

CURRICULUM VITAE

University of Idaho

NAME: William J. Price

DATE: 1/31/2017

RANK OR TITLE: Director, Statistical Programs, Statistician

DEPARTMENT: Statistical Programs, College of Agricultural and Life Sciences

OFFICE LOCATION AND CAMPUS ZIP: Rm 307, AgSci 2337

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DATE OF FIRST EMPLOYMENT AT UI: 6/1990

DATE OF TENURE: (Year or untenured) NA

DATE OF PRESENT RANK OR TITLE: 7/2017

EDUCATION BEYOND HIGH SCHOOL:

Degrees:

Ph.D. Plant Science. University of Idaho, December 1999.

M.S. Experimental Statistics. New Mexico State University, May, 1990.

B.S. Plant Protection Entomology. Colorado State University, December 1981.

EXPERIENCE:

Academic Administrative Appointments:

Director of Statistical Programs, College of Agricultural and Life Sciences, University of Idaho. Duties include administration of the Statistical Programs unit and personnel as well as consultation and collaboration with scientists in regards to experimental design, statistical data analysis, and computer applications; Review of materials for College of Agricultural and Life Sciences personnel regarding research proposals, technical papers; maintaining an active independent and collaborative research program. July 2017 to present.

Affiliate Professor, Department of Statistics, University of Idaho. June 2016 to present.

Statistician for the Idaho Agricultural Experiment Station. Duties involved consultation and collaboration with scientists with respect to experimental design, statistical data analysis, and computer applications; maintaining an active independent and collaborative research program; review of materials for College of Agricultural and Life Sciences personnel regarding research proposals, technical papers, and theses; conducting seminars, workshops, and short courses. June 2000-July 2017.

Research associate for the Idaho Agricultural Experiment Station. Duties involved consultation and collaboration with scientists with respect to experimental design, statistical data analysis, and computer applications; maintaining an active independent and collaborative research program; review of materials for College of Agricultural and Life Sciences personnel regarding research proposals, technical papers, and theses; conducting seminars, workshops, and short courses. June 1990-June 2000.

Research Assistant, Agricultural Science Center, Farmington, New Mexico, New Mexico State University.

Responsible for carrying out technical aspects of agricultural experimentation in pesticide, horticultural, and agronomic research. 1982 to 1987.

Non-Academic Employment including Armed Forces:

Research Assistant Agricultural Research Center, Great Western Sugar Company, Longmont, Colorado.

TEACHING ACCOMPLISHMENTS:

Areas of Specialization: Statistical consultation, statistical computation, agricultural research

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

From 1991 to present, the Statistical Programs unit has provided annual workshops, both on campus and at selected Research and Extension Centers, covering specific statistical and data techniques using SAS software. The workshops are open to all faculty, staff and graduate students in the College of Agricultural and Life Sciences and range from 2 to 6 hours in length. Since 1994, I have assumed primary responsibility for topic selection, preparation, and delivery of these workshops. This has involved development of handout materials, documents, and real data examples, all of which are made accessible to participants through the Statistical Programs web site. Previous topics have included:

- SAS Data Step
- Simple and Multiple Regression (PROC REG and PROC GLM)
- Analysis of Variance (PROC GLM)
- Mixed Linear Models (PROC MIXED)
- Nonlinear Regression (PROC NLIN and PROC NLMIXED)
- Categorical Models (PROC CATMOD)
- Generalized Linear Mixed Models (PROC GENMOD and PROC GLIMMIX)
- Multivariate procedures (PROC PRINCOMP, PROC DISCRIM, PROC CLUSTER, and PROC CANCORR)
- Graphics (SAS Graph, PROC GPLOT, PROC G3D)
- Power and Sample Size Analyses (PROC POWER, PROC GLMPOWER, PROC GLIMMIX).

SCHOLARSHIP ACCOMPLISHMENTS:

Publications, Exhibitions, Performances, Recitals:

Peer Reviewed/Evaluated:

Autran CA , Price WJ, Dalton JC, and Ahmadzadeh A. 2017. Effect of Prostaglandin F_{2α} on Growth of *Streptococcus uberis* associated with Bovine Mastitis Dairy and Vet Sci J 3(4): JDVS.MS.ID.555619

Shafii B, Price WJ, Holderman C, Minshall GW, Anders PJ. 2017. Characterizing the Kootenai River Macroinvertebrate Community Structure Using Nonnegative Matrix Factorization. *International Journal of Applied & Experimental Mathematics* 2: 120. doi: <https://doi.org/10.15344/2456-8155/2017/120>

Lackey K.A, Williams J.E, Price W.J, Carrothers J.M, Brooker S.L, Shafii B, McGuire M.A, McGuire M.K. 2017. Comparison of commercially-available preservatives for maintaining the integrity of bacterial DNA in human milk. *Journal Microbiol Methods*.141:73-81. doi: 10.1016/j.mimet.2017.08.002.

Williams J.E, Price W.J, Shafii B, Yahvah K.M, Bode L, McGuire M.A, McGuire M.K. 2017. Relationships Among Microbial Communities, Maternal Cells, Oligosaccharides, and Macronutrients in Human Milk. *Journal of Human Lactation*, Vol 33, Issue 3, pp. 540 – 551.

McGuire, Michelle, Meehan, Courtney L, McGuire, Mark A, Williams, Janet E, Foster, James, Sellen, Daniel W, Kamau-Mbuthia, Eli, Kamundia, Egidioh, Mbugua, Samwel, Moore, Sophie E, Prentice, Andrew M, Kvist, Linda J, Otoo, Gloria E, Brooker, Sarah L, Price, William J, Shafii, Bahman, Placek, Caitlyn, Lackey, Kimberly A, Robertson, Bianca, Manzano, Susana, Ruíz, Lorena, Rodríguez, Juan M, Pareja, Rossina G, Bode, Lars. 2017. What's normal? Oligosaccharide concentrations and profiles in milk produced by healthy women vary geographically. *The American Journal of Clinical Nutrition*. **105(5):1086-1100. doi:10.3945/ajcn.116.139980.**

Chilson, Jeffery M., P. Rezamand, M. E. Drewnoski, W. J. Price, C. W. Hunt. 2016. Effect of homofermentative lactic acid bacteria and exogenous hydrolytic enzymes on the ensiling characteristics and rumen degradability of alfalfa and corn silages. *The Professional Animal Scientist*. **32:5, October 2016, 598-604**

Hristov, A. N., J. Ohl, F. Giallongo, T. Frederick, M. T. Harper, H. Weeks, A. F. Branco, W. J. Price, P. J. Moate, M. H. Deighton, S. R. O. Williams, M. Kindermann, and S. Duval.. Short communication: Comparison of the GreenFeed system with the sulfur hexafluoride tracer technique for measuring enteric methane emissions from dairy cows. *Journal of dairy science*. **99(7), 5461-5465.**

Kesoju Sandya R., B. Shafii, T.S. Prather, L. W. Lass, and W. J. Price. 2015. Effect of infestation size on rush skeletonweed (*Chondrilla juncea* L.) dispersal distance. *International Journal of Plant Biology and Research* **3(4): 1048.**

Love, Stephen. L., Hutchinson, P. J., & Price, W. J. 2016. Managing weeds during wildflower meadow establishment in the arid Intermountain West: efficacy of a grass-first strategy for sites with heavy annual weed pressure. *Native Plants Journal*, **17(3), 216-229.**

Mahler, Robert L., Wilson, S., B. Shafii, and W. J. Price. 2015. Long-term trends of nitrogen and phosphorus use and soil pH change in northern Idaho and eastern Washington. *Communications in Soil Science and Plant Analysis* **47 (4): 414-424**

McGuire, Michelle K, M. A. McGuire, B. Shafii, W. J. Price, J. M. Carrothers, K. A. Lackey, D. A. Goldstein, P. K. Jensen, and J. L. Vicini. 2016. Glyphosate and aminomethylphosphonic acid are not detectable in human milk. *American Journal of Clinical Nutrition* **103:1285-90.**

Ramsay, Samantha. A., Rudley, M., Tonnemaker, L. E., & Price, W. J. 2016. A Comparison of College Students' Reported Fruit and Vegetable Liking and Intake from Childhood to Adulthood. *Journal of the American College of Nutrition*, **1-10.**

Shafii, Bahman and W. J. Price. 2016. Application of Bayesian Methods for Assessing Detection Accuracy in Remote Sensing. *International Journal of Applied & Experimental Mathematics* **1: 106 DOI: 10.15344/ijaem/2016/106.**

Shafii, Bahman and W.J. Price. 2016. Probability distributions for the mean and variance using maximum entropy and Bayesian analysis. *International Journal of Applied & Experimental Mathematics*. **1:103, DOI: 10.15344/ijaem/2016/103.**

Carrothers, Janae M., M. A. York, S. L. Brooker, K. A. Lackey, J. E. Williams, B. Shafii, W. J. Price, M. L. Settles, M. A. McGuire, and M. K. McGuire. 2015. Fecal microbial community structure is stable over time and related to variation in macronutrient and micronutrient intakes in lactating women. *The Journal of Nutrition* **145(10): 2379-2388.**

Kesoju, Sandya R., B. Shafii, L.W. Lass, W.J. Price, and T.S. Prather. 2015. Predicting rush skeletonweed (*Chondrilla juncea*) dispersal by wind within the canyon grasslands of central Idaho. *International Journal of Plant Biology and Research* **3(1): 1026.**

- M. McGee, C.M. Welch, J.A. Ramirez, G.E. Carstens, W.J. Price, J.B. Hall. 2014. Relationships of feeding behaviors with average daily gain, dry matter intake, and residual feed intake in Red Angus-sired cattle. *Journal of Animal Science* 92(11), 5214-5221.
- M. McGee, J.A. Ramirez, G.E. Carstens, W.J. Price, J.B. Hall, R.A. Hill. 2014. Relationships of feeding behaviors with efficiency in RFI-divergent Japanese Black cattle. *Journal of Animal Science* 92(8), 3580-3590.
- Minshall, G.W., B. Shafii, C. Holderman, B. Price P. Anders, G. Lester, and P. Barrett. 2014. Effects of nutrient replacement on benthic macroinvertebrates in an ultra-oligotrophic reach of the Kootenai River, 2003-2010. *Freshwater Science* 33:1009-1023.
- Shafii, Bahman, W.J. Price, T.S. Prather, and L.W. Lass. 2014. Modeling dispersal of yellow starthistle in the canyon grasslands of northern Idaho. *International Journal of Plant Biology and Research*. 2(2):1011.
- Watts, Jason S. , Rezamand, Pedram , Sevier, Dallace L , Price, William J., McGuire, Mark A. 2013. Short-term effects of dietary trans fatty acids compared with saturated fatty acids on selected measures of inflammation, fatty acid profiles, and production in early lactating Holstein dairy cows. *Journal of Dairy Science*, 96(11), pp. 6932-43.
- Welch, C. M. , Thornton, K. J. , Murdoch, G. K. , Chapalamadugu, K. C. , Schneider, C. S. , Ahola, J. K. , Hall, J. B. , Price, W. J. , Hill, R. A. 2013. An examination of the association of serum IGF-I concentration, potential candidate genes, and fiber type composition with variation in residual feed intake in progeny of Red Angus sires divergent for maintenance energy EPD. *Journal of Animal Science*, 91(12), pp. 5626-36.
- Hinz, Harriet L., M. Schwarzländer, J. L. McKenney, M. G. Cripps, B. Harmon, W. J. Price. 2012. Biogeographical comparison of the invasive *Lepidium draba* in its native, expanded and introduced ranges. *Biological Invasions*, 14(10): 1999-2016.
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- Price, William J., B. Shafii and S. S. Seefeldt. 2012. Estimation of dose-response models for discrete and continuous data in weed science. *Weed Technology* 26(3): 587-601.
- Rood , Jonquil , J. Campbell , D.C. Thill , D. Ball , L. Bennett , J. Yenish , J. Nelson , R. Rood, B. Shafii and W. J. Price. 2012. Tillage Affects Imazamox Carryover in Yellow Mustard. *Weed Technology* 26(2): 308-315.
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- Hristov, A. N., D. Mertens, S. Zaman, M. Vander Pol, and W. J. Price. 2010. Variability in feed and total mixed ration neutral detergent fiber and crude protein analyses among commercial laboratories. *J. Dairy Science*, 93: 5348-5362.
- Rauch, T. A., D. C. Thill, S. A. Gersdorf, W. J. Price. 2010. Widespread occurrence of herbicide-resistant Italian ryegrass (*lolium multiflorum*) in northern Idaho and eastern Washington. *Weed Technology*. 24(3): 281-288.
- Barney, D.L., Lopez, O.A., Shafii, B. and Price, W.J. (2009). Effects of stratification and cold storage on seed germination characteristics of dwarf huckleberry. *Acta Hort.* 810, 591-598.

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- Cripps, M. G., M. Schwarzlander, J. L. McKenney, H. L. Hinz, and W. J. Price. 2006. Biogeographical comparison of the arthropod herbivore communities associated with *Lepidium draba* in its native, expanded and introduced ranges. *Journal of Biogeography*. 33: 2107-2119.
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- Dalton, J. C., A. Ahmadzadeh, B. Shafii, W. J. Price, and J. M. DeJarnette. 2004. Effect of simultaneous thawing multiple 0.5-ml straws of semen and sequence of insemination on conception rate in dairy cattle. *Journal of Dairy Science*. 87: 972-975.
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- Shafii, B., W. J. Price, T. S. Prather, L. W. Lass, and D. C. Thill. 2003. Predicting the likelihood of yellow starthistle occurrence using landscape characteristics. *Weed Science*. 51: 748-751.
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- Dalton, J. C., A. Ahmadzadeh, B. Shafii, W. J. Price, and J. M. DeJarnette. 2002. Effect of elapsed time between initial thawing of multiple 0.5-mL semen straws and AI on conception rates in dairy cattle. *Journal of Animal Science*. 80 (Suppl. 1)/ *Journal of Dairy Science*. 85 (Suppl. 1): 275.
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- Fielding, D. J, M. A. Brusven, B. Shafii, and W. J. Price. 2001. Spatial heterogeneity of low-density populations of *Melanoplus sanguinipes* (Orthoptera: Acrididae) associated with grazing and vegetation treatments. *The Canadian Entomologist*. 133:843-855.
- Shafii, B. and W. J. Price. 2001. Estimation of cardinal temperatures in germination data analysis. *Journal of Agricultural, Biological and Environmental Statistics*. 6(3):356-366.
- Lass, L. W., B. Shafii, W. J. Price, and D. C. Thill. 2000. Assessing agreement in multispectral images of yellow starthistle (*Centaurea solstitialis*) with ground truth data using the Bayesian methodology. *Weed Technology*. 14:539-544.
- Price, W.J. and B. Shafii. 1998. An individual-plant growth algorithm for competition between spring barley and wild out. *Trends in Agronomy*. 1:95-102.
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Shafii, B., K. A. Mahler, W. J. Price, and D. A. Auld. 1992. Genotype x environment interaction effects on winter rapeseed yield and oil content. *Crop Science* 32:922-927.

Refereed/Adjudicated:

Peterson H, Day R, Williams JE, Price WJ, Shafii B, and McGuire MA. 2017. Enriching bovine milk fat with α -linolenic acid, an n-3 fatty acid, through feeding of a rumen-protected flax-based supplement. Poster presented at the 2017 ADSA ASAS Joint Annual Meetings, June 25-28, Pittsburgh, Pennsylvania.

Price, WJ. and Shafii, B, 2017, "Alternative Estimation Techniques for Correlated Discrete Data," Conference on Applied Statistics in Agriculture.
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Spencer J, Carnahan K, Price WJ, Shafii B, and Ahmadzadeh A. 2017. Effect of one versus two prostaglandin F2 α injections on progesterone concentrations and luteolysis in dairy cows subjected to a 5-d CIDR-Cosynch. Poster presented at the 2017 ADSA ASAS Joint Annual Meetings, June 25-28, Pittsburgh, Pennsylvania.

Brooker SL, Yahvah KM, Casperson BA, Williams JE, Shafii B, Price WJ, Tinker J, McGuire MA. 2017. The bovine milk microbiome and somatic cell count. Poster presented at the 2017 ADSA ASAS Joint Annual Meetings, June 25-28, Pittsburgh, Pennsylvania.

Lee S, Baniasadidehkordi M, Joyner H, Ross C, Price WJ, Ramsay S. 2017. Effects of Repeated Texture Exposure on Young Children's Intake and Liking of Yogurts.

Poster presented at the 2017 Experimental Biology Annual Meeting, April 22-26, Chicago, IL. Merickel, John W., B. Shafii, S.D. Eigenbrode, C. J. Williams, and W.J. Price. 2015. Modeling the occurrence of four cereal crop aphid species in Idaho. *Applied Statistics in Agriculture*, P.E. Reyes (Ed). Kansas State University, Manhattan, Kansas, pp.1-38.

Price, William J., B. Shafii, and D. Morishita. 2015. Using a generalized linear mixed model framework to account for spatial variability in a comparison of orchard sprayer efficiency. *Applied Statistics in Agriculture*, P.E. Reyes (Ed). Kansas State University, Manhattan, Kansas, pp.39-49.

Claypool, Courtney, K., J. Spencer, S. M. Zoca, B. Shafii, W. J. Price, A. Ahmadzadeh, N. R. Rimby, and J. C. Dalton. 2015. Distribution of detected estrus following 14-day CIDR and prostaglandin F2 α treatment as a pre-synchronization strategy in dairy heifers. *Abstract: J. Dairy Sci.*, Vol. 98, Suppl. 2: 115.

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Shafii, Bahman and W.J. Price. 2013. Estimation of an index of phylogenetic correlation using bootstrap simulation technique. *Abstract: Joint Statistical Meetings of the American Statistical Association, [CD ROM]*.

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Lass, L. W., T. S Prather, B. Shafii, W. J. Price. 2007. Using spatial network techniques to model movement of yellow starthistle in canyon grasslands. *Abstract: Proceedings of the Western Society of*

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Tian, Fei, T. S. Prather, B. Shafii, W. J. Price, and L. W. Lass. 2005. Modeling yellow starthistle dispersal in canyon grasslands of Idaho. Abstract. Weed Science Society of America, 45: 120.

Johnson-Maynard, J. L., K. J. Umiker, W. J. Price, B. Shafii, P. McDaniel. 2004. Surface and subsurface controls on carbon and nitrogen stocks. Abstract, [CDROM], ASA/CSSA/SSSA.

Morishita, D. W., B. Shafii, R. W. Downard, and W. J. Price. 1994. Area of influence of three broadleaf weeds in sugarbeets. Abstract, Weed Science Society of America 34:10.

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McCawley, P., B. Shafii, W. J. Price. 2005. Your Idaho Community: current and future needs. Survey results and analyses. University of Idaho Extension Current Information Series, Oct 2005.

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Herberger, Sarah M., B. Shafii, S. Cook, C. Williams and W.J. Price. 2014. Multivariate statistical analysis of Coleoptera spectral reflectance. In Proceedings of the Twenty Sixth Applied Statistics in Agriculture, W. Song (Ed). Kansas State University, Manhattan, Kansas, pp.20-57.

Shafii, Bahman, W.J. Price, G. W. Minshall, C. Holderman, P.J. Anders, G. Lester, and P. Barrett. 2013. Characterizing benthic macroinvertebrate community responses to nutrient addition using NMDS and BACI analyses. In Proceedings of the Twenty Fifth Applied Statistics in Agriculture, W. Song (Ed). Kansas State University, Manhattan, Kansas, pp.64-79.

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Kesoju, Sandya, R., B. Shafii, T. S. Prather, W. J. Price, and L. W. Lass. 2012. Predicting Wind Dispersal of Rush Skeletonweed (*Chondrilla juncea* L.) within Canyon Grasslands of Central Idaho. In Proceedings: Western Society of Weed Science, Vol. 65, p. 59.

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Kesoju, Sandya, R. , B. Shafii, T. S. Prather, W. J. Price, and L. W. Lass. 2011. Modeling Spatial Patterns for rush skeletonweed dispersal in the Salmon River Canyon. In Proceedings of the Western Society of

Weed Science, Vol. 64, p. 59.

Price, William J., B. Shafii, C.B. Rapo, S.D. Eigenbrode, and J. Gaskin. 2011. Bootstrap estimation and comparison of an index of phylogenetic correlation. In Proceedings of the Twenty Third Applied Statistics in Agriculture, W. Song and G. L. Gadbury (Eds) [CD ROM]. Kansas State University, Manhattan, Kansas.

Lass, L., L., B. Shafii, T. S. Prather, W. J. Price, S. Cook, S. Radosevich, W. Chung and T. Venn. 2010. A neural network approach to predicting the occurrence of rush skeletonweed and yellow starthistle in the Intermountain Northwest. In Proceedings of the Western Society of Weed Science, pg 2.

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Shafii, Bahman and W.J. Price. 2012. Non-parametric distributions for the mean and variance using Bayesian analysis and maximum entropy. Paper presented at the Joint Statistical Meetings of the American Statistical Association, July 29 - August 2, San Diego, CA.

Shafii, Bahman, W.J. Price, N. Merz, and D. Bergeron. 2012. Multivariate analysis of avian index of biotic integrity. Paper presented at the Twenty-fourth Conference on Applied Statistics in Agriculture, April 29-May 1, Manhattan KS.

Kesoju, Sandya R. , B. Shafii, T. S. Prather, W. J. Price, and L. W. Lass. 2011. Modeling Spatial Patterns for rush skeletonweed dispersal in the Salmon River Canyon. Paper presented Annual Meeting of the Western Society of Weed Science, March 7-10, Spokane, WA.

Lass, Lawrence W. Lass, T.S. Prather , B. Shafii, S. Cook, T. Venn, W. Chung, S. R. Radosevich, P. Aracena, , W. J. Price, C. Crabtree, P. Green, and S. Kesoju. 2011. Using a Plant Dispersal Model for Yellow Starthistle for Landscape Level Weed Management Planning. Poster presented at the 51st Annual Meeting of the Weed Science Society of America, February 7-10, Portland, Oregon.

Price, William J., B. Shafii, and S. S. Steven S., W.J. Price, and B. Shafii. 2011. Applied dose-response models in weed science. Invited symposium presentation at the 51st Annual Meeting of the Weed Science Society of America, February 7-10, Portland, OR.

Price, William J., B. Shafii, C.B. Rapo, S.D. Eigenbrode, and J. Gaskin. 2011. Bootstrap estimation and comparison of an index of phylogenetic correlation. Paper presented at the Twenty-Third Conference on Applied Statistics in Agriculture, April 25-27, Manhattan Kansas.

Seefeldt, Steven S., W.J. Price, and B. Shafii. 2011. Dose-response background and perspectives on the

development of analysis methodology. Invited symposium presentation at the 51st Annual Meeting of the Weed Science Society of America, February 7-10, Portland, OR.

Shafii, Bahman, T. S. Prather, L. W. , W. J. Price, S. R. Kesoju, S. Cook , S. Radosevich,, P. Aracena, W. Chung, T. Venn, C. Crabtree, and P. Green. 2011. Decision-support tool utilizing improved dispersal modeling to develop socio-economically efficient invasive species management programs. Poster presented at the USDA Project Director meetings, July 19-20, Washington D.C.

Shafii, Bahman, W.J. Price, and S. S. Seefeldt. 2011. Estimation techniques for the dose-response functions. Invited symposium presentation at the 51st Annual Meeting of the Weed Science Society of America, February 7-10, Portland, OR.

Lass, Lawrence, L., B. Shafii, T. S. Prather, W. J. Price, S. Cook, S. Radosevich, W. Chung and T. Venn. A neural network approach to predicting the occurrence of rush skeletonweed and yellow starthistle in the Intermountain Northwest. Poster presentation at the Annual Meeting of the Western Society of Weed Science, March 10, Kona, HI.

Prather, Timothy S., L.L. Lass, B. Shafii, W. J. Price, S. Cook, S. Radosevich, W. Chung and T. Venn. 2010. Decision-support tools utilizing improved dispersal modeling to develop socio-economically efficient invasive species management programs. Poster presented at the Annual Meeting of the Weed Science Society of America annual meeting, February 9, Denver, CO.

Shafii, Bahman and W. J. Price. 2010. Nonparametric Bayesian estimation of an unknown dose. Paper presented at the Joint Statistical Meeting of the American Statistical Association, August 1-5, Vancouver, B.C., Canada.

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Shafii, Bahman, W. J. Price, C. Holderman, C. Gidley, and P. J. Anders. 2010. Modeling fish length distribution using a mixture technique. Paper presented at the Twenty-Second Conference on Applied Statistics in Agriculture, April 25-27, Manhattan KS.

Price, William J., L.H. Hinz, B. Shafii, M. Schwarzlander, C.B. Rapo, and S.D. Eigenbrode. 2009. Bootstrap estimation and inference on an index of phylogenetic correlation. Invited poster presented at the 25th Annual Meeting of the International Society of Chemical Ecology, August 23-27, 2009, Neuchatel, Switzerland.

Shafii, Bahman, and W. J. Price. 2009. Bayesian nonparametric bioassay estimation. Paper presented at the Twenty-First Conference on Applied Statistics in Agriculture, April 24-26, Manhattan KS.

Barney, Danny L., O. A. Lopez, B. Shafii, and W. J. Price. 2008. Effects of stratification and cold storage on the seed germination characteristics of dwarf huckleberry. Paper presented at the 2008 International Vaccinium Conference, July 14-16 Corvallis, OR.

Prather, Timothy S., B. Shafii, L. W. Lass and W. J. Price. 2008. Utilizing geographic information systems and remotely sensed data to set integrated pest management strategies for plant survey and landscape-scale weed management. Paper presented as part of a symposium on GIS for Invasive Weed Management and Research, at the 60th annual meeting of the Weed Science Society of America, February 4-7, Chicago, IL.

Shafii, Bahman, D. L. Barney, W. J. Price, and O. A. Lopez. 2008. Effects of stratification and cold storage on the seed germination characteristics of Cascade huckleberry and oval-leaved bilberry. Paper presented at the 2008 International Vaccinium Conference, July 14-16 Corvallis, OR.

Shafii, Bahman., W. J. Price, P. E. Blom, J. M. Tarara, N. Dokoozlian, and L. J. Sanchez. 2008. Modeling seasonal wine grape development using a mixture technique. Paper presented at the Twentieth Conference on Applied Statistics in Agriculture, April 27-29, Manhattan KS.

- T. S. Prather, B. Shafii, L. Lass, W. Price. 2008. Utilizing geographic information systems and remotely-sensed data to set integrated pest management strategies for plant survey and landscape-scale weed management. Paper presented at the 48th Meeting of the Weed Science Society of America, Symposium Presentation GIS for Invasive Weed Management and Research Tuesday February 5 2008, Chicago IL.
- W. J. Price, B. Shafii, P. E. Blom, J. M. Terrara, N. Dokoozlian, and L. J. Sanchez. 2008. Modeling Seasonal Wine Grape Development Using a Mixture Technique. Paper presented at the Twentieth Conference on Applied Statistics in Agriculture, April 27-29, 2008. Manhattan KS.
- Barney, D. L., B. Shafii, and W. J. Price. 2007. Corkbark and Subalpine Fir: performance of desert Southwest seed sources in Northern Idaho and Northeastern Oregon. Paper presented at the Eighth Annual Biennial Exotic Conifer Conference and Field Day, Sept. 11, 2007, Coeur d'Alene, ID.
- Barney, D. L., B. Shafii, and W. J. Price. 2007. Evaluation of corkbark and subalpine fir for their potential as ornamental nursery stock and Christmas trees. Talk presented at the Meeting of the Inland Empire Christmas Tree Association. March 10, 2007, Spokane, WA.
- Barney, D. L., B. Shafii, and W. J. Price. 2007. Evaluation of corkbark and subalpine fir for their potential as ornamental nursery stock and Christmas trees. Paper presented at the 2007 Idaho Horticulture Expo, January 17-19, 2007, Boise, ID.
- Lass, L. W., T. S Prather, B. Shafii, W. J. Price. 2007. Using spatial network techniques to model movement of yellow starthistle in canyon grasslands. Poster presented at the 60th Meeting of the Western Society of Weed Science, March 13-15, 2007, Portland, OR.
- Price, W. J. 2007. Considerations for weed science germination/emergence modeling. Invited talk presented at the 60th Meeting of the Western Society of Weed Science, March 13-15, 2007, Portland, OR.
- Price, W. J., B. Shafii, and D. L. Barney. 2007. Estimating the probability of bud break and the potential of frost damage in subalpine fir trees. Paper presented at the Nineteenth Conference on Applied Statistics in Agriculture, April 30 - May 2, 2006. Manhattan KS.
- Price, W. J., B. Shafii, J. Campbell, and T. Rauch. 2007. Meta-analysis of on-farm trials with limited or no replication. Invited talk presented at the 60th Meeting of the Western Society of Weed Science, March 13-15, 2007, Portland, OR.
- Dalton, J. C., N. Rimbey, B. Shafii, W. J. Price, M. A. McGuire, D. Contesso, J. Stewart. 2006. Effect of feeding wet pressed pulp on milk yield of dairy cows. Poster presented at the 2006 ADSA, ASAS Joint National Meeting, July 9-13, 2006, Minneapolis, MN.
- Lass, L. W., T. S Prather, B. Shafii, W. J. Price, and D. Howard. A new approach to predicting the future distribution of yellow starthistle. Poster presented at the 59th Meeting of the Western Society of Weed Science, March 14-16, 2006, Reno, NV.
- Ostrowski, K. M., J. Boll, W. J. Price, E. S. Brooks, and J. Newson. Use of monitoring data to evaluate watershed management practices in a mixed-land use watershed in northern Idaho. Paper presented at the Joint Eighth Federal Interagency Sedimentation Conference and Third Federal Interagency Hydrologic Modeling Conference. April 2-6, 2006, Reno, NV.
- Shafii, B. and W. J. Price. Bayesian approaches to dose-response calibration models. Paper presented at the XXIII International Biometric Conference, July 16 - 21, 2006. Montreal, Quebec Canada.
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- Lopez, Omar A., D. L. Barney, B. Shafii, and W. J. Price. 2005. Modeling the effects of cold stratification on Cascade huckleberry (*Vaccinium deliciosum* Piper) seed germination. Paper presented at Annual Meeting for Northwest Center for Small Fruit Research, December 1, Portland, OR.
- Mahler, R. L., B. Shafii, W. J. Price and K. A. Loeffelman. 2005. Using Survey Data Warehoused on the Water Needs Assessment Website. Talk presented at the National Water Quality Conference, February 6-10, 2005, San Diego, CA.
- Price, W. J. and B. Shafii. 2005. Bayesian Analysis of Dose-response Calibration Curves. Paper presented at the Seventeenth Conference on Applied Statistics in Agriculture, April 25-27, 2005. Manhattan KS.
- Price, W. J., B. Shafii, and S. Seefeldt. 2005. Estimation of Dose-response Functions. Invited symposium presented at the 58th Annual Meetings of the Western Society of Weed Science, March 8-10, 2005, Vancouver, British Columbia, Canada.
- Quinn, M. P., D. W. Morishita and W. J. Price. 2005. Determining physiological maturation of jointed goatgrass (*Aegilops cylindrica*) caryopses. Presented at the 45th Annual Meeting of the Weed Science Society of America, February 7 - 10, 2005, Honolulu, HI.
- Shafii, B. and W. J. Price. 2005. Estimation, Diagnosis, and Comparative Procedures in Nonlinear Regression Models. Special Topics talk given at the Forty Fourth Annual Meeting of the Society of Nematologists, July 9-13, 2005, Fort Lauderdale, FL.
- Tian, F., T. S. Prather, B. Shafii, W. J. Price, and L. W. Lass. 2005. Modeling yellow starthistle dispersal in canyon grasslands of Idaho. Presented at the 45th Annual Meeting of the Weed Science Society of America, February 7 - 10, 2005, Honolulu, HI.
- Frago, F., A. Ahmadzadeh, B. Shafii, J. C. Dalton, M. A. McGuire, and W. J. Price. 2004. Effect of clinical mastitis on days in milk at first service, services per conception, days open, in Holstein cattle. Paper presented at the 2004 ADSA/ASAS Joint Meetings, July 25-29, 2004, St. Louis, MO.
- Johnson-Maynard, J. L., P. McDaniel, K. Umiker, W. J. Price, and B. Shafii. Surface and subsurface controls on carbon and nitrogen stocks. Poster presented at the ASA/CSSA/SSSA Annual Meetings, October 31 – November 4, 2004.
- Price, W. J., B. Shafii, and K. B. Newman. 2004. Bayesian Analysis of Dose-response Calibration Curves. Paper presented as part of Applied Statistics Seminar Series, College of Agriculture, University of Idaho. March 9, Moscow, ID.
- Quinn, M. P., D. W. Morishita, W. J. Price, and M. J. Willie. Interaction of seeding rate and herbicide rate on weed control in spring wheat. Poster presented at the 56th Meeting of the Western Society of Weed Science, March 10-13, Kauai, HI.
- Shafii, B., W. J. Price, and K. B. Newman. 2004. Bayesian analysis of dose-response calibration curves. Paper presented at the Joint Statistical Meetings of the American Statistical Association, August 8-12, 2004, Toronto, Ontario, CA.
- Tian, F., B. Shafii, C. J. Williams, T. S. Prather, W. J. Price, and L. W. Lass. Prediction of yellow starthistle survival and movement over time and space. Paper presented at the Sixteenth Conference on Applied Statistics in Agriculture, April 25-27, 2004. Manhattan KS.

Tian, F., B. Shafii, T. S. Prather, W. J. Price, C. Williams, and L. W. Lass. Dispersal of Yellow Starthistle can be Predicted from Community Susceptibility. Paper presented at the 57th Meeting of the Western Society of Weed Science, March 9-11, Colorado Springs, CO.

Brixey, J. D., M. A. McGuire, and W. J. Price. Validation of a prediction equation for energy balance in Holstien cow and heifers. Poster presented at the 2003 ADSA, ASAS Joint National Meeting, June 22-26, Phoenix, AZ.

Higley, J. S., S. L. Love, W. J. Price, J. E. Nelson, and K. C. Huber. The Rapid Visco Analyzer (RVA) as a tool for differentiating potato cultivars on the basis of flour pasting profiles. Poster presented at 2003 Meetings of the Potato Association of America, August 9-11, Spokane, WA.

Hristov, A. N., J. K. Ropp, K. L. Grandeen, R. P. Etter, A. Foley, A. Melgar, and W. J. Price. Paper presented at the 2003 European Association of Animal Production Symposium on Energy and Protein Metabolism and Nutrition, September 13-18, Rostock, Germany.

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Shafii, B, and W. J. Price. 1993. Use of PROC GLM, PROC IML, and PROC MIXED for spatial statistical analyses. Paper presented at the fall meeting of the Inland Empire SAS Users Group, October 29. University of Idaho, Moscow, ID.

Shafii, B., and W. J. Price. 1992. Biplot analysis of two-way classification data using SAS IML/GRAPH. Paper presented at the fall meeting of the Inland Empire SAS Users Group, October 22. University of Idaho, Moscow, ID.

OUTREACH SERVICE:

Annual visits to Research and Extension Centers in Southern Idaho for the primary purpose of statistical consulting with off-campus faculty and research personnel, presenting statistical seminars, distributing technical handouts, and occasional SAS workshops.