

## **Govind Kannan - Bio**

Dr. Govind Kannan, Professor of Animal Science at Fort Valley State University, received his professional degree in Veterinary Medicine in 1986 from Madras Veterinary College, India. He also received his MVSc degree from the same institution in 1988. After serving as a faculty member at Madras Veterinary College for 4 years, he moved to the US in 1993 and earned his PhD at the University of Maryland, College Park in 1996. After a brief stint at University of California at Davis, he joined Fort Valley State University in 1997 with research and teaching responsibilities.

Over the years, Dr. Kannan has taught several undergraduate and graduate courses, advised graduate students and supervised their thesis projects, published approximately 50 peer-reviewed papers, including research articles and book chapters, presented more than 80 papers in professional conferences, and conducted numerous workshops and training programs. His research interests include preharvest management methods to minimize animal stress and improve meat quality and food safety in small ruminants. Dr. Kannan maintains active memberships in several professional societies, including the International Goat Association and American Society of Animal Science, for which he currently serves as the Small Ruminant Program Chair.

Dr. Kannan has also held several administrative positions at FVSU. He served as the Director of Georgia Small Ruminant Research and Extension Center, in addition to coordinating Animal Science undergraduate and graduate programs for 5 years, before being assigned broader administrative responsibilities. Notable among his service activities is his role as the Chair of the Agricultural and Laboratory Animal Care and Use Committee for more than 10 years. He currently serves as the Dean of the College of Agriculture, Family Sciences and Technology and Director of the Agricultural Research Station at Fort Valley State University, and has provided outstanding leadership to the College. He strongly feels that sustainability of small farms is the key to revitalizing rural communities and strengthening food security, and he played a lead role in establishing a research consortium of 1890 land-grant institutions focused on integrated plant-animal farming systems to promote economic stability and environmental stewardship on limited resource farms. Under his leadership, the institution's global outreach has increased tremendously, with growing numbers of FVSU scientists traveling to other countries to conduct training programs, and scientists, students, producers, and government officials from various countries in Africa, South America, Asia, and Europe visiting the university's Small Ruminant Research Center to learn about sustainable goat and sheep production methods every year.

Dr. Kannan has been an advocate of applied research and outreach programs that empower small and underrepresented farmers with the knowledge and technical skills needed to sustain successful agricultural enterprises. He recently served on a Strengthening Global Food Security Panel at the White House and was recognized by the White House as a "Champion of Change" for his efforts in strengthening food security.

## Govind Kannan, Ph.D.

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 and Technology  
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### EDUCATION

- 1996                    **Ph. D. (Poultry Science)**  
*University of Maryland, College Park, MD.*  
 Research Focus:        Stress and Product Quality in Broilers
- 1988                    **M. V. Sc. (Master of Veterinary Science)**  
*Madras Veterinary College, Tamilnadu Agricultural University, India.*
- 1986                    **B. V. Sc. (Bachelor of Veterinary Science, Equivalent to DVM)**  
*Madras Veterinary College, Tamilnadu Agricultural University, India.*

### PROFESSIONAL EXPERIENCE

- 2011-present        **Dean and Director, College of Agriculture, Family Sciences and Technology**
- 2010-2011        **Interim Dean, College of Agriculture, Family Sciences and Technology**
- 2008-present       **Professor of Animal Science**
- 2008-2010        **Interim Assistant Dean for Research**
- 2003-2007        **Associate Professor of Animal Science**
- 2003-2007        **Director, Georgia Small Ruminant Research and Extension Center**
- 2003-2009        **Coordinator, Animal Science Undergraduate and Graduate Programs**
- 1997-2002        **Assistant Professor of Animal Science**  
*Fort Valley State University, Fort Valley, GA*

As a faculty member, secured more than \$1,000,000 in external grants for research, education, and outreach activities

Managed several collaborative research projects

Advised eight graduate students and supervised their thesis projects

Served on thesis committees of several graduate students

Taught the following undergraduate and graduate courses:

Spring 2003

ANSC 1811 Introduction to Animal Agriculture (1 credit)

ANSC 4853 Animal Products Technology (3 credits)

Fall 2003

ANSC 6863 Structure and Biochemistry of Muscle (3 credits)

ANSC 6421 Graduate Seminar (1 credit)

ANSC 6436 Research and Thesis (1-6 credits)

Spring 2004

ANSC 1811 Introduction to Animal Agriculture (1 credit)

ANSC 3813 Principles of Meat Science (3 credits)

ANSC 6403 Processed Meat Technology (3 credits)

ANSC 6436 Research and Thesis (1-6 credits)

Fall 2004

ANSC 6863 Structure and Biochemistry of Muscle (3 credits)

ANSC 6436 Research and Thesis (1-6 credits)

Spring 2005

ANSC 1811 Introduction to Animal Agriculture (1 credit)

ANSC 3891 Cooperative Education in Animal Science (1 credit)

ANSC 3813 Principles of Meat Science (3 credits)

ANSC 6436 Research and Thesis (1-6 credits)

Fall 2005

ANSC 1801 Social Interaction and Behavior of Animals (1 credit)

ANSC 6436 Research and Thesis (1-6 credits)

Spring 2006

ANSC 1811 Introduction to Animal Agriculture (1 credit)

ANSC 3813 Principles of Meat Science (3 credits)

ANSC 6403 Processed Meat Technology (3 credits)

Fall 2006

ANSC 1801 Social Interaction and Behavior of Animals (1 credit)

ANSC 6436 Research and Thesis (1-6 credits)

Spring 2007

ANSC 3813 Principles of Meat Science (3 credits)

ANSC 6436 Research and Thesis (1-6 credits)

Fall 2007

ANSC 1801 Social Interaction and Behavior of Animals (1 credit)

Spring 2008

ANSC 4841 Animal Science Seminar (1 credit)

ANSC 6436 Research and Thesis (1-6 credits)

ANSC 5203 Experimental Design (3 credits)

Fall 2007

ANSC 1801 Social Interaction and Behavior of Animals (1 credit)

Spring 2009

ANSC 6436 Research and Thesis (1-6 credits)

Spring 2010

ANSC 3813 Principles of Meat Science (3 credits)

Coordinated the animal science undergraduate and graduate programs (2003 – 2009)

Provided leadership to animal science instruction program

Participated in student recruitment activities

Conducted Program Review and compiled a document for Animal Science Undergraduate Program for the review period 1999-2004.

Conducted Program Review and compiled a document for Animal Science Graduate Program for the review period 2000-2005.

Directed the Georgia Small Ruminant Research and Extension Center, GSRREC (2003 – 2008)

Allocated resources for researchers and facilitated the research and extension activities of 10 scientists associated with GSRREC.

Supervised the GSRREC staff members who managed the multi-million dollar FVSU Slaughter and Meat Processing Facility, Dairy Technology Facility, indoor animal facilities, and pastures for goats and sheep

Advised the Farm Manager on maintaining Federal and State standards/requirements such as brucellosis and tuberculosis certifications, quarantine arrangements for new animals, and Grade A licensure for the dairy plant

Advised the Meat Plant Manager on maintaining Federal and State standards/requirements such as BSE monitoring program, *E. coli* monitoring of carcasses for at least 13 consecutive weeks in a year, and updating HACCP plans and SSOPs as needed

Interim Assistant Dean for Research (2008 - 2010)

Constructed and established a Scanning Electron Microscopy Lab.

Initiated the Agricultural Research Seminar Series

Established a Station proposal Review Committee and processed six research proposals for Evans-Allen funding

Coordinated scientist/student participations at the Association of 1890 Research Directors Biennial Symposium and established a quality control process for abstract submission

Served as Association of 1890 Research Directors Biennial Symposium Steering Committee Member

Selected by ARD to serve on ESCOP (Experiment Station Committee on Organization and Policy)

Started publishing FVSU Ag Research Report

Refurbished the Stallworth building office and selected labs. Installed a sign at the entrance that is consistent with those in the rest of the campus

Hired several research assistants such that all scientists get enough assistance in the labs

Coordinated project renewals and submission of annual and terminal CRIS reports for scientists

Dean, College of Agriculture, Family Sciences and Technology (2010 – present)

Managed the college's research, instruction, and cooperative extension budget efficiently

Provided overall leadership to the College's research, outreach, and academic programs

Provided leadership to secure reaccreditation of the College's academic programs by SACS, NCATE, AVMA, and ABET.

Initiated a reorganization plan for the College to improve efficiency

of programs

Initiated a comprehensive program review for the College

Installed graduate student research assistantship through Evans-Allen Projects to enhance graduate student enrollment and retention

Secured multi-million dollar grants from 1890 Facilities Grants Program for renovating old facilities and constructing new buildings

Provided leadership in developing three academic program proposals, including two Ph.D. proposals

1996-1997

**Postdoctoral Research Associate**

*Department of Animal Science, University of California, Davis, CA*

Trained undergraduate students in laboratory procedures to assess animal stress

Lectured on humane slaughter of animals to undergraduates

Conducted research on preslaughter stress and product quality in poultry

1993-1996

**Graduate Research/Teaching Assistant**

*Department of Poultry Science, University of Maryland, College Park, MD*

Investigated the effects of preslaughter stress on meat quality in broiler chickens

Devised an experimental gaseous stunning equipment for stunning/killing broilers in transport crates

Assisted in food microbiology experiments

Assisted in statistical analysis of data

1989-1992

**Assistant Professor**

*Madras Veterinary College, India.*

Taught several courses to veterinary (B.V.Sc.) students

Participated in a research project entitled "Influence of Slaughter Weight on Carcass and Meat Quality Characteristics in Large White Yorkshire pigs"

Participated in an Indo-UK collaborative research project entitled “Meat Species Identification,” sponsored by ODA, UK

Participated in a research project on the utilization of slaughter house by-products sponsored by the Indian Council of Agricultural Research (ICAR). Compiled the final report of the project

Coordinated an in-service training program on “Modern Trends in Meat Technology” for field veterinarians, public health personnel, and district extension officers

Pursued Ph.D. in Meat Science and Technology on a part-time basis

1986

**Veterinary Officer**

*Southern Hatcheries Pvt. Ltd., DeeJay Group of Companies, Bangalore, India.*

Lectured on poultry management during training sessions for unit supervisors

Managed poultry breeding stocks

Trained in poultry disease diagnostic procedures and hatchery operations

Visited commercial poultry farms to solve poultry health problems

**AWARDS AND RECOGNITIONS**

2012 Recognized by the White House as “Strengthening Food Security Champion of Change.” Served on the Strengthening Global Food Security Panel. Received a letter of appreciation from President Barak Obama.

2012 Invited by the Under Secretary of Agriculture, Dr. Cathy Woteki, to attend a Mini-Summit on Agricultural Research in Qingdao, China

2011 Certificate of Appreciation, 2011 AgriDemic Forum Awards Banquet  
*Fort Valley State University*

2008 Certificate from the Office of Sponsored Programs for Scholarly Research Accomplishments, *Fort Valley State University*

2007 Letter of Appreciation from the President of FVSU for Outstanding Performance

2007	Ten Years of Meritorious Service <i>Fort Valley State University</i>
2002	Five Years of Meritorious Service <i>Fort Valley State University</i>
1999	Certificate of Appreciation, Golden Anniversary Celebration <i>College of Agriculture, Home Economics and Allied Programs, FVSU</i>
1995	C. S. Shaffner Award for academic achievement <i>Department of Poultry Science, University of Maryland, College Park</i>
1993-96	Graduate Research Assistantship <i>Department of Poultry Science, University of Maryland, College Park</i>
1987-88	ICAR Junior Fellowship (ranked first) <i>Indian Council of Agricultural Research, New Delhi, India</i>

## **PROFESSIONAL ACTIVITIES**

Reviewer      Journal of Animal Science  
                          Meat Science Section  
                          Applied Animal Science Section  
                          Environment and Behavior Section  
                          Small Ruminant Research  
                          Animal Research  
                          USDA/NRI Grant Proposals  
                          USDA/Agriculture Marketing Service Grant Proposals

Appointed as the Chair of ASAS Small Ruminant Program Committee for the year 2012-2013. Organized a symposium on “Sustainable Meat Goat Production” at the ASAS/ADSA Joint Annual Meetings in Indianapolis, IN, July 2013. Secured sponsorship from Southern SARE.

Appointed as a member of the American Society of Animal Science - Food Safety Program Committee for the year 2011-2012

Appointed as Vice-Chair of the American Society of Animal Science - Food Safety JT Program Committee for the year 2007-2008

Appointed as a member of the American Society of Animal Science - Food Safety JT Program Committee for the year 2006-2007



Served as a member of the Graduate Advisory Council, FVSU

Served as the chair of the Institutional Animal Care and Use Committee, FVSU

Served on Advisory Committees of six graduate students

Appointed by the Chancellor, University System of Georgia, to serve on FVSU Presidential Search Committee – 2005

Participated in High School Summer Internship Programs. Served as mentor for several high school student interns, guided and their research projects, and helped them make impressive presentations.

Chaired several search committees for hiring faculty members.

Served on several screening and selection committees for hiring scientists and research assistants

Served as faculty advisor for the Animal Science Student Club

## PROFESSIONAL MEMBERSHIPS

American Society of Animal Science  
 International Goat Association  
 Animal Behavior Society  
 Association of 1890 Research Directors  
 Association of Public and Land-Grant Universities

## GRANTSMANSHIP EFFORTS (SELECTED)

1. **G. Kannan**, Y. W. Park, and S. Gelaye (Fort Valley State University). Enhancement of chevon palatability using postmortem methodologies. Submitted to USDA/CSREES in 1998 (Station Project).  
 Requested Amount: \$15,000  
 Outcome: **Funded**
2. **G. Kannan**, Y. W. Park, S. Gelaye (Fort Valley State University), B. W. Berry (USDA/ARS, Beltsville, MD), K. W. McMillin (LSU), and T. D. Pringle (UGA). Effects of certain post-slaughter factors on the quality of fresh and processed goat meat. Submitted in January 1999 to the USDA 1890 Capacity Building Program.  
 Requested amount: \$299,954

Outcome: Not funded

3. S. Gelaye, **G. Kannan**, B. Kouakou, T. H. Terrill, W. R. Getz, and S. Mobini (Fort Valley State University). Very small meat processing plant HACCP model outreach program. Submitted in June 1999 to USDA/FSIS.

Requested amount: \$28,000

Outcome: **Funded**

4. **G. Kannan** (PI), Y. W. Park, S. Gelaye, B. Kouakou (Fort Valley State University), B. W. Berry (USDA ARS, Beltsville, MD), K. W. McMillin (LSU), and T. D. Pringle (UGA), C. B. Chawan (Alabama A&M). Development of value-added products using chevon. Submitted in March 2000 to the USDA 1890 Capacity Building Grants Program.

Requested Amount: \$298,878

Outcome: **Funded**

5. **G. Kannan**, S. Gelaye, L. Johnson, W. R. Getz, T. E. Hollis, and C. Johnson (Fort Valley State University). Food safety education at retail: an outreach program for small and disadvantaged meat and poultry establishments. Submitted in August 2001 to USDA/FSIS.

Requested Amount: \$46,000

Outcome: **Funded**

6. **G. Kannan**, S. Gelaye, B. Kouakou, T. H. Terrill, E. A. Amoah (Fort Valley State University), D. Lay (USDA/ARS, West Lafayette, IN), K. W. McMillin (LSU), T. D. Pringle (UGA), and K. E. Saker (Virginia Tech). Effects of preslaughter stress on physiological responses and meat quality characteristics in goats. Submitted in January 2002 to the USDA 1890 Capacity Building Grants Program.

Requested amount: \$296,378

Outcome: Not funded

7. **G. Kannan** and B. Kouakou (Fort Valley State University). Pathogen reduction in goat carcasses by controlling preslaughter gut-fill and fecal contamination of skin/hair. Submitted in June 2003 to USDA/FSIS.

Requested amount: \$25,000

Outcome: **Funded**

8. **G. Kannan**, B. Kouakou, and T. H. Terrill (Fort Valley State University). Prevention of *E. coli* contamination of goat carcasses by reducing fecal pathogen counts on skin. Submitted in June 2004 to USDA/FSIS.

Requested amount: \$27,000

Outcome: **Funded**

9. **G. Kannan.** Preharvest management methods to reduce bacterial loads on goat skin and carcass surfaces. Submitted to USDA/CSREES (Station Project) in 2006.  
Requested Amount: \$60,000  
Outcome: **Funded**  
**Currently active**
10. **G. Kannan, J. H. Lee, B. Kouakou** (Fort Valley State University), Thomas Foglia (USDA/ARS, Wyndmoor, PA), T. Dean Pringle (UGA), John Waller (UT, Knoxville, TN), and Arthur Goetsch (Langston University, OK). Development of value-added products using nutritionally enhanced chevon from goats given dietary antioxidant supplementations. Submitted in January 2006 to the USDA 1890 Capacity Building Grants Program.  
Requested Amount: \$297,336  
Outcome: Not funded
11. C. Nguyen, **G. Kannan**, A. Mahapatra. Control of E. coli O157:H7 on beef surfaces using electric pulse and thin-film electrolyte solution. USDA 1890 Capacity Building Grants Program.  
Amount: \$287,707  
Outcome: **Funded**
12. W. R. Getz, T. H. Terrill, S. Mobini, **G. Kannan** (Fort Valley State University), J. E. Miller (Louisiana State University), J. Mosjidis (Auburn University), N. Whitley (University of Maryland Eastern Shore), and J. Burke (USDA-ARS, Booneville, AR). Development and field testing of natural (non-chemical) systems for controlling gastrointestinal nematodes in sheep and goats in the southern USA. Submitted in January 2007 to the USDA 1890 Capacity Building Grants Program.  
(In charge of carcass and meat quality studies)  
Requested Amount: \$460,867  
Outcome: **Funded**  
**Currently active**
13. K. W. McMillin (PI, Louisiana State University, Baton Rouge, LA) et al. Enhanced economic benefits for meat goat producers through production, meat yield and palatability, and consumer information. Submitted by K. W. McMillin *et al* to AFRI was recommended for funding. Dr. **Govind Kannan** (Co-PD) will receive a subcontract for the research work to be conducted at FVSU.  
Requested Amount: \$8,333.65  
Outcome: **Funded**

**Currently active**

14. Y. W. Park and **G. Kannan**. Strengthening Food Technology Program at Fort Valley State University. Submitted in February 2010 to the USDA 1890 Capacity Building Grants Program.  
Requested Amount: \$140,639.00  
Outcome: **Funded**  
**Currently active**
15. **G. Kannan**, A. K. Mahapatra, S. Sharma, J. H. Lee, and M. Ibrahim. Cost-effective pathogen reduction strategies and food safety training for small and very small meat processors in Georgia. Submitted in 2011 for National Integrated Food Safety Research Initiative Program, USDA-NIFA.  
Requested Amount: \$100,000  
Outcome: **Funded**  
**Currently active**

**PUBLICATIONS***Refereed Articles*

1. A. M. Ramaswami, I. A. Jayaprasad, A. M. Shanmugam, **G. Kannan**, 1991. Influence of slaughter weight on composition of *Longissimus dorsi* muscle in Large White Yorkshire barrows. *Journal of Veterinary and Animal Sciences* 22(2):21-24.
2. **G. Kannan**, K. T. Radhakrishnan and A. M. Shanmugam, 1991. Effect of electrical stimulation on pH, water holding capacity, fiber diameter and sarcomere length of spent chicken carcasses. *Indian Veterinary Journal* 68:455-459.
3. **G. Kannan**, K. T. Radhakrishnan and A. M. Shanmugam, 1991. Influence of electrical stimulation on myofibril fragmentation in chicken breast muscle. *Cheiron* 19(1):10-12 (Technical Note).
4. **G. Kannan**, K. T. Radhakrishnan and A. M. Shanmugam, 1991. The effect of electrical stimulation on tenderness of spent chicken carcasses. *Cheiron* 19(5):209-212.
5. A. M. Ramaswami, I. A. Jayaprasad, K. T. Radhakrishnan, **G. Kannan** (1992). Influence of slaughter weight on fibre diameter, sarcomere length, shear force value, and tenderness score in Large White Yorkshire barrows.

*Indian Journal of Animal Research* 26(2):67-74.

6. **G. Kannan** and J. A. Mench, 1996. Influence of different handling methods and crating periods on plasma corticosterone levels in broilers. *British Poultry Science* 37:21-31.
7. **G. Kannan**, J. L. Heath, C. J. Wabeck, M. C. P. Souza, J. C. Howe and J. A. Mench, 1997. Effects of crating and transport on stress and meat quality characteristics in broilers. *Poultry Science* 76:523-529.
8. **G. Kannan**, J. L. Heath, C. J. Wabeck and J. A. Mench, 1997. Shackling of broilers: effects on stress and meat quality characteristics. *British Poultry Science* 38:325-334.
9. **G. Kannan** and J. A. Mench, 1997. Prior handling does not significantly reduce the stress response to pre-slaughter handling in broiler chickens. *Applied Animal Behaviour Science* 51:87-99.
10. **G. Kannan**, J. L. Heath, C. J. Wabeck, S. L. Owens and J. A. Mench, 1998. Elevated plasma corticosterone concentrations influence the onset of rigor mortis and meat color in broilers. *Poultry Science* 77:322-328.
11. **G. Kannan**, T. H. Terrill, B. Kouakou, O. S. Gazal, S. Gelaye, E. A. Amoah, and S. Samake, 2000. Transportation of goats: effects on physiological stress responses and live weight loss. *Journal of Animal Science* 78:1450-1457.
12. **G. Kannan**, B. Kouakou, and S. Gelaye, 2001. Color changes reflecting myoglobin and lipid oxidation in chevon cuts during refrigerated display. *Small Ruminant Research* 42: 67-75.
13. **G. Kannan**, C. B. Chawan, B. Kouakou, and S. Gelaye, 2002. Influence of packaging method and storage time on shear value and mechanical strength of intramuscular connective tissue of chevon. *Journal of Animal Science* 80:2383-2389.
14. **G. Kannan**, T. H. Terrill, B. Kouakou, S. Gelaye, and E. A. Amoah, 2002. Simulated preslaughter holding and isolation effects on stress responses and live weight shrinkage in meat goats. *Journal of Animal Science* 80:1771-1780.
15. **G. Kannan**, B. Kouakou, T. H. Terrill, and S. Gelaye, 2003. Endocrine, blood metabolite, and meat quality changes in goats as influenced by short-term, preslaughter stress. *Journal of Animal Science* 81:1499-1507.

16. S. Galipalli\*, K. M. Gadiyaram, B. Kouakou, T. D. Pringle, and **G. Kannan**, 2004. Oxidative stability of chevon as influenced by dietary Tasco supplementation in Boer goats. *South African Journal of Animal Science* 34(1):171-173.
17. K. M. Gadiyaram\* and **G. Kannan**, 2004. Comparison of textural properties of low-fat chevon, beef, pork, and mixed-meat sausages. *South African Journal of Animal Science* 34(1):168-170.
18. S. Galipalli\*, K. M. Gadiyaram, B. Kouakou, T. H. Terrill, and **G. Kannan**, 2004. Physiological responses to preslaughter transportation stress in Tasco-supplemented Boer goats. *South African Journal of Animal Science* 34(1):92-94.
19. S. A. Shaik, T. H. Terrill, J. E. Miller, B. Kouakou, **G. Kannan**, R. K. Kallu, and J. A. Mosjidis, 2004. Effects of feeding *Sericea lespedeza* hay to goats infected with *Haemonchus contortus*. *South African Journal of Animal Science* 34(1):234-236.
20. B. Kouakou, S. Gelaye, **G. Kannan**, T. D. Pringle, and E. A. Amoah, 2004. Blood metabolites, meat quality and muscle calpain-calpastatin activities in goats treated with low doses of recombinant bovine somatotropin. *Small Ruminant Research* 57:203-212.
21. **G. Kannan**, G. M. Gadiyaram\*, S. Galipalli\*, A. Carmichael, B. Kouakou, T. D. Pringle, K. W. McMillin, and S. Gelaye, 2004. Meat quality in goats as influenced by dietary protein and energy levels and postmortem aging. *Small Ruminant Research* 61:45-52.
22. J. H. Lee, **G. Kannan** and B. Kouakou, 2006. Concentration and distribution of conjugated linoleic acids (CLA) and trans fatty acids in small ruminant milk and meat lipids. *J. Food Lipids* 13:100-111.
23. Shaik, S.A., T.H. Terrill, J.E. Miller, B. Kouakou, **G. Kannan**, R. M. Kaplan, J.M. Burke, and J.A. Mosjidis, 2006. *Sericea lespedeza* hay as a natural deworming agent against *Haemonchus contortus* infection in goats. *Veterinary Parasitology* 139:150-157.
24. **G. Kannan**, A. K. Jenkins\*, K. R. Eega\*, B. Kouakou, and G. W. McCommon, 2007. Preharvest spray washing effects on physiological stress responses and skin and carcass microbial counts in goats. *Small Ruminant Research* 67:14-19.

25. **G. Kannan**, K. E. Saker, T. H. Terrill, B. Kouakou, S. Galipalli\*, and S. Gelaye, 2007. Effect of seaweed extract supplementation in goats exposed to simulated preslaughter stress. *Small Ruminant Research* 73:221-227.
26. **G. Kannan**, T. H. Terrill, B. Kouakou, and S. Galipalli\*, 2007. Blood metabolite changes and live weight loss following brown seaweed extract supplementation in goats subjected to stress. *Small Ruminant Research* 73:228-234.
27. J. H. Lee, **G. Kannan**, K. R. Eega\*, and W. R. Getz, 2008. Nutritional and quality characteristics of meat from goats and lambs finished under identical dietary regimens. *Small Ruminant Research* 74:255-259.
28. B. Kouakou, O. S. Gazal, T. H. Terrill, **G. Kannan**, S. Gelaye, and E. A. Amoah, 2007. Digestibility, hormones and blood metabolites in dairy bucks subjected to underfeeding and refeeding. *Small Ruminant Research* 75:171-176.
29. J. H. Lee, B. Kouakou, **G. Kannan**, 2008. Chemical composition and quality characteristics of chevon from goats fed three different post-weaning diets. *Small Ruminant Research* 75:177-184.
30. K. M. Gadiyaram\*, **G. Kannan**, T. D. Pringle, B. Kouakou, K. W. McMillin, and Y. W. Park, 2008. Effects of postmortem carcass electrical stimulation on goat meat quality characteristics. *Small Ruminant Research* 78:106-114.
31. D. A. Moore, T. H. Terrill, B. Kouakou, S. A. Shaik, J. A. Mosjidis, J. E. Miller, M. Vanguru\*, **G. Kannan**, and J. M. Burke, 2008. The effects of feeding sercia lespedeza hay on growth rate of goats naturally infected with gastrointestinal nematodes. *Journal of Animal Science* 86:2328-2337.
32. V. R. Gutta\*, **G. Kannan**, J. H. Lee, B. Kouakou, and W. R. Getz, 2009. Influences of short-term pre-slaughter dietary manipulation in sheep and goats on pH and microbial loads of gastrointestinal tract. *Small Ruminant Research* 81:21-28.
33. B. Kouakou, J. H. Lee, and **G. Kannan**, 2009. Effects of high soybean oil for goats in late lactation on intake, milk composition and fatty acid profile. *Tropical and Subtropical Agroecosystems* 11:233-236.
34. M. Vanguru\*, J. H. Lee, B. Kouakou, T. H. Terrill, and **G. Kannan**, 2009. Effect of feed deprivation time on bacterial contamination of skin and carcass

in meat goats. *Tropical and Subtropical Agroecosystems* 11:259-261.

35. J. H. Lee, B. Kouakou, and **G. Kannan**, 2009. Influences of dietary regimens on microbial content in gastrointestinal tracts of meat goats. *Livestock Science* 125:249-253.
36. J. H. Lee, M. Vanguru\*, **G. Kannan**, D. A. Moore, T. H. Terrill, and B. Kouakou, 2009. Influence of dietary condensed tannins from sericea lespedeza on bacterial loads in gastrointestinal tracts of meat goats. *Livestock Science* 126:314-317.
37. A. K. Mahapatra, D. L. Harris, C. N. Nguyen, and **G. Kannan**, 2009. Evaluation of an IUL Flash & Go Automated Colony Counter. *Agricultural Engineering International: the CIGR EJournal* XI (1368): 1-6.
38. T.H. Terrill, G.S. Dykes, S.A. Shaik, J.E. Miller, B. Kouakou, **G. Kannan**, J.M. Burke, and J.A. Mosjidis, 2009. Efficacy of sericea lespedeza hay as a natural dewormer in goats: Dose titration study. *Veterinary Parasitology* 163:52-56.
39. A. K. Mahapatra, B. L. Jones, C. N. Nguyen, and **G. Kannan**, 2009. An experimental determination of the electrical resistivity of beef. *Agricultural Engineering International: The CIGR J.* 12(3):1-6.
40. A. K. Mahapatra, D. L. Harris, D. L. Durham, S. Lucas, T. H. Terrill, B. Kouakou, and **G. Kannan**, 2010. Effects of moisture change on the physical and thermal properties of sericea lespedeza pellets. *International Agricultural Engineering Journal* 19 (3):23-29.
41. A. K. Mahapatra, D. L. Harris, C. N. Nguyen, and **G. Kannan**. 2011. Reduction of *Escherichia coli* O157:H7 on beef surfaces using low-voltage direct electric current and the impact on sensory properties. *Journal of Electrostatics* 69: 30-35.
42. M. Singh, X. Ma, E. A. Amoah, and **G. Kannan**, 2011. In vitro culture of fibroblast-like cells from postmortem skin of Katahdin sheep stored at 4 C for different time intervals. *In Vitro Cell and Developmental Biology – Animal* 47(4): 290-293.
43. Harris, D. L., A. K. Mahapatra, B. L. Jones, and **G. Kannan**, 2011. Efficacy of low-voltage ac for inactivating surface adherence *Escherichia coli* O157:H7 on beef. *Int. J. Food Safety, Nutr. Public Health* 4 (2/3/4): 214-224.



44. A.K. Carmichael, B. Kouakou, S. Gelaye, **G. Kannan**, J.H. Lee, and T.H. Terrill, 2012. Organ mass and composition in growing dairy goat wethers fed different levels of poultry fat and protein. *Small Ruminant Research* 104:104-113.
45. Lee, J. H., M. Vanguru\*, D. A. Moore, **G. Kannan**, T. H. Terrill, and B. Kouakou, 2012. Flavor compounds and quality parameters of chevon as influenced by sericea lespedeza hay. *Journal of Agricultural and Food Chemistry* 60:3934-3939.
46. **G. Kannan**, J. H. Lee, and B. Kouakou, 2013. Chevon quality enhancement: pre- and post-slaughter methodologies. *Small Ruminant Research*, Special Issue of XI ICG (invited paper, submitted).

\*Graduate students

#### *Book Chapters*

47. **G. Kannan**, 2004. Goats: behavior, stress and management. Encyclopedia of Animal Science. W. G. Pond and N. Bell (ed.), Marcel Dekker, Inc., New York, NY, pp 482-485.
48. J. H. Lee and **G. Kannan**, 2012. Influence of diet on fatty acid composition of edible tissues of meat goat. In: *Goat Meat Production and Quality*, Osman Mahgoub, Isam Kadim, Edward Webb (ed.), CABI, Oxfordshire, UK, pp 250-259.

#### *Proceedings*

1. **G. Kannan**, B. Kouakou, T. H. Terrill, and S. Gelaye, 2003. Preslaughter management and meat quality in goats. *Proceedings of the Scientific Conference on Goats*, Prairie View, TX, Pages 172-184.
2. T. H. Terrill, B. Kouakou, **G. Kannan**, J. McBain, and S. Gelaye, 2000. Effect of weeds on forage preferences of goats. *Proceedings of the American Grassland Council 2000*, page 218.
3. Dykes, G.S., T.H. Terrill, S.A. Shaik, J.E. Miller, B. Kouakou, **G. Kannan**, J.M. Burke, R. M. Kaplan, and J.A. Mosjidis, 2006. Effect of sericea lespedeza hay on gastrointestinal nematode infection in goats. *Proceedings of the American Forage and Grassland Council Annual Meeting*, 10-14 March, 2006, San Antonio, Texas.

4. Shaik, S.A., T.H. Terrill, J.E. Miller, B. Kouakou, **G. Kannan**, R.M. Kaplan, J.M. Burke, and J.A. Mosjidis, 2005. Anthelmintic effects of sericea lespedeza hay fed to goats infected with *Haemonchus contortus*. *Proceedings of the XX International Grassland Congress*, 26 June – 6 July, 2005, Dublin, Ireland, page 223.

*Abstracts and Presentations*

1. **G. Kannan**, J. A. Mench and J. L. Heath, 1994. Effect of holding time on stress and meat quality characteristics in broilers. *Poultry Science* 73(1):85.
2. **G. Kannan**, J. A. Mench and J. L. Heath, 1994. Effect of holding time on stress and meat quality in broilers. Presented at the *North American Symposium on Applied Ethology*, University of Guelph, Ontario, Canada.
3. **G. Kannan**, J. A. Mench and J. L. Heath, 1995. Transportation effects on stress and meat quality in broilers. *Poultry Science* 74(1):32.
4. **G. Kannan** and J. A. Mench, 1995. Effects of regular handling on stress in broilers. *Poultry Science* 74(1):93.
5. **G. Kannan** and J. A. Mench, 1995. Welfare aspects of shackling in broilers. Presented at the *North American Symposium on Poultry Welfare*, University of Alberta, Edmonton, Alberta, Canada.
6. **G. Kannan**, B. Kouakou, S. Gelaye and T. H. Terrill, 1999. Color and tenderness of case-ready chevon cuts as influenced by storage time. *Journal of Animal Science* 77(1):170.
7. **G. Kannan**, T. H. Terrill, B. Kouakou, O. Gazal, S. Gelaye, E. A. Amoah, S. Miller, and W. R. Getz, 1999. Physiological stress responses in Spanish goats due to transportation and holding. *Journal of Animal Science* 77(1):25.
8. B. Kouakou, O. S. Gazal, T. H. Terrill, **G. Kannan**, S. Gelaye, and E. A. Amoah, 1999. Effects of plane of nutrition on blood metabolites and hormone concentration in goats. *Journal of Animal Science* 77(1):267.
9. **G. Kannan**, C. B. Chawan, B. Kouakou, and S. Gelaye, 2000. Changes in Warner-Bratzler shear values and mechanical strength of intramuscular connective tissue of chevon due to storage condition. *Journal of Animal Science* 78(1):128.

10. U. L. Marable, **G. Kannan**, B. Kouakou, G. Gelaye, and T. H. Terrill, 2000. Oxidative stability of fresh and processed chevon. *Proceedings of the Twelfth Biennial ARD Research Symposium*, Washington, D. C., page 34.
11. B. Kouakou, S. Gelaye, O. S. Gazal, **G. Kannan**, T. H. Terrill, and E. A. Amoah, 2000. Effects of physiological status and energy intake on cortisol and thyroid hormones and blood metabolites in dairy goats. *Journal of Animal Science* 78(1):128.
12. D. R. Marable, B. Kouakou, O. S. Gazal, T. H. Terrill, **G. Kannan**, S. Gelaye, and E. A. Amoah, 2000. Plane of nutrition and blood metabolite concentration in goats. *Proceedings of the Twelfth Biennial ARD Research Symposium*, Washington, D. C., page 34.
13. T. H. Terrill, B. Kouakou, **G. Kannan**, J. McBain, and S. Gelaye, 2000. Effect of weeds on forage preferences of goats. *Proceedings of the American Grassland Council 2000*, page 218.
14. **G. Kannan**, B. Kouakou, T. H. Terrill, S. Gelaye, and E. A. Amoah, 2001. Preslaughter stress effects on physiological responses and meat quality characteristics in goats. *Journal of Animal Science* 79(1):447.
15. B. Kouakou, S. Gelaye, **G. Kannan**, T. H. Terrill, E. A. Amoah, and S. Miller, 2001. The effect of hay and/or concentrate on performance, organ mass, blood metabolites and hormones in weaned kids. *Journal of Animal Science* 79(1):446.
16. **G. Kannan**, T. H. Terrill, B. Kouakou, S. Miller, S. Gelaye, and E. A. Amoah, 2001. Effects of simulated preslaughter holding and isolation on stress responses and live weight shrinkage in goats. *Journal of Animal Science* 79(1):279.
17. B. Koukou, S. Gelaye, **G. Kannan**, T. D. Pringle, T. H. Terrill, and E. A. Amoah, 2002. Blood metabolites, visceral organ mass, meat quality, and calpain system in goats treated with low doses of bovine somatotropin hormone. *Journal of Animal Science* 80(1):291.
18. **G. Kannan**, T. H. Terrill, B. Kouakou, S. Galipalli\*, K. E. Saker, R. A. Kircher, S. Gelaye, and K. M. Gadiyaram, 2002. Physiological responses, immune function, and live weight shrinkage due to simulated preslaughter stress in goats fed a diet (Tasco) containing seaweed extract. *Journal of Animal Science* 80(1):293.

19. **G. Kannan**, B. Kouakou, T. H. Terrill, and S. Gelaye, 2002. Preslaughter management and meat quality in goats. *Scientific Conference on Goats*, Prairie View A&M University, Prairie View, TX, page 171.
20. K. M. Gadiyaram\*, S. Galipalli\*, **G. Kannan**, A. Carmichael, B. Kouakou, T. D. Pringle, K. W. McMillin, S. Gelaye and T. H. Terrill, 2003. Goat meat quality characteristics as influenced by diet and postmortem aging time. *Abstracts of the Southern Section ASAS Meetings*, Mobile, AL, page 24.
21. S. Galipalli\*, **G. Kannan**, K. E. Saker, T. H. Terrill, B. Kouakou, S. Gelaye and K. M. Gadiyaram, 2003. Effect of Tasco seaweed extract supplementation on plasma cortisol and antioxidant enzyme activities in goats subjected to transportation stress. *Abstracts of the Southern Section ASAS Meetings*, Mobile, AL, page 25.
22. A. Carmichael, B. Kouakou, S. Gelaye, **G. Kannan** and T. H. Terrill, 2003. Performance, blood metabolites and visceral organ mass and composition in growing castrated dairy goats. *Abstracts of the Southern Section ASAS Meetings*, Mobile, AL, page 29.
23. C. Mweemba, R. Eckhart, **G. Kannan**, R. A. Kircher, and T. H. Terrill, 2003. Effect of gastrointestinal nematode infection on stress responses in goats. *Abstracts of the Thirteenth Biennial ARD Research Symposium*, Atlanta, GA, page 43.
24. K. M. Gadiyaram\*, S. Galipalli\*, **G. Kannan**, A. Carmichael, B. Kouakou, T. D. Pringle, K. W. McMillin, and S. Gelaye, 2003. Influence of diet and postmortem aging time on meat quality in goats. *Abstracts of the Thirteenth Biennial ARD Research Symposium*, Atlanta, GA, page 46.
25. S. Galipalli\*, **G. Kannan**, K. E. Saker, T. H. Terrill, B. Kouakou, S. Gelaye, and K. M. Gadiyaram, 2003. Tasco seaweed extract supplementation increases antioxidant status in stressed goats. *Abstracts of the Thirteenth Biennial ARD Research Symposium*, Atlanta, GA, page 46.
26. A. K. Carmichael, B. Kouakou, S. Gelaye, **G. Kannan**, and T. H. Terrill, 2003. Blood metabolites and visceral organ composition in growing castrated dairy goats. *Abstracts of the Thirteenth Biennial ARD Research Symposium*, Atlanta, GA, page 60.

27. **G. Kannan** and K. M. Gadiyaram\*, 2003. Texture profile analysis of low-fat chevon, beef, and pork sausages. *Abstracts of the Thirteenth Biennial ARD Research Symposium*, Atlanta, GA, page 177.
28. S. Galipalli\*, K. M. Gadiyaram, B. Kouakou, T. D. Pringle, and **G. Kannan**, 2004. Oxidative stability of chevon as influenced by dietary Tasco supplementation in Boer goats. *Abstracts of the Eighth International Conference on Goats*, Pretoria, South Africa, Page 43.
29. K. M. Gadiyaram\* and **G. Kannan**, 2004. Comparison of textural properties of low-fat chevon, beef, pork, and mixed-meat sausages. *Abstracts of the Eighth International Conference on Goats*, Pretoria, South Africa, Page 43.
30. S. Galipalli\*, K. M. Gadiyaram\*, B. Kouakou, T. H. Terril, and **G. Kannan**, 2004. Physiological responses to preslaughter transportation stress in Tasco-supplemented Boer goats. *Abstracts of the Eighth International Conference on Goats*, Pretoria, South Africa, Page 136.
31. S. A. Shaik, T. H. Terrill, J. E. Miller, B. Kouakou, **G. Kannan**, R. K. Kallu, and J. A. Mosjidis, 2004. Effects of feeding *Sericea lespedeza* hay to goats infected with *Haemonchus contortus*. *Abstracts of the Eighth International Conference on Goats*, Pretoria, South Africa, Page 80.
32. V. R. Gutta\*, **G. Kannan**, B. Kouakou, K. M. Gadiyaram\*, W. R. Getz, G. W. McCommon, and Y. Lan, 2004. Influence of diet and gutfill on blood metabolites and fecal shedding of *E. coli* in sheep and goats. *Journal of Animal Science* 82(1):354.
33. A. J. Hagerman\*, **G. Kannan**, K. R. Eega\*, B. Kouakou, and G. W. McCommon, 2005. Preharvest spray washing of goats: effects on stress responses and bacterial counts on skin and carcass surfaces. *Abstracts of the ASAS Southern Section Meetings*, Little Rock, AR, Page 16.
34. K. M. Gadiyaram\*, **G. Kannan**, S. Galipalli\*, T. D. Pringle, and K. W. McMillin, 2005. Effects of breed and carcass electrical stimulation on meat quality characteristics in goats. *Abstracts of the ASAS Southern Section Meetings*, Little Rock, AR, Page 16.
35. **G. Kannan**, M. C. Nelson, T. E. Hollis, T. D. Pringle, K. W. McMillin, 2005. Demographic factors influencing consumer preference of chevon products. *Abstracts of the ASAS Southern Section Meetings*, Little Rock, AR, Page 16.

36. K. R. Eega\*, K. M. Gadiyaram\*, **G. Kannan**, V. R. Gutta\*, K. R. Eega\*, T. D. Pringle, K. W. McMillin, 2005. Objective and subjective evaluations of value-added chevon and beef products. *Abstracts of the ASAS Southern Section Meetings*, Little Rock, AR, Page 17.
37. S. A. Shaik, T. H. Terrill, J. E. Miller, B. Kouakou, **G. Kannan**, R. M. Kaplan, J. M. Burke, and J. A. Mosjidis, 2005. Effects of feeding sericea lespedeza hay to goats infected with *Haemonchus contortus*. *Abstracts of the ASAS Southern Section Meetings*, Little Rock, AR, Page 3.
38. J. H. Lee, **G. Kannan**, K. R. Eega\*, B. Kouakou, W. R. Getz, and Y. W. Park, 2005. Distribution of conjugated linoleic acids and trans-fatty acids in sheep and goat longissimus muscles. *Journal of Animal Science* 83(1):151.
39. S. A. Shaik, T.H. Terrill, J.E. Miller, B. Kouakou, **G. Kannan**, R.M. Kaplan, J.M. Burke, and J.A. Mosjidis, 2005. Effects of feeding sericea lespedeza hay to goats infected with *Haemonchus contortus*. *4th International Conference on Novel Approaches to the Control of Helminth Parasites of Livestock*, 10-12 January, 2005, Merida, Yucatan, Mexico, page 37.
40. K. R. Eega\*, J. H. Lee, **G. Kannan**, B. Kouakou and W. R. Getz, 2006. Comparison of quality characteristics of chevon and lamb. ASAS Meetings, Minneapolis, MN, July 7-12, 2006. *Journal of Animal Science* 84(1):324.
41. J. H. Lee, B. Kouakou, K. R. Eega\*, and **G. Kannan**, 2006. Effects of diet on chemical composition and meat quality in goats. ASAS Meetings, Minneapolis, MN, July 7-12, 2006. *Journal of Animal Science* 84(1):325.
42. **G. Kannan**, K. R. Eega\*, J. H. Lee, B. Kouakou, and T. H. Terrill, 2006. Reduction of skin and carcass *E. coli* contamination in goats by dietary brown seaweed extract supplementation and chlorinated wash. ASAS Meetings, Minneapolis, MN, July 7-12, 2006. *Journal of Animal Science* 84(1):325.
43. D. V. Marable, Jung H. Lee, **Govind Kannan**, Keshava R. Eega\*, Brou Kouakou and Will R. Getz, 2006. Fatty acid composition of chevon compared to lamb. *Abstracts of the Biennial ARD Research Symposium*, Atlanta, GA., Page 51.
44. K. R. Eega\*, Jung H. Lee, **G. Kannan**, Brou Kouakou and Will R. Getz, 2006. Chevon quality characteristics compared to lamb. *Abstracts of the Biennial ARD Research Symposium*, Atlanta, GA., Page 72.
45. **G. Kannan**, Keshava R. Eega\*, Jung H. Lee, Brou Kouakou and Thomas H.

- Terrill, 2006. Effects of dietary brown seaweed extract supplementation and chlorinated wash on skin and carcass *E. coli* contamination in goats. *Abstracts of the Biennial ARD Research Symposium*, Atlanta, GA., Page 291.
46. M. Marshall, Brou Kouakou, **G. Kannan**, Jung H. Lee and Thomas H. Terrill, 2006. Effects of hay and/or concentrate diets on growth, and rumen, liver, and muscle metabolites in Boer x Spanish male kids. *Abstracts of the Biennial ARD Research Symposium*, Atlanta, GA.
  47. A. K. Mahapatra, C. N. Nguyen, and **G. Kannan**. Electrical Resistivity of Beef. Abstract presented at the *American Society of Agricultural and Biological Engineers (ASABE)* Annual International Meeting, Minneapolis, June 17-20, 2007.
  48. J. H. Lee, **G. Kannan**, T. D. Pringle, B. Kouakou, and K. W. McMillin, 2007. Tenderness and flavor of goat meat cuts injected with calcium chloride solution. Abstract submitted to the *IFT Meetings*, Chicago, IL, July 28-August 1, 2007.
  49. B. Kouakou, **G. Kannan**, J. H. Lee and T. H. Terrill. Effects of Alfalfa Hay and/or Concentrate Diets on Growth, Organ Mass, Blood and Muscle Metabolites, and Volatile Fatty Acids in Boer x Spanish Male kids. Abstracts of the ADSA/ASAS/PSA Joint meeting, July 2007, San Antonio, TX. *Journal of Animal Science* 85(1):294.
  50. J. H. Lee, B. Kouakou, and **G. Kannan**. Dietary regimen and gastrointestinal tract microbial loads in meat goats. Abstracts of the ADSA/ASAS/PSA Joint meeting, July 2007, San Antonio, TX. *Journal of Animal Science* 85(1):505-506.
  51. K. R. Eega\*, J. H. Lee, M. B. Solomon, T. D. Pringle, K. W. McMillin, and **G. Kannan**. Effect of Hydrodynamic Pressure Processing on chevon quality characteristics. Abstracts of the ADSA/ASAS/PSA Joint meeting, July 2007, San Antonio, TX. *Journal of Animal Science* 85(1):504.
  52. K. R. Eega\*, J. H. Lee, M. B. Solomon, T. D. Pringle, K. W. McMillin, and **G. Kannan**. Quality characteristics of jerky made from Hydrodynamic Pressure processed (HDP) chevon and beef. Abstracts of the ADSA/ASAS/PSA Joint meeting, July 2007, San Antonio, TX. *Journal of Animal Science* 85(1):504.
  53. M. Vanguru\*, J. H. Lee, D. A. Moore, B. Kouakou, T. H. Terrill, and **G. Kannan**. Chemical composition and quality of chevon as influenced by a

- diet high in condensed tannins. Abstracts of the ADSA/ASAS/PSA Joint meeting, July 2007, San Antonio, TX. *Journal of Animal Science* 85(1):504.
54. J. H. Lee, D. A. Moore, M. Vanguru\*, B. Kouakou, T. H. Terrill, and **G. Kannan**. Influence of dietary condensed tannins on gastrointestinal tract, skin, and carcass bacterial counts in meat goats. Abstracts of the ADSA/ASAS/PSA Joint meeting, July 2007, San Antonio, TX. *Journal of Animal Science* 85(1):505.
  55. A. K. Mahapatra, C. N. Nguyen, and **G. Kannan**, 2008. Reduction of E. coli O157:H7 on beef surface with pulsed de square wave signal. Submitted to the *American Society of Agricultural & Biological Engineers (ASABE)* International Meeting (Providence, Rhode Island, June 29-July 2, 2008).
  56. W. Nourira, Z. Guler, J.H. Lee, T.H. Terrill, **G. Kannan**, and Y.W. Park. 2009. Comparison of mono- and poly-unsaturated fatty acid compositions between reduced-fat and full-fat goat milk cheeses during three months aging. Abstract #438. *J. Dairy Sci.* Vol. 92. E-Suppl. Pp. 364.
  57. M. Vanguru\*, J.H. Lee, **G. Kannan**, T.H. Terrill, and B. Kouakou. 2009. Influence of feed deprivation time on physiological responses and microbial loads in meat goats. *J. Anim. Sci.* 87 (Suppl. 2):482. (Abstr.).
  58. W. Nourira, J. H. Lee, T. H. Terrill, **G. Kannan**, and Y. W. Park, 2009. Evaluation of characteristics of total fatty acid profiles of reduced-fat and whole goat milk cheeses during three months aging. *World Dairy Summit* hosted by International Dairy Federation, Berlin, Germany, September 20-25, 2009.
  59. T. Broussard, B. Kouakou, J. H. Lee, T. H. Terrill, and **G. Kannan**, 2009. The effects of replacing alfalfa hay by sericea lespedeza on goat milk fat composition. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 64.
  60. M. Vanguru\*, **G. Kannan**, J. H. Lee, T. H. Terrill, and B. Kouakou, 2009. Influence of feed deprivation time on physiological responses and microbial loads in meat goats. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 71.
  61. H. Williams, B. Kouakou, J. H. Lee, and **G. Kannan**, 2009. High dietary soybean oil for goats in late lactation on intake, to improve milk fatty acid profile. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 85.



62. M. Singh, E. A. Amoah, **G. Kannan**, T. H. Terrill, 2009. Cloning and partial characterization of the upstream promoter region of the myostatin gene in Spanish goats. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 107.
63. W. R. Getz, S. Mobini, S. Gelaye, **G. Kannan**, R. Vann, and T. Hollis, 2009. Influence of breed and year on average daily gain, scrotal circumference, and ultrasound ribeye area among bucks in the Georgia and Southeast Meat Goat Buck Performance Evaluation Program. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 202.
64. **G. Kannan**, J. H. Lee, B. Kouakou, and T. H. Terrill, 2009. Influence of feeding sericea lespedeza hay on nutritional and flavor profile of chevon. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 213.
65. A. K. Mahapatra, D. Harris, R. Drake, C. N. Nguyen, and **G. Kannan**, 2009. Evaluation of an IUL Flash & Go Automated Colony Counter. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 214.
66. A. K. Mahapatra, C. N. Nguyen, and **G. Kannan**, 2009. Reduction of E. coli O157:H7 on beef surfaces using low voltage direct current. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 214.
67. B. L. Jones, Mahapatra, A. K., C. N. Nguyen, and **G. Kannan**, 2009. The use of low voltage alternating current for controlling E. coli on beef. *ARD 15<sup>th</sup> Biennial Research Symposium*, March 28-April 1, 2009, page 224.
68. M. Singh, E. A. Amoah, **G. Kannan**, S. L. Stice, and D. M. Donovan, 2009. Genome walk of an unknown upstream region of myostatin gene in Spanish goats. Presented at the *Keystone Symposia on Molecular and Cellular Biology*, Santa Fe, NM, Abstract No. 219, Page 65.
69. M. Singh, Anil Sharma, Xiaoling Ma, Eugene Amoah and **G. Kannan**, 2010. Construction of a goat myostatin gene promoter-GFP translational fusion to study promoter regulation. *Journal of Animal Science* 88 (E-Suppl. 3): 8.
70. **G. Kannan**, J. H. Lee, T. D. Pringle, B. Kouakou, and K. W. McMillin, 2011. Effects of calcium chloride injection on tenderness and flavor of chevon cuts. Presented at the 10<sup>th</sup> International Conference on Goats, Recife, Brazil, September 2010.
71. M. Singh, X. Ma, S. Richardson, E. A. Amoah, and **G. Kannan**, 2011.

Recovery of live fibroblast-like cells in sheep at different times postmortem. *ARD 16<sup>th</sup> Biennial Research Symposium*, Atlanta, GA, April 9-13, 2011.

72. A. K. Mahapatra, D. L. Harris, T. H. Terrill, B. Kouakou, and **G. Kannan**, 2011. Physical and thermal properties of sericea lespedeza pellets. *ARD 16<sup>th</sup> Biennial Research Symposium*, Atlanta, GA, April 9-13, 2011.
73. L. J. Alford\*, A. K. Mahapatra, D. L. Harris, and **G. Kannan**, 2011. Reduction of E. Coli O157:H7 on beef surfaces using a household steam cleaner. *ARD 16<sup>th</sup> Biennial Research Symposium*, Atlanta, GA, April 9-13, 2011.
74. A. Mechineni, S. Gujja, D. S. Kommuru, T. H. Terrill, **G. Kannan**, B. Kouakou, and J. H. Lee, 2011. Influence of type of pasture and transport stress on microbial loads in meat goats. *Journal of Animal Science* 89 (E - Supplement 1):398-399.
75. **G. Kannan**, J. H. Lee, and B. Kouakou, 2012. Chevon quality enhancement: trends in pre- and post-slaughter methodologies to enhance goat meat quality. (Invited Presentation) Abstracts of the *XI International Conference on Goats*, Gran Canaria, Spain, Page 17.
76. L. Alford, J. H. Lee, **G. Kannan**, and B. Kouakou, 2012. Quality characteristics of restructured chevon jerky as influenced by addition of sodium nitrite. Abstracts of the *XI International Conference on Goats*, Gran Canaria, Spain, Page 231.
77. Getz, W., T. Waldrop, T. Harris, R. Silcox, H.K. Shultz, and **G. Kannan**, 2012. Growth and educational role of 4-H and FFA youth market goat projects: a case study from Georgia, USA. Abstracts of the *XI International Conference on Goats*, Gran Canaria, Spain, Page 56.
78. Kouakou, B., D.R. Marable, **G. Kannan**, 2012. Assessment of cortisol and thyroid hormones (T3 and T4) in mature and young dairy and meat goats. Abstracts of the *XI International Conference on Goats*, Gran Canaria, Spain, Page 56.
79. C. Harris\*, A. K. Mahapatra, **G. Kannan**, J. H. Lee, and B. Kouakou, 2013. Surface decontamination of goat skin and carcasses using innovative pre-slaughter spray-washing. *ARD Seventeenth Biennial Research Symposium*, Jacksonville, FL, April 7-10, 2013, page 64.
80. A. L. Hill, A. K. Mahapatra, and **G. Kannan**, 2013. Use of ultraviolet light

for inactivation of foodborne microorganisms: a review. *ARD Seventeenth Biennial Research Symposium*, Jacksonville, FL, April 7-10, 2013, page 64.

81. C. Harris\*, A. K. Mahapatra, **G. Kannan**, and J. H. Lee, 2013. Impact of spray washing of goats and goat carcasses on microbial counts. Abstracts of the ADSA-ASAS Joint Annual Meetings, Indianapolis, IN. *Journal of Animal Science* (Suppl. 1), Abstract No. TH395.

\*Graduate students

*Creative Contributions Other Than Formal Publications*

1. **G. Kannan**, 1999. Transportation stress affects profitability and product quality. *Georgia Small Ruminant Research and Extension Center Newsletter*, Vol.10, No.2.
2. **G. Kannan**, 1999. Sanitation Standard Operating Procedures (SSOPs) and Good Manufacturing Procedures (GMPs) for FVSU Slaughter and Meat Processing Facility.
3. **G. Kannan**, 1999. Hazard Analysis and Critical Control Points (HACCP) Plans for FVSU Slaughter and Meat Processing Facility.
4. **G. Kannan**, V. R. Gutta, B. Kouakou, and W. R. Getz, 2004. Preharvest diet management can reduce bacterial shedding in sheep and goats. *Georgia Small Ruminant Research and Extension Center Newsletter*, Spring 2005.
5. **G. Kannan** and B. Kouakou, 2005. Final Report: Pathogen reduction in goat carcasses by controlling preslaughter gut-fill and fecal contamination of skin/hair. Submitted to USDA/FSIS.
6. **G. Kannan**, B. Kouakou, and T. H. Terrill, 2006. Final Report: Prevention of *E. coli* contamination of goat carcasses by reducing fecal pathogen counts on skin. Submitted to USDA/FSIS.
7. Mahipal Singh, Eugene Amoah, **G. Kannan**, Steve Stice, David Donovan; Title: *Capra Hircus* upstream genome sequence region of myostatin gene. NIH GenBank Accession Number: GQ121039.
8. W. R. Getz and **G. Kannan**, 2009. Goat meat grades and carcass value. GSRREC Newsletter, Spring 2009.

9. **G. Kannan**, 2009. Seaweed extract supplementation can improve food safety and profitability in goats and sheep. GSRREC Newsletter, Spring 2009.

### **INVITED PRESENTATIONS**

1. Golden Anniversary Celebration College-Wide Seminar Series, College of Agriculture, Home Economics and Allied Programs, FVSU, 1999. Presentation title: Pre- and post-slaughter factors affecting goat meat quality.
2. Ag Showcase'99, Georgia. Delivered a talk entitled "The Impact of HACCP System on Very Small Meat Operations"
3. Washington County Goatarama Festival 1999, Georgia. Delivered a talk on "Goat meat quality as influenced by breed, age and sex."
4. Scientific Goat Conference on Goats 2002, Prairie View, TX. Presented a paper on "Preslaughter management and meat quality in goats."
5. G. Kannan, 2009. "Multi-Institutional Research on Small Ruminants: A Success Story." Plenary Session Speaker at the ARD 15<sup>th</sup> Biennial Research Symposium, March 28-April 1, 2009.
6. G. Kannan, 2012. Keynote presentation entitled "Sustainable Agriculture Initiatives at FVSU" at the Mini-Summit on Agricultural, Qingdao, China.
7. G. Kannan, 2012. "Chevon Quality Enhancement: Pre- and Post-Slaughter Methodologies" XI International Conference on Goats, Canary Islands, Spain.

### **WORKSHOPS AND TRAININGS**

#### *Conducted*

1. Coordinated a Hazard Analysis and Critical Control Points (HACCP) Workshop under the Small Plant Demonstration Project, sponsored by College of Agriculture, Home Economics and Allied Programs, FVSU and USDA/FSIS, September 1-2, 1998.
2. Conducted a HACCP Workshop sponsored by Georgia Small Ruminant Research and Extension Center, FVSU and USDA/FSIS, November 23-24, 1999.
3. Conducted a workshop entitled "HACCP System: An Update" sponsored by

FVSU and USDA/CSREES, January 23-24, 2001.

4. Conducted a workshop entitled “Food Safety at Retail” sponsored by FVSU and USDA/FSIS, August 27-28, 2002.

*Attended*

1. Multimedia Workshops I and II on PowerPoint Presentations, FVSU.
2. Workshop on Frontpage, Online Courses, and Eudora, Fall Faculty Institute 1999, FVSU.
3. Basic Hazardous Material - Right To Know, April 1999, FVSU.
4. Dairy Goat Workshop, December 1999, FVSU.
5. SAS Mixed Model Workshop, Annual American Society of Animal Science meetings in Baltimore, MD.
6. Workshop on Keeping Your PC Fine Tuned, Fall Faculty Institute 2000, FVSU.
7. Compusense – Sensory Analysis Workshop, 2004, FVSU.
8. IACUC Training conducted by USDA/APHIS, December 1, 2004, FVSU.
9. USDA/CSREES Grantsmanship Workshop, USDA/CSREES, September 6, 2006, Washington, DC.
10. Writing Winning Grants – Workshop, USDA/CSREES, September 7, 2006, Washington DC.
11. Faculty Web Training, December 7, 2006, FVSU.
12. GC-MS – Training at FVSU, September 18-20, 2006.
13. IACUC 101 Training at San Diego, CA, 2007.
14. New Dean’s Orientation Program, Washington DC, 2009.
15. Unified AV System’s Smart Training Program, February 15, 2013, FVSU.

**SERVICE**

Service Learning Initiatives (selected)

Participated in Sunbelt Expo 2006 and showcased Animal Science Undergraduate and Graduate Programs, as well as the Animal Products Technology Research at FVSU

Trained an animal science intern from France in 2005 for 6 months. Supervised the intern's work, conducted monthly evaluations, and sent reports to INRA, France.

Participated in the Bourlog Fellowship Program (UGA) and hosted two visiting scientists from Armenia.

Hosted 15 individuals from Belgium under the Bourlog Fellowship Program

Service to the Department/Major (selected)

Undergraduate Program Coordinator

Graduate Program Coordinator

Member of Ad-hoc Graduate Advisory Council

Developed two white papers on Food Safety Education and Poultry Research Program

Advised one high school student every year from the Summer Internship Program

Advised one student every year from the Bridges Program

One graduate student and one undergraduate student won awards at the ARD Biennial Research Symposium, Atlanta, GA, 2006

Served as faculty advisor for Animal Science Student Club

Recruitment Efforts (selected)

Visited several high schools in Georgia

Traveled to Savannah State University, Tuskegee University, Columbus, and LaGrange for recruitment purposes

Participated in FVSU Preview Days

Attended Animal Science Club meetings and urged students to participate in recruitment efforts

Contacted prospective students by mail, e-mail, and phone

Gave tours of facilities to several prospective students

University Service (selected)

Director, Georgia Small Ruminant Research and Extension Center  
 Chair, Agricultural and Laboratory Animal Care and Use Committee  
 Chair, Biotechnology Building Final Planning Committee  
 Appointed by the Chancellor, University System of Georgia, to serve on  
 FVSU Presidential Search Committee – 2005.

Member of the University Curriculum Committee

Member of the College Curriculum Committee

Member of the University SAFE Committee

Member of the Biosafety Committee

Member of Graduate College Recruitment Committee

Member of College of Agriculture Recruitment Committee

Member of Graduate Council

Member of Ag Council

Appointed by the VP-AA to serve on the Feeder Program Committee

Member of Honors Program Council

Served as Faculty Senator for one term

Member of Strategic Planning Committee, College of Graduate Studies and  
 Extended Education

Member of Curriculum Committee, College of Agriculture, Home Economics  
 and Allied Programs

Member of Ad Hoc Graduate Grievance Committee, College of Graduate  
 Studies and Extended Education

Member of Pre-Tenure Review Committee, College of Graduate Studies and  
 Extended Education

Member of Tenure Review Committee, Department of Veterinary Science

Participated in all university-sponsored activities

Key Note Speaker at 2011 AgriDemic Forum Awards Banquet

Served on several other committees

Examples:

Chair, Search Committee for Dean, CAHEAP

Member of Search Committee for Dean, College of Graduate Studies  
 and Extended Education

Member of Search Committee for Associate Dean for Research,  
 CAHEAP

Chair, Search Committee for MPH Chair.

Chair, Search Committee for Assistant Professor of Animal Science  
 (Animal Nutritionist)

Member of Search Committee, Assistant Professor of Plant Science

Molecular Biology Position  
 Member of Search Committee, Assistant Professor of Animal Science  
 Molecular Biology Position  
 Member of Search Committee for Research Assistant Positions  
 Member of Search Committee for Statistician  
 Member of Search Committee for Extension Marketing Specialist  
 Member of Search Committee for Coordinator, Education, Outreach  
 and Partnership  
 Member of Search Committees for several Research Associate  
 Positions

Service within the discipline (selected)

Member of American Society of Animal Science  
 Member of International Goat Association  
 Member of Animal Behavior Society  
 Reviewer, Journal of Animal Science  
 Reviewer, Meat Science Section  
 Reviewer, Applied Animal Science Section  
 Reviewer, Environment and Behavior Section  
 Reviewer, USDA/NRI Grant Proposals  
 Appointed as a member of the Food Safety Committee, American Society of  
 Animal Science, 2006-2007.  
 Appointed as the Vice-Chair of the ASAS-ADSA Joint Food Safety Program  
 Committee, 2007-2008.  
 Appointed as a member of the Small Ruminant Program Committee,  
 American Society of Animal Science, 2011-2012.  
 Chaired a Small Ruminant Oral Session during the 2011 ASAS Meetings in  
 New Orleans, LA.  
 Appointed as the Chair of the Small Ruminant Program Committee, American  
 Society of Animal Science, 2012-2013.

Service in the general Community (selected)

Participated in several television station and newspaper interviews on the  
 College's programs.

Participated in "rebuilding the community project" and helped repair and  
 paint a house in Fort Valley.

Served as a resource person for Georgia Meat Goat Producers Association on  
 issues related to meat goat production, processing, and product development.  
 Participated in panel discussions during association meetings.



Participated as a key note speaker in Washington County Goatarama Festival.

Streamlined meat plant activities at GSRREC such that the producers, processors, and community members were benefited by the services provided by the Center.

Visited local goat producers and processors along with FVSU Extension Specialists and provided technical advice on meat goat production, processing, carcass fabrication, and packaging.

Answered farmer/producer questions on goat production or referred to appropriate individuals at GSRREC

Interacted with Black Farmers Association President, Mr. Melvin Bishop, regarding chemical analysis of pork samples

Gave tour of GSRREC facilities and talked about our small ruminant program to several visitors, including international visitors.

Worked with Mr. Herb Frazier to publish an article entitled "Georgia HBCU Researches How to Tenderize Goat Meat" in DIVERSE Issues in Higher Education, Volume 24, No. 23, December 27, 2007.