## Augustine K. Obour

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#### **Education**

- 2010 Ph.D. Soil and Water Science, University of Florida, Gainesville, FL.
- 2007 M.S. Agronomy, University of Florida, Gainesville, FL.
- 2002 B.S. Crop Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
- 2009- Certificate in Wetland and Water Resource Management, University of Florida, Gainesville, FL.

## **Research and Professional Experience**

| 06/18-present | Associate Professor, Agricultural Research Center-Hays, Kansas State |
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|               | University, Manhattan, KS.   |
| 05/13- 06/18  | Assistant Professor, Agricultural Research Center-Hays, Kansas State |
|               | University, Manhattan, KS.   |
| 10/10-05/13   | Research Scientist, Plant Science Department, University of Wyoming  |
|               | Laramie, WY.   |
| 05/12-05/13   | Adjunct Faculty, Eastern Wyoming College, Torrington, WY.            |
| 05/07-09/10   | Research and Teaching Assistant, Soil and Water Science Department,  |
|               | University of Florida, Gainesville, FL.                              |
| 08/04-05/07   | Research and Teaching Assistant, Agronomy Department, University of  |
|               | Florida, Gainesville, FL.  |
| 10/03-06/04   | Research Assistant, Crop Science Department, Kwame Nkrumah           |
|               | University of Science and Technology, Kumasi, Ghana.                 |
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#### **Research Interest**

Research emphases is placed on developing a systematic understanding of soil management and agronomic production practices within dryland cropping systems and the impact of such practices on soil health, water use, crop productivity, and economic returns. International research activities are focused on sustainable intensification of dual-purpose cowpeas for enhanced food and fodder production in West Africa.

### **Professional Activity**

- Member, Agronomy Society of America (2007 to present).
- Member, Crop Science Society of America (2010 to present).
- Member, Soil Science Society of America (2007 to present).
- Vice chair, Semiarid Dryland Cropping Systems Community, 01/01/2021 to 12/31/201.
- Chair, ASA-CSSA-SSSA Diversity in Agronomy, Crops, Soils, and Environmental

- Sciences Committee, 01/01/2021 to 12/31/2021.
- Associate Editor for Agronomy Journal (Jan 2021-present) and Guest Editor MDPI Agronomy (2020-2021).
- Chair: SSSA Gary "Pete" Peterson Dryland Soil Management Scholarship Committee, 01/01/2019 to 12/31/2019.
- Chair, ASA-CSSA-SSSA National Club Poster Presentation Contest Committee (ACS449.11), 01/01/2020 to 12/31/2020.
- Member, ASA-CSSA-SSSA National Club Poster Presentation Contest Committee (ACS449.11), 01/01/2019 to 12/31/2020.
- Member of SSSA Gary "Pete" Peterson Dryland Soil Management Scholarship Committee, 01/01/2017 to 12/31/2019.
- Member of ASA-CSSA-SSSA Diversity in Agronomy, Crops, Soils, and Environmental Sciences Committee, Jan. 2018-Dec. 2020.
- Participated in the Sub-Saharan Africa Soil Fertility Prioritization summit in Dakar, Senegal, Aug. 14-15, 2017.
- Co-organizer of special Session at the 2019 ASA-CSSA-SSSA annual meetings in San Antonia, TX. Session title: Diversity in ACS: What gains have we made? What is the outlook for the future?
- Chaired cross division symposium at the 2019 ASA-CSSA-SSSA annual meetings in San Antonia, TX. Symposium title: Soil, Water, Plant and Atmosphere Interactions and Soil Carbon Dynamics in Long Term Research Experiments I.
- Chaired a technical session for Div. S-4 (Soil Fertility & Plant Nutrition) at the ASA-CSSA-SSSA International Annual Meeting, Nov. 2-5, 2014. Long Beach, CA.
- Organized and hosted 2016 annual meeting of the Great Plains dryland working group "Tear Down the Walls"

# Peer Reviewed Publications (\*graduate student advisee)

- 1. Carr, P.M., J.M. Bell, D.L. Boss, P. DeLaune, J.O. Eberl, L. Edwards, H. Fryer, C. Graham, J. Holman, M. A. Islam, M. Liebig, P. R. Miller, **A. Obour**, Q. Xue. 2021. Annual forage impacts on dryland wheat farming in the Great Plains. Agron. J. 113: 1-25. doi.org/10.1002/agj2.20513.
- 2. Holman, J., **A. Obour**, Y. Assefa. 2021. Rotation and tillage effects on forage cropping systems productivity and resource use efficiency. Crop Sci. 61:3830-3843. https://doi.org/10.1002/csc2.20565
- 3. Holman, J., **A. Obour**, Y. Assefa. 2021. Fallow replacement cover crops in a semi-arid High Plains cropping system. Crop Sci. 61:3799-3814. https://doi.org/10.1002/csc2.20543
- 4. Holman, J.D., Y. Assefa, and **A.K. Obour**. 2021. Cover crop water use and productivity in the high plains wheat-fallow crop rotation. Crop Sci. 61: 1374-1385.
- 5. Homan, J., Y. Assefa, M. Stamm, and **A.K. Obour**. 2021. Canola yield, forage accumulation, and nutritive value in dual-purpose and companion cropping. Crop Sci. 61:814-824.
- 6. Kelly, C., M. E. Schipanski, A. Tucker, W. Trujillo, J. D. Holman, A. K. Obour, S. K. Johnson, J. E. Brummer, L. Haag, and S. J. Fonte. 2021. Dryland cover crop soil health benefits are maintained with grazing in the U.S. High and Central Plains. Agriculture, Ecosystems and Environment. 315,15.

- 7. Obeng, E\*., **A.K. Obour**, N.O. Nelson, Nathan, I. Ciampitti, and D. Wang. 2021. Nitrogen and sulfur application effects on camelina seed yield, fatty acid composition, and nutrient removal. Can. J. of Plant Sci. 101:353-365.
- 8. **Obour, A.K.**, J.D. Holman, L.M. Simon, and A.J. Schlegel. 2021. Strategic tillage effects on crop yields, soil properties, and weeds in dryland no-tillage systems. Agronomy, 11, 662. <a href="https://doi.org/10.3390/">https://doi.org/10.3390/</a> agronomy11040662.
- 9. **Obour, A.K.,** L.M. Simon, J.D. Holman, P.M. Carr, M. Schipanski, S. Fonte, R. Ghimire, T. Nleya & H. Blanco-Canqui. 2021. Cover Crops to Improve Soil Health in the North American Great Plains. Agron. J. <a href="http://dx.doi.org/10.1002/agj2.20855">http://dx.doi.org/10.1002/agj2.20855</a>.
- Simon, L.M\*., A. K. Obour, J.D. Holman, S.K. Johnson and K. L. Roozeboom. 2021. Forage productivity and soil properties in dual-purpose cover crops systems. Agron. J. <a href="http://dx.doi.org/10.1002/agj2.20877">http://dx.doi.org/10.1002/agj2.20877</a>.
- 11. Homan, J.D., A. Schlegel, **A.K. Obour**, and Y. Assefa. 2020. Dryland cropping system impact on forage accumulation, nutritive value, and rainfall use efficiency. Crop Sci. 60: 3395-3409. https://doi.org/10.1002/csc2.20251.
- 12. Kumar, V., **A. Obour**, P. Jha, R. Liu, M. R. Manuchehri, J. A. Dille, J. Holman7, and P. W. Stahlman. 2020. Integrating cover crops for weed management in the semi-arid U.S. Great Plains: opportunities and challenges. Weed Sci. 68:311-323. DOI: 10.1017/wsc.2020.29.
- 13. **Obour, A.K.**, J. D. Holman, and A.J. Schlegel. 2020. Spring triticale forage responses to seeding rate and nitrogen application. Agrosyst. Geosci. Environ. 2020; 3:e20053. https://doi.org/10.1002/agg2.20053
- 14. Holman, J.D., **A.K. Obour**, and D. B. Mengel. 2019. Nitrogen application effects on forage sorghum production and nitrate concentration. J. Plant Nutri. 42:2794-2804.
- 15. Obeng, E\*., **A.K. Obour**, N.O. Nelson, J.A. Moreno, I. A. Ciampitti, D. Wang and T.P. Durrett. 2019. Seed yield and oil quality as affected by Camelina cultivar and planting date. J. Crop. Improve. 33: 202-222.
- 16. Mikha, M.M., **A.K. Obour**, V. Kumar, and P.W. Stahlman.2019. Soil physicochemical properties influenced by nitrogen sources and rates in the central Great Plains. J. Soil Water Conser.74:584-593.
- 17. **Obour, A.K.**, J.D. Holman and A.J. Schlegel. 2019. Seeding rate and nitrogen application effects on oat forage yield and nutritive value. J. Plant Nutri.42:1452-1460.
- 18. **Obour, A.K.**, A.J. Schlegel, R. Perumal., J.D. Holman, and D.A Ruiz Diaz. 2019. Evaluating grain sorghum hybrids for tolerance to iron chlorosis. J. Plant Nutri. 42:401-409.
- 19. Holman, J.D., K. Arnet, J. Dille, S. Maxwell, **A.K. Obour**, T. Roberts, K. Roozeboom, and A. Schlegel. 2018. Can cover (or forage) crops replace fallow in the semiarid central Great Plains? Crop Sci. 58:1-13.
- 20. Mikha, M.M., **A.K. Obour**, and J.D. Holman. 2018. Soil nutrients status after fifty years of tillage and nitrogen fertilization. Commun. Soil Sci. Plant Anal. 49:1953-1973.
- 21. **Obour. A.K.**, C. Chen, H.Y. Sintim, K. McVay, P. Lamb, E. Obeng Y.A. Mohammed, Q. Khan, R.K. Afshar and V. D. Zheljazkov. 2018. Camelina sativa as a fallow replacement crop in wheat based crop production systems in the US Great Plains. Industrial Crops and Products. Ind. Crops and Prod.111:22-29.
- 22. Ghimire, R., U. Norton, P. Bista, **A.K. Obour**, and J.B. Norton. 2017. Soil organic matter, greenhouse gases and net global warming potential of irrigated conventional, reduced-tillage and organic cropping systems. Nutr. Cycl. Agroecosyt. 107:49-62.
- 23. Islam, M.A., A.K. Obour, D.C. Rule, M. Bandara, and S.N Acharya. 2017. Forage and seed

- production potential, nutritive value, and fatty acid profile of fenugreek. Crop Sci. 57:1764-1772.
- 24. **Obour**, **A.K**., M.M. Mikha, J.D. Holman, and P.W. Stahlman. 2017. Changes in soil surface chemistry after fifty years of tillage and nitrogen fertilization. Geoderma 308:46-53.
- 25. **Obour**, **A.K**., K. Harmoney, and J.D. Holman. 2017 Nitrogen fertilizer application effects on switchgrass herbage mass, nutritive value and nutrient removal. Crop Sci. 57:1754-1763.
- 26. **Obour, A.K.**, E. Obeng, Y. A. Mohammed, I.A. Ciampitti, T.P. Durrett, J.A. Aznar-Moreno, and C. Chen. 2017. Camelina seed yield and fatty acids as influenced by genotype and environment. Agron. J. 109:947-956.
- 27. **Obour, A.K.**, P.W. Stahlman, and C.A. Thompson. 2017. Long-term residual effects of feedlot manure application on crop yield and soil surface chemistry. J. Plant. Nutr. 40: 427-438.
- 28. **Obour, A.K.**, P.W. Stahlman, and J.D. Holman. 2016. Soil chemical properties as influenced by long-term glyphosate-resistant corn and soybean production in the central Great Plains, USA. Geoderma 277. 1-9.
- 29. Sintim, H.Y.\*, A.T. Adjesiwor, V.D. Zheljazkov, M.A. Islam, and **A.K. Obour**. 2016. Nitrogen application in sainfoin under rain-fed conditions in Wyoming: productivity and cost implications Agron. J. 108:294-300.
- 30. Sintim, H.Y.\*, V.D. Zheljazkov, **A.K. Obour**, A.G. Garcia, and T.K. Foulke. 2016. Evaluating agronomic responses of camelina to seeding date under rain-fed conditions. Agron. J. 108:349-357.
- 31. Sintim, H.Y.\*, V.D. Zheljazkov, **A.K. Obour**, A.G. Garcia, and T.K. Foulke. 2016. Managing harvest time to control pod shattering in oilseed camelina. Agron. J. 108:656-661.
- 32. **Obour, A.K.**, P.W. Stahlman and C.A. Thompson. 2015. Wheat and grain sorghum yields as influenced by long-term tillage and nitrogen fertilizer application. Int. J. Soil Plant Sci. 7:19-28.
- 33. **Obour, A.K.,** H.Y. Sintim, E. Obeng, and V.D. Jeliazkov. 2015. Oilseed Camelina (*Camelina sativa* L. Crantz): production systems, prospects and challenges in the USA Great Plains. Adv. Plants Agric. Res. 2: 1-10.
- 34. Sintim, H.Y.\*, V.D. Zheljazkov, **A.K. Obour**, A.G. Garcia, and T.K. Foulke. 2015. Influence of nitrogen and sulfur application on camelina performance under dryland conditions. Ind. Crop Prod. 70:253-259.
- 35. Sintim, H.Y.\*, A. Burkhardt, A. Gawde, C.L. Cantrell, T. Astatkie, **A.K. Obour**, V.D. Zheljazkov, and V. Schlegel. 2015. Hydrodistillation time affects dill seed essential oil yield, composition, and bioactivity. Ind. Crop. Prod. 63:190-196.
- 36. Islam, M.A., A.K. Obour, J.M. Krall, J.T. Cecil, and J.J. Nachtman. 2013. Performance of turfgrass under supplemental irrigation and rain-fed conditions in the central Great Plains of USA. Grassland Sci. 59:111-119.
- 37. Islam, M.A., **A.K. Obour**, M.C. Saha, J.J. Nachtman, and R.E. Baumgartner. 2013. Small grains have forage production potential and nutritive value in central High Plains of Wyoming. Forage and Grazinglands. doi:10.1094/FG-2013-0121-02-RS.
- 38. Islam, M.A., **A.K. Obour**, M.C. Saha, J.J. Nachtman, W.K. Cecil, and R.E. Baumgartner. 2013. Grain yield, forage yield, and nutritive value of dual-purpose small grains in the central High Plains of USA. Crop Management. doi:10.1094/CM-2012-0154-RS.
- 39. Walsh, M.J., R.W. Groose, **A.K. Obour**, D.A. Claypool, R.H. Delaney and J.M. Krall. 2013. Seed persistence in soil of five medic cultivars in southeastern Wyoming, USA. Crop

- Sci.53:674-678.
- 40. Agyin-Birikorang, S., Y.C. Newman, **A.K. Obour**, and G.N. Kasozi. 2012. Agro-ecological nitrogen management in soils vulnerable to nitrate leaching: a case study in the lower Suwannee watershed. Nutr. Cycl. Agroecosyst. 92: 91-105.
- 41. Silveira, M.L., **A.K. Obour**, J.M. Vendramini, and L.E. Sollenberger. 2011. Using tissue analysis as a tool to predict bahiagrass phosphorus fertilization requirement. J. Plant Nutr. 34:2193-2205.
- 42. **Obour, A.K.,** M.L. Silveira, J.M.B. Vendramini, L.E. Sollenberger, G.A. O'Connor, and J.W. Jawitz, 2011. Agronomic and environmental impacts of phosphorus fertilization of low input bahiagrass systems in Florida. Nutr. Cycl. Agroecosyst. 89:281-290.
- 43. **Obour, A.K.**, J.M.B. Vendramini, M.L. Silveira, L.E. Sollenberger, G.A. O'Connor, and J. Jawitz. 2011. Phosphorus fertilization responses on bahiagrass pastures: forage production and water quality. Agron. J. 103:324-330.
- 44. Silveira, M.L., **A.K. Obour**, J. Arthington, and L.E. Sollenberger. 2011. The cow-calf industry and water quality in South Florida, USA: a review. Nutr. Cycl. Agroecosyst. 89:439-452.
- 45. **Obour, A.K.**, M.L. Silveira, J.M.B. Vendramini, J. Jawitz, G.A. O'Connor and L.E. Sollenberger. 2011. A Phosphorus budget for bahiagrass pastures growing on a typical Florida spodosol. Agron. J. 103:611-616.
- 46. **Obour, A.K.,** M.L. Silveira, J.M.B. Vendramini, L.E. Sollenberger, and G.A. O'Connor. 2011. Fluctuating water table effect on phosphorus release and availability from a Florida spodosol. Nutr. Cycl. Agroecosyst. 91:207-217.
- 47. **Obour, A.K.**, M.L. Silveira, J.M.B. Vendramini, M.B. Adjei, and L.E. Sollenberger. 2010. Evaluating cattle manure application strategies on phosphorus and nitrogen losses from a Florida spodosol. Agron. J. 102:1511-1521.
- 48. **Obour, A.K.**, M. L. Silveira, M.B. Adjei, J. M. Vendramini and J. E. Rechcigl. 2009. Cattle manure application strategies effects on bahiagrass yield, nutritive value, and phosphorus recovery. Agron. J. 101:1099-1107.
- 49. Akromah, R., S.Y.C. Essah and **A.K. Obour**. 2009. Reaction of local and improved cassava germplasm to the African cassava mosaic virus disease. Crop Res. 38:219-223.

### **Book Chapters**

- Islam, M.A., and **A.K. Obour**. 2021. Drought physiology of forage crops. In: M. Pessarakli (ed.) Handbook of Plant and Crop Physiology, 4th Edition, CRC Press, Taylor & Francis Publishing, Boca Raton, FL. pp. 567-578.
- Islam, M.A., and **A.K. Obour**. 2014. Drought physiology of forage crops. In: M. Pessarakli (ed.) Handbook of Plant and Crop Physiology, 3rd Edition, CRC Press, Taylor & Francis Publishing, Boca Raton, FL. pp. 427-440.

# **Conference Proceedings**

- 1. Holman, J.D., **A.K. Obour**, L. Simon\*, A.J. Schlegel. 2020. Long-term forage rotation yields, soil water use, and profitability. In Proc. of the Great Plains Soil Fertility Conf., 2020. Vol. 18:158-164.
- 2. Maysoon M. M., **A.K. Obour**, and J.D. Holman. 2020. Tillage and nitrogen rates influenced wheat and sorghum productivity. In Proc. of the Great Plains Soil Fertility Conf., 2020. Vol. 18:203-258.

- 3. **Obour, A.K.**, J.D. Holman, L. Simon, A.J. Schlegel. 2020. Strategic tillage effects on crop yield and soil properties in dryland crop rotations. In Proc. of the Great Plains Soil Fertility Conf., 2020. Vol. 18:106-111.
- 4. Simon, L.M., **A.K. Obour**, J.D. Holman, K.L. Roozeboom. Long-term cover crop and annual forage effects on soil organic carbon, nitrogen stocks, and water stable aggregates in the semiarid central Great Plains. In Proc. of the Great Plains Soil Fertility Conf., 2020. Vol. 18:203-207.
- **5.** Holman, J., **A. Obour**, A. Schlegel. S. Maxwell, and T. Roberts, 2018. Determining profitable forage rotations. *In* Proc. of the Great Plains Soil Fertility Conf., 2018. Vol. 17:228-234.
- **6. Obour, A.K.**, J.D. Holman, and A.J. Schlegel. 2018. Strategic tillage to improve crop yields and profitability in dryland no-tillage cropping systems. *In* Proc. of the Great Plains Soil Fertility Conf., 2018. Vol. 17:188-191.
- **7.** Holman, J.D., **A. K. Obour**, T. Roberts, and S. Maxwell. 2017. Nine years of cover crop research in the High Plains. In Proceedings of the Cover Your Acres Winter Conf., Vol. 14. 13-18. Oberlin, KS. January 17-18, 2017.
- 8. Holman, J., T. Roberts, S. Maxwell, A.K. Obour, and A. Schlegel. 2016. Eight years of cover crop research in the High Plains. *In* Proc. of the Great Plains Soil Fertility Conf., 2016. Vol. 16:167-171.
- 9. **Obour, A.K.**, A.J. Schlegel, D.A. Ruiz Diaz, and R. Perumal. 2016. Alleviating iron deficiency chlorosis in grain sorghum on high pH soils in western Kansas. *In* Proc. of the Great Plains Soil Fertility Conf., 2016. Vol. 16:76-83.
- 10. Obeng, E.\*, **A.K. Obour**, N.O. Nelson, I.A. Ciampitti, and D. Wang. 2016. Response of dryland camelina to nitrogen and sulfur fertilizer. *In* Proc. of the Great Plains Soil Fertility Conf., 2016. Vol. 16:200-2007.
- 11. **Obour, A.K.**, and P.W. Stahlman. 2014. Long-term tillage and nitrogen fertilizer application effects on crop yields and precipitation use efficiency in a wheat sorghum cropping system. *In* Proc. of the Great Plains Soil Fertility Conf., 2014. Vol. 15. Denver, CO. March 4-5, 2014.

### Reports, Extension Bulletins & Magazines

- 1. Obour, A. K., L.M. Simon, J. D. Holman and S. K. Johnson. 2021. Does Grazing Cover Crops Impact Soil Properties? Kansas Agricultural Experiment Station Research Reports: Vol. 7: Iss. 5. https://doi.org/10.4148/2378-5977.8078.
- 2. Simon, L. M., A. K. Obour, J. D. Holman, S. K. Johnson, and K. L. Roozeboom, K. 2021. Forage accumulation of spring and Summer cover crops in western Kansas. Kansas Agricultural Experiment Station Research Reports: Vol. 7: Iss. 5. <a href="https://doi.org/10.4148/2378-5977.8134">https://doi.org/10.4148/2378-5977.8134</a>.
- 3. Simon, L. M.; A. K. Obour, J. D. Holman, S. K. Johnson, and K.L. Roozeboom. 2021 Dual-Purpose cover crop effects on soil health in western Kansas no-till dryland cropping. Kansas Agricultural Experiment Station Research Reports: Vol. 7: Iss. 5. https://doi.org/10.4148/2378-5977.8135.
- 4. Holman, J. D.; A.K. Obour, J. Lingenfelser, T. Roberts, and S. Maxwell. 2020. 2019 Kansas summer annual forage hay and silage variety trial. Kansas Agricultural Experiment Station Research Reports: Vol. 6: Iss. 6. https://doi.org/10.4148/2378-5977.7943.
- 5. Holman, J.; Obour, A.; A. Schlegel, T. Roberts, and S. Maxwell. 2020. Estimating annual

- forage yields with plant available water and growing season precipitation. Kansas Agricultural Experiment Station Research Reports: Vol. 6: Iss. 8. <a href="https://doi.org/10.4148/2378-5977.7961">https://doi.org/10.4148/2378-5977.7961</a>.
- 6. Johnson, S., J. Brummer, A. Obour, A. Moore, J. Holman, and M. Schipanski. 2020. Cover crop grown post-wheat for forage under dryland conditions in the High Plains. Kansas State Univ. Agric. Expt. Station & Coop. Ext. Publication no. MF3523. <a href="https://bookstore.ksre.ksu.edu/pubs/MF3523.pdf">https://bookstore.ksre.ksu.edu/pubs/MF3523.pdf</a>.
- 7. Obour, A. K., J.D. Holman, L.M. Simon, and S.K. Johnson. 2020. Dual use of cover crops for forage production and soil health in dryland crop production. Kansas Agricultural Experiment Station Research Reports: Vol. 6: Iss. 5. <a href="https://doi.org/10.4148/2378-5977.7930">https://doi.org/10.4148/2378-5977.7930</a>.
- 8. **Obour, A. K.**, J.D. Holman, and A.J. Schlegel. 2020. Occasional tillage and nitrogen application effects on winter wheat and grain sorghum yield. Kansas Agricultural Experiment Station Research Reports: Vol. 6: Iss. 9. <a href="https://doi.org/10.4148/2378-5977.7976">https://doi.org/10.4148/2378-5977.7976</a>.
- 9. Simon, L. M. A.K. Obour, J. D. Holman, and K. L. Roozeboom. 2020. Long-term cover crop management effects on soil health in semiarid dryland cropping systems. Kansas Agricultural Experiment Station Research Reports: Vol. 6: Iss. 5. https://doi.org/10.4148/2378-5977.7927.
- 10. Holman, J. D., A. Obour, A. Esser, J. Lingenfelser, T. Roberts, and S. Maxwell. 2019. 2018 Kansas Summer Annual Forage Hay and Silage Variety Trial," *Kansas Agricultural Experiment Station Research Reports*: Vol. 5: Iss. 3. <a href="https://doi.org/10.4148/2378-5977.7750">https://doi.org/10.4148/2378-5977.7750</a>.
- 11. Holman, J., A. Obour, A. Schlegel, T. Roberts, and S. Maxwell. 2019. Determining Profitable Forage Rotations," *Kansas Agricultural Experiment Station Research Reports*: Vol. 5: Iss. 7. <a href="https://doi.org/10.4148/2378-5977.7806">https://doi.org/10.4148/2378-5977.7806</a>
- 12. Holman, J.; A. Obour, A. Schlegel, T. Roberts, and S. Maxwell. 2019. Estimating Annual Forage Yields with Plant Available Water and Growing Season Precipitation. *Kansas Agricultural Experiment Station Research Reports*: Vol. 5: Iss. 7. https://doi.org/10.4148/2378-5977.7807.
- 13. Holman, J., A. Obour, A. Schlegel, T. Roberts, and S. Maxwell. 2019. Integrated Grain and Forage Rotations. *Kansas Agricultural Experiment Station Research Reports*: Vol. 5: Iss. 7. <a href="https://doi.org/10.4148/2378-5977.7808">https://doi.org/10.4148/2378-5977.7808</a>.
- 14. Majrashi, M., A. K. Obour, and C.J. Moorberg. 2019. Crop Yield and Yield Stability as Affected by Long-Term Tillage and Nitrogen Fertilizer Rates in Dryland Wheat and Sorghum Production Systems," Kansas Agricultural Experiment Station Research Reports: Vol. 5: Iss. 6. https://doi.org/10.4148/2378-5977.7800.
- 15. Majrashi, M., A. K. Obour, and C. J. Moorberg. 2019. Long-Term Tillage and Nitrogen Fertilizer Rates Effect on Grain Yield and Nitrogen Uptake in Dryland Wheat and Sorghum Production," Kansas Agricultural Experiment Station Research Reports: Vol. 5: Iss. 6. <a href="https://doi.org/10.4148/2378-5977.7801">https://doi.org/10.4148/2378-5977.7801</a>.
- 16. Obour, A. K., J. D. Holman, J. A. Dille, and V. Kumar. 2019. Effects of Spring-Planted Cover Crops on Weed Suppression and Winter Wheat Grain Yield in Western Kansas," *Kansas Agricultural Experiment Station Research Reports*: Vol. 5: Iss. 6. https://doi.org/10.4148/2378-5977.7784.
- 17. Obour, A. K., J.D. Holman, and J. R. Jaeger. 2019. Cover Crop Management Effects on

- Soil Water Content and Winter Wheat Yield in Dryland Systems," *Kansas Agricultural Experiment Station Research Reports*: Vol. 5: Iss. 6. <a href="https://doi.org/10.4148/2378-5977.7785">https://doi.org/10.4148/2378-5977.7785</a>
- Obour, A. K.; J.D. Holman, and A. J. Schlegel. 2019. Occasional Tillage and Nitrogen Application Effects on Winter Wheat and Grain Sorghum Yield," Kansas Agricultural Experiment Station Research Reports: Vol. 5: Iss. 4. https://doi.org/10.4148/2378-5977.7755.
- 19. Obour, A. K., J. D. Holman, and A. J. Schlegel. 2019. Strategic Tillage in Dryland No-Tillage Crop Production Systems," Kansas Agricultural Experiment Station Research Reports: Vol. 5: Iss. 4. https://doi.org/10.4148/2378-5977.7756.
- 20. Brummer, J., S. Johnson, A. Obour, K. Caswell, A. Moore, J. Holman, M. Schipanski, and K. Harmoney. 2018. Managing spring planted cover crops for livestock grazing under dryland conditions in the high plains region. Colorado State Univ. Coop. Ext. Fact Sheet No. 0.309. <a href="http://extension.colostate.edu/topic-areas/agriculture/managing-spring-planted-cover-crops-for-livestock-grazing-under-dryland-conditions-in-the-high-plains-region-0-309/">http://extension.colostate.edu/topic-areas/agriculture/managing-spring-planted-cover-crops-for-livestock-grazing-under-dryland-conditions-in-the-high-plains-region-0-309/</a>
- 21. Holman, J. D., A. Obour, A. Esser, J. Lingenfelser, S. Maxwell, T. Roberts, and G.F. Sassenrath. 2018. 2017 Kansas Summer Annual Forage Hay and Silage Variety Trial. *Kansas Agricultural Experiment Station Research Reports*: Vol. 4: Iss. 4. https://doi.org/10.4148/2378-5977.7580.
- 22. Holman, J. D., **A. Obour**, A. Schlegel, T. Roberts, and S. Maxwell. 2018. Determining profitable forage rotations. *Kansas Agricultural Experiment Station Research Reports*: Vol. 4: Iss. 8. <a href="https://doi.org/10.4148/2378-5977.7623">https://doi.org/10.4148/2378-5977.7623</a>.
- 23. Holman, J. D., **A. Obour**, A. Schlegel, T. Roberts, and S. Maxwell. 2018. Estimating annual forage yields with plant available water and growing season precipitation. *Kansas Agricultural Experiment Station Research Reports*: Vol. 4: Iss. 8. <a href="https://doi.org/10.4148/2378-5977.7624">https://doi.org/10.4148/2378-5977.7624</a>.
- 24. Holman, J. D., **A. Obour**, T. Roberts, and S. Maxwell. 2018. Integrated grain and forage rotations. *Kansas Agricultural Experiment Station Research Reports*: Vol. 4: Iss. 8. <a href="https://doi.org/10.4148/2378-5977.7625">https://doi.org/10.4148/2378-5977.7625</a>.
- 25. Holman, J., **A. Obour**, T. Roberts, and S. Maxwell. 2018. Effects of fallow replacement crops on wheat and grain sorghum yields. *Kansas Agricultural Experiment Station Research Reports*: Vol. 4: Iss. 8. <a href="https://doi.org/10.4148/2378-5977.7627">https://doi.org/10.4148/2378-5977.7627</a>.
- 26. Holman, J. D., **A. Obour**, T. Roberts, and S. Maxwell. 2018. Forage type and maturity effects on yield and nutritive value. *Kansas Agricultural Experiment Station Research Reports*: Vol. 4: Iss. 8. <a href="https://doi.org/10.4148/2378-5977.7636">https://doi.org/10.4148/2378-5977.7636</a>.
- 27. **Obour, A.K**., J. D. Holman, and D.B. Mengel. 2018. Nitrogen application effects on forage sorghum biomass production and nitrates. *Kansas Agricultural Experiment Station Research Reports*: Vol. 4: Iss. 5. <a href="https://doi.org/10.4148/2378-5977.7586">https://doi.org/10.4148/2378-5977.7586</a>.
- 28. Holman, J. D.; Cramer, G.; Esser, A.; Lingenfelser, Jane; Maxwell, S.; Moyer, J. L.; Obour, A.; and Roberts, T. (2017) "Forage Report 2016," *Kansas Agricultural Experiment Station Research Reports*: Vol. 3: Iss. 5. <a href="https://doi.org/10.4148/2378-5977.7398">https://doi.org/10.4148/2378-5977.7398</a>.
- 29. **Obour, A.K.**; J.D. Holman, and A. Schlegel. 2018. Seeding rate and nitrogen application effects on spring oat and triticale forage. *Kansas Agricultural Experiment Station Research Reports*: Vol. 4: Iss. 5. <a href="https://doi.org/10.4148/2378-5977.7587">https://doi.org/10.4148/2378-5977.7587</a>.

- 30. Holman, J. D., **A. Obour**, I. Kisekka, T. Roberts, and S. Maxwell. 2017. Determining profitable annual forage rotations. *Kansas Agricultural Experiment Station Research Reports*: Vol. 3: Iss. 5. https://doi.org/10.4148/2378-5977.7386.
- 31. Holman, J. D., **A. Obour**, T. Roberts, and S. Maxwell. 2017. Integrated grain and forage rotations. *Kansas Agricultural Experiment Station Research Reports:* Vol. 3: Iss. 5. <a href="https://doi.org/10.4148/2378-5977.7387">https://doi.org/10.4148/2378-5977.7387</a>
- 32. Holman, J. D.; **A. Obour**, I. Kisekka, A. Schlegel, T. Roberts, and S. Maxwell. 2017. Estimating annual forage yields with plant available water and growing season precipitation. *Kansas Agricultural Experiment Station Research Reports*: Vol. 3: Iss. 5. https://doi.org/10.4148/2378-5977.7388.
- **33.** Obeng, E\*., **A.K. Obour**, N.O. Nelson, I.A. Ciampitti, W. Donghai, and E.A. Santos. 2017. Cropping sequence influenced crop yield, soil water content, residue return, and CO<sub>2</sub> efflux in wheat-camelina cropping system. *Kansas Agricultural Experiment Station Research Reports*: Vol. 3: Iss. 6. <a href="https://doi.org/10.4148/2378-5977.7429">https://doi.org/10.4148/2378-5977.7429</a>
- 34. **Obour, A.K**. 2017. Agricultural bio-stimulant application to enhance phosphorus availability in grain sorghum. Kansas Agricultural Experiment Station Research Reports: Vol. 3: Iss. 3. <a href="https://doi.org/10.4148/2378-5977.1393">https://doi.org/10.4148/2378-5977.1393</a>.
- 35. **Obour, A.K**. and J.D. Holman. 2017. Long-term tillage and nitrogen fertilization effects on soil surface chemistry. Kansas Agricultural Experiment Station Research Reports: Vol. 3: Iss. 3. https://doi.org/10.4148/2378-5977.1394.
- 36. Serba, D. D. and **A.K. Obour**. 2017. Nitrogen and phosphorus application effects on pearl millet forage yield and nutritive value. Kansas Agricultural Experiment Station Research Reports: Vol. 3: Iss. 3. <a href="https://doi.org/10.4148/2378-5977.1392">https://doi.org/10.4148/2378-5977.1392</a>.
- 37. Obeng, E.\*, A. **Obour**, and N. O. Nelson. 2016. Nitrogen and sulfur fertilization effects on camelina sativa in west central Kansas, *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 6. <a href="http://dx.doi.org/10.4148/2378-5977.1235">http://dx.doi.org/10.4148/2378-5977.1235</a>.
- 38. Obeng, E.\*, A. **Obour,** and N.O. Nelson. 2016. Seeding date effects on camelina seed yield and quality traits," *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 5. http://dx.doi.org/10.4148/2378-5977.1228.
- 39. Holman, J. D., A. **Obour,** T. Roberts, S. Maxwell, and J. Kimzey. 2016. 2015 Kansas spring annual forage variety trial," *Kansas Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 7. <a href="http://dx.doi.org/10.4148/2378-5977.1248">http://dx.doi.org/10.4148/2378-5977.1248</a>.
- 40. Holman, J. D., T. Roberts, S. Maxwell, I. Kisekka, and **A. Obour**. 2015. Fallow replacement crop (cover crops, annual forages, and short-season grain crops) effects on available soil water. Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 5. <a href="http://newprairiepress.org/kaesrr/vol1/iss5/3/">http://newprairiepress.org/kaesrr/vol1/iss5/3/</a>.
- 41. Obeng, E.\*, and **A. Obour**. 2015. Seeding date effects on camelina seed yield and quality traits. Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 2. <a href="http://newprairiepress.org/kaesrr/vol1/iss2/11/">http://newprairiepress.org/kaesrr/vol1/iss2/11/</a>.
- 42. **Obour, A.**, A. Schlegel, R. Perumal, and D. Ruiz Diaz. 2016. Evaluating the effectiveness of iron chelates in managing iron deficiency chlorosis in grain sorghum," Kansas *Agricultural Experiment Station Research Reports*: Vol. 2: Iss. 6. <a href="http://dx.doi.org/10.4148/2378-5977.1236">http://dx.doi.org/10.4148/2378-5977.1236</a>.
- 43. Obeng, E.\*, and **A. Obour**. 2015. Nitrogen and sulfur fertilization effects on *Camelina* sativa in west central Kansas. Kansas Agricultural Experiment Station Research Reports:

- Vol. 1: Iss. 3. <a href="http://newprairiepress.org/kaesrr/vol1/iss3/9/">http://newprairiepress.org/kaesrr/vol1/iss3/9/</a>.
- 44. **Obour, A.**, and R. Perumal. 2015. Evaluating the effectiveness of iron chelates in managing iron deficiency chlorosis in grain sorghum. Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 3. <a href="http://newprairiepress.org/kaesrr/vol1/iss3/8/">http://newprairiepress.org/kaesrr/vol1/iss3/8/</a>.
- 45. **Obour**, **A**., E. Obeng\*, and J.D. Holman. 2015. Influence of different seeding dates on Fenugreek (*Trigonella foenum-graecum* L.) forage yield and nutrient value. Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 2. <a href="http://newprairiepress.org/kaesrr/vol1/iss2/12/">http://newprairiepress.org/kaesrr/vol1/iss2/12/</a>.
- 46. **Obour, A.K.,** and T. Foulke. 2013. Optimizing camelina production for fallow replacement in dryland cropping systems. Agricultural Experiment Station 2013 Field Days Bulletin, University of Wyoming, Laramie, WY.
- 47. **Obour, A.K.,** J.J. Nachtman and R. Baumgartner. 2013. Micronutrient fertilization of edible dry beans and sugar beet in calcareous soils of Wyoming. Agricultural Experiment Station 2013 Field Days Bulletin, University of Wyoming, Laramie, WY.
- 48. **Obour, A.K.,** J.M. Krall and J.J. Nachtman. 2012. Influence of nitrogen and phosphorus fertilization on dryland *camelina sativa* seed yield and oil content. Agricultural Experiment Station 2012 Field Days Bulletin, University of Wyoming, Laramie, WY.
- 49. **Obour, A.K.**, J.J. Nachtman, and R. Baumgartner. 2012. Micronutrient fertilization of edible dry beans and sugarbeet in calcareous soils of Wyoming. Agricultural Experiment Station 2012 Field Days Bulletin, University of Wyoming, Laramie, WY.
- 50. **Obour, A.K.,** and J.J. Nachtman. 2012. Composted cattle manure and inorganic nitrogen fertilization effects on bell pepper yield. Agricultural Experiment Station 2012 Field Days Bulletin, University of Wyoming, Laramie, WY.
- 51. **Obour, A.K.,** and J.J. Nachtman. 2012. Getting the most vegetables per acre, ensuring continuing soil quality requires integrated nutrient management approach. 2012 Reflections Magazine. Pg. 15-19.
- 52. **Obour, A.K.**, R.N. Gallaher, and B.Y. Bracho. 2007. The effect of cowpea mulch on sweet corn production in north central Florida. Agronomy Research Report AY-07-01. Agronomy Dept., IFAS, Univ. of Florida, Gainesville, FL 32611.

### **Published Abstracts & Presentations**

- 1. Effertz, N.I., V. Kumar, Anita Dille, and A. Obour. 2020. Cover crop termination interacts with residual herbicides for palmer amaranth control in no-till soybean. North Central Weed Science Society Virtual Meeting, Nov. 30 –Dec. 3, 2020.
- 2. Obour, A.K., J.D. Holman, L. M. Simon and S. Johnson. 2020. Dual use of cover crops for forage and soil health in dryland systems. ASA-CSSA-SSSA International Annual Meeting, Virtual, Nov. 9-13, 2020. In ASA-CSSA-SSSA Abstracts 2020 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 3. Simon, M. L., A. K. Obour, J. D. Holman, K. L. Roozeboom. 2020. Dual-purpose cover crops for soil health and forage production in the semiarid central Great Plains. ASA-CSSA-SSSA International Annual Meeting, Virtual, Nov. 9-13, 2020. In ASA-CSSA-SSSA Abstracts 2020 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.

- 4. Holman, J.D., and **A. K Obour**, 2019. Cover crop use in a semi-arid wheat-sorghum-fallow cropping system. *ASA-CSSA International Annual Meeting*, San Antonio, TX, Nov. 10-13, 2019. *In* ASA-CSSA-SSSA Abstracts 2019 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 5. Mikha, M.M., A.K. Obour, K. Vipan, and P.W. Stahlman. 2019. Management practices influenced soil chemical properties and grain yield of eroded cropland. ASA-CSSA International Annual Meeting, San Antonio, TX, Nov. 10-13, 2019. In ASA-CSSA-SSSA Abstracts 2019 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 6. Obour, A.K., J.D. Holman, and A.J. Schlegel. 2019. Strategic tillage effects on crop yield and soil properties in dryland no-tillage. ASA-CSSA International Annual Meeting, San Antonio, TX, Nov. 10-13, 2019. In ASA-CSSA-SSSA Abstracts 2019 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 7. Simon, L., A.K. Obour, J.D. Holman, K.L. Rooseboom. 2019. Long-term cover crop effects on soil organic carbon, nitrogen stocks, and water stable aggregates in the semiarid central Great Plains. ASA-CSSA International Annual Meeting, San Antonio, TX, Nov. 10-13, 2019. In ASA-CSSA-SSSA Abstracts 2019 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 8. Sarto, M.V.M., C.A.B. Pires, C.W. Rice, and **A.K. Obour**. 2019. Soil microbial community composition after 53-years of tillage and nitrogen fertilization in the central Great Plains. *ASA-CSSA International Annual Meeting*, San Antonio, TX, Nov. 10-13, 2019. *In* ASA-CSSA-SSSA Abstracts 2019 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 9. De Jesus, D.M., **A.K. Obour**, V. Acosta-Martinez, J. Holman, and M. Vandeveer. 2019. Soil microbial community response to long-term cover crop use in dryland systems of the central Great Plains. *ASA-CSSA International Annual Meeting*, San Antonio, TX, Nov. 10-13, 2019. *In* ASA-CSSA-SSSA Abstracts 2019 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 10. Holman, J., A. Obour, A. Schlegel. S. Maxwell, and T. Roberts, 2018. Developing profitable annual forage rotations for the semi-arid high plains. ASA-CSSA International Annual Meeting, Baltimore, MD, Nov. 4-7, 2018. In ASA-CSSA-SSSA Abstracts 2018 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 11. Obour, A.K., J.D. Holman, J. Dille, and V. Kumar. 2018. Forage production and weed suppression potential of cover crops in semiarid central Great Plains. ASA-CSSA International Annual Meeting, Baltimore, MD, Nov. 4-7, 2018. In ASA-CSSA-SSSA Abstracts 2018 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 12. Obour, A.K., and J.D Holman. 2018. Forage production potential of cover crops in the USA semiarid Great Plains. 3rd International Conference on Drylands, Sept.24-28, 2018, Kano, Nigeria. Program of Events and Book of Abstracts page # 60.
- 13. Schipanski, M. K. Caswell, C. Kelly, A. Moore, J. Brummer, S. Fonte, L. Haag, S. Johnson,

- J. Holman, R. Meyer, A. Obour, W. Trujillo, S. Ward. 2018. Evaluating grazed crop crops for soil health and profitability in dryland cropping systems of the semi-arid High Plains. Soil and Water Conservation Society, Albuquerque, NM, July 29-31, 2018.
- 14. **Obour, A.K**. Managing iron deficiency chlorosis in grain sorghum. Kansas Agribusiness Retailers Association Crop Production Update, December 5, 2018. Hays, KS.
- 15. Obour, A.K. and J.D. Holman. Cover crop impact on soil water and infiltration. Soil Health Coalition Phase2, July 18-19, Manhattan, KS.
- 16. Obour, A., and J. Holman. Utilizing cover crops for forage in dryland cereal-based systems in the central Great Plains. Ogallala Aquifer Program Workshop, March 27-29, 2018, Lubbock, TX.
- 17. **Obour, A.**, J. Holman, and A. Schlegel. Strategic tillage to improve crop yields and profitability in dryland no-tillage cropping systems. Ogallala Aquifer Program Workshop, March 27-29, 2018, Lubbock, TX.
- 18. Holman, J.D, A.K. Obour, 2017. Can Cover (or Forage) Crops replace fallow in the semiarid central Great Plains? *ASA-CSSA-SSSA International Annual Meeting*, Tampa, FL, Oct. 22-25, 2017. *In* ASA-CSSA-SSSA Abstracts 2013 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 19. Obour, A.K., J.D. Holman, and D.B. Mengel. 2017. Nitrogen application effects on forage sorghum dry matter production and nitrate concentration. *ASA-CSSA-SSSA International Annual Meeting*, Tampa, FL, Oct. 22-25, 2017. *In* ASA-CSSA-SSSA Abstracts 2013 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 20. **Obour, A.K.**, and J.D. Holman. 2016. Cover crop management options for dryland crop productions systems in the central Great Plains. ASA-CSSA-SSSA International Annual Meeting, Nov. 6-9, 2016. Phoenix, AZ. *In* ASA-CSSA-SSSA Abstracts 2015 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 21. Obeng, E.\*, **A. K Obour**, N. O. Nelson, I. A. Ciampitti, and D. Wang. 2016. Soil Water Content, CO2 Flux, and Crop Yields in Wheat-Camelina Cropping System. ASA-CSSA-SSSA International Annual Meeting, Nov. 6-9, 2016. Phoenix, AZ. *In* ASA-CSSA-SSSA Abstracts 2015 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 22. Holman, J. D., T. Roberts, S. Maxwell, I. Kisekka, and **A. K Obour**. 2016. Determining profitable annual forage rotations. ASA-CSSA-SSSA International Annual Meeting, Nov. 6-9, 2016. Phoenix, AZ. *In* ASA-CSSA-SSSA Abstracts 2015 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 23. **Obour, A.K.**, 2016. Sustainable soil management in agricultural production systems. Kansas

- Geographic Alliance, June 8, 2016. Hays, KS.
- 24. **Obour**, **A.K**. 2016. Changes in soil pH after 50-yr of tillage and nitrogen fertilization. Tear Down the Walls Annual Meeting, Aug. 16-17, 2016. Hays, KS.
- 25. **Obour, A.K.**, J. Holman, and I. Kisekka. 2016. Utilizing cover crops for forage in dryland cereal-based systems in the central Great Plains. 2016 Ogallala Aquifer Program Workshop. March 9-10, Amarillo, TX.
- 26. **Obour, A.K**. 2016. Managing iron deficiency chlorosis in grain sorghum. 2016 Sorghum School, Feb. 2, 2016. Scott City, KS.
- 27. **Obour**, **A.K**. 2016. Fenugreek and Sainfoin as non-traditional forage Crops. 2016 SW Kansas Forage Conference, Feb. 17, 2016, Garden City, KS.
- 28. **Obour, A.K**. 2016. Managing iron deficiency chlorosis in grain sorghum on high pH soils. Center for Sorghum Improvement Seminar, Feb. 8, 2016. Throckmorton Plant Sciences Center, Manhattan, KS.
- 29. **Obour, A.K.** 2015. Research update on managing iron chlorosis in grain sorghum & pH issues in long-term no-till systems. Northwest Area Agronomy Update, Dec. 15, 2015. Hays, KS.
- 30. Obeng, E.\*, **A.K. Obour**, N.O. Nelson, and A.I. Ciampitti. 2015. Performance of camelina (*Camelina sativa* L. Crantz) under semiarid conditions in central Great Plains, USA. ASA-CSSA-SSSA International Annual Meeting, Nov. 15-18, 2015. Minneapolis, MN. *In* ASA-CSSA-SSSA Abstracts 2015 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 31. Obeng, E.\*, **A.K. Obour**, and R. Perumal. 2015. Evaluating the effectiveness of iron chelates in managing iron deficiency chlorosis in grain sorghum. Sorghum Improvement Conference of North America. Sep. 1-3, 2015. Manhattan, KS.
- 32. **Obour, A.K.**, and J.D. Holman. 2015. Can grazing/haying cover crops enhance adoption in the central Great Plains? Tear Down the Walls Annual Meeting, Aug. 12-13, 2015. Akron, CO.
- 33. **Obour, A.K.**, E. Obeng\* and J.D. Holman. 2015. Influence of different seeding dates on fenugreek (*Trigonella foenum-graecum* L.) forage yield and nutrient value. ASA-CSSA-SSSA International Annual Meeting, Nov. 15-18, 2015. Minneapolis, MN. *In* ASA-CSSA-SSSA Abstracts 2015 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 34. **Obour, A.K.**, J.D. Holman, and P.W. Stahlman. 2015. Soil micronutrients and phosphorus stratification as affected by long-term tillage and nitrogen fertilization. ASA-CSSA-SSSA International Annual Meeting, Nov. 15-18, 2015. Minneapolis, MN. *In* ASA-CSSA-SSSA Abstracts 2015 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 35. **Obour, A.K.**, P.W. Stahlman, and J. D. Holman. 2015. Soil surface chemistry as influenced by long-term glyphosate-resistant corn and soybean production in the central Great Plains.

- ASA-CSSA-SSSA International Annual Meeting, Nov. 15-18, 2015. Minneapolis, MN. *In* ASA-CSSA-SSSA Abstracts 2015 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 36. Sintim, H.Y.\*, V.D. Jeliazkov, **A.K. Obour**, and A.G. Garcia. 2015. Camelina response to harvest times and harvest methods. ASA-CSSA-SSSA International Annual Meeting, Nov. 15-18, 2015. Minneapolis, MN. *In* ASA-CSSA-SSSA Abstracts 2015 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 37. Sintim, H.Y.\*, V.D. Jeliazkov, **A.K. Obour**. 2015. Camelina (*Camelina sativa* Crantz) response to different harvest stages. Pacific Northwest Oilseed & Direct Seeding Conference. Jan. 20-22, 2015. Kennewick, WA.
- 38. **Obour, A.K.**, E. Obeng\*, and P.W. Stahlman. 2014. Soil acidity and nutrient stratification as affected by long-term tillage and nitrogen fertilization. ASA-CSSA-SSSA International Annual Meeting, Nov. 2-5, 2014. Long Beach, CA. *In* ASA-CSSA-SSSA Abstracts 2014 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 39. Sintim, H.Y.\*, V.D. Jeliazkov, **A. K. Obour**, A.G. Garcia, and T.K. Foulke. 2014. Optimizing camelina feedstock production for fallow replacement in wheat-fallow rotation. ASA-CSSA-SSSA International Annual Meeting, Nov. 2-5, 2014. Long Beach, CA. *In* ASA-CSSA-SSSA Abstracts 2014 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 40. Sintim, H.Y.\*, V.D. Jeliazkov, **A.K. Obour**, A.G. Garcia, and T.K. Foulke. 2014. Camelina as an alternative crop in wheat-fallow rotation. ASA-CSSA-SSSA International Annual Meeting, Nov. 2-5, 2014. Long Beach, CA. *In* ASA-CSSA-SSSA Abstracts 2014 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 41. **Obour**, **A.K.** 2013. Optimizing camelina production for dryland cropping systems. Tear Down the Walls Annual Meeting, Aug.14-15, 2013. Colby, KS.
  - **Obour, A.K.,** J.J. Nachtman, and R.E. Baumgartner. 2013. Planting method and seeding date affects winter camelina establishment and yield. *ASA-CSSA-SSSA International Annual Meeting*, Tampa, FL, Nov. 3-6, 2013. *In* ASA-CSSA-SSSA Abstracts 2013 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 42. **Obour A.K.,** J.M. Krall and J.J. Nachtman. 2012. Influence of nitrogen and phosphorus application on dryland *camelina sativa* seed yield. *ASA-CSSA-SSSA International Annual Meeting*, Cincinnati, OH, Oct. 21-24, 2012. *In* ASA-CSSA-SSSA Abstracts 2013 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 43. **Obour, A.K.**, M.L. Silveira, J.M.B. Vendramini, L.E. Sollenberger, and G.A. O'Connor. 2009. Predicting bahiagrass response to phosphorus fertilization using tissue phosphorus concentration. *Soil Crop Sci. Soc. Fl. Annual Meeting*, Jacksonville, FL, June 7-9, 2009.
- 44. **Obour, A.K.,** M.L. Silveira, J.M.B. Vendramini, L.E. Sollenberger, G.A. O'Connor, and J. Jawitz, 2009. Fluctuating water table effects on phosphorus release and losses from a Florida spodosol. *ASA-CSSA-SSSA International Annual Meeting*, Pittsburgh,

- PA, Nov.1-5, 2009. *In* ASA-CSSA-SSSA Abstracts 2013 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 45. **Obour, A.K.**, Adjei, M.B., M.L. Silveira, R.N. Gallaher, and J.E. Rechcigl. 2007. Effects of cattle manure application on bahiagrass yield and phosphorus leaching on a Florida spodosol. *ASA-CSSA-SSSA International Annual Meeting*, New Orleans, LA, Nov. 4-8, 2007. *In* ASA-CSSA-SSSA Abstracts 2007 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.
- 46. **Obour, A.K.**, M.B. Adjei, M.L. Silveira, E. Valencia, and J.E. Rechcigl, J.E. 2007. Bahiagrass yield, nutritive value and phosphorus uptake as influenced by cattle manure application rate and strategy. *Soil and Crop Science Society of Florida Annual Meeting*, West Palm Beach, FL, June 3-5, 2007.
- 47. Akromah, R., S.Y.C. Essah and **A.K. Obour**. 2005. Reaction of local and improved cassava germplasm to the African cassava mosaic virus disease in the humid tropics of Ghana. *ASA-CSSA-SSSA International Annual Meeting*, Salt Lake City, UT, Nov. 6-10, 2005. *In* ASA-CSSA-SSSA Abstracts 2013 [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI.

# **Graduate Mentoring & Training**

| Student Name  | Degree | Major and        | Advising Role    | Status         |
|---------------|--------|------------------|------------------|----------------|
|               |        | Institution      |                  |                |
| Logan Simon   | Ph.D   | Agronomy- Kansas | co-major advisor | 2020-present   |
|               |        | State University |                  |                |
| Isaac Effertz | MS     | Agronomy- Kansas | Committee        | 2019-present   |
|               |        | State University | member           |                |
| Ally Jones    | MS     | Agronomy- Kansas | Committee        | 2019-present   |
|               |        | State University | member           |                |
| Logan Simon   | MS     | Agronomy- Kansas | co-major advisor | Graduated May  |
|               |        | State University |                  | 2021           |
| Mosaed        | Ph.D.  | Agronomy- Kansas | co-major advisor | Graduated      |
| Majrashi      |        | State University |                  | December, 2020 |
| Eric Obeng    | Ph.D.  | Agronomy- Kansas | co-major advisor | Graduated May  |
|               |        | State University |                  | 2018           |
| Henry Sintim  | MS     | Agronomy-        | co-major advisor | Graduated      |
|               |        | University of    |                  | December 2014  |
|               |        | Wyoming          |                  |                |

#### **Grants**

1. Stewart P. Zachary, A. K. Obour, A. Faye, D. Min, Y. Zereyesus, M. M. Diangar, and B. M. Dieye. Sustainable intensification of dual-purpose cowpea varieties for enhanced food

- and fodder in Senegal (2019-2023). USAID Feed the Future Innovation Lab for Legume Systems Research. \$401,366
- 2. **Obour, A.K.**, J.D. Holman, V. Kumar, and M. Vandeveer. Developing best management practices (BMPS) for cover crops to improve soil health in dryland systems in western Kansas (2019-2023). USDA-NRCS. \$75,456
- 3. **Obour, A.K**. FARMS: Farmers for Advancing Regenerative Management Systems (2019-2023). Sub-award with Colorado Conservation Tillage Association, USDA-NRCS \$127,550.
- 4. Holman, J., **A.K. Obour**, M.J. Stamm, and Monte Vandeveer. Establish management guidelines for effective use of cover crops to improve water storage, water use efficiency; soil health and land productivity in water-limited environments in KS (2018-2021). USDANRCS. \$ 75,000
- 5. Obour, A.K. 2019. Spring camelina variety trials. Entira, Inc. \$10,474
- 6. Obour, A.K. 2019. Summer Forage Variety trials. Multiple Seed Companies. \$7,906.
- 7. Obour, A.K., J.D. Holman, V. Kumar, J. Jaeger, S. Johnson, and M. Vandeveer (2018-2021). Cover crop management options to improve weed control, crop yield and soil health. NCR-SARE Research & Education grant program. \$199,820.
- 8. Obour, A.K., J.D. Holman, M. Vandeveer, L. Slaughter, and V. Acosta-Martinez (2019-2020). Evaluating economic and soil health benefits of cover crop and forages in dryland cropping systems in the central Great Plains. USDA-ARS Ogallala Program. \$79,894.
- 9. Roozeboom, K., Z. Stewart, I. Ciampitti, **A. Obour**, J. Holman, and L. Haag (2018-2021). Sustainable field pea cropping systems for the Great Plains. USDA-ARS. \$258,339.
- 10. Obour, A.K. 2018 Summer Forage Variety trials. Multiple Seed Companies. \$7,906.
- 11. **Obour**, **A.K**., J. Holman, A.J. Foster (2017 to 2020). Cover crops to increase water infiltration in dryland and irrigated systems in western Kansas, USDA-NRCS SDA-Conservation Innovation Grant, \$49.933.
- 12. Holman, J, A.K. Obour, S. Johnson, and M. Vandeerver. Integrating livestock into traditional wheat-sorghum-fallow rotations, Ogallala Aquifer Program, \$65,602.
- 13. Obour, A.K, J. Holman, and A. Schlegel (2016 to 2020). Strategic tillage to improve crop yields and profitability in dryland no-tillage cropping systems, Ogallala Aquifer Program, \$59,070.
- 14. Holman, J. A.K. Obour, J. Jaeger, and K. Harmoney (2016 to 2020). Flex grazing and having of annual forage in place of fallow, Ogallala Aquifer Program, \$48,458.
- 15. Holman, J. A.K. Obour, J. Jaeger, K. Harmoney, S. Johnson, and L. Haag (2016 to 2018). Demonstrating the potential of cover crop and forage mixtures to improve soil quality, productivity, and profitability in water-limited regions, USDA-NRCS Conservation Innovation Grant; \$269, 999.
- 16. Obour, A.K (2016 to 2017). Biostimulants to improve P fertilizer efficiency, Ag Concepts; \$8,500.
- 17. Obour, A.K., and G. Zhang (2015 to 2016). Improving wheat production in dryland cropping systems: role of tillage, varietal selection and nitrogen fertilization, Kansas Wheat Commission; \$24,420.
- 18. Obour, A.K., A.J. Schlegel, D.A. Ruiz Diaz, and R. Perumal (2015 to 2016). Evaluating nitrogen and iron use efficiency in advanced sorghum lines, Kansas Grain Sorghum Commission; \$32,420.
- 19. Obour, A.K. (2014 to 2016). Managing Fe deficiency in sorghum, West Central, Inc.

- \$14,260.
- 20. Sun, S., D. Wang, S. Chang, A.K. Obour, C. Chen, A. Bekkerman, T. Foulke, J. McLaren, D. Yang, and G. Iverson (2012 to 2016). Enhancing the economic viability of camelina as a bio-feedstock: optimization and demonstration of the production system and bioproduct development, USDA-NIFA; \$4,708,207.
- 21. Obour, A.K., R. Perumal, and P.V. Prasad (2013 to 2014). Evaluating nitrogen and iron use efficiency in advanced sorghum lines, Kansas Grain Sorghum Commission; \$37,200.
- 22. Obour, A.K., and J. Holman (2014 to 2015). Fenugreek as an alternative forage crop for western Kansas, Kansas Center for Sustainable Agriculture and Alternative Crops; \$4,992.
- 23. Obour, A.K., and G. Zhang (2014 to 2015). Improving wheat production in dryland cropping systems: role of tillage, varietal selection and nitrogen fertilization, Kansas Wheat Commission; \$16,420.
- 24. Obeng, E and A.K. Obour (2014 to 2016). Evaluating camelina sativa as a fallow replacement crop in wheat production systems, USDA-North Central SARE Graduate Student Grant; \$10,000
- 25. Obour, A.K., J. Holman, and I. Kisekke (2015 to 2017). Potential of cover crops to diversify dryland crop production in the Central Great Plains, USDA Ogallala Aquifer Program; \$70,000.
- 26. Kisekka, I., J. Bordovsky, J. Holman, A.K. Obour, J. Aguilar, B. Golden and J. Waggoner (2015 to 2017). Forage sorghum as an alternative crop for water limited cropping systems, USDA Ogallala Aquifer Program; \$66,596.
- 27. Obour, A.K., A.J. Schlegel, D.A. Ruiz Diaz, and R. Perumal (2014 to 2015). Evaluating nitrogen and iron use efficiency in advanced sorghum lines, Kansas Grain Sorghum commission; \$48,620.