Steve W. Breeding 17212 W. UA B-Farm Rd. Fayetteville, AR 72704 PH (479) 409-9117

EDUCATION

North Carolina State University, Raleigh, NC

BS Animal Science, 1986, Summa Cum Laude BS Poultry Science, 1986, Summa Cum Laude MS Physiology/Poultry, 1990 Doctor of Veterinary Medicine, 1992 Avian Medicine Internship, 1993

University of Arkansas, Fayetteville, AR

Poultry Health Residency, 1997

American College of Poultry Veterinarians

Diplomate Certification, 1997

USDA

NVSL - Poultry Foreign Animal Disease (FAD) Recognition and Diagnosis, 2002 University of Wisconsin, Madison - FAD Training on all animal species, 2006

WORK EXPERIENCE

Present Job: (January 1998 – Present)

Director of Veterinary Diagnostic Laboratory and Diagnostician University of Arkansas, Division of Agriculture 2200 W. Deane Street, Fayetteville, Arkansas 72703

Duties:

- Responsible for the testing programs and daily operations of the Diagnostic Laboratory.
- Develop laboratory plans for future laboratory growth including facilities, equipment, testing procedures and personnel.
- Develop and work within annual departmental budgets.
- Supervise team of lab technicians and provide oversight to the pathology, microbiology, molecular and serology labs.
- Perform necropsies and determine additional diagnostic tests required for a diagnosis.
- Provide phone consultation to other University Faculty/Staff, to the commercial poultry industry and to private sectors on animal health/management issues for Arkansas, eastern Oklahoma and southern Missouri.
- Collaborate with regulatory officials in Arkansas, Oklahoma, Missouri and other states as required.
- Assist with student and industry training courses/labs and advise on disease research projects as an adjunct Faculty member in the Animal Science and Poultry Science Departments at University of Arkansas

February and March, 2003: worked with the USDA-APHIS Exotic Newcastle Disease (END) Task Force in Colton, California. Assignment was as a Field Diagnostician in the backyard/gamefowl division, and at the San Bernardino Diagnostic Lab performing necropsies and collecting appropriate samples on END suspect cases.

Prior Employment Experience:

Poultry Health Resident (1996-1997) University of Arkansas, Fayetteville, AR

- Worked with various poultry health and production problems in Arkansas and provided necropsy services for clinical trials at the University.
- Prepared for and passed the Board Examination for Diplomate status in the American College of Poultry Veterinarians.

Scientific Director and Staff Veterinarian (1993-1995) Fish Springs Ostrich and Cattle Ranch, Reno, NV

- Responsible for all aspects of large scale ostrich ranch, including production/management/medicine/surgery/diagnostics.
- Designed and directed a 3 month training program for 2 veterinarians from Indonesia.
- Visited with and consulted on various aspects of ostrich production in 10 states and 5 foreign countries (Indonesia, Malaysia, China, Belgium, and Great Britain).
- Consulted on herd health and management issues for a large scale cattle operation.

College student with miscellaneous odd jobs (1982-1992)

United Sates Navy, Avian Electronics Technician (1977-1981)

PERSONAL PROFILE

Memberships:

American Veterinary Medical Association
American Association of Veterinary Laboratory Diagnosticians
American Association of Avian Pathologists
American College of Poultry Veterinarians
Arkansas Poultry Veterinary Medical Group
Phi Kappa Phi Academic Honor Society

Publications:

Effects of intra-nasal or oral administration of a zinc solution on health and growth performance of newly-received stocker cattle. Abstract, J. Anim. Sci. 87(E-Supp. 3):40; Guernsey, A. R., E. B. Kegley, J. G. Powell, D. L. Galloway, A. C. White, and S. W. Breeding (2009).

Effect of the anticoccidial agents halofuginone and monensin when given with growth promoting antibiotics upon the control of coccidiosis in the turkey. Avian Pathology, 27: 498-504; Chapman, H. D., Sandstrom, J. & Breeding, S. W. (1998).

Effect of Protein Restriction during Brooding on Spontaneous Turkey Cardiomyopathy. Avian Diseases 38:366-370; Breeding SW, McRee WA, Ficken MD, Ferket PR (1994).

Fibrinous Colitis in an Ostrich Chick Ostrich Report; Breeding, SW. 1993 (reprinted in The Exotic News)

Molt Induced by Dietary Zinc in a Low Calcium Diet Poultry Science 71: 168-180; Breeding SW, Brake J, Garlich JD, Johnson AL (1992). (reprinted in International Hatchery Practice)

Research Note: Maintenance of Duodenum Weight during a Molt Induced by Dietary Zinc in a Low Calcium Diet Poultry Science 71: 1408-1411; Breeding SW, Berry WD, Brake J (1992).

Recent Continuing Education:

American Veterinary Medical Association Meetings American Association of Avian Pathology Meetings Highly Pathogenic Avian Influenza, H5N1 Mass Euthanasia and Disposal Options Seminar Practical Antiterrorism Training Crisis and Emergency Risk Communication Training

CURRICULUM VITAE

NAME: Trisha Marsh Johnson, DVM, MAM, Diplomate ACPV

TITLE: Owner

Veterinary & Environmental Technical Solutions, PC

ADDRESS: 125 Fox Trace

Athens, GA 30606 (706) 613-8843

vet-solutions@earthlink.net

EXPERIENCE:

Private Consultant and Owner, Veterinary & Environmental Technical Solutions, 125 Fox Trace, Athens, GA 30606. Provide regulatory policy, food safety/HACCP, and environmental services to both domestic and international allied industry, poultry integrators, and poultry trade associations. Provide contract technical services to allied industry with emphasis on disease prevention and control, litter management, air and water quality issues and governmental affairs. Development of marketing programs, advertising materials, and professional writing in support of such programs. Maintain client relationships with universities, trade associations and diagnostic labs. Prepare annual budgets, manage subcontractors, and maintain all financial and tax accounts. January 1, 2006-present.

Veterinary Services Manager, Governmental Affairs Coordinator, Jones-Hamilton Company, Walbridge, OH. (position located in Athens, GA). Provided technical support for domestic and International customers emphasizing Salmonella control programs, on-farm food safety programs, food safety/HACCP education, management of the poultry production environment, and governmental regulation of food safety, ammonia emissions and water quality issues associated with concentrated animal feeding operations. Monitored domestic and international regulatory guidelines and legislative initiatives that impact poultry industry. Maintained liaison relationships with universities, producer groups, and diagnostic labs. Developed technical and marketing materials explaining governmental regulation and policy affecting the poultry industry. Developed Salmonella monitoring and control programs for commercial Analyzed pathogen-monitoring data to establish poultry integrators. epidemiology of pathogen spread in integrated poultry operations to assist in disease control and/or eradication. Advocated for the poultry industry in Federal and State Governmental and industry policy meetings. Created technical and marketing materials and training courses related to new product development. Designed and implemented basic and field research related to product portfolio. Company representative on the National Turkey Federation Technical and Regulatory and Live Production Committees and the National Chicken Council Technical and Regulatory committee. March 1, 1997-December 31, 2005.

International Poultry Medicine Intern, Eli Lilly Exports, San Juan, Puerto Rico.

Provided technical support in poultry medicine and management for Eli Lilly customers in Puerto Rico, Dominican Republic, and Honduras.

Concentrated on hatchery management, serology analysis, and the development of vaccination programs. 1996.

- International Poultry Medicine Intern, Conti Chia Tai International Holdings, Ltd., Shenzhen, Peoples Republic of China. Immersed in all aspects of poultry industry in China with emphasis on Grandparent & Parent Stock disease management. 1996.
- Regulatory Medicine Intern, Elanco Animal Health, Indianapolis, Indiana. Developed training materials on MegaReg/HACCP for use by technical services staff. Assisted in developing poultry product information materials for emergency hotline. Assisted in epidemiology investigations. 1996.
- Legislative Intern, American Veterinary Medical Association, Washington, D.C. Coordinated association's lobbying effort on FDA reform legislation. Organized meetings with Congressional Staff, writing and publication of legislative issue briefs, and contact with grassroots network. Secured original cosponsors for introduction of FDA reform legislation. 1995.
- Legislative Intern, Animal Health Institute, Alexandria, Virginia. Assisted in efforts to introduce legislative language on animal health product availability through meetings with Congressional staff, producer groups, and member companies. Prepared briefing documents for the board of directors and executive contacts of the association. 1995.

EDUCATION:

1992	B.S.	University of Maryland, College Park, Maryland
1995	D.V.M.	Oklahoma State University, Stillwater, Oklahoma
1996	M.A.M.	University of Georgia, Athens, Georgia

BOARD CERTIFICATION:

1997 Diplomate, American College of Poultry Veterinarians (By examination)

ADDITIONAL CERTIFICATIONS:

1997	HACCP (Hazard Analysis, Critical Control Points), International	
	HACCP Alliance, College Station, TX	
2002	Poultry Foreign Animal Disease Diagnostician, USDA-APHIS,	
	Ames, IA	
2003	Georgia Certified Nutrient Management Planner-Dry Litter Poultry	
	Operations, Ga. Dept. of Agriculture	
2006	PAACO Animal Welfare Auditor Certification (2006-2010)	

PROFESSIONAL ASSOCIATIONS:

American Association of Avian Pathologists
American College of Poultry Veterinarians
Poultry Science Association
National Turkey Federation
National Chicken Council
US Poultry & Egg Association
American Society of Agricultural & Biological Engineers

PROFESSIONAL ACTIVITIES:

USDA Agricultural Air Quality Task Force member 2006-2008.

American Veterinary Medical Association:

Political Action Committee Policy Board, Zone 1 Representative & Assistant Treasurer (\$500,000 budget), 1996-2000, 2002-2004. Long Range Planning Committee, member, 1997-2000.

US Poultry & Egg Association Joint Environmental Committee Member National Turkey Federation Technical & Regulatory Committee member

BOOK CHAPTER

George Malone and Trisha Marsh Johnson. Litter Management for the 21st Century. A Practical Guide for Managing Risk in Poultry Production. American Association of Avian Pathologists, Inc. 2011

POULTRY CURRICULUM DEVELOPMENT

Environmental and Air Quality Issues in Poultry Production. Unit Module Curriculum for on-line Masters of Avian Health and Medicine Degree program operated jointly by the University of Georgia & University of Melbourne. 2009.

PRESENTATIONS AT SCIENTIFIC CONFERENCES AND INDUSTRY MEETINGS:

- More than 40 presentations with full proceedings or meeting abstracts in the United States and 5 foreign countries (Latin America & Middle East) on litter management, Salmonella control, HACCP, CAFO air quality issues, etc.
- More than 100 invited seminars and presentations without printed proceedings in the United States and 9 foreign countries (Latin America, Asia, & Middle East) on food safety, disease control, environmental quality, litter management, regulatory affairs, career opportunities in the poultry industry, etc.
- Multiple publications in refereed journals and industry trade press

LIVE PRODUCTION HACCP-CERTIFICATION WORKSHOPS TAUGHT:

University of Maryland-Eastern Shore, 1998 and 1999. University of Georgia-Breeder Section, 1999.

SALMONELLA CONTROL PROGRAM DEVELOPMENT (BREEDERS

THROUGH PROCESSING PLANT)

Brazil: One Turkey Breeder Complex

One Market Turkey Complex

Israel: One Broiler complex
USA: Three Turkey Complexes

One Primary Breeder Complex Twelve Broiler Complexes

FIELD RESEARCH PROJECTS DEVELOPED AND MANAGED:

Reduction of Salmonella & E. coli on Broilers using SBS. TX, 1998.
Reduction of Salmonella & Campylobacter on Broilers using SBS. NC, 1998.
Reduction of Salmonella & Campylobacter on Broilers using SBS. GA, 2000.
Reduction of Salmonella in Primary Breeders using PWT. TN, 2001.
Impact of Water Acidification on Newly Hatched Chicks and Poults. TX, 2002.
Nitrogen Retention in Treated Broiler Litter. GA, 2002.
Efficacy of Terminal Application of P- Binders to Poultry Litter. GA, 2003.
Ammonia Emissions Reduction & N- Mass Balance in Roasters. NC, 2008.
Impact of Scalder Acidification on Pathogen Reduction. NC, 2008.

REFERENCES:

Bernard D. Murphy, PhD.
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Jones-Hamilton Co.
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Walbridge, OH 43465
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bmurphy@jones-hamilton.com

Donald W. Waldrip, DVM Pfizer Animal Health 3615 Silver Brook Lane Gainesville, GA 30506 678.936.5553

Donald.Waldrip@pfizer.com

Alice L. Johnson, DVM Vice President, Government & Public Affairs Butterball, LLC 5825 Keyser Rd Hume, VA 22639 202.327.3835 ajohnson@butterball.com 1988 - 1991 Poultry Pathologist

Springdale Poultry Lab

Arkansas Livestock and Poultry Commission

Springdale, AR

1991-2004 Poultry Pathologist

Oklahoma Animal Disease Diagnostic Lab

Oklahoma State University

Stillwater, OK

2204-July 2016 Poultry Pathologist

Texas A&M Veterinary Diagnostic Lab

College Station, TX