

## CURRICULUM VITAE

### NAME

Cranshaw, Whitney S

### ADDRESS

Bioagricultural Sciences and Pest Management  
College of Agricultural Sciences

Plant Sciences

### PHONE

(970) 491-6781

### EDUCATION

1981 Ph D, U OF MINNESOTA

1979 MS, U OF MINNESOTA

1976 BA, Hampshire College

### OTHER POSITIONS

1995 - Present Professor, Colorado State University.

1989 - 1995 Associate Professor, Colorado State University.

### PUBLISHED WORKS

#### **Books**

Cranshaw, W. S. (2015). *Garden insects of North America: the ultimate guide to backyard bugs*. Princeton University Press.

#### **Refereed Journal Articles**

Schwartz, H. F., Gent, D. H., Fichtner, S. M., Otto, K., Boateng, C. O., Szostek, S., Cranshaw, W. S., Mahaffey, L. A. (2014). Thrips *tabaci* (Thysanoptera: Thripidae) and Iris yellow spot virus associated with onion transplants, onion volunteers and weeds in Colorado (baci). *Southwestern Entomologist*, 39(4), 691-704. [www.bioone.org/doi/pdf/10.3958/059.039.0401](http://www.bioone.org/doi/pdf/10.3958/059.039.0401)

Zerillo, M., Caballero, J., Woeste, K., Graves, A., Hartel, C., Pscheidt, J., Broders, K., Cranshaw, W., Seybold, S., Tisserat, N. (2014). Population Structure of *Geosmithia morbida*, the Causal Agent of Thousand Cankers Disease of Walnut Trees in the United States. *PLoS One* Published: November 13, 2014.

Schwartz, H. F., Alston, D., Alwang, J., Bartolo, M. E., Blunt, T. D., Boateng, C., Bunn, B., Cramer, C., Cranshaw, W. S., Davidson, J. W., Derie, M., Douce, K., Drost, D., du Toit, L., Gour, T., Gugino, B., Hammon, B., Hardin, J. G., Hausbeck, M., Jibilian, G., Lafferty, J., LaForest, J., McMillan, M. S., Mohan, K., Morrice, J., Nault, B., Nischwitz, C., Norton, G., Otto, K., Pappu, H., Petersen, M., Sampangi, R., Schroeder, B., Secor, W., Szostek, S., Tisserat, N. A., Uchanski, M., VanKirk, J., Waters, T., Wiriyajitsomboon, P., Wohleb, C. (2014). Onion ipmPIPE: A coordinated effort to improve the management of onion thrips and Iris yellow spot virus for onion growers and their industry. *APS Plant Health Progress*, 15, 172-183.

<http://www.apsnet.org/publications/apsnetfeatures/Documents/2014/PHP-FE-14-0026.pdf>

- McEwen, C., Digweed, J., Cranshaw, W. (2014). Description and biology of the sexual generation of *Disholcaspis quercusmamma* (Walsh and Riley) (Hymenoptera: Cynipidae), with notes on associated parasitoids. *Proceedings of the Entomological Society of Washington*, 116(3), 294-310.
- Kondratieff, B. C., Cranshaw, W. S. (2014). Owlflies in Colorado (Neuroptera: Ascalaphidae). *Entomological News*, 123(5), 393-394.
- (2012). *Agrilus quercicola* (Fisher) (Coleoptera: Buprestidae), the Gambel Oak Borer, as a Pest of *Quercus* spp. *Southwestern Entomologist* doi: <http://dxdoiorg/103958/059>, 37(2), 147-150.
- (2012). *Orchestes alni* (L.) (Coleoptera: Curculionidae): New Records from Western North America with Notes on Parasitoids. *The Coleopterists Bulletin* doi: <http://dx.doi.org/10.1649/072.066.0115>, 66(1), 63-66.
- (2011). A Review of Nuisance Invader Household Pests of the United States. *American Entomologist*, 57(3), 165-169.
- (2011). Notes on fruit damage by the European paper wasp, *Polistes dominula* (Christ) (Hymenoptera: Vespidae). *Southwestern Entomologist* doi: <http://dxdoiorg/103958/059>, 36(1), 103-105.
- (2011). Recently recognized range extensions of the walnut twig beetle, *Pityophthorus juglandis* Blackman (Coleoptera: Curculionidae: Scolytinae), in the western United States. *The Coleopterists Bulletin* doi: <http://dxdoiorg/101649/0010-065X-65>, 65(1), 48-49.
- (2011). Thousand cankers disease is widespread in black walnut in the western United States. *Plant Health Progress* doi: [10.1094/PHP-2011-0630-01-BR](http://dxdoiorg/10.1094/PHP-2011-0630-01-BR).
- (2010). Comparison of over-the-counter insecticides for managing the European earwig, *Forficula auricularia* (L.) (Dermaptera: Forficulidae). *Southwestern Entomologist* doi: <http://dxdoiorg/103958/059>, 35(1).
- (2010). Thrips Species Associated with Onion in Colorado. *Southwest Entomol*, 35, 45-50.
- Schwartz, H. F., Gent, D. H., Fichtner, S. M., Khosla, R., Reich, R., Camper, M. A., Mchaffey, L. A., Cranshaw, W. S. (2010). Spatial and temporal distribution of Iris yellow spot virus and thrips in Colorado onion fields. *APS Plant Management Network*. doi: [10.1094/PHP-2010-0820-01-RS](http://dxdoiorg/10.1094/PHP-2010-0820-01-RS)
- (2009). Effects of Supplemental Irrigation on Populations of Clover Mite, *Bryobia praetiosa* Koch (Acari). *Southwest Entomol*, 34, 69-74.
- (2009). Straw Mulch and Reduced-Risk Pesticide Impacts on Thrips and Iris Yellow Spot Virus on Western-Grown Onions. *Southwest Entomol*, 34, 13-29.
- Schwartz, H. F., Gent, D. H., Fichtner, S. M., Hammon, R., Cranshaw, W. S., Mahaffey, L., Camper, M. A., Otto, K., McMillan, M. S. (2009). Straw Mulch and Reduced-Risk Pesticide Impacts on Thrips and Iris Yellow Spot Virus on Western-Grown Onions. *Southwestern Entomologist*, 34, 13-29.
- (2007). Trapping tomato psyllid, *Bactericera cockerelli* (Sulc) (Hemiptera). *Southwest Entomol*, 32, 25-30.
- (2005). Life history of the pine needle scale, *Chionaspis pinifoliae* (Fitch) in Northeastern Colorado. *Southwest Entomol*, 30, 55-60.
- (2004). Seasonal biology and associated natural enemies of two *Toumeyella* spp in Colorado. *Southwest Entomol*,

29, 39-45.

- (2004). The effect of interplanting of nectariferous plants on the population density and parasitism of cabbage pests. *Southwest Entomol*, 29, 61-68.
- (1999). Surveys on visitation of flowering landscape plants by common biological control agents in Colorado. *J Kansas Entomol Soc*, 72, 190-196.
- (1999). The natural enemy complex associated with pine needle scale, *Chionaspis pinifoliae* (Fitch) (Homoptera). *J Kansas Entomol Soc*, 72, 131-133.
- (1998). Observations of population increases and injury by spider mites (Acari). *J Econ Entomol*, 91, 250-255.
- (1996). Aluminized fabric deters thrips from entering greenhouses. *Southwest Entomol*, 21, 135-140.
- (1996). Effects on control of onion thrips from co-application of onion pesticides. *Southwest Entomol*, 21, 49-54.
- (1995). Notes on the Biology and Control of the Poplar Twiggall Fly, *Hexomyza-Schineri* (Giraud) (Diptera, Agromyzidae), an Emerging Pest of Aspen in Colorado. *J Kansas Entomol Soc*, 68, 127-132.
- (1994). Capture of Clearwing Borers (Lepidoptera, Sesiidae) with 3 Synthetic Attractants in Colorado. *Southwest Entomol*, 19, 71-76.
- (1994). Larval Biology and Control of the Rabbitbrush Beetle, *Trirhabda-Nitidicollis* Leconte (Coleoptera, Chrysomelidae). *Southwest Entomol*, 19, 249-256.
- (1994). Occurrence of the Oak Rough Bulletgall Wasp, *Disholcaspis-Quercusmamma* (Walsh) (Hymenoptera, Cynipidae), as a Street Tree Pest in Colorado. *J Kansas Entomol Soc*, 67, 290-293.
- (1994). The Potato (Tomato) Psyllid, *Paratrioza-Cockerelli* (Sulc), as a Pest of Potatoes. *Southwest Entomol*, 19, 83-95.
- (1993). Application of Semiochemicals in Integrated Pest-Management Programs. *Acs Sym Ser*, 524, 199-218.
- (1991). Alate Aphid Trap Capture over Different Background Colors and Different Background Patterns. *Southwest Entomol*, 16, 13-18.
- (1991). Differential Susceptibilities of Green Peach Aphid (Homoptera, Aphididae) and 2 Endoparasitoids (Hymenoptera, Encyrtidae and Braconidae) to Pesticides. *J Econ Entomol*, 84, 844-850.
- (1991). Short-Term Movement of *Neoaplectana* Spp (Rhabditida, Steinernematidae) and *Heterorhabditis* Hp-88 Strain (Rhabditida, Heterorhabditidae) through Turfgrass Thatch. *J Econ Entomol*, 84, 875-878.
- (1990). Compatibility of 3 Entomogenous Nematodes (Rhabditida) in Aqueous-Solutions of Pesticides Used in Turfgrass Maintenance. *J Econ Entomol*, 83, 97-100.
- (1990). Effects of Colored Sprays on Aphid and Psyllid Colonization of Potatoes. *Southwest Entomol*, 15, 205-209.
- (1990). Insects Associated with Quinoa, *Chenopodium-Quinoa*, in Colorado. *J Kansas Entomol Soc*, 63, 195-199.
- (1989). Biological, Mechanical, and Chemical Control of Turfgrass-Infesting Scarabs in Colorado. *Southwest Entomol*, 14, 351-355.

- (1988). Effects of Systemic Insecticides on Potato Growth and Their Interaction with Metribuzin. *Am Potato J*, 65, 535-541.
- (1988). Flight Patterns of Clearwing Borers (Lepidoptera, Sesiidae) in Colorado Based on Pheromone Trap Captures. *Southwest Entomol*, 13, 39-46.
- (1987). The Influence of Rockwool on Insect Populations and Pythium Disease. *Hortscience*, 22, 1136-1136.
- (1987). Urban Ipm Education and Implementation - Implications for the Future. *Abstr Pap Am Chem S*, 194, 195-ENVR.
- (1986). Suppression of Raspberry Crown Borer, *Pennisetia-Marginata* (Harris) (Lepidoptera, Sesiidae) with Soil Applications of *Steinernema-Feltiae* (Rhabditida, Steinernematidae). *J Invertebr Pathol*, 48, 257-258.
- (1985). Clover Root Curculio Injury and Abundance in Minnesota Alfalfa of Different Stand Age. *Great Lakes Entomol*, 18, 93-95.

### Non-Refereed Journal Articles

- McDaniel, J. P., Barbarick, K. A., Stromberger, M. E., Cranshaw, W. S. Survivability of *Aporrectodea caliginosa* in Response to Drought Stress in a Colorado Soil. *Soil Science Society of America*, 77, 1667-1672. <https://dl.sciencesocieties.org/publications/sssaj/abstracts/77/5/1667>
- McDaniel, J. P., Stromberger, M. E., Barbarick, K. A., Cranshaw, W. S. Survival of *Aporrectodea caliginosa* and its effects on nutrient availability in biosolids amended soil. *Applied Ecology*(71), 1-6. <http://www.sciencedirect.com/science/article/pii/S0929139313001261>
- Zerillo, M. M., Caballero, J. I., Woeste, K., Graves, A. D., Hartel, C., Pscheidt, J. W., Tonos, J., Broders, K. D., Cranshaw, W. S., Seybold, S. J., Tisserat, N. A. (2014). Population Structure of *Geosmithia morbida*, the Causal Agent of Thousand Cankers Disease of Walnut Trees in the United States. *Plos One*, 9(11). <Go to ISI>://WOS:000347709300113
- Zerillo, M. M., Caballero, J. R. Ibarra, Woeste, K. E., Graves, A. D., Hartel, C., Pscheidt, J. W., Tonos, J., Broders, K. D., Cranshaw, W. S., Seybold, S. J., Tisserat, N. A. (2014). Population structure of *Geosmithia morbida*, the causal agent of Thousand cankers disease of walnut trees in the United States. *Phytopathology*, 104(11), 135-135. <Go to ISI>://WOS:000346303300770
- Luna, E., Cranshaw, W., Tisserat, N. (2014). Attraction of walnut twig beetle *Pityophthorus juglandis* (Coleoptera: Curculionidae) to the fungus *Geosmithia morbida*. *Plant Health Progress*, 01.
- Demirel, N., Cranshaw, W. S., Norton, A. P. (2005). Survey of *Lygus* spp. and an associated parasitoid, *Leiophron uniformis* (Gahan), in Colorado. *SOUTHWESTERN ENTOMOLOGIST*, 30(1), 9-15.
- Cranshaw, W. S., Young, D. J. (2012). *Spiders: Management Tools for a Healthy Learning Environment*. Colorado Center for Sustainable Integrated Pest Management, 2 pp.
- (2011). *ThousandCankers Disease: An Unusual Paradigm* (vol. 211, pp. 20-21). AmericanNurseryman.
- (2010). *Colorado Pest Control Industry: An assessment of current needs and concerns in Colorado and Wyoming*. Colorado Agricultural Experiment Station Technical Bulletin TB10-1 5 pp.

(2010). *Life in a Colorado Water Garden: The Insects and other Invertebrates Associated with Water Features*. 27 pp Self published and made available on-line through the Insect Information web site <http://www.colostate.edu/Depts/bspm/extension%20and%20outreach/insect%20information.html>.

(2010). *Thousand cankers disease: A recently recognized threat to North American black walnut* (1st ed., vol. 19, pp. 52-56). Arborist News.

### **AES Report/Bulletin**

Schwartz, H. F., Bartolo, M. E., Hardin, J. G., Cranshaw, W. S., Nissen, S. J., Szostek, S., Reddin, K., Cramer, C., Uchanski, M. E., Alston, D. G., Rost, D., du Toit, L. J., Pappu, H. R., Schroeder, B. K., Waters, T., Dutta, B., Srinivasan, R., Gitaitis, R. D., Nault, B. A. (2013). In H. F. Schwartz and M. E. Bartolo (Ed.), *Onion Health Management and Production* (pp. 104). Fort Collins, Colorado: CSU IPM Center.

### **CE Report/Bulletin/Factsheet**

Cranshaw, W., Jacobi, W., Leatherman, D., Tisserat, N. (2014). *Insects and Diseases of Woody Plants in Colorado* (Bulletin 506A ed., pp. 322 pp.). Colorado State University Extension.

Cranshaw, W. (2014). *Lilac/Ash Borer: A Common Wood Borer of Colorado's Street Trees* (no. 5.614 ed., pp. 3 pp.). Colorado State University Extension Fact Sheet.

### **PERFORMANCES, EXHIBITS, PRODUCTIONS (Visual/Performing Arts):**

2012, Produced 42 page publication (with Boris Kondratieff) on Insects of the Sand Creek Massacre National Historic Site. Also produced a poster of the insects at the site. These were provided to the National Parks Service.

2012, Produced an Integrated Pest Management Plan for the Little Bighorn Battlefield National Monument (with Boris Kondratieff) and provided it to the National Park Service.

### **PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS**

November 17, 2015, "Relative use of ash as an early season pollen source in urbanized sites of Colorado", Entomological Society of America Annual Meeting, (Presenter) Al-Akeel, R.

November 16, 2015, "Life history of *Allokermes rattani*, the kermes scale associated with drippy blight of red oaks", Entomological Society of America Annual Meeting, (Presenter) Sitz, R.

November 16, 2015, "Use of bed bug traps to capture other cimicids and blood feeding mites found in buildings", Entomological Society of America Annual Meeting, (Presenter) Ewals-Strain, B.

November 2014, "Evaluation of trapping to control western yellowjacket and other pest vespids in northern Colorado", Entomological Society of America - Annual Meeting, (Presenter) Cranshaw, W., Portland, Oregon.

November 2014, "Evidence of neonicotinoid resistance in European elm scale in Colorado and a search for alternative means of management", Entomological Society of America - Annual Meeting, (Presenter) Sitz, R., Portland, Oregon.

September 2014, "Update on Colorado Insect Research", NCERA 224, (Presenter) Cranshaw, W., Asheville, North Carolina.

March 2014, "Pest Management Challenges and Opportunities for Medical Marijuana in Colorado", Iowa State University Department of Entomology, (Presenter) Cranshaw, W., Ames, Iowa.

March 2014, "Pest Management Challenges and Opportunities for Medical Marijuana in Colorado", Department BSPM, Fort Collins, Colorado.

November 12, 2013, "Lepidoptera - Not! A survey of mottephobia incidence and attitudes towards moths and butterflies", Entomological Society of America Annual Meeting, Entomological Society of America, Austin, Texas, peer-reviewed/refereed.

2012, "American Society of Consulting Arborists Annual Conference (San Diego) - "Nightmare on Walnut Street: Thousand Cankers as an Emergent Threat to North American Juglans"", peer-reviewed/refereed.

2012, "Department BSPM Seminar - Natural History Notes from New Zealand: An Alternate Laboratory in Evolution".

2012, "Department of Ecology, College of Agriculture and Life Sciences (Lincoln University) Seminar - "Living with the potato/tomato psyllid in the Rocky Mountain region (US), and thoughts about its recent introduction to New Zealand"".

2012, "Entomological Society of America (Thousand Cankers Symposium) - "The Discovery of Thousand Cankers and Pathways to the World"".

2012, "Entomological Society of America, National Meeting (Amenity Plants Symposium) - "Thousand Cankers Disease: An Unusual - and Lethal - Collaboration between Insects and Pathogens"".

2012, "New Zealand Entomological Society (Canterbury Region) - "Nightmare on Walnut Street; Thousand Cankers as an Emergent Threat to Juglans"".

2012, "Southern Forest Insect Work Conference (Charlottesville, VA) - "Thousand Cankers: Overview and Origins"".

2011, "Cranshaw, W.S. 2011. Pest management challenges in production of medical marijuana in Colorado. Annual Meeting, Entomological Society of America. Reno, NV.".

2011, "Cranshaw, W.S. Evaluations of trapping methods for pest vespids. 2011 Meeting NCB-ESA. Minneapolis, MN".

2011, "Invited by graduate student association of the ESA-NCB to give presentation on subject "Appreciation and Augmentation of Backyard Insect Life". Meeting was in coordination with the NCB-ESA meeting in Minneapolis, MN".

2011, "Invited to speak at the Western Forest and Conservation Nursery Conference & IPM workshop. Subject was integrated pest management of insects and mites in nurseries."

2011, "McEwen, C. L. and W.S. Cranshaw. 2011. Effects of field applications of methyl jasmonate on field pests of crucifers. Annual Meeting, Entomological Society of America. Reno, NV."

2011, "Nightmare on Walnut Street - Thousand Cankers Disease as an Emergent Threat to Juglans. Presented to the Department of Entomology, University of Minnesota, St. Paul Campus".

2011, "Peachey, E.K., N. Tisserat, and W. Cranshaw. Effect of freezing temperatures on survival of the walnut twig beetle (*Pityophthorus juglandis*) 2011 ESA National Meeting. Reno, NV".

2011, "Peachey, E.K., N. Tisserat, and W. Cranshaw. Attraction of walnut twig beetle adults and larvae to the fungus *Geosmithia morbida*. 2011 ESA National Meeting, Reno, NV".

2011, "Regional Issues Affecting Plant Pests in the Rocky Mountain States. Invited speaker to the Continental Dialogue on Non-Native Forest Insects and Diseases, a national umbrella organization. In addition to presentation, also assisted Ned Tisserat with field trip to observe local forest health issues, particularly thousand cankers disease. The 2012 meeting was held in Boulder."

**TEACHING:**

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2016	Spring	BSPM799 - Dissertation	18	4
2016	Spring	BSPM356A - Horticultural Entomology Introduction	1	2
2016	Spring	BSPM356B - Horticultural Entomology: Food Crops	1	1
2016	Spring	BSPM356C - Horticultural Entomology: Landscape Plants	1	1
2016	Spring	BSPM102 - Insects, Science, and Society (GT-SC2)	3	230
2016	Spring	BSPM698 - Research	18	12
2016	Spring	BSPM798 - Research	18	14
2016	Spring	BSPM699 - Thesis	18	4
2015	Fall	BSPM799 - Dissertation	18	6
2015	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	19
2015	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	28
2015	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	15
2015	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	264
2015	Fall	BSPM698 - Research	18	10
2015	Fall	BSPM798 - Research	18	9
2015	Fall	BSPM699 - Thesis	18	6
2015	Spring	BSPM798 - Research	18	9
2014	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	15
2014	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	28
2014	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	18
2014	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	261
2014	Fall	BSPM698 - Research	18	10
2014	Fall	BSPM798 - Research	18	8
2014	Spring	HORT495 - Independent Study	18	8
2013	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	17
2013	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	26
2013	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	15
2013	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	266
2013	Summer	BSPM699 - Thesis	18	2
2013	Spring	BSPM699 - Thesis	18	6
2012	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	19
2012	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	32
2012	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	23
2012	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	267
2012	Fall	BSPM798 - Research	18	10
2011	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	30
2011	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	32
2011	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	27
2011	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	270
2011	Summer	BSPM699 - Thesis	18	1
2011	Spring	BSPM698 - Research	18	12
2011	Spring	BSPM699 - Thesis	18	4
2010	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	27
2010	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	27
2010	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	28
2010	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	262
2010	Fall	BSPM698 - Research	18	18
2009	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	16
2009	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	25
2009	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	26



2009	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	275
2009	Fall	BSPM698 - Research	18	9
2008	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	18
2008	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	29
2008	Fall	BSPM303B - Entomology Laboratory-Horticultural	1	24
2008	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	247
2007	Fall	BSPM303B - Entomology Laboratory: Horticultural	1	22
2007	Fall	BSPM303B - Entomology Laboratory: Horticultural	1	30
2007	Fall	BSPM303B - Entomology Laboratory: Horticultural	1	12
2007	Fall	BSPM495 - Independent Study	3	3
2007	Fall	BSPM510 - Insect-Plant Disease Relationships	3	9
2007	Fall	BSPM102 - Insects, Science, and Society (GT-SC2)	3	250
2007	Fall	BSPM384 - Supervised College Teaching	3	2
2007	Fall	BSPM584 - Supervised College Teaching	3	3

### Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2015	Fall	BSPM592 - Fundamentals of BSPM		Face to Face
2015	Fall	BSPM365 - Integrated Tree Health Management	8	
2015	Fall	BSPM302 - Introductory Entomology	2	Face to Face
2015	Spring	BSPM530 - Scientific Writing		Face to Face
2014	Fall	BSPM303A - Agronomic Entomology	2	

### EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS

#### Field Day

Master Gardener Field Day. Adult, Rexburg, Idaho. Number of times program was made: 1. Total number of participants: 32. Percent Responsible: 25%. 2nd Quarter 2014.

#### Presentation

Emerald ash borer. Adult, Loveland, Colorado. Number of times program was made: 1. Total number of participants: 45. Percent Responsible: 100%. 1st Quarter 2014.

Landscaping for Insects - or Not. Adult, Grand Junction, Colorado. Number of times program was made: 1. Total number of participants: 45. Percent Responsible: 100%. 1st Quarter 2014.

Onion Insect Management. Adult. Number of times program was made: 1. Total number of participants: 35. Percent Responsible: 100%. 1st Quarter 2014.

Talk on ornamental insects, talk on nuisance invader species of homes. Adult, Grand Junction, Colorado. Number of times program was made: 1. Total number of participants: 200. Percent Responsible: 100%. 1st Quarter 2014.

Three presentations related to shade tree insects. Adult, Butte, Montana. Number of times program was made: 1. Total number of participants: 150. Percent Responsible: 100%. 1st Quarter 2014.

Two presentations related to shade tree insects. Adult, Kansas City, Kansas. Number of times program was made: 1. Total number of participants: 350. Percent Responsible: 100%. 1st Quarter 2014.

Update on Insects. Adult, Denver, Colorado. Number of times program was made: 1. Total number of participants: 250. Percent Responsible: 100%. 1st Quarter 2014.

Emerald ash borer/Thousand cankers disease - updates. Adult, Sterling. Number of times program was made: 1. Total number of participants: 45. Percent Responsible: 100%. 2nd Quarter 2014.

Review of Insecticide Classes. Adult, Laramie, Wyoming. Number of times program was made: 1. Total number of participants: 24. Percent Responsible: 100%. 2nd Quarter 2014.

Tale of Ten Insects. Adult, Fort Collins, Colorado. Number of times program was made: 1. Total number of participants: 25. Percent Responsible: 100%. 2nd Quarter 2014.

Thousand Cankers Disease. Adult. Number of times program was made: 1. Total number of participants: 35. Percent Responsible: 40%. 2nd Quarter 2014.

Update on Emerald Ash Borer. Adult, Fort Collins, Colorado. Number of times program was made: 1. Total number of participants: 165. Percent Responsible: 100%. 2nd Quarter 2014.

Update on Garden Insects. Adult, Littleton, Colorado. Number of times program was made: 1. Total number of participants: 15. Percent Responsible: 100%. 2nd Quarter 2014.

Update on Shade Tree Insects. Adult. Number of times program was made: 1. Percent Responsible: 100%. 3rd Quarter 2014.

Lessons Learned from Emerald Ash Borer. Adult. Number of times program was made: 1. Total number of participants: 250. Percent Responsible: 100%. 4th Quarter 2014.

Lessons Learned from Emerald Ash Borer. Adult, Denver. Number of times program was made: 1. Total number of participants: 45. Percent Responsible: 100%. 4th Quarter 2014.

Recognizing and Working with Insect Natural Enemies. Adult, Media, Pennsylvania. Number of times program was made: 1. Total number of participants: 250. Percent Responsible: 100%. 4th Quarter 2014.

Two talks on shade tree and ornamental insects. Adult, Grand Junction. Number of times program was made: 1. Total number of participants: 125. Percent Responsible: 100%. 4th Quarter 2014.

### **Workshop**

Master Gardener Training - Arapahoe and Douglas Counties. Adult, Castle Rock. Number of times program was made: 1. Total number of participants: 75. Percent Responsible: 100%. 1st Quarter 2014.

Master Gardener Training - Chaffee and Gunnison Counties. Adult. Number of times program was made: 1. Total number of participants: 18. Percent Responsible: 100%. 1st Quarter 2014.

Master Gardener Training - Denver, Jefferson, Broomfield Counties. Adult. Number of times program was made: 1. Total number of participants: 85. Percent Responsible: 100%. 1st Quarter 2014.

Master Gardener Training - Eagle, Summit, Grand Counties. Adult. Number of times program was made: 1. Total number of participants: 28. Percent Responsible: 100%. 1st Quarter 2014.

Master Gardener Training - El Paso, Pueblo and Teller Counties. Adult. Number of times program was made: 1. Total number of participants: 65. Percent Responsible: 100%. 1st Quarter 2014.

Master Gardener Training - La Plata, Montezuma, Archuleta Counties. Adult. Number of times program was made: 1. Total number of participants: 70. Percent Responsible: 100%. 1st Quarter 2014.

Master Gardener Training - Larimer, Adams, Weld, Boulder Counties. Adult, Loveland. Number of times program was made: 1. Total number of participants: 45. Percent Responsible: 100%. 1st Quarter 2014.

Review of Colorado Bees and Wasps. Adult, Longmont, Colorado. Number of times program was made: 1. Total number of participants: 22. Percent Responsible: 100%. 1st Quarter 2014.

Thousand Cankers Disease. Adult, Wisconsin. Number of times program was made: 1. Total number of participants: 250. Percent Responsible: 100%. 1st Quarter 2014.

Turfgrass Insects, Forest Insects. Adult. Percent Responsible: 100%. 1st Quarter 2014.

Two talks on household insect pests. Adult. Number of times program was made: 1. Total number of

participants: 120. Percent Responsible: 100%. 1st Quarter 2014.

Update on Emerald Ash Borer. Adult, Greeley, Colorado. Number of times program was made: 1. Total number of participants: 150. Percent Responsible: 100%. 1st Quarter 2014.

Entomology for Retail Outlets. Adult, Fort Collins, Colorado. Number of times program was made: 1. Total number of participants: 12. Percent Responsible: 75%. 2nd Quarter 2014.

Idaho County Agent Training - Entomology. Adult, Rexburg, Idaho. Number of times program was made: 1. Total number of participants: 25. Percent Responsible: 50%. 2nd Quarter 2014.

Insects Updates. Adult, Pueblo. Number of times program was made: 1. Total number of participants: 45. Percent Responsible: 100%. 2nd Quarter 2014.

Pollinators and Neonicotinoid Insecticides. Adult, Golden. Number of times program was made: 1. Total number of participants: 45. Percent Responsible: 100%. 2nd Quarter 2014.

Review of Bees and Wasps. Adult, Cheyenne, Wyoming. Number of times program was made: 1. Total number of participants: 75. Percent Responsible: 100%. 3rd Quarter 2014.

Review of Colorado Bees and Wasps. Adult. Number of times program was made: 1. Total number of participants: 28. Percent Responsible: 100%. 4th Quarter 2014.

Update on Emerald Ash Borer. Adult. Number of times program was made: 1. Total number of participants: 20. Percent Responsible: 100%. 4th Quarter 2014.

## **COMMITTEES**

Gillette Entomology Club Advisor.

Advisory Committee, (2010 - Present).

Gillette Entomology Club, (2010 - Present).

(2012).

(2012).

Gillette Entomology Club Advisor, (1990 - Present).

Advisory Committee, (2010 - 2012).

## **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

Colorado Association of Arborists and Lawn Care Professionals. (1988 - Present).

Entomological Society of America. (1977 - Present).

Channel 9 News. (May 2014).

Colorado Public Radio. (May 2014).

Chairperson, Entomological Society of America - Common Names Committee. (November 2012 - November 2015).

## **OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH**

Government, European and Mediterranean Plant Protection Organization (EPPO), Paris, France. (August 2014 - December 2014).

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