Harouna A. Maiga, Ph.D.

CURRICULUM VITAE

ACADEMIC RANK

Professor in Agriculture and Natural Resources Department, UMC

EDUCATION

Degree	Institution	Date Degree Granted
Ph.D.	South Dakota State University Brookings, SD Animal Sciences (Dairy Nutrition) (Dr. David Schingoethe, Advisor)	1994
M.S.	South Dakota State University Brookings, SD Economics (Ag Economics)	1994
M.S.	University of Maine, Orono, ME Animal Sciences	1986
B.S.	Polytechnic Rural Institute of Katibougou, Mali Animal Sciences	1979

POSITIONS/EMPLOYMENT

University of Minnesota, Crookston Campus Professor	2012-Present
University of Minnesota, Crookston Campus Associate Professor	2001-2011
University of Minnesota Extension Service Associate Professor and Extension Educator	1996-2000
Joe. L. Pires & Co. Dairy (1,200 Cows), Brookings, SD Nutrition and Herd Health Management	1996
South Dakota State University, Brookings, SD Postdoctoral Research Associate in Animal Sciences	1994-1996
South Dakota State University, Brookings, SD Graduate Research Assistant	1990-1994

The Malian Livestock Production and Meat Office (OMBEVI), Bamako, Mali 1986-1990
Livestock Specialist

University of Maine, Orono, ME 1984-1986
Graduate Research Assistant in Animal Sciences

The Malian Livestock Production and Meat Office (OMBEVI), Bamako, Mali 1980-1983
Livestock Specialist

CURRENT MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Dairy Science Association

North American Colleges and Teachers of Agriculture (NACTA)

Gamma Sigma Delta

Lions Clubs International – Dawn to Dusk Lions Club of Crookston, MN

HONORS AND AWARDS FOR RESEARCH/CREATIVE WORK, TEACHING, PUBLIC ENGAGEMENT, AND SERVICE

University of Minnesota

1. The 2010 Award for Global Engagement and Distinguished Professor – University of Minnesota System wide

2. University of Minnesota, Crookston – Outstanding Service-Learning Faculty, 2008

3. University of Minnesota, Crookston – Distinguished Teacher Award, 2006

4. University of Minnesota –Ag-Arama Appreciation Award, 2002

5. University of Minnesota Extension Service Multi-Cluster Team Award – University of Minnesota Beef Education Series/Nutrition Home Study Course Award, 1998.

External Awards

1. NACTA (North America Colleges and Teachers of Agriculture) Fellow Teacher Award - June 2008, Logan, Utah.

2. Minnesota Forage & Grassland Council Outstanding Contribution Award - 2001

3. African American Institute Graduate Fellowship Awards, 1983 & 1990

RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

Grants and Contracts

Received at the University of Minnesota:

1. Principal Investigator – Harouna Maiga
   Co-investigators: Marc Bauer (NDSU, Fargo, ND), JW. Schroder (NDSU, Fargo, ND)
   External Agency -Minn-Dak Growers Ltd, Grand Forks, ND
   Title: Study of S-methyl Cysteine Sulfoxide in mustard bran fed to lactating Holstein dairy cows. **Study to be conducted in 2012-2013**
   Direct cost: **$43,869.00 US.**

2. Principal Investigator – Harouna Maiga
   External Agency -Minn-Dak Growers Ltd, Grand Forks, ND
   Title: Mustard bran feeding to lactating Holstein dairy cows. Study is completed and results published in the journal of Dairy Science. **2007-2009**
   Direct cost: **$35,500US.**

3. Principal Investigator – Harouna Maiga
   External Agency -Minn-Dak Growers Ltd, Grand Forks, ND
   Title: Mustard bran feeding to lactating Holstein dairy cows. Study is completed and results published in the journal of Dairy Science. **2006-2007**
   Direct cost: **$9,500US.**

4. **Co-Investigators:** Harouna Maiga., D. L. Crawford, B. Dingmann, M. Grave, S. Lim-Thompson, K. W. Meyers, and K. Thompson**.** 2009.
   External Agency: Bush Grant for the Scholarship of Teaching and Learning
   Title: Cooperative Learning: Students' Perceptions of their Learning in Formal Cooperative Learning Groups. **2007-2008.** Abstract presented at the NACTA meeting 2009.
   Direct cost: $3,000 US.

5. Principal Investigator: Harouna Maiga
   Agency: Travel Grant from the Office of International Programs, University of Minnesota, Twin Cities
   Title: Attending the Malian Symposium of Applied Sciences, August 1-7, 2010, Bamako, Mali. 2010
   Direct cost: $1,500

6. Co-Investigators: Harouna Maiga, Terrill Bradford, and Chuck Lariviere
   Agency: Travel Grant from the Office of International Programs, University of Minnesota, Twin Cities
   Title: Study Abroad Exploratory Trip, France June 24 - 30, 2009
   Direct cost: $2,500

Received at the University of Minnesota – Student Grants

Student Name, Principal Investigator

Co-Investigators – Danielle Harris (student), Melanie Meyer (student), and Harouna Maiga (Principal Investigator).
University of Minnesota, Crookston Student Research Grant
Title: Evaluation of rumen fermentation of Canola meal pellets in lactating dairy cows. Study is completed and results published in the journal of the Professional Animal Scientist. **2007-2008**
Direct cost: **$4,000US.**

Publications (adopted the Journal of Dairy Format of referencing)

Refereed Journal Articles

1. **Maiga**, **H. A*,** M. L. Bauer, C. R. Dahlen, M. Badaruddin and E. J. Scholljegerdes. 2011. Mustard bran in lactating dairy cows' diet. J. Dairy Sci. 94:3054-3062.
(* Principal Author)

2. **Maiga, H. A*,** D. M. Harris, M. E. Meyer, C. R. Dahlen, and M. L. Bauer. 2011. Effect of Pelleted high-oil canola meal from on-farm biodiesel production on rumen fermentation in lactating Holstein dairy cows. Prof. Anim. Sci. 27:29-34.
(* Principal Author)

3. **Maiga, H. A*,** and L. E. Westrom. 2006. Integration of Service-Learning in Animal Science Curriculum. NACTA Jour. 50 (3): 57-64.
(* Principal Author)

4. Casper, D. P., **H. A. Maiga**, M. J. Brouk, and D. J. Schingoethe. 1999. Synchronization of carbohydrate and protein sources on fermentation and passage rates in dairy cows. J. Dairy Sci. 82:1779.

5. Nichols, J. R., D. J. Schingoethe, **H. A. Maiga**, M. J. Brouk, ans M.S. Piepenbrink. 1998. Evaluation of Corn Distillers Grains and Ruminally Protected Lysine and Methionine for Lactating Dairy Cows. J. Dairy Sci. 81:482-491.

6. Henson, J. E., D. J. Schingoethe, and **H. A. Maiga.** 1997. Lactational evaluation of protein supplements of varying ruminal degradability. J. Dairy Sci. 80:385-392.

7. **Maiga, H. A**., and D. J. Schingoethe. 1997. Optimizing the utilization of animal fat and ruminal bypass proteins in diets of lactating dairy cows. J. Dairy Sci. 80:343-352.

8. **Maiga, H. A**., D. J. Schingoethe, and J. E. Henson. 1996. Ruminal degradation, amino acid composition, and intestinal digestibility of residual components of five protein supplements. J. Dairy Sci. 79:1647-1653.

9. **Maiga, H. A**., D. J. Schingoethe, and F. C. Ludens 1995. Evaluation of diets containing supplemental fat with different sources of ruminally degradable carbohydrates for lactating cows. J. Dairy Sci. 78:1122-1130.

10. **Maiga, H. A**., D. J. Schingoethe, F. C. Ludens, W. L. Tucker, and D. P. Casper. 1994. Response of calves to diets that varied in amounts of ruminally degradable carbohydrate and protein. J. Dairy Sci. 77:278-283.

11. Casper, D. P., D. P. Schingoethe, M. J. Brouk, and **H. A. Maiga**. 1994. Nonstructural carbohydrate and undegradable protein sources in the diet: Growth responses of dairy heifers. J. Dairy Sci. 77:2595 -2604.

Proceedings of Conferences

1. Westrom, L. E., **H. A. Maiga**, and S. Westrom. 2010**.** Developing an Agricultural Education Program in Malian Public High Schools Workshop. Proc. Sixth Edition of the Malian Symposium on Applied Sciences (MSAS 2010), pages 277-282. August 1-7, 2010, Bamako, Mali. http://msas.maliwatch.org/msas2010/Proceedings_MSAS2010.pdf

2. **Maiga, H.** A., M, Nicole Larson, Andrea Hoff, Dan Lim, and Kelly C. Nelson. 2008. **(Invited paper)**. Interactive farm animal breeds games CD: A Technology Enhanced Teaching and Learning tool. Proc. Fifth Edition of the Malian Symposium on Applied Sciences (MSAS 2010), pages 37- 49. August 3-8, 2008, Bamako, Mali. http://msas.maliwatch.org/msas2008/msas2008_pp037-049.pdf in the proceedings at: http://msas.maliwatch.org/msas2008/proceedings.html

3. **Maiga, H. A**. 2006. **(Invited paper)**. Les obstacles à l'évaluation de rations alimentaires efficaces pour les bovins au Mali. Proc. Forth Edition of the Malian Symposium on Applied Sciences (MSAS 2006), pages 89-94. July 30 – August 3, Bamako, Mali. http://www.msas.maliwatch.org/msas-2006/msas2006_pp089-094.pdf in the proceedings at: http://www.msas.maliwatch.org/msas-2006/proceedings.html#session04

4. **Maiga, H. A. 2004**. Evaluation of diets containing animal and/or vegetal lipids with different sources of carbohydrates for lactating dairy cows. *A Synthetic Review*[1]. Proc. Third Edition of the Malian Symposium on Applied Sciences (MSAS 2004); page 279-287. August 2-5, Bamako, Mali.
http://msas.maliwatch.org/msas2004/proceedings/msas2004_pp279-287.pdf
http://msas.maliwatch.org/msas2004/proceedings/proceedings.html

Presentations, Posters, and Exhibits

Abstracts ***(published in electronic or paper format that are archived or searchable)***

1. **Maiga, H. A** and M. L. Bauer. 2012. Using Interactive Flash Games to Enhance Student's Learning. Abstract #360, page 47. NACTA Jour. Vol. 56, Supplement 1. 2012 NACTA/DOCE Abstracts. University of Wisconsin, River Falls, WI. June 26-29, 2012

2. **Maiga, H.,** T. Bradford, and C. Lariviere. 2011. Integration of Study Abroad in Animal Science Curriculum. Abstract, page 3. Second Annual – Internationalizing the Curriculum and campus Conference, March 25, 2011. Global Programs and Strategy Alliance (GPS Alliance, University of Minnesota, Minneapolis, MN.

3. Westrom, L.E**., H. A. Maiga**, and T. A. Bradford. 2011. Agricultural International Experiences: Borderless Classrooms. Abstract #163, page 34. NACTA Jour. Vol. 55, Supplement 1. University of Alberta, Edmonton, Canada.
4. **Maiga, H. A.,** M. L. Bauer, C. Dahlen, and M. Badaruddin. 2009. Lactational response of lactating dairy cows fed a diet containing mustard bran. Abstract #277. p. 87. Abstracts. Amer. Soc. Anim. Sci./Amer. Dairy Sci. Assoc. Midwest Branch, Mar 16-18, 2009. Des Moines, IA.
5. **Maiga, H. A**., L. E. Westrom, T.A. Bradford, and A.H. Knudsvig. 2007. The Scholarship of Teaching in Agriculture: Student Outreach Project for Applied Sciences and Technology. NACTA Jour. 51 (2): 84 (Abstr.). University of Illinois, Urbana, IL.
6. Maiga, H. A., C. Dahlen, P. Nester, M. L. Bauer, and M. Badaruddin. 2007. Evaluation of a diet containing mustard bran for lactating dairy cows. Abstracts. p. 97. Amer. Soc. Anim. Sci./Amer. Dairy Sci. Assoc. Midwest Branch, Mar 19-21, 2007. Des Moines, IA.

7. Maiga, H. A, and L. E. Westrom. 2005. Integration of Service-Learning in Animal Science Curriculum at the University of Minnesota, Crookston. Page 25. NACTA Jour. Vol. 49 (2):73 (abstr.). The 51st Annual Conference of the North American Colleges and Teachers of Agriculture. June 15-17, 2005. The Ohio State University – ATI, Wooster, OH

8. R. Nichols, D. J. Schingoethe, **H. A. Maiga,** M. J. Brouk, and M. S. Piepenb**rink** . 1998. Evaluation of Corn Distillers Grains and Ruminally Protected Lysine and Methionine for Lactating Dairy Cows J. Dairy Sci. 81: 482.

9. Judy Ellison Henson, David J. Schingoethe, and **Harouna A. Maiga.** 1997.Lactational Evaluation of Protein Supplements of Varying Ruminal Degradabilities. J. Dairy Sci. 80: 385.

10. **Maiga, H. A** and David. J. Schingoethe. 1997. Optimizing the Utilization of Animal Fat and Ruminal Bypass Proteins in the Diets of Lactating Dairy Cows. J. Dairy Sci. 80: 343.

11. **Maiga, H. A,** David J. Schingoethe, and Judy Ellison Henson. 1996. Ruminal Degradation, Amino Acid Composition, and Intestinal Digestibility of the Residual Components of Five Protein Supplements. J. Dairy Sci.79: 1647.

12. **Maiga, H. A.** D. J. Schingoethe, and F. C. Ludens. 1995. Evaluation of Diets Containing Supplemental Fat with Different Sources of Carbohydrates for Lactating Dairy Cows. J. Dairy Sci. 78: 1122.

13. David P. Casper, David J. Schingoethe, Michael J. Brouk**,** and **Harouna A. Maiga.** 1994 Nonstructural Carbohydrate and Undegradable Protein Sources in the Diet: Growth Responses of Dairy Heifers. J. Dairy Sci. 77: 259.

14. **Maiga, Harouna A.,** David J. Schingoethe, Fenton C. Ludens, William L. Tucker, and David P. Casper**. 1**994. Response of Calves to Diets That Varied in Amounts of Ruminally Degradable Carbohydrate and Protein. J. Dairy Sci. 77: 278.

Posters or Exhibitions

1.**Maiga H.**, D. L. Crawford, B. Dingmann, M. Grave, S. Lim-Thompson, K. W. Meyers, and K. Thompson**.** 2009. Assessment of student team member effectiveness in collaborative Learning. Abstract #338, page 35. NACTA 2009 Abstracts and Awards. Oklahoma State University, Stillwater, OK

2. Harris†, D. M., M. E. Meyer†, **H. A. Maiga**, and C. Dahlen. 2009. Evaluation of diet containing pelleted high oil canola meal for lactating dairy cows. Abstract #283. page 89. Abstracts. Amer. Soc. Anim. Sci./Amer. Dairy Sci. Assoc. Midwest Branch, Mar 16-18, 2009. Des Moines, IA.
(†Students)

3. Terrill Bradford, Lyle Westrom, and **Harouna Maiga.** 2008. Factors that contribute to student achievement in an Introductory Animal Science Course. NACTA Jour. 52 (2): 89 (Abstr.). Utah State University, Logan, UT.

TEACHING AND CURRICULUM DEVELOPMENT

University of Minnesota

Courses, seminars, and instructional units taught
AnSc 2001 – Artificial Insemination in Cattle (1 credit), 2001- 2009
AnSc 2104 – Feeds and Feeding (4 credits), 2001-present
AnSc 3004 – Livestock Facilities and Environmental Systems (3 credits), 2001-present
AnSc 3104 – Applied Animal Nutrition (4 credits), 2001-present
AnSc 3204 – Dairy production (4 credits), 2001-present
AnSc 3205 – Dairy Management Practicum (3 credits), 2001-2004
AnSc 3304 – Reproduction, AI & Lactation (4 credits), 2001 – 2003 and 2006-2008
AnSc 3804 – Independent Studies in Animal Sciences (1-3 credits), 2001-present

AnSc 4204 – Animal Systems Management (4 credits), 2001-present
GnAg 3203 – Ag Products and Processing (3 credits), 2001-present
GnAg 3204 – International Agriculture Production, Processing, and Marketing, 2010-present
Agro 3130 – Forages (3 credits), 2001-present

Curriculum Development

(courses, seminars, laboratories, curriculum guides, assessment activities for student learning, service learning materials, rubrics, etc.)

1. AnSc 3004 – Livestock Facilities and Environmental Systems (3 credits). Completely redesigned this course to incorporate pollution and environmental issues

2. AnSc 4204 – Animal Systems Management (4 credits), 2001-201. Each student is engaged in service learning project to address local farmers' needs

3. GnAg 3204 – International Agriculture Production, Processing, and Marketing, 2010. This is a newly developed course to provide study abroad experience to students. I worked with two UMC faculty (Terrill Bradford and Chuck Lariviere) to develop this course and we continue to refine it in order to make it a sustainable course

ADVISING AND MENTORING

Undergraduate Student Activities

Undergraduate research projects (UROPS, directed research, lab participation, etc.)

Student names
Danielle Harris, 2007-2008
Melanie Meyer, 2007-2008

Undergraduate advising

Number of Students in 2010-2012(45 students):

Number of Students in 2006-2009 (34 students)

Number of Students in 2001-2005 (35 students)

Professional Student Activities

French International supervised internship

1. Joseph Duhamel, graduate student at ESITPA Agricultural School of Rouen, France (summer 2011). Co-Supervised summer 2011 internship at Northwest Research and Outreach Center (NWROC), Crookston, MN

2. Claire Thiebaut, graduate student at ESITPA Agricultural School of Rouen, France (summer 2011). Co-Supervised summer 2011 internship at West Central Research and Outreach Center (WCROC), Morris, MN

University of Minnesota, Crookston Student Clubs and Organizations

1. UMC Dairy Club Advisor:
    - Attended club meetings and other functions

2. NACTA Judging Conferences Advisor for UMC Teams
    - Livestock Management and Quiz Bowl Competitions

3. Ag Activities Day, UMC
    - Advisor/Coach for the Dairy Judging Competitions

4. Ag-Arama Students Competitions in Agricultural and Natural Resources
    - Advisor for the dairy competitions

Other Mentoring Activities [including serving as a mentor or member of a mentoring committee for a faculty member, etc.]

1. Dr. Venugopal Mukku, Assistant Professor of Chemistry, University of Minnesota, Crookston (2008-2011)

SERVICE AND PUBLIC OUTREACH

Service To The Discipline/Profession/Interdisciplinary Area(s)

Editorships/Journal Reviewer Experience

1. Malian Symposium of Applied Sciences (MSAS) Editorial Board (2004-present). Editor of the Proceedings of the Malian Symposium of Applied Sciences (MSAS, Bamako, Mali), Agricultural section (2004-present)
2. The NACTA journal Editorial Board (2012-2015)

Committee memberships

1. Midwest Section of American dairy Science/American Society of Animal Science Teaching Award Committee member (2010-present)

Organization of conferences, workshops, panels,

1. Mali Symposium on Applied Sciences (MSAS), Bamako, Mali – Key organizer of the symposium in 2002, 2004, 2006, 2008, and 2010. I also organized the mini-symposium on Agricultural issues during 2006, 2008, and 2010

Service To The University/College/Department

University of Minnesota

University-wide service

1. University of Minnesota System wide – Global Spotlight Committee member (2009-present)

Crookston Campus

1. University of Minnesota, Crookston (UMC) Chancellor Search Committee (2012) - Member
2. UMC Curriculum Committee member (2011-2013)
3. UMC Admissions Committee member (2009- present)
4. UMC Parking Appeal Committee member (2011-present)
5. UMC Academic Quality Improvement Program (AQIP) Committee member (2009 – present)
6. UMC Director of Diversity Search Committee member (2011)
7. UMC Promotion and Tenure Committee member (2009- 2011)
8. Chair – Faculty Assembly & Faculty Consultative Committee of University of Minnesota, Crookston Campus (2007-2008)
9. Vice Chair – Faculty Assembly & Faculty Consultative Committee) of University of Minnesota, Crookston Campus (2006-2007)
10. UMC Director of International Programs Search Committee (2007)
8. Chair – University of Minnesota, Crookston Student Awards Committee (2004-2005).
9. UMC - HLC (High Learning Commission, 2005) – Self study for UMC re-accreditation. I represented the Agriculture Department of the University for Criterion 5 (Engagement & Service) of the self study
10. UMC Faculty Awards Committee member (2003-2004)
11. UMC Committee on Access for Persons with Disabilities member (2003-2005)

Agriculture and Natural Resources Department, UMC

1. Chair Promotion and Tenure Committee of the Agriculture and Natural Resources Department (2009-2011)
2. UMC Faculty hiring committees, i.e., Animal Sciences (2008, 2009, 2011), Equine Science positions (2005, 2006, 2007), Biology position (2004), Chemistry (2012)
3. Dairy Club Students Advisor (2001-present)
4. NACTA Judging Conferences, Coach of UMC Livestock Management and Quiz Bowl Teams
5. Campus Preview for Prospective Students (2008-2011)

6. Ag Activities Day (2001-2011)

7. Ag-Arama programs for students Ag competitions on Campus

Public And Other Service

Community, state, national, or international service activities

1. Northwest Minnesota Dairy Diagnostics Teams – Member of several farm teams with the role of Nutritionist (2001-2008)
2. President of Dawn to Dusk Lions Club of Crookston (2009). I was also treasurer for many years.
3. Summer Teaching at the Polytechnic Rural Institute (School of Agriculture) in Mali (west Africa) – Taught Agriculture Production classes and Extension Service Programming (2002, 2002, 2006, and 2008).
4. Consultant for the Mali Government on Mali Higher Education Challenges and Programming. The Office of the Prime Minister. I attended the 2008 National Forum on Education: Challenges and Revamping the System.
5. Consultant for the Cabinet of Mali Ministry of Malian Living Abroad and African Integration. 2010. I attended the National Forum on the mobilization and Use of Malian Scientific and Intellectual Diaspora to help the country with its economic and social development.