

# CURRICULUM VITAE

## NAME

Jacobi, William R

## ADDRESS

Plant Sciences

## PHONE

(970) 491-6927

## EDUCATION

1979 Ph D, N CAROLINA ST U

1976 MS, W VIRGINIA UNIV

1973 BS, SUNY COLLEGE

## OTHER POSITIONS

1995 - Present Professor, Colorado State University.

2002 Sabbatical, CSU.

1986 - 1994 Associate Professor, Colorado State University.

1989 - 1990 Sabtactical, Forestry Canada Victorie BC.

1980 - 1985 Assistant Professor, Colorado State University.

## PUBLISHED WORKS

### **Refereed Journal Articles**

Klutsch, J. G., Beam, R. D., Jacobi, W. R., Negron, J. F. (2014). Bark beetles and dwarf mistletoe interact to alter downed woody material, canopy structure, and stand characteristics in northern Colorado ponderosa pine. *Forest Ecology and Management*, 315, 63-71.

Kearns, H. S. J., Jacobi, W. R., Reich, R. M., Flynn, R. L., Burns, K. S., Geils, B. W. (2014). Risk of white pine blister rust to limber pine in Colorado and Wyoming, USA. *Forest Pathology*, 44, 21-38.

Jacobi, W. R. (2013). Dutch elm disease pathogen transmission by the banded elm bark beetle. *Forest Pathology (Submitted)*.

Costello, S. L., Jacobi, W. R., Negron, J. F. (2013). Emergence of Burprestidae, Cerambycidae, and Scolytinae (Coleoptera) from mountain pine beetle-killed and fire-killed ponderosa pine in the Black Hills, South Dakota, USA. *The Coleopterists Bulletin*, 67, 149-154.

(2012). Retail firewood can transport live tree pests. *Journal of Economic Entomology*, 105, 1645-1658.

(2011). Dissemination of forest health research information in the Rocky Mountains. *Journal of Forestry*, 109(1), 43-49.

(2011). Firewood transport by National and State Park campers: A risk for native and exotic tree pest movement.

*Arboriculture and Urban Forestry*, 37, 126-138.

- (2011). Foliar damage, ion content, and mortality rate of five common roadside tree species treated with soil applications of magnesium chloride. *Water, Air, & Soil Pollution*, 223, 847-862.
- (2011). Pruning to manage white pine blister rust in the southern Rocky mountains. *USDA Forest Service, Rocky Mountain Res Station Res Note RMRS-RN-44*.
- (2011). Relationship of site and stand characteristics to Armillaria root disease incidence on ponderosa pine in the Black Hills. *Forest Pathology*- doi: 10.1111/j.1439-0329.2011.00736.x.
- (2011). Wood-boring insect abundance in fire-injured ponderosa pine. *Agriculture and Forest Entomology DOI: 10.1111/j/1461-9563.2011.00531.x*.
- (2010). Forest thinning and subsequent bark beetle-caused mortality in Northeastern California. *Forest Ecol Management doi:10.1016/j.foreco.2010.08.030*.
- (2009). A method for estimating white pine blister rust canker age on limber pine in the central Rocky Mountains. *Forest Pathol*, 39, 177-191.
- (2009). Condition of Soils and Vegetation Along Roads Treated with Magnesium Chloride for Dust Suppression. *Water Air Soil Poll*, 198, 165-188.
- (2009). Monitoring Surface Water Chemistry Near Magnesium Chloride Dust Suppressant Treated Roads in Colorado. *J Environ Qual*, 38, 2373-2381.
- (2008). Black stain root disease progression in coastal Douglas-fir in British Columbia. *Can J Plant Pathol*, 30, 339-344.
- (2008). Distribution of Ribes, an alternate host of white pine blister rust, in Colorado and Wyoming. *J Torrey Bot Soc*, 135, 423-437.
- (2008). Roadside vegetation health condition and Magnesium Chloride (MgCl<sub>2</sub>) dust suppressant use in two Colorado counties. *Arboriculture and Urban Forestry*, 34, 252-259.
- (2008). Traps and attractants for wood-boring insects in ponderosa pine stands in the Black Hills, South Dakota. *J Econ Entomol*, 101, 409-420.
- (2007). Association of Ophiostoma novo-ulmi with Scolytus schevyrewi (Scolytidae) in Colorado. *Plant Dis*, 91, 245-247.
- (2007). The distribution and incidence of white pine blister rust in central and southeastern Wyoming and northern Colorado. *Can J Forest Res*, 37, 462-472.
- (2007). Vectoring capabilities of the banded elm bark beetle (Scolytus schevyrewi Semenov) in relation to the Dutch elm disease fungus (Ophiostoma novou-ulmi Brasier) in Colorado. *Phytopathology*, 97, S59-S59.
- (2006). Stand characteristics and fuel loads in ponderosa pine infested with southwestern dwarf mistletoe in Colorado's Northern Front Range. *Phytopathology*, 96, S62-S62.
- (2005). Impacts of black stain root disease in recently formed mortality centers in the pinon-juniper woodlands of southwestern Colorado. *Can J Forest Res*, 35, 461-471.
- (2005). Persistence of pinyon pine snags and logs in southwestern Colorado. *West J Appl For*, 20, 247-252.

- (2004). Symptom expression in conifers infected with *Armillaria ostoyae* and *Heterobasidion annosum*. *Can J Forest Res*, 34, 1210-1219.
- (2004). Tree pathogen survival in chipped wood mulch. *J Arboriculture*, 30, 165-171.
- (2003). Forest pathology for the last century. *Phytopathology*, 93, 1037-1038.
- (2003). Insects associated with black stain root disease centers in pinyon pine stands. *Southwest Entomol*, 28, 55-61.
- (2003). Modeling the probability of observing *Armillaria* root disease in the Black Hills. *Forest Pathol*, 33, 241-252.
- (2002). Frequency of comandra blister rust infection episodes on lodgepole pine. *USDA For Serv Rocky Mt Res Station Res Pap RMRS-RP-36*, 13 p.
- (2001). Estimating large-root biomass from breast-height diameters for ponderosa pine in northern New Mexico. *Western J Applied Forestry*, 16, 18-21.
- (2000). Condition of green ash, incidence of ash yellows phytoplasmas, and their association in the Great Plains and Rocky Mountain regions of North America. *Plant Dis*, 84, 268-274.
- (2000). First report of white pine blister rust in Colorado. *Plant Disease*, 84, 595N.
- (2000). Pathogenicity of *Cytospora* fungi and six hardwood species. *J Arboriculture*, 26, 326-332.
- (1998). *Cytospora* canker development on aspen in response to nitrogen fertilization. *J Arboriculture*, 24, 28-34.
- (1998). Environmental conditions and aspen regeneration failure. *USDA, For Serv Rocky Mt Reg, For Health Management, Tech Rep R2-60* 24pp..
- (1996). Effects of environmental stress on the development of *Cytospora* canker of aspen. *Plant Dis*, 80, 1320-1326.
- (1996). Factors affecting *Cytospora* canker occurrence on aspen. *J Arboriculture*, 22, 229-233.
- (1995). Variation in pathogenicity and virulence of isolates of *Armillaria ostoyae* on eight tree species. *Plant Dis*, 79, 939-944.
- (1993). Effects of Comandra Blister Rust on Growth and Survival of Lodgepole Pine. *Phytopathology*, 83, 638-644.
- (1993). Insects emerging from lodgepole pine infected with Comandra blister rust. *USDA For Serv Research Note RM-159*, 3 pp.
- (1993). Predicting the Incidence of Comandra Blister Rust on Lodgepole Pine - Site, Stand, and Alternate-Host Influences. *Phytopathology*, 83, 630-637.
- (1992). Potential insect vectors of the black stain root disease pathogen on southern Vancouver Island. *J Ent Soc Brit Columbia*, 89, 54-56.
- (1992). Seasonal effects on wound susceptibility and canker expansion on honeylocusts inoculated with *Thyronectria austro-americana*. *J Arboriculture*, 18, 288-293.

- (1991). Fungi associated with sprout mortality in aspen clear cuts. *USDA For Serv Research Note RM 513*, 5 pp.
- (1990). Anatomy and Chemistry of Aspen Branches Afflicted with Drooping Aspen Disease. *Can J Plant Pathol*, 12, 158-163.
- (1990). Development of Comandra Blister Rust on Lodgepole Pine. *Can J Forest Res*, 20, 159-165.
- (1989). Ecology of Comandra-Umbellata (Santalaceae) in Western Wyoming. *Great Basin Nat*, 49, 650-655.
- (1989). Effects of Water-Stress on Thyronectria Canker of Honeylocusts. *Phytopathology*, 79, 1333-1337.
- (1989). Resistance of Honeylocust Cultivars to Thyronectria Austro-Americana. *Plant Dis*, 73, 805-807.
- (1987). Factors Affecting Infection of Aspen by Cytospora-Chrysosperma. *Phytopathology*, 77, 1726- 1726.
- (1987). Frequency and Severity of Ponderosa Pine Dwarf Mistletoe in Relation to Habitat Type and Topography in Colorado. *Plant Dis*, 71, 342-344.
- (1986). Growth and Mortality Effects of Dwarf Mistletoe on Uneven-Aged Ponderosa Pine Stands in Colorado. *Phytopathology*, 76, 1113-1113.
- (1984). Analysis of disease progression and the randomness of occurrence of infected plants during tobacco black shank epidemics. *Phytopathology*, 74, 230-235.
- (1984). Incidence and Severity of Comandra Blister Rust on Lodgepole Pine in Northwestern Wyoming. *Plant Dis*, 68, 1049-1051.
- (1984). Optimal Conditions for Invitro Growth, Asexual Spore Release, and Germination of Thyronectria-Austro-Americana. *Phytopathology*, 74, 566-569.
- (1984). Ozone Effects on Seedlings of Rocky-Mountain Ponderosa Pine. *Plant Dis*, 68, 398-401.
- (1984). Relative Susceptibility of 4 Honeylocust Cultivars to Thyronectria Austro-Americana. *Phytopathology*, 74, 841-841.
- (1983). Effects of Comandra Blister Rust and Dwarf Mistletoe on Cone and Seed Production of Lodgepole Pine. *Plant Dis*, 67, 215-217.
- (1983). Influence of temperature and rainfall on the development of tobacco black shank. *Phytopathology*, 73, 139-143.
- (1982). Growth medium for dual cultures of loblolly pine callus and Cronartium fusiforme. *Phytopathology*, 72, 136-138.
- (1982). Inhibition of Cronartium fusiforme by loblolly pine callus. *Phytopathology*, 72, 143-146.
- (1982). Microscopy of cultured loblolly pine callus and seedlings inoculated with Cronartium fusiforme. *Phytopathology*, 72, 138-143.
- (1981). Multiresource inventories: Procedures for assessing the damage caused by insects and diseases. *USDA Forest Service, Res Pap SE221*.
- (1980). Colonization of resistant and susceptible oaks by Ceratocystis fagacearum. *Phytopathology*, 70, 618-623.

(1980). Disease losses in North Carolina forests: III Rationale and recommendations for future cooperative survey efforts 1973-74. *Plant Disease*, 64, 579-581.

(1980). Disease losses in North Carolina forests: Losses in hardwoods 1973-74. *Plant Disease*, 64, 576-578.

(1980). Disease losses in North Carolina forests: Losses in softwoods 1973-74. *Plant Disease*, 64, 573-576.

### **Non-Refereed Journal Articles**

Dudley, M. M., Jacobi, W. R., Brown, C. S. Sodium chloride and magnesium chloride effects on the germination of fifteen native grasses and forbs. *Journal of Water, Air, and Soil Pollution*.

(2008). White Pine Blister Rust in the Rocky Mountain Region and Options for Management. *Gen Tech Rep RMRS-GTR-206 Fort Collins, CO: USDA Forest Service, Rocky Mountain Research Station*.

(1990). Comparisons between aspen harvest units with and without adequate resprouting in the Rocky Mountain Region. *USDA For Serv Rocky Mt Region, Tech Rept R2-46, 38 pp*.

(1987). Comandra blister rust: A threat to lodgepole pine. *Management of Subalpine Forests: Building on 50 years of Research; USDA For Serv Gen Tech Rept RM-148, 253 pp*.

(2010). *Improving the performance of roadside vegetation*. study no: 41.71 Colorado Dept of Transportation Report No. 2010 58pp.

(2010). *Improving the performance of roadside vegetation*. study no: 41.71, Colorado Dept of Transportation Report No. 2010 58pp.

(2010). *Monitoring Limber Pine Health in the Rocky Mountains* , (INT- EM-06-03). Final report USDA Forest Service, Forest Health Management, Region 2, 41pp.

(2009). *Environmental effects of magnesium chloride based dust suppression products on roadside soils, vegetation and stream water chemistry*. Colorado State University, Agricultural Experiment Station, Technical Report, TR09-04, 185pp.

(1985). *Investigation into the health of forest in the vicinity of Gothic, CO*. Environmental Protection Agency EPA-908/9-85/001 69 pp.

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

2012, "Cleaver, C.M., Jacobi, W.R., Burns, K.S., Blodgett, J.T., and Means, R.E.

2012. Assessing limber pine stand conditions after white pine blister rust and mountain pine beetle outbreaks in the central and southern Rocky Mountains. Wyoming Landscape Conservation Initiative. May 15-17, 2012. Rock Springs, WY."

2012, "Cleaver, C.M., Jacobi, W.R., Burns, K.S., Blodgett, J.T., and Means, R.E.

2012. Assessing limber pine stand conditions after white pine blister rust and mountain pine beetle outbreaks in the central and southern Rocky Mountains. Central Rockies White Pine Health Working Group Meeting. April 10, 2012. Fort Collins, CO. [Oral Presentation]".

2012, "Cleaver, C.M., Jacobi, W.R., Burns, K.S., Blodgett, J.T., and Means, R.E. 2012. Assessing limber pine stand conditions after white pine blister rust and mountain pine beetle outbreaks in the central and southern Rocky Mountains. Western International Forest Disease Work Conference. October 8-12, 2012. Tahoe City, CA. [Oral and Poster Presentation]".

2012, "Jacobi, W. R. 2012. Diseases and insect management in a changing climate. Greeley Winter Tree Care Workshop, CO Feb. 2012".

2012, "Jacobi, W. R. 2012. Emerald ash bore and firewood management. Pesticide applicator workshop. Parker CO Nov. 2012".

2012, "Jacobi, W. R. 2012. Pine wilt nematode management. ISA Rocky Mt Annual Meeting, Fort Collins, CO Oct. 2012".

2011, "Cleaver, C.M. 2011. Assessing limber pine stand conditions after white pine blister rust and mountain pine beetle outbreaks in the central Rocky Mountains. Western International Forest Disease Work Conference. October 10-14, 2011. Leavenworth, WA. [Oral Presentation]".

2011, "Dudley, M. M. "Aspen Damage in the Colorado Rocky Mountain Region: Preliminary Results". February 9th, 2011. Front Range Student Ecology Symposium, student presentation, Fort Collins, CO".

2011, "Dudley, M. M. "Aspen Health in Four National Forests in Colorado and Southern Wyoming". July 25th, 2011. Bioagricultural Science and Pest

Management department, M.S. defense seminar, Fort Collins, CO."

2011, "Jacobi, W. R. 2011. Research update. NCERA 193 meeting Austin TX."

2011, "Jacobi, W. R. 2011. Insect and disease issues of woody plants. Short Course CSU and GreenCO. July 15, 2011."

2011, "Jacobi, W. R. 2011. Research update. Great Plains Tree Pest Council. Cheyenne WY".

2011, "Jacobi, W. R. 2011. Do western campers bring out of state firewood to state and national park campgrounds? 22nd USDA Interagency Research Forum on Invasive Species. Annapolis MD January 11-14, 2011".

2011, "Jacobi, W. R. 2011. Firewood and exotic pest movement. Progreen, Denver, CO Feb. 2011".

2011, "Jacobi, W. R. 2011. Pruning to protect high value white pines. Central Rockies White Pine Health Working Group. April 2011, Fort Collins, CO."

2011, "Mercado, J. E. 2011. Lucid Key, bark beetle genera of North America (Curculionidae: Scolytinae). The North American Forest Insect Work Conference (NAFIWC), May 9-12, 2011. [Poster presentation]."

2011, "Mercado, J. E. 2011. Revision of the New World Hylurgops LeConte (Curculionidae: Scolytinae). The North American Forest Insect Work Conference (NAFIWC), May 9-12, 2011. [Poster presentation]."

2011, "West, D.R. 2011. Mountain pine beetle in the Front Range: implications for lodgepole and ponderosa pine. Northern Front Range Mountain Pine Beetle Working Group, Boulder, CO. USFS. February 15, 2011. [Professional Presentation]".

2010, "Casper, A., Jacobi W.R., Schoettle, A.W., and K.S. Burns 2010.

Restoration Planting Options for Limber Pines Impacted by Mountain Pine Beetles and/or White Pine Blister Rust in the Southern Rocky Mountains. Central Rocky Mountains White Pine Health Working Group. April 21, 2010. Ft. Collins, Colorado[Oral presentation]".

2010, "Casper, A., Jacobi W.R., Schoettle, A.W., and K.S. Burns 2010. Restoration Planting Options for Limber Pines Impacted by Mountain Pine Beetles and/or White Pine Blister Rust in the Southern Rocky Mountains. Front Range Student Ecology Symposium. February 24, 2010. Ft. Collins, Colorado."

2010, "Casper, A., Jacobi W.R., Schoettle, A.W., and K.S. Burns 2010. Restoration Planting Options for Limber Pine in Colorado and Wyoming. Western International Forest Disease Work Conference - October 4-8, 2010. Valemount, BC, Canada. [Oral presentation]".

2010, "Casper, A., Jacobi W.R., Schoettle, A.W., and K.S. Burns 2010. Restoration planting options for limber pines in the Southern Rocky Mountains. "High-Five" Symposium: The Future of High-Elevation Five-Needle White Pines in Western North America - June 28-30, 2010. Missoula, Montana. [Oral presentation]".

2010, "Dudley, M. M. and Jacobi, W.R., 2010. Improving the Performance of Roadside Vegetation Impacted by Winter Maintenance. 2010. Front Range Student Ecology Symposium, student presentation. Fort Collins, CO. February 19th, 2010".

2010, "Dudley, M. M. and Jacobi, W.R., 2010. Improving the Performance of Roadside Vegetation Impacted by Winter Maintenance. ProGreen EXPO, Horticultural trade show. Denver Convention Center, Denver, CO. Feb 12th, 2010."

2010, "Dudley, M. M. Jacobi, W.R., and K.S. Burns 2010. Aspen Damage in the



Colorado Rocky Mountain Region:  
Preliminary Results  
2010 WIFDWC. Valemount, British  
Columbia, Canada. October 7th, 2010".

2010, "Jacobi, W. R. 2010. Research update.  
NCERA 193 meeting North Carolina".

2010, "Jacobi, W. R. 2010. Diagnosing canker  
diseases. Great Plains Tree Pest  
Council, Nebraska".

2010, "Jacobi, W. R. 2010. Research update.  
Great Plains Tree Pest Council.  
Nebraska".

2010, "Jacobi, W. R., Cleaver, C.M., Hardin  
J.A. and Goodrich B.A , 2010.  
Firewood as a potential pathway for  
native or exotic forest pest species in  
the southern rocky mountain. s In the  
proceedings of the 2010 Western Forest  
Insect Work Conference, Poster Abstrt".

2010, "Jacobi, W.R. 2010. Protecting trees  
during construction. Idaho  
Horticulture Expo. Jan 22, 2010".

2010, "Jacobi, W.R. 2010. Diagnosing tree  
issues, Plant Healthcare Workshop.  
International Society of  
Arboriculture. Fort Collins".

2010, "Jacobi, W.R. 2010. The impacts on  
trees from the long-term use of salt.  
Idaho Horticulture Expo. Jan 22, 2010.".

2010, "Jacobi, W.R. 2010. Diagnose abiotic  
causes from fungi and insect/mite  
damages. Colorado Association of Lawn  
Care Professionals. Spring Training  
Conference, March 2,3, 2010. Denver  
Colorado.".

2010, "Jacobi, W.R. 2010. Does the cutting  
and movement of firewood spread tree  
pests? Seminar, Dept of Soil and Crop  
Sciences, Colorado State University,  
March 4, 2010.".

2010, "Jacobi, W.R., Goodrich, B.A., Smith,  
E.L., Guyon J, Hoffman, J., Kearns,  
H.S.J., Steed, B.E., Cluck, D.,  
Fairweather, M.L., Geils, B.W.,

Worrall, J., Blodgett, J.T. and Shaw, C.G. 2010. Rapid Threat Assessment of Aspen Health Data in Western U.S.- An Update. In the Proceedings of the 58th Annual Western International Forest Disease Working Conference. October 4-8. Valemount, BC, Canada (Abstr".

2010, "Jacobi, W.R., Goodrich, B.A., Kearns, H.S.J., Burns, K.S. and B. Geils. 2010. Can micro-scale meteorological conditions predict the impact of white pine blister rust in Colorado and Wyoming? High-Five Symposium: The Future of High-Elevation Five-Needle White Pines in Western North America. June 28, 2010. Missoula, Montana".

2010, "West, Daniel R., Jose F. Negron, Sheryl L. Costello, William R. Jacobi. 2010. Mountain pine beetle-caused lodgepole mortality from the 1980's and subsequent fire occurrence in Colorado. In 61st Annual Forest Insects Work Conference Proceedings. 2010 April 5-8, Flagstaff, AZ. [abstract".

**TEACHING:**

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2013	Fall	BSPM699 - Thesis	18	4
2013	Spring	BSPM799 - Dissertation	18	6
2013	Spring	BSPM495 - Independent Study	3	9
2013	Spring	BSPM530 - Scientific Writing	1	8
2013	Spring	SOCR530 - Scientific Writing	1	7
2013	Spring	ECOL699 - Thesis	18	12
2012	Fall	BSPM799 - Dissertation	18	5
2012	Fall	BSPM495 - Independent Study	3	6
2012	Fall	BSPM365 - Integrated Tree Health Management	4	42
2012	Fall	BSPM365 - Integrated Tree Health Management-Lab	0	21
2012	Fall	BSPM365 - Integrated Tree Health Management-Lab	0	21
2012	Fall	BSPM698 - Research	18	7
2012	Fall	BSPM798 - Research	18	10
2012	Spring	BSPM698 - Research	18	10
2012	Spring	BSPM798 - Research	18	6
2012	Spring	ECOL698 - Research	18	58
2012	Spring	BSPM530 - Scientific Writing	1	6
2012	Spring	SOCR530 - Scientific Writing	1	9
2011	Fall	BSPM594 - Independent Study	3	1
2011	Fall	BSPM365 - Integrated Tree Health Management	4	37
2011	Fall	BSPM365 - Integrated Tree Health Management - Lab	0	19
2011	Fall	BSPM365 - Integrated Tree Health Management-Lab	0	18
2011	Fall	BSPM698 - Research	18	9
2011	Fall	BSPM798 - Research	18	8

2011	Fall	BSPM784 - Supervised College Teaching	3	2
2011	Spring	BSPM594 - Independent Study	3	3
2011	Spring	BSPM698 - Research	18	12
2011	Spring	BSPM798 - Research	18	12
2011	Spring	BSPM530 - Scientific Writing	1	6
2011	Spring	SOCR530 - Scientific Writing	1	5
2011	Spring	BSPM699 - Thesis	18	4
2010	Fall	BSPM521 - Forest Health Issues	3	12
2010	Fall	BSPM365 - Integrated Tree Health Management	4	30
2010	Fall	BSPM365 - Integrated Tree Health Management - Lab	0	11
2010	Fall	BSPM365 - Integrated Tree Health Management-Lab	0	19
2010	Fall	BSPM698 - Research	18	18
2010	Fall	BSPM798 - Research	18	12
2010	Fall	BSPM699 - Thesis	18	3
2010	Spring	BSPM596 - Group Study - Scientific Writing	3	7
2010	Spring	BSPM698 - Research	18	14
2010	Spring	BSPM699 - Thesis	18	6
2009	Fall	BSPM495 - Independent Study	3	2
2009	Fall	BSPM365 - Integrated Tree Health Management	4	29
2009	Fall	BSPM365 - Integrated Tree Health Management - Lab	0	8
2009	Fall	BSPM365 - Integrated Tree Health Management-Lab	0	21
2009	Fall	BSPM698 - Research	18	9
2009	Fall	BSPM784 - Supervised College Teaching	3	1
2009	Fall	BSPM699 - Thesis	18	7
2009	Spring	SOCR796 - Group Study	18	14
2009	Spring	BSPM698 - Research	18	8
2008	Fall	BSPM521 - Forest Health Issues	2	8
2008	Fall	BSPM365 - Integrated Tree Health Management	4	27
2008	Fall	BSPM365 - Integrated Tree Health Management-Lab	0	16
2008	Fall	BSPM365 - Integrated Tree Health Management-Lab	0	11
2008	Fall	BSPM698 - Research	18	8
2008	Fall	BSPM584 - Supervised College Teaching	3	2
2008	Spring	BSPM698 - Research	18	4
2007	Fall	BSPM365 - Integrated Tree Health Management	4	36
2007	Fall	BSPM365 - Integrated Tree Health Management-Laboratory	0	14
2007	Fall	BSPM365 - Integrated Tree Health Management-Laboratory	0	22
2007	Fall	BSPM487 - Internship	18	1
2007	Fall	BSPM698 - Research	18	12
2007	Fall	BSPM584 - Supervised College Teaching	3	3
2007	Fall	BSPM699 - Thesis	18	5

## **EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS**

### **Field Day**

White pine blister rust. Laramie, WY. Number of times program was made: 1. Total number of participants: 50. Percent Responsible: 100%. 2013.

### **Presentation**

Aspen mortality across western NA. Waterton Lakes. Number of times program was made: 1. Total number of participants: 50. Percent Responsible: 100%. 2013.

National Elm Trial and Research Update. Santa Barbara CA, CA. Number of times program was made: 1. Total number of participants: 14. Percent Responsible: 100%. 2013.

Pine wilt Disease. Denver, CO. Number of times program was made: 1. Total number of participants: 100. Percent Responsible: 100%. 2012.

## **COMMITTEES**

Education, (August 2012 - May 2014).

## **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

Colorado Firewood Task Force. (2008 - 2012).

Western Forest Insect Work Conference. (2005 - 2012).

Central Rocky Mountains White Pine Health Working Group. (2000 - 2012).

NCERA 193. (1990 - 2012).

W 1187. (1990 - 2012).

Great Plains Tree Pest Council. (1980 - 2012).

Western International Tree Disease Workshop. (1980 - 2012).

ISA. (1990 - 2010).

Forest Health Discussion Group. (1980 - 2010).

APS. (1979 - 2010).

Reviewer, Ad Hoc Reviewer, crop protection. (2011 - Present).

Forest Ecology and Management (1). (2010 - Present).

Plant Disease. (2010 - Present).

Member, Education. (2012 - 2014).

Member, Colorado Firewood Task Force. (2008 - 2012).

Member, Western Forest Insect Work Conference. (2005 - 2012).

Central Rocky Mountains White Pine Health Working Group. (2000 - 2012).

Member, NCERA 193. (1990 - 2012).

Member, W 1187. (1990 - 2012).

Member, Great Plains Tree Pest Council. (1980 - 2012).

Member, Western International Tree Disease Workshop. (1980 - 2012).

Member, Executive. (2009 - 2011).

Faculty Council Rep. (2006 - 2011).

Member, Education. (2004 - 2011).

Committee Chair, Academic Affairs. (1983 - 2011).

Member, Integrated Pest Management work team. (2006 - 2010).

Center for Crop Biosecurity. (2003 - 2010).

Member, ISA. (1990 - 2010).

Committee Chair, Under grad coordinator. (1984 - 2010).

Forest Health Discussion Group. (1980 - 2010).

Member, APS. (1979 - 2010).

Member, Faculty Council Ex committee. (2007 - 2009).

Member, University curriculum. (1996 - 2000).

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