

Larry R. Holden, Ph.D.

Sielken & Associates Consulting, Inc.
3833 Texas Ave, Suite 230, Bryan, TX 77802

Phone: (979) 846-5175
E-mail: Larry@SielkenAssociates.com

Education:

1978 University of Kansas, Ph.D., Quantitative Population Biology (population genetics & statistics)
1974 Austin Peay State University (Tennessee), M.S., Biology (plant ecology)
1971 University of Oklahoma, USAF Graduate Certification in Meteorology
1970 Kent State University (Ohio), B.S., Botany
(Plus over 25 professional statistics and computer science courses in last 20 years.)

Employment History:

1999- Senior Statistician, Sielken & Associates Consulting, Inc., Bryan, Texas
1978-1999 Fellow, Statistics, Monsanto Company, St. Louis, Missouri
1993-1999 Adjunct Instructor, Department of Safety Science & Technology, Central Missouri State University
1971-1972 Meteorologist, U.S. Air Force, Pope AFB, North Carolina

Relevant Job Experience

1999- (Senior Statistician, Sielken & Associates Consulting, Inc.)

Statistical consultant to professional societies, industry, law firms, and state and federal governments. Heavy focus in the areas of quantitative human health and ecological risk assessment. Statistical design and analysis of toxicological and ecological laboratory and field studies. Data analysis and modeling of agricultural worker and consumer exposure to pesticides and other chemicals. Considerable experience using data fusion methods utilizing the US Census and other large governmental survey databases. Major statistical application areas are power analysis, Monte Carlo simulation, bootstrap and other nonparametric methods, multivariate methods, categorical data analysis, and the analysis of mixed linear models.

1978-1999 (Agricultural Research & Agricultural Regulatory & Environmental Sciences, Monsanto Company)

Internal statistical consultant to regulatory and discovery research. The primary statistical 'troubleshooter' for regulatory and other product support activities. Heavy focus in areas of agronomy, plant breeding, environmental science, molecular biology, analytical chemistry, toxicology, epidemiology, and marketing. Statistical design and analysis of regulatory and ecological studies to support registration, approval, and public acceptance of transgenic crops and plant protection products. Statistical design of transgenic seed quality programs. Statistical development, improvement, and validation of chemical, biological, and protein expression assays. Designed and managed national groundwater and surface water surveys for herbicide occurrence. Provided statistical support and expert witness testimony for patent and other litigation efforts. In-house expert on dietary exposure methods and related risk assessment issues. Responsible for statistical design and analysis of field and laboratory screens to discover new agricultural products. Served on several industry task forces relating to exposure to and risk assessment of agricultural products. Well versed in Good Laboratory Practice (GLP) methods for EPA regulatory submissions and computer validation. Developed a diversity of novel EXCEL applications to help clients design studies. Taught in-house statistics courses and wrote many tutorial articles.

Computer & Statistical Skills:

- **Areas of Focus:** agricultural field designs, environmental statistics, mixed linear models, quantal data analysis, assay/method validation, Monte Carlo simulation methods, bootstrapping, nonparametric methods, non-linear modeling, multivariate statistical analysis, dietary exposure assessment, sensory data analysis, toxicological statistics, survey statistics, statistical graphics, statistical screening methods, acceptance sampling, computer application validation.
- **Computer Platforms:** PC/Windows, Macintosh, VAX/VMS, IBM/CMS.
- **Software:** SAS, JMP, S-Plus, Systat, EXCEL, SigmaPlot, StatXact, DEEM, IMSL.
- **Programming Languages:** FORTRAN, Visual Basic, COBOL, Pascal

Memberships in Professional Societies:

American Statistical Association
(National, Section on Statistics & Environment,
Section on Statistical Graphics)

International Biometric Society
St. Louis Academy of Science
Sigma Xi