

Professor Dawn VanLeeuwen
New Mexico State University
ECONOMICS AND INTERNATIONAL BUSINES
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Education

Ph D, Oregon State University, 1993.

Major: Statistics

Supporting Areas of Emphasis: Linear Models, probability, advanced statistical theory, statistical inference, advanced experimental design, sampling methods, multivariate analysis, consulting.

Dissertation Title: Completeness and Sufficiency Under Normality in Mixed Model Designs

MS, Oregon State University, 1988.

Major: Highest Scholarship, Operations Research

BS, Oregon State University, 1987.

Major: Highest Scholarship, Mathematical Sciences and Mathematics

Employment History

Academic - Post-Secondary

Full Professor, Department of Economics, Applied Statistics, and International Business, New Mexico State University. (2008 - Present). Joint appointment with 60% commitment to New Mexico Agricultural Experiment Station (NMAES).

Full Professor, Department of Agricultural and Extension Education and Agricultural Biometric Service, New Mexico State University. (2004 - 2008).

Associate Professor, Dept. of Agriculture and Extension Education and Agricultural Biometric Service, New Mexico State University. (1999 - 2004).

Assistant Professor, Dept. of Agriculture and Extension Education and Agricultural Biometric Service, New Mexico State University. (June 1996 - 1999).

Assistant Professor, Department of Experimental Statistics and University Statistics Center, New Mexico State University. (August 1993 - June 1996).

Awards and Honors

2021 Excellence in Team Research Award, NMSU University Research Council. Co-awardee: Keith Mandabach.

Tenth Most Read ASHS paper April 2010, American Society for Horticultural Science. (2010).

2006 NMSU CAHE (College of Agriculture and Home Economics) Distinguished Service Award.

2005 NMSU Collegiate FFA/ATA Outstanding Teacher Award.

2003 Emerald Management Review Citation of Excellence for practical implications. Co-awardees: K. Mandabach, P. Bloomquist, and W. Rande. (Awarded by I-CHRIE, the

International Council on Hotel, Restaurant, and Institutional Education, to top papers published in Emerald Management Reviews Accredited Journal Coverage List.

2003 Emerald Management Review Citation of Excellence for readability. Co-awardees: K. Mandabach, P. Bloomquist, and W. Rande.

2003 Emerald Management Review Citation of Excellence for practical implications. Co-awardees: K. Mandabach, R. Harrington, and D. Revelas.

2001 College of Health and Social Services Research Award for Best Research Publication in Border Community Research 2000-2001. Co-awardees: M. Barnes and M. Pase.

2000 E. B. Knight Journal Award (Awarded by NACTA, National Association of Colleges and Teachers of Agriculture, for the outstanding article in the NACTA Journal in 1999.).

Selected Published Intellectual Contributions

Sapkota, G., Delgado, E., VanLeeuwen, D.F., Holguin, O., Flores, N., Yao, S. (2023). Dynamics of Nutrients in Jujube (*Ziziphus jujuba* Mill.) at Different Maturity Stages, Cultivars, and Locations. *HortScience*, 58(2), 155-163.

Fernald, A., Garduno, H.R., Gokbulak, F., VanLeeuwen, D., Cibils, A. F. (2022). Response of soil moisture to infrequent heavy defoliation of chemically thinned Juniper woodland. *Rangeland Ecology and Management*, 84, 108-116.

Smith, C. A., VanLeeuwen, D., Heerema, R., Sherman, J. D., Comeau, M. J., Walworth, J. L. (2022). Zinc Variability in Pecan Orchards: Implications for Leaf Sampling and Nutrient Recommendations. *HortScience*, 57(4), 550-557.

Nyamuryekung'e, S., Cibils, A. F., Estell, R. E., VanLeeuwen, D., Spiegel, S., Steele, C. M., Gonzalez, A. L., McIntosh, M., Gong, Q., Cao, H. (2022). Movement, activity, and landscape use patterns of heritage and commercial beef cows grazing Chihuahuan Desert rangeland. *Journal of Arid Environments*, 199, 104704.

Creegan, E., Flynn, R. P., Torell, G., Brewer, C. E., VanLeeuwen, D., Acharya, R., Heerema, R., Darapunen, M. K. (2022). Pecan (*Carya illinoensis*) and dairy waste stream utilization: properties and economics of on-farm windrow systems. *Sustainability*, 14(5), 2550.

Thapa, V. R., Ghimire, R., VanLeeuwen, D., Acosta-Martinez, V., Shukla, M. K. (2022). Response of soil organic matter to cover cropping in water-limited environments. *Geoderma*, 406(2), 115497.

Nyamuryekung'e, S., Cibils, A. F., Estell, R. E., McIntosh, M., VanLeeuwen, D., Steele, C. M., Gonzalez, A. L., Spiegel, S., Continanza, F. G. (2021). Foraging Behavior of Heritage versus Desert-Adapted Commercial Rangeland Beef Cows in Relation to Dam-Offspring Contact Patterns. *Rangeland Ecology & Management*, 74, 43-49.

Jha, G., Ulery, A. L., Lombard, K. A., VanLeeuwen, D., Brungard, C. W., Dari, B., Sihi, D. (2021). Portable X-Ray Fluorescence (PXRF) Analysis of Total Metal(loid)s and Sequential Extraction of Bioavailable Arsenic in Agricultural Soils of Animas Watershed. *Water, Air, & Soil Pollution*, 232(308), 308.

Nyamuryekung'e, S., Cibils, A. F., Estell, R. E., McIntosh, M. M., VanLeeuwen, D., Steele, C. M., et al. (2021). Foraging behavior and body temperature of heritage vs. commercial beef cows in relation to desert ambient heat. *Journal of Arid Environments*, 193(3), 10.

- Dormody, T. J., Skelton, P. D., Rodriguez, G., Dubois, D. W., VanLeeuwen, D. (2021). Assessing the Impact of a Weather and Climate Curriculum on Youth Science Comprehension. *Journal of Agricultural Education*, 62(3), 153-166. <https://www.jae-online.org/index.php/volume-62-number-3-2021/2420-assessing-the-impact-of-a-weather-and-climate-curriculum-on-youth-science-comprehension>
- Atalar, F., Beyazoglui, O., Fernald, A., Burney, O., VanLeeuwen, D., Cram, D. S. (2021). A case study of runoff and sediment yield in areas subjected to different forest thinning operations in a northern New Mexico forest. *Journal of Soil and Water Conservation*, 76(4), 293-302.
- Thompson, M. Y., Randall, J. J., VanLeeuwen, D., Heerema, R. (2021). Differential Expression of Key Floral Initiation Genes in Response to Plant Growth Regulator Application and Alternate Bearing in Pecan. *Journal of the American Society for Horticultural Science*, 146(3), 206-214.
- Jha, G., Mukhopadhyay, S., Ulery, A. L., Lombard, K. A., Chakraborty, S., Weindorf, D., VanLeeuwen, D., Brungard, C. W. (2021). Agricultural Soils of the Animas River Watershed: An Elemental Spatiotemporal Analysis via Portable X-ray Fluorescence Spectroscopy after the Gold King Mine Spill. *Journal of Environmental Quality*, 50(3), 730-743.
- Wollast, R., Klein, O., VanLeeuwen, D., Gervais, S. J., Bernard, P. (2021). Does Self-Objectification entail an opposition between appearance and competence? The Likert version of the Self-Objectification Questionnaire (LSOQ). *Psychologica Belgica*, 61(1), 33-45.
- Wang, Y., Heerema, R., Walworth, J. L., Dungan, B., VanLeeuwen, D., Holguin, F. O. (2020). Nutraceutical properties of pecan kernels are affected by soil zinc fertilizer application. *HortScience*, 55(12), 2001-2007.
- Heyduck, R. F., VanLeeuwen, D., Guldán, S. J. (2020). Effect of Harvest Schedule on Organic Kale Grown during the Winter in High Tunnels. *HORTTECHNOLOGY*, 30(5), 570-575. <https://journals.ashs.org/horttech/view/journals/horttech/30/5/article-p570.xml>
- Kankarla, V., Shukla, M. K., Picchioni, G., VanLeeuwen, D., Schutte, B. J. (2020). Germination and emergence responses of alfalfa, triticale and quinoa irrigated with brackish groundwater and desalination concentrate. *Agronomy*, 10(4).
- Mandabach, K. H., Miller, C. A., Stringam, E. C., VanLeeuwen, D. (2020). Evaluating Student Performance in Foodservice / Culinary Laboratories: A Study of Assessment. *Journal of Culinary Education Best Practices*(3-2 December 2020), 71-80. <https://www.cafemeetingplace.com/images/JCEBP%20Volume%203,%20Issue%202.pdf>
- Dormody, T. J., Skelton, P. D., Rodriguez, G., Dubois, D. W., Dormody, T. J. (2020). Science Comprehension Retention Among Youth Agriscience Students Instructed in Weather and Climate. *Journal of Youth Development*, 15(6), 116-135. <http://jyd.pitt.edu/ojs/jyd>
- Darapuneni, M. K., Lauriault, L. M., VanLeeuwen, D. M., Angadi, S. V. (2020). Irrigation strategies influenced alfalfa dry matter yield and water productivity in a semiarid subtropical environment. *Irrigation and Drainage*, 69(5), 1063-1071. <https://doi.org/10.1002/ird.2490>
- Uchanski, M. E., VanLeeuwen, D., Guldán, S. J., Falk, C. L., Shukla, M. K., Enfield, J. (2020). Temperature and light characterization during winter production season in high tunnels in the southwestern United States. *HortTechnology*, 30(2), 259-267. <https://doi.org/10.21273/HORTTECH04486-19>
- Dormody, T. J., Skelton, P. D., Rodriguez, G., Dubois, D. W., VanLeeuwen, D. (2020). Lesson Worksheets: A Tool for Developing Youth Weather and Climate Science Comprehension. *Journal of Extension*, 58(2). <https://www.joe.org/joe/2020april/rb7.php>

- Omer, M., Idowu, O. J., Ulery, A. L., VanLeeuwen, D., Guldán, S. J., Marsalis, M. A., Ghimire, R. (2020). Impacts of selected management practices on soil quality in an irrigated arid agroecosystem. *Journal of Soil & Water Conservation*, 75(2), 143-152.
- Nyamuryekunge, S., Cibils, A. F., Estell, R. E., VanLeeuwen, D., Steele, C. M., Roacho Estrada, Octavio, Rodriguez Almeida, Felipe A., Gonzalez, A. L., Spiegel, S. (2020). Do Young Calves Influence Movement Patterns of Nursing Raramuri Criollo Cows on Rangeland?. *RANGELAND ECOLOGY & MANAGEMENT*, 73(1), 84-92.
- Moran Duran, S. A., Flynn, R. P., Heerema, R., VanLeeuwen, D. (2020). Leaf Net Photosynthesis, Leaf Greenness and Shoot Lignin Content of Non-Bearing Pecan Trees at Two Nitrogen and Nickel Application Rates. *HortScience*, 55(2), 231-236. <https://journals.ashs.org/hortsci/view/journals/hortsci/55/2/article-p231.xml>
- Cormier, J., Heyduck, R., Guldán, S. J., Yao, S., VanLeeuwen, D., Guzman, I. (2020). Intercropping Winter Greens between Blackberry Rows for Year-round High Tunnel Production. *HortTechnology*(30), 47-54. <http://dx.doi.org/10.21273/horttech04436-19>
- Smythe, B. G., Wise, M., Cibils, A. F., VanLeeuwen, D., Summers, A. F., Fletcher, M. G., Scholljegerdes, E. J. (2019). Growth and Reproductive Performance of Rangeland Beef-Cattle as Influenced by Controlled and Uncontrolled Populations of Horn Flies (Diptera: Muscidae). *JOURNAL OF ECONOMIC ENTOMOLOGY*, 112(2), 969-973.
- Cruz, J. J., Fernald, A., VanLeeuwen, D., Guldán, S. J., Ochoa, C. (2019). River-Ditch Flow Statistical Relationships in a Traditionally Irrigated Valley Near Taos New Mexico. *Journal of Contemporary Water Research & Education*(168), 49-65.
- Wells, K., VanLeeuwen, D., SeEVERS, B. S., White, L. (2019). Impact of traditional lecture and hands-on learning on students knowledge gain in animal science classes.. *NACTA Journal*, 63, 319-321.
- Kankarla, V., Shukla, M. K., VanLeeuwen, D., Schutte, B. J., Picchioni, G. (2019). Growth, Evapotranspiration, and Ion Uptake Characteristics of Alfalfa and Triticale Irrigated with Brackish Groundwater and Desalination Concentrate. *Agronomy*, 9(789), 17. <https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.mdpi.com%2F2073-4395%2F9%2F12%2F789%2Fpdf&data=01%7C01%7Cvanleeuw%40nmsu.edu%7C8cc9b9347b444882eddd08d76f3c9b95%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sd=VWlyHvqivgQOZ0UccsiJ3jGqEHcUORa6vif3pqP13ek%3D&reserved=0>
- Thompson, M. Y., Randall, J. J., Heerema, R., VanLeeuwen, D. (2019). Exogenous Plant Growth Regulators Show Promise for Management of Alternate Bearing in Pecan. *HortScience*, 54(7), 1204-1207. <https://journals.ashs.org/hortsci/abstract/journals/hortsci/54/7/article-p1204.xml>
- Omer, M., Idowu, O. J., Ulery, A. L., VanLeeuwen, D., Guldán, S. J. (2018). Seasonal Changes of Soil Quality Indicators in Selected Arid Cropping Systems.. *Agriculture*, 8, 124.
- Gill, S. S., Willette, S., Dungan, B., Jarvis, J. M., Schaub, T. M., VanLeeuwen, D., St Hilaire, R., Holguin, F. O. (2018). Suboptimal Temperature Acclimation Affects Kennedy Pathway Gene Expression, Lipidome and Metabolite Profile of *Nannochloropsis salina* during PUFA Enriched TAG Synthesis. *MARINE DRUGS*, 16(11).
- Griffin, E., Desmond, M. J., VanLeeuwen, D. (2018). Juvenile burrowing owl nighttime space space-use in southern New Mexico. *Journal of Raptor Research*, 52(2), 158-166. <http://www.bioone.org/doi/abs/10.3356/JRR-17-10.1>

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- Frietze, V. D., Gioannini, R. H., Al-Ajlouni, M. G., VanLeeuwen, D., St Hilaire, R. (2018). Contrasting Urban Landscapes and Reduced Irrigation Engender Water Conservation in a Desert Environment. *Sustainability*, 10(3), 17. www.mdpi.com/2071-1050/10/3
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- VanLeeuwen, D., Birkes, D. S., Seely, J. F. (1999). Balance and Orthogonality in Designs for Mixed Classification Models. *The Annals of Statistics*, 27(6), 1927-1947.
- VanLeeuwen, D., Barnes, D. M., Pase, M. (1998). Generalizability Theory: A Unified Approach to Assessing the Dependability (Reliability) of Measurements in the Health Sciences. *Journal of Outcome Measurement*, 2(4), 302-325.
- VanLeeuwen, D., Seely, J. F., Birkes, D. S. (1998). Sufficient Conditions for Orthogonal Designs in Mixed Linear Models. *The Journal of Statistical Planning and Inference*, 73, 373-389.
- VanLeeuwen, D. (1997). A Note on the Covariance Structure in a Linear Model. *The American Statistician*, 51(2), 140-144.
- VanLeeuwen, D., Murray, L. W., Urquhart, N. S. (1996). A Mixed Model with both Fixed and Random Trend Components Across Time. *Journal of Agricultural, Biological and Environmental Statistics*, 1(4), 435-453.
- VanLeeuwen, D., Ward, C. R., Maese, G. J., McGinn, D. (1996). Analysis of a Multivariate Response Resulting from Observations Taken Over Time on Experimental Units in a Randomized Complete Block Design. *Journal of Economic Entomology*, 89(2), 253-262.