

## Michael A. Stachiw

### Work:

Strategic Mapping & Data Services LLC.  
19715 Kahlmeyer Dr.  
St Louis, MO 63132  
(314) 768-4417

### Home:

117 Avalon Valley Ln  
Fenton, MO 63026  
(314) 225-4979

### Education:

**Ph.D. Food Science**, Michigan State University, East Lansing.  
March 1988.

Major Emphasis: Utilization of meat proteins in new product development and food modeling in meat systems.

**M.S. Agribusiness and Management**, Arizona State University,  
Tempe. May 1983.

Major Emphasis: Management, computers in agribusiness with application of new technology to agriculture.

**B.S. Animal Science**, University of California, Davis. June  
1981.

Major Emphasis: Animal production, avian and mammal reproduction and management.

### Work Experience:

#### Member

Strategic Mapping & Data Services LLC, St. Louis, MO.. Co-owner, co-manager of company. Responsible for new database tool development, Android and Apple app development and deployment along with assisting in financial management of the company. September 2007 - present.

#### Vice-President, Research & Marketing:

Format International, Inc. St. Louis, Mo.. Responsible for new product development and world-wide marketing efforts. Train salesforce and provide feedback to software development team on product applicability and performance. Work closely with contract university teams in new matchimatical algortithium development. Febraury 2000 - present.

#### Manager Electronic Communications and Database Development:

Purina Mills, Inc. St Louis, Mo.. Was involved in the development of the corporate and field E-Mail system, along with the development of the field sales force utilized database marketing tool. Trained salesforce on sales techniques and basic sales skills along with improving sales effecianecy using computer tools. Provided technical expertise to other business groups and various research groups within the company. Was instrumental in maintaining the research formulation system and developing new formulation strategies. August 1994 - January 2000.

**Senior Research Scientist:** Purina Mills, Inc. St Louis, Mo.. Worked in a variety of areas related to swine production and swine marketing. Was United States project coordinator for AUSPIG swine modeling program (automation aspects). Provided technical expertise to other research groups and various business groups within the company, along with developing field software.

August 1989 - August 1994.

**Management Analyst:** United States Department of Agriculture, Program Support Staff, Washington, D.C.. Trained personnel in UNIX and AT&T system utilizing both UNIX and Prelude database language interface. Involved in development of Farmer programs loan tracking system. Also trained personnel in utilization of commercially available software used on Ether-Net linked AT&T 6300 PC's. Interfaced with management at all levels from Administrator (United States) to county office supervisors. Was responsible for the implementation & support of computer software used to manage servicing of a sixty billion dollar loan portfolio.

August 1987 - September 1989.

**Agriculture/Computer Consultant:** Tailorware Corporation. Concord, CA. Wrote, implemented and documented programs for various agribusiness applications. Programs included billing, herd health, statistics and data processing. Machines used included Apple, IBM, Radio Shack, Heathkit, DEC PDP-11/44.

September 1986 - August 1987

**Systems Analyst Programmer:** Michigan State University, East Lansing, MI.. Installation, maintenance, and repair of computer systems, along with development of new software. Oversaw operation of UNIX based multiuser system.

June 1985 - August 1986.

**Graduate Research Assistant:** Michigan State University, East Lansing, MI.. Computer applied research, least-cost sausage formulation and extension work. In depth research into utilization of alternately obtained meat proteins in new product development. Taught classes in processed meat production, and in fresh meat marketing and merchandising. Teaching duties included material preparation, lecturing, and grading of exams, laboratory reports, and laboratory practical.

September 1983 - August 1988.

**System Analyst Programmer:** Arizona State University, Tempe, AZ.. Wrote and implemented programs for the Division of Agriculture. Also wrote JCL and control statements for SPSS, SAS and FORTRAN jobs on an IBM 360.

September 1981 - June 1982.

**Awards:**

**Wendin Inc**, Nationwide Debugging Contest, 7th high individual.  
**USDA** - Superior Service Award, June 1989.

**Special Skills:****Languages, Computer:**

Delphi  
Visual Basic  
BASIC  
PASCAL  
FORTRAN  
UNIX Shell  
VMS DCL  
DOS Batch

**Activities and Organizations:**

Alpha Zeta (National Agriculture Society) - member  
Association of Official Analytical Chemists (AOAC) - member & author  
Future Farmers of America - Treasurer, Golden State Farmer  
Institute of Food Technologists (IFT) member & author  
Sigma Xi (The scientific Research Society) - member

**Principal Publications, Papers and Reports:**

Cuppett, S.L., J.I. Gray, A.M. Booren, J.F. Price, and M.A. Stachiw, The effect of processing variables on lipid stability in smoked Great Lakes Whitefish. Submitted for publication in J of Food Protection, Sept. 1987.

Cuppett, S.L., A.M. Booren, J.I. Gray and M.A. Stachiw, The effects or processing on lipid stability in Great Lakes Whitefish. Presented June 9, 1985 at IFT Conference, Atlanta, Georgia.

Gray, J.I. and M.A. Stachiw, Gas Chromatographic-Thermal Energy Analysis Method for Determination of Volatile N-Nitrosamines in baby Bottle Rubber Nipples: Collaborative Study, J of AOAC 70(1) Jan. 1987.

Ikins, W.G., I.J. Gray, A.K. Mandagere, A.M. Booren, A.M. Pearson, and M.A. Stachiw, N-Nitrosamine Formation in Fried Bacon Processed with Liquid Smoke Preparations. J. of Agricultural and Food Chemistry 34:980, 1986.

Ikins, W.G., J.I. Gray, A.K. Mandagere, A.M. Booren, A.M. Pearson, and M.A. Stachiw, Contribution of Wood Smoke to InVivo Formation of N-Nitrosothiazolidine-4-Carboxylic Acid: Initial Studies. Submitted to Food Chemical Toxicology.

Johnson, S.E., W.G. Bergen, R.A. Merkel and M.A. Stachiw, The Effect of Ractopamine (RAC) on Skeletal Muscle in Swine. To be presented at the annual meeting of the American Society of Animal Science, July 28-31, 1987 Utah State University.

Price, J.F. and M.A. Stachiw, Getting Technical about PFF. Meat Industry, 31(6):83, 1985.

Schroeder, A.L., W.G. Bergen, M.A. Stachiw and R.A. Merkel, Comparison of Commonly used Methods of Estimating Beef Carcass

Composition, To be presented at the annual meeting of the American Society of Animal Science, July 28-31, 1987 Utah State University.

Schroeder, A.L., W.G. Bergen, M.A. Stachiw and R.A. Merkel, Estimation of Skeletal Muscle by Deuterium Oxide Techniques, To be presented at the annual meeting of the American Society of Animal Science, July 28-31, 1987 Utah State University.

Skjaerlund, D.M., D.R. Mulvaney, R.H. Mars, A.L. Schroeder, M.A. Stachiw, W.G. Bergen, and R.A. Merkel, Measurement of Protein Synthesis and Protein Degradation in Skeletal Muscle Strips. Submitted to Journal of Animal Science.

Stachiw, Michael A., Computers in Agriculture, the adoption of New Technology. MS. Thesis, Arizona State University, Division of Agriculture, May 1983.

Stachiw, Michael A., Computer Models in Food Science/Agribusiness. Presented at November 17, 1982 Arizona Society of Food Technologists Meeting.

Stachiw, Michael A., Mechanically and hand deboned port meat as a binder in restructured, formed, and pumped pork products, Ph.D. Dissertation, Michigan State University, Sept. 1987.

Stachiw, Michael A., Sanitation Notebook and Training Manual for a Fish Processing Facility. Michigan State University, Department of Food Science and Human Nutrition, August 27, 1984.

Stachiw, Michael A., Statistical Analysis of Diamond Crystal Coated Salts. Michigan State University, Department of Food Science and Human Nutrition. August 6, 1987.

Stachiw, M. A., A.M. Booren, Whole Pig Barbecuing (Effects of weight of hog, skin and roaster type). Michigan State university, Department of Food Science and Human Nutrition, 1985, Oct. 1988 Research report of MSU Agriculture Research Station, Publication #493.

Stachiw, M. A., A.M. Booren, Use of comminuted washed pork from mechanical and hand deboned sources as a binder in semi-boneless ham. Presented June, 1987 at IFT Conference, Las Vegas, Nevada.

Stachiw, M. A., E.A. Staley, A.M. Booren, D.R. Heldman, M.B. Nurse, N.R. Kevern, Feasibility Study for A Fish processing Facility. Michigan State university, Department of Food Science and Human Nutrition and Department of Fisheries and Wildlife, August 27, 1984.

Stachiw, M. A., G.C. Whysong, K.K. Peelean, and G.J. Seperich, A Dynamic Model for Riboflavin Degradation in a Food System. Presented June 22, 1983 at IFT Conference, New Orleans, LA.

Stachiw M.A. and A.M. Bianca, Pork Barrel Notes. Arizona State University, Division of Agriculture, August 1982.

**Published Apps:**

Tax Calculator - iTunes  
Deposit Calculator - iTunes  
Better Horses Radio: National - iTunes  
Better Horses Radio: KCMO - iTunes  
Whole Hog Bar-B-Quing Calculator - iTunes  
Cost of Monthly Living - iTunes  
Dutch Oven Calculator - iTunes  
Livestock Feed Cost Calculator - iTunes, Google Play  
Poultry Breeding Calculator - Google Play  
Goat & Sheep Weight Calculator - Google Play  
Farm animal breeding Calculator - Google Play  
Horse Weight Calculator - Google Play  
Equine Breeding Calculator - Google Play  
Hog Weight Calculator - Google Play  
Cattle Breeding Calculator - Google Play  
Fish Weight Calculator - Google Play  
Dairy Body Condition Scoring - Google Play  
Sheep Body Condition Scoring - Google Play  
Canine Breeding calculator - Google Play  
Pig Ear Notching - Google Play  
Canine Body Condition Scoring - Google Play  
Elk Body Condition Scoring - Google Play  
Bison Body Condition Scoring - Google Play  
Muse Ear Notching Id - Google Play  
Feline Breeding Calculator - Google Play  
Pearson Square - iTunes, Google Play

**Published Books & E-Books:**

Dutch Oven Cooking: The Best Food You Will Ever Eat Cooked Over a Campfire. Dr. Michael Stachiw & Michael Stachiw Jr. August 17, 2012. ISBN: 978-1479133284.

Horse Dictionary. Dr. Michael Stachiw and Lauren Gatcombe, February 14, 2013 ASIN: B005C54XD8

Rabbit Dictionary. Dr. Michael Stachiw and Lauren Gatcombe ASIN: B005C5H2KO

First Aid Guide. Dr. Michael Stachw and Chirs Bauer, July 4, 2007 ASIN: B005C5H0S8

Horse Play: A Crossword and Word Search Adventure. Dr. Michael Stachiw, July 10, 2015. ISBN: 978-1514332191

Animal Word Search Compendium. Dr. Michael Stachiw, December 28, 2012 ISBN: 978-1481821865

Zoo Animals: A Word Search Extravaganza. Dr. Michael Stachiw, July 13, 2015 ISBN: 978-1514394281

Food Word Search Compendium. Dr. Michael Stachiw, January 5, 2013 ISBN: 978-1481899598

SAT Prep: Wiser with Words Vol 1-4 Dr. Michael Stachiw, July 13, 2014, August 21, 2014, July 16, 2014, August 21, 2014 ISBN(s): 978-1500512132 978-1500915803,,978-1500553777, 978-1500916695

Fifty States Word Search Compendium Dr. Michael Stachiw, January 11, 2013 ISBN: 978-1481958271

Majestic Mazes: 50 Easy Mazes Dr. Michael Stachiw, July 15, 2014 ISBN: 978-1495225635

Equation Invasion: 4 Digit Addition and Subtraction Dr. Michael Stachiw, March 16, 2015 ISBN: 978-1505635799

Sensible Suduko: 50 Intermediate Puzzles Dr. Michael Stachiw, January 8, 2015 ISBN: 978-1505454475

Equation Invasion: 1 to 3 Digit Subtraction Dr. Michael Stachiw, March 16, 2015 ISBN: 978-1505635904

Equation Invasion: 1 to 3 Digit Multiplication Dr. Michael Stachiw, February 27, 2015 ISBN: 978-1505635874

Equation Invasion: 1 to 3 Addition Dr. Michael Stachiw, August 29, 2014 ISBN: 978-1500999605

Sensible Suduko: 50 Easy Puzzles Dr. Michael Stachiw, December 3, 2014 ISBN: 978-1505211023

Sensible Suduko: 50 Basic Puzzles Dr. Michael Stachiw, January 8, 2015 ISBN: 978-1505344257

Sensible Suduko: 50 Advanced Puzzles Dr. Michael Stachiw, January 8, 2015 ISBN: 978-1505454604

Scouting Word Search Compendium Dr. Michael Stachiw, January 14, 2013 ISBN: 978-1481959469

### **Copywritten Programs:**

Cost Analysis Program for certain Crops, 1983, TXU117-873  
Checking Statement program Ver 1.2, 1983, TXU132-998  
Laboratory program, 1983, TXU141-142  
Dairy Accounting Package, 1983, TXU148-142  
Cost of Food Protein program, 1983, TXU149-890  
Word Scramble Creation Program, 1984, TXU152-005  
Thermal Process Calculation program, 1984, TXU157-895  
Help utility, 1985, TXU198-600

### **USDA Publications & Programs:**

Farmer Programs; State Office Borrower Tracking System (FPTRACK), Version 2.0 approved for nationwide distribution

March 17, 1988 by review board, certification and testing to be completed by June 1, 1988. Program written in a combination of Prelude database commands and UNIX shell scripts. Overall design features included menus, screen oriented data entry forms, and a combination of canned and user generated reports. Full multiuser capability supported. A 80 page users manual with program documentation was provided along with a four page pocket guide.

Farmer Programs; County Office Bankrupt Payment Recorder, version 1.0 approved for distribution within the state of Michigan January 1, 1988 by Chief of Farmer Programs. Version 1.1 approved for distribution with the state of Missouri July 10, 1988 by Chief of Farmer Programs. Program written in Borland International Turbo Pascal for operation in MS-DOS. Overall design features included menus, screen oriented data entry form, printout resembling already approved forms. A 21 page users manual with program documentation was provided.

Farmer Programs; System for Effective Notification and Tracking (SENT), Version 3.0 tested and distributed to 2300+ offices by November 15, 1988. This program was demonstrated and update suggestions collected during Nation-wide training August 29 through September 2, 1988 conducted for Farmer Program Chiefs, Specialists and State Directors. The program provides in each County, District, and State Office an expert system in the 1951-S procedure (as mandated by Congress). SENT also provides the user with a variety of tools to enhance performance. These tools include; reports, daily planner, merged document preparation, and calendars. Phase 2 of Version 3.0 was distributed January 1989, and Phase 3 of Version 3.0 March 1989.

Farmer Programs; Surveyor, Version 1.0 approved for distribution within the state of Missouri August, 1988 by Chief of Farmer Programs in conjunction with Property Management Section. Program written in Borland International Turbo Pascal for operation in MS-DOS. Overall design features included menus, screen oriented data entry form, and printout of surveyed boundary along with suggested error correction statements.

Farmer Programs; Treasury, Version 1.0 tested and certified with distribution to all fifty states by the end of 1988. This program was created to meet a requirement of states collecting litigation data for preparation of a report to the Treasury Department. A complete installation package for this software was also provided. Overall features of the program include menu driven installation, menu driven format of the program, along with user prompted mounting and unmounting of data collection floppy disk.

Farmer Programs; Tcompiler, version 1.0 tested and certified with distribution completed to all fifty states by end of 1988. This program was created to compile data submitted to

Finance Office by all fifty states in floppy disks. A menu driven format along with error detection is provided.

Planner Version 2.0, currently submitted for testing and certification. This program was created for the State Office. Allows entries into a calendar, with the current week being displayed and the current days activities being displayed in detail. Uses a menu driven approach along with date entry through a screen form.

DbFix (Data Base Recovery utility) Version 1.0, currently under development. Overall design of the program is to allow the user to fix corrupted database files. In mid-phase development stage.

Farmer Programs; System for Effective Notification and Tracking Data Down-Loader (SENT\_DL), Version 1.0. Program is designed to copy SENT data from County, District, and State Offices to a removable medium. Simple menu-driven design was incorporated with extensive error checking implemented. Distributed and being utilized in the field.

Farmer Programs; System for Effective Notification and Tracking Data Compiler (SENT\_DC), Version 1.0. Program is designed to consolidate SENT data from field offices (County, District, and State) to the National Office level. Flow of data could be from County to District to State to National Office, or in any other systematic order depending upon District and State management decisions. Simple menu-driven design was incorporated with extensive error checking implemented. Distributed and being utilized in the field.

Farmer Programs; System for Effective Notification and Tracking Reporting System (SENT\_RPT), Version 1.0, currently in final development stage. This program was created for County, District, State, Finance, and National Office usage. Allows two-fold method of reporting SENT collected data. One method is through a menu-driven interface that leads the user through preparation of desired reports that accurately quantify County Office work-load, application, and compliance of FmHA Farmer Programs Procedure 1951-S (Agriculture Credit act of 1988). Second method was the development and implementation of the SENT Reporting Language (SRL) which supports a high level batch reporting of SENT collected data. SRL was developed to increase the flexibility and power of reporting. A subset of SQL is also supported by the program.

#### **USDA Training & Special Projects Performed:**

Architects and Engineers Training, Decision Support Systems. April 18, May 2, and May 16, 1988. St. Louis, MO. FmHA Architects and Engineers were trained on various aspects of utilizing the computer and Decision Support Software. Duties mainly involved helping other trainers during hands-on training.



Farmer programs Specialists & Chiefs, Debt and Loan Restructuring Systems (DALRS) and System for Effective Notification and Tracking (SENT). August 29-31, 1988. St Louis, MO. Specialists and Farmer program Chiefs from all fifty states were trained on how to use both DALRS and SENT. Various handouts, manuals, and other training aids were prepared. Also all trainees received a copy of the USDA-FmHA System for Effective Notification and Tracking: Training Manual. Responsibilities included preparation of materials as well as lecturing trainees.

Automated Data Processing Coordinators, Decision Support Systems. November 15, 1988. Louisville, KY. ADP coordinators from all fifty states were trained on how to support and utilize the various decision support systems. Various handouts, manual inserts, and other training aids were prepared. Also all trainees received a copy of the A.D.P. Coordinator's Troubleshooting guide for decision support systems.

Farm-Aid Advocacy Group Training, Debt and Loan Restructuring Systems (DALRS). Jan 2, 1989. Various representatives from advocacy groups were demonstrated and trained on how to use the DALRS systems. Technical questions about computer and software were answered. Main duties involved technical support to Farmer Program trainers.

State Office Farmer Program and Automated Data Processing personnel, Selected Decision Support Systems. January 28 - February 3, 1989. Nashville, TN. Farmer Program Specialists and ADP coordinators from Tennessee, Georgia and North Carolina were trained on decision support systems applicable to their program area. Various handouts, manual inserts, and other training aids were prepared. Total responsibility for the training session's success were performed.

State Office Farmer Program and Automated data processing personnel, Debt and Loan Restructuring Systems (DALRS) and System for Effective Notification and Tracking (SENT). February 15, 1989. St Louis, MO. Farmer Program Specialists, ADP coordinators, and some State Directors from all fifty states were present to receive updates on the performance and operation of both DALRS and SENT. Various handouts, manual inserts, and other training aids were prepared. Main duties involved technical support to Farmer program Trainers, and some training.

State Office Farmer Program and Automated data processing personnel, System for Effective Notification and Tracking (SENT). March 29 - April 5, 1989. St Louis, MO. Farmer Program Specialists, and some ADP coordinators from all fifty states were present to receive updates on the performance and operation of SENT Phase 3.0. Various handouts, manual inserts, and other training aids were prepared. Involved with hands-on and lecture type training.

State Office farmer Program personnel, System for Effective Notification and Tracking (SENT) - Spanish Translation of Attachments & Exhibits. March 19 - 24, 1989. San Juan, Puerto Rico. farmer Program Specialist, Chief, District Directors & County Office Supervisors, along with some ADP staff. Involved translation and alteration of existing SENT program to utilize translated Attachments and Exhibits. Some hands on training of staff was also performed.

Network Support Branch personnel, System for Effective Notification and Tracking (SENT) and all related programs. May 17 - 19, 1989. St Louis, MO. provided all training, technical expertise, and related support for further implementation of the SENT system.

### **Further Education:**

**Artificial Intelligence: Expert Systems** March, 1991. 0.7 CEU's. An introductory class in artificial intelligence and expert systems. Topics included characteristics, origins, and the structure of expert systems. Additional topics include representing uncertainty, building expert systems, and an overview of current successful expert systems.

**VMS System Management I V5:** March, 1991. 0 CEU's. A First level class in installation, setup, and management of VAX systems operating under VMS version 5. Topics included hardware design considerations, software and hardware interactions, system maintenance, user management, system resource allocation, and overall system security.

**MS-DOS Version 3.2:** March, 1991. 4 CEU's. Midlevel class using 33 different experiments, extensive readings, and inside tips on fully utilizing the MS-DOS operating system. Topics included how to recover from common disk errors, utilization of subdirectories, batch files, EDLIN66 editor, DEBUG utility, and uses of input/output redirection.

**Technical Project Management-Planning, Scheduling & Controlling:** March, 1990. 1.2 CEU's. Class in advanced technical project management. Various forms of project planning and tracking were presented (GANTT, ZGANTT, PERT, and CPM) along with the methodology employed by each. Such topics as project crashing, rescheduling, and man-power management were also covered.

**Introduction to Microcomputers:** July, 1990. 2.0 CEU's. Low level course in computer terminology, usage, and requirements. Experiments and readings also centered around hands-on usage of the MS-DOS operating system.

**X Windows:** April 17, 1991. Seminar on usage, benefits and implementation tasks for X Windows. Seminar conducted by Digital Equipment Corporation.

**Ethernet/DECnet:** May 1, 1991. Seminar on hardware and software issues involved in the implementation of a network. Seminar conducted by Digital Equipment Corporation.

**Introduction to UNIX Networking:** May 22, 1991. Seminar on hardware, software, and user interactions with networks running on UNIX based systems. Seminar conducted by Digital Equipment Corporation.

**Multi Vendor Networking:** May 30, 1991. Seminar of software interactions across a variety of hardware platforms. Tips on setting up a network were also discussed. Seminar conducted by Digital Equipment Corporation.

**Electronic Evaluation of Meat in Support of Value-Based Marketing:** March 27-28, 1991. Symposium on technology and implementation of techniques in the meat and animal industries on value-based marketing. Seminar conducted by: The Purdue Meat Science Industrial Advisory Consortium and Purdue University.

**Networking Computers:** July 19, 1991. 0.7 CEU's. An introductory course in networking computers. Topics include terminology, network performance, factors in choosing a network, types of cabling, network operating systems, basic network system commands, & other factors involved in choosing a network to meet specific needs.

**Managing a Network Using Lantastic:** March 18-19, 1992. 1.3 CEU's. An in depth course revolving around the installation and management of a network using Lantastic. Such operations as security, printer que's and topology were covered.

**Advanced PC Memory Management:** August 27, 1992. 0.65 CEU's. An advanced level course in memory management. Topics include CPU memory addressing, extended memory, expanded memory, memory management standards, configuring extended memory as expanded memory, using DOS extenders, loading drivers, and configuring memory for Windows.

**Introduction to Scanners:** August 31, 1992. 0.65 CEU's. An introduction to scanner technology, including the basics of hardware and software functions. Topics covered include graphics file formats, using scanned images in art and layout programs, manipulating and refining scanned images, and scanner troubleshooting.

**Introduction to the SAS System Using SAS/Assist Software:** October 28, 1992. 1.2 CEU's. An introductory course in the usage of SAS via the SAS/Assist software package. Topics covered importing of raw data, table generation and graphics.

**Introduction to Data Communications:** April 8, 1993. 0.65 CEU's. An introductory level course in communications among mini, mainframe, and microcomputers over a wide spectrum of product lines. Topics include terminal emulations, file transfers, using a network for mainframe communications, networking, and wide area networking.

**Networking with TCP/IP:** July 6, 1993. 0.65 CEU's. An introductory level course in the basic concepts of TCP/IP. Topics include installation, setup and configuration, using telnet, FTP transfers, slinks, and using TCP/IP on a Novell network.

**Computers on the Farm:** January 5-6, 1994. A course involving the usage of computers on the farm. Such topics as Windows, Global Positioning Systems (GPS), and University provided software were covered.

**Introduction to Visual Basic:** February 1, 1994. 1.3 CEU's. A course in programming Windows applications using Visual Basic. Topics include working with projects, writing event oriented applications, using pull-down menus, creating message boxes and buttons, windows graphics, and setting properties.

#### **Purina Mills Provided Education:**

**Counselor Selling:** 1991. A half day course in the methods of counselor selling.

**Trademark Training:** April 7, 1992. A one hour course in the proper use of the terms "PMI" and "Purina Mills".

**Managing Interpersonal Relationships:** April 22-24, 1992. A three day course. MIR teaches managers and professional staff the skills they need to reduce the kind of tension that interferes with task accomplishment. It teaches professionals how to get along and work productively with people who do not think nor act the same way they do themselves.

**SAS Assist Software Update:** January 18, 1994. A refresher course in the usage of SAS Assist software, with reference to the new versions features.

**Structured Analysis & Systems Design:** March 17, 1995. A three day course in data flow modeling and systems design. Strong emphasis on Rapid Application Design (RAD).

#### **Purina Mills Publications & Programs:**

**Business Proposal Generator:** December 1993. A program provided to the Dairy Business Group for distribution to the dairy sales force. Program provides simple input screens, and a spreadsheet type worksheet to produce printer specific output. The output is a proposal to the prospective dairy customer.

**Lean Generation Product Selector:** December 31, 1993. A program to assist in the selection of Lean Generation products via simple input screens. The program outputs a sheet which can be used on prospective swine customers.

**Business Graphics Generator:** January 1994. A business graphics generation program. This program is capable of producing high quality graphics based upon minimal user input. Currently being used by Dairy and Poultry salespeople.

**Purina Net:** August 1991. Field/dealer based E-mail program. Used to connect Purina Mills sales force with St. Louis, as well as with the dealer organization. Used by over 800 users in the field, as well as a number of people based in St. Louis who communicate regularly with the field.

**Public Opinion Survey:** October 1994, November 1995. A nationwide opinion survey conducted as part of "The American Agribusiness Summit" in which 100 FFA and 4H students interviewed over twelve thousand consumers. All statistics and analysis were performed, along with graphics under close supervision. The results were presented at the October 1994 summit, and again in 1995 to the press in a nationwide media blitz.

**Purina Computer Aided Instruction:** September 1995. Developed a comprehensive computer based training system for usage by the various specie groups to train salesforce/dealer organization in both basic nutrition as well as products and programs. Over 400 people are using the system to be trained.

**Computer Aided Sales Tool (CAST):** January 1995-1999. An integrated salesforce tool to leverage sales efforts, while also providing a mechanism for strategic target marketing efforts coordinated by product managers in St. Louis. Over 400 users currently use the system and are receiving on a weekly basis reports and other management tools.