

CURRICULUM VITAE

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Date of appointment:

CURRENT POSITION:

Associate Extension Professor

January 1, 2004 to present
DOE: 80% Extension, 20% Research

EDUCATION:

Doctor of Philosophy. Agricultural Engineering. University of Tennessee, Knoxville, TN. 1996.
Dissertation: Delayed harvest effects on the moisture sorption properties of soybeans. Advisor:
Dr. Z. A. Henry.

Master of Science. Agricultural Engineering. University of Kentucky, Lexington, KY. 1979.
Thesis: Drying Characteristics of Formed Poultry Excreta in a Deep Bed. Advisor: Dr. I. J. Ross.

Bachelor of Science. Agricultural Engineering. University of Kentucky, Lexington, KY. 1974.

PROFESSIONAL EXPERIENCE:

Associate Extension Professor, Biosystems and Agricultural Engineering Department,
University of Kentucky, Princeton, KY. January 2004 – present. DOE: 80% Extension, 20%
Research. Supervisor: Sue E. Nokes, Ph.D., P.E.

Assistant Extension Professor, Biosystems and Agricultural Engineering Department,
University of Kentucky, Princeton, KY. January 1998 – 2003. DOE: 80% Extension, 20%
Research. Supervisor: Rich Gates, Ph.D., P.E.

Extension Specialist, University of Kentucky, Princeton, KY. January 28, 1979 – December 31,
1997. Supervisors: John N. Walker, Ph.D., P.E. and Ira Joseph Ross, Ph.D., P.E.

Agricultural Engineer. Agricultural Engineering Department, University of Kentucky,
Lexington, KY. January 1, 1975 – December 31, 1977. Supervisors: John N. Walker, Ph.D., P.E.
and Linus R. Walton, Ph.D., P.E.

LICENSURE

Professional Engineer, Agricultural Engineering, Commonwealth of Kentucky, Certificate
Number #21820, December 2000 to present.

EXTENSION

Significant programs/activities

- Managed a grant to conduct energy audits and write technical reports for grain, poultry and dairy farmers applying for USDA-RD REAP grants and/or loans and a similar state program administered by the Governor's Office for Ag Policy.
- Conducted energy efficiency evaluations for 10 grain dryer projects, 2 dairies and one irrigation pumping station and wrote technical reports for individual Kentucky farmers to assist them with applications for grants from USDA-RD's Rural Energy for Agriculture Program (REAP) and the Kentucky Ag Development Fund (KADF). The total amount of all projects, grants received and annual energy saved on these farms were \$773,977, \$284,342 and \$58,440, respectively.
- Energy assessments for eight solar PV installations were also conducted for the REAP and KADF programs. The total amount of all projects, grants received and annual energy generated was \$318,790, \$232,368, and \$21,497, respectively.
- Selected by USDA-FAS Office of Capacity Building and Development to work on a team with two other scientists to conduct three workshops to reduce post-harvest losses of grains, in Nigeria (West Africa) in July 2013 and June, 2014.
- Collaborated with CA faculty and CES ANR agents in planning, creating and delivering county and regional educational programs and materials on grain harvesting, handling, drying and storage.
- Delivered grain storage presentations at regional meetings ("early-bird" extension meeting series) in western Kentucky in Nov. 2013, and in Adair, Lewis and Rowan County in Sep. 2014.
- Updated spreadsheet tools on the BAE website to help farmers quickly evaluate local grain bids, make harvest decisions for corn and wheat, and calculate grain storage capacity of conventional bins, horizontal storage buildings, covered outdoor piles and grain bags.
- Led a team of faculty members within the College to explore the potential of organic corn production in Kentucky. Organized a meeting for producers and service providers in Jan. 2013 and served as editor for an inter-departmental extension publication on the topic.
- Collaborated with the same USDA team to develop and deliver educational/training workshops for stored grain managers in Nigeria in February, 2012.
- Delivered regional program ("early-bird" extension meeting series) in Union Co. on Dec. 7, 2011 and shared presentation with Michael Hagan who participated in Graves and Christian County meetings the same week.
- Collaborated with CA faculty and CES ANR agents in planning, creating and delivering county and regional educational programs and materials on grain harvesting, handling, drying and storage.
- Conducted 7 grain dryer energy efficiency evaluations and wrote technical reports for individual Kentucky farmers to assist them with applications for grant or loan money from USDA-NRCS-RD's Rural Energy for Agriculture Program (REAP). (total of
- Conducted 18 grain dryer energy efficiency assessments for individual Kentucky farmers to assist them with applications for grant money from the Governor's Office of Agriculture Policy.
- Received funding to hire an engineering assistant to conduct energy audits and write draft technical reports for grain and poultry farmers applying for USDA-NRCS-RD REAP grants

and/or loans and a similar state program administered by the Governor's Office for Ag Policy.

- Selected by USDA-FAS Office of Capacity Building and Development to work on a team with two other scientists to conduct two workshops to reduce post-harvest losses of grains, in Ghana (West Africa) in March and July, 2011.
- Participated in two regional Grain Crops Academy programs on February 7 and 8, 2011 by providing lectures on grain harvesting, drying, handling and storage.
- Updated spreadsheet tools to help farmers quickly evaluate local grain bids, make harvest decisions for corn and wheat, and calculate grain drying and seeding costs.
- Harvesting, handling, drying and storing grain—collaborated with CA faculty in planning, creating and delivering county, regional and statewide educational programs and materials.
- Participated in the statewide Grain Crops Academy by providing lessons in grain harvesting, drying, handling and storage.
- Delivered regional programs (“early-bird” extension meeting series) at six locations in '07 and '08.
- Provided updates on the current energy situation to all ANR agents during their annual/regional meetings, 4H agents and volunteers in western KY, a regional meeting on switchgrass and biofuels in Maysville, the CA Advisory Council, three county meetings and two regional meetings in Henderson and Princeton.
- Developed new spreadsheet tools to help farmers quickly evaluate grain bids, make harvest decisions for corn and wheat, size bunker silos and calculate grain storage costs.
- Canola project—collaborated with CA faculty in BAE, PSS, Entomology and Plant Pathology and private crop consultants and researchers to investigate the production of two oilseed crops for alternative energy/biofuel feedstocks in Kentucky.
 - served as primary author and editor of multi-faceted proposal to investigate a range of cultivation practices (fertility, seeding rate, planting date, etc.) and crop scouting observations.
 - provided progress and summary reports to the funding organization (KY Office of Energy Policy).

AWARDED GRANTS: (\$1,026,209 total)

1. **McNeill, S.** Assisting management in the poultry and layer industries by feed improvement and efficiency strategies in Ghana. Oklahoma State University. Project duration: 10/16 – 9/18. Amount: \$29,086. PI.
2. Dvorak, J., **S. McNeill** and J. Shockley. High moisture soybean delivery advice app. KSPB. Project duration: 8/16 – 7/17. Amount: \$13,945. Co-PI.
3. **McNeill, S.**, D. Overhults, M. Montross. Technical Assistance for Energy Audits and Renewable Energy Projects in Rural Kentucky. USDA Rural Development for Energy Audits. Project duration: 4/15 – 3/17. \$63,970. PI.
4. Maier, D., **S. McNeill**, K. Ambrose, C. Campabadal, P. Armstrong, F. Arthur and J. Campbell. Developing improved solar dryers for corn in Ghana. USDA-SCRIP. Project duration: 10/16 – 9/18. \$40,000. Co-PI.
5. Montross, M. and **S. McNeill**. Factors that affect packing during storage. NC-213 Anderson Grant Program. Project duration: 1/15 – 12/16. \$50,000. Co-PI.
6. Sama, M., M. Montross, J. Dvorak, T. Mark, **S. McNeill**. Development of a CAN-based data management and decision support system for optimal equipment and harvest timing from

- grain harvest to storage. USDA-AFRI. Project duration: 10/15 – 9/18. \$500,000. Collab.
7. Atungulu, G. **S. McNeill**, C. Jones and J. Ward. Reducing aflatoxin contamination of corn in on-farm bin drying and storage systems. NCGA. Award: \$5,000. April 2015 to March 2016. Co-PI.
 8. **McNeill, S.** Commodity storage and handling in Nigeria--technical assistance. USDA-FAS. Award: Total project: \$732,348. (UK: \$99,301). 12/1/14 to 9/30/17. PI.
 9. **McNeill, S.** Alliance for food security by reducing post-harvest losses of grains in Ghana. OSU. Total project: \$524,928. (UK: \$25,358). 1/1/14 to 12/31/18. PI.
 10. **McNeill, S.**, D. Maier, K. Hellevang. Revision of MWPS Handbook on drying, handling and storing grain. The Andersons. Award: \$19,640. (UK:\$2000). 1/1/14 to 12/31/16. PI.
 11. **McNeill, S.**, L. Meyer, G. Halich, C. Lee, M. Bomford and J. Schmitz. Developing an organic corn enterprise in Kentucky. Southern S.A.R.E. Award: \$10,000. 7/1/12 to 6/30/13. PI.
 12. **McNeill, S.**, D. Overhults, M. Montross and S. Shearer. Energy audits for grain and poultry producers in Kentucky. USDA-RD. Award: \$100,000. 10/1/10 to 4/30/14. PI.
 13. **McNeill, S.** Reducing post-harvest grain losses in Ghana. USDA-FAS. Award: \$27,700. 2/1/10 to 9/31/11. PI.
 14. **McNeill, S.** Nigeria commodity storage and handling – assessment of in-country facilities. USDA-FAS. Award: \$9924. 9/1/09 to 11/30/09. PI.
 15. **McNeill, S.**, M. Montross, L. Murdock, J. Herbek, J. Martin, D. Hershman, D. Johnson, J. Roberts, B. Caldbeck and J. Hagan. Canola and sunflower for oil/biofuel production in Kentucky. Governor’s Office for Energy Policy. Award: \$57,487 (UK share \$25,537). 6/1/07 to 7/31/08. Amount received: \$57,487 (UK share \$25,537). PI.
 16. Crofcek, C.L., S.E. Nokes, M.D. Montross, and **S.G. McNeill**. Tours of ethanol and biodiesel production facilities and users across Kentucky. DOE/SSEB Southeast Biomass State & Regional Partnership Projects. Award: \$24,412. 7/1/04 to 6/30/05. Collab.

NON-AWARDED GRANTS: (Total: \$1,075,881)

1. Opit, G., **S. McNeill**, C. Campabadal, D. Maier. Solar biomass hybrid dryer development in Ghana. Ghana Poultry Project. Project duration: 6/16 – 7/18. Amount requested: \$175,000.
2. Dvorak, J., **S. McNeill** and J. Shockley. Development of a grain marketing app for KY farmers. Kentucky Farm Bureau. Project duration: 1/15 – 12/15. Amount requested: \$9,265.
3. Atungulu, G., **S. McNeill**, C. Jones and J. Ward. Reducing aflatoxin contamination of corn in on-farm bin drying and storage systems. NCGA-AMCOE group. Project duration: 1/15 – 12/16. Amount requested: \$90,000.
4. **McNeill, S. (PI)**, D. Colliver and E. Robey. Demonstration of 50kw photovoltaic system at Logan County dairy. Kentucky Environment and Energy Cabinet-DEDI. Project duration: 1/13 to 12/14. Requested: \$263,962.
5. Colliver, C., **McNeill, S. (Co-PI)**, Y. Liao and V. Singh. Installation of photovoltaic electric generation in county cooperative extension offices. Kentucky Environment and Energy Cabinet-DEDI. Project duration: 1/13 to 12/16. Requested: \$537,654.

EXTENSION PUBLICATIONS:

1. Dvorak, J., **S. McNeill** and C. Hardy. 2016. Wet grain delivery advice: A previously impossible extension challenge solved through apps. Journal of Extension [On-line]. 54 (2). Article 2IAW1. Available at <https://joe.org/joe/2016april/iw1.php>.

2. **McNeill, S.G.** and M.D. Montross. 2015. Harvesting, Drying and Storing Organic Corn *In: Organic Corn Production in Kentucky*. UK CES Publication ID-225. pp 19-24.
3. Walters, C., **S. McNeill** and D. Johnson. 2012. Benefits and costs associated with the wheat storage hedge. UK Extension Pub. ID-198.
4. Opit, G., **S. McNeill** and K. Ileleji. 2011. Fumigate well and safely. OKSU Extension Publication L-349. (poster)
5. Opit, G., **S. McNeill** and K. Ileleji. 2011. Protecting stored grain with proper fumigation. OKSU Extension Publication L-350. (brochure)
6. Opit, G., **S. McNeill** and K. Ileleji. 2011. Use IPM when storing grain. OKSU Extension Publication L-351. (poster)
7. Opit, G., **S. McNeill** and K. Ileleji. 2011. Protecting stored grain with IPM to reduce post-harvest grain losses. OKSU Extension Publication L-352. (brochure)
8. Ileleji, K., **S. McNeill** and G. Opit. 2011. Use D.I.C.E. to reduce aflatoxins, improve grain quality and increase profits. Purdue Extension Publication ABE-130. (poster)
9. Ileleji, K., **S. McNeill** and G. Opit. 2011. Protecting stored grain with D.I.C.E. post-harvest grain management system. Purdue Extension Publication ABE-131. (brochure)
10. **McNeill, S.G.**, D.G. Overhults and M.D. Montross. 2009. Harvesting, drying and storing wheat *in: A comprehensive guide to wheat management in Kentucky*. University of Kentucky Cooperative Extension Service Bulletin ID-125.
11. Stombaugh, T., S. Shearer, J. Wilhoit and **S. McNeill**. 2008. Saving fuel in the field. University of Kentucky Cooperative Extension Service Bulletin AEN-94.

Submitted:

1. **McNeill, S.** Storage: *In: Grain Handling, Drying and Storage Handbook*. MWPS-13 revision. Aug. 2016.

In Review:

1. **McNeill, S. G.** Nov. 2016. Harvesting, drying and storing soybeans in Kentucky *In: Soybean production guide for Kentucky*. University of Kentucky Cooperative Extension Service Bulletin ID-xx.

EXTENSION NEWSLETTERS:

1. **McNeill, S.** and P. Vincelli. 2012. Harvesting and storing Kentucky's 2012 corn crop. UK CES Kentucky Pest News. No. 1315.
2. Walters, C., **S. McNeill** and D. Johnson. 2011. To store or not to store this year's wheat crop. UK CES Kentucky Pest News. No. 1272.
3. **McNeill, S.** and D. Johnson. 2011. UK-IPM 16-point checklist for controlling insects in stored wheat. UK CES Kentucky Pest News. No. 1272.
4. **McNeill, S.G.** 2011. Drying the 2011 corn and soybean crops. UK-PPS Grain Crops Update.
5. Vincelli, P. and **S. McNeill**. 2010. Aflatoxin in stored corn. UK-CES Kentucky Pest News Alert. 24(5). <http://www.uky.edu/Agriculture/kpn/kpnhome.htm>
6. **McNeill, S.** 2010. Use decision tool to control wheat seed costs. UK CES Wheat Science News. Vol. 14. No. 1. <http://www2.ca.uky.edu/wheatscience>
7. **McNeill, S.** and P. Vincelli. 2009. Harvesting and storing Kentucky's 2009 corn crop. UK CES Kentucky Pest News. No. 1214. <http://www.uky.edu/Agriculture/kpn/kpnhome.htm>

8. **McNeill, S.G.**, G.S. Halich. and K.H. Burdine. 2008. Mechanical drying versus air drying for corn. UK Cooperative Extension Service Economic and Policy Update. Vol. 8, no. 9.
9. **McNeill, S.G.** 2005. Control seed costs to manage profit margin. Corn and Soybean Newsletter Vol. 5, Iss. 1. University of Kentucky Plant and Soil Science Department.

INTERNET RESOURCES:

BAE (<http://jokko.bae.uky.edu/energyaudit/>)

- Cost comparison of harvest losses vs drying for organic corn (5/14)
- Checklist of information needed to perform energy audits for grain dryers (5/13)
- Grain hauling costs (9/10)
- Cost Comparison between Wheat Drying and Delayed Soybean Planting (5/8)
- Grain shrink calculator (5/7)

Grain Crops (<http://www.uky.edu/Ag/GrainCrops/>)

- Grain storage considerations for the 2014 crop (9/14)
- Grain bags as alternative, short term storage (9/14)

INVITED PRESENTATIONS

International:

1. **McNeill, S.**, K. Ileleji and G. Opit. 2016. Reducing post-harvest losses in Nigeria: Capacity building in the stored commodity sector. NCX Conference Room. Abuja, NI. Sep. 22.
2. **McNeill, S.** 2016. Safety practices for pest mitigation and fumigation. Cochran Fellowship Program. OSU-SPREC Training Center. Stillwater, OK. Oct. 12.
3. **McNeill, S.** 2016. Fumigation technology and application methods. Cochran Fellowship Program OSU-SPREC Training Center. Stillwater, OK. . Oct. 12.
4. **McNeill, S.** 2016. Reducing post-harvest losses in Nigeria. Cochran Fellowship Program. OSU-SPREC Training Center. Stillwater, OK. Oct. 11.
5. **McNeill, S.** 2016. Stored grain inventory management. Cochran Fellowship Program.. OSU-SPREC Training Center. Stillwater, OK. Oct. 11.
6. **McNeill, S.** 2016. Worker safety and health in handling bulk grain. US-Nigeria Commodity Storage Workshop VI-2. Jun. 9. IITA Conference Center. Ibadan, NI.
7. **McNeill, S.** 2016. Moisture and temperature measurements in grain silos. US-Nigeria Commodity Storage Workshop VI-2. Jun. 8. IITA Conference Center. Ibadan, NI.
8. **McNeill, S.** and M. Omobowale. 2016. Worker safety and health when handling bagged grain. US-Nigeria Commodity Storage Workshop VI-1. Jun. 2. IITA Conference Center. Ibadan, NI.
9. **McNeill, S.** 2016. Moisture and temperature measurement of grain in warehouses. US-Nigeria Commodity Storage Workshop VI-1. Jun. 1. IITA Conference Center. Ibadan, NI.
10. **McNeill, S.** 2016. Unit operations of on-farm grain post-harvest systems. US-Nigeria Commodity Storage Workshop VI-1. May. 31. IITA Conference Center. Ibadan, NI.
11. **McNeill, S.G.**, M.E. Casada, M.D. Montross, S.A. Thompson, R.G. Maghirang, J.M. Boac and R. Bhadra. 2016. New models for describing grain packing. NC-213 Annual Meeting. Mar. 1. Austin, TX.
12. Ileleji, K., G. Opit, **S. McNeill** and H. Tarver. 2015. Benefits of training stakeholders across the grain value chain--A capacity building effort in Nigeria. Rome, IT. Oct. 4-7.

13. **McNeill, S.** 2015. Grain aeration systems for silos. US-Nigeria Commodity Storage Workshop V-2. Jun. 10. IITA Conference Center. Ibadan, NI.
14. **McNeill, S.** and M. Omobowale. 2015. Worker safety and health in handling bulk grain. US-Nigeria Commodity Storage Workshop V-2. Jun. 9. IITA Conference Center. Ibadan, NI.
15. **McNeill, S.** 2015. Moisture and temperature measurements in grain silos. US-Nigeria Commodity Storage Workshop V-2. Jun. 8. IITA Conference Center. Ibadan, NI.
16. Ileleji, K., **S. McNeill**, and M. Omobowale. 2015. Moisture content determination methods. US-Nigeria Commodity Storage Workshop V-2. Jun. 4. IITA Conference Center. Ibadan, NI.
17. **McNeill, S.** and M. Omobowale. 2015. Worker safety and health when handling bagged grain. US-Nigeria Commodity Storage Workshop V-1. Jun. 3. IITA Conference Center. Ibadan, NI.
18. **McNeill, S.** 2015. Moisture and temperature measurement of grain in warehouses. US-Nigeria Commodity Storage Workshop V-1. Jun. 2. IITA Conference Center. Ibadan, NI.
19. **McNeill, S.** 2015. Unit operations of on-farm grain post-harvest systems. US-Nigeria Commodity Storage Workshop V-1. Jun 2. IITA Conference Center. Ibadan, NI.
20. Ileleji, K. and **S. McNeill**. 2014. Applying D.I.C.E. to your facility. US-Nigeria Commodity Storage Workshop IV. Jun. 26. IITA Conference Center. Ibadan, NI.
21. **McNeill, S.G.** 2014. Measuring temperature and humidity of grain in warehouses. US-Nigeria Commodity Storage Workshop IV. Jun. 25. IITA Conference Center. Ibadan, NI.
22. **McNeill, S.G.** 2014. Worker safety and health when working with stored grain. US-Nigeria Commodity Storage Workshop IV. Jun. 25. IITA Conference Center. Ibadan, NI.
23. **McNeill, S.** and K. Ileleji. 2014. Grain handling, drying and moisture determination. US-Nigeria Commodity Storage Workshop IV. Stored grain management in on-farm and warehouse structures. Jun. 24. IITA Conference Center. Ibadan, NI.
24. **McNeill, S.** 2013. Use of personal protective equipment for stored grain management in warehouses. US-Nigeria Commodity Storage Workshop III. Module II. Aug. 1. Grand Ibro Hotel. Abuja, NI.
25. **McNeill, S.** 2013. Use of personal protective equipment for stored grain management in silos. US-Nigeria Commodity Storage Workshop III. Module I. Aug. 1. Grand Ibro Hotel. Abuja, NI.
26. Ileleji, K. and **S. McNeill**. 2013. Applying D.I.C.E. to your warehouse facility. US-Nigeria Commodity Storage Workshop III. Module II. Aug. 1. Grand Ibro Hotel. Abuja, NI.
27. Ileleji, K. and **S. McNeill**. 2013. Applying S.L.A.M. to your silo facility. US-Nigeria Commodity Storage Workshop III. Module I. Aug. 1. Grand Ibro Hotel. Abuja, NI.
28. **McNeill, S.** 2013. Worker safety and health when handling bagged grain. US-Nigeria Commodity Storage Workshop III. Module II. Jul. 31. Grand Ibro Hotel. Abuja, NI.
29. **McNeill, S.** 2013. Worker safety and health in stored grain silo facilities. US-Nigeria Commodity Storage Workshop III. Module I. Jul. 31. Grand Ibro Hotel. Abuja, NI.
30. **McNeill, S.** 2013. Unit operations of post-harvest grain handling systems. US-Nigeria Commodity Storage Workshop III. Module II. Jul. 31. Grand Ibro Hotel. Abuja, NI.
31. **McNeill, S.** and K. Ileleji. 2013. Stored grain sampling and monitoring. US-Nigeria Commodity Storage Workshop III. Modules I & II. Jul. 31. Grand Ibro Hotel. Abuja, NI.
32. **McNeill, S.** 2013. Moisture and temperature management of grains. US-Nigeria Commodity Storage Workshop III. Module I (Silos) and Module II (Warehouses). Jul. 30. Grand Ibro Hotel Conference Center. Abuja, NI.

33. **McNeill, S.** 2013. Aeration systems for silos. US-Nigeria Commodity Storage Workshop III. Module I. Jul. 30. Grand Ibro Hotel. Abuja, NI.
34. **McNeill, S.G.** 2012. Moisture and temperature management of grains. US-Nigerian Commodity Storage Workshop III. Mar. 9 in Makurdi, and Mar 15 in Akure, NI.
35. **McNeill, S.G.** 2012. Grain aeration. US-Nigerian Commodity Storage Workshop III. Mar. 11 IITA Conference Center. Ibadan, NI.
36. **McNeill, S.G.** 2012. Worker safety and health in grain silos. US-Nigerian Commodity Storage Workshop Series. Mar. 11 in Makurdi, and Mar 17 in Akure, NI.
37. **McNeill, S.G.** 2012. Moisture and temperature management of grains. US-Nigeria Commodity Storage Train-the-Trainer Workshop. Feb. 14. IITA. Ibadan, NI.
38. **McNeill, S.G.** 2012. Worker safety and health when handling bulk grain. US-Ghana Commodity Storage Workshop. Mar. 14. Crops Research Institute. Kumasi, GH.
39. **McNeill, S.G.** 2011. IPM for storing grains. US-Ghana On-Farm Commodity Storage Workshop. Aug. 4. Football Arena Conference Center. Tamale, GH.
40. **McNeill, S.G.** 2011. Worker safety and health in handling bagged grain. US-Ghana On-Farm Commodity Storage Workshop. Aug. 4. Football Arena Conference Center. Tamale, GH.
41. **McNeill, S.G.** 2011. IPM for storing grains. US-Ghana Commodity Storage Workshop. Aug. 2. ICOUR Training Center. Navrongo, GH.
42. **McNeill, S.G.** 2011. Worker safety and health in handling bagged grain. Aug. 2. ICOUR Training Center. Navrongo, GH.
43. **McNeill, S.G.** 2011. IPM for storing grains. US-Ghana Commodity Storage Workshop. Jul. 28. Dury Hotel Conference Center. Techiman, GH.
44. **McNeill, S.G.** 2011. Worker safety and health in handling bagged grain. US-Ghana Commodity Storage Workshop. Jul. 28. Dury Hotel Conference Center. Techiman, GH.
45. **McNeill, S.G.** 2011. Worker safety and health when handling bagged grain. US-Ghana Commodity Storage Workshop. Mar. 16. Crops Research Institute. Kumasi, GH.
46. **McNeill, S.G.** 2011. Unit operations of post-harvest grain handling systems. US-Ghana Commodity Storage Workshop. Mar. 16. Crops Research Institute. Kumasi, GH.
47. **McNeill, S.G.** 2011. Moisture and temperature management of grains. US-Ghana Commodity Storage Workshop. Mar. 15. Crops Research Institute. Kumasi, GH.
48. **McNeill, S. G.** 2010. Grain drying and storage systems. Farm Energy Efficiency Seminar. Petersburg, VA. Sept. 1.
49. **McNeill, S.G.**, 2010. Spreadsheet tool for grain dryer energy audits. ASABE Annual International Meeting. Pittsburgh, PA. June 20-23.
50. **Opit, G., K. Ileleji and S. McNeill.** 2010. Commodity storage and global food security. Partnership on Trade, Industry and Commerce (PORTICO) III Conference: Post-Harvest Storage Track. Lagos, NI. June 1-2.
51. **Opit, G., K. Ileleji and S. McNeill.** 2010. US Commodity storage programs in Nigeria. PORTICO III Conference: Post-Harvest Storage Track. Lagos, NI. June 1-2.
52. **Opit, G., K. Ileleji and S. McNeill.** 2010. Opportunities for growing commercial agriculture. PORTICO III Conference: Post-Harvest Storage Track. Lagos, NI. June 1-2.
53. **McNeill, S.G.** 2010. Moisture and temperature management of grains. US-Nigerian Commodity Storage Workshop Series. Mar. 9 in Makurdi, and Mar 15 in Akure, NI.
54. **McNeill, S.G.** 2010. Grain aeration. US-Nigerian Commodity Storage Workshop Series. Mar. 11 in Makurdi, and Mar 17 in Akure, NI.

55. **McNeill, S.G.** 2010. Worker safety and health in grain silos. US-Nigerian Commodity Storage Workshop Series. Mar. 11 in Makurdi, and Mar 17 in Akure, NI.
56. **McNeill, S.** 2010. Extension agricultural engineering activities for post-harvest grain protection. Agronomy undergraduate class at the University of Rosario. Rosario, Argentina. Feb. 5.

National:

1. Ileleji, K., G. Opit and **S. McNeill**. 2016. Reducing post-harvest losses in Nigeria: Capacity building in the stored commodity sector. Aug. 1. USDA-FAS-OCBD Conference Room. Washington, D.C.
2. **McNeill, S.** 2016. Update on the revision of MWPS grain drying, handling and storage handbook. FPE-702 Committee Meeting at ASABE AIM. Jul. 19. Orlando, FL.
3. Ileleji, K., G. Opit and **S. McNeill**. 2016. Reducing post-harvest losses in Nigeria: Summary of US-Nigeria Team Activities. Apr. 25. USDA-FAS-OCBD-DRDAD Conference Room. Washington, D.C.
4. **McNeill, S.** 2016. Harvesting for increased yields through technology. AgStar TechnolEdge Conference. Minneapolis, MN. Jan. 20.
5. **McNeill, S.** 2014. Post-harvest grain calculators and decision tools. Kentuckiana Grain meeting. Evansville, IN. Dec. 2.
6. **McNeill, S.** 2014. Costs of drying corn vs harvest losses. UT No-till Field Day, Milan, TN. Jul 24.
7. **McNeill, S.** 2014. Update on the revision of MWPS grain drying, handling and storage handbook. FPE-702 Committee Meeting at ASABE AIM. Jul. 16. Montreal, CN.
8. **McNeill, S.** 2014. How energy costs impact corn harvest decisions. Family Farms Conference. San Antonio, TX. Jan. 23.
9. **McNeill, S.** 2013. Why Dry Grain? A cost comparison of corn harvest losses and drying costs. Farm Progress Show (Ten 20 min lectures in three days). Aug. 27-29.
10. Colliver, D. and **S. McNeill**. 2013. Energy audit for a commercial grain elevator. Grain Elevators and Processors Society. Louisville, KY. Feb 26.
11. **McNeill, S.G.** 2012. On-farm grain drying energy efficiency. NCCC-9 webinar. Sep. 12.
12. **McNeill, S.G.** 2012. Updating the Midwest Plan Service Grain Drying, Handling and Storage Handbook. FPE-702 Committee Meeting at ASABE AIM. Jul. 30. Dallas, TX

State, Regional and County:

1. **McNeill, S.** 2016. Reducing post-harvest losses of grains in West Africa. UK BAE Senior Seminar Series. Lexington, KY. Nov. 7.
2. **McNeill, S.** 2016. Value and measurement of harvest losses for corn and soybeans. ANR training. Lexington, KY. Oct. 18.
3. **McNeill, S.** 2016. Drying grain efficiently. CES producer meeting. Monticello, KY. Oct. 17.
4. **McNeill, S.** 2016. BAE Energy Audit Update. CES meeting. Bowling Green, KY. Mar. 31.
5. **McNeill, S.** 2016. Grain storage technologies, CES producer meeting. McLean Co. Feb. 24.
6. **McNeill, S.** 2016. Operating grain dryers for high quality markets. Azteca producer meeting. Evansville, IN. Feb. 18.
7. **McNeill, S.** 2016. Operating grain dryers for high quality markets. Azteca producer meeting. Henderson, KY. Feb. 17.

8. **McNeill, S.** 2016. Operating grain dryers for high quality markets. Azteca producer meeting. Carmi, IL. Feb. 16.
9. **McNeill, S.** 2016. Operating grain dryers for high quality markets. Azteca producer meeting. Vincennes, IN. Feb. 15.
10. **McNeill, S.** 2015. Grain hauling app development. ANR update. Princeton, KY. Dec. 8.
11. **McNeill, S.** 2015. On-farm grain drying and storage update to UK Extension administrators. Lexington, KY. Nov. 24.
12. **McNeill, S.** 2015. On-farm grain storage systems. New ANR training. Princeton, KY. Nov. 9.
13. **McNeill, S.** 2015. On-farm grain drying systems. New ANR training. Princeton, KY. Oct. 26.
14. **McNeill, S.** 2015. Measuring harvest losses. New ANR training. Princeton, KY. Sep. 18.
15. **McNeill, S.** 2015. Reducing post-harvest losses in Africa. Paducah Rotary Club. Jul. 22.
16. **McNeill, S.** 2015. Grain drying and storage update. GSI customer appreciation day. Midwest Ag Systems Conference Room. Rockport, IN. Mar. 17.
17. **McNeill, S.** 2014. Corn drying and storage systems in Ghana and Nigeria. UK Senior Seminar Class. Lexington, KY. Oct. 22.
18. **McNeill, S.** 2014. Reducing post-harvest losses of grains in West Africa. KSU Graduate Seminar Series. Manhattan, KS. Nov. 14.
19. **McNeill, S.** 2014. Grain drying and storage -- Adair, Rowan and Lewis Cos. Aug. & Sep.
20. **McNeill, S.** 2014. Grain drying and storage -- ANR update series via Lync. Jul. 29.
21. **McNeill, S.** 2013. Energy costs for irrigating row crops. Regional meeting. Mayfield, KY. Feb. 6.
22. **McNeill, S.** 2013. Keeping the bin bursting crop in good condition. UK Early Bird Series. Morganfield, Sedalia and Hopkinsville, KY. Nov. 18-20.
23. **McNeill, S.** 2013. Energy audits for grain dryers and irrigation pumping plants. Statewide meeting of NRCS agents. Hopkinsville, KY. Oct. 22.
24. **McNeill, S.** 2012. Post-harvest grain calculators and decision tools. ANR update --Western KY Region. Oct. 24.
25. **McNeill, S.** and P. Vincelli. 2012. Dealing with the 2012 corn crop ANR update via Lync Meeting. Sep. 7 and 10.
26. **McNeill, S.** 2012. Reducing post-harvest losses of grains in West Africa. BAE Seminar Series. Aug. 31.
27. **McNeill, S.** 2011. Reducing post-harvest losses of grains in West Africa. Lecture for IPS 625: Increasing Sustainable Food Production in Sub-Saharan Africa. Sep. 21.
28. **McNeill, S.** 12/08. Energy update. Farm Biofuels Conference. Henderson and Princeton.
29. **McNeill, S.** 12/08. New spreadsheet tools for grain hauling, drying and storage. CES-ANR Training. Princeton, KY.
30. **McNeill, S.** 11/08. Grain drying and storage options. Early-bird meetings for grain farmers, ANR agents, crop consultants and supply dealers. Sedalia, Hopkinsville and Morganfield, KY.
31. **McNeill, S.** 10/08. Commodity and grain storage update. Producer meeting. Ohio Co.
32. **McNeill, S.** 9/08. Update on alternative energy in agriculture. Training for 4H agents and leaders. Princeton, KY.
33. **McNeill, S.** 9/08. Options for silage and commodity storage. McLean Co.
34. **McNeill, S.** 8/08. Commodity and grain storage update. Producer meeting. Daviess Co.

35. **McNeill, S.** 7/08. 25 x '25 Energy Initiative. Owensboro, KY.
36. Feasible alternative energy choices for KY. 07/19/08. Brescia University. Owensboro, KY.
37. Insect monitoring and control in stored grain. Tennessee Certified Crop Advisors Training. Nashville, TN.
38. **McNeill, S.** 4/08. Careers in Biosystems and Agricultural Engineering. Niagara Elementary. Henderson, KY.
39. **McNeill, S.** 3/08. Alternative energy in agriculture. Maysville, KY.
40. **McNeill, S.** 3/08. Renewable energy update. UKCA Ag Advisory Council. Lexington, KY.
41. **McNeill, S.** 2/08. Grain drying and storage systems. Grain Crops Academy. Princeton, KY.
42. **McNeill, S.** 1/08. Renewable energy update. Eastern Region ANR agents. Lexington, KY.
43. **McNeill, S.** 1/08. Grain drying and storage systems. Grain Crops Academy. Princeton, KY.
44. **McNeill, S.** 1/08. Renewable energy update. Central Region ANR agents. Lexington, KY.
45. **McNeill, S.** 1/08. Grain storage systems/update. Producer meeting. Fulton, KY.
46. **McNeill, S.** 1/08. Commodity and grain storage update. Producer meeting. Caldwell and Crittenden Cos.
47. **McNeill, S.** 1/08. Grain storage systems/update. Producer meeting. Morganfield, KY.
48. **McNeill, S.** 12/07. Energy update. Western Region ANR agents. Hopkinsville, KY.
49. **McNeill, S.** 11/07. Grain drying and storage update. Early-bird meetings for grain farmers, ANR agents, crop consultants and supply dealers. Sedalia, Owensboro and Shelbyville, KY.
50. **McNeill, S.** 10/07. Commodity and grain storage update. Producer meeting. Warren Co.
51. **McNeill, S.** 9/07. Commodity and grain storage update. Producer meeting. Daviess Co.
52. **McNeill, S.** 8/07. Grain storage update. Producer meeting. Union Co.
53. **McNeill, S.** 8/07. GPS section control for sprayers and planters. Farm Progress Show. Normal, IL.
54. **McNeill, S.** 8/07. Energy management for grain drying and storage. Fulton-Hickman RECC. Hickman, KY.
55. **McNeill, S.** 8/07. Grain storage update. Field Day. Meade Co.
56. **McNeill, S.** 6/07. Bicycle safety. Farm Safety Day. Princeton, KY.
57. **McNeill, S.** 6/07. Alternative winter crops in KY. Miles Field Day. Logan Co.
58. **McNeill, S.** 3/07. Asian Soybean Rust...are you ready if it hits this year? Integrated Resource Management School. Princeton, KY.
59. **McNeill, S.** 2/07. Grain harvesting, drying and storage. Producer meeting. Taylor Co.
60. **McNeill, S.** 12/06. Grain handling and storage update. CES-ANR Training. Henderson, Elizabethtown and Princeton, KY.
61. **McNeill, S.** 8/06. Calibrating grain drills and measuring corn harvest losses. CES-ANR Training. Princeton, KY.
62. **McNeill, S.** 2006. Grain storage update. Producer meetings. Dixon, Henderson and Hickman, KY.
63. **McNeill, S.** 5/06. Careers in Agriculture. Youth meeting. Dixon, KY.
64. Stombaugh, T.S. and **S.G. McNeill.** Precision Ag Update. CES-ANR Training. Princeton, KY.
65. **McNeill, S.** 11/06. US grain production, storage and marketing system. Russian visitors. Princeton, KY.
66. **McNeill, S.** 8/06. Beef Corrals that Work. Producer meeting. Hartford, KY.
67. **McNeill, S.,** G.A. Duncan, S.A. Shearer and T.S. Stombaugh. 07/28/05. "Ready—Set—Spray?" 2005 CA Field Day. Princeton, KY.

68. **McNeill, S.** 3/05. Converting soybean oil to hydrogen gas—summary report. KY Soybean Promotion Board. Princeton, KY.

MAJOR REPORTS:

1. **McNeill, S.,** K. Ileleji, G. Opit, G. Otitodun, S. Nwaubani, M. Omobowale, A. Ala and M. Ayodele. 2016. Stakeholder Meetings with Post-harvest Loss Reduction Organizations in Nigeria: A summary report of September trip. USDA-FAS-OCBD. Oct. 28.
2. **McNeill, S.,** K. Ileleji, G. Opit, G. Otitodun, S. Nwaubani, M. Omobowale, A. Ala and M. Ayodele. 2016. Technical assistance program to reduce post-harvest losses in grain warehouses in Nigeria: Summary report of workshop VI to USDA-FAS-OCBD. Aug. 21.
3. **McNeill, S.** 2016. Trip report to KSU-USAID Feed the Future Innovation Lab for the Reduction of Post-harvest Loss-Ghana Team. Jun. 16.
4. Ileleji, K., **S. McNeill** and G. Opit. 2015. Technical assistance program on commodity protection in on-farm, warehouse and silo storage systems. A summary report of Training Workshop Series V to USDA-FAS-OCBD. Jul. 27.
5. **McNeill, S.** 2016. Trip report for participation in the 1st World Congress for the Reduction of PHL. KSU-USAID Feed the Future IL for the Reduction of PHL. Feb. 12.
6. **McNeill, S.** and P. Armstrong. 2015. Training activities for subsequent field tests with the GrainPro Solar Bubble dryer and mycotoxins during maize harvest. USAID. Jun. 22.
7. Opit, G., J. Campbell, F. Arthur, P. Armstrong, E. Osekre, S. Washburn, **S. McNeill,** I. Egyr, J. Bello-Bravo, O. Baban, I. Ayobami, G. Mbata and P.V. Reddy. 2015. Trip report on the assessment of maize post-harvest losses in the middle belt of Ghana. USAID. Jan. 21.
8. Opit, G., J. Campbell, F. Arthur, P. Armstrong, E. Osekre, S. Washburn, O. Baban, **S. McNeill,** G. Mbata, I. Ayobami and P.V. Reddy. 2015. A report on the assessment of maize post-harvest losses in Northern Ghana. USAID. April 30.
9. Ileleji, K., **S. McNeill** and G. Opit. 2014. Technical assistance program to reduce post-harvest losses in grain warehouses in Nigeria: Summary report of workshop IV to USDA-FAS-OCBD. Oct. 8.
10. Opit, G., J. Campbell, F. Arthur, P. Armstrong, E. Osekre, S. Washburn, O. Baban, **S. McNeill,** G. Mbata, I. Ayobami and P.V. Reddy. 2014. A report on the assessment of maize post-harvest losses in the middle belt of Ghana. USAID. Aug. 21.
11. Ileleji, K., **S. McNeill** and G. Opit. 2013. Technical assistance program on commodity protection and management in grain silo storage systems in Nigeria: An in-country train-the-trainer workshop III. A summary report to USDA-FAS-OCBD. Aug. 30.
12. Ileleji, K., **S. McNeill** and G. Opit. 2012. Technical assistance program on commodity protection and management in grain silo storage systems in Nigeria: An in-country train-the-trainer workshop II. A summary report to USDA-FAS-OCBD. Mar. 21.
13. Opit, G., **S. McNeill** and K. Ileleji. 2011. Technical assistance program to reduce post-harvest losses of grain in Ghana: Comprehensive report to USDA-FAS-OCBD. Dec. 16.
14. Opit, G., **S. McNeill** and K. Ileleji. 2011. Technical assistance program to reduce on-farm post-harvest losses of grain in Ghana: A summary report to USDA-FAS-OCBD. Aug. 28.
15. **S. McNeill,** G. Opit and K. Ileleji. 2011. Technical assistance program to reduce post-harvest losses in grain warehouses in Ghana: Summary report to USDA-FAS-OCBD. Apr. 1.
16. Opit, G., K. Ileleji and **McNeill, S.** 2010. Reducing post-harvest grain losses in Ghana. A summary report to USDA-FAS-OCBD, Nov. 19.
17. **McNeill, S.,** K. Ileleji and G. Opit. 2010. Technical assistance program on commodity protection and management in grain silo storage systems in Nigeria. A summary report to USDA-FAS. April 21.

18. Ileleji, K., **McNeill, S.** and G. Opit. 2009. Commodity storage assessment and capacity building needs in Nigeria. A summary report to USDA-FAS-OCBD. Nov. 16.

RESEARCH

AWARDED GRANTS: (\$494,547 total)

1. Montross, M. and **S. McNeill**. Factors that affect packing during storage. The Andersons. Award: \$24,547. January 2015 to December 2015. McNeill: Co-PI.
2. Montross, M., R. Smith and **S. McNeill**. Quantifying field drying rate potential for herbaceous energy crops. DOE-ORNL. Award: \$25,000. November 2010 to September 2011. McNeill: Investigator.
3. Montross, M. and **S. McNeill**. Laboratory and field data for establishing new grain packing factors. USDA-RMA. Award: \$370,000. September 2009 to December 2013. McNeill: Co-PI.
4. Johnson, D., **S. McNeill** and M. Montross. Incidence and spread of insects from bucket elevator leg boots. The Andersons. Award: \$75,000. January 2009 to June 2011. McNeill: Co-PI.

NON-AWARDED GRANTS: (Total: \$1,214,131)

1. Badurdeen, F., J. Seay, S. Sagahian, T. Earle and **S. McNeill**. Integrated modeling capabilities to design and evaluate sustainability performance of region-specific bioenergy production systems. NSF. Project duration: 1/13 to 12/15. Requested: \$368,183.
2. **McNeill, S. (PI)**, D. Colliver and E. Robey. Demonstration of 50kw photovoltaic system at Logan County dairy. Kentucky Environment and Energy Cabinet-DEDI. Project duration: 1/13 to 12/14. Requested: \$263,962.
3. Colliver, C., **McNeill, S. (Co-PI)**, Y. Liao and V. Singh. Installation of photovoltaic electric generation in county cooperative extension offices. Kentucky Environment and Energy Cabinet-DEDI. Project duration: 1/13 to 12/16. Requested: \$537,654.
4. Seay, J., R. Zhang, M. Montross and **S.G. McNeill**. Development of a flexible bio-refinery optimization model based on agricultural survey and GIS modeling of bio-resources in the Jackson Purchase region of western Kentucky. Submitted to KREC. Project duration: 9/09 to 2/11. Amount requested: \$97,363.
5. Seay, J., J. Smart, D. Silverstein and **S.G. McNeill**. Development of a laboratory and simulation based model of sustainable bio-refineries utilizing western Kentucky based renewable resources. Submitted to KREC. Project duration: 9/09 to 2/11. Amount requested: \$96,880.
6. **McNeill S.G.**, S.A. Shearer, S.R. Smith, M.D. Montross, T.G. Mueller and G.S. Halich. GIS analysis of co-firing biomass with coal at a Kentucky power plant. Submitted to UK Precision Resource Management – Phase VIII. Project duration: 07/08 to 06/11. Amount requested: \$69,708.
7. M.D. Montross, **S.G. McNeill**, S.A. Shearer, T.C. Bridges and C.R. Dillon. Corn harvest logistics with class nine combines. Submitted to UK Precision Resource Management – Phase VII. Project duration: 5/07 to 4/08. Amount requested: \$20,000.
8. **McNeill S.G.**, S.A. Shearer, M.D. Montross and C.R. Dillon. Logistics and model refinement for moving grain at harvest. Submitted to UK (Precision Agriculture – Phase V). Project duration: 07/06 to 06/09. Amount requested: \$46,723.

9. Montross, M.D. and **S.G. McNeill**, M. Casada and S.A. Thompson. Method to establish pack factors for grains in upright storage structures. Submitted to The Andersons for Regional Research Project NC-213. Project duration: 10/05 to 09/07. Amount requested: \$81,841.

PUBLICATIONS:

Refereed:

1. Turner, A.P., M.D. Montross, J.J. Jackson, **S.G. McNeill**, M.E. Casada, J.M. Boac, R. Bhaddra, R.G. Maghirang and S.A. Thompson. 2016. Error analysis of stored grain inventory determination. *Trans. ASABE* 59(3): 1061-1072.
2. Turner, A.P., M.D. Montross, J.J. Jackson, **S.G. McNeill**, M.E. Casada, J.M. Boac, R. Bhaddra, R.G. Maghirang and S.A. Thompson. 2016. Modeling the compressibility behavior of hard red winter wheat varieties. *Trans. ASABE* 59(3): 1029-1038.
3. Boac, J.M., R. Bhadra, M.E. Casada, S.A. Thompson, A.P. Turner, M.D. Montross, **S.G. McNeill** and R.G. Maghirang. 2015. Stored grain pack factors for wheat: comparison of three methods to field measurements. *Trans. ASABE* 58(4): 1089-1101.
4. Bhadra, R., A.P. Turner, M.E. Casada, S.A. Thompson, J.M. Boac, M.D. Montross, **S.G. McNeill**, and R.G. Maghirang. 2015. Pack factors for corn in grain storage bins. *Trans. ASABE* 58(3): 879-890.
5. **McNeill, S.G.**, M.D. Montross, S.A. Thompson, I. J. Ross and T.C. Bridges. 2008. Technical note: Packing factors of feed products in storage structures. *Applied Engineering in Agriculture*. 24(5):625-630.
6. Prewitt, R.M., M.D. Montross, **S.G. McNeill**, T.S. Stombaugh, S.A. Shearer and S. Sokhansang. 2007. Corn stover availability and collection efficiency using typical hay equipment. *Transactions ASAE*. 50(3):705-711.
7. **McNeill, S.G.**, M.D. Montross, and S.A. Shearer. 2005. Spatial variation of protein, oil, and starch in yellow corn. *Applied Engineering in Agriculture*. 21(4):619-625.
8. Montross, M.D. and **S.G. McNeill**. 2005. Permeability of corn, soybeans, soft red and white wheat as affected by bulk density. *Applied Engineering in Agriculture*. 21(3): 479-484.
9. Bridges, T.C., M.D. Montross, and **S.G. McNeill**. 2005. Estimation of costs associated with aeration of wheat in the mid-South region of the United States. *Applied Engineering in Agriculture*. 21(1):115-124.
10. Molenda, M. M.D. Montross, J. Horabik, and **S.G. McNeill**. 2005. Airflow resistance of seeds at different bulk densities using Ergun's equation. *Transactions of ASAE*. 48(3):1137-1145.

Submitted:

1. Turner, A.P., M.D. Montross, J.J. Jackson, **S.G. McNeill**, M.E. Casada, J.M. Boac, R. Bhaddra, R.G. Maghirang and S.A. Thompson. Stored grain surface estimation using a low density point cloud. *Appl. Eng. Ag.* Resubmitted with minor revisions. Aug. 2016.

In Review:

1. Armstrong, P.A., **S.G. McNeill**, N. Manu, A. Bosomtwe, J. Danso, E. Osekre and G. Opit. Development and evaluation of a low cost probe-type instrument to measure equilibrium moisture content of grain. *Transactions of ASABE*.

In Preparation:

1. Bhadra, R., M.E. Casada, S.A. Thompson, J.M. Boac, M.D. Montross, A.P. Turner, **S.G. McNeill**, and R.G. Maghirang. Establishing grain compaction factors for minor crops through field data measurements. Transactions of ASABE.

Abstracts:

1. **McNeill, S.**, P. Armstrong, M. Omobolaji, G. Otitodun, E. Osekre, K. Ileleji and G. Opit. Development of a low-cost moisture meter for the grain trade. The 1st All Africa Post Harvest Conference. Nairobi, Kenya. Mar 28-31, 2017.
2. Omobowale, M., A. Ala, G. Otitodun, S. Nwaubani, K. Ileleji, **S. McNeill**, G. Opit, A. Olenloa, O. Kolayemi, J. Ogwumike, J. Braimah, K. Ajao and G. Busari. Postharvest practices and losses: A case study of six farm settlements in Oyo State, Nigeria. The 1st All Africa Post Harvest Conference. Nairobi, Kenya. Mar 28-31, 2017.
3. Nwaubani, S., M. Omobowale, G. Otitodun, Ala, A.A., G. Opit, K. Ileleji, **S. McNeill**, M. Ogundare, G. Igbele, K. Ajao, J. Braimah, J. Olenola, O. Kolayemi and J. Ogwumike. Insect population dynamics in maize using four storage technologies. The 1st All Africa Post Harvest Conference. Nairobi, Kenya. Mar 28-31, 2017.
4. Otitodun, G., A. Ala, M. Omobowale, S. Nwaubani, G. Opit, **S. McNeill**, K. Ileleji, M. Ogundare, J. Braimah, G. Igbele, K. Ajao, G. Busari, O. Akhere, J. Ogwumike and O. Kolayemi. Quality of stored maize using integrated pest management and traditional practices in Nigerian markets. The 1st All Africa Post Harvest Conference. Nairobi, Kenya. Mar 28-31, 2017.
5. **McNeill, S.**, P. Armstrong and E. Osekre. 2015. Assessment of moisture measurement and maize dryers in Ghana. Proceedings from the 1st International Congress on Postharvest Loss Prevention. Rome, IT. Abstract #ADMI042 (pp 98-100).
6. Ileleji, K., G. Opit, **S. McNeill** and H. Tarver. 2015. Benefits of training stakeholders across the grain value chain--A capacity building effort in Nigeria. Proceedings from the 1st International Congress on Postharvest Loss Prevention. Rome, IT. Abstract #ADMI079 (pp 186-187).

MEETING PRESENTATIONS:

International:

1. **McNeill, S.G.**, M.E. Casada, M.D. Montross, S.A. Thompson, R.G. Maghirang, J.M. Boac and R. Bhadra. 2016. New models for describing grain packing. NC-213 Annual Meeting. Mar. 1. Austin, TX.
2. Ileleji, K., G. Opit, **S. McNeill** and H. Tarver. 2015. Benefits of training stakeholders across the grain value chain--A capacity building effort in Nigeria. Rome, IT. Oct. 4-7.
3. **McNeill, S.** 2015. Grain aeration systems for silos. US-Nigeria Commodity Storage Workshop III. Module I. Jun. 10. IITA Conference Center. Ibadan, NI.
4. Ileleji, K., **S. McNeill**, and M. Omobowale. 2015. Moisture content determination methods. US-Nigeria Commodity Storage Workshop V-2. Jun. 4. IITA Conference Center. Ibadan, NI.
5. Bhadra, R., J.M. Boac, M.E. Casada, S. Thompson M.D. Montross, **S.G. McNeill** and R. Maghirang, 2014. Field measurements for grain compaction in commercial storage in the U.S. ASABE Paper No. 141899383 presented at ASABE AIM, Jul. 13-16. Montreal, CN.

6. Bhadra, R., J. Boac, R. Maghirang, M. Casada, **S. McNeill**, M. Montross and S. Thompson. 2013. Stored grain packing factors: field measurements. Report for USDA Inter-Agency Agreement Between the Agricultural Research Service (ARS) and the Federal Crop Insurance Corporation (FCIC) of the Risk Management Agency (RMA). Jul. 24. Kansas City, MO.
7. **McNeill, S.G.**, M.E. Casada, M.D. Montross, S.A. Thompson, R.G. Maghirang, J.M. Boac and R. Bhadra. 2013. New models for describing grain packing. Presentation No. 1620757. ASABE AIM, Jul. 21-24. Kansas City, MO.
8. Overhults, D.G., M.A. Hagan, **S.G. McNeill** and M.D. Montross. 2013. A summary of farm energy audits in Kentucky. ASABE Paper No. 1620937 presented at ASABE AIM, Jul. 21-24. Kansas City, MO.
9. Boac, J.M., M.E. Casada, R. Bhadra, M.D. Montross, S.A. Thompson, **S.G. McNeill** and R.G. Maghirang. 2012. Updating the calculation of bushels from volumetric measurements. GEAPS Annual Meeting. Mar. 3-6. Minneapolis, MN.
10. R. Bhadra, J.M. Boac, M.E. Casada, S.A. Thompson, **S.G. McNeill**, M.D. Montross and R.G. Maghirang. 2012. Field measurements for stored grains packing factors: corn, oats and soybeans. ASABE Paper 121338199 presented at ASABE AIM, Jul. 30 - Aug. 1. Dallas, TX.
11. Jackson, J. **S.G. McNeill** and M.D. Montross. 2012. Designing a feedlot operation in Kentucky using ArcGIS and AutoCAD: an extension method. ASABE Paper No. 12062512 presented at ASABE AIM, Jul. 30 - Aug. 1. Dallas, TX.
12. **McNeill, S.G.**, M.D. Montross, M.E. Casada, S.A. Thompson, R.G. Maghirang, J.M. Boac and R. Bhadra. 2012. Describing grain packing: a new mathematical model. ASABE Paper No. 121338199 presented at ASABE AIM, Jul. 30 - Aug. 1. Dallas, TX.
13. **McNeill, S.G.**, K. Ileleji and G. Opit. 2011. Reducing post-harvest losses of grains in West Africa. ASABE Paper No. 1111426 presented at ASABE AIM, Aug. 8-10. Louisville, KY.
14. Boac, J.M., R. Bhadra, M.E. Casada, M.D. Montross, S.A. Thompson, **S.G. McNeill**, R.G. Maghirang and E. Haque. 2011. Stored grain packing factors: field measurements for wheat and corn. ASABE Paper No. 1111426 presented at ASABE AIM, Aug. 8-10. Louisville, KY.
15. Casada, M.R., S.A. Thompson, P.R. Armstrong, **S.G. McNeill**, M.D. Montross, J. Dyck and R. Larson. 2011. Loads on monitoring cables during grain bin loading and unloading. ASABE Paper No. 1111655 presented at ASABE AIM, Aug. 8-10. Louisville, KY.
16. Montross, M.D., W. Adams, L. Mathis, **S.G. McNeill**, M. Sama, S.A. Thompson, J. Boac and M. Casada. 2011. Laboratory data with hard red winter wheat to support new grain packing factors. ASABE Paper No. 1111337 presented at ASABE AIM, Aug. 8-10. Louisville, KY.
17. Bhadra, R. J. Boac, R. Maghirang, M. Casada, **S. McNeill**, M. Montross and S. Thompson. 2011. Developing new stored grain pack factors with known accuracy for the common grains in trade under a complete range of field conditions: a preliminary report on packing factor of wheat. Report for Inter-Agency Agreement between the Agricultural Research Service (ARS) and the Federal Crop Insurance Corporation (FCIC) of the USDA Risk Management Agency (RMA). April 15.

POSTER PRESENTATIONS:

1. **McNeill, S.**, P. Armstrong, G. Opit, E. Osekre, I. Addo, A. Sanghi, K. Ileleji and K. Adu-Gyamfi. 2015. Assessment of grain moisture measurements and solar dryers. 88th National FFA Convention. Louisville, KY. Oct. 29.

2. **McNeill, S.**, P. Armstrong, G. Opit, E. Osekre, N. Manu, J. Danso, I. Addo, A. Sanghi, K. Adu-Gyamfi and E. Nsiah. 2015. Assessment of Grain moisture measurements and solar dryers in Ghana. First UKCAFE Intercultural Day. Lexington, KY. Oct.14.
3. **McNeill, S.**, P. Armstrong, G. Opit, E. Osekre, N. Manu, J. Danso, I. Addo, A. Sanghi, K. Adu-Gyamfi and E. Nsiah. 2015. Assessment of grain moisture measurements and solar dryers in Ghana. 1st Int'l Congress on Postharvest Loss Prevention. Rome, IT. Oct. 4-7.
4. **McNeill, S.G.** and M.D. Montross. 2008. Physical properties of distillers dried grains with solubles. Paper No. 08-5208. ASABE Annual International Meeting. Providence, RI. June 29- July 2.
5. **McNeill, S.G.**, M.D. Montross, S.A. Thompson and M. Casada. 2007. Grain inventory model validation—a lab and field study. Paper No. 07-6176. ASABE Annual International Meeting. Minneapolis, MN. June 17-20.
6. Bridges, T.C., **S.G. McNeill** and M.D. Montross. 2007. Logistical aspects of corn harvest and drying using class nine combines. 07-6177. ASABE Annual International Meeting. Minneapolis, MN. June 17-20.
7. Day, D.L., **S.G. McNeill** and E.G. Wilkerson. 2007. Assessment of safety in cattle handling facilities on Kentucky farms. Paper No. 07-5110. ASABE Annual International Meeting. Minneapolis, MN. June 17-20.
8. **McNeill, S.G.**, M.D. Montross, and T.S. Stombaugh. 2006. Developing and demonstrating identity-preserved protocols for grain production in Kentucky. Paper No. 06-6201. ASABE Annual International Meeting. Portland, OR. July 9-12.
9. Montross, M.D., T.C. Bridges and **S.G. McNeill**. 2006. Feasibility of ground loop systems to provide condition air for summer aeration. 06-6202. ASABE Annual International Meeting. Portland, OR. July 9-12.
10. Sama, M.P., P. Needham, D.E. Hershman, T.S. Stombaugh and **S.G. McNeill**. 2005. An analysis of sprayer droplets using Matlab®. National Soybean Rust Symposium. Nashville, TN. Nov. 14-16.
11. **McNeill, S.G.** and M.D. Montross. 2005. Drying and storage properties of selected specialty grains. Paper No. 05-6177. ASABE Annual International Meeting. Tampa, FL. July 17-20.
12. Crofcheck, C., S. Nokes, M.D. Montross and **S.G. McNeill**. 2005. Virtual and Face-to-face tours of ethanol and biodiesel production facilities in Kentucky. Paper No. 05-7010. ASABE Annual International Meeting. Tampa, FL. July 17-20.

PROFESSIONAL DEVELOPMENT --Meetings Attended

1. ASABE Annual International Meeting. Jul 17-20, 2016. Orlando, FL.
2. Feed the Future Innovation Lab for the Reduction of Post-harvest Loss Annual Leadership Meeting. May 11-12, 2016. Manhattan, KS.
3. KASEP Spring Meeting. Apr 15, 2016. Frankfort, KY.
4. ASABE Annual International Meeting. Jul 26-29, 2015. New Orleans, LA.
5. Feed the Future Innovation Lab for the Reduction of Post-harvest Loss - Annual Leadership Meeting. Mar 3-4, 2015. Manhattan, KS.
6. NC-213 Annual Meeting - Feb 29-Mar 1, 2016. Austin, TX.
7. 1st International Congress on Post-harvest Loss Prevention. Oct. 4-7, 2015. Rome, IT.
8. UK Wheat Science Field Day. May 12, 2015. Princeton, KY.
9. Azteca Milling Seminar. Mar. 12, 2015. Henderson, KY..
10. NC-213 Annual Meeting. Feb. 18-19, 2015. Kansas City, MO.

11. National Farm Machinery Show. Feb 13, 2015. Louisville, KY.
12. Rural Energy for America Program update. Jan. 20, 2015. Elizabethtown, KY.
13. ASABE Annual International Meeting. Jul 27-30, 2014. Montreal, CN.
14. UK-KSU Bi-Annual CES Meeting. Feb. 27, 2014. Lexington, KY.
15. GEAPS Annual Meeting, Feb. 25-26, 2014. Omaha, NB.
16. NC-213 Annual Meeting. Feb. 24-26, 2014. Omaha, NB.
17. UK Winter Wheat Seminar. Jan. 7, 2014. Hopkinsville, KY.
18. ASABE Annual International Meeting. Jul 21-24, 2013. Kansas City, MO.
19. Tennessee Renewable Energy Seminar, Clarksville, TN. July 9, 2013.
20. GEAPS Annual Meeting, Feb. 26, 2013. Louisville, KY.
21. Workshop to reduce global post-harvest losses, Washington, D.C. Jan. 13, 2013.
22. UK Winter Wheat Seminar. Jan. 8, 2013. Hopkinsville, KY.
23. Mycotoxin Strategies for the 2012 Corn Harvest. Webinar (wattagnett.com). Oct. 23, 2012.
24. ASABE Annual International Meeting. Jul 29-Aug. 1, 2012. Dallas, TX.
25. Designing Agricultural Applications for Handheld Mobile Devices. Jul. 29 2012. Dallas, TX.
26. KY Association of State Extension Specialists. Mar. 20, 2012. Lexington, KY.
27. Biofuel Opportunities in the mid-South. Memphis Bioworks. Sep. 1, 2011. Memphis, TN.
28. ASABE Annual International Meeting. Aug. 8-10, 2011. Louisville, KY.
29. Kentucky Renewable Energy Consortium Quarterly Meeting. Jun. 29, 2011. Louisville, KY.
30. NC-213 Annual Meeting. Feb. 6, 2011. Kansas City, MO.
31. UK Winter Wheat Seminar. Jan. 13, 2011. Hopkinsville, KY.
32. KY Association of State Extension Specialists. Sept. 14, 2010. Lexington, KY.
33. ASABE Annual International Meeting. June 20-23, 2010. Pittsburgh, PA.
34. Tennessee Renewable Energy Educational Workshop. April 13, 2010. Jackson, TN.
35. Grain Conditioning Webinar. Grain Journal. April 9, 2010.
36. USDA-NRCS-RCD informational REAP meeting. Nov. 19, 2009. Morganfield, KY.
37. Executive Task Force on Biomass and Biofuels Development in Kentucky. Oct. 14, 2009. Frankfort, KY.
38. Sustainable Ag and Food Systems Working Group. Tour of UK Beef Operation. Oct. 7, 2009. Lexington, KY.
39. Biofuel Opportunities in the Purchase Area. Memphis Bioworks. Sep. 16, 2009. Mayfield, KY.
40. Kentucky Renewable Energy Consortium Quarterly Meeting. Sep. 7, 2009. Louisville, KY.
41. Kentucky Agriculture Council. Aug. 20, 2009. Louisville, KY.
42. ASABE Annual International Meeting. June 21-24, 2009. Reno, NV.
43. UK Wheat Field Day. May 19, 2009. Hopkinsville, KY.
44. Energizing Kentucky III Extension Conference. April 15-16, 2013. Lexington, KY KY Association of State Extension Specialists. March 18, 2009. Lexington, KY.
45. NC-213 Annual Meeting. Feb. 18-19, 2009. Kansas City, MO.
46. UK Winter Wheat Seminar. Jan. 13, 2009. Hopkinsville, KY.
47. SoyaSummit 2008 (Fuel Track). Soyatech. Sep. 2008. St. Louis, MO.
48. Combine Field Day. Aug. 8, 2008. Eddyville, KY.
49. What's Driving World Energy Prices? July 8, 2008. Webinar.
50. Soybean Festival. July 22, 2008. Princeton, KY.
51. Annual International ASABE Meeting. July 2008. Providence, RI.
52. NC-213 Annual Meeting. Feb. 2008. Omaha, NE.

53. KY Association of State Extension Specialists. Feb. 2008. Lexington, KY.
54. UK Winter Wheat Seminar. 1/08. Hopkinsville, KY. Jan. 2007. Bowling Green, KY.
55. Renewable energy. Ohio Energy Office. Nov. 11, 2007. Piketon, OH.
56. Annual International ASABE Meeting. June 26-29, 2007. Minneapolis, MN.
57. NC-213 Annual Meeting. Feb. 26-28, 2007. Kansas City, MO.
58. State Extension Conference. Feb. 2007. Lexington, KY.
59. KY Association of State Extension Specialists. Feb. 2007. Lexington, KY.

SERVICE AND RECOGNITION

Awards

- ASABE Educational Aids Blue Ribbon Award for Extension Methods. 2015.
- Outstanding Extension Specialist. KACAA. 2014.
- Wethington Award. University of Kentucky. 2006, 2010, 2011, 2012, 2013, 2014, 2015 and 2016.

Professional Society Activities

- American Society of Agricultural and Biological Engineers (ASABE)
 - FPE-702 Grain and Feed Processing and Storage Committee
 - FPE-709 Biomass Energy and Industrial Products Committee
 - ED-208 Extension Education Committee
 - P-515 Textbooks and Monographs Committee
 - On-farm Energy Audit Development Working Group
- Kentucky Association of State Extension Specialists (KASEP)
 - Audit committee
 - eXtension renewable energy and energy efficiency development group

Reviewer Service (from ASABE editors)

- “Aeration strategies for wheat storage in the sub-tropical region of north India” for publication in Transactions of ASABE (accepted with revisions).
- “Sorption behavior of rapeseed” for publication in Transactions of ASABE (accepted with revisions).
- “Neural modeling of drying behavior of some agricultural products” for publication in Computers and Electronics in Agriculture (rejected).

College of Agriculture

- Ag Faculty Council (2013 -2015)
- University Faculty Senate Representative (9/06 – 8/09)
- Review panel for Precision Resource Management Grants (Feb-Mar 2010)
- Kentucky Association of State Extension Workers Board Member (09/10 – 8/13)
- Volunteer Ambassador at World Equestrian Games (10/10)
- Wheat Science Group
- Corn and Soybean Science Group
- Sustainable Food and Agriculture Systems Working Group
- Renewable Fuels Task Force

Biosystems and Agricultural Engineering Department

- Extension Committee; Awards Committee
- Worked in BAE booth at Farm Machinery Show (Feb 2009, 2010, 2015)
- Worked in BAE booth at State Fair (Aug 2010)
- Coordinated display of autonomous tractor, 1/4-scale tractor, biofuels and information of vegetable cooler at the Ag. Expo in Elizabethtown, KY. Aug 27-28, 2010.
- Assisted with program planning for KASEP visit to BAE on Dec. 8, 2010 in Lexington.

Research and Education Center

- Advisory Committee – 2010-2011
- UKCA Field Day 2010 – Logistics Committee Chair
- UKCA Field Day 2009 – Logistics Committee Chair
- UKCA Field Day 2008 – Exhibit Committee Chair
- UKCA Field Day 2006 – Exhibit Committee Chair