Kansas State University Libraries

New Prairie Press

Conference on Applied Statistics in Agriculture

1998 - 10th 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. (1998). "Editor's Preface, Table of Contents, and List of Attendees," *Conference on Applied Statistics in Agriculture*. <https://doi.org/10.4148/2475-7772.1272>

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.

Proceedings

Conference on Applied Statistics in Agriculture
Kansas State University

Tenth ANNUAL

Kansas State University Conference

on

APPLIED STATISTICS IN AGRICULTURE

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

April 26–28, 1998

Preface

This proceedings contains papers presented in the eighth annual Kansas State University Conference on Applied Statistics in Agriculture, held in Manhattan, Kansas, April 26-28, 1998. 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 Douglas Bates.

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
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

Susanne Aref
Don Bullock
Brian Fergen
Jim Higgins
Todd Meinert
George Milliken
Radha Mohanty
Terri Moore
Jim Neill

Mark Payton
Jeff Pontius
Kenneth Portier
Robert Steiner
Walt Stroup
Veronica Taylor
Dale Van Vleck
Linda Young

Table of Contents

	Page #
Linear and Nonlinear Mixed-Effects Models	
D.M. Bates and J.C. Pinheiro	1
Statistical Analysis of Field Wheat Varietal Performance Trials	
A.M. Feyerherm, R.G. Sears and J.J. Higgins	22
Hurst Phenomenon and Fractal Dimensions in Long-Term Yield Data	
S. Aref	32
Assessing Variability of Agreement Measures in Remote Sensing Using a Bayesian Approach	
B. Shafii, W.J. Price, L.W. Lass and D.C. Thill	43
Risk Factors Associated with Culling Age in Dairy Cattle: Applications of Frailty Models	
M.M. Shoukri and J.M. Sargeant	55
The Analysis of Over-Dispersed Count Data From a Single Factor Study	
L.J. Young, G.A. Capuano and N.L. Campbell	73
Statistical Threshold Values for Locating Quantitative Trait Loci	
R.W. Doerge	84
An Alternative for Mixed Model Analyses of Large, Messy Data Sets (MTDFREML)	
L.D. Van Vleck, R.L. Hruska and R.K. Splan	96
Using Confidence Intervals to Obtain a Family of Estimators of the Intraclass Correlation Coefficient (or Heritability)	
B.D. Burch and I.R. Harris	109
Daily Solar Radiation Estimated from Temperature Records	
D.W. Meek	123
Blocking Factorial Designs in Greenhouse Experiments	
S.G. Gilmour and S. Ferris	138
On-Farm Research in a Decentralized Information Model or Grassroots Statistics	
J. Kendall, D.N. Exner and D. Thompson	153

Construction of Asymmetrical Response Surface Designs	
L.S. Kaushik and V.P. Manocha	164
Blocking in Partial Diallel Crosses	
L.S. Kaushik and D.R. Aneja	177
Sampling Plans for Monitoring Rust in Coffee Trees	
R.E. Macchiavelli and R. Rodrmiguez	184
A Repeated Measures Analysis of the Effect of Vegetative Buffers on Contaminant Runoff from Bermudagrass Turf	
C.A. Wilson, M.E. Payton, E.W. Stevens, R.L. Huhnke, D.E. Storm, N.T. Basta and J.H. Baird	193
Modelling the Coefficient of Variation in Factorial Experiments	
C.A. Wilson and M.E. Payton	202
Optimum Design on Step-Stress Life Testing	
C. Xiong	214
Some Statistical Considerations to On-Farm Trials in Kenya	
P.M. Njuho	226
List of Attendees	239

List of Attendees

- Amaro**, Ana, Instituto Superior de Gestao
Aref, Susanne, University of Illinois at Urbana-Champaign
Azevedo, Kari Henry, Iowa State University
Bailey, Ted, Iowa State University
Ballou, Lynda, Kansas State University
Bates, Douglas, University of Wisconsin-Madison
Bauer, Karin, Midwest Research Institute
Bilder, Chris, Kansas State University
Bollero, Germán, University of Maryland
Boyer, Jr., John, Kansas State University
Boykin, Debbie, USDA-ARS
Brinkman, Blondel, Alabama A & M University
Brown, Duane, Kansas State University
Bullock, Don, University of Illinois
Burch, Brent, Northern Arizona University
Camp, Mary, USDA/ARS
Campbell, Larry, USDA-ARS
Capuano, George, University of Nebraska-Lincoln
Carter, Shana, Kansas State University
Chapman, Phillip, Colorado State University
Chartier, Kevin, Parke-Davis Pharmaceutical Research
Chembezi, Duncan, Alabama A & M University
Chen, Yih-Fen, Kansas State University
Chew, Victor, University of Florida
Claypool, Larry, Oklahoma State University
Coffee, Susan, Cessna
Coleman, Mark, Eli Lilly and Company
Collins, Roger, University of Nebraska-Lincoln
Coombs, Laura, Oklahoma State University
Curtis, Nathan, SAS Institute Inc
Darius, Paul, Katholieke Universiteit Leuven
Dec, Mark, Trilogy Consulting Corporation
Doerge, Rebecca, Purdue University
Douglass, Larry, University of Maryland
Dousa, Dominic, Iowa State University
Edwardy, Jeff
El Barmi, Hammou, Kansas State University
El Houbi, Ashraf, Kansas State University
Evenson, Paul, South Dakota State University
Fergen, Brian, Pfizer Animal Health
Fernando, Indra
Feyerherm, Arlin, Kansas State University
Fryer, Holly, Kansas State University
Gadbury, Gary, Colorado State University
Gbur, Edward, University of Arkansas
Gibson, Eric, Novartis Pharmaceuticals Corp
Gilmour, Steve, University of Wisconsin-Madison
Goad, Carla, Oklahoma State University
Gosami, R.P., CCS Haryana Agricultural University
Hanford, Kathryn, MOS Harris
Higgins, Jim, Kansas State University
Hinds, Mark, Optimum Quality Grains, LLC
Hinkelmann, Klaus, Virginia Tech
Hinz, Paul, Iowa State University
Jarecki, Greg, Trilogy Consulting Corporation
Johnson, Dallas, Kansas State University
Johnson, Eric, Kansas State University
Jovaag, Kari, Iowa State University
Kachman, Steve, University of Nebraska-Lincoln
Kaus, Phil, University of Nebraska-Lincoln
Kaushik, Lachman Singh, CCS Haryana Agricultural University
Kendall, Jenny, Zenomind
Kiernan, Kathleen, SAS Institute
King, Vickie, Winnertech Corp
Kratzer, Dal, Upjohn Animal Health
Landes, Reid, Univeristy of Nebraska-Lincoln
LaRocca, Eduardo, University of Nebraska-Lincoln
Liewehr, David, USDA-ARS

Littell, Ramon, University of Florida
Loughin, Marie, Milliken Associates
Loughin, Tom, Kansas State University
Lowry, Stephen, Hill's Pet Nutrition
Macchiavelli, Raúl, University of Puerto Rico
Mackey, Bruce, USDA, ARS
Mackie, Linda, Kansas State University
MacKinnon, April, Milliken Associates, Inc
Malone, Chris, Kansas State University
Marx, Dave, University of Nebraska-Lincoln
McCollum, Ray, Kansas State University
McGaughey, Karen, Kansas State University
Meek, David, USDA-ARS-MWA-NSTL
Meinert, Todd, Pfizer, Inc
Milliken, George, Kansas State University
Mohanty, Radha, DeKalb Genetics Corporation
Mowrey, Daniel, Eli Lilly and Company
Naranjo, Joshua, Western Michigan University
Neill, Jim, Kansas State University
Nelsen, Terry, USDA-REE-ARS, Midwest Area
Nettleton, Dan, University of Nebraska
Palmquist, Debra, USDA/ARS
Parkhurst, Anne, University of Nebraska-Lincoln
Payton, Mark, Oklahoma State University
Perera, Subashan, Kansas State University
Petersen, Del Var, USDA-ARS
Pontius, Jeffrey, Kansas State University
Portier, Kenneth, University of Florida
Qu, Roger, Hoechst Marion Roussel
Ragual, Rhonda, Pharmacia & Upjohn
Recknor, Justin, University of Nebraska-Lincoln
Reinbolt, Elizabeth, University of Nebraska-Lincoln
Renn, Todd, Kansas State University
Richardson, Gary, USDA-ARS
Richter, Scott, Western Kentucky University
Rumsey, Deb, Kansas State University

Samawi, Hani, Yarmouk University
Sapienza, Donald, Pioneer HiBred International
Sargeant, Jan, Kansas State University
Schreiber, Beth, Quintiles, Inc
Schwenke, Jim, Covance
Seltzer, Jon, Pioneer Hibred International Inc
Senecal, Beaman, University of Nebraska-Lincoln
Shafii, Bahman, University of Idaho
Shoukri, Mohamed, University of Guelph
Skinner, Daniel, Kansas State University
Smith, Howie, Pioneer Hi-Bred
Smith, Walter, USDA Forest Service
Smothers, Clark, Pfizer, Inc
Stark, Steve, DeKalb Genetics Corp
Stroup, Walt, University of Nebraska-Lincoln
Symanowski, Jim, Eli Lilly and Company
Taylor, Veronica, Kansas State University
Throne, James, USDA, ARS, GMPCR
Todd, Tim, Kansas State University
Vahl, Chris, Kansas State University
Van Vleck, Dale, UNL-ARS-USMARC
Vinyard, Bryan, USDA, ARS
Wang, Yuhua, Quintiles, Inc
Weigel, Dan, Pfizer
Wetzel, Henry, Kansas State University
Whitehand, Linda, USDA, ARS
Willers, Jeffrey, USDA-ARS
Wilson, Craig, Hoechst Marion Roussel Inc
Wittig, Timothy, South Dakota State University
Xiong, Chengjie, Southeast Missouri State Univ
Young, Linda, University of Nebraska-Lincoln
Youngquist, Wayne, University of Nebraska-Lincoln
Zaman, Hasan, Kansas State University
Zhang, Ying, Kansas State University
Zhu, Jun, Iowa State University
Zimmerman, Alan, Eli Lilly and Company