

## CURRICULUM VITAE

January 9, 2018

### I. PERSONAL INFORMATION

**Katie Lynn Lewis, Ph.D.**

*Assistant Professor, Soil Chemistry and Fertility  
Texas A&M AgriLife Research and Texas Tech University  
1102 E. FM 1294*

*Lubbock, TX 79403*

*Phone: 806-746-6101*

*E-mail: [katie.lewis@ag.tamu.edu](mailto:katie.lewis@ag.tamu.edu)*

*Appointed Sept. 2, 2014*

### II. EDUCATION

Ph.D., Soil Science, Texas A&M University, College Station, Texas, December 2014.  
Title: *Soil and Plant Responses to Lipid-extracted Algae Soil Amendment*

M.S., Soil Science, Texas A&M University, College Station, Texas, December 2010.  
Title: *Effects of Oilseed Meals on the Germination, Growth, and Survival of Crop and Weed Species*

B.S., Chemistry for Professional Chemists (ACS certified), Sam Houston State University, Huntsville, Texas, May 2008.

### III. PROFESSIONAL EXPERIENCE

#### **Current Position**

**A. Assistant Professor, Soil Chemistry and Fertility, appointed Sept. 2, 2014**

*Joint appointment of 75% at Texas A&M AgriLife Research (Lubbock, TX) and 25% at Texas Tech University (Lubbock, TX).*

**B. Position Description, Expectations, and Effort**

**Texas A&M AgriLife Research**

**Research** - 65% of time

*Develop practical soil fertilization and management strategies that will maintain or enhance the value and quality of soils and optimize production efficiency. Procure contract and grant funding and conduct and publish groundbreaking research independently and as part of a multidisciplinary team.*

**Teaching** - 25% of time

*Develop and sustain a strong graduate training program. Advise students conducting independent research.*

**Service** - 10% of time

*Interact and communicate effectively with producers, industry, students, and other academic audiences through publications, presentations, and Extension programs.*

*Serve on departmental, research station, college, university, and national scientific society committees as requested. Serve as manuscript reviewer for scientific journals.*

**Texas Tech University**

*Teach undergraduate and graduate level soil fertility courses once per year in the fall semester. Advise graduate students.*

**IV. TEACHING**

**A. Courses**

Fall 2017 - Texas Tech University, Plant and Soil Science:

*Soil Fertility and Nutrient Management (undergraduate)*

PSS 4335-001 (35 students, evaluation score of 4.90, 4.33 PSS avg, 4.33 CASNR avg, 4.37 TTU avg)

*Advanced Nutrient Management (graduate)*

PSS 5331-001 (15 students, evaluation score of 4.87, 4.33 PSS avg, 4.33 CASNR avg, 4.37 TTU avg.)

Fall 2016 - Texas Tech University, Plant and Soil Science:

*Soil Fertility and Nutrient Management (undergraduate)*

PSS 4335-001 (9 students, evaluation score of 4.79)

PSS 4335-D01, distance (18 students)

*Advanced Nutrient Management (graduate)*

PSS 5331-001 (10 students, evaluation score of 4.96)

PSS 5331-D01, distance (8 students)

Fall 2015 - Texas Tech University, Plant and Soil Science:

*Soil Fertility and Nutrient Management (undergraduate)*

PSS 4335-001 (15 students, evaluation score of 3.88)

PSS 4335-D01, distance (24 students, evaluation score of 3.96)

*Advanced Nutrient Management (graduate)*

PSS 5331-001 (11 students, evaluation score of 4.67)

PSS 5331-D01, distance (4 students)

Guest lecture for Plant Pathology in PSS Department. Nutrient Management and Plant Diseases. Texas Tech University. Lubbock, TX. Nov. 2017.

Guest lecture for Biofuels and the Environment. Utilizing biofuel byproducts, such as oilseed meal residue and lipid extracted algae, as soil amendments. Texas A&M University. College Station, TX. Nov. 2011.

## B. Graduate Students

Degree	Since Last Promotion		Career	
	Chair or Co-chair	Member	Chair or Co-Chair	Member
M.S.	4	11	4	11
Ph.D.	3	4	3	4

## V. RESEARCH

### A. Program Statement

The goal is to establish a nationally recognized Soil Chemistry and Fertility Program based on innovative research and competitive graduate student training. The Soil Chemistry and Fertility Program conducts research aimed at determining more practical soil fertilization and management strategies that will maintain or enhance the value and quality of soils and optimize nutrient and water use efficiency. Graduate training is a major component of the research and education within this program.

#### a. Objectives:

1. Optimize fertilizer application (quantity and timing) in relation to irrigation capacity so that nutrient use efficiency and yield can be maintained or improved.
2. Evaluate cropping systems of cotton rotated with crops adapted to the Texas Southern High Plains and determine proper management strategies for these systems to enhance soil quality (i.e. C sequestration, water and nutrient holding capacity, aggregation, etc.).
3. Determine the feasibility of utilization of new fertilizer formulations and products, biofuel co-products, and/or soil amendments.

### B. Summary of Grants and Contracts Awarded

### C. Summary of Publications and Scholarly Work

Type	Since hire	Career
Refereed/peer-reviewed	4	7
Editor-reviewed	0	0
Scientific abstracts	38	51
Books	0	0
Chapters in books	1	1
Research agency publ.	3	3
Extension agency publ.	0	0
Popular/industry articles	0	0

#### D. Summary Table of Scientific and Professional Presentations Since Hire

Type	Invited	Volunteer or submitted	Total
International	2	11	13
National	4	8	12
Regional	1	1	2
State	5	0	5
Local	16	0	16

## VI. SERVICE

### A. Extension Seminars

#### a. International

1. **Lewis, K.** 2016. Cotton nutrient management. South African Diplomat Beltwide Tour. October 2016. Lubbock, TX.

#### b. National

1. **Lewis, K.** and J. Moore. 2016. Agricultural Reuse of Treated Produced Water. Governmental Energy-Water Nexus Workgroup Meeting, Whitehouse. August 2016. Washington D.C. (conference call).
2. **Lewis, K.** and J. Moore. 2016. Agricultural Reuse of Treated Produced Water. Ground Water Protection Council – Underground Injection Conference. February 2016. Denver, CO.
3. **Lewis, K.** 2015. Irrigating cotton with desalinated produced water. NSF FEW Workshop. December 2015. Arlington, VA.
4. **Lewis, K.** 2015. Irrigating cotton with desalinated produced water. Baker Institute Workshop. December 2015. Houston, TX.

#### c. Regional

1. **Lewis, K.** 2017. Soil Conservation Practices in Semi-Arid Regions of Texas. Texas/Oklahoma Cotton Physiology Meeting. February 2017. College Station, TX.
2. **Lewis, K.** 2016. Potassium: availability and uptake. Texas/Oklahoma Cotton Physiology Meeting. January 2016. San Angelo, TX. (invited)

#### d. State

1. **Lewis, K.** 2017. Nutrient management for cotton production. Texas Plant Protection Conference. December 2017. College Station, TX.
2. **Lewis, K.** 2017. Soil Health Promoting Practices and Nutrient Management. NRCS Soil Fertility Continuing Education Opportunity. November 2017. Canyon, TX.
3. **Lewis, K.** 2016. Potassium availability and plant uptake. NRCS Soil Fertility Continuing Education Opportunity. November 2016. Plainview, TX.
4. **Lewis, K.** 2015. Impact of cotton cropping systems and management strategies on the productive capacity of soil in the Texas Southern High Plains. International Year of Soil Health Seminar Series, USDA - TTU. October 2015.

5. **Lewis, K.** 2014. Symptomology of row crop nutrient deficiencies. NRCS Soil Fertility Continuing Education Opportunity. November 2014. Plainview, TX.

**e. Local**

1. **Lewis, K.** and W. Keeling. 2017. Soil and nutrient management effects on cotton yield. Dawson County Field Day, AG-CARES farm. September 2017. Lamesa, TX.
2. **Lewis, K.** 2017. Cover crop and soil management practices. West Texas Agricultural Chemical Conference. September 2017. Lubbock, TX.
3. **Lewis, K.** 2017. Phosphorus management in Texas' High Plains. Tri County Crop Tour (Glasscock, Reagan, and Upton Counties). September 2017.
4. **Lewis, K.** 2017. Soil health and nutrient management. High Plains Consultants Conference. March 2017. Lubbock, TX.
5. **Lewis, K.** 2017. Nutrient management in the Southern High Plains. West Central, LLC Agronomy Update. January 2017. Plainview, TX.
6. **Lewis, K.** 2017. Soil health and nutrient management. Caprock Crop Production Conference. January 2017. Plainview, TX.
7. **Lewis, K.** 2016. Nutrient effects on cotton lint quality. AgriLife Quality Cotton Conference. August 2016. Lubbock, TX.
8. **Lewis, K.** and W. Keeling. 2016. Soil management effects on cotton yield. Dawson County Field Day, AG-CARES farm. September 2016. Lamesa, TX.
9. **Lewis, K.** and P. DeLaune. 2016. Soil and nitrogen fertilization management. Rolling Plains Spring Field Day. May 2016. Chillicothe, TX.
10. **Lewis, K.** 2016. Soil nutrient management strategies. Lower Rolling Plains Ag Conference. April 2016. Snyder, TX.
11. **Lewis, K.** 2016. Irrigation water: salinity and nutrients. South Plains Irrigation Conference. April 2016. Brownfield, TX.
12. **Lewis, K.** and J. Moore. 2016. Beneficial reuse of oil and gas produced water. Water Advancement, Technology, Training & Solutions (WATTS) Conference. March 2016. Lubbock, TX.
13. **Lewis, K.** and J. Moore. 2015. Beneficial reuse of oil and gas produced water. Energy Water Solutions – Pecos Field Day. November 2015. Pecos, TX.
14. **Lewis, K.** 2015. Potassium availability and uptake. Texas Ag Industries Association Conference. September 2015. Lubbock, TX.
15. **Lewis, K.** 2015. Soil nutrient management strategies. Lower Rolling Plains Ag Conference. April 2015. Snyder, TX.
16. **Lewis, K.** 2015. Soil fertility in the Texas Southern High Plains. Southern Mesa Agricultural Conference. January 2015. Lamesa, TX.
17. **Lewis, K.** 2014. Soil fertility research update and program introduction. 62<sup>nd</sup> Annual Agricultural Chemicals Conference – WTACI. September 2014. Lubbock, TX.

## **B. Professional improvements and activities**

1. Agronomy, Physiology, and Soil, Beltwide Cotton Conference – Vice Chair (2018 – present)
2. Great Plains Nutrient Management Conference – Southern Region Representative (2017 – present)
3. West Texas Ag Chemical Institute – Vice President (2017 – present)
4. Invited guest at the Lubbock Professional Women’s Group lunch to participate on a panel discussion: “Women in a male dominated field”. September 2017. Lubbock, TX.
5. West Texas Ag Chemical Institute – Secretary (2016 – 2017)
6. Southern Cover Crops Council – Texas representative for Southern Cover Crops Council development (2016 – present)
7. Extension Professional Development – Soil Fertility and Nutrient Management Lectures (2016)
8. Plant and Soil Science Agronomy Club Advisor, Texas Tech University (2015 – present).
9. Leadership Conference – TAMU (College Station, TX). November 2014.

## **C. Committees**

### **a. Professional organization committees**

1. Great Plains Nutrient Management Conference – Organizing Committee (2017 – present)
2. West Texas Ag Chemical Institute – Scholarship committee (2016-2017)

### **b. Departmental and Texas A&M AgriLife Research committees**

1. Faculty Regional Director of the AgriLife Field to Market, FieldPrint Calculator Program (2016-present)
2. Soil Carbon assistant/associate professor, search committee (2017-2018)
3. Soil Chemistry and Fertility assistant/associate professor, search committee (2015-2016)
4. High Plains UAS working group (2015 – present)

### **c. Departmental Texas Tech committees**

1. Plant and Soil Science website development committee (2015 – present)
2. Soil Microbiology assistant/associate professor, search committee (2016)
3. Ecophysiology assistant/associate professor, search committee (2015-2016)
4. Soil and Water Agroecology research assistant professor, search committee (2015)

## **D. Invited reviews**

### **a. Peer-reviewed publications**

1. Peanut Science: 2016
2. Agronomy Journal: 2014, 2015, 2017 (x2)
3. Geoderma: 2015
4. Soil and Water Conservation: 2014 and 2016
5. Applied and Environmental Soil Science: 2012

**b. Peer-review grant proposals**

**c. External promotion review**

**d. Judging Student Competitions**

1. Beltwide Cotton Conference. Ph.D. student poster competition. Agronomy, Physiology, and Soil poster session. January 2017. Dallas, TX.
2. Beltwide Cotton Conference. Ph.D. student oral competition. Agronomy, Physiology, and Soil oral session. January 2017. Dallas, TX.
3. ASA-CSSA-SSSA. Graduate student poster competition. ASA, Soil-Plant-Water-Relations Community. November 2016. Phoenix, AZ.
4. Great Plains Soil Fertility Conference. Graduate student poster competition. March 2016. Denver, CO.

**E. Professional organization leadership roles**

1. Beltwide Cotton Conference. Moderator for Agronomy, Physiology, and Soil session. January 2018. San Antonio, TX.
2. ASA-CSSA-SSSA. Moderator for ASA session. October 2017. Tampa, FL.
3. Beltwide Cotton Conference. Moderator for Agronomy, Physiology, and Soil session. January 2017. Dallas, TX.
4. Beltwide Cotton Conference. Moderator for Soil Management and Plant Nutrition session. January 2016. New Orleans, LA.

**F. Professional affiliations**

1. High Plains Association of Crop Consultants (2015 – present)
2. Texas Ag Industries Association (2015 – present)
3. Soil Science Society of America (2008 – present)
4. American Society of Agronomy (2008 – present)
5. Crop Science Society of America (2008 – present)

**G. Community Service**

1. Mentor to Whiteface I.S.D. 6<sup>th</sup> grade science fair team. Soil health evaluation – laboratory experiments. Placed at National Competition (2016 – 2017)

**VII. PUBLICATIONS AND PROFESSIONAL OUTPUT**

**A. Refereed/Peer-Reviewed Publications**

1. Schaefer, C. G. Ritchie, **K.L. Lewis**, and J. Bordovsky. 2017. Irrigation Timing and Rate on Cotton Boll Production. *Agronomy Journal*. (accepted – under revision)
2. **Lewis, K.L.**, J.L. Foster, F.M. Hons, and T. Boutton. 2017. Initial aggregate formation and soil carbon storage from lipid-extracted algae amendment. *AIMS Environmental Science*, 4(6): 743-762. DOI: 10.3934/environsci.2017.6.743

3. Bordovsky, J., J.T. Mustian, G.L. Ritchie, and **K.L Lewis**. 2015. Cotton Irrigation Timing with Variable Seasonal Irrigation Capacities in the Texas South Plains. *American Society of Agricultural and Biological Engineers*, 31(6): 883-897.
4. **Rothlisberger-Lewis, K. L.**, J.L. Foster, and F.M. Hons. 2015. Soil carbon and nitrogen dynamics as affected by lipid-extracted algae application. *Geoderma*, 262: 140-146.
5. **Rothlisberger, K.L.**, F.M. Hons, T.J. Gentry, and S.A. Senseman. 2012. Oilseed meal effects on the emergence and survival of crop and weed species. *Applied and Environmental Soil Science*, Article ID 769357, 10 pages.
6. Wang, A.S., P. Hu, E.B. Hollister, **K.L. Rothlisberger**, A. Somenahally, T.L. Provin, F.M. Hons, and T. J. Gentry. 2012. Impact of Indian Mustard (*Brassica juncea*) and Flax (*Linum usitatissimum*) seed meal applications on soil carbon, nitrogen, and microbial dynamics. *Applied and Environmental Soil Science*, Article ID 351609, 14 pages.
7. Hu, P., A.S. Wang, A.S. Engledow, E.B. Hollister, **K.L. Rothlisberger**, J.E. Matocha, D.A. Zuberer, T.L. Provin, F.M. Hons, and T. J. Gentry. 2011. Inhibition of the germination and growth of *Phymatotrichopsis omnivora* (Cotton Root Rot) by oilseed meals and isothiocyanates. *Applied Soil Ecology*, 49: 68-75.

#### **B. Book Chapters**

1. **Lewis, K.L.**, P.B. DeLaune, and W. Keeling. 2016. Securing our soil in intensive monoculture cropping systems. In: D.J. Field, C.L. Morgan, and A.B. McBratney (Eds.), *Global Soil Security*. Springer International Publishing, Switzerland. p. 145-151.

#### **C. Research Agency Publications**

1. **Lewis, K.**, G. Morgan, and D. Kelley. 2017. Evaluation of cotton yield, quality, and plant growth response to soil-applied potassium. In: 2016 Annual Report, Agricultural Complex for Advanced Research and Extension Service (AG-CARES), Technical Report 16-2. Texas A&M AgriLife Research and Extension Service, Lubbock, TX. p. 38-40.
2. **Lewis, K.**, P. DeLaune, W. Keeling, D. Kelley, and J. Burke. 2017. Demonstrating soil health promoting practices to increase water holding capacity and yield in deficit-irrigation agriculture. In: 2016 Annual Report, Agricultural Complex for Advanced Research and Extension Service (AG-CARES), Technical Report 16-2. Texas A&M AgriLife Research and Extension Service, Lubbock, TX. p. 32-37.



3. **Lewis, K.**, D. Kelley, J. Burke, and J. Bordovsky. 2017. Effects of Crop Rotation, Tillage, and Irrigation on Soil Aggregate Distribution. In: 2016 Helm Research Farm Summary Report, Technical Report 16-3. Texas A&M AgriLife Research, Lubbock, TX. p. 15.
4. **Lewis, K.**, G. Morgan, and D. Kelley. 2016. Evaluation of cotton yield, quality, and plant growth response to soil-applied potassium. In: 2015 Annual Report, Agricultural Complex for Advanced Research and Extension Service (AG-CARES), Technical Report 16-2. Texas A&M AgriLife Research and Extension Service, Lubbock, TX. p. 26-31.
5. **Lewis, K.**, P. DeLaune, W. Keeling, D. Kelley, and J. Foster. 2016. Demonstrating soil heath promoting practices to increase water holding capacity and yield in deficit-irrigation agriculture. In: 2015 Annual Report, Agricultural Complex for Advanced Research and Extension Service (AG-CARES), Technical Report 16-2. Texas A&M AgriLife Research and Extension Service, Lubbock, TX. p. 32-35.
6. **Lewis, K.**, D. Kelley, J. Burke, and J. Bordovsky. 2016. Effects of Crop Rotation, Tillage, and Irrigation on Soil Aggregate Distribution. In: 2015 Helm Research Farm Summary Report, Technical Report 16-3. Texas A&M AgriLife Research, Lubbock, TX. p. 6.

#### **D. Scientific Abstracts**

1. Bumguardner, A.R., **K.L. Lewis**, S.A. Byrd, G.D. Morgan, G.L. Ritchie, R.L. Nichols, D.B. Kelley. 2017. Soil potassium effects on cotton growth, yield, and quality in the Texas High Plains. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL. (poster competition)
2. Burke, J.A., **K.L. Lewis**, C.D.R. White, J.W. Keeling, and P.B. DeLaune. 2017. Temporal variability of soil C in semi-arid soil on the Texas High Plains. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL. First place oral presentation. (oral competition)
3. **Kusi, N.Y.O.**, K.L. Lewis, and G.D. Morgan. 2017. Potassium Timing Application Rates on Cotton Yield, and Leaf Tissues in the Southern Texas High Plains. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL. (Oral competition).
4. **Kusi, N.Y.O.**, K.L. Lewis, G.D. Morgan and B. Segvic. 2017. Identifying the Possible Control of Clay Mineralogy of Soils in Some Southern US States over the Fluctuations in Potassium Fixation. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL. (Poster presentation).

5. **Lewis, K.L.**, J.A. Burke, T. Wheeler, and J.W. Smith. 2017. Cropping systems to enhance water and soil conservation in semi-arid regions of Texas. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL.
6. Maeda, A. J.L. Foster, **K.L. Lewis**, J.A. Burke, M. Bean, R.L. Noland, and J. Landivar. 2017. Quantifying sustainability using the Fieldprint Calculator. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL.
7. McDonald, M.D., **K.L. Lewis**, P.B. DeLaune. 2017. Nitrous Oxide Losses from Managed Agricultural Soil in a Semi-arid Region of Texas. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL. (poster presentation – 3<sup>rd</sup> place graduate student competition)
8. McDonald, M.D., **K.L. Lewis**, P.B. DeLaune. 2017. Impact of Conservation Management Practices on Carbon Dioxide Emissions in a Semi-Arid Region. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL. (poster presentation)
9. Tomlin, L.E., H.L. Neely, C.B. Neely, K.L. Lewis, J.L. Foster. 2017. The Impacts of a Double Cropping System on Soil Water and Crop Yields. 2017 Annual ASA-CSSA-SSSA International Meetings. October 2017. Tampa, FL.
10. Burke, J.A., **K.L. Lewis**, J.W. Keeling, P.B. DeLaune, and A. Maeda. 2017. Evaluation of Fieldprint Calculator to evaluate economic and environmental sustainability of conservation management on the Texas High Plains. 2017 Texas Field-to-Market Meeting. June 2017. Invited poster presentation. Austin, TX.
11. Burke, J.A., **K.L. Lewis**, and P.B. DeLaune. 2017. Rhizodeposits dramatically increase soil organic carbon levels in semi-arid soils. 2017 TTU Graduate School Poster Competition. March 2017. First place poster competition. Lubbock, TX. (poster competition).
12. White, C.D.R., J.A. Burke, K.L. Lewis, J.W. Keeling, and P.B. DeLaune. 2017. Effects of conservational management practices on cotton yield and soil quality. 2017 TTU Graduate School Poster Competition. March 2017. Lubbock, TX. (poster competition)
13. Bumguardner, A., S. Byrd, **K. Lewis**, G. Morgan, G. Ritchie, D. Kelley, and R. Nichols. 2017. Soil potassium effects on cotton yield, quality, and growth in the Texas High Plains. Beltwide Cotton Conference. January 2017. Dallas, TX. (oral presentation)
14. Byrd, S. and **K. Lewis**. 2017. Benefits and limitations of cover crops. Beltwide Cotton Conference. January 2017. Dallas, TX. (oral presentation)

15. **Lewis, K.**, N. Kusi, G. Morgan, R. Nichols, and H. Frame. 2017. Soil factors affecting potassium availability. Beltwide Cotton Conference. January 2017. Dallas, TX. (oral presentation)
16. Schaefer, C., G. Ritchie, J. Bordovsky, and **K. Lewis**. 2017. Effects of irrigation timing and rate on cotton boll production in West Texas. Beltwide Cotton Conference. January 2017. Dallas, TX. (oral presentation)
17. White, C.D.R., J.A. Burke, **K. Lewis**, J.W. Keeling, and P.B. DeLaune. 2017. Effects on conservation management practices on cotton yield and soil quality. Beltwide Cotton Conference. January 2017. Second place M.S. poster competition. Dallas, TX. (poster presentation)
18. Burke, J.A. and **K. Lewis**. 2016. Farmers' perceptions of soil health management practices on the Texas High Plains. 2016 Annual ASA-CSSA-SSSA International Meetings. November 2016. Phoenix, AZ. (poster presentation)
19. Burke, J.A., **K. Lewis**, and P.B. DeLaune. 2016. Impact of conservation management practices on soil carbon fractions on the Texas High Plains. 2016 Annual ASA-CSSA-SSSA International Meetings. November 2016. Phoenix, AZ. (poster presentation)
20. Kusi, N. Y., **K.L. Lewis**, and G. Morgan. 2016. Quantification of plant available potassium (K) at various depths in soils of the Texas High Plains. 2016 Annual ASA-CSSA-SSSA International Meetings. November 2016. Phoenix, AZ. (graduate student poster presentation)
21. **Lewis, K.L.**, G. Morgan, and R. Nichols. 2016. Impact of potassium fertilizer on cotton yield and quality. 2016 Annual ASA-CSSA-SSSA International Meetings. November 2016. Phoenix, AZ.
22. McDonald, M.D., J.A. Burke, P. DeLaune, and **K. Lewis**. 2016. Impact of conservation management practices on greenhouse gas emissions in semi-arid, intensively cropped regions of Texas. 2016 Annual ASA-CSSA-SSSA International Meetings. November 2016. Phoenix, AZ. (graduate student poster presentation)
23. Tomlin, L.E., H.L. Neely, C.B. Neely, K.L. Lewis, J.L. Foster, R.W. Schnell, and P.B. DeLaune. 2016. Double cropping in wheat: the relative impacts of roots and tillage on soil health. 2016 Annual ASA-CSSA-SSSA International Meetings. November 2016. Phoenix, AZ. (graduate student poster presentation)
24. White, C.D.R., J.A. Burke, **K. Lewis**, V. Acosta-Martinez, J.W. Keeling, and P.B. DeLaune. 2016. Impact of agronomic practices on soil biological properties on the Texas High Plains. 2016 Annual ASA-CSSA-SSSA

International Meetings. November 2016. Third place poster competition. Phoenix, AZ. (poster presentation)

25. **Lewis, K.**, G. Morgan, and R. Nichols. 2016. Impact of potassium fertilizer application rate and method on cotton yield and quality. Great Plains Soil Fertility Conference. March 2016. Denver, CO. (oral presentation)
26. **Lewis, K.** 2016. Fertilizer formulations and soil products for use in cotton. Great Plains Soil Fertility Conference. March 2016. Denver, CO. (oral presentation)
27. Kelley, D., and **K. Lewis**. 2016. Effect of potassium application timing on cotton fiber quality and yield. Beltwide Cotton Conference. January 2016. New Orleans, LA. (poster presentation)
28. Keys, K., M. Kelley, and **K. Lewis**. 2016. Cotton response to chelated fertilizer formulations in a semi-arid environment. Beltwide Cotton Conference. January 2016. New Orleans, LA. (graduate student poster presentation)
29. DeLaune, P., P. Mubvumba, and **K. Lewis**. 2016. Influence of management practices on soil health in cotton cropping systems. Beltwide Cotton Conference. January 2016. New Orleans, LA. (oral presentation)
30. Woodward, J. and **K. Lewis**. 2016. Effect of common production practices on yield and fiber quality of late planted cotton varieties in west Texas. Beltwide Cotton Conference. January 2016. New Orleans, LA. (poster presentation)
31. **Lewis, K.**, P. DeLaune, and W. Keeling. 2016. Evaluation of cover cropping and tillage management on soil health and cotton production in a semi-arid environment. Beltwide Cotton Conference. January 2016. New Orleans, LA. (oral presentation)
32. Zwonitzer, M., **K. Rothlisberger-Lewis**, and J. Keeling. 2015. Cropping system management: irrigation, tillage and crop rotation in a semi-arid climate. 2015 Annual ASA-CSSA-SSSA International Meetings. November 2015. Minneapolis, MN. (graduate student oral presentation)
33. **Rothlisberger-Lewis, K.**, P. DeLaune, J. Keeling. 2015. Securing Our Soil in Intense Monoculture Cropping Systems. 2015 Annual ASA-CSSA-SSSA International Meetings. November 2015. Minneapolis, MN. (oral presentation)
34. **Lewis, K.** and P. DeLaune. 2015. Securing Our Soil in Intense Monoculture Cropping Systems. Global Soil Security Symposium. May 2015. College Station, TX. (oral presentation)

35. **Lewis, K.**, J. Burke, T. Witt, G. Ritchie. 2015. Nutrient Uptake by Cotton in Relation to Irrigation Frequency. 2015 Beltwide Cotton Conference. January 2015. San Antonio, TX. (poster presentation)
36. Haegelin, B., J. Storlien, F. Hons, **K. Lewis (Rothlisberger)**. 2014. Greenhouse gas fluxes as affected by urea fertilizer, nitrification inhibitor, and biomass sorghum residue application to soil. 2014 Annual ASA-CSSA-SSSA International Meetings. November 2014. Long Beach, CA. (poster presentation)
37. **Rothlisberger – Lewis, K.L.**, J.L. Foster, F.M. Hons, T.J. Gentry, and T.W. Boutton. 2014. Effect of lipid-extracted algae on soil physicochemical dynamics. 2014 Annual ASA-CSSA-SSSA International Meetings. November 2014. Long Beach, CA. (oral presentation)
38. **Rothlisberger – Lewis, K.L.**, J.L. Foster, F.M. Hons, T.J. Gentry, and T.W. Boutton. 2014. Nutrient availability and ryegrass productivity in soil amended with lipid-extracted algae. 2014 Annual ASA-CSSA-SSSA International Meetings. November 2014. Long Beach, CA. (poster presentation)
39. **Rothlisberger-Lewis, K.L.**, J.L. Foster, F.M. Hons, and T.J. Gentry. 2014. Nutrient availability and ryegrass productivity in soil amended with lipid extracted algae. 2014 Annual ASA Southern Branch Meetings. February 2014. Third place poster competition. Dallas, TX. (poster presentation)
40. **Rothlisberger-Lewis, K.L.**, J.L. Foster, F.M. Hons, and T.J. Gentry. 2013. Ryegrass productivity and nutrient availability in soils amended with LEA. 2013 Texas Plant Protection Conference. December 2013. Bryan, TX. (poster presentation)
41. **Rothlisberger-Lewis, K.L.**, J.L. Foster, F.M. Hons, and T.J. Gentry. 2013. Ryegrass productivity and nutrient availability in soils amended with LEA. 2013 Annual ASA-CSSA-SSSA International Meetings. November 2013. Tampa, FL. (poster presentation)
42. **Rothlisberger-Lewis, K.L.**, J.O. Storlien, J.L. Foster, F.M. Hons, and T.J. Gentry. 2013. Greenhouse gas fluxes as affected by LEA applications. 2013 Annual ASA-CSSA-SSSA International Meetings. November 2013. Third place poster competition. Tampa, FL. (poster presentation)
43. Foster, J., **K. Rothlisberger-Lewis**, and F. Hons. 2013. LEA as a Soil Amendment. National Alliance for Advanced Biofuels and Bio-Products Annual Meeting. January 2013. Tempe, AZ. (oral presentation)
44. **Rothlisberger, K.L.**, J.L. Foster, F.M. Hons, and T.J. Gentry. 2012. Physical and chemical soil assessment following amendments of lipid extracted algae

meal. 2012 Annual ASA-CSSA-SSSA International Meetings. November 2012. Cincinnati, OH. (oral presentation)

45. **Rothlisberger, K.L.**, F.M. Hons, V.A. Saladino, L.B. Crotwell, G.D. Morgan, and R.L. Nichols. 2012. Nitrogen requirements of adapted, genetically–modified cotton varieties. 2012 Beltwide Cotton Conference. February 2012. Orlando, FL. (poster presentation)
46. **Rothlisberger, K.L.**, J.L. Foster, F.M. Hons, and T.J. Gentry. 2011. Carbon and nitrogen mineralization of whole and lipid extracted algae meal in soil. 2011 Texas Plant Protection Conference. December 2011. Bryan, TX. (poster presentation)
47. **Rothlisberger, K.L.**, J.L. Foster, F.M. Hons, and T.J. Gentry. 2011. Carbon and nitrogen mineralization of whole and lipid extracted algae meal in soil. 2011 Annual ASA-CSSA-SSSA International Meetings. October 2011. San Antonio, TX. (poster presentation)
48. **Rothlisberger, K.L.**, Hamid Shahandeh, F.M. Hons, and T.J. Moore. 2011. Chemical characteristics of sediments used for topsoiling a mine tailings pond and effects on plant growth. 2011 Annual ASA-CSSA-SSSA International Meetings. October 2011. San Antonio, TX. (oral presentation)
49. **Rothlisberger, K.L.**, F.M. Hons, T.J. Gentry, and S.A. Senseman. 2010. Oilseed meal effects on the germination and survival of crop and weed species. 2010 Annual ASA-CSSA-SSSA International Meetings. November 2010. Second place poster presentation. Long Beach, CA. (poster presentation)
50. **Rothlisberger, K.L.**, T.J. Gentry, F.M. Hons, and S.A. Senseman. 2010. Oilseed meal effects on the germination and survival of crop and weed species. 2010 Texas A&M Agrilife Conference. January 2010. College Station, TX. (poster presentation)
51. **Rothlisberger, K.L.**, T.J. Gentry, F.M. Hons, and S.A. Senseman. 2009. Oilseed meal effects on the germination and survival of crop and weed species. Texas Plant Protection Conference. December 2009. Second place poster presentation. Bryan, TX. (poster presentation)

#### **E. Submitted Publications**

1. Burke, J., **K.L Lewis**, P.B. DeLaune, and J.W. Keeling. 2018. A novel evaluation of temporal carbon and nitrogen dynamics of cotton cropping systems in a semi-arid ecoregion *Agronomy Journal*. (submitted – in review)
2. **Lewis, K.L.**, J. Burke, W. Keeling, D. McCallister, P.B. DeLaune, and J.W. Keeling. 2018. Cotton Production Economics and Soil Dynamics under Long-

term Conservation Management in Semiarid Texas. Agronomy Journal.  
(submitted – in review)

## **VIII. PROFESSIONAL HONORS AND AWARDS**

### **A. Honors**

### **B. Awards**

Tom Slick Senior Graduate Research Fellowship Award. College of Agriculture and Life Sciences, Texas A&M University, 2014.

Memorial Scholarship Ph.D. Graduate Student Award, American Society of Mining and Reclamation, 2013.

Soil and Crop Sciences Graduate Research Support Award, Texas A&M University, 2012.

Soil and Crop Sciences Graduate Teaching Support Award, Texas A&M University, 2011.

Patricia Nemecek Consulting Scholarship in Agricultural Consulting, 2009.

IMC Graduate Research Assistantship Award, Aug 2008 - Dec 2010.