Kansas State University Libraries

New Prairie Press

Conference on Applied Statistics in Agriculture 1997 - 9th Annual Conference Proceedings

Editor's Preface, Table of Contents, and List of Attendees

George A. Milliken

Follow this and additional works at: https://newprairiepress.org/agstatconference

Part of the Agriculture Commons, and the Applied Statistics Commons

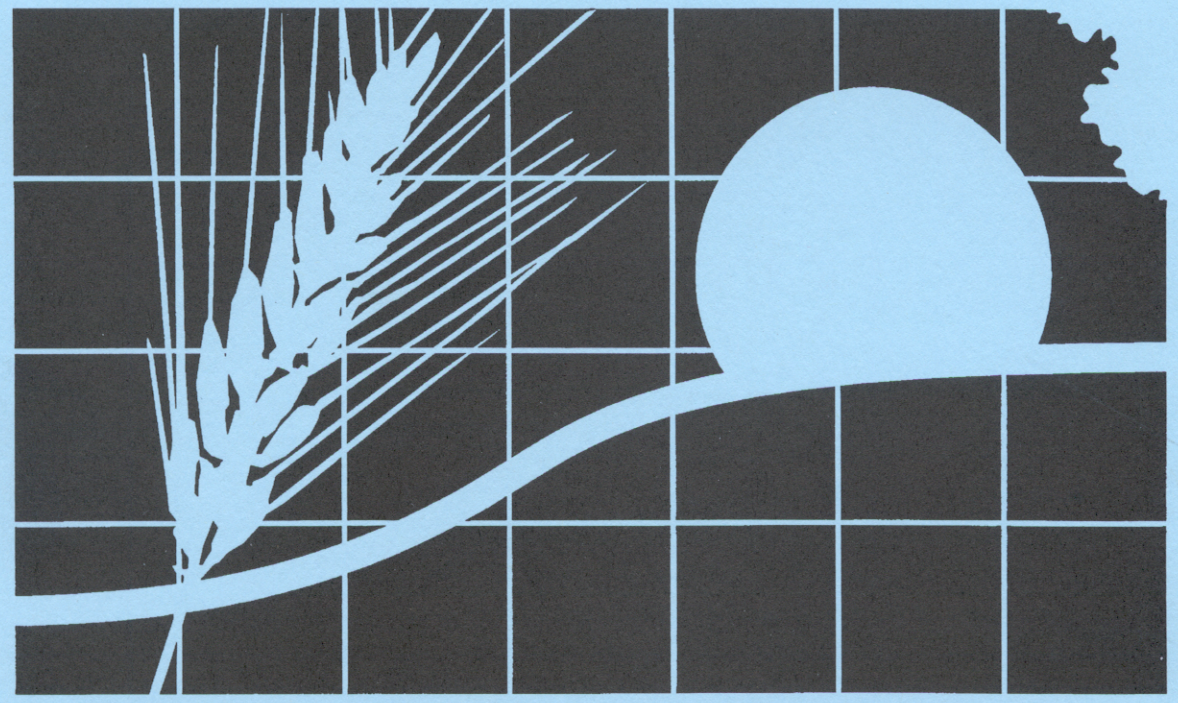
This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License.

Recommended Citation

Milliken, George A. (1997). "Editor's Preface, Table of Contents, and List of Attendees," *Conference on Applied Statistics in Agriculture*. https://doi.org/10.4148/2475-7772.1292

This is brought to you for free and open access by the Conferences at New Prairie Press. It has been accepted for inclusion in Conference on Applied Statistics in Agriculture by an authorized administrator of New Prairie Press. For more information, please contact cads@k-state.edu.

APPLIED STATISTICS IN AGRICULTURE



Proceedings of the 1997 Kansas State University
Conference on Applied Statistics in Agriculture

Sponsored by:
Department of Statistics
Kansas State University
Manhattan, Kansas 66506

April 27-29, 1997

New Prairie Press
https://newprairiepress.org/agstatconference/1997/proceedings/1

Preface

This proceedings contains papers presented in the eighth annual Kansas State University Conference on Applied Statistics in Agriculture, held in Manhattan, Kansas, April 27-29, 1997. The purpose of the conference is to provide a forum for discussion on the application of statistics to problems in agricultural sciences. The papers presented at the conference and included in the proceedings are intended to provide information to both the statistician and agricultural researcher on current issues of agricultural and general statistical interest.

The keynote speaker was Eleanor Allan.

Each contributed paper was refereed before being accepted for publication in this proceedings. Papers were accepted for publication based on their interest, relevance, innovation and application to the agricultural sciences and statistics

George A. Milliken, Ph.D.
Proceedings Editor

The Kansas State University Conference on Applied Statistics in Agriculture is successful because of the continued involvement of our presenters and participants. In addition, our conference depends on the efforts and support of a number of people and organizations. Special recognition and thanks are extended to the following.

Department of Statistics, Kansas State University
Dallas E. Johnson, Ph.D.
Department Head

Organizing Committee
George A. Milliken, Ph.D.
Dallas E. Johnson, Ph.D.
Jane M. Cox
Veronica Taylor
Chris Malone

Proceedings Editor
George A. Milliken, Ph.D.

Special Events Committee
Jane M. Cox

Manhattan Chamber of Commerce

Manhattan Holiday Inn / Holidome

Conference Sponsors
American Statistical Association
Eli Lilly & Company
Hoechst Marion Roussel
Pfizer Inc
Pharmacia & Upjohn, Inc
Pioneer Hi-Bred International Inc
Trilogy Consulting
USDA-ARS

Referees
Brian Allen
Debbie Boykin
Mary Camp
Larry Campbell
Brian Fergen
Edward Gbur
Carla Goad
Jim Higgins
Jenny Kendall
Kathleen Kiernan
Ramon Littell
Tom Loughin
Radha Mohanty
Debra Palmquist
Marta Remmenga
Bahman Shafii
Linda Whitehand
Jeffrey Willers
Linda Young
Alan Zimmerman

Table of Contents

Page #

Analysing Binary Data in a Repeated Measurements Settings Using SAS
E.F. Allan 1

Using Prior Knowledge of the Intraclass Correlation to Increase the Power of Tests for Treatment Means
M.E. Bond and J.J. Higgins 15

Confidence Intervals for Heritability in a Mixed Linear Model
B.D. Burch and H.K. Iyer 30

Alternative Procedures for Estimation of Nonlinear Regression Parameters
W.J. Price and B. Shafii 41

Empirical Estimates of Power for Binomial Data with Mixed Models
R.K. Splan, L.D. Van Vleck and H.D. Hafs 57

Analysis of a Midwest Farmer Survey of Pest Infestation
S. Aref 65

Comparing the Use of Block and Covariate Information in Analaysis of Variance
J.R. Schwenke 80

Covariance Adjustment in Studies Involving Observational Factors or Covariates Influenced by Treatments
O.B. Allen, I.B. Mandell, J.W. Wilton and J.B. Buchanan-Smith 95

Equivalence Testing in Agriculture Experiments
B.J. Fergen 104

Bioavailability and CV Component Comparison in a Crossover
Z. Wang and V.A. Uthoff 118

Alternative Analyses of Crossover Designs with More than Two Periods
C.L. Goad and D.E. Johnson 129

How Good Are Spatial GLM's? A Simulation Study.
R. Collins, W. Stroup and S. Kachman 159

Some Factors Limiting the Use of Generalized Linear Models in Agricultural Research
W.W. Stroup 173

Some Experiences with Neural Networks
L. Ballou and D. Johnson 179

Page #

Bootstrap Confidence Intervals from Adaptive Sampling of an Insect Population
J.S. Pontius and M.C. Christman 191

The Use of Inverse Theory on an Ill-Posed Environmental Composite Sampling Problem
V. Lancaster and S. Keller-McNulty 204

The Analysis of Two-Period Repeated Measurements Crossover Design with Application to a Forestry Problem
A. Garsd, M.D.C. Fabrizio and M.V. López 218

The Statistical Analysis of Active Control Equivalence Studies
A. Garsd and S.F. Delfino 231

Testing Variance Components in the GLM and MIXED Procedures of SAS
R.W. McNew and A. Mauromoustakos 238

Using Ranks to Perform Exact and Estimated Exact Tests in Designed Experiments
S. Richter and M.E. Payton 245

List of Attendees 260

List of Attendees

Allan, Eleanor, The University of Reading
Allen, Brian, University of Guelph
Aref, Susanne, University of Illinois at Urbana-Champaign
Bailey, Ted, Iowa State University
Ballou, Lynda, Kansas State University
Bilder, Chris, Kansas State University
Bond, Marj, Monmouth College
Boyer, Jr., John, Kansas State University
Boykin, Debbie, USDA-ARS
Brabec, Marek, Iowa State University
Brown, Duane, Kansas State University
Bullock, Don, University of Illinois
Burch, Brent, Northern Arizona University
Burnes, Jennifer, Oklahoma State University
Butine, Mike, Kansas State University
Cai, Yaping, Kansas State University
Camp, Mary, USDA/ARS
Campbell, Larry, USDA-ARS
Chen, Yih-Fen, Kansas State University
Chew, Victor, University of Florida
Claypool, Larry, Oklahoma State University
Coffee, Susan, Kansas State University
Cokelez, Sadik, California State University
Collins, Roger, University of Nebraska-Lincoln
Coombs, Laura, Oklahoma State University
Cox, David, Iowa State University
Dec, Mark, Trilogy Consulting Corporation
Donley, Dave, Hoechst Marion Roussel
Douglass, Larry, University of Maryland
Edwardy, Jeff, Kansas State University
Eickholt, Jeff, Shell Oil Products Co
El Barmi, Hammou, Kansas State University
El-Houbi, Ashraf, Kansas State University
Eskridge, Kent, University of Nebraska
Evenson, Paul, South Dakota State University
Fergen, Brian, University of Nebraska
Ferry, Nancy, DuPont Agricultural Products
Freese, Larry, USDA-AMS
Garsd, Armando, Universidad of Buenos Aires
Garth, Angelita, Applied Research Consultants, Inc.
Gbur, Edward, University of Arkansas
Gibson, Eric, Kansas State University
Goad, Carla, Oklahoma State University
Green, Michael, University of Nebraska-Lincoln
Hanford, Kathryn, MOS Harris
Higgins, Jim, Kansas State University
Hinz, Paul, Iowa State University
Huang, David, Pharmacia & Upjohn
Jayawardene, Sumedha, Novartis
Johnson, Dallas, Kansas State University
Jovaag, Kari, Iowa State University
Kachman, Steve, University of Nebraska-Lincoln
Karle, Valerie, Pfizer, Inc
Keighley, John, University of Kansas Medical Center
Keller, David, Pfizer Central Research
Keller-McNulty, Sallie, Kansas State University
Koch, Kyle, Trilogy Consulting Corporation
Kollipara, Stephannie, University of Nebraska-Lincoln
Kratzer, Dal, Pharmacia & Upjohn Animal Health
Lancaster, Vicki, Kansas State University
Letourneau, Kent, Pharmaceutical Research Associates
Loughin, Tom, Kansas State University
Mackey, Bruce, USDA, ARS
Malone, Chris, Kansas State University
Marx, Dave, University of Nebraska
McCarter, Kevin, Kansas State University
McCollum, Ray, Kansas State University
McNew, Ronald, University of Arkansas
Meek, David, USDA-ARS-MWA NSTL
Meinert, Todd, Pfizer, Inc
Meraz, Gerald, Oklahoma State University
Miller, Marlene, ASG, Inc
Milliken, George, Kansas State University
Milliken-MacKinnon, April, Milliken Associates, Inc
Mohanty, Radha, DeKalb Genetics Corporation
Mosier, Mike, Hoechst Marion Roussel
Mowers, Ronald P., Garst Seed Company
Mowrey, Daniel, Eli Lilly and Company
Nelsen, Terry, USDA-REE-ARS, Midwest Area
Nelson, Paul, Kansas State University

Niehaus, William, American Crystal Sugar Company
Nolting, Steve, Dow Elanco
Oedekoven, Mark, University of Nebraska-Lincoln
Palmquist, Debra, USDA/ARS
Parkhurst, Anne, University of Nebraska-Lincoln
Phillips, John, USDA-ARS
Pontius, Jeffrey, Kansas State University
Popham, Thomas, USDA, ARS
Portier, Kenneth, University of Florida
Price, Bill, University of Idaho
Renn, Todd, Kansas State University
Richardson, Gary, USDA-ARS
Richter, Scott, Western Kentucky University
Rothmann, Mark, Kansas State University
Schiefelbein, Rich, Pharmaceutical Research Associates
Schreiber, Beth, Quintiles/Innovex
Schwenke, Jim, Kansas State University
Senecal, Beaman, University of Nebraska-Lincoln
Shafii, Bahman, University of Idaho
Simamora, Jef, Kansas State University
Singh, Murari, ICARDA
Splan, Rebecca, University of Nebraska
Strand, Matt, Kansas State University
Stroup, Walt, University of Nebraska-Lincoln
Taylor, Veronica, Kansas State University
Tsao, Claire, Iowa State University
Uthoff, Vince, Innovex, Inc
Vahl, Chris, Kansas State University
Van Vleck, L. Dale, University of Nebraska (USMARC)
Vinyard, Bryan, USDA, ARS
Wallace, Dennis, Kansas University Medical Center
Wang, Yuhua, Kansas State University
Wang, Zhiming, Quintile Transnational
Weigel, Dan, Pfizer Inc
Whitehand, Linda, USDA, ARS
Willers, Jeffrey, USDA-ARS
Woreck, Cindy, Lands End, Inc
Xiang, Helen, Kansas State University
Xiong, Chengjie, Southeast Missouri State Univ
Yang, Winston, Kansas State University
Young, Linda, University of Nebraska-Lincoln
Yu, Qifeng, Kansas State University
Zhang, Ying, Kansas State University
Zimmermann, Alan, Eli Lilly and Company