

From: [Bill Rooney](#)
To: ["Avant, Bob"](#)
Subject: RE: VC Award for Excellence in Research
Date: Wednesday, October 21, 2009 8:53:26 PM
Attachments: [2009 Achievement Report.docx](#)

Bob:

Thanks for doing this; sorry, I'm on the other side of the world right now and am not much help.

I'm attaching my achievement report. It is too long and cumbersome, but it is what I have to make sure you had something. When I get back I can get something better together.

Regards,
Bill

From: Avant, Bob [mailto:bavant@tamu.edu]
Sent: Wednesday, October 21, 2009 4:34 PM
To: Bill Rooney
Subject: VC Award for Excellence in Research

Bill,

As you may know, I have been drafted to nomination you for the Award for Excellence in Research (which I am happy to do). I have been flying by the seat of my pants on the nomination letters, but it would be helpful to have a current vita. Could you get me one as soon as possible. I have to have my part in by the end of the week.

Bob Avant
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**FACULTY/STAFF ACHIEVEMENT REPORT
COLLEGE OF AGRICULTURAL AND LIFE SCIENCES
TEXAS AGRICULTURAL EXPERIMENT STATION**

I. CURRENT TITLE AND POSITION

Name: William L. Rooney

Rank: Professor

Unit: Department of Soil & Crop Sciences, TAES

Date: May 11, 2009

Date of Last Promotion: September 1, 2005

Date of Initial Appointment: October 1, 1995

II. EDUCATION AND EXPERIENCE

- 2005-present Professor, Dep. of Soil & Crop Sciences, Texas A&M University
- 2000-2005 Associate Professor, Dep. of Soil & Crop Sciences, Texas A&M University
- 1995-2000 Assistant Professor, Dep. of Soil & Crop Sciences, Texas A&M University
- 1993-1995 Assistant Professor, Dep. of Agronomy, Kansas State University, Manhattan, KS. alfalfa cultivar development, breeding methodology studies, genetic inheritance of specialty-traits in alfalfa, teaching graduate plant breeding courses.
- 1992 Ph.D., Plant Breeding and Genetics, University of Minnesota, St. Paul, MN
- 1989-1992 Graduate Research Assistant, University of Minnesota - oat breeding and genetics, molecular genetic analysis of crown rust resistance in oat, RFLP mapping and recurrent selection for early maturity.
- 1989 M.S., Plant Breeding, Texas A&M University, College Station, TX.
- 1987-1989 Graduate Research Assistant, Soil & Crop Sciences, Texas A&M University, College Station, TX. 1986-1989: cotton cytogenetics.
- 1987 B.S., Agronomy, Texas A&M University, College Station, TX.

III. POSITION DESCRIPTION

The long-range goal of this position is to enhance the productivity and profitability of grain, forage and bioenergy sorghum production systems. The sorghum breeding program is used as a mechanism to develop and release sorghum germplasm to meet this goal. In addition to the release of improved sorghum genotypes, research in the program emphasizes the genetic and molecular genetic inheritance of disease resistance, grain quality and agronomic productivity and adaptability. The research provides opportunities for graduate student training in fundamental and applied aspects of plant improvement.

IV. SUMMARY OF RECORD OF ASSIGNED ACTIVITIES

a. TEACHING

Candidate's Statement on Teaching -

My teaching responsibilities include graduate advising (credited as AGRO 691) and Agro 642 – Plant Breeding II. Agro 642 is a 3 credit hour course graduate level course

focusing on statistical and genetic issues in plant breeding. My approach to classroom teaching is to provide students with the basic information and then facilitate discussion and interaction on important topics within the range of the material presented in the course. This approach has been effective in the graduate class. Teaching evaluations have been consistent over the years, with a range of for the undergraduate class and a range of 4.53 to 4.89/5.00 for Agro 642. In the past I also team taught Agro 306 and in this undergraduate course, my evaluations ranged from 4.21 to 4.55/5.00 over a ten year period. In recent years, the increased demands for research, travel and administrative obligations have reduced the time available to dedicate to teaching. In my opinion, my teaching and advising have suffered as a result. Quite honestly, over the next few years it will be a challenge to my expectations in teaching, given our program obligations for research.

My primary interest in teaching is graduate advising of plant breeding and genetics majors. Over my career, I have served as chair or co-chair for 12 students who completed an M.S. degree and for 12 students who have completed a Ph.D. degree. In addition, I have served on the committee of 26 other students who have completed graduate degrees. At the current time, I serve as a chair or co-chair for 7 graduate students and I am on the committee of 5 other graduate students. Most of my students major in plant breeding and the recent interest in bioenergy has allowed me to be rather picky about the students we bring into the program. I provide advice as needed, based on the experience and capability of each student. For example, I expect Ph.D. students to be more independent than new M.S. graduate students. In addition to their research project, I expect my students to be completely immersed in the applied breeding program. During their studies, they are expected to participate in all aspects of the program, from planning, planting, and pollination (both summer and winter nurseries) to selection and harvest. My goal is to produce graduates that will be competent researchers and teachers in the field of plant breeding. While I'm not sure that they are all competent when the graduate, demand for breeders has led to unprecedented opportunities for our plant breeding graduates.

A. I have a 45 % teaching appointment within the College of Agriculture and Life Sciences

B. Summary of Undergraduate Courses Taught

1. <u>Course</u>	<u>Semester</u>	<u>Enrollment</u>	<u>Credit Hours</u>	<u>Rating</u>
Agro 306	Fall 96	13	52	4.45/5.00
Agro 306	Fall 98	15	60	4.21/5.00
Agro 306	Fall 00	14	56	4.55/5.00
Agro 306	Fall 02	18	72	4.24/5.00
Agro 306	Fall 04	6	24	4.31/5.00
Agro 306	Fall 06	11		4.52/5.00
Agro 485	Summer/Fall 01	1	4	

C. Summary of Graduate Courses Taught

1. <u>Course</u>	<u>Semester</u>	<u>Enrollment</u>	<u>Credit Hours</u>	<u>Rating</u>
Agro 642	Spring 96	7	21	4.87/5.00
Agro 642	Fall 97	6	18	4.76/5.00
Agro 642	Fall 98	5	15	4.89/5.00
Agro 642	Fall 99	9	27	4.80/5.00
Agro 642	Fall 00	9	27	4.86/5.00
Agro 642	Fall 01	8	24	4.74/5.00
Agro 642	Fall 02	8	24	4.84/5.00

Agro 642	Fall 03	11	33	4.53/5.00
Agro 642	Spring 05	13	39	4.67/5.00
Agro 642	Spring 06	6	TA	
Agro 642	Spring 07	6	18	
Agro 642	Fall 08			

Agro 685	Various	variable	variable	
Agro 691	Spring 96–Spring 09*	variable	variable	

* Currently being taught

D. Current Graduate Students

1. Major Professor (4 PhD; 4 MS)

Ph.D. – Daniel Packer (sorghum breeding)
 Ph.D. – Rebecca Corn (sorghum breeding)
 Ph.D. – Miguel Gutierrez (sorghum breeding)
 Ph.D. – Kerry Mayfield (corn breeding, co-chair)
 Ph.D. – Leo Hoffman (sorghum breeding)
 Ph.D. – Jeffrey Wilson (peanut breeding, co-chair)
 M.S. – Dustin Borden (Agronomy)
 M.S. – Chad Hayes (Plant Breeding)
 M.S. – Matthew Bartek (Plant Breeding)

2. Committee Member (6 PhD; 3 M.S.)

Ph.D. – Esten Mason (Agronomy)
 Ph.D. – Jason Anderson (Genetics)
 Ph.D. – Joseph Evans (Genetics)
 Ph.D. – Suchismata Mondal (Plant Breeding)
 Ph.D. – Vivek Sharma (Plant Breeding)
 Ph.D. – Adrianna Robbins (Plant Breeding)

3. Graduate Degrees Completed

a. M.S. Degrees (12 chair, 10 committee, 22 total)

22. Joann Hernandez, 2008
21. Vilma Calderon, 2007
20. Otilio Portillo, 2007
19. Ian Plews, 2007
18. Dan Packer, 2007 (chair)
17. Rebecca Corn, 2007 (chair)
16. Jennie Winn, 2007
15. Michael Baring, 2006 (chair)
14. Suchismata Mondal, 2006
13. Joaquim Mutalano, 2005 (chair)
12. Leo Mpofu, 2005 (chair)
11. Les Kuhlman, 2005 (chair)
10. Rafael Mateo, 2003 (chair)
9. Douglas Wilde, 2003 (M.Ag)

8. Becky Knipp, 2002 (M. Ag)
7. Wooten, D.R., 2001 (Chair)
6. Peter Mes, 2001
5. Moran, J.L., 1999 (Chair)
4. Aydin, S., 1998 (Chair)
3. Wiltse, C.C., 1998 (Chair)
2. Bueso, F.J., 1997
1. Yendluri, K.K., 1996 (Chair @ Kansas State Univ.)

b. Ph.D. Degrees (12 chair, 18 committee, 30 total)

30. Linda Dykes, 2008
29. Polly Longenberger, 2008
28. Halima Atta, 2007
28. Seribe Katile, 2007
27. Les Kuhlman, 2007 (chair)
26. Francis Maiden, 2006
25. Rafael Mateo, 2006 (chair)
24. Jeff Brady, 2006
23. Melanie Edwards, 2005
22. Rosan Ganunga, 2005
21. Dan Makumbi, 2005
20. Krishnamoorthy Gabriel, 2005 (chair)
19. Karim Traore, 2005 (Co-Chair)
18. Hector Ramirez de Leon, 2005 (Chair)
17. Sandeep Bhatnagar, 2004
16. Noe Montes, 2004
15. Selahattin Aydin, 2004 (Chair)
14. Jorge L. Moran-Maradiaga, 2003 (Chair)
13. Cleve D. Franks, 2003 (Chair)
12. Ahmed Sabry, 2003
11. Jeong-Soon Kim, 2003
10. Sanchez-Gomez, A. 2002 (Chair)
9. Mehta, P.J. 2002 (Chair)
8. Santos, T. 2002
7. Little, C. 2002
6. Ndoye, O. 2001 (Co-chair)
5. Quero-Carillo, A., 2000
4. Hague, SA, 2000
3. Lopez, Y. 1999 (Chair)
2. Rodriguez-Herrera, R., 1999, (Co-chair)
1. Torres-Montalvo, H., 1998

E. Advisor to University undergraduate fellows: 0

F. Advisor to Undergraduate Student:

I do not have formal responsibilities for undergraduate student advising, but I have instructed two undergraduate students in Agro 485 special problems coursework. Both students conducted and summarized research in various aspects of sorghum research. In addition to Agro 485 instruction, my program

hires 2 to 3 undergraduate students (commonly agronomy majors) to work in our sorghum breeding program.

G. Teaching Improvement Activities

H. Other Activities related to Teaching

Each spring semester, I present a lecture in Agro 641 (W. Smith, instructor) on the details and specifics of the TAES sorghum improvement program.

October 1997 - I was invited to present information in sorghum management and research at the UAAAN in Saltillo Coahuila Mexico.

October 1997 – I was invited to present guest lectures (2) at ITESM (Monterrey Tech) on Plant Breeding and Sorghum Breeding.

b. RESEARCH

Candidate's Statement on Research -

There are three general objectives of the sorghum breeding and genetics program. They are: (i) research and publication in the genetics of important traits in sorghum and sorghum germplasm; (ii) germplasm development and application in U.S. and world sorghum production systems; and (iii) the training of graduate students in plant breeding and genetics using the sorghum breeding program as a platform.

My research program has focused on the characterization of germplasm and the genetics of traits important for sorghum production. The traits with specific emphasis in our research include yield and yield components (ranging from grain to biomass), quality (ranging from grain quality to the composition of biomass for energy production), and resistance to both abiotic (drought) and biotic (diseases) stresses that reduce yield and quality. My approach is to identify sources of resistance, (or quality etc.), characterize the inheritance (using either traditional or molecular approaches) of the trait in this germplasm and if appropriate, integrate this particular trait into improved germplasm which is released and made available to the commercial sorghum industry.

The results and germplasm utilized in my research program feed directly into the sorghum breeding program. The goal of our sorghum breeding program is to develop and release sorghum germplasm that is improved for use as grain sorghum, forage sorghum and more recently as a bioenergy crop. The interest in sorghum as a bioenergy feedstock has grown exponentially in the past three years; in 2008 approximately 75% of all of our breeding nursery plots will be devoted to bioenergy line development. In the past ten years, my program has had seven releases which included one population, one parental line, and twenty germplasms (see releases and publications). Some of this germplasm has been utilized by private industry in commercial grain and forage sorghum hybrids and for the improvement of sorghum germplasm. Much of the emphasis in this program is international, thus it is important to balance the breeding and research needs of the domestic and international portions of the program. In most cases, the goals of both programs are similar and are effectively achieved using the same germplasm and methodologies.

I rely on cooperation with other researchers. We have developed collaboration with numerous labs interested in sorghum genetics. In cooperation with molecular geneticists, my program has been responsible for the development of populations and the phenotypic evaluation of the germplasm while the cooperators (such as but not limited to Drs. John Mullet and Robert Klein) have provided a fully equipped lab for molecular analysis. This approach works because we all view the collaboration as important for the completion of the research. This collaboration integrates my research program with my teaching program as

graduate students and post-doctoral students are often involved with these cooperative research project. This approach allows the student exposure to several labs and it helps make the collaboration possible.

A. My position is budgeted at 55% research.

B. TAES Projects

H-8472: "Genetic Improvement of Sorghum bicolor (L.) Moench for Improved Productivity, Adaptation, and Quality". Two full-time support personnel who also assist with the following projects (on which I am listed as a cooperator). This project was revised and maintained the same number. May 2003-April 2008. Extended until April 2009.

C. Grants and Contracts –

1. Current Support

16. Genetic Dissection of bioenergy traits in sorghum, Vermerris et al, DOE/USDA Feedstock Genomics Program, \$134,000 (45.5% Indirect) 10/1/2008 to 9/30/2010
15. Regional Feedstock Partnership – Assessment of Sorghum as a Bioenergy Crop, DOE and Sungrant, Rooney and Heilman, \$225,000 4/01/2008 to 03/31/2010
14. Genetic Analysis of Sorghum Drought Tolerance Traits. Pioneer Sponsored Research, Mullet and Rooney, \$750,000, with \$250,000 to Rooney (45.5% Indirect), 08/01/2008 to 6/30/2011
13. Lignocellulosic Feedstock Development for Gen II Biofuels, Chevron Sponsored Research, Gould and Mullet PIs, \$5.4 million, \$765,000 to Rooney (45.5% Indirect) 08/01/2008 to 3/31/2011.
12. Enhancement of Sweet Sorghum Breeding Activities, Ceres Sponsored Research, Rooney WL. \$500,000 (45.5% Indirect), 09/01/2008 to 8/31/2012.
11. Advancing Texas Biofuel Production, Rooney WL and K Chambliss. US Congress Special Appropriations, \$138,000 (0% indirect), 07/01/2008 to 6/30/2009
10. Breeding Corn for Reduced Aflatoxin Infection, Mayfield K and Rooney W, Texas Corn Producers Board, \$44,000 (0% indirect), 01/01/2007 to 12/31/2008 TRANSFERRED TO SETH MURRAY
9. Aflatoxin Reduction through Breeding, Mayfield K and Rooney W, USDA Aflatoxin Initiative, \$20,000 (0% indirect), 01/01/2007 to 12/31/2008 TRANSFERRED TO SETH MURRAY
8. Designing Sorghum and Sorghum Production Systems for the Biofuels Industry, Rooney W and Saldivar S, TAMU/CONACyT, \$25,000, 09/01/2007 to 08/31/2008
7. Novel Bioenergy Crops through Hybridization of Sorghum, Sugarcane and Energy cane, Rooney W, Stelly D, Da Silva J, State BIOENERGY Funds, \$230,000 (0% indirect), 12/01/2007 to 08/31/2008
6. Evaluation of Sweet Sorghum Hybrids as a Bioenergy Feedstock for the South Central U.S. – Germplasm Development and Agronomic Practices, Rooney W, Blumenthal J, Bean B, Peterson G, SunGrant Initiative, South Central Region, \$327,125 (26% Indirect), 07/01/2007 to 06/30/2010
5. Genetic Improvement of Sorghum Drought Tolerance, Mullet J, Rooney W, and Payne W, Monocot Improvement Program, \$75,000 (0% indirect), September 1, 2007 to August 31, 2008
4. Breeding Sorghum for Improved Grain and Forage Quality and Yield for Central America, Rooney W., US AID INTSORMIL CRSP, \$335,732 (45.5% indirect), 07/01/2007 to 09/30/2011
3. Integrated Development of Dedicated Bioenergy Sorghums for Crop Production Systems in Texas, Rooney, W, Blumenthal J, Bean B, Amossen S, Peterson G, Odvody G and Parker R, Cropping Systems, \$300,000 (0% indirect), September 1, 2007 to August 31, 2008
2. Development of Bioenergy Sorghum, Rooney W, Mullet J and Klein P., Ceres, Inc., \$5,317,913 (45.5% indirect). September 1, 2007 to August 31, 2012
1. Sorghum Feedstock Genomics, W.L. Rooney, J.E. Mullet, and S. Kresovich, DOE/USDA Feedstock Genomics Program, \$800,000 (45.5% indirect), 10/01/06 to 09/30/08 ENDED

2. Past Support

33. Breeding for Improved Grain Quality and Nutritional Value in Sorghum. M.R. Tuinstra, W.L. Rooney, J.D. Hancock, and C.W. Magill. U.S. AID – INTSORMIL CRSP. \$300,000/year (\$75,000/P.I./year) for 4.5 years. 01/01/02 to 06/30/07
32. Breeding Sorghum for Texas. W.L. Rooney, G.C. Peterson and G.N. Odvody. CROPPING SYSTEMS PROGRAM. \$326,000. 09/01/03 to 08/31/07
31. New Genetic Approach to Wide-Species Hybridization, Detection of Alien Chromatin, and Transfer of Agronomically Important Genes in Sorghum. H.J. Price, W.L. Rooney, D.M. Stelly. USDA - NRI \$130,000; 09/01/04 to 08/31/06
30. Improving Sorghum Grain Quality, L.W. Rooney, R.D. Waniska and W.L. Rooney, CROPPING SYSTEMS PROGRAM, \$50,000, 09/01/03 to 08/31/04
29. Evaluation of photoperiod insensitive sorghum PIs for adaptation and disease resistance in South Texas, W.L. Rooney and G.N. Odvody, USDA/Sorghum Germplasm Committee, \$15,000, 09/01/02 to 08/31/04
28. Evaluation of wild Australian sorghum species for application to sorghum improvement, H.J. Price and W.L. Rooney, USDA/Sorghum Germplasm Committee, \$15,000, 09/01/02 to 08/31/04
27. Southern Africa Regional Project – Graduate Training Program (Evaluation of Southern Africa Adapted Germplasm in Hybrid Combinations), W.L. Rooney, U.S. AID – INTSORMIL CRSP, \$55,810, 09/01/03 to 08/31/05
26. Evaluation of IS8525 for resistance to ergot. USDA-ARS Specific Cooperative Agreement. (\$30,000) 9/01-8/03
25. Molecular Evaluation of the diversity of Sorghum Germplasm. USDA-ARS Specific Cooperative Agreement. (\$25,000) 7/01-6/02
24. Ergot research in Texas, TxGRAIN initiative (\$50,000) 9/01-8/03
23. The use of marker-assisted selection for grain mold resistance in sorghum, TX-GRAIN initiative, (\$56,000) 9/01-8/03
22. Development of Tan Plant Hybrids for Texas Environments, PROFIT initiative, (\$46,000), 9/01-8/03
21. Development of Improved Sorghum Genotypes for Texas Producers, Texas Grain Sorghum Producers Board, 7/00 - 6/03 (\$72,000)
20. The use of marker-assisted selection for grain mold resistance in sorghum, TX-GRAIN initiative, (\$83,600) 10/99-8/01
19. Evaluation of Tan Plant Hybrids for Texas Environments, PROFIT initiative, (\$44,000), 9/99-8/01
18. Development of Improved Sorghum Genotypes for Texas Producers, Texas Grain Sorghum Producers Board, 7/97 - 6/00 (\$96,000)
17. Effect of Pollen Shed and Stigma Receptivity on Relative Ergot Susceptibility in Sorghum, Texas Seed Trade Association, 6/98 - 5/00 (\$32,000)
16. Identification of QTL for Grain Mold Resistance in Food Quality Grain Sorghums, TXGRAIN - Texas Legislature, 9/97-9/99 (\$42,000)
15. Genetic and Biochemical Analysis of Grain Mold Resistance in Sorghum, USDA-Specific Cooperative Agreement, 8/98-7/03, (\$30,000)
14. Effect of pollen shed and stigma receptivity on relative ergot susceptibility in Sorghum, 6/98-6/01 (\$65,000)
13. Evaluation of the NPGS sorghum collection for photoperiod sensitivity, 9/99-8/01 (\$9,000)
12. Development of food quality sorghums adapted to South Texas and Northern Mexico for food and feed utilization, W.W. Kellogg - Texas/Mexico Initiatives, 3/97-2/98 (\$12,000)
11. Evaluation of elite sorghum A-lines for ergot susceptibility, USDA-Specific Cooperative Agreement, 9/97-9/98 (\$3,500)
10. Development of Introgression Populations for the Sorghum Genome Project, USDA-Specific Cooperative Agreement, 7/98-6/01 (\$15,000)

9. Development of white sorghum grain on tan plant color for food and feed in Texas, Texas Grain Sorghum Producers, 7/96-7/97, (\$17,000)
8. Characterization of sorghum germplasm from the University of Arkansas, USDA-Specific Cooperative Agreement, 11/96-10/97 (\$2,000)
7. Development of improved high yielding sorghum cultivars, USAID-INTSORMIL-CRSP, 12/95-9/96, (\$44,500)
6. Iron deficiency stress tolerance in sorghum, Co-PI, PROFIT initiative, (39,880) 9/99-8/01
5. Contribution of forage uses of crop residue to profitability of grain sorghum and cow-calf systems, Co-PI, PROFIT initiative, (39,972) 9/99-8/01
4. Mapping and Analysis of Genes Controlling Sorghum Maturity, USDA-CSREES, Co-PI, 11/96-10/99, (\$204,000)
3. Molecular analysis of sorghum conversion products and MAS for conversion, Pioneer, Co-PI, 1/97-12/99 (\$70,000)
2. Variation in Sorghum hybrids to post emergent applications of prosulfuron, Novartis, Co-PI, 1/98-12/98 (\$4,000)
1. Comparative mapping of grain crops and forage grasses, TAES-REP, Co-PI, 1/96-12/97, (\$39,000)

c. Collaborator – I collaborate on a lot of proposals, but I don't have a list in front of me and can't remember them all. I don't receive direct funding.

d. Research Proposals Submitted and Pending

None submitted in 2008 are pending; numerous have been submitted in 2009, but I'll tell you about them if you ask or when you read next year's report.....

e. Research Proposals Submitted and not Funded (past two years)

Fine Mapping and Cloning of the *Iap* Locus as a Means to Produce Novel Bioenergy Crops through Hybridization of Sorghum, Sugarcane and Other Grasses, submitted in response to DOE/USDA Feedstock Genomics RFP. Rooney W, Klein P, and Stelly D

Addressing Biomass Recalcitrance Through Feedstock Engineering, Ceres/TAMU, Submitted to DOE/USDA Feedstock Conversion Program, Hames B, Rooney, W and Mullet J

D. Documentation of Research

1. Publications

a. Refereed Journal Articles (Total: 66; 7 in 2008)

Submitted

Morris, BD, JW Richardson, BJ Frosch, JL Outlaw, and WL. Rooney. Economic Feasibility of Ethanol Production from Sweet Sorghum Juice in Texas. Southern J. of Ag. Economics

Katilé, S.O., R. Perumal, W.L. Rooney, L.K. Prom, and C.W. Magill. Expression of pathogenesis-related protein PR-10 in sorghum floral tissues in response to inoculation with *Fusarium thapsinum* and *Curvularia lunata*. Molecular Plant Pathology

Rooney, W.L., G.N. Odvody, and S.D. Collins. Registration of Tx2929 to Tx2934 Sorghum Germplasm. (Submitted to Crop Science)

Rooney, W.L., G.N. Odvody, and S.D. Collins. Registration of Tx2935 to Tx2944 Sorghum Germplasm. (Submitted to Crop Science)

Accepted and/or In Press

- Winn, J., E. Mason, W.L. Rooney and D.B. Hays. QTL Mapping of a High Protein Digestibility Trait in *Sorghum bicolor*. *Intl J Plant Genomics* (accepted)
- Hernandez, J.R., S. C. Capareda, O. Portillo, D. B. Hays, and W. L. Rooney. 2009. Simultaneous saccharification and fermentation (SSF) of High Digestible Variety of Grain Sorghum for Ethanol Production. *ASBAE* (accepted).
- Wu,X., S. Staggenborg, J.L. Prophet, W.L. Rooney, J. Yu, D. Wang. 2009. Features of Sweet Sorghum Juice and Their Performance in Ethanol Fermentation. *Industrial Crops and Products*. (accepted).

Published

66. Dykes L*, L.M. Seitz, W.L. Rooney and Lloyd W. Rooney. 2009. Flavonoid Composition of Red Sorghum Genotypes. *Food Chemistry* 116:313-317.
65. Murray S.C.*, W.L. Rooney, M.H. Hamblin, S.E. Mitchell, and S. Kresovich. 2009. Sweet sorghum genetic diversity and association mapping for brix and height. *The Plant Genome*. 2:48-62.
64. Rodríguez-Herrera, R*, Rooney, W. L., Waniska, R. D., Aguilar-González, C. N., Quero-Carrillo, A. R. and Padrón-Corral, E. 2009. Path analysis for kernel traits associated with grain mould resistance in food type sorghum. *Archives of phytopathology and plant protection*, 42:(2)148 — 159
63. Perumal, R., M.A. Menz, P.J. Mehta, S. Katile, L.A. Gutierrez Rojas, R.R. Klein, P.E. Klein, L.K. Prom, J.A. Schlueter, W.L. Rooney, C.W. Magill 2009. Molecular mapping of Cg1, a gene for resistance to Anthracnose (*Colletotrichum sublineolum*) in sorghum, *Euphytica* 165:597-606.
62. Balota M, WA Payne, D Rosenow, and W Rooney. 2008. Gas exchange and Transpiration Ratio in Sorghum. *Crop Sci* 48:2361-2371.
61. Murray SC*, WL Rooney, SE Mitchell, PE Klein, A Sharma, JE Mullet, and S Kresovich. 2008. Sorghum as a Biofuel Feedstock: II. QTL for Leaf and Stem Structural Carbohydrates. *Crop Sci* 48:2180-2193.
60. Murray SC*, A Sharma, WL Rooney, PE Klein, JE Mullet, SE Mitchell, and S Kresovich. 2008. Genetic improvement of sorghum as a biofuel feedstock: I. QTL for stem and grain nonstructural carbohydrates. *Crop Sci* 48:2165-2179.
59. Montes-Garcia, N., H. Williams-Alanis, LK Prom, T Isakeit, G Odvody, J Narro-Sanchez and W.L. Rooney. 2008. Disease severity and susceptibility of sorghum [*Sorghum bicolor* (L.) Moench.] to Infection by *Claviceps africana* Frederickson, Mantle and de Miliano in Mexico and the United States of America. *Revista Mexicana de Fitopatologia*. 26:121-126.
58. Kuhlman, L.C*, B.L. Burson, P.E. Klein, R.R. Klein, D.M. Stelly, H.J. Price, and W.L. Rooney. 2008. Genetic Recombination in *S. bicolor* x *S. macrosperrum* Interspecific Hybrids. *Genome* 51:749-756.
57. Fernandez, MG*, M Hamblin, L Li, WL Rooney, MR Tuinstra, and S Kresovich. 2008. QTL analysis of endosperm color and carotenoid content in sorghum grain. *Crop Sci* 48:1732-1743.
56. Klein RR, JE Mullet, DR Jordan, FR Miller, WL Rooney, MA Menz, CD Franks, and PE Klein. 2008. The Effect of Tropical Sorghum Conversion and Inbred Development on Genome Diversity as Revealed by High-Resolution Genotyping. *Crop Sci*. 48(S1) S12-S26.
55. MT Hamblin, M Salas Fernandez, MR Tuinstra, WL Rooney, and S Kresovich. 2007. Sequence Variation at Candidate Loci in the Starch Metabolism Pathway in Sorghum: Prospects for Linkage Disequilibrium Mapping. *Crop Sci*. 47(S2) S125–S134
54. Rodriguez-Herrera, R.*, W.L. Rooney, D.T. Rosenow, C.N. Aguilar-Gonzalez and A.R. Quero-Carrillo. 2007. Genetic Control and Heritability of Resistance to Grain Mold in F2:5 Sorghum Families with Non-pigmented Testa. *Plant Breeding and Seed Science* 55:33-43.
53. Rooney, W.L., J. Blumenthal, B. Bean, and J.E. Mullet. 2007. Designing sorghum as a dedicated bioenergy feedstock. *Biofuels, Bioprod. Bioref.* 1:147-157.

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* indicates that graduate students advised by W.L. Rooney conducted and wrote the publication as part of their dissertation and/or graduate research program.

b. Thesis and Dissertation (Chairman only) (24 total, 0 in 2008)

24. Packer, Dan. 2007. Comparing the Performance of F₁ Testers versus their Inbred Line Parents in Evaluating Experimental Sorghum R and B Lines in Testcrosses. M.S. Thesis. Texas A&M University. College Station, Texas.
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21. Baring, Michael. 2006. Sequential vs. Pedigree Selection for Multiple Disease Resistance in Peanut. M.S. Thesis. Texas A&M University. College Station, Texas.
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19. Gabriel, Krishnamoorthy. 2005. A Study of Heterotic Relationships in Sorghum. Ph.D. Dissertation. Texas A&M University. College Station, Texas.
18. Mpofu, Leo T. 2005. Evaluation of the Heterotic Potential of Sorghum [*Sorghum Bicolor* (L.) Moench] Adapted to the Southern Africa Region. M.S. Thesis. Texas A&M University. College Station, Texas.

17. Mutaliano, Joaquim A. 2005. Evaluation of the Value of Sorghum Midge Resistant Hybrids in the USA. M.S. Thesis. Texas A&M University. College Station, Texas.
16. Traore, Karim. 2005. Characterization of Novel Rice Germplasm from West Africa and Genetic Marker Associations with Rice Cooking Quality. Ph.D. Dissertation. Texas A&M University. College Station, Texas.
15. Ramirez-De Leon, H. 2005. Method of pollination and heritability of seedling vigor in switchgrass. Ph.D. Dissertation. Texas A&M University. College Station, Texas.
14. Aydin, S. 2004. The relationship between grain yield and waxy endosperm in *Sorghum bicolor* (Linn) Moench. Ph.D. Dissertation. Texas A&M University. College Station, Texas.
13. Mateo, R.A. 2003. Evaluation and heritability of ergot resistance derived from sorghum germplasm IS8525. M.S. Thesis. Texas A&M University, College Station, Texas.
12. Franks, C.D. 2003. The Efficacy Of Marker-Assisted Selection For Grain Mold Resistance In Sorghum. Ph.D. Dissertation. Texas A&M University. College Station, Texas.
11. Moran, J.L. 2003. Quantitative trait loci affect in the agronomic performance of a *Sorghum bicolor* L. Moench recombinant inbred restorer line population. Ph.D. dissertation. Texas A&M University, College Station, Texas.
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9. Mehta, P.J. August 2002. Anthracnose resistance genes in sorghum: Characterization and molecular markers. . Ph.D. Dissertation. Texas A&M University, College Station, Texas.
8. Wooten, D.R., Jr. December 2001. The use of *Sorghum propinquum* to enhance agronomic traits in sorghum. M.S. Thesis. Texas A&M University, College Station, Texas
7. Ndoye, O. August 2001. Screening techniques and mode of inheritance of fresh seed dormancy among crosses of Spanish-type peanut (*Arachis hypogaea* L.). Ph.D. Dissertation. Texas A&M University, College Station, Texas.
6. Moran-Maradiaga, J.L., August 2000. Differences in ergot vulnerability among sorghum genotypes and the relationship between stigma receptivity and ergot vulnerability. M.S. Thesis. Texas A&M University, College Station, Texas.
5. Lopez, Y. 1999. Studies for the high oleate: low linoleate seed trait in Spanish market-type peanuts (*Arachis hypogaea* L.): Inheritance and a search for molecular polymorphism. Ph.D. Dissertation. Texas A&M University, College Station, Texas.
4. Rodriguez-Herrera, R. 1999. Grain mold resistance in sorghum [*Sorghum bicolor* (L.) Moench]: Genetic, Physical and Biochemical Analysis. Ph.D. Dissertation. Texas A&M University, College Station, Texas.
3. Wiltse, C.C. 1998. A survey of anthracnose resistant sorghum germplasm lines to identify additional resistance genes. M.S. Thesis. Texas A&M University, College Station, Texas.
2. Aydin, S. 1998. The genetic control of a photoperiod sensitive response in sorghum. M.S. Thesis. Texas A&M University, College Station, Texas.
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c. Book Chapters (6 total, 0 in 2008)

6. Pederson, J.A. and W.L. Rooney. 2004. Sorghums for Forage Use. In Warm Season Grasses, Moser, L.E., B.L. Burson, and L.E. Sollengerger (eds.). ASA/CSSA/SSSA, Madison, WI. pp. 1057-1080.
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 2. Rooney, W.L. 2000. Sorghum Genetics and Cytogenetics. In *Sorghum: Evolution, History, Production and Technology*. C.W. Smith and R.A. Frederiksen eds., John Wiley Press. pp. 261-307.
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d. Station Publications (11 total, 0 in 2008)

12. Piestch, D., M. Felcman, T. Dusek, W.L. Rooney, and G.C. Peterson. 2006. 2005 Grain Sorghum Performance Tests in Texas. TAES publication .
11. Piestch, D., J. Owen, W.L. Rooney, and D.T. Rosenow. 2005. 2004 Grain Sorghum Performance Tests in Texas. TAES publication DTR 01-05.
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7. Rooney, W.L., D.T. Rosenow, and G.C. Peterson. 2001. A summary of the sorghum germplasms released from the Texas Agricultural Experiment Station since 1954. (currently or soon will be available on-line).
6. Piestch, D., L. Synatschk, W.L. Rooney, and D.T. Rosenow. 2001. 2000 Grain Sorghum Performance Tests in Texas. TAES publication DTR 00-05.
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e. Invited, Conference or Symposium
Proceedings/Presentations (12, 3 in 2008)

15. Rooney WL 2008. Development of Energy Sorghum for Temperate Climates. Ethanol Summit Meeting, May 14-15, 2008, Minneapolis MN.
14. Rooney WL 2008. Development of Energy Sorghum for Temperate Climates. Corn Utilization Technology Conference, June 3-4, 2008, Kansas City, Mo.
13. Rooney WL. 2008. Development of Energy Sorghum for Temperate Climates. Intl Sweet Sorghum Meeting. August 19-21, 2008, Houston, Texas.

12. Rooney, W., J. Mullet, J. Blumenthal, S. Kresovich, S. Murray, B. Bean, and P. Klein. 2006. Developing Sorghum as a Dedicated Bioenergy Crop. In Proc. of the 60th annual Corn and Sorghum Research Conf. 7-8 Dec, 2006, Chicago IL., ASTA publication, Washington, D.C. in press
11. Rooney, W.L. J. Mullet, J. Blumenthal, S. Kresovich, S. Murray, B. Bean, and P. Klein. 2006. Developing Biomass crops dedicated to energy production using sorghum as a model. In Proc. of the 62nd Southwest Regional Meeting of the American Chemical Society. 19-22 Oct 2006, Houston, Texas (in press).
10. Kresovich, S., P.J. Brown, and W.L. Rooney. 2005. Broadening the Genetic Base of Sorghum. In Proc. of the 59th annual Corn and Sorghum Research Conf. 8-9 Dec, 2005, Chicago IL., ASTA publication, Washington, D.C. in press
9. Rooney, W.L., D.T. Rosenow, G.C. Peterson, and M.R. Tuinstra. 2003. Application of molecular marker technology to sorghum improvement programs. In Proc. of INTSORMIL P.I. conference held in Addis Ababa, Ethiopia, 17-19 Nov., 2002.
8. Rooney, W.L. 2002. Enhancing the yield and quality of grain sorghum through genetic improvement. 2001. In Proceeding of the 22nd Biennial Grain Sorghum Research Conference and Utilization Conference. 18-20 Feb 2001. Nashville, Tennessee.
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4. Rooney, W.L. 1997. Sorghums are not all the same. In Proc. of the 20th Biennial Grain Sorghum Res. and Util. Conf. 16-19 Feb 1997, New Orleans, LA pg. 110-112.
3. Rooney, W.L., D.Z. Skinner, and J.O. Fritz. 1994. The inheritance of alfalfa protein degradability measured by ficin digestion. In Proc. 34th North Amer. Alfalfa Improv. Conf., July 10-14, Guelph, Ont., Canada, pg. 133.
2. Rooney, W.L., C.C. Wiltse, A.P. Schwab, and M.K. Banks. 1995. Detection of Agronomic Variability between alfalfa clones grown in crude-oil contaminated soils. Proc. of the 1995 Central Alfalfa Improvement Conference. pg 36.
1. Chen, Z, W.L. Rooney, M.K. Banks, A.P. Schwab, and C.C. Wiltse. 1995. Effect of Nitrogen fixation and fertilization on Alfalfa Phytoremediation potential. Proc. of the 1995 Hazardous Waste Symposium, May 23-24, 1995, Manhattan, KS, pg. 26.

f. Abstracts/Papers Presented

i. Invitational (17, 5 in 2007)

17. Sorghum Breeding: New Opportunities and New Challenges. Plant Breeding Seminar Series, Cornell University, February 2007.
16. Disease of Sorghum. Presented at the National Sweet Sorghum Producers Annual Meeting, 24-25 February 2007.
15. Designing Sorghum as a Bioenergy Crop. Presented to the Microbiological Association Meeting, May 2007
14. Beyond Feed, Forage and Food: Designing Sorghum as a Biofuel Crop. Presented in the AACC Meeting, October 2007.
13. Breeding and Genetics of Sorghum as a Bioenergy Crop. Presented by Fenalce, Colombian Growers Association in a Energy Shortcourse Program in Bogota, Ibague, and Valledupar, Colombia in September 2007.
12. Uses of Sorghum Grain from Sweet sorghum Cultivars. Presented at the National Sweet Sorghum Producers Annual Meeting, 24-25 February 2006 in Lexington, Kentucky.
11. Forage Sorghums – Types, Traits and Development. Presented at the Congreso Centroamericano “Sorgos Forrajeros”, 16-18 November 2005 held in San Miguel, El Salvador.

10. Forage Sorghums – Yield, Quality and Water Use. Presented at the Congreso Centroamericano “Sorgos Forrajeros”, 16-18 November 2005 held in San Miguel, El Salvador.
9. Sorghum Breeding and Genetics – An Overview. Great Plain Sorghum Symposium, Oct 6-7, 2005, Lubbock Texas.
8. Application of molecular marker technology to sorghum improvement programs. In Proc. of INTSORMIL P.I. conference held in Addis Ababa, Ethiopia, 17-19 Nov., 2002.
7. Molecular Tools for Sorghum Improvement. Presented to the KS/NE Sorghum Improvement Conference in Manhattan, Kansas 17-18 September 2002.
6. Enhancing the yield and quality of grain sorghum through genetic improvement. 2001. In Proceeding of the 22nd Biennial Grain Sorghum Research Conference and Utilization Conference. 18-20 Feb 2001. Nashville, Tennessee.
5. Breeding Sorghum for Resistance to Anthracnose, Grain Mold, Downy Mildew and Head Smuts. In Proceedings of the third international conference on sorghum and millet diseases, 24-29 Sept, 2000, Guanajuato, Mexico.
4. Differences in ergot susceptibility among sorghum inbred lines and the role of floral characteristics in determining ergot susceptibility. At the 53rd annual Corn and Sorghum Research Conf. 9-10 Dec, 1998, Chicago IL, ASTA
3. The potential impact of biotechnology in sorghum. In Proc. of the 20th Biennial Grain Sorghum Res. and Util. Conf. 16-19 Feb 1997, New Orleans, LA pg. 20-22.
2. Sorghums are not all the same. In Proc. of the 20th Biennial Grain Sorghum Res. and Util. Conf. 16-19 Feb 1997, New Orleans, LA pg. 110-112.
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ii. Producer and Research User Meetings
(13, 0 in 2006)

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13. Rooney, W.L. September 25, 2003. Sorghum Research Field Day. Ochiltree County Texas.
12. Rooney, W.L. January 17, 2003. Selecting Hybrids to Fit the Environment. Upper Gulf Coast Feed Grain Conference. Wharton County, Texas.
11. Rooney, W.L. 2001. Evaluation of Tan plant Sorghum Hybrids in the Texas. Presentation to the Texas Seed Trade Association Annual Meeting, Dallas Texas. February 2002.
10. Rooney, W.L. 2001. Evaluation of Tan plant Sorghum Hybrids in the Texas coastal bend. Presentation to San Patricio County Producers in Gregory, Texas. January 2002.
9. Rooney, W.L. 2001. Growing Dual-purpose Grain Sorghum Hybrids in the WinterGarden area. Presentation to producers in Hondo, Texas. October 2001.
8. Rooney, W.L. 1999. The development of improved quality sorghums for south and central Texas. Presentation to the Matagorda County Winter Farm Meeting. (no abstract)
7. Rooney, W.L. and G.N Odvody. 1998. Status of ergot and the ergot tolerance in sorghum germplasm. Paper presented to the Texas Seed Trade Association Annual Meeting, Dallas Texas. January 27, 1998. (no abstract)
6. Rooney, W.L. 1997. Potential and progress in the development of improved quality sorghums. In Proceedings of Grain Sorghum for the 21st century: working together as an industry. 19-20 November 1997, Corpus Christi TX.
5. Rooney, W.L., D.T. Rosenow, G.C. Peterson, and J.A. Dahlberg. 1997. Overview of the worldwide sorghum breeding program. In Proceedings of Grain Sorghum for the 21st century: working together as an industry. 19-20 November 1997, Corpus Christi TX.

4. Rooney, W.L. 1997. Status of the TAMU Sorghum Breeding Program at College Station. Paper presented to the Texas Seed Trade Association Annual Meeting, Dallas Texas. January 28, 1997. (no abstract)
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88. Rooney, LW, L Dykes and WL Rooney. 2008. Phytochemicals and other healthy components of special sorghums. AACC Abstracts
87. Corn, RJ and WL Rooney. 2008. Sweet Sorghum Heterosis. ASA Abstracts.
86. Packer, DJ and WL Rooney. 2008. Utility of Passport Data from Plant Germplasm Collections for Selecting Sorghum Accessions for Use in Breeding Nurseries. ASA Abstracts
85. Pedersent, J, WL Rooney, and S Sattler. 2008. Sorghum for Bioenergy. ASA Abstracts.
84. Dykes, L, WL Rooney, GC Peterson, and LW Rooney. 2008. Flavanoid Content in non-tannin sorghum of varying genotypes. IFT Meeting.
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1. Stelly, D.M. and W.L. Rooney. 1988. Delimitation of the *Le2dav* complementary lethality system of *Gossypium* to intracellular interaction. *Agronomy Abstracts.* p. 97.

ii. Technology Transfer - Sorghum Releases

NOTE: The majority of our distributions are now based on licensing agreements and/or MTA. We have produced over 20 licensing and/or MTA to private industry for evaluation/use of our germplasm. To get a complete listing, I'll have to contact the OTC. Should I do that?

9. Release of Tx2929 to Tx2934 sorghum germplasms. Official Approval: August 2004. Scientists contributing to this release: W.L. Rooney and G.N. Odvody.
8. Release of Tx2935 to Tx2944 sorghum germplasms. Official Approval: August 2004. Scientists contributing to this release: W.L. Rooney and G.N. Odvody.
7. Release of Tx2912-2920 sorghum germplasms. Official Approval: January 2002. Scientists contributing to this release: W.L. Rooney and S.D. Collins
6. Release of Tx2921-2928 sorghum germplasms. Official Approval: January 2002. Scientists contributing to this release: W.L. Rooney and S.D. Collins
5. Release of RTx437 Sorghum Parental Line. Official Approval: May 31, 1999. Scientists contributing to this release: W.L. Rooney, F.R. Miller, K.L. Prihoda, and S.D. Collins.

4. Release of Tx2911 - *Sorghum bicolor* germplasm with exceptional grain mold resistance. Official Approval: May 10, 1999. Scientists contributing to this release: W.L. Rooney, F.R. Miller, and R.A. Frederiksen.
3. Release of TAM Bk-59 - *Sorghum bicolor* germplasm bulk with exceptional disease resistance. Official Approval: May 10, 1999. Scientists contributing to this release: S.D. Collins, R.A. Frederiksen, W.L. Rooney and D.T. Rosenow.
2. Distribution of 30 sorghum germplasm lines from the TAES sorghum improvement program at College Station TX. Official Approval March 15, 1998. Scientist contributing to this Release: W.L. Rooney
1. Release of Sorghum Germplasm Lines Tx2909 & Tx2910. Scientists Contributing to this Release: W.L. Rooney, M.A. Hussey, and M.A. Sanderson. Official Release Date: April 23, 1997

iii. Provisional Patents (2)

2. Mullet, JE, WL Rooney, PG Klein, D Morishige, R Murphy and JA Brady. 2008. Discovery and utilization of sorghum genes (*Ma5/ma6*). Provisional Patent filed in 2008. (TAMK_245USP1)
1. Rooney, WL, GL Hodnett, LC Kuhlman, DM Stelly and JH Price. 2008 . Methods of intergeneric hybrid production. Provisional Patent filed in 2008. (TAMK_247USP1)

b.SERVICE

Candidate's Statement on Service

In the past ten years, I have served on numerous committees at the departmental and college levels of Texas A&M University and the Texas Agricultural Experiment Station (TAES). In service to the our profession's scientific society, I have served on several committees on the national level and I have reviewed numerous manuscripts that were submitted for publication to Agronomy Journal, Crop Science (in addition to many others). I serve on the editorial review board of Field Crops Research, was an Associate Editor for Crop Science and have served as a panel member for the TDA-TIE/BARD Grant Program (TDA = Texas Department of Agriculture; TIE = Texas-Israel Exchange Fund Board; and BARD = Bi-national Agricultural Research and Development Fund). In the sorghum research community, I have been a member of the sorghum germplasm committee for the past six years and have served as discipline chair for the breeding and genetics section of the Sorghum Improvement Committee of North America (SICNA). In 2007, our program coordinated and hosted the Great Plains Sorghum Conference in College Station.

A significant amount of my service time is devoted to the TAES Plant Release committee. This committee is charged with evaluating proposal for the release of improved plant germplasm from any of the approximately 20 different TAES breeding programs. As chair of this committee, I manage all aspects of this committee's activity, from scheduling and conducting meetings to delegating reviews and contacting breeders and administrators with the recommendations of the committee.

- i. My position is 0% budgeted for service activities.
- ii. Type of Activity and Role
 - 1.State and National Activities
 - a. Professional Meetings

American Society of Agronomy, Annual Meetings. Authored or Co-authored papers at the following meetings the the ASA/CSSA meeting each year from 1990 through 2007.

Biannual National Sorghum Production and Utilization Conference. Authored or Co-authored papers at the following meetings

Albuquerque NM	2007
Reno, Nevada	2005
Albuquerque, New Mexico	2003
Nashville, Tennessee	2001
Tuscon, Arizona	1999
New Orleans, Louisiana	1997

b. Other Activities

2007- present; Regional Coordinator, Central America for INTSORMIL

2006 – TDA advisory board, seed certification committee

2006 – Ex officio Board Member, National Sweet Sorghum Growers Association.

2005 – division chair, plant breeding, SICNA board.

2005 – 2007: Associate Editor, Crop Science

2003 – present; Editorial Board, Field Crops Research

2000-1 Committee Chair of CSSA C456: Plant Breeding Award for Industry

1997-present, member of the Sorghum Germplasm Committee

1994-present, manuscript reviews for Crop Science, Agronomy Journal, Genome, and Theoretical and Applied Genetics

1999 - reviewer- USDA Wheat, Sorghum, and Forage Program at Lincoln Nebraska

2. International Program Activities

a. International Meetings

11. International Sweet Sorghum Meeting, August 19-21, 2008 in Houston, Texas

10. Fenalce – Energy Crop Symposium, September 10-14, 2007 in Bogota, Ibague, and Valledupar Colombia

9. Congreso Centroamericano “Sorgos Forrajeros”, 16-18 November 2005 held in San Miguel, El Salvador.

8. PCCMCA Meeting, San Salvador, El Salvador. INTSORMIL representative. April 2004.

7. INTSORMIL, Southern Africa External Review – Zambia and South Africa. March 2004.

6. INTSORMIL, Breeding Nursery Evaluation – El Salvador and Nicaragua. November 2003.

5. INTSORMIL Regional Project Coordination Meeting – Held in Managua, Nicaragua, 26-28 February 2002.

4. INTSORMIL Principal Investigators Conference – Held in Addis Ababa, Ethiopia, 17-20 November 2002.

3. Global 2000 International sorghum and millet disease conference. 23-28 September, Guanajuato, Mexico 2000.
2. International Conference on Sorghum and Millet Improvement. Held in Lubbock, Texas 21-26 September, 1996. Authored and Co-authored papers in the conference.
1. Global Conference on Ergot of Sorghum. Held in Sete Lagoas, Minas Gerias, BRAZIL 1-8 June 1997. Attended for planning sessions in ergot research.

b. Visiting Scientists

Pangirayi B. Tongoona (2008) – South Africa
 Guiying Li (2007) - China
 Vladimir Sikora (2006) - Serbia
 Manuel Morales (2004) – Nicaragua
 Salvador Zeledon (2004) – El Salvador
 Mpofu, Leo (2002) - Zimbabwe
 Yi, Zhiben (1999-2000) - China
 Bandyopadhyay, Ranajit (1998) - India
 Mateo, Rafael (1998) - Honduras
 Ramaswamy, Perumal (1998-2000) - India

c. International Graduate Students (Chair ONLY)

Krishnamoorthy Gabriel (2001-2005), Ph.D., India
 Karim Traore (2002-2005), Ph.D., Mali
 Hector Ramirez de Leon (2001-2005), Ph.D., Mexico
 Joaquim Mutaliano (2003-2005) M.S.– Mozambique
 Leo Mpofu (2003-2005) M.S. - Zimbabwe
 Rafael Mateo (2000- present) M.S. - Honduras
 A. Sanchez-Gomez (1998-2002) Ph.D., - Columbia
 Selahattin Aydin (1996-2003) M.S., Ph.D. - Turkey
 Ousmane Ndoeye (1999-2001) Ph.D., - Senegal
 J.L. Moran (1998-2003) M.S. and Ph.D., - Honduras
 Pushpak J. Mehta (1998-2002) Ph.D. - India
 K.K. Yendluri, (1995-1996: M.S. @ Kansas State Univ.) - India
 R. Rodriguez-Herrera, (1995-1999: Ph.D. Co-chairman) - Mexico
 Yolanda Lopez (1999: Ph.D.) Chair - Columbia

d. Other International Activities

Germplasm Evaluation - From 1996 through 2007, we have sent standardized trials for hybrid, quality, disease and agronomic adaptability to Mexico, Honduras, El Salvador, Argentina, Brazil, Mali, Niger, Zambia, South Africa, and Australia

January 1998 - Traveled to Honduras to advise researchers on ergot trials in Honduras and Mexico

October 1998 - Traveled to Guanajuato Mexico for the evaluation of ergot research trials.

Chair of the breeding section at the Global 2000: International Sorghum and Millet Diseases Conference held in September 2000 in Guanajuato, GTO Mexico.

c. ADMINISTRATION DUTIES

- i. My position has a 0% budget for administrative activities.
- ii. TAES Committee Assignments - Standing
 1. Plant Release Committee (Chair)
- iii. Departmental Committee Assignments
 1. Undergraduate Affairs (member)
- iv. Interdepartmental Committee Assignments
 1. Sorghum Advisory Committee
 2. Sorghum Improvement Program planning committee
- v. Search Committees (all served on since arrival)
 1. USDA Sorghum Geneticist position at College Station (1996)
 2. SCS Agronomist Position at Vernon (1997)
 3. Corn Breeding Position at College Station (1997)
 4. Molecular Geneticists Positions (2) at College Station (1998-1999)
 5. USDA Sorghum Pathologist position at College Station (1999)
 6. TAES Peanut Breeding Position at Lubbock (1999)
 7. TAES Sorghum/Corn Pathology Position at College Station (2001)
 8. TAES Reproductive Geneticist at College Station (2001-02)
 9. TAES Genetic Improvement of Food for Health (2001-02)
 10. TAES/VFIC Director (2004)
 11. TAES/TAMU Department Head Search Committee (2005-2006)
 12. TAES/TAMU Cotton Breeding Search Committee (2005-2006)
 13. TAES/TAMU Wheat Breeding Search Committee Chair (2006)
 14. TAES/TAMU VFIC Vegetable Breeding Search Committee (2007-2008)
 15. AgriLife/TAMU Quant. Genetic Search Committee Chair (2007-2008)

d. PROFESSIONAL and HONOR SOCIETIES

- i. American Society of America, member, 1987-present
- ii. Crop Science Society of America, member 1987-present
- iii. Texas Grain Sorghum Association, member, 1995-present
- iv. Alpha Zeta, member, 1986-present
- v. Phi Kappa Phi, member, 1987-present

e. PROFESSIONAL and EDUCATIONAL AWARDS

- i. University of Minnesota Philip C. Hamm Graduate Scholarship, 1990.
- ii. University of Minnesota Graduate College Fellowship, 1989-1990.
- iii. Texas A&M Distinguished Graduate Student Award (M.S. Research) 1989
- iv. Texas A&M Graduate College Davidson Fellowship, 1987-1988
- v. Soil and Crop Science Department Research Award, 2009

- DI. Summary of Achievements from my 2008 Annual Plan of Work – Summary of activity by objective from the 2008 Annual Plan of Work
- a. **Develop high-yielding, agronomically superior and stable grain and bioenergy sorghum germplasm with high levels of abiotic and biotic stress resistance and superior grain, forage, and bioenergy quality.** Done, and doing it again.
 - b. **Breeding sweet sorghum genotypes as a biomass source for energy production.** A/B pairs distributed in 2008; additional lines in testing.
 - c. **Breeding photoperiod sensitive lignocellulosic sorghum.** Initial lines distributed to Ceres; additional lines in testing and conversion.
 - d. **Characterize sorghum/saccharum and sorghum/miscanthus intergeneric hybrids from a wide hybridization program.** Initial hybrids were characterized in the greenhouse; we are now expanding to field level breeding and selection.
 - e. **Development of NIR calibration equations for measuring biomass composition in sorghum.** NIR equipment is functional and we are scanning at least 400 samples/week. Initial NIR curve is developed as well.
 - f. **Identify molecular linkages to agronomically important qualitatively inherited traits and use these molecular markers in marker assisted selection programs.** Maturity loci are the focus, and we are testing feasibility
 - g. **Genetic analysis of Grain quality parameters** – we have developed lines that possess both high digestability and waxy endosperm.
 - h. **Characterization of “nuetraceutical” sorghums** – Selected specific hybrids to produce black sorghum grain.
 - i. **Evaluation of Association Panels for Sorghum Sequence and Gene Identification** – Panels have been grown and used to produce several publications.