control of papaya mealybugs, Farmer's day, Agricultural Experiment Station, University of Guam, Mangilao, GU, February 2007.
61. Presentation on neem pesticide as a potential alternative to chemical-based pesticides, Cooperative Extension Service, University of Guam, Mangilao, GU, 2007.
62. Presentation on invasive exotic wood-boring insects, Guam Department of Agriculture, Mangilao, GU, January 2007.
63. Demonstration of release methods for biocontrol agents of the pink hibiscus mealybug to the Guam Department of Agriculture and local farmers, Mangilao, GU, November 2006.
64. Presentation on the management of insect pests attacking cruciferous crops, Extension Unit Northern Marianas College, Rota, CNMI, September 2006.
65. Presentation on the role of neem-based pesticides for the control of insect pests on vegetable crops, Extension Unit, Northern Marianas College, Tinian, CNMI, August 2006.
66. Presentation on attract-and-kill method for the fruit-piercing moths, Guam Department of Agriculture, Mangilao, GU, May 2006.
67. Presentation on fruit-piercing moths and their management in the Pacific, Farmers in Rota, Tinian, and Saipan, CNMI, March 2006.

68. Presentation on stored-product pests and their management in Guam, Guam Community College, Mangilao, GU, April 2006.
69. Presentation on mites as pests on vegetable and fruit crops, Northern Marianas College, Saipan, CNMI, February 2006.
70. Presentation on important invasive arthropods pests occurring in Guam and their management, Guam Department of Agriculture, Mangilao, GU, January 2006.
71. Collaboration with Mr. Frank Atalig, local farmer of Rota, CNMI, regarding identification of pest problems occurring in cabbage fields. Identification of pest as diamondback moth and suggestion of neem-based chemical spray followed by Dipel, December 2005.
72. Exploration trip to Kona, Hawaii, for collection of biocontrol agent *Melittia oedipus* to develop cultures and make releases in Guam for control of ivy gourd; collaboration with officials from Hawaii Department of Agriculture, Kona, HI, September 2005.
73. Survey for pink hibiscus mealybug in Rota, Tinian, and Saipan (CNMI); collaboration with Northern Marianas College personnel to identify the mealybug problems and discussion of possibilities for future importation of parasitoids from Puerto Rico, June 2005.
74. Monitoring for pest problems on ornamentals at the Leo Palace Resort (Guam); identification of heavy infestation of aphids and mealybugs on certain ornamental plants and provision of suggestions for possible control methods to nursery staff and management, June 2005.
75. Consultation for Mr. Gaby Guerrero (Dededo, GU), Mr. Bernard Watson, and Mr. Ernie Wusstig (Yigo, GU) regarding pest surveys on Guam farmlands; surveys included collection of insects on bittermelon, eggplant, cucumber, tomato, corn, papaya, bananas, and beans; periodic surveys conducted to assist local farmers with pest management programs, April 2005.
76. Presentation on insect vectors and their management in Micronesia made to local farmers, Cooperative Extension Service, University of Guam, Mangilao, GU, March 2005.
77. Survey for sugarcane weevil damage in Hawaii (Honolulu, Maui, Hilo, and Kona) and collection of biocontrol agents of *Lixophaga spenophori* and *Melittia oedipus* to develop cultures for release on Guam; interaction with plant growers on the problems associated with damage caused by sugarcane weevil, November 2004.
78. Survey for insect pests on various ornamental plants at ISLA Garden, Tamuning, Guam; provision of plant-protection guidelines to Mr. Mike Gonzales, site manager, and Mr. Philip Hill, assistant manager, discussion of programs to include weekly visits and suggestion to monitor and combat pest problems, August 2004.
79. Consultant to Mr. and Mrs. Joe Okada from Yigo, Guam, upon request to identify pests occurring on their ornamental plants; recommendation to use bio-pesticide spray NeemAzal EC (1.2% Azadirachtin) on crops to control insect damage; follow-up visits showed improvement in overall plant health and growth, July 2004.
80. Consultation for Mr. Villoria (cattle farmer from Toto, GU) upon request to suppress the invasive weed *Chromolaena odorata*; provision of two selective herbivorous insects, *Cecidochares connexa* and *Pareuchaetes pseudoinsulata*, to the farmer for culture and release at the farm site as biocontrol agents, May 2004.
81. Consultation for Mr. Joe Barcinas (Malesso, GU) concerning the high mortality of mature beetle nut palms; diagnosis indicating that the trees were infected with the fungus *Phytophthora palmivora*; treatment program set up by Guam's Plant Protection Quarantine (PPQ) service to help in eradication of the fungus-infected plants, May 2004.

82. Consultation for Mr. Felix Quan (commercial farmer from Yigo, GU) upon request to assess problems occurring on copra/coconut trees; demonstration of and encouragement to use semiochemical-based trapping method for the sugarcane weevil, *Rhabdocelus obscurus*, on his farm to help eradicate weevil population, March 2004.
83. Collaboration with Mangilao Golf Course staff and management regarding the biological control of fruit-piercing moth; presentation of research results from this project to local farmers, December 2003.
84. Provision of technical expertise regarding practice of semiochemical trap method for the sugarcane weevil to Guam commercial businesses, viz., Landscape Management Services (LMS) (Tumon), Hamamoto Fruit World (Yona), and Bob's Nursery (Dededo), to collaborate with farmers and homeowners of Guam, August 2003.
85. Collaboration with the local farmers of Palau, plant protection officer Mr. Fred. Sengebau (Bureau of Agriculture, Palau), and Mr. Konrad Englberger (Secretariat of the South Pacific Community) to help control the papaya mealybug population by means of biocontrol agents, March 2003.
86. Consultation for to Mr. and Mrs. Torres of Yigo, GU, upon their request to identify pest problems occurring on various crops; identification of pests as shoot and fruit borer on eggplant and spider mites on pepper and eggplant; recommendations to spray malathion on eggplant and dicofol (Kelthane) for control of spider mites, January 2003.
87. Presentation on the importance of bees for the pollination of natural flora and the management of natural floral resources to students/staff, University of Vienna, Austria, December 2002.
88. Consultation for local farmers regarding biological control of papaya mealybugs in Guam; work with Mr. Gaby Guerrero, Mr. Frank Cruz, and Mr. Bernard Watson to assess the damage caused by papaya mealybugs on their farms; release of parasitoids, *Anagyrus loecki*, *Pseudleptomastix mexicana*, and *Acerophagous papayae*, to control the mealybugs. This work was done in collaboration with Dr. Dale Meyerdirk and Mr. Richard Workentin from USDA-APHIS, June 2002.
89. Visit to commercial business owner Edward Pangelinan (Ipan, GU) to make him aware of the alien invasive weed *Coccinia grandis* spreading throughout most of his cultivated land; notification to him that biocontrol agents such as *Melittia oedipus*, *Acythopeus cocciniae*, and *A. burkhartorum* would be released on Guam to help alleviate the problem, February 2002.
90. Presentation on pheromone glands and pheromone production in insects made to students, University of Kuopio, Finland. August 2001.
91. Presentation on pheromone communication in woodborers and how to control them made to staff members, University of Kuopio, Finland, November 2001.
92. Presentation on indoor pests and their control made to technical staff, University of Kuopio, Finland, December, 2001.
93. Presentation on how host plants affect the behavior of the natural enemies of insect herbivores made to technical staff, University of Kuopio, Finland, December 2001.
94. Presentation on pheromone trap designs and their use in IPM made to technical staff, Institute of Chemical and Environmental Research (CSIC), Barcelona, Spain, September 2000.
95. Presentation on control of woodborers in houses by means of pheromone traps and semiochemical-based control methods, University of Bayreuth, Germany, July 1999.

96. Presentation on management of borer pests on corn/maize made to technical staff, Institute of Chemical and Environmental Research (CSIC), Barcelona, Spain, February 1999.
97. Presentation on use of pheromone traps in integrated pest management made to technical staff, Institute of Animal Ecology-II, University of Bayreuth, Germany, October 1998.
98. Presentation on managing pest problems on cruciferous crops made to technical staff, Institute of Animal Ecology, University of Bayreuth, Germany, March 1998.
99. Presentation on inundative release of a predator, *Chrysoperla carnea*, to suppress diamondback moth population in cole crops made to technical staff, Department of Agriculture, Karnataka State, India, August 1997.
100. Inoculative releases of *Trichogramma chilonis* and *T. achaea* for suppression of lepidopterous pests in vegetable crops, Growers Day, Agricultural Research Station, Hagari, October 1997.
101. Presentation on sorghum insect management made to farmers, hosted by Rallies Pesticides Ltd, Agricultural Research Station, Hagari, September 1997.
102. Presentation on protecting crops and homes against termites made to farmers, ARS/KVK training course, Agricultural Research Station, Hagari, April 1997.
103. Presentation on mass trapping technique for diamondback moth, Sandoz Research Group, Agricultural Research Station, Hagari, December 1996.
104. Presentation on field corn/maize integrated pest management, ARS/KVK farmers training program, Agricultural Research Station, Hagari, September 1996.
105. Presentation on managing thrips and viruses on tomatoes made to farmers, hosted by Bayer AG Ltd., August 1996.
106. Presentation on understanding insect ecology and improving pest management, ARS/KVK farmers training program, Agricultural Research Station, Hagari, June 1996.
107. Presentation on managing pests on cucurbit crops, farmers' training course, Karnataka State Department of Agriculture, March 1996.
108. Presentation on low-input production of broccoli, Cruciferous Growers Association, India, September 1995.
109. Presentation on insect pest management on vegetable crops (three day course), agricultural extension officers, Karnataka, India, August 1995.
110. Presentation on controlling leaf miners in peas made to local farmers, Farmers' Day, Karnataka, India, July 1995.
111. Presentation on soybean insect management made to farming community, sponsored by Bayer AG Ltd., Agricultural Research Station, Hagari, April 1995.
112. Presentation on integrated pest management of spider mites on eggplant, Farmers' Information Day, Agricultural Research Station, Hagari, December 1994.
113. Presentation on insect and mite management in vegetable crops (tomato, okra, and pepper), farmers' training course, Agricultural Research Station, Hagari, October 1994.
114. Presentation on postharvest technology made to greenhouse producers, hosted by [National Organics Chemicals Industries Limited](#) (NOCIL), September 1994.
115. Presentation on controlling major stem and bud borers in Karnataka, Farmers' Day, Karnataka, India, August 1994.
116. Presentation on insect recognition and management (how to save crops from pests), hosted by Bayer AG Ltd., Farmers' Day, Agricultural Research Station, Hagari, July 1994.
117. Presentation on farm-laborer IPM scout training program, Growers Association Committee Members, Agricultural Research Station, Hagari, April 1994.

118. Presentation on management of shoot fly on sorghum made to sorghum growers, Bellary, Karnataka, India, February 1994.
119. Presentation on managing potato tuber moth on potato, farmers' training course, hosted by Gharuda Chemicals, Agricultural Research Station, Hagari, January 1994.
120. Presentation on use of pheromone traps to control diamondback moth, Cabbage Cooperative Growers, Agricultural Research Station, Hagari, December 1993.
121. Provision of posters on using Vegetable Environmental Guide (VEG) to reduce impacts of insecticide and fungicide applications, Agrochemical Company Representative Group for Environmental Coding of Pesticides, September 1993.
122. Presentation on integrated pest management of bollworms in cotton based on pheromone trap catch threshold level, Cotton Growers Association, August 1993.
123. Presentation on thresholds for cruciferous crops: when do I need to spray? Table Top Growers, August 1993.
124. Presentation on thrips, aphids, and diamondback moth on cruciferous crops, Table Top Growers presentation, Agricultural Research Station, Hagari, July 1993.
125. Preparation and dissemination of an IPM newsletter, for monthly circulation to vegetable growers, April 1993.
126. Presentation on using IPM in high-quality vegetable production-green peas, tomatoes, eggplant, and sweet potatoes-pest and disease management training course provided to technical staff, Department of Agriculture, February 1993.
127. Presentation on controlling pests (basic recognition and what to do) to farming community, Ciba-Geigy Research Group, January 1993.
128. Provision of training on and demonstrations of termite control to farmers, ARS training course, January 1993.
129. Presentation on integrated control of aphids on wheat made to farmers, hosted by Ciba-Geigy, Agricultural Research Station, Hagari, December 1992.
130. Presentation on integrated pest management for cabbage, Cruciferous Growers Association Day, September 1992.
131. Provision of general recommendations for controlling insects in Karnataka, radio talk show (two), Calling All Farmers Broadcast, August 1992.
132. Presentation on fumigation methods to control storage insect pests made to farming community, Farmers' Day, Agricultural Research Station, Hagari, July 1992.
133. Presentation on insecticide resistance in cotton bollworms (future problems and plans), Cotton bollworm management meeting, June 1992.
134. Presentation on using scouting and thresholds to reduce insecticide use in vegetables, Table Top Growers, April 1992.
135. Presentation on increase of trap catches by a combination of pheromone lure and plant volatile in diamondback moth made to technical staff and farmers, farmers training center, Agricultural Research Station, Hagari, March 1992.
136. Presentation on how to use insecticides safely, ARS Farmers training course, University of Agricultural Sciences, February 1992.
137. Presentation on integrated pest management for tomatoes, Tomato Growers Association Information Day, Agricultural Research Station, Hagari, February 1992.