

CURRICULUM VITAE

NAME

Nissen, Scott J

ADDRESS

Bioagricultural Sciences and Pest Management
College of Agricultural Sciences

Weed Research Laboratory
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(970) 491-3489

EDUCATION

1986 Ph D, Montana State University

1978 MS, University of Nevada

1975 BS, University of Montana

SABBATICALS

(2013) University of Western Australia and Escola Superior de Agricultura “Luiz de Queiroz”-ESALQ, which is the agriculture campus of the University of São Paulo, I began my sabbatical leave working with Dr. Stephen Powles at the University of Western Australia, in Perth, WA. Dr. Powles is the director of the Australian Herbicide Resistance Initiative, a group of researchers dedicated to understanding and managing herbicide resistant weeds across Australia. Dr. Powles is internationally recognized as leader in the field of herbicide resistance. While in Perth, I attended the Global Herbicide Resistance Challenge meeting that was held at the Esplanade Hotel, in Fremantle, WA from February 18-22. This was an international gathering of weed scientists from 32 countries, with strong participation from South East Asian countries.

For research projects, I worked on glyphosate absorption and translation in: 1) glyphosate resistant goose grass (*Echinochloa indica*) with a Ph.D. student, Mr. Adam Jalaudin, 2) glyphosate resistant junglerice (*Echinochloa colona*) with Dr. Roberto Busi, and 3) glyphosate resistant wild radish with Dr. Michael Walsh. I reconfigured a very old biological sample oxidizer to allow for very rapid sample throughput. This allowed Mr. Jalaudin to process a backlog of goose grass sample in less than 2 days and allowed me to process samples from both the junglerice and wild radish projects.

Working with Dr. Hen Heping, we designed primers and amplified the phytoene desaturase gene from a wild radish population that was resistant to the herbicide, diflufenican. This group of herbicides causes photo-dynamic membrane peroxidation by inhibiting the production of carotenoids. Carotenoid production is reduced by inhibiting the enzyme, phytoene desaturase. We purified the PCR products, did sequencing reactions, and submitted the products for sequencing in the hopes of identifying previously described mutations that confer resistance to this group of herbicides. Unfortunately, of the 28 individuals that were sequenced no mutations were found. Diflufenican resistance is not due to target site resistance in this wild radish population.

I also travel extensively in Western Australia, visiting a number of farms with Dr. Michael Walsh and Mr. Pete Newman. It was fascinating to see how WA farmers were able to produce a wheat crop with very limited rainfall, primarily because they abandon tillage operations 30 years ago. Two factors have come together to

make Australia a leading country in the occurrence of herbicide resistant weeds. The first was the wide spread planting of annual ryegrass for sheep grazing and the second was substituting glyphosate applications for tillage operations. Annual ryegrass is now resistance to most available modes of action.

The last three months of my sabbatical leave were spent in Brazil working with Dr. Pedro Christoffoleti at the Escola Superior de Agricultura “Luiz de Queiroz”-ESALQ, which is the agriculture campus of the University of São Paulo. I was awarded a CAPES (Corrdenação de Aperfeiçoamento de Pessoal de Nível Superior) grant as a PVE (Professor Visitante Do Exterior). The purpose of this program is to bring university professors from other countries to provide graduate level courses to Brazilian students. During my three months stay in Brazil I conducted three short courses on the physiology and biochemistry of herbicide action and mechanisms of herbicide resistance. My seven months in Australia at AHRI had prepared me to give this issue a global prospective. Courses were taught at the Universidade Estadual de Maringá, Escola Superior de Agricultura “Luiz de Queiroz”-ESALQ, and Universidade Federal do Mato Grosso. I also provided several graduate seminars, spoke at an undergraduate symposium (Simposio de Engenharia Rural) in Bandeirantes do Paraná, and interacted with several industry groups. I also had the opportunity to travel extensively in southern Brazil, meeting with farmers, crop consultants, and coop agronomists.

The other main interest of the CAPES program is to have individual contact with graduate students to review research proposals and make suggestions about possible research topic. During my visit to Brazil I reviewed 12 research proposals and I am currently editing a MS thesis for publication.

OTHER POSITIONS

2004 - Present Professor, Colorado State University.

1997 - 2004 Associate Professor, Colorado State University.

1995 - 1997 Assistant Professor, Colorado State University.

1989 - 1994 Assistant Professor, University of Nebraska-Lincoln.

PUBLISHED WORKS

Books

(2010). *Tamarisk Best Management Practices in Colorado Watersheds*. Colorado State University (copyright).

Refereed Journal Articles

Christoffoleti, P. J., Figueiredo, M., Pereira Peres, L. E., Nissen, S. J., Gaines, T. (2015). Auxinic herbicides, mechanisms of action, and weed resistance: A look into recent plant science advances. *Scientia Agricola*, 72(4), 356-362. <Go to ISI>://WOS:000357631900011

Brunharo, C. A., Patterson, E., Carrijo, D. R., de Melo, M. S., Nicolai, M., Gaines, T., Nissen, S. J., Christoffoleti, P. J. (2015). Confirmation and mechanism of glyphosate resistance in tall windmill grass (*Chloris elata*) from Brazil. *Pest Management Science*.

Sebastian, D. J., Sebastian, J. R., Nissen, S. J., Beck, K. G. (2015). A potential new herbicide for invasive annual grass control on rangeland. *Rangeland Ecology and Management*, 4. dx.doi.org/10.1016/j.rama.2015.11.001

Kessler, K. C., Nissen, S. J., Meiman, P., Beck, K. G. (2015). Litter Reduction by Prescribed Burning Can Extend Downy Brome Control. *Rangeland Ecology & Management*, 68(4), 367-374.

- Lorentz, L., Gaines, T., Nissen, S. J., Westra, P., Streck, H., Dehne, H.W., Ruiz-Santaella, J. P., Beffa, R. (2014). Characterization of glyphosate resistance in *Amaranthus tuberculatus* populations. *Journal of Agricultural and Food Chemistry*, 62, 8134-8142.
- Vassios, J. D., Nissen, S. J., Koschnick, T. J., Heilman, M. A. (2014). Triclopyr absorption and translocation in Eurasian watermilfoil following Liquid and Granular Applications. *Weed Science*, 62, 22-28.
- Lindenmayer, R. B., Nissen, S. J., Westra, P., Shaner, D. L., Brunk, G. R. (2013). Aminocyclopyrachlor absorption, translocation, and metabolism in field bindweed (*Convolvulus arvensis*). *Weed Sci*, 16, 63-67.
- Busi, R., Vila-Aiub, M. M., Beckie, H. J., Gaines, T., Goggin, D. E., Kaundun, S. S., Lacoste, M., Neve, P., Nissen, S. J., Norsworthy, J. K., Renton, M., Shaner, D. L., Tranel, P. J., Wright, T., Yu, Q., Powles, S. B. (2013). Herbicide-resistant weeds: from research and knowledge to future needs. *Evolutionary Applications*, 6(8), 1218-1221.
- (2012). Imazamox absorption, translocation, and metabolism in red lentil and dry bean. *Weed Sci*, 60, 350-354.
- (2012). Role of soil sorption and microbial degradation on dissipation of mesotrione in plant-available soil water. *Journal of Environmental Quality*, 41, 170-178.
- (2011). Imazamox absorption, translocation and metabolism by Eurasian Watermilfoil. *Journal of Aquatic Plant Management*, 49, 44-49.
- (2011). MCPA Synergizes Imazamox for Control of Feral Rye (*Secale cereale*). *Weed Technology*, 25, 303-309.
- (2011). Non-linear regression analysis of herbicide absorption studies. *Weed Science*, 59, 601-610.
- (2010). Absorption and Translocation of Aminocyclopyrachlor and Aminocyclopyrachlor-Methyl Ester in Canada Thistle (*Cirsium arvense*). *Weed Sci*, 58, 96-102.
- (2010). Comparison of the interactions of aminopyralid vs chlorypyralid with soil. *Weed Sci*, 58, 473-477.
- (2010). Gene amplification confers glyphosate resistance in *Amaranthus palmeri*. *P Natl Acad Sci USA*, 107, 1029-1034.
- Gaines, T., Zhang, W., Wang, D., Bukun, B., Chisholm, S. T., Shaner, D. L., Nissen, S. J., Patzoldt, W. L., Tranel, P. J., Culpepper, A. S., Grey, T. L., Webster, T. M., Vencill, W. K., Sammons, R. D., Jiang, J.M., Preston, C., Leach, J. E., Westra, P. (2010). Gene amplification confers glyphosate resistance in *Amaranthus palmeri*. *Proceedings of the National Academy of Sciences of the United States of America*, 107(3), 1029-1034.
- (2010). Vapor Movement of Synthetic Auxin Herbicides. *Weed Sci*, 58, 103-108.
- (2009). Aminopyralid and Clopyralid Absorption and Translocation in Canada Thistle (*Cirsium arvense*). *Weed Sci*, 57, 15-Oct.
- Bukun, B., Gaines, T., Nissen, S. J., Westra, P., Brunk, G. R., Shaner, D. L., Sleugh, B. B., Peterson, V. F. (2009). Aminopyralid and clopyralid absorption and translocation in Canada thistle (*Cirsium arvense*). *Weed Science*, 57(1), 10-15.
- (2009). Inheritance of Resistance to the Auxinic Herbicide Dicamba in *Kochia* (*Kochia scoparia*). *Weed Sci*, 57, 43-47.

- (2009). The importance of analytical techniques in allelopathy studies with the reported allelochemical catechin as an example. *Biol Invasions*, 11, 325-332.
- (2008). First-year responses of cheatgrass following Tamarix spp control and restoration-related disturbances. *Restor Ecol*, 16, 129-135.
- (2008). Herbivory and novel weapons. *Biol Invasions*, 10, 79-88.
- (2008). Jointed goatgrass (*Aegilops cylindrica*) by imidazolinone-resistant wheat hybridization under field conditions. *Weed Sci*, 56, 32-36.
- Gaines, T., Henry, W. B., Byrne, P. F., Westra, P., Nissen, S. J., Shaner, D. L. (2008). Jointed goatgrass (*Aegilops cylindrica*) by imidazolinone-resistant wheat hybridization under field conditions. *Weed Science*, 56, 32-36.
- (2007). An empirically derived model of field-scale gene flow in winter wheat. *Crop Sci*, 47, 2308-2316.
- Gaines, T., Byrne, P. F., Westra, P., Nissen, S. J., Henry, W. B., Shaner, D. L., Chapman, P. L. (2007). An empirically derived model of field-scale gene flow in winter wheat. *Crop Science*, 47(6), 2308-2316.
- (2007). Recovery of imidazolinone-resistant hard red wheat lines following imazamox application. *Crop Sci*, 47, 2058-2066.
- (2006). A lack of evidence for an ecological role of the putative allelochemical (+/-)-catechin in spotted knapweed invasion success. *J Chem Ecol*, 32, 2327-2331.
- (2006). Response of selected hard red wheat lines to Imazamox as affected by number and location of resistance genes, parental background, and growth habit. *Crop Sci*, 46, 1206-1211.
- (2005). New techniques and findings in the study of a candidate allelochemical implicated in invasion success. *Ecol Lett*, 8, 1039-1047.
- (2005). Pre- and post-introduction patterns in neutral genetic diversity in the leafy spurge gall midge, *Spurgia capitigena* (Bremi) (Diptera). *Biol Control*, 33, 153-164.
- (2004). Microsatellite isolation from the gall midge *Spurgia capitigena* (Diptera). *Mol Ecol Notes*, 4, 605-607.
- (2003). Above winter wheat. *Can J Plant Sci*, 83, 107-108.
- (2003). AP502 CL winter wheat. *Can J Plant Sci*, 83, 109-110.
- (2003). Effect of commercial adjuvants on vegetable crop fungicide coverage, absorption, and efficacy. *Plant Dis*, 87, 591-597.
- (2003). Genetic diversity of jointed goatgrass (*Aegilops cylindrica*) determined with RAPD and AFLP markers. *Weed Sci*, 51, 287-293.
- Gent, D. H., Schwartz, H. F., Nissen, S. J. (2003). Effect of commercial adjuvants on vegetable crop fungicide coverage, absorption, and efficacy. *Plant Dis*, 87, 591-597.
- (2002). Influence of shade and irrigation on the response of corn (*Zea mays*), soybean (*Glycine max*), and wheat (*Triticum aestivum*) to carfentrazone-ethyl. *Weed Technol*, 16, 314-318.
- (2002). Potato (*Solanum tuberosum*) variety and weed response to sulfentrazone and flumioxazin. *Weed Technol*,

16, 567-574.

- (2001). Absorption and fate of BAY MKH 6561 in jointed goatgrass and downy brome. *Weed Sci*, 49, 717-722.
- (2001). Absorption, translocation, and metabolism of imazamox in jointed goatgrass and feral rye. *Weed Sci*, 49, 607-612.
- (2000). Absorption and fate of carfentrazone-ethyl in *Zea mays*, *Glycine max*, and *Abutilon theophrasti*. *Weed Sci*, 48, 15-19.
- (1999). Absorption, fate, and soil activity of quinclorac in field bindweed (*Convolvulus arvensis*). *Weed Sci*, 47, 136-142.
- (1999). The influence of surfactant and nitrogen on foliar absorption of MON 37500. *Weed Sci*, 47, 270-274.
- (1999). Use of quinclorac plus 2,4-D for controlling field bindweed (*Convolvulus arvensis*) in fallow. *Weed Technol*, 13, 731-736.
- (1998). AC 263,222 absorption and fate in leafy spurge (*Euphorbia esula*). *Weed Sci*, 46, 510-513.
- (1998). Mechanism of primisulfuron resistance in a shattercane (*Sorghum bicolor*) biotype. *Weed Sci*, 46, 158-162.

Non-Refereed Journal Articles

- Sebastian, D. J., Nissen, S. J., Westra, P., Shaner, D., Barbarick, K. A., Butters, G. Influence of Soil Properties and Soil Moisture on the Efficacy of Indaziflam and Flumioxazin on *Kochia scoparia*. *Pest Management Science*.
- Norton, A. P., Blair, A. C., Hardin, J. G., Nissen, S. J., Brunk, G. R. (2008). Herbivory and novel weapons: no evidence for enhanced competitive ability or allelopathy induction of *Centaurea diffusa* by biological controls. *BIOLOGICAL INVASIONS*, 10(1), 79-88.
- Lloyd, C., Hufbauer, R. A., Jackson, A., Nissen, S. J., Norton, A. P. (2005). Pre- and post-introduction patterns in neutral genetic diversity in the leafy spurge gall midge, *Spurgia capitigena* (Bremi) (Diptera : Cecidomyiidae). *BIOLOGICAL CONTROL*, 33(2), 153-164.
- Lloyd, C., Norton, A. P., Hufbauer, R. A., Bogdanowicz, S., Nissen, S. J. (2004). Microsatellite isolation from the gall midge *Spurgia capitigena* (Diptera : Cecidomyiidae), a biological control agent of leafy spurge. *MOLECULAR ECOLOGY NOTES*, 4(4), 605-607.

Non-Refereed Chapters in Books

- Douglass, C. H., Nissen, S. J., Hart, C. R. (2013). Tamarisk Management: Lessons and Techniques. In Dr. Anna Sher and Dr. Martin Quigley (Ed.), *Tamarix: A Case Study of Ecological Change in the American West* (pp. 333-353). New York, NY: Oxford University Press.
- Sher, A., Norton, A. P., Nissen, S. J. (2010). Why is tamarisk a problem? In Nissen S, Sher A, and Norton A (Ed.), *Tamarisk: Best management practices in Colorado watersheds* (pp. 6-9). Colorado State University.

Non-Refereed Proceedings or Transactions

- Kessler, K., Beck, K. G., Nissen, S. J., Sebastian, J. R. (2013). PRESCRIBED BURNING AND IMAZAPIC CONTROL ON DOWNY BROME UNDER RANGELAND CONDITIONS. *Proceedings Western Society of Weed Science 2013*. Western Society of Weed Science.
- Nissen, S. J. (2012). *Absorption and translocation of fluridone, penoxsulam and triclopyr by Eurasian watermilfoil and hydrilla*. Proceeding of Northeast Aquatic Plant Management Society, New Castle, NH.
- Nissen, S. J. (2012). *Absorption and translocation of granular and liquid triclopyr formulations by Eurasian watermilfoil*. Midwest Aquatic Plant Management Society Milwaukee WI.
- (2012). *Absorption and translocation of granular and liquid triclopyr formulations by Eurasian watermilfoil*. Proceeding of Aquatic Plant Management Society.
- (2012). *Herbicide absorption and translocation in Eurasian watermilfoil*. Proceedings of the Western Society of Weed Science Reno, NV.
- (2012). *Influence of aminopyralid, clopyralid, metsulfuron, and picloram application timing on grass establishment*. Proceedings of the Western Society of Weed Science Reno, NV.
- (2012). *Response of native species to imazapyr and triclopyr soil residues*. Proceedings of the Western Society of Weed Science Reno, NV.
- (2012). *Russian knapweed control and grass establishment in response to tillage and herbicide applications*. Proceedings of the Western Society of Weed Science Reno, NV.
- (2012). *Sago pondweed control in irrigation canals using endothall and chelated copper: Comparing greenhouse to field results*. Proceedings of Aquatic Plant Management Society Salt Lake City, UT.
- (2012). *Sago pondweed control in irrigation canals using endothall and chelated copper: Comparing greenhouse to field results*. Proceedings of Western Aquatic Plant Management Society San Diego, CA.
- (2012). *Soil residual activity of aminocyclopyrachlor, aminopyralid and clopyralid*. Proceedings of the Western Society of Weed Science Reno, NV.
- (2012). *Sourgrass resistance to glyphosate in soybean crop in Brasil*. Proceedings of the Western Society of Weed Science Reno, NV.
- (2012). *Volunteer plant of green manure control in sugarcane*. Proceedings of the Western Society of Weed Science Reno, NV.
- (2011). *Absorption and translocation of fluridone, penoxsulam, and tirclopyr by Eurasian watermilfoil and hydrilla*. Proceedings of the 51st Annual Meetings of the Weed Science Society of America Portland, OR.
- (2011). *Alternatives for sago pondweed control in irrigation canals* (2nd ed., vol. 28, pp. 13-Dec). Colorado Water Newsletter.
- (2011). *Aminopyralid plus triclopyr control of Russian-olive and saltsedar: Maintaining a grass understory*. Proceedings of 64th Annual Meeting of the Western Society of Weed Science Spokane, WA.
- (2011). *Characterization of aminocyclopyrachlor, aminopyralid, and clopyralid soil activity*. Proceedings of 64th Annual Meeting of the Western Society of Weed Science Spokane, WA.

- (2011). *Characterization of glyphosate resistant sourgrass in Brazil*. Proceedings of the 51st Annual Meetings of the Weed Science Society of America Portland, OR.
- (2011). *Continuing aminocyclopyrachlor research at Colorado State University*. Proceedings of the 51st Annual Meetings of the Weed Science Society of America Portland, OR.
- (2011). *Eurasian watermilfoil: Colorado's most prevalent aquatic invader* (3rd ed., vol. 28, pp. 7-May). Colorado Water Newsletter.
- (2011). *Evaluation of herbicide absorption by Eurasian watermilfoil and hydrilla*. Proceedings of 64th Annual Meeting of the Western Society of Weed Science Spokane, WA.
- (2011). *Fluridone, Penoxsulam, and Triclopyr Absorption by Eurasian Watermilfoil and Hydrilla*. Proceeding of the 2011 APMS Annual Meeting, Baltimore, MD.
- (2011). *Herbicide Absorption and Translocation by Eurasian Watermilfoil and Hydrilla*. Proceeding of the 2011 WAPMS Annual Meeting, Westminster, CO.
- (2011). *Impacts of various tamarisk (saltcedar, *Tamarix spp*) removal and control methods on passive re-vegetation and secondary invasions*. Proceedings of 64th Annual Meeting of the Western Society of Weed Science Spokane, WA.
- (2011). *Native species establishment on Russian knapweed infested rangeland following pre-plant herbicides applications*. Proceedings of 64th Annual Meeting of the Western Society of Weed Science Spokane, WA.
- (2011). *Rangeland grass tolerance to pre-plant applications of aminopyralid and aminocyclopyrachlor*. Proceedings of 64th Annual Meeting of the Western Society of Weed Science Spokane, WA.
- (2011). *Resistance of conyza spp Brazilian biotypes to Glyphosate*. Proceedings of the 51st Annual Meetings of the Weed Science Society of America Portland, OR.
- (2011). *Resistance of Digitaria insularis Brazilian biotypes to glyphosate*. Proceedings of the 51st Annual Meetings of the Weed Science Society of America Portland, OR.
- (2011). *Sago pondweed control irrigation canals using endothall and copper chelates*. Proceedings of 64th Annual Meeting of the Western Society of Weed Science Spokane, WA.
- (2011). *Tamarisk impacts on Colorado Watersheds* (3rd ed., vol. 28, pp. 4-Feb). Colorado Water Newsletter.
- (2011). *Tamarisk management in the Arkansas Valley watershed* (3rd ed., vol. 28, pp. 12-Oct). Colorado Water Newsletter.
- (2011). *Use of Endothall for Control of Eurasian Watermilfoil in Irrigation Canals*. WAPMS Annual Meeting, Westminster, CO.
- (2011). *Use of endothall for control of Eurasian watermilfoil in irrigation canals*. Proceedings of the 51st Annual Meetings of the Weed Science Society of America Portland, OR.
- (2011). *Use of endothall for control of Eurasian watermilfoil in irrigation canals*. Proceedings of 64th Annual Meeting of the Western Society of Weed Science Spokane, WA.
- (2011). *Water lettuce and water hyacinth control using saflufenacil*. Proceedings of the 51st Annual Meetings of

the Weed Science Society of America Portland, OR.

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.

Byrne, P. F., Gaines, T., Westra, P., Henry, W. B., Nissen, S. J., Chapman, P., Harrington, J. E. (2008). *Estimating gene flow from wheat to wheat and wheat to jointed goatgrass (Aegilops cylindrica)* (vol. TB08-03). CSU Agricultural Experiment Station.

Abstract

Sebastian, J. R., Beck, K. G., Nissen, S. J. (2014). African Rue Control of Colorado Native Rangeland. *Proceedings Western Society of Weed Science* (2014th ed., vol. 676, pp. 4-5). Western Society of Weed Science.

Kessler, K., Nissen, S. J., Beck, K. G. (2014). Does Downy Brome Litter Reduce Herbicide Efficacy. *Proceedings Western Society of Weed Science* (2014th ed., vol. 676, pp. 41-42). Western Society of Weed Science.

Book Review

(2012). *Tamarisk (Saltcedar, Tamarix spp) Management: Integrating Modern Technologies with Historical Lessons and Experiences*. Sher, A A, M Quigley, Eds Tamarix: A Case Study of Ecological Change in the American West New York, NY: Oxford University Press.

(2010). *Chemical and Mechanical Control. Tamarisk Best Management Practices in Colorado Watersheds* S Nissen, A Sher, and A Norton Editors.

(2010). *Why is tamarisk a problem? . Tamarisk Best Management Practices in Colorado Watersheds* S Nissen, A Sher and A Norton, Editors.

Research Report

Sebastian, J. R., Beck, K. G., Nissen, S. J. (2013). African Rue Control in Colorado from Spot- or Broadcast-Applied Herbicides. *2013 Research Progress Reports Western Society of Weed Science* (2013th ed., pp. 21-23). Western Society of Weed Science. <http://www.wsweedscience.org/wp-content/uploads/research-report-archive/2013%20WSWS%20RPR.pdf>

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

January 2016, "Population genomics of glyphosate-resistant Palmer amaranth (*Amaranthus palmeri*) using genotyping-by-sequencing (GBS)", Plant and Animal Genome XXIV.

2015, "EPSPS Gene Amplification in Kochia from Sugar Beet Fields", Western Society of Weed Science.

2015, "Glyphosate-Resistant Kochia Management in Canola", Western Society of Weed Science.

2015, "Population Genetics of Glyphosate-Resistant Palmer Amaranth", Western Society of Weed Science.

- July 15, 2015, "Horned Pondweed (*Zannichellia palustris*) Control with Endothall Formulations in Greenhouse Mesocosms", 55th Annual Meeting of the Aquatic Plant Management Society, Aquatic Plant Management Society, (Presenter) Nissen, S. J.
- July 13, 2015, "2,4-D Absorption and Translocation in Eurasian Watermilfoil and a 2,4-D Tolerant Hybrid", 55th Annual Meeting of the Aquatic Plant Management Society, Aquatic Plant Management Society, (Presenter) Kessler, K. C.
- March 11, 2015, "Evaluating Bare Ground Herbicide Treatments for Kochia, Field Bindweed, and Downy Brome Control", 68th Annual Western Society of Weed Science Meeting, Western Society of Weed Science, (Presenter) Sebastian, D. J.
- March 10, 2015, "Dalmatian Toadflax and Downy Brome Control on Native Colorado Rangeland", 68th Annual Meeting WSWS, Western Society of Weed Science, (Presenter) Sebastian, D. J.
- March 10, 2015, "Comparing Indaziflam and Imazapic for Downy Brome and Feral Rye Control in Range and Pasture", 68th Annual Western Society of Weed Science Meeting, western Society of Weed Science, (Presenter) Sebastian, D. J.
- March 10, 2015, "Downy Brome Control: Soil Versus Foliar Activity of Imazapic and Tebuthiuron", 68th Annual Western Society of Weed Science Meeting, Western Society of Weed Science, (Presenter) Kessler, K. C.
- March 10, 2015, "Green Ash and Honey Locust Response to Aminocyclopyrachlor", 68th Annual Western Society of Weed Science Meeting, Western Society of Weed Science, (Presenter) Hildebrandt, C. M.
- July 13, 2014, "Sago Pondweed and Horned Pondweed Control with Endothall Formulations in Greenhouse Flowing Water Mesocosms", Fifty-Fourth Meeting of the Aquatic Plant Management Society, Aquatic Plant Management Society, (Presenter) Kessler, K. C., Savannah, Georgia.
- July 13, 2014, "Sago Pondweed and Horned Pondweed Control with Endothall Formulations in Greenhouse Flowing Water Mesocosms", Fifty-Fourth Meeting of the Aquatic Plant Management Society, Aquatic Plant Management Society, (Presenter) Kessler, K. C., Savannah, Georgia.
- March 12, 2014, "Influence of Soil Properties and Soil Moisture on Indaziflam Efficacy", Sixty Seventh Meeting of WSWS, Western Society of Weed Science, (Presenter) Sebastian, D., Colorado Spring, CO, USA.
- March 11, 2014, "Does Downy Brome Litter Reduce Herbicide Efficacy", Sixty Seventh Meeting of WSWS, Western Society of Weed Science, (Presenter) Kessler, K. C., Colorado Spring, CO, USA.
- March 10, 2014, "Herbicide Resistant *Kochia scoparia* in Eastern Colorado", Sixty Seventh Meeting of WSWS, Western Society of Weed Science, (Presenter) Westra, E., Colorado Spring, CO, USA.
- February 3, 2014, "Controlling Downy Brome on Rangeland with Prescribed Buring and Herbicides", Fifty-Fourth Meeting of the WSSA, Weed Science Society of America, (Presenter) Kessler, K., Vancouver, CA.
- 2012, "Adegas, F., S. J. Nissen, and P. Westra. 2012. Sourgrass resistance to glyphosate in soybean crop in Brasil. Western Society of Weed Science. Reno, NV March 14."
- 2012, "Brunharo, C. A., S. J. Nissen, M. Nicolai, L. F. Campos, M. S. Melo, A. B. Prado, and P. J. Christoffoleti. 2012.

Volunteer plant of green manure control in sugarcane. Proceedings of the Western Society of Weed Science. Reno, NV".

2012, "Douglass, C. and S. J. Nissen. 2012. Response of native species to imazapyr and triclopyr soil residues. Western Society of Weed Science. Reno, NV March 14".

2012, "Douglass, C., S. J. Nissen, J. D. Vassios, C. V. Ransom, V. F. Peterson. 2012. Influence of aminopyralid, clopyralid, metsulfuron, and picloram application timing on grass establishment. Western Society of Weed Science. Reno, NV. March 13".

2012, "Lindenmayer, R. B., P. Westra, S. J. Nissen, D. L. Shaner, T. Mueller, and G. Armael. 2012. Soil residual activity of aminocyclopyrachlor, aminopyralid and clopyralid. Western Society of Weed Science. Reno, NV. March 15".

2012, "Nissen, S. J. Russian Knapweed and Kochia Control During Site Restoration. Colorado Noxious Weed Advisory Committee, Fort Collins, CO May 29".

2012, "Nissen, S. J. The life aquatic. Rocky Mountain Agricultural Business Association annual meeting. Denver, CO January 10th".

2012, "Nissen, S. J. Understanding Herbicide Mode of Action and How it Impacts You. Colorado Association of Lawn Care Professionals, Denver, March 6".

2012, "Nissen, S. J. and J. D. Vassios. 2012. Herbicide absorption and translocation in Eurasian watermilfoil. Western Society of Weed Science. Reno, NV March 15".

2012, "Nissen, S. J. Current Status of Herbicide Resistance Weeds in the US. El Paso County Annual Pesticide Applicator Training, El Paso, TX January 24".

2012, "Nissen, S. J. Evaluating New Options for Potato Vine Desiccation. Colorado Potato Growers Association, Area III Annual Research Meeting. Eaton, CO. November 13".

2012, "Nissen, S. J. Managing Secondary Invaders During Site Restoration. DuPont Annual Western Region Research Update Meeting. Denver, CO July 18".

2012, "Nissen, S. J. Mecanismos de Ação/Resistência de Plantas Daninhas à Herbicidas da Síntese de Auxinas, PROTOX e HPPD. Brazilian Weed Science Society Annual Meeting, Campo Grande, Brazil. September 4".

2012, "Nissen, S. J. Russian Knapweed and Kochia Control During Site Restoration. Arkansas River Watershed Invasive Plant Protection. Pueblo and Lamar, CO. June 20 & 21".

2012, "Nissen, S. J. Sago Pondweed Control in Irrigation Canals: History and State of the Art . Colorado Water Institute Research Meeting. Denver, CO. November 9".

2012, "Nissen, S. J. The life aquatic. Greeley Farm Show, Greeley CO January 26".

2012, "Nissen, S. J. Updates on Herbicide Resistance from Across the US. Colorado Aerial Applicators Association. Colorado Springs, CO. November 7".

2012, "Nissen, S. J., C. Douglass and J. Vassios. Managing Russian Knapweed and Annual Broadleaf Weeds During Native Grass Establish".

2012, "Nissen, S. J., C. V. Ransom, V. F. Peterson, J. D. Vassios, and C. Douglass. 2012. Russian knapweed control and grass establishment in response to tillage and herbicide applications. Western Society of Weed Science. Reno, NV March 14."

2012, "Nissen, S. J., J. D. Vassios, T. J. Koschnick, and M. A. Heilman. 2012. Absorption and translocation of fluridone, penoxsulam and triclopyr by Eurasian watermilfoil and hydrilla. Proceeding of Northeast Aquatic Plant Management Society, New Castle, NH. January 16."

2012, "Nissen, S. J., J. D. Vassios, T. J. Koschnick, and M. A. Heilman. 2012. Absorption and translocation of granular and liquid triclopyr formulations by Eurasian watermilfoil. Aquatic Plant Management Society. Salt Lake City, UT July 25".

2012, "Nissen, S. J., J. D. Vassios, T. J. Koschnick, and M. A. Heilman. 2012. Absorption and translocation of granular and liquid triclopyr formulations by Eurasian watermilfoil. Midwest Aquatic Plant Management Society. Milwaukee. WI. Feb. 28."

2012, "Nissen, S. J., J. D. Vassios, W. A. Ratajczyk, and B. Lind. 2012. Sago pondweed control in irrigation canals using endothall and chelated copper: Comparing greenhouse to field results. Aquatic Plant Management Society. Salt Lake City, UT July 23".

2012, "Nissen, S. J., J. D. Vassios, W. A. Ratajczyk, and B.

Lind. 2012. Sago pondweed control in irrigation canals using endothall and chelated copper: Comparing greenhouse to field results. Western Aquatic Plant Management Society. San Diego, CA. April 3."

2011, "Christoffoleti, P. J., M. Nicolai, M. S. Melo J. D. Vassios, S. J. Nissen, and P. Westra. 2011. Resistance of *Digitaria insularis* Brazilian biotypes to glyphosate. 51st Annual Meetings of the Weed Science Society of America. Portland, OR".

2011, "Douglass, C. H. and S. J. Nissen. 2011. Impacts of various tamarisk (saltcedar, *Tamarix* spp.) removal and control methods on passive re-vegetation and secondary invasions. 64th Annual Meeting of the Western Society of Weed Science. Spokane, WA".

2011, "Douglass, C. H., J. D. Vassios, S. J. Nissen, V. Peterson. 2011. Rangeland grass tolerance to pre-plant applications of aminopyralid and aminocyclopyrachlor. 64th Annual Meeting of the Western Society of Weed Science. Spokane, WA".

2011, "Lindenmayer, B., P. Westra, S. J. Nissen, and D. Shaner. Characterization of aminocyclopyrachlor, aminopyralid, and clopyralid soil activity. 64th Annual Meeting of the Western Society of Weed Science. Spokane, WA".

2011, "Lindenmayer, B., P. Westra, S. J. Nissen, and D. L. Shaner. 2011. Continuing aminocyclopyrachlor research at Colorado State University. 51st Annual Meetings of the Weed Science Society of America. Portland, OR".

2011, "Melo, M. S., J. D. Vassios, M. Nicolai, S. J. Nissen, P. J. Christoffoleti, and T. C. Banzato. 2011. Characterization of glyphosate resistant sourgrass in Brazil. 51st Annual Meetings of the Weed Science Society of America. Portland, OR".

2011, "Nicolai, M., P. J. Christoffoleti., J. D. Vassios, M. S. Melo, S. J. Nissen, and P. Westra. 2011. Resistance of *Conyza* spp. Brazilian biotypes to Glyphosate. 51st Annual Meetings of the Weed Science Society of America. Portland, OR".

2011, "Nissen, S. J. 2011. Herbicide resistant weeds in the US and Canada. Colorado Weed Management Association. Colorado Springs, CO".

2011, "Nissen, S. J. 2011. Industrial, Rights of Way, and Road Side Weed Management. Colorado Aerial Applicators Association, Colorado Springs, CO".

2011, "Nissen, S. J. 2011. Introduction to the Problem: Course Introduction. WSWS Noxious Weed Short Course. Loveland, CO".

2011, "Nissen, S. J. 2011. Russian Knapweed: A Common Secondary Invader Following Tamarisk Removal. Tamarisk Research Symposium. Grand Junction, CO".

2011, "Nissen, S. J. Ag Weed Update. Tri River Pest Management Workshop. Grand Junction, CO".

2011, "Nissen, S. J. Herbicide mode of action. Tri River Pest Management Workshop. Grand Junction, CO".

2011, "Nissen, S. J., and C. H. Douglass. 2011. Tamarisk and Russian Olive Control Plus a Observations on Site Restoration. WSWS Noxious Weed Short Course. Loveland, CO".

2011, "Nissen, S. J., K. G. Beck, P. Westra, J. R. Sebastian Brad Lindenmeyer Joseph D. Vassios, and C. H. Douglass. 2011. Aminocyclopyrachlor Research Projects at CSU. DuPont Research Update Meeting. Dallas, TX".

2011, "Nissen, S. J., P. Westra, and D. L. Shaner. 2011. Situation and Management of Weed Resistance in the US. Coloquio Sobre Plantas Daninhas Resistentes a Herbicidas (Symposium on Herbicide Resistant Weeds). UNESP/FCAV. Jaboticabal, Brazil".

2011, "Sebastian, J., K. G. Beck, S. J. Nissen, D. Sebastian, and S. Rogers. 2011. Native species establishment on Russian knapweed infested rangeland following pre-plant herbicides applications. 64th Annual Meeting of the Western Society of Weed Science. Spokane, WA".

2011, "Sleugh, B., M. Halstvedt, V. F. Peterson, R. G. Wilson, G. M. Sbatella, S. J. Nissen, and B. Meador. Aminopyralid plus triclopyr control of Russian-olive and saltsedar: Maintaining a grass understory. 64th Annual Meeting of the Western Society of Weed Science. Spokane, WA".

2011, "Vassios, J. D. and S. J. Nissen. 2011. Absorption and translocation of fluridone, penoxsulam, and tirclopyr by Eurasian watermilfoil and hydrilla.

51st Annual Meetings of the Weed Science Society of America. Portland, OR".

2011, "Vassios, J. D. and S. J. Nissen. 2011. Evaluation of herbicide absorption by Eurasian watermilfoil and hydrilla. 64th Annual Meeting of the Western Society of Weed Science. Spokane, WA".

2011, "Vassios, J. D. and S. J. Nissen. 2011. Sago pondweed control irrigation canals using endothall and copper chelates. 64th Annual Meeting of the Western Society of Weed Science. Spokane, WA".

2011, "Vassios, J. D., S. J. Nissen, and C. Gray. 2011. Use of endothall for control of Eurasian watermilfoil in irrigation canals. 51st Annual Meetings of the Weed Science Society of America. Portland, OR".

2011, "Vassios, J. D., S. J. Nissen, and C. Gray. 2011. Use of endothall for control of Eurasian watermilfoil in irrigation canals. 64th Annual Meeting of the Western Society of Weed Science. Spokane, WA".

2011, "Vassios, J. D., S. J. Nissen. 2011. Water lettuce and water hyacinth control using saflufenacil. 51st Annual Meetings of the Weed Science Society of America. Portland, OR".

2011, "Vassios, J.D., S.J. Nissen, C.J. Gray, 2011. Use of Endothall for Control of Eurasian Watermilfoil in Irrigation Canals. 2011 WAPMS Annual Meeting, Westminster, CO".

2011, "Vassios, J.D., S.J. Nissen, T.J. Koschnick, 2011. Herbicide Absorption and Translocation by Eurasian Watermilfoil and Hydrilla. 2011 WAPMS Annual Meeting, Westminster, CO".

2011, "Vassios, J.D., S.J. Nissen, T.J. Koschnick, M.A. Heilman, 2011. Fluridone, Penoxsulam, and Triclopyr Absorption by Eurasian Watermilfoil and Hydrilla. APMS Annual Meeting, Baltimore, MD.".

2010, "Christoffoleti, P.J., J. Vassios, M. Nicolai, S. Nissen, P. Westra, D. Shaner, M.S.C. Melo. Resistance of Sourgrass (*Digitaria insularis*) to Glyphosate at Two Different Growth Stages Through Dose Response Curves. 27th Brazilian Weed Science Congress, Ribeirao Preto, Sao Paulo, Brazil".

2010, "Christoffoleti, P.J., J. Vassios, M. Nicolai, S. Nissen, P. Westra, M.S.C. Melo, D. Shaner, C. Preston. V.C.B. Cardinalli. In Vivo Bioassay to Determine Shikimate

Accumulation Using Leaf Disks in Glyphosate Resistant and Susceptible Sourgrass (*Digiatria insularis*). 27th Brazilian Weed Science Congress, Ribeirao Preto, Sao Paulo, Brazil."

2010, "Douglass, C. H. and S.J. Nissen. Tamarisk removal and control methods: restoration and secondary invaders. Arkansas River Watershed Tamarisk Workshop. March 30, 2010. Pueblo, CO".

2010, "Douglass, C., Nissen, S. J. Tamarisk (saltcedar, *Tamarix* spp) canopy retention and soil dissipation following aerial imazapyr applications. Weed Science Society of America Annual Conference. February 7-1, 2010. Denver, CO."

2010, "Douglass, C.H., Vassios, J.D., Bridges, M., Lindenmayer, R.B., Lair, K., Nissen, S.J., Westra, P. Susceptibility of Restoration Grass Species to Aminocyclopyrachlor and Aminopyralid. Western Society of Weed Science Annual Meeting. March 9-12, 2009. Albuquerque, NM."

2010, "Kniss, A.R., D.J. Lyon, J.D. Vassios, S.J. Nissen, MCPA-ester Improves Feral Rye Control with Imazamox. 2010 Western Society of Weed Science Meeting, Waikoloa, HI".

2010, "Lindenmayer, B., P. Westra, S. Nissen, D. Shaner, and G. Brunk. Field and laboratory studies with aminocyclopyrachlor (DPX-MAT28). Weed Science Society of America Annual Meeting. February 8-11, 2010. Denver, CO".

2010, "Nissen, S. J. New and Emerging Issues and Technology for Ag Weed Management. Colorado Aerial Applications Association Annual Meeting. Pueblo, CO. November 10, 2010".

2010, "Nissen, S. J. Weed Science Research at Colorado State University. Herbicide Tolerant Lentil Meeting with BASF Europe. Sanliurfa, Turkey. July 7, 2010".

2010, "Nissen, S. J. Ag Herbicides with Pasture and Range Applications. Colorado Weed Management Association Spring Training. Fort Collins, CO. April 6, 2010".

2010, "Nissen, S. J. and C. Douglass. Tamarisk and Russian Olive Control: A Few Observations on Site Restoration. North American Weed Management Association. Pueblo, CO. September 28, 2010."

2010, "Nissen, S. J. and J. Vassios. Algae Biology and Management. Tri River Area Pest Management Workshop. Grand Junction, CO. February 17, 2010".

2010, "Nissen, S. J. Current Status of Herbicide Resistance. Tri River Area Pest Management Workshop. Grand Junction, CO. February 17, 2010".

2010, "Nissen, S. J. Nuisance Aquatic Plant Issues and Control Strategies. Colorado Weed Management Association Spring Training, Fort Collins, CO April 6th 2010".

2010, "Nissen, S. J. Overview of Herbicide Mode of Action and Herbicide Resistance in the US. Guest Lecture to Graduate Students in the Department of Plant Protection. Harran University, Sanliurfa, Turkey. July 6, 2010".

2010, "Nissen, S. J., J. Vassios, and C. Douglass. Research Projects Involving aminocyclopyrachlor at CSU. DuPont Research Update. Denver, CO. January 15, 2010".

2010, "Nissen, S. J., P. Westra, G. Beck, J. Sabastian, J. Vassios, C. Douglass, B. Lindenmayer, and K. Lair. Controlling Russian Knapweed. Tamarisk Symposium, Grand Junction, CO. January 13, 2010".

2010, "Nissen, S.J. Plant and Soil Science eLesson Library: Integrating Plant Science Research, Teaching and Outreach. Australian Herbicide Resistance Initiative, University of Western Australia, Perth, AU. December 19, 2010".

2010, "Vassios, J., Nissen, S., Douglass, C., Lindenmayer, B., Bridges, M., Westra, P., Lair, K. Canada thistle (*Cirsium arvense*) control and grass tolerance using aminopyralid and aminocyclopyrachlor. Weed Science Society of America Annual Conference. February 7-1, 2010. Denver, CO".

2010, "Vassios, J.D., Douglass, C., Bridges, M., Lindenmayer, B., Nissen, S., Lair, K., Westra, P. Native Grass Tolerance to Aminopyralid & Aminocyclopyrachlor. Weed Science Society of America Annual Conference. February 9-13, 2009. Orlando, FL".

2010, "Vassios, J.D., S. Nissen, C. Douglass, B. Lindenmayer, M. Bridges, P. Westra, K. Lair, 2010. Canada thistle (*Cirsium arvense*) control and grass tolerance using aminopyralid and

aminocyclopyrachlor. 2010 Weed Science Society of America Meeting, Denver, CO".

2010, "Vassios, J.D., S.J. Nissen, J.R. Sebastian, K.G. Beck, C.H. Douglass, 2010. Aminopyralid and Aminocyclopyrachlor Impacts on Grass Establishment. 2010 Western Society of Weed Science Meeting, Waikoloa, HI".

2010, "Vassios, J.D., S.J. Nissen, T.J. Koschnick, 2010. Fluridone, Penoxsulam and Triclopyr Absorption by Eurasian Watermilfoil and Hydrilla. 2010 Midwest Aquatic Plant Management Society Meeting, Indianapolis, IN".

2010, "Vassios, J.D., S.J. Nissen, T.J. Koschnick, 2010. Fluridone, Penoxsulam and Triclopyr Absorption by Eurasian Watermilfoil and Hydrilla. 2010 Western Aquatic Plant Management Society Meeting, Seattle, WA".

2010, "Vassios, J.D., S.J. Nissen, T.J. Koschnick, 2010. Fluridone, Penoxsulam and Triclopyr Absorption by Eurasian Watermilfoil and Hydrilla. Aquatic Plant Management Society Meeting, Bonita Springs, FL".

2009, "Douglass, C.H., Nissen, S.J. 2009. Adaptive Management Techniques for Tamarix in Colorado. Tamarisk & Russian Olive Research Conference. February 18 & 19, 2009".

TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2016	Spring	BSPM698 - Research	18	12
2016	Spring	BSPM798 - Research	18	14
2015	Fall	BSPM799 - Dissertation	18	6
2015	Fall	BSPM509 - Herbicide Selectivity and Action	3	0
2015	Fall	BSPM698 - Research	18	10
2015	Fall	BSPM798 - Research	18	9
2015	Spring	BSPM798 - Research	18	9
2014	Fall	BSPM509 - Herbicide Selectivity and Action	3	3
2014	Fall	BSPM798 - Research	18	8
2014	Spring	BSPM698 - Research	18	7
2014	Spring	BSPM798 - Research	18	9
2014	Spring	BSPM699 - Thesis	18	5
2013	Fall	BSPM698 - Research	18	8
2013	Fall	BSPM798 - Research	18	11
2013	Fall	BSPM584 - Supervised College Teaching	3	2
2012	Fall	BSPM509 - Herbicide Selectivity and Action	3	7
2012	Spring	BSPM799 - Dissertation	18	7
2011	Fall	BSPM799 - Dissertation	18	7

2011	Fall	BSPM509 - Herbicide Selectivity and Action	3	2
2011	Fall	BSPM698 - Research	18	9
2011	Fall	BSPM798 - Research	18	8
2011	Spring	BSPM798 - Research	18	12
2010	Fall	BSPM799 - Dissertation	18	5
2010	Fall	BSPM509 - Herbicide Selectivity and Action	3	2
2010	Fall	BSPM798 - Research	18	12
2010	Spring	BSPM698 - Research	18	14
2010	Spring	BSPM798 - Research	18	10
2010	Spring	BSPM792 - Seminar	2	11
2009	Fall	BSPM799 - Dissertation	18	4
2009	Fall	BSPM509 - Herbicide Selectivity and Action	3	2
2009	Fall	BSPM798 - Research	18	10
2009	Fall	BSPM492 - Seminar	3	2
2009	Fall	BSPM792 - Seminar	2	13
2009	Spring	BSPM798 - Research	18	10
2009	Spring	BSPM699 - Thesis	18	4
2008	Fall	BSPM799 - Dissertation	18	6
2008	Fall	BSPM509 - Herbicide Selectivity and Action	3	2
2008	Fall	BSPM698 - Research	18	8
2008	Fall	BSPM798 - Research	18	11
2008	Fall	BSPM699 - Thesis	18	3
2008	Spring	BSPM698 - Research	18	4
2008	Spring	BSPM699 - Thesis	18	3
2007	Fall	BSPM509 - Herbicide Selectivity and Action	3	2
2007	Fall	BSPM698 - Research	18	12

Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2014	Fall	BSPM308 - Ecology and Management of Weeds	1	Face to Face
2014	Fall	BSPM592 - Fundamentals of BSPM	1	Face to Face

EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS

Field Day

CSU's Invasive plant management field research in Larimer County. Adult, Fort Collins, Colorado. Number of times program was made: 3. Total number of participants: 60. Percent Responsible: 30%. 2nd Quarter 2015.

Field tour provided to Dow AgroSciences. Adult, Fort Collins, Colorado. Number of times program was made: 8. Total number of participants: 10. Percent Responsible: 50%. 2nd Quarter 2015.

Bare ground and invasive winter annual grass research at CSU. Adult, Fort Collins, Colorado. Number of times program was made: 8. Total number of participants: 8. Percent Responsible: 60%. 3rd Quarter 2015.

Weed control in Rangeland. Adult, Fort Collins, Colorado. Number of times program was made: 4. Total number of participants: 1. Percent Responsible: 50%. 3rd Quarter 2015.

Meeting with CDA on directions for their EDRR program

General input on ways to structure and evaluate the EDRR program. Adult, Denver, Colorado. Total number of participants: 10. Percent Responsible: 10%. 4th Quarter 2015.

Phone Call

Discussion with Greeley Tribune about glyphosate resistant kochia in eastern Colorado. Adult, Greeley, Colorado. Number of times program was made: 1. Total number of participants: 1. Percent Responsible: 33%. 2nd Quarter 2015.

Presentation

Aquatic plant management in irrigation canals and bare ground weed management. Adult, Santa Barbara, California. Number of times program was made: 2. Total number of participants: 600. Percent Responsible: 100%. 1st Quarter 2015.

Aquatic Weed Identification and Management. Adult, Montrose, Colorado. Number of times program was made: 1. Total number of participants: 230. Percent Responsible: 100%. 1st Quarter 2015.

Noxious Weed Identification. Adult, Grand Junction, Colorado. Number of times program was made: 1. Total number of participants: 150. Percent Responsible: 100%. 1st Quarter 2015.

Rangeland Weed Management: Controlling Russian knapweed. Adult, Farmington, New Mexico. Number of times program was made: 1. Total number of participants: 70. Percent Responsible: 100%. 1st Quarter 2015.

Request for the CCGA to support for the Center for Evolution, Ecology and Management of Pesticide Resistance (CEEMPR). Adult, Greeley, Colorado. Number of times program was made: 1. Total number of participants: 15. Percent Responsible: 100%. 1st Quarter 2015.

Request for the NCGA to support for the Center for Evolution, Ecology and Management of Pesticide Resistance (CEEMPR). Adult, Houston, Texas. Number of times program was made: 1. Total number of participants: 40. Percent Responsible: 100%. 1st Quarter 2015.

Five presentations covering invasive plant management on non-crop and roadsides. Adult, Loveland, Colorado. Number of times program was made: 5. Total number of participants: 22. Percent Responsible: 100%. 2nd Quarter 2015.

Impacts of invasive weed management on bees was the main topic of interest. Adult, Colorado Springs, Colorado. Number of times program was made: 1. Total number of participants: 75. Percent Responsible: 100%. 2nd Quarter 2015.

Range Weeds 101. Adult, Gunnison, Colorado. Number of times program was made: 2. Total number of participants: 30. Percent Responsible: 100%. 2nd Quarter 2015.

Bare ground and invasive winter annual grass research at CSU. Adult, Santa Barbara, California. Number of times program was made: 1. Total number of participants: 250. Percent Responsible: 100%. 4th Quarter 2015.

Rights of Way Weed Management. Adult, Denver, Colorado. Number of times program was made: 3. Total number of participants: 32. Percent Responsible: 100%. 4th Quarter 2015.

Aquatic Plant Management and Managing Herbicides in Compost. Adult, Grand Junction, Colorado. Total number of participants: 123. Percent Responsible: 100%. 1st Quarter 2014.

Ecological Impacts of Various Tamarisk Control Strategies. Adult, Grand Junction, Colorado. Total number of participants: 200. Percent Responsible: 100%. 1st Quarter 2014.

Herbicide Mode of Action and Russian Knapweed Management. Durango, Colorado. Total number of participants: 80. Percent Responsible: 100%. 1st Quarter 2014.

Aquatic Plant Management. Adult, Gunnison, Colorado. Total number of participants: 25. Percent Responsible: 100%. 2nd Quarter 2014.

Aquatic Plant Management, Herbicide Mode of Action. Adult, Loveland, Colorado. Total number of participants: 25. Percent Responsible: 100%. 2nd Quarter 2014.

Aquatic Weed Control in Irrigation and Drainage Canals. Adult, Fort Collins, Colorado. Total number of participants: 150. Percent Responsible: 100%. 2nd Quarter 2014.

Bareground and Noxious Weed Management. Adult, Montrose, Colorado. Total number of participants: 30. Percent Responsible: 100%. 2nd Quarter 2014.

Kochia and Russian Knapweed Control. Adult, Ordway, Colorado. Total number of participants: 40. Percent Responsible: 100%. 3rd Quarter 2014.

Herbicide Mode of Action. Adult, Colorado Springs, Colorado. Total number of participants: 175. Percent Responsible: 100%. 4th Quarter 2014.

Visit to Bayer Crop Science in RTP, North Carolina

Report on CSU research on invasive annual grass management. Adult, Research Triangle Park, North Carolina. Number of times program was made: 40. Total number of participants: 50. Percent Responsible: 50%. 2nd Quarter 2015.

COMMITTEES

(2010).

IR-4 Minor Crop Pesticide Registration Program, (January 1, 2002 - May 15, 2020).

CDA Noxious Weed Advisory Committee, (January 1, 2016 - January 1, 2018).

(2010).

Faculty Council Representative, (August 15, 2015 - May 15, 2017).

Promotion and Tenure Committee, (January 1, 2015 - January 1, 2017).

(2010).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

International Weed Science Society. (January 2015 - December 2015).

Aquatic Plant Management Society. (2012 - 2013).

Weed Science Society of America. (2012 - 2013).

Western Society of Aquatic Plant Management. (2012 - 2013).

Western Society of Weed Science. (2012 - 2013).

NIFA. (2011 - Present).

Weed Science. (2010 - Present).

Reviewer, Ad Hoc Reviewer, AFRE/Weedy and Invasive Species. (2009 - Present).

Officer, Vice President, Western Aquatic Plant Management Society. (March 20, 2015 - March 23, 2016).

Reviewer, Journal Article, Journal of Aquatic Plant Management. (January 1, 2015 - January 1, 2016).

Reviewer, Journal Article, Weed Science Society of America. (January 1, 2015 - January 1, 2016).

Member, Academic Affairs Committee. (2012 - 2013).

Member, Aquatic Plant Management Society. (2012 - 2013).

Member, Education Committee. (2012 - 2013).

Member, Weed Science Society of America. (2012 - 2013).

Committee Chair, Western Society of Aquatic Plant Management. (2012 - 2013).

Committee Chair, Western Society of Weed Science. (2012 - 2013).

Editor, Associate Editor, Invasive Plant Science and Management. (2009 - 2011).

Weed Science Society of America. (2010).

Weed Science Society of America. (2010).

Seminar. (2009 - 2010).

Member, Aquatic Plant Management Society. (2006 - 2010).

Member, Weed Science Society of America. (1980 - 2010).

Member, Western Society of Weed Science. (1980 - 2010).

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

I was selected by the current president to serve as "Committee Member at Large", Western Society of Weed Science. (March 7, 2015 - March 15, 2016).

Board of Directors of a Company, Western Society of Aquatic Plant Management. (2006 - 2011).
