

## **E. David Dickens, Ph.D.**

Forest Productivity Professor

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University of Georgia

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### **Curriculum Vitae**

**July 2021**

#### **Outline**

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- A. Academic Employment History
- B. Resident Instruction and Continuing Education
- C. Scholarly Activities
- D. Professional and Public Service
- E. Letter Describing Major Accomplishments

##### **Section 2: Achievements**

- A. Achievements in Teaching
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# Vita

## Academic History

**Full Name:** Ernest David Dickens  
**Present Rank:** Full Professor  
**Department and/or College:** Forestry and Natural Resources  
**Tenure Status:** Tenured in 2004  
**Type of Appointment:** 95% Outreach/Extension & 5% Service  
**Highest Degree earned:** Ph.D. - Clemson University, May 1997  
**Campus mailing address:** P.O. Box 8112 G.S.U. Statesboro, GA 30460  
**Date of employment at UGA:** 1 April 1999

## Educational History

**Degrees:** Ph.D. Forest Resources Management - May 1997, Clemson University  
M.S. Forest Resources Management - August 1988, Clemson University  
B.S. Forest Management - August 1985, University of Georgia  
B.A. Philosophy - August 1980, Furman University

**Dissertation title:** *Growth and Elemental Pool Response of a Loblolly Pine (Pinus taeda L.) Plantation to a Biosolids Application*

## Academic Employment History

<i>Full Professor, Forest Productivity, WSF&amp;NR, University of Georgia</i>	August 2011 – present
<i>Associate Professor, Forest Productivity, WSF&amp;NR, University of Georgia</i>	April 2004 – July 2011
<i>Assistant Professor, Forest Productivity, WSFR, University of Georgia</i>	April 1999 - 2004
<i>Extension Associate/Specialist, Clemson University</i>	1992-1999
<i>Area Extension Forestry Agent, Clemson University</i>	1988-1992
<i>Graduate Research Assistant, Clemson University</i>	1986-1988

**Focus areas:** Educating private non-industrial forest landowners, practicing foresters, state and federal foresters, county agents, and other interested parties in the following areas: pine species selection based on soils and landowner objectives, pine genetics and planting spacing, pine fertilization (using traditional inorganic fertilizer materials, animal manures, and biosolids and differences in fertilizing loblolly vs longleaf vs slash as a function of age/size), forest herbicides (pre-plant site prep, post plant herbaceous weed control, mid-rotation, labeled products by pine species, environment, stage of development, dosage/rate, timing, plants controlled), assessing storm damaged forest stands, lean pine recovery, reforestation options after major storm events in unsalvaged stands, water quality when using inorganic, animal manures and biosolids, pine thinning (timing, intensity, #/rotation), forest economics (comparing longleaf, loblolly and slash pine using different rotation ages, stumpage prices, with and without pine straw and different establishment costs solving for BLV, AEV, ROR, NPV and Net Revenue).

## **Resident Instruction and Continuing Education**

### **Resident Instruction: Undergraduate**

- No assigned duties with 95% extension appointment – since spring of 2018 (each spring and fall semester)
- Teach FORS 4010/6010 Silviculture classes as a guest lecturer
- Topics: (1) Pine species decision-making – 50 min or 1.25 hrs, (2) Vegetation management: (a) pre-plant site preparation – mechanical, chemical, near- and long-term woody control study findings, herbicide prescriptions, (b) post plant herbaceous weed control; herbicides and study near- and long-term results, and (c) mid-rotation woody control; herbicides and study results) 2.5 hr lab time, and (3) pine straw production by species, stand management, and economics of adding pine straw to stand management (50 min or 1.25 hrs depending on Monday, Wednesday, Friday. vs Tuesday and Thursday class days).

### **Resident Instruction: Graduate**

- No assigned duties with 95% extension and 5% service appointment
- Teach as a guest lecturer FORS 4010/6010

### **Teaching evaluations**

- No assigned duties with 95% extension and 5% service appointment and no evaluations from being guest lecturer for Warnell School Silviculture class (FORS 4010/6010)

### **Publications (criteria with 95% Outreach/Extension Appt) – 2016 - 2020**

Dickens total for 5 year review period is 60 publications; 12 publications/yr, 48 as senior author, 2 refereed publications in 2020 (2 refereed articles, 2 abstracts, 1 popular press published in January - March 2021, 1 refereed journal accepted/in press, 1 refereed journal in review April-July 2021)

1. Clabo, D., & Dickens, E. (2020). Invasive Forest Plant Herbicides In *UGA 2021 Pest Management Handbook* (pp. 414-423). UGA. Retrieved from <https://extension.uga.edu/>
2. Dickens, E., Minogue, P., Clabo, D., & Moorhead, D. (2020). *A Guide to Using Imazapyr for Chemical Site Preparation in Southern Pine Plantation Establishment*. www.bugwood.org. Retrieved from <https://bugwoodcloud.org/bugwood/productivity/pdfs/20-95BNov2020.pdf>
3. Dickens, E., & Clabo, D. (2020). Forest Herbicides (In *UGA 2021 Pest Management Handbook* (pp. 404-413). Retrieved from <https://extension.uga.edu/>

4. Dickens, E., Clabo, D., Moorhead, D., Bates, C., & Griffin, S. (2020). *Assessing storm damaged forest stands*.  
[https://bugwoodcloud.org/bugwood/productivity/pdfs/Outreach\\_Assessing\\_Storm\\_Damage\\_Sept2020.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/Outreach_Assessing_Storm_Damage_Sept2020.pdf). Retrieved from <https://bugwoodcloud.org/>
5. Dickens, E., Clabo, D., & Moorhead, D. (2020). *Blackberry (Rubus sp.) Control Herbicide Options*. Retrieved from <https://www.warnell.uga.edu/>
6. Dickens, E., Clabo, D., & Moorhead, D. (2020). *Virginia Creeper (Parthenocissus quinquefolia) Control Herbicide Options*. Retrieved from <https://www.warnell.uga.edu/>
7. Dickens, E., Clabo, D., & Moorhead, D. (2020). *Japanese honeysuckle (Lonicera japonica) Control Herbicide Options*. Retrieved from <https://www.warnell.uga.edu/>
8. Clabo, D., Dickens, E., & Moorhead, D. (2020). *Chinaberry (Melia azedarach) Control Herbicide Options*. Retrieved from <https://www.warnell.uga.edu/>
9. Clabo, D., Dickens, E., & Moorhead, D. (2020). *Trumpet Creeper (Campsis radicans) Control Herbicide Options*. Retrieved from <https://www.warnell.uga.edu/>
10. Dickens, E., Clabo, D., & Moorhead, D. (2020). *Groundsel tree (Baccharis halimifolia, Baccharis sp.) Control Herbicide Options*. Warnell School of Forestry & Natural Resources.
11. Dickens, E., Morris, L., Clabo, D., & Ogden, E. (2020). Pine straw raking and growth of southern pine: Review and Recommendations. *Forests*, 11, 1-26. doi:[10.3390/f11080799](https://doi.org/10.3390/f11080799)
12. Dickens, E., Cook, R., Clabo, D., Moorhead, D., & Morris, L. (2020). *Fertilizer response expectations, application levels, and material needs for loblolly, longleaf and slash pine at mid-rotation*. Warnell School of Forestry and Natural Resources; Bugwood.
13. Dickens, E., & Clabo, D. (2020). *Lime Stabilized Biosolids, Pelletized Broiler Litter, and Inorganic Fertilizer Applications in a 1986 planted, unthinned Longleaf Pine Stand Ten Year Report on the Sand Hills State Forest, South Carolina*. Warnell School of Forestry & Natural Resources; Bugwood.
14. Clabo, D. C., Dickens, E. D., & Moorhead, D. J. (2020). Old-Field Longleaf Pine (*Pinus palustris* Mill.) Long-Term Growth and Yield Response to Midrotation Fertilization. *FOREST SCIENCE*, 66(6), 726-736. doi:[10.1093/forsci/fxaa017](https://doi.org/10.1093/forsci/fxaa017)
15. Dickens, E., & Clabo, D. (2020). *Effect of Lime Stabilized Biosolids and Inorganic Fertilizer Applications on Soil and Foliar Nutrient Status, Growth, Pine Straw Production, and Economics in a Thinned Longleaf Pine Stand – Ten-Year Results*. Retrieved from <https://bugwoodcloud.org/>
16. Clabo, D., & Dickens, E. (2020). *Survival and growth of containerized slash pine seedlings related to planting location on mechanically prepared beds*. University of Georgia

Warnell School of Forestry and Natural Resources. Retrieved from <https://www.warnell.uga.edu/>

17. Clabo, D., & Dickens, E. (2020). *Pine Mortality Trends in Old-Field Longleaf Pine Stands*. University of Georgia Extension. Retrieved from <https://extension.uga.edu/>
18. Clabo, D., Dickens, E., & Peairs, S. (2019). *Managing Upland Loblolly Pine-Hardwood Forest Types for Georgia Landowners*. Warnell School of Forestry & Natural Resources on Bugwood.
19. Clabo, D., & Dickens, E. (2019). "Invasive Plant Control in Forests" included in "Georgia Pest Management Handbook 2020 Commercial Edition Vol.2". University of Georgia Cooperative Extension.
20. Clabo, D., & Dickens, E. (2019). "Forest Herbicides" included in "Georgia Pest Management Handbook 2020 Commercial Edition Vol. 2". University of Georgia Cooperative Extension.
21. Li, Y., Dickens, E., & Moorhead, D. (2019). *Income tax deductions for hurricane-damaged timber losses* (WSFNR-19-19).
22. Li, Y., Izlar, R., Dickens, E., & Griffin, S. (2019). *Questions and answers to Georgia Timber Tax Credit program: Questions and answers to Georgia Timber Tax Credit program*.
23. Dickens, E. (2019). *2018 Georgia Pest Management Handbook - Commercial Edition - Forest Herbicides section pp. 404-434*. UGA. Retrieved from <http://extension.uga.edu/>
24. Dickens, E., Moorhead, D., Morris, L., & Barger, C. (2018). *Pine Straw Yields and Economic Benefits when added to Traditional Wood Products in Loblolly, Longleaf, and Slash Pine Stands*. Retrieved from <https://bugwoodcloud.org/>
25. Dickens, E. D., Moorhead, D. J., Clabo, D., & Joyce, R. (2018). *First year post-plant over-the-top herbaceous weed control in old-field planted longleaf stands in Georgia--The Laurens, Jenkins, and Treutlen County study results and recommendations-8 year results*. University of Georgia Warnell School of Forestry and Natural Resources.
26. Dickens, E., & Moorhead, D. (2018). *Longleaf Pine – Growth and Yields and Mean Annual Increments in Planted Stands from the Western Gulf Region, South Carolina and Georgia Long-term Studies*. Retrieved from <https://bugwoodcloud.org/>
27. Dickens, E., Clabo, D., & Joyce, R. (2018). *Planting 1-0 and 2-0 Containerized longleaf seedlings – Georgia field trial results and recommendations*.
28. Dickens, E., Li, Y., & Moorhead, D. (2018). *Income tax deductions for hurricane-damaged timber losses*. www.bugwood.org. Retrieved from <https://bugwoodcloud.org/>
29. Dickens, E., Moorhead, D., & Minogue, P. (2018). *Pre-plant Chemical Site Preparation Options to Establish Loblolly, Longleaf, and Slash Pine Plantations in South Georgia and North-Central Florida*. Retrieved from <https://bugwoodcloud.org/>

30. Li, Y., Izlar, R., Dickens, E., Harris, T., Siry, J., & Smith, J. (2018). *Methodology for the Appraisal of Qualified Timberland Property (QTP) for Ad Valorem Tax Purposes in Georgia: Methodology for the Appraisal of Qualified Timberland Property (QTP) for Ad Valorem Tax Purposes in Georgia*.
31. Dickens, E., Moorhead, D., Morris, L., & Barger, C. (2018). *Pine Straw Yields and Economic Benefits when added to Traditional Wood Products in Loblolly, Longleaf, and Slash Pine Stands*. Retrieved from <https://bugwoodcloud.org/>
32. Dickens, E., & Moorhead, D. (2018). *Loblolly Pine Growth Response to Herbaceous Weed Control*. Retrieved from [https://bugwoodcloud.org/bugwood/productivity/pdfs/HWC-Ext%20Pub\\_9-2018.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/HWC-Ext%20Pub_9-2018.pdf)
33. Dickens, E. (2018). *Research with impact - loblolly pine fertilization*. International Plant Nutrition Institute. Retrieved from <http://www.ipni.net/>
34. Dickens, E., & Moorhead, D. (2018). *Forest Site Preparation & Pine Seedling Planting Activities Calendar*. Retrieved from <https://bugwoodcloud.org/>
35. Dickens, E., & Irwin, K. (2018). *Defining Goals and Objectives in a Forest Management Plan*. Retrieved from <https://bugwoodcloud.org/>
36. Dickens, E. D., Montes, C., & Moorhead, D. J. (2017). *Stem Quality Summary for Old-field Planted, Unthinned Longleaf Stands in Georgia*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-01. 7 p. Retrieved from <https://bugwoodcloud.org/>
37. Dickens, E. D., & Moorhead, D. J. (2017). *Longleaf Mean Annual Increment Curves in Planted Stands in the West Gulf Region*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-02. 6 p.. Retrieved from <https://bugwoodcloud.org/>
38. Dickens, E. D., Moorhead, D. J., & Li, Y. (2017). *Estimating the Weight and Value of Individual Southern Pine Trees*. University of Georgia Warnell School of Forestry & Natural Resources. BW-2017-03. 2 p. [https://bugwoodcloud.org/bugwood/productivity/pdfs/2017\\_Pubs-BW-03\\_Aug.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/2017_Pubs-BW-03_Aug.pdf)
39. Dickens, E. D., Moorhead, D. J., & Li, Y. (2017). *Loblolly pine rotation age economic comparisons using four stumpage price sets*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-04. 8 p. Retrieved from <https://bugwoodcloud.org/>
40. Dickens, E. D., Moorhead, D. J., & Minogue, P. M. (2017). *Economics of Fertilization in Longleaf Pine Stands*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-05. 6 p.

- Retrieved from <https://bugwoodcloud.org/>
41. Dickens, E. D., Moorhead, D. J., & Li, Y. (2017). *Natural and artificial loblolly pine regeneration and upland mixed hardwoods natural regeneration economic comparisons using three stumpage price sets*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-06. 9 p.  
Retrieved from [https://bugwoodcloud.org/bugwood/productivity/pdfs/2017\\_pubs-BW-06\\_econ\\_2017.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/2017_pubs-BW-06_econ_2017.pdf)
  42. Dickens, E. D., Moorhead, D. J., & Minogue, P. M. (2017). *Longleaf Pine Stand Fertilization*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-07. 6 p.. Retrieved from <https://bugwoodcloud.org/>
  43. Dickens, E. D., & Moorhead, D. J. (2017). *Longleaf Site Index Curves in Planted Stands*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-08. 5 p. Retrieved from <https://bugwoodcloud.org/>
  44. Dickens, E. D., Moorhead, D. J., & Morris, L. A. (2017). *Finding Your Forest Soils Map(s) Using the Internet*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-09. 5 p.  
Retrieved from <https://bugwoodcloud.org/>
  45. Jackson, B., Dickens, E. D., McConnell, M. C., Irwin, K., & Shelton, J. (2017). *Writing a Forest Management Plan*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-10. 4 p.  
Retrieved from <https://bugwoodcloud.org/>
  46. Dickens, E. D., & Morris, L. A. (2017). *Know Your Forest Soils – Introduction*. University of Georgia Warnell School of Forestry and Natural Resources – Center for Invasive Species and Ecosystem Health. BW-2017-13. 2 p.. Retrieved from <https://bugwoodcloud.org/>
  47. Dickens, E. D., & Moorhead, D. J. (2017). *Mowing to Prepare for Pine Straw Raking and Production by Creating Access and Reducing Competition Heights in Longleaf Stands after the Establishment Phase*. Georgia Forest Productivity Series No. 002PS-2017. 7 p.  
Retrieved from <https://bugwoodcloud.org/>
  48. Moorhead, D. J., & Dickens, E. D. (2017). *Herbicides to Enhance Pine Straw Production by Minimizing Competition in Longleaf Pine Stands after the Establishment Phase*. Georgia Forest Productivity Series No. 001-PS. 5 p. Retrieved from <https://bugwoodcloud.org/>
  49. Dickens, E. D., Moorhead, D., Li, Y., & Dangerfield, C. (2016). *Thinning & Economics Series Paper I – Why NOT Selling Your Best Southern Pine Trees in a First Thinning Can*



*Make Sound Economic Sense using Three Wood Product Classes and Two Stumpage Price Scenarios – Wood Revenue Differences.*

[https://bugwoodcloud.org/bugwood/productivity/pdfs/thin\\_econ\\_Dec-2016\\_part%201\\_final.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/thin_econ_Dec-2016_part%201_final.pdf).

50. Dickens, E. D., Moorhead, D., Li, Y., & Dangerfield, C. (2016). *Thinning & Economics Series Paper II – Why NOT Selling Your Best Southern Pine Trees in a First Thinning Can Make Sound Economic Sense Using Three Wood Product Classes & Two Stumpage Price Scenarios – Impact on Rotation Length Financial Measures (BLV, NPV, ROR, AEV).*  
[https://bugwoodcloud.org/bugwood/productivity/pdfs/thin\\_econ\\_Dec\\_2016\\_part\\_2\\_final.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/thin_econ_Dec_2016_part_2_final.pdf).
51. Dickens, E. D., Moorhead., & Li, Y. (2016). *Thinning & Economics Series Paper -The Growing Value of Quality Southern Pines – Dodge County Slash Pine including the use of two Pine Stumpage Price Scenarios.*  
[https://bugwoodcloud.org/bugwood/productivity/pdfs/Econ\\_thin\\_series\\_Dec\\_2016\\_part\\_3\\_final\\_Dodge.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/Econ_thin_series_Dec_2016_part_3_final_Dodge.pdf).
52. Dickens, E. D., Moorhead, D. J., Morris, L. A., & Kissel, D. (2016). *Proper Soil Sampling and Analysis for Nutrient Needs Determination in Loblolly, Longleaf, and Slash Pine Stands.*  
[http://bugwoodcloud.org/bugwood/fertilization/Soil\\_Sampling\\_Pine\\_Stands\\_Dec\\_2016.pdf](http://bugwoodcloud.org/bugwood/fertilization/Soil_Sampling_Pine_Stands_Dec_2016.pdf).
53. Dickens, E. D., Moorhead, D. J., Morris, L. A., & Kissel, D. (2016). *A Checklist for Fertilization of Loblolly, Longleaf and Slash Pine Stands.*  
[http://bugwoodcloud.org/bugwood/fertilization/Fertilization\\_checklist\\_Dec\\_2016.pdf](http://bugwoodcloud.org/bugwood/fertilization/Fertilization_checklist_Dec_2016.pdf).
54. Dickens, E. D., Moorhead, D. J., Morris, L. A., & Kissel, D. (2016). *Mid-rotation rate of return (ROR) estimates with a single nitrogen+phosphorus or nitrogen+phosphorus+potassium fertilizer application in loblolly, longleaf, and slash pine stands.*  
[http://bugwoodcloud.org/bugwood/fertilization/Fert\\_prices\\_ROR\\_estimates\\_Dec2016.pdf](http://bugwoodcloud.org/bugwood/fertilization/Fert_prices_ROR_estimates_Dec2016.pdf).
55. Dickens, E. D. (2016). Longleaf pine straw production, stand management and economics. *Longleaf Alliance 11th Biennial Conference - Savannah*, 1 page.
56. Dickens, E. D. (2016). Longleaf herbaceous weed control. *Longleaf Alliance 11th Biennial Conference – Savannah*, 1 page.
57. Dickens, E. D., Moorhead, D. J., & Minogue, P. M. (2016). *Herbaceous Weed Control for Longleaf Planted Sites.*  
[https://bugwoodcloud.org/bugwood/forestry/HWC\\_longleaf\\_July\\_2016.pdf](https://bugwoodcloud.org/bugwood/forestry/HWC_longleaf_July_2016.pdf).

58. Dickens, E. D., Moorhead, D. J., & Minogue, P. M. (2016). *Herbaceous Weed Control for Loblolly Planted Sites*.  
[https://bugwoodcloud.org/bugwood/forestry/HWC\\_loblolly\\_May\\_2016.pdf](https://bugwoodcloud.org/bugwood/forestry/HWC_loblolly_May_2016.pdf).
59. Dickens, E. D., Moorhead, D. J., & Minogue, P. M. (2016). *Herbaceous Weed Control for Slash Planted Sites*.  
[https://bugwoodcloud.org/bugwood/forestry/HWC\\_slash\\_May\\_2016.pdf](https://bugwoodcloud.org/bugwood/forestry/HWC_slash_May_2016.pdf).
60. Dickens, E. D., Osiecka, A., & Minogue, P. J. (2016). *Guide to Fertilization for Pine Straw Production on Coastal Plain Sites*. UFL - IFAS paper # FOR327 (12 pages)  
<http://edis.ifas.ufl.edu/fr395>. Retrieved from <http://edis.ifas.ufl.edu/fr395>

**1998 through 2015 Papers published** (144 total including GTR, book chapters, journal articles, proceedings papers, popular press, Extension papers, and abstracts – senior author for approximately 75% of papers)

#### **Books or Proceedings Edited and Co-Edited**

Dickens, E.D.; Barnett, J.P.; Hubbard, W.G.; Jokela, E.J. eds. 2005. *Slash pine: still growing and growing!* Proceedings of the slash pine symposium. <https://www.srs.fs.usda.gov/pubs/8435TR> SRS-076. Asheville, NC: USDA FS. 148 p.

#### **Book Chapters**

Dickens, E.D., McElvany, B.C., and Moorhead, D.J. 2006. Soil solution NO<sub>3</sub>-N levels after poultry litter and DAP+urea applications in a slash pine plantation in Georgia, U.S.A. In: *Environmental Engineering and Economics*. Editor: T. Theophanides. Published by Athens Institute for Education and Research (ATINER), Athens, Greece. ISBN:978-960-6672-13-2. pp. 165-172.

Dickens, E.D. and F.J. Wolak. 1998. Turning a waste into a resource. In: *Biology - A Community Context* (Student Resource Book). Unit 1.4. B.J. Speziale, W.H. Leonard, J.E. Penick (Eds.). South-Western Educational Publishing an International Thomson Publishing Co. Cincinnati, OH pp. 13-16.

#### **Journal Articles**

Dickens, E.D., D.J. Moorhead, C.T. Barger, L.A. Morris, L.A. Ogden, and B.C. McElvany. 2012. A summary of pine straw yields and economic benefits in loblolly, longleaf and slash pine stands. *Agroforestry Systems*. ISSN 0167-4366 *Agroforest Syst* DOI 10.1007/s10457-019542-4. 9 p.  
[A summary of pine straw yields and economic benefits in loblolly, longleaf and slash pine stands | SpringerLink](#)

Burner, D.M., D.H. Pate, and E.D. Dickens. 2010. Effect of loblolly pine stocking and fertilization on plant and soil nitrogen in west-central Arkansas. *The Open Forest Science Journal*. 27 p.

Lee, A.C.W., G Chen, E.D. Dickens, and A.E. Miller. 1999. Selected mechanical properties of wood produced by loblolly pine trees fertilized with sludge. *Forest Products Journal* 49(9). pp. 43-47.

### **Journal Paper Reviews**

Stocking rate-mediated responses of mid-rotation loblolly pine in west-central Arkansas: profitability. Burner, D.M., J.P. Dwyer, and L.D. Godsey. *Agroforestry Systems* (reviewer for manuscript # AGFO891). March 2010

Nutrient dynamics and tree growth of silvopastoral systems: impact of poultry litter. Blazier, MA., L.G. Lewis, A. Gaston, T.R. Clason, K.W. Farrish, B.P. Oswald, and H.A. Evans. *JEQ* (reviewer). Aug 2007

Modeling draft of aerially applied silvicultural chemicals in a young Georgia pine plantations SJAF paper #3192 (reviewer #3). May 2005

Influence of pre-commercial thinning and fertilization on total stem volume and lower stem form on loblolly pine. SJAF (reviewer #2). May 2005

### **Abstracts, non-refereed journal articles, or proceedings papers**

(printed; \*\*\*=international, \*\*=national, \*=regional)

\*Dickens, E.D., D.J. Moorhead, B.C. McElvany, and R. Hicks. 2012. Longleaf pine wood and straw yields from two old-field planted sites in Georgia. *Proceedings of the 16<sup>th</sup> BSSCRC*. pp. 93-97  
[https://www.srs.fs.fed.us/pubs/gtr/gtr\\_srs156/gtr\\_srs156\\_093.pdf](https://www.srs.fs.fed.us/pubs/gtr/gtr_srs156/gtr_srs156_093.pdf)

\*Dickens, E.D., B.C. McElvany, and D.J. Moorhead. 2010. Effect of lime stabilized biosolids and inorganic fertilizer applications on a thinned longleaf stand – ten year results. Pages 121-126. In: J.A. Stanturf, editor, *Proceedings of the 14<sup>th</sup> Biennial Southern Silvicultural Research Conference*. Gen. Tech. Rep. SRS-121. USDA Forest Service So. Res. Stn., Asheville, NC.

\*Dickens, E.D., B.C. McElvany, and D.J. Moorhead. 2010. Stand dynamics on an old-field longleaf pine stand following herbicide application, poor survival, and subsequent replanting. Pages 27-131. In: J.A. Stanturf, editor, *Proceedings of the 14<sup>th</sup> Biennial Southern Silvicultural Research Conference*. Gen. Tech. Rep. SRS-121. USDA Forest Service So. Res. Stn., Asheville, NC.

\*Dickens, E.D., D.J. Moorhead, R. Hicks, and B.C. McElvany. 2010. Longleaf pine wood and straw yields, cash flows, and net present value estimates from two old-field planted sites in Georgia. *SOFEW Annual Meeting Proceedings, Pinehurst, NC* 5.

- \*\*Dickens, E.D. and D.J. Moorhead. 2009. Here is how to sample loblolly, longleaf, and slash pine foliage for nutrient analysis. *The forest source*. SAF Vol. 14, No. 9. pp. 14-15.
- \*\*Dickens, E.D., B.C. McElvany, and D.J. Moorhead. 2009. Enhancing thinned slash pine volume production and product class distribution with competition control and fertilization on Flatwoods spodosols – six year results. 52<sup>nd</sup> Annual weed science society of America proceedings. Orlando, FL. 5-7 February 2009.
- \*\*Dickens, E.D., B.C. McElvany, and D.J. Moorhead. 2008. Post-plant banded herbicide treatment and spot application of DAP and poultry litter at establishment in an old-field planted loblolly pine plantation. 51<sup>st</sup> Annual weed science society of America proceedings. Chicago, IL. 4-7 February 2008.
- \*\*\*Dickens, E.D., D.J. Moorhead, and D.J. Moorhead. 2008. Effects of competition control and fertilization in a *Pinus elliottii* stand on a deep sand in the Coastal Plain of Georgia, U.S.A. The 5<sup>th</sup> International Weed Science Congress Conference. Vancouver, B.C. 23-27 June 2008. 3 p.
- \*\*Dickens, E.D., B.C. McElvany, and D.J. Moorhead. 2007. Six year survival and growth of an old-field planted longleaf stand following herbaceous weed control treatments. 50<sup>th</sup> Annual weed science society of America proceedings. San Antonio, TX. 5-8 February 2007.
- \*\*Dickens, E.D., B.C. McElvany, and D.J. Moorhead. 2008. Post-plant banded herbicide treatment and spot application of DAP and poultry litter at establishment in an old-field planted loblolly pine plantation. 51<sup>st</sup> Annual weed science society of America proceedings. Chicago, IL. 4-7 February 2008.
- \*Dickens, E.D., C.W. Dangerfield, and D.J. Moorhead. 2006. An economic comparison of slash and loblolly pine under various levels of management. In: Proceedings of the 13<sup>th</sup> Biennial Southern Silvicultural Research Conference. February 2005. USDA Forest Service SRS-GTR 092, Asheville, NC.
- \*McElvany, B.C., E.D. Dickens, and P. Torrance. 2006. Herbaceous weed control in an old-field planted longleaf stand. In: Proceedings of the 13<sup>th</sup> Biennial Southern Silvicultural Research Conference. February 2005. USDA Forest Service SRS-GTR 092, Asheville, NC.
- \*McElvany, B.C., B.W. Richardson, and E.D. Dickens. 2006. Ice damage effects on an old-field, thinned and fertilized loblolly pine stand. In: Proceedings of the 13<sup>th</sup> Biennial Southern Silvicultural Research Conference. February 2005. USDA Forest Service SRS-GTR 092, Asheville, NC.

- \*Dickens, E.D., McElvany, B.C., and Moorhead, D.J. 2006. An investigation of old-field longleaf growth, yield, diameter and product class distributions, pine straw production, and economics of management intensities in Georgia. In: Proceedings of the 9<sup>th</sup> Annual Longleaf Alliance Conference. 14-16 Nov 2006. Tifton, GA. 6 p.
- \*Dickens, E.D., McElvany, B.C., and Moorhead, D.J. 2006. Post-plant herbaceous weed control timing considerations for longleaf pine. In: Proceedings of the 9<sup>th</sup> Annual Longleaf Alliance Conference. 14-16 Nov 2006. Tifton, GA. 5 p.
- \*Dickens, E.D. and R.E. Will. 2005. Planting density impacts on slash pine stand growth, yield, product class distribution, and economics. In: Dickens, E.D.; Barnett, J.P.; Bubbard, W.G.; Jokela, E.J. eds. Slash pine: still growing and growing! Proceedings of the slash pine symposium. GTR SRS-076. Asheville, NC: USDA FS. p. 36-44.
- \*Dangerfield, C.W., E.D. Dickens, and D.J. Moorhead. 2005. An economic comparison of slash and loblolly pine under various levels of management in the lower Atlantic and Gulf Coastal Plain. In: Dickens, E.D.; Barnett, J.P.; Bubbard, W.G.; Jokela, E.J. eds. Slash pine: still growing and growing! Proceedings of the slash pine symposium. GTR SRS-076. Asheville, NC: USDA FS.
- \*McElvany, B.C, K. D. Coder, and E.D. Dickens. 2005. Slash pine selected bibliography. In: Dickens, E.D.; Barnett, J.P.; Bubbard, W.G.; Jokela, E.J. eds. Slash pine: still growing and growing! Proceedings of the slash pine symposium. GTR SRS-076. Asheville, NC: USDA FS p. 105-148.
- Bush, P.B., E.D. Dickens, L.A. Morris, and P.F. Vendrell. 2005. Impact of poultry litter applications to forestland on water quality. Presented at the NCSU Water Quality Symposium, Raleigh, NC. May 2005. 5 p.
- \*Dickens, E.D., D.J. Moorhead, B.C. McElvany, and P. Torrance. 2005. Screening herbicides, dosages, and timing in an old-field planted longleaf stand. Weed Science Society of America Annual Meeting. Waikiki Beach, Hawaii, 5-9 Feb 2005. 1 p.
- \*Dickens, E.D., B.W. Richardson, and B.C. McElvany. 2004. Old-field thinned loblolly pine fertilization using DAP+urea and poultry litter: four year growth and product class distribution results. Gen. Tech. Rep SRS-71 Asheville, NC: USDA, FS, SRS pp. 395-397.
- \*McElvany, B.C., E.D. Dickens. 2004. Spot application of DAP and poultry litter at establishment in an old-field loblolly pine plantation. Gen. Tech. Rep SRS-71 Asheville, NC: USDA, FS, SRS pp. 355-357.

- Bush, P.B., E.D. Dickens, L.A. Morris, and P.F. Vendrell. 2004. Impact of poultry litter application to near surface water quality. In: Proceedings of the New Mexico Extension Water Resources Conference. Nov. 22-24, 2004. 4 p.
- \*Dickens, E.D., M.W. Richardson, and B.C. McElvany. 2003. Old-field thinned loblolly pine fertilization using DAP+urea and poultry litter - four year growth and product class distribution results. In: The 12<sup>th</sup> Biennial Southern Silvi. Res. Conf. Proceedings, Biloxi, MS. Feb 24-27, 2003.
- \*Dickens, E.D., D. Price, and B.C. McElvany. 2003. Spot application of DAP and poultry litter at establishment in an old-field loblolly pine plantation. In: The 12<sup>th</sup> Biennial Southern Silvi. Res. Conf. Proceedings, Biloxi, MS. Feb 24-27, 2003.
- Dickens, E.D. 2003. Effect of Alum treated water treatment plant residuals applied to a loblolly pine plantation in the lower Coastal Plain of South Carolina. In: The South Carolina Environmental Conf. Proceedings. Myrtle Beach, SC, March 17-19, 2003. 5 p.
- \*Dangerfield, C.W., Jr, E.D. Dickens, and D.J. Moorhead. 2002. Changing cords to thousand board feet and higher returns with management and time for oldfield longleaf pine timber crops. In: The 32<sup>nd</sup> SOFEW Proceedings, Virginia Beach, VA. March 18-19, 2002.
- \*Dickens, E.D. 2001. Effect of a one-time biosolids application in an old-field loblolly pine plantation on diameter distributions, volume per acre, and value per acre. In: The 11<sup>th</sup> Biennial Southern Silvi. Res. Conf. Proceedings, Knoxville, TN. March 19-22, 2001.
- \*Dickens, E.D. 2001. Fertilization options for longleaf pine stands on marginal soils with economic implications. In: The SOFEW 2001 Proceedings, Atlanta, GA. March 27-28, 2001.
- \*Dickens, E.D., C.W. Dangerfield, and D.J. Moorhead. 2001. Short rotation management options for slash and loblolly pine in Southeast Georgia. In: The SOFEW 2001 Proceedings, Atlanta, GA. March 27-28, 2001.
- \*Dickens, E.D. and P.B. Bush. 2000. Poultry litter applications in pine plantations. In: Proceedings of the National Poultry Waste Mgmt. Symposium. Ocean City, MD. Oct. 16-18, 2000. pp. 150-157 (Invited paper).
- \*Dickens, E.D. 2000. Effect of inorganic and organic fertilization on longleaf pine tree growth and pine straw production. In: Proceedings of the 10th Biennial So. Silv. Res. Conf. Proceedings, Shreveport, LA. Feb. 16-18. 1999. USDA FS Gen. Tech. Rep. SRS-30. pp.

464-468.

\*Dickens, E.D. 1999. Fertilization effect on longleaf pine straw production. In: Proceedings of the 2<sup>nd</sup> Longleaf Alliance Conf. (June 1999). Chas., S.C. Nov. 17-19, 1998. pp.78-81.

\*\*\*Dickens, E.D. 1999. Determination of an environmentally sound one-time biosolids application in loblolly pine plantations in South Carolina – with potential application to other SE US states. In: 1999 Annual International Meeting of ASAE. July 18-21, 1999. Toronto, Canada. ASAE Paper #992179. 4 p.

Dickens, E.D. 1999. Determination of an environmentally sound one-time biosolids application in loblolly pine plantations of South Carolina. In: Proceedings of the SC AWWA-WPC Assoc. *Environmental Conf.* March 15-17, 1999. Myrtle Beach, SC. pp. 11-14 Session IX

\*\*\*Lucas, W.D, J.P. Chastain, and E.D. Dickens. 1999. Water quality impact of using hog lagoon effluent to fertilize loblolly pine plantations. In: 1998 Annual International Meeting of ASAE. July 18-21, 1999. Toronto, Canada. ASAE Paper #992183. 15 p.

\*Dickens, E.D. and A.E. Miller. 1998. Effect of a one-time biosolids application on plantation loblolly pine tree growth in the Upper Coastal Plain of SC. In the Ninth Biennial So. Silv. Res. Conf., Clemson, SC. Feb. 25-27, 1997. USDA FS Gen. Tech. Rep. SRS-20. pp. 422-426.

\*\*Dickens, E.D. 1998. Effect of forest land application of lime stabilized biosolids on topsoil pH. In the 12<sup>th</sup> annual Residuals and Biosolids Management Specialty Conf., Water Environment Federation, Bellevue, WA. July 12-15, 1998.

\*\*\*Dickens, E.D., J.P. Chastain, and W.D. Lucas. 1998. Determination of sound hog lagoon effluent application rates for loblolly pine, longleaf pine, and sycamore at planting. In: 1998 Annual International Meeting of ASAE. July 12-15, 1998. Orlando, Fla. ASAE Paper #987033.

\*Dickens, E.D. 1998. Effect of a forest land application of biosolids on water quality in the Coastal Plain of South Carolina. In: SC Environmental Conf. AWWA/WPCA Conf. Proceedings. Myrtle Beach, SC. March 15-18, 1998. Section XVIII pages 1-4.

\*Dickens, E.D. 1998. Effect of a biosolids application of plantation loblolly pine tree growth in the Coastal Plain of South Carolina. In: SC Environmental Conf. AWWA/WPCA Conf. Proceedings. Myrtle Beach, SC. March 15-18. 1998. Section XI pages 5-8.

#### **Extension Publications, Bulletins, or Reports**

Dickens, E.D. and D.J. Moorhead. 2015. Pre-Plant Chemical Site Preparation Options

- to Establish Loblolly, Longleaf, and Slash Pine Plantations on Cut-over Sites. 13 p. [Forest Herbicides: Herbaceous Weed Control \(bugwoodcloud.org\)](https://bugwoodcloud.org/bugwood/productivity/pdfs/Herbicides_Herbaceous_Weed_Control.pdf)
- Dickens, E.D., D.J. Moorhead. 2015. Herbicides to Enhance Pine Straw Production by Minimizing Competition in Loblolly, Longleaf and Slash Pine Stands after the Establishment Phase. [https://bugwoodcloud.org/bugwood/productivity/pdfs/Herbicides\\_pinestraw.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/Herbicides_pinestraw.pdf) 4 p.
- Dickens, E.D., J. Sunday, and D.J. Moorhead. 2014. Series paper #5 - Economics of growing loblolly, longleaf, and slash pine to a 33-year rotation with three stumpage price sets, four establishment cost sets, with and without pine straw – net revenue and rate of return. <https://bugwoodcloud.org/bugwood/productivity/pdfs/SeriesPaper5.pdf> 12 p.
- Dickens, E.D., J. Sunday, and D.J. Moorhead. 2014. Series paper #6 - Economics of growing loblolly, slash, and longleaf pine to a 33-year rotation with three stumpage price sets, four establishment costs, with and without pine straw – net present value. <https://bugwoodcloud.org/bugwood/productivity/pdfs/SeriesPaper6.pdf> 14 p.
- Dickens, E.D., J. Sunday, and D.J. Moorhead. 2014. Series paper #7 - Economics of growing longleaf pine to a 33- and 45-year rotation with three stumpage price sets, two establishment cost sets, with and without pine straw – net revenue and rate of return. <https://bugwoodcloud.org/bugwood/productivity/pdfs/SeriesPaper7.pdf> 13 p.
- Dickens, E.D., J. Sunday, and D.J. Moorhead. 2014. Series paper #8 - Economics of growing loblolly, longleaf, and slash pine to various rotation ages with three stumpage price sets, four establishment cost sets, four discount rates, with and without pine straw – soil expectation value. <https://bugwoodcloud.org/bugwood/productivity/pdfs/SeriesPaper8.pdf> 28 p.
- Dickens, E.D., D.J. Moorhead, W. Harris, C. Knight, C. Bates, and D.J. Moorhead. 2014. A Herbicide Trial to Control Pear (Pyrus sp.) Trees in Bulloch County, Georgia. 4 p. [https://bugwoodcloud.org/bugwood/productivity/pdfs/Bulloch\\_Pear\\_control\\_Dec\\_2013.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/Bulloch_Pear_control_Dec_2013.pdf)
- Sunday, J., E.D. Dickens, and D.J. Moorhead. 2013. Series paper #1 – Economics of growing loblolly pine to a 15-year rotation with fertilization and pine straw–net revenue and rate of return. <https://bugwoodcloud.org/bugwood/productivity/pdfs/SeriesPaper1.pdf> 12 p.
- Sunday, J., E.D. Dickens, and D.J. Moorhead. 2013. Series paper #2 – Economics of growing



- loblolly pine to a 15-year rotation with intensive management–net present value.  
<https://bugwoodcloud.org/bugwood/productivity/pdfs/SeriesPaper2.pdf> 11 p.
- Sunday, J. E.D. Dickens, and D.J. Moorhead. 2013. Series paper #3 - Economics of growing slash and loblolly pine to a 24-year rotation with and without thinning and pine straw – net revenue and rate of return.  
<https://bugwoodcloud.org/bugwood/productivity/pdfs/SeriesPaper3.pdf> 12 p.
- Sunday, J., E.D. Dickens, and D.J. Moorhead. 2013. Series paper #4 - Economics of growing slash and loblolly pine to a 24-year rotation with and without thinning and pine straw – net present value.  
<https://bugwoodcloud.org/bugwood/productivity/pdfs/SeriesPaper4.pdf> 11 p.
- Dickens, E.D., M. Frye, and D.J. Moorhead. 2013. Mid-Rotation Woody Control Trial to Test Various Herbicides, Tank Mixes, Rates, and Methylated Seed Oil Amounts on Hard to Control Waxy Leaf Species in a Thinned Loblolly Pine Stand in Wayne County, Georgia. 5 p. [https://bugwoodcloud.org/bugwood/productivity/pdfs/Wayne\\_Dec\\_2013.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/Wayne_Dec_2013.pdf)
- Dickens, E.D., B.C. McElvany, D.J. Moorhead, and C. Bates. 2012. Privet (*Ligustrum sp.*) Control Field Trials and Results in Georgia using Ground Application Equipment. 7 p.  
<https://bugwoodcloud.org/bugwood/productivity/pdfs/Privet.pdf>
- Dickens, E.D., C. Bates, W. Harris, and D.J. Moorhead. 2012. Glyphosate Resistant Pigweed Midsummer Control Trials and Results in Two Old-field Longleaf Planted Sites in Bulloch County, Georgia.  
<https://bugwoodcloud.org/bugwood/productivity/pdfs/pigweed.pdf> 4 p.
- Dickens, E.D., D.J. Moorhead, B.C. McElvany, G. Slaughter. 2010. Effect of Fertilization on Slash Pine Growth and Straw Production in an Old-field Planted Site in Dodge County, Georgia. 5 p.  
[https://bugwoodcloud.org/bugwood/productivity/pdfs/Dodge\\_demo\\_Report\\_Dec\\_2010.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/Dodge_demo_Report_Dec_2010.pdf)
- Dickens, E.D., D.J. Moorhead, B.C. McElvany, and B. Boland. 2010. Four year growth response results from the demonstration of Best Management Practices (BMPs) for layer litter and inorganic fertilizer applications in an unthinned, old-field slash pine stand in Brantley County, Georgia. 6 p.  
[https://bugwoodcloud.org/bugwood/productivity/pdfs/Brantley\\_demo\\_Report\\_Dec\\_2010.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/Brantley_demo_Report_Dec_2010.pdf)
- Dickens, E.D., D.J. Moorhead, B.C. McElvany, B. Mitchell, E. Harrison. 2010. Impact of a Broiler

Litter and DAP+Ammonium Nitrate Application in an Old-field Thinned Slash Pine Stand in Mitchell County, Georgia – Four Year Growth Results. 10 p.

[https://bugwoodcloud.org/bugwood/productivity/pdfs/Mitchell\\_demo\\_Report\\_Dec\\_2010.pdf](https://bugwoodcloud.org/bugwood/productivity/pdfs/Mitchell_demo_Report_Dec_2010.pdf)

Minogue, P.M., E.D. Dickens, and D. J. Moorhead. 2009. Herbaceous weed control recommendations for planted longleaf sites. 8 p.

Dickens, E. D., D. J. Moorhead, and P.M. Minogue. 2009. Herbaceous weed control recommendations for planted slash sites. 9 p.

Moorhead, D.J., P.M. Minogue, and E.D. Dickens. 2009. Herbaceous weed control recommendations for planted loblolly sites. 10 p.

Dickens, E.D., B.C. McElvany, and D.J. Moorhead. 2009. Phosphorus fertilization at establishment in loblolly and slash pine stands on Atlantic and Gulf Coastal Plain sites. [Microsoft Word - P-fert 12-09 revised.doc \(bugwoodcloud.org\)](#) 25 p.

Hayes, M.D., B.C. McElvany, E.D. Dickens, and D.J. Moorhead. 2009. The impact of competition control and fertilization on an infertile deep sand cut-over slash pine site – six year results. [www.bugwood.org/productivity/pdfs/infertile/pdf](http://www.bugwood.org/productivity/pdfs/infertile/pdf). 5 p.

Hayes, M.D., B.C. McElvany, E.D. Dickens, and D.J. Moorhead. 2009. Intensive pine straw management on post CRP pine stands. [www.bugwood.org/productivity/pdfs/pinestraw/pdf](http://www.bugwood.org/productivity/pdfs/pinestraw/pdf). 5 p.

Dickens, E.D., B.C. McElvany, and J. Wall. 2008. NRCS woodland productivity section for Ware County, Georgia. NRCS 3 p.

Dickens, E.D., B.C. McElvany, M. von Waldner, K.M. Irwin, and D.J. Moorhead. 2008. Compost Application to Eastern Redcedar, Leyland Cypress, and Virginia Pine Christmas Tree Seedlings. Georgia Forest Productivity Series No. 001R-08. [www.bugwood.org/productivity](http://www.bugwood.org/productivity). 5 p.

Dickens, E.D., B.C. McElvany, M. von Waldner, K.M. Irwin, and D.J. Moorhead. 2008. Compost Application to Eastern Redcedar, Leyland Cypress, and Virginia Pine Christmas Tree Seedlings. Georgia Forest Productivity Series No. 001S-08. [www.bugwood.org/productivity](http://www.bugwood.org/productivity). 3 p.

Dickens, E. D., D.J. Moorhead, B.C. McElvany, B. Boland, and K.M. Irwin. 2008. The Effect of Inorganic Fertilizer and Layer Litter Applications on a Slash Pine Stand in Brantley

- County, Georgia: Four Year Results. Georgia Forest Productivity Series No. 002R-08. [www.bugwood.org/productivity](http://www.bugwood.org/productivity). 9 p.
- Dickens, E. D., D.J. Moorhead, B.C. McElvany, B. Boland, and K.M. Irwin. 2008. The Effect of Inorganic Fertilizer and Layer Litter Applications on a Slash Pine Stand in Brantley County, Georgia: Four Year Results. Georgia Forest Productivity Series No. 002S-08. [www.bugwood.org/productivity](http://www.bugwood.org/productivity). 3 p.
- Dickens, E.D., J. Johnson, B. Allen, and P. M. Crosby. 2008. Assessing storm damaged forest stands. UGA-WSFNR Publication #10-08. Athens, GA. 6 p.
- Dickens, E.D., D.J. Moorhead, and C.W. Dangerfield. 2008. Growth response and economics of herbaceous weed control in loblolly pine stand management. [www.forestproductivity.net](http://www.forestproductivity.net) 6 p.
- Dickens, E.D., D.J. Moorhead, and C.W. Dangerfield. 2008. Mechanical versus chemical site preparation in loblolly pine stand management. [www.forestproductivity.net](http://www.forestproductivity.net) 5 p.
- Dickens, E.D., C.W. Dangerfield and D.J. Moorhead. 2007. Economics of growing slash and loblolly pine to a 24-year rotation with and without thinning, fertilization, and pine straw—net revenue and rate of return - Series Paper #1. <http://www.forestproductivity.net/economics/1.pdf>
- Dickens, E.D., C.W. Dangerfield and D.J. Moorhead. 2007. Economics of growing slash and loblolly pine to a 24-year rotation with and without thinning, fertilization, and pine straw production – soil expectation value and annual equivalent value - Series Paper #2. <http://www.forestproductivity.net/economics/2.pdf>
- Dickens, E.D., C.W. Dangerfield and D.J. Moorhead. 2007. Economics of growing slash and loblolly pine to a 24-year rotation with and without thinning – impact of thinning at various stumpage prices - Series Paper #3. <http://www.forestproductivity.net/economics/3.pdf>
- Dickens, E.D., C.W. Dangerfield and D.J. Moorhead. 2007. Economics of growing slash and loblolly pine on a 33-year rotation with and without thinning, fertilization, and pine straw—net revenue and rate of return - Series Paper #4. <http://www.forestproductivity.net/economics/4.pdf>
- Dickens, E.D., C.W. Dangerfield and D.J. Moorhead. 2007. Economics of growing slash and loblolly pine on a 33-year rotation with and without thinning, fertilization, and pine straw – annual equivalent value and soil expectation value - Series Paper #5.

<http://www.forestproductivity.net/economics/5.pdf>

- Dickens, E.D., C.W. Dangerfield and D.J. Moorhead. 2007. Economics of growing slash and loblolly pine to a 33-year rotation – impact of thinning at various stumpage prices - Series Paper #6. <http://www.forestproductivity.net/economics/6.pdf>
- Dickens, E.D., C.W. Dangerfield and D.J. Moorhead. 2007. Economics of growing slash and loblolly pine under various levels of management – a 24- versus 33-year rotation comparison - Series Paper #8. <http://www.forestproductivity.net/economics/8.pdf>
- Dickens, E.D., C.W. Dangerfield and D.J. Moorhead. 2007. The economic impact of changing stumpage prices when growing slash and loblolly pine under a 24- and 33-year rotation - Series Paper #9. <http://www.forestproductivity.net/economics/9.pdf>
- Irwin, K.M., E.D. Dickens, B.C. McElvany, D.J. Moorhead, and L. L. Lanier. 2007. Determining survival in young slash, loblolly, and longleaf pine stands after a fire using a slash pine stand fire in Bulloch County, Georgia. 4 p. <http://www.bugwood.org/productivity/pdfs/Bulloch004R-07.pdf>
- Torrance, P.R., P.M. Crosby, E.D. Dickens, B.C. McElvany, D.J. Moorhead, and K. M. Irwin. 2007. Timing, herbicide type, and dosage effects on old-field longleaf pine survival and early growth after a droughty first growing season in Emanuel County, Georgia. 6 p. <http://www.bugwood.org/productivity/pdfs/Emanuel002R-07.pdf>
- Riner, C., R. Torrance, J. Cook, B.C. McElvany, E.D. Dickens, D.J. Moorhead, and K. M. Irwin. 2007. Six year results from a longleaf and slash pine at planting poultry litter and diammonium phosphate application trial in two old-field sites – Full Report. 8 p. <http://www.bugwood.org/productivity/pdfs/Tattnall006R-07.pdf>
- Price, D.C., B.C. McElvany, E.D. Dickens, D.J. Moorhead, and K. M. Irwin. 2007. Spot application of diammonium phosphate and poultry litter at establishment in an old-field planted loblolly pine plantation. 5 p. <http://www.bugwood.org/productivity/pdfs/Quitman005R-07.pdf>
- Crawford, J., E.D. Dickens, B.C. McElvany, and K. M. Irwin. 2007. Fence row herbicide evaluation: efficacy of control – Full report. 5 p. <http://www.bugwood.org/productivity/pdfs/Jefferson003R-07.pdf>
- Hayes, M.D., B.C. McElvany, E.D. Dickens, and D. J. Moorhead. 2007. Does fertilization and competition control pay in slash pine stands growing on deep sands? – Summary

- Report. 2 p. <http://www.bugwood.org/productivity/pdfs/Wheeler009S-07.pdf>
- Hayes, M.D., B.C. McElvany, E.D. Dickens, and D. J. Moorhead. 2007. Competition control and fertilization in an unthinned, cut-over slash pine stand growing on a droughty, infertile deep sands – Four year results. 5 p.  
<http://www.bugwood.org/productivity/pdfs/Wheeler009R-07.pdf>
- Dickens, E.D., B.C. McElvany, and D.J. Moorhead. 2007. Establishing southern pine stands – site preparation options. 5 p.
- Dickens, E.D., B.C. McElvany, D.J. Moorhead, and M. Frye. 2007. Growing poles in southern pine stands. 9 p. <http://www.bugwood.org/productivity/Treutlen010R-07.pdf>
- Dickens, E.D., McElvany, B.C., and Moorhead, D.J. 2006. Site preparation for establishing southern pine plantations. In: Agroforestry and Wildlife Field Day Program Book. UGA Griffin Campus. Editors: M. Cummings and S. Omanhen.  
[www.caes.uga.edu/events/awfd06/index/html](http://www.caes.uga.edu/events/awfd06/index/html). pp. 15-17.
- Dickens, E.D., McElvany, B.C., and Moorhead, D.J. 2006. GA-21F Effect of fertilization on wood volume, product class distribution, and pine straw production with fertilization of old-field planted slash and loblolly pine stands – Study area I: Dodge County, GA site – thinned slash pine. [www.ipni.net/search](http://www.ipni.net/search). 12 p.
- Dickens, E.D. and McElvany, B.C. 2006. Sand Hills State Forest and Town of Cheraw – Lime stabilized biosolids and inorganic fertilizer applications in longleaf stands 10 year summary report for the 1963 planted stand. Report to SC Forestry Commission, Columbia and Patrick, SC. 22 p.
- Dickens, E.D. and McElvany, B.C. 2006. Sand Hills State Forest – Lime stabilized biosolids, pelletized broiler litter, and inorganic fertilizer applications in longleaf stands 10 year summary report for the 1986 planted stand. Report to SC Forestry Commission, Columbia and Patrick, SC. 22 p.
- Dickens, E.D. 2006. Demonstration of BMPs for broiler and layer litter applications in loblolly and slash pine stands in three GA watersheds. GA-DNR (EPD Final report. 19 p.
- Bush, P.B., Dickens, Vendrell, P.F., Boland, Jr., R.T. Mitchell, B.R., and Harrison, W.E. 2006. Soil solution N and P levels after poultry litter and inorganic fertilizer applications in two slash pine stands in Georgia. GA-DNR report II. 6 p.
- Dickens, E.D., McElvany, B.C., Moorhead, D.J., Boland, Jr. R.T., and Bush, P.B. 2006. Four year

growth response results from the demonstration of BMPs for layer litter applications to a slash pine stand in Brantley County, Georgia. GA-DNR report III. 6 p.

Dickens, E.D., McElvany, B.C., Moorhead, D.J., Mitchell, B., Harrison, W.E., and Bush, P. 2006. Four year growth response results from the demonstration of BMPs for broiler litter applications to a slash pine stand in Mitchell County, Georgia. GA-DNR report IV. 9 p.

Hayes, M., McElvany, B.C., and Dickens, E.D. 2006. Does fertilization and competition control pay in slash pine stands growing on deep sands? Poster presentation at the Annual GA County Extension Agent Conf., Rome, GA 1 p.

Dickens, E.D., D.J Moorhead, L.A. Morris, and B.C. McElvany. 2005. Straw raking in southern pine stands and fertilization recommendations.  
[www.forestproductivity.net/pdfs/pinestrawextpub.pdf](http://www.forestproductivity.net/pdfs/pinestrawextpub.pdf). 7 p.

Dickens, E.D., C.W. Dangerfield, and D.J. Moorhead. 2005. Why not selling your best Southern pine trees in a first thinning can make sound economic sense: Using three wood product classes – Series Paper I. [www.bugwood.org](http://www.bugwood.org). 9 p.

Dickens, E.D., C.W. Dangerfield, and D.J. Moorhead. 2005. Why not selling your best Southern pine trees in a first thinning can make sound economic sense: A comparison of using three versus four wood product classes – Series Paper II. [www.bugwood.org](http://www.bugwood.org). 10 p.

Dickens, E.D., C.W. Dangerfield, and D.J. Moorhead. 2005. Why not selling your best Southern pine trees in a first thinning can make sound economic sense: Impact on rotation length financial measures using three product classes – Series Paper III. [www.bugwood.org](http://www.bugwood.org). 11 p.

Dickens, E.D., C.W. Dangerfield, and D.J. Moorhead. 2005. Why not selling your best Southern pine trees in a first thinning can make sound economic sense: Impact on rotation length financial measures using three versus four product classes – Series Paper IV. [www.bugwood.org](http://www.bugwood.org). 11 p.

Dickens, E.D., B. Jackson, J. Beckwith, D.J. Moorhead, B.C. McElvany, and A. Clark III. 2005. A guide to Southern pine products and general specifications. UGA WSFNR Extension Note. 5 p.

Irwin, K. and E.D. Dickens. 2005. Controlling weeds early is the name of the game for longleaf pine. Series #002S. <http://warnell.forestry.uga.edu/warnell/productdemo>. 3 p.

Irwin, K. and E.D. Dickens. 2005. Does fertilization of unthinned loblolly pine stands pay

- dividends? Series #001S. <http://warnell.forestry.uga.edu/warnell/productdemo>. 3 p.
- Dickens, E.D. and K. Irwin. 2005. Fertilization of unthinned loblolly pine on an intensively prepared cut-over site in Twiggs County, Georgia – four year results. Series #001F. <http://warnell.forestry.uga.edu/warnell/productdemo>. 7 p.
- Dickens, E.D. and K. Irwin. 2005. Herbaceous weed control in an old-field planted longleaf pine stand. Series #002F. <http://warnell.forestry.uga.edu/warnell/productdemo>. 6 p.
- Moorhead, D.J. and E.D. Dickens. 2005. Fertilizing pine plantations – A county agent’s guide for fertilizer recommendations. [www.bugwood.org/fertilization/csoilab.html](http://www.bugwood.org/fertilization/csoilab.html). 3 p.
- Dickens, E.D. and D.J. Moorhead. 2005. Sampling loblolly, longleaf, and slash pine foliage for nutrient analysis. [www.bugwood.org/fertilization/foilage.html](http://www.bugwood.org/fertilization/foilage.html). 3 p.
- Dickens, E.D., D.J. Moorhead, and B.C. McElvany. 2005. Effect of fertilization on wood volume, product class distribution and pine straw yields on an old-field slash stand – Dodge County, Georgia site. GA-21F1 summary report to PPI-FAR 12 p.
- Dickens, E.D., D.J. Moorhead, and B.C. McElvany. 2005. Effect of fertilization on wood volume, product class distribution and pine straw yields on an old-field slash stand – Toombs County, Georgia site. GA-21F2 summary report to PPI-FAR 13 p.
- Dickens, E.D., D.J. Moorhead, and B.C. McElvany. 2005. Enhancing thinned slash pine volume with competition control and fertilization on flatwoods spodosols. GA-24F summary report to PPI-FAR 6 p.
- Dickens, E.D., D.J. Moorhead, and B.C. McElvany. 2005. Effect of fertilization on wood volume, product class distribution and pine straw yields on an old-field slash stand – Dodge County, Georgia site. GA-21F1 summary report to PPI-FAR 12 p.
- Dickens, E.D. and D.J. Moorhead. 2005. Updated checklist for fertilization of loblolly, longleaf, and slash pine stands. UGA-WSFR Extension Note 3 p.
- Dickens, E.D., D.J. Moorhead, and B.C. McElvany. 2004. Enhancing pine straw production, wood volume, and product class distribution with fertilization of old-field planted slash and loblolly pine stands. Summary report to Foundation for Agronomic Research (FAR) and Potash & Phosphate Institute (PPI) for Project GA-21F. 7 p.
- Dickens, E.D., D.J. Moorhead, and B.C. McElvany. 2004. Thinned slash pine volume production

and product class distribution with competition control and fertilization on flatwoods spodosols. Summary Report to Foundation for Agronomic Research (FAR), Potash & Phosphate Institute (PPI), and BASF for Project GA-26F. 9 p.

Dickens, E.D., P. Bush, and L.A. Morris. 2003. Poultry litter recommendations in pine plantations. University of GA Coop. Ext. Service Pub., <http://www.bugwood.org>. 19 p.

Dickens, E.D. L.A. Morris, and D.J. Moorhead. 2003. Fertilization recommendations for pine straw production in southern pines. University of GA Coop. Ext. Service Pub., <http://www.bugwood.org>. 20 p.

McElvany, B.C., E.D. Dickens, and K.D. Coder. 2002. Slash pine - selected bibliography. 1981 - 2001. UGA-WSFR Pub FOR02-10. Athens, GA 119 p.

Dickens, E.D., W.H. McKee, Jr, and J.J. Camberato. 2002. Forest land application of animal manures. Chapter 5b. Clemson Univ. Ext. Pub., [www.clemson.edu/peedeerec/certifi/Camm.html](http://www.clemson.edu/peedeerec/certifi/Camm.html) 4 p.

Dickens, E.D. 2000. Decision-making aid for loblolly and slash pine plantation mid-rotation fertilization. University of GA Coop. Ext. Service Pub., <http://www.bugwood.org>. 1 p.

Dickens, E.D. and D. J. Moorhead. 2000. Sampling loblolly, longleaf, and slash pine for foliar nutrient analysis. Univ. of GA Coop. Ext. Serv. Pub. <http://www.bugwood.org>. 3p.

Dickens, E.D. 2000. Sand Hills State Forest – Town of Cheraw lime stabilized biosolids and inorganic fertilizer application in longleaf stands – four year summary report. SC Forestry Commission. 23 p.

Dickens, E.D, J.J. Camberato, and W.H. McKee, Jr. 1999. Forest land application of animal manures recommendations for South Carolina. Clemson Extension - SC Confined Animal Manure Managers Certification Guidebook. 4 p.

Dickens, E.D. 1997. Berkeley County Water & Sanitation Authority - Alumax Forest Land Application of Biosolids Project - Summary Report. Submitted to Alumax, BCW&SA, and ERC. Aug 14, 1997. 23 p.

### **Popular Press Articles**

Dickens, E.D., D.J. Moorhead, and L.A. Morris. 2008. Pine straw – an economically important forest product. South Carolina Forestry – The monthly journal of the SC forestry Association. Vol. MMVIII, No. 2. Feb 2008. pp. 6-10.

Dickens, E.D., D.J. Moorhead, L.A. Morris, B. McElvany and M. Hayes. 2007. Pine straw raking in



southern pine stands. *Georgia Forestry Today*. Vol. 3(5):34-35.

Dickens, E.D., D.J. Moorhead, C.W. Dangerfield, and S. Chapman. 2004. Georgia's Stewardship Forests - Thinning pine plantations. Georgia Forestry Commission Pub No. C/S011. 6 p.

Dickens, E.D., D.J. Moorhead, and B.C. McElvany. 2003. Pine Plantation Fertilization. In: *Better Crops* Vol. 87 (1): 12-15.

Dickens, E.D., D.J. Moorhead, and C.W. Dangerfield, Jr. 2003. Thinning pine plantations. In: *Georgia Forestry*.

Dickens, E.D.. 2000. Fertilizing Loblolly Pine Plantations. In: *Georgia Tree Farm Times*, Vol. IV, #2. Fall. 2000. p.1.

Dickens, E.D. 1999. Fertilizer opportunities in loblolly pine plantations. In: *Forest Landowner Magazine*. April-May Manual Issue. pp. 71-75.

#### **Workshop Papers**

Dickens, E.D. 2002. Selected loblolly pine wood properties from a one-time biosolids application. In: From Brown to Green - Environmental and biological aspects of applying agricultural and municipal by-products to forest stands. Raleigh, NC. May 29-30, 2002.

Dickens, E.D. 2002. Effective use of herbicides and inorganic and organic fertilizers in pine plantation management. Clemson University Coop. Extension Service Workshop. May 16, 2002. Manning, SC 35 p.

Dickens, E.D. 2000. Loblolly pine establishment and fertilization workshop. Clemson University Coop. Ext. Service. Anderson, SC November 29, 2000. 50 p.

Dickens, E.D. 1999. Water quality effects of a biosolids application in Atlantic Coastal Plain loblolly pine plantations. Presented at: Extension Water Quality Conf. April 17-21, 1999. Raleigh, NC. 4 p.

Dickens, E.D. 1999. Mid-rotation fertilization in row thinned loblolly pine plantations: effect of broiler litter and inorganic fertilizer applications on stand growth. Presented at the Univ. of MD Fertilization of Forest Stands with Poultry Litter Workshop. March 18, 1999. Ocean City, MD.

## **Creative contributions other than formal publications**

### **Grants (2016-2020+ = \$868K, 2010-2015 = \$139K)**

*Note: amounts shown are total direct + indirect for the entire project. Detailed breakdowns of grant proposals and awards by investigator and unit are available through the UGA eResearch Portal: <http://gear.ovpr.uga.edu/>. Log on through the GRANTS icon and select Reports from the menu bar.*

#### **Site Index and Mean Annual Increment Estimates for Planted Longleaf, Loblolly, and Slash Pine by Soil Group in the Georgia Coastal Plain and for Planted Loblolly Pine by Soil Associations in the Georgia Piedmont (FP00020780)**

USDA NRCS, NR204310XXXXC035, *October 1, 2020–September 30, 2023*

Amount: \$ 200,000 (US), Role: Principal investigator of, Credit: 25%

Application date: May 15, 2020, Award date: October 15, 2020, Funding type: Research, Status: Awarded

#### **Development of a Planted Longleaf Pine Growth and Yield Model System for Cutover Sites in the Southeast US (FP00021358)**

US Department of Interior, 1903.20.070063, *September 1, 2020–December 31, 2022*

Proposed amount: \$ 250,000 (US), Role: Co-investigator of, Credit: 10%

Application date: May 7, 2020, Award date: October 1, 2020, Funding type: Research, Status: Awarded

#### **Herbaceous Weed Control Using Impregnated Fertilizer in Pine Plantations (FP00018415)**

DOW AGROSCIENCES LLC, n/a, *May 1, 2019–January 31, 2023*

Amount: \$ 24,000 (US), Role: Co-investigator of, Credit: 50%

Application date: June 18, 2019, Award date: July 15, 2019, Funding type: Research, Status: Awarded

#### **Developing a valuation methodology for Qualified Timberland Property (QTP) as proposed by HB85/HR51 for ad valorem tax purposes in Georgia GA Dept. of Revenue Institution Ref # FP00015071, Sept 2018 – Sept 2019; \$64,200, Credit: 25%**

#### **Planted Longleaf Pine Tonnage and Value Estimation for Making Informed Long-term Management Decisions USDA NRCS, NR204310XXXXC015, *October 1, 2017–September 30, 2021***

Amount: \$ 200,000 (US), Role: Principal investigator of, Credit: 25%

Application date: August 15, 2020, Award date: October 1, 2020, Funding type: Research, Status: Awarded

**LOBLOLLY PINE STAND FERTILIZATION AT MID-ROTATION TO INCREASE CHIP-N-SAW AND SAWTIMBER VOLUME - REVISION - 1 (048540-06)**

INTL PLANT NUTRITION INSTITUTE, AGREEMENT, *September 1, 2013–August 31, 2021*  
Amount: \$ 10,000 (US), Role: Principal investigator of, Credit: 100%  
Application date: March 7, 2018, Award date: March 8, 2018, Funding type: Public service and outreach, Status: Awarded

**LOBLOLLY PINE STAND FERTILIZATION AT MID-ROTATION TO INCREASE CHIP-N-SAW AND SAWTIMBER VOLUME - REVISION - 1 (048540-05)**

INTL PLANT NUTRITION INSTITUTE, AGREEMENT, *September 1, 2013–August 31, 2021*  
Amount: \$ 10,000 (US), Role: Principal investigator of, Credit: 100%  
Application date: May 2, 2017, Award date: May 17, 2017, Funding type: Public service and outreach, Status: Awarded

**Longleaf History and Management Education for Forest Landowners, Foresters, and K through 12th Graders in Georgia (FP00005973)**

USDA NRCS, 68-4310-15-25, *January 29, 2016–March 31, 2019*  
Amount: \$ 100,000 (US), Role: Principal investigator of, Credit: 60%  
Application date: August 12, 2015, Award date: February 22, 2016, Funding type: Research, Status: Closed

**LOBLOLLY PINE STAND FERTILIZATION AT MID-ROTATION TO INCREASE CHIP-N-SAW AND SAWTIMBER VOLUME - REVISION - 1 (048540-04)**

INTL PLANT NUTRITION INSTITUTE, AGREEMENT, *September 1, 2013–August 31, 2021*  
Amount: \$ 10,000 (US), Role: Principal investigator of, Credit: 100%  
Application date: April 6, 2016, Award date: April 6, 2016, Funding type: Public service and outreach, Status: Awarded

**DOW Agrosiences Chemical Site Prep Timing and Products Study (FP00003348)**

DOW AGROSCIENCES LLC, NA, *September 1, 2014–February 28, 2020*  
Amount: \$ 25,200 (US), Role: Principal investigator of, Credit: 100%  
Application date: October 2, 2014, Award date: November 6, 2014, Funding type: Research, Status: Closed

**LOBLOLLY PINE STAND FERTILIZATION AT MID-ROTATION TO INCREASE CHIP-N-SAW AND SAWTIMBER VOLUME (048540-02)**

INTL PLANT NUTRITION INSTITUTE, AGREEMENT, *September 1, 2013–August 31, 2021*  
Amount: \$ 10,000 (US), Role: Principal investigator of, Credit: 100%  
Application date: May 29, 2014, Award date: July 8, 2014, Funding type: Public service and outreach, Status: Awarded

**LOBLOLLY PINE STAND FERTILIZATION AT MID-ROTATION TO INCREASE CHIP-N-SAW AND SAWTIMBER VOLUME - REVISION - 1 (048540-03)**

INTL PLANT NUTRITION INSTITUTE, AGREEMENT, *September 1, 2013–August 31, 2021*

Amount: \$ 10,000 (US), Role: Principal investigator of, Credit: 100%

Application date: May 29, 2014, Award date: June 15, 2015, Funding type: Public service and outreach, Status: Awarded

**LOBLOLLY PINE STAND FERTILIZATION AT MID-ROTATION TO INCREASE CHIP-N-SAW AND SAWTIMBER VOLUME (048540-01)**

INTL PLANT NUTRITION INSTITUTE, AGREEMENT, *September 1, 2013–August 31, 2021*

Amount: \$ 10,000 (US), Role: Principal investigator of, Credit: 100%

Application date: June 26, 2013, Award date: September 5, 2013, Funding type: Public service and outreach, Status: Awarded

**Longleaf Pine Ecosystem Restoration - Development of Landowner Recommendations Based on Monitoring of Existing Stands and Management Techniques GFC \$34,900**

Institution Ref #FP00002796 Credit:75% Aug 2014-2017 Credit:75%

**LONGLEAF PINE SEED SOURCE DEMONSTRATION SITES FOR FOREST LANDOWNER EDUCATION** USDA FS \$30,000 Institution Ref# 046853-01 Sponsor Award ID:

12DG11083150020 Credit:75% Sept 2012-2015

**EVALUATING THE EFFECTS OF PINE STRAW RAKING ON ENVIRONMENTAL BENEFITS ASSOCIATED WITH THE CONSERVATION RESERVE PROGRAM (CRP) \$10,000 USDA**

Aug 2010 – 2013 Credit:50% Institution Ref# 037988-01

**Other Funding**

**Unrestricted Gift**

International Forest Company (IF Co), *July 1, 2019–July 1, 2020*

Amount: \$ 6,000 (US), Role: Co-investigator of

Application date: May 1, 2019, Award date: July 1, 2019, Funding type: Public service and outreach, Status: Awarded

**Unrestricted gift**

CORTEVA, *July 1, 2019–July 1, 2020*

Amount: \$ 7,500 (US), Role: Co-investigator of

Application date: May 1, 2019, Award date: July 1, 2019, Funding type: Public service and outreach, Status: Awarded

**Grant proposals submitted but not funded:**

2010: \$881,500

Dickens, E.D., L.A. Morris, D.E. Markewitz, and M. Kane. NRCS-CIG. *Updating Natural Resource Conservation Service "Woodland Suitability" and "Woodland Management and Productivity" tables to sustain site-specific soil productivity and establish carbon sequestration estimates in southeastern pine forests.* Oct 2010 – Sept 2013.

**Past Grants Received:** (total grant funds from 1999 and 2009 while at UGA = \$534,700)

**2006: \$40,000**

Dickens, E.D., and D.J. Moorhead. USDA FS. *An investigation of old-field longleaf growth, yield, product class distributions, pine straw production, and economics of management intensities in Georgia.* July 2006 – April 2011

**2006: \$40,000**

Dickens, E.D., and D.J. Moorhead. *Loblolly pine stand fertilization at mid-rotation to increase small and large sawtimber volumes.* IPNI-FAR. July 2006 – Dec 2010

**2003: \$40,000**

Dickens, E.D., D.J. Moorhead, and C.W. Dangerfield, Jr.  
BASF, Helena, PPI-FAR *Enhancing thinned slash pine volume production and product class distribution with competition control and fertilization on Flatwoods spodosols.*  
July 2003 - July 2008

**2003: \$10,000**

Dickens, E.D. *USFS Slash Pine Symposium General Technical Report*  
July 2003

**2003: \$56,664**

Dickens, E.D., D.J. Moorhead, and C.W. Dangerfield, Jr.  
*An investigation of old-field longleaf growth, yield, diameter distributions, product class distributions, pine straw production, and economics of management intensities in Georgia.*  
July 2003 - July 2008.

**2002: \$10,000**

Dickens, E.D. *USFS Slash Pine Symposium*  
April 2002

**2001: \$315,545**

Dickens, E.D., P.B. Bush, D.J. Moorhead. EPA 319(h) funds GA-EPD *Demonstration of Best Mgmt Practices for Broiler and Layer Litter Applications in Loblolly and Slash Pine Plantations in Three Georgia Watersheds.*

June 2001 - Dec 2005

**2001: \$52,350**

Dickens, E.D., Moorhead, D.J. PPI - Foundation for Agronomic Research *Enhancing Pine Straw Production, Wood Volume, and Product Class Distributions with Fertilization of Old-field Loblolly and Slash Pine Plantations.*

June 2001 - June 2006

**2001: \$10,000**

Dickens, E.D. Sand Hills State Forest and SC Forestry Commission *Effect of Lime Stabilized Biosolids, Turkey Litter, and Pelletized Broiler Litter Application on Longleaf Stand Growth and Pine Straw Production on Deep Sandy Soils.*

April 2001 - April 2006

**Past Grant funds received while at Clemson University (total = \$528,000):**

**1998: \$105,000**

T.W. Williams, C. Gresham, E.D. Dickens SC State Legislature monies *Effect of Intensive Pine and Hardwood Management including Annual Weed Control and Fertilization on Water Quality.*

December 1998 - December 2002

**1997: \$125,000**

Dickens, E.D., J.P. Chastain, R.O. Hegg EPA 319(h) SC-DHEC *Water Quality Impact of Hog Lagoon Effluent and Turkey Litter Applications in Loblolly Pine Plantations in the CP and Sand Hills of SC.*

November 1997 – April 2001

**1997: \$75,000**

Chastain, J.P., E.D. Dickens, D.E. Linville SC State Legislature PSA *Forest Floor Energy Balance, Volatilization Losses of NH<sub>3</sub> and Immobilization of N in the Forest Floor Biomass of Loblolly Pine Plantations Fertilized with Swine and Poultry Manure.*

November 1997 - November 2000

**1997: \$105,000**

Dickens, E.D., J.P. Chastain, J.J. Camberato, W.H. McKee, Jr., T.W. Williams SC State Legislature monies *Determination of Sound Hog Lagoon Effluent Application Rates for Loblolly, Longleaf Pine and Sycamore at Planting*

November 1997- November 1999

**1997: \$75,000**

Brune, D.E. and E.D. Dickens SC State Legislature PSA monies

*Electromagnetic Terrain Conductivity in Quantifying Groundwater Impact of Animal manure Application in Forest Stands*

November 1998- November 2000

**1996: \$33,000**

Dickens, E.D. Hanahan CPW *Forest Land Application of Alum Residuals - Effects on Loblolly Pine Stand Vigor*

April 1996 - April 1999

**1995: \$10,000**

Dickens, E.D. Sand Hills State Forest and the SC Forestry Commission *Effect of Lime Stabilized Biosolids, Turkey Litter, and Pelletized Broiler Litter Application on Longleaf Stand Growth and Pine Straw Production on Deep Sandy Soils.*

April 1995 - April 1999

**Recognitions and Outstanding Achievements**

- Four time winner (2002, 2006, 2015 twice) of the Southern Region Extension Forestry (SREF) Award for Excellence for the “Growing Pines in Trying Times” (2002) landowner meeting series in GA and the Slash Pine Symposium and General Technical Report (2006) and Southern Region Extension Forestry Award – category - computerized resource library for decision-makers – Georgia Forest Productivity Website (<http://www.bugwood.org/productivity/>) – Dickens, Moorhead, and Barger (2015) Southern Region Extension Forestry Award – category - extension publication series – Eight part series on the economics of growing loblolly, longleaf and slash pine– (<http://www.warnell.uga.edu/outreach/pubs/all.php#e>) - Dickens and Moorhead (2015)
- 2015 SE Society or American Foresters- Education and Technology Award (presented at Jan 2016 SESAF meeting in St Simons Is, GA)

- Nominated by Dean Dale Greene and Associate Dean Kris Irwin for Forest Landowners Association Outstanding Extension Forester of the year Award in 2021

### **Areas in which (applied) research is done**

Dr. Dickens is lead investigator and has installed over 80 (38 older and 45 new NRCS site index and mean annual increment plot sets) forest productivity research, demonstration, and education study areas in Florida, Georgia, and South Carolina. These sites include nine longleaf fertilization (4 in SC, 2 in GA) or herbaceous weed control (3 in GA) trials, three longleaf one- vs two-year-old seedlings out of the nursery (carryover seedlings due to cancelled orders), six longleaf seed source trials, three short rotation woody biomass trials with Arborgen, three side-by-side loblolly vs longleaf, loblolly vs slash and loblolly vs slash vs longleaf trials, three loblolly fertilization, herbicide, and fertilization + herbicide trials, two slash fertilization, herbicide, and fertilization+herbicide trials, two DOW chemical site prep study sites (upland and poorly drained bedded sites), four loblolly and slash pine seedling genetics and nursery source studies with Howard Lumber Company, and three first vs second year containerized longleaf seedling interplanting studies.

Dr. Dickens is the lead investigator and has installed 45 new NRCS study areas (in 1/10 acre plot sets of 3/study area) in November 2020 – through May 2021 to quantify site index (SI base age 25-yrs) and mean annual increment (MAI in tons/ac/yr) for loblolly, longleaf and slash pine in the Georgia Coastal Plain and for loblolly pine in the Georgia Piedmont by soil series/soil group. Several Extension publications and 2 refereed journal papers have been published from these studies (3<sup>rd</sup> refereed paper published in the Journal of Forestry March 2021).

### **From our applied research studies we have found:**

1. Herbicide applicators need to wait at least two months after planting longleaf pine before applying labeled herbicides over-the-top for herbaceous weed control
2. Herbaceous weed control timing (early April versus early May) can be very important in years (i.e. 2000) of excessive early spring droughts for longleaf pine on moderately well to excessively well drained soils
3. Applying a single dose of NP, NPK, or NPKSMgBCu, a single or annual dose of poultry litter in established (age 8- to 20-yrs) slash and loblolly stands planted on old-field sites does not significantly increase volume growth
4. Old-field loblolly, slash, and longleaf growth rates have been determined in Georgia at 8-10 tons/ac/yr, 7-8 tons/ac/yr, and 5.5-7 tons/ac/yr, respectively through age 15 to 20-years on somewhat poorly to well drained soils of the Coastal Plain

### **Editorship or editorial board member of journals or other learned papers**

- 2010 paper reviewer for Agroforestry Systems
- 2005 – 2007 paper reviewer for SJAF and JEQ

### **Review Committee for Convention papers**

- 2007, 2006 Biennial So. Silvicultural Research Conference – paper abstract review committee, session committee Athens, GA



- 2009, 2008, 2007, 2006 Weed Science Society of America – committee chair, chair elect  
– review abstracts for acceptance, moderate session

**Professional and Public Service**

**Professional Service**

**Area of Extension Responsibility (originally 100% Extension appt, changed to 95% Extension, 5% service in 2018; almost all tenured faculty have a 5% service appt.)**

- The job objective as stated in the job description is “to assist nonindustrial private forest landowners on enhancing forest productivity and yield.” This objective is to be achieved through the “development and implementation of a comprehensive statewide program. Primary extension responsibilities include working with nonindustrial private forest landowners, extension agents, resource managers, and other school faculty on the effect of cultural practices on growth, yield, enhancing stand productivity, timber management, and production of commercial forest products.”

**External Clientele Contacts (includes office visits, phone and email contacts)**

<u>Year</u>	<u>Number of contacts</u>
2020	380
2019	560
2018	545
2017	520
2016	525
2015	505
2014	495
2013	525
2012	530
2011	545
2010	520
2009	545
2008	525
2007	485
2006	445
2005	410
2004	370
2003	365
2002	355
2001	345
2000	340

**Average number of farm visits with landowners, county agents, foresters and/or managers = 50/yr**

## Forestry Education & Forestry Continuing Education

Continuing education programs and training sessions for professionals (consultants, state/federal foresters, and county agents) and forest landowners/managers

### Scholarly Activities

#### 2020 Conference Presentations

##### National

- Clabo, D., Dickens, E., & Moorhead, D. (2020). OLD-FIELD PLANTED LONGLEAF PINE RESPONSE TO VARIOUS HERBACEOUS WEED CONTROL TREATMENTS AND TIMINGS ELEVEN YEARS POST APPLICATION. In *2020 Society of American Foresters National Convention*. Retrieved from <https://learn.eforester.org/saf2020>

##### Regional

- Clabo, D., & Dickens, E. (2020). Five to Eight Year Results of Longleaf Pine Seed Source Trials in South Georgia. In *13th Biennial Longleaf Conference*. Virtual. Retrieved from <https://longleafalliance.org/what-we-do/education/conferences>

#### 2020 Educational and Outreach Presentations

- **Assessing storm damaged forest stands, November 30, 2020**  
Catastrophic wind damage workshop  
Role: Co-presenters, Target audience: Professionals  
Number of participants: 45, Sessions: 1, Contact hours: 0.2
- **Reforestation options after a major storm, November 30, 2020**  
Catastrophic wind damage workshop  
Role: Co-presenters, Target audience: Professionals  
Number of participants: 45, Sessions: 1, Contact hours: 0.2
- **Longleaf pine seed source study-5-8 year results, November 11, 2020**  
Longleaf Pine Establishment and Management Workshop, Tift County  
Role: Presenter, Target audience: Professionals  
Number of participants: 17, Sessions: 1, Contact hours: 0.8 (Fully at a distance)  
CEU/CLEs awarded: 1.410000 Category III CEUs
- **Management implications for longleaf pine on old-field sites, November 11, 2020**  
Longleaf Pine Establishment and Management Workshop, Tift County  
Role: Presenter, Target audience: Professionals  
Number of participants: 17, Sessions: 1, Contact hours: 0.8 (Fully at a distance)  
CEU/CLEs awarded: 1.275000 Category III CEUs
- **Post-plant herbaceous weed control for longleaf pine—products, timings, dosages, and study results, November 10, 2020**  
Longleaf Pine Establishment and Management Workshop, Tift County

- Role: Presenter, Target audience: Professionals  
 Number of participants: 18, Sessions: 1, Contact hours: 0.8 (Fully at a distance)  
 CEU/CLEs awarded: 1.490000 Category III CEUs
- **Prescribed burning; timing, frequency, effects on survival and growth of longleaf pine, November 10, 2020**  
 Longleaf Pine Establishment and Management Workshop, Tift County  
 Role: Presenter, Target audience: Professionals  
 Number of participants: 18, Sessions: 1, Contact hours: 1.0 (Fully at a distance)  
 CEU/CLEs awarded: 1.800000 Category III CEUs
  - **Site Preparation for Southern Pines, October 13, 2020**  
 UGA Herbicide Update Workshop, Tift County  
 Role: Presenter, Target audience: Professionals  
 Number of participants: 28, Sessions: 1, Contact hours: 1.0 (Fully at a distance)  
 CEU/CLEs awarded: 2.800000 Category III CEUs
  - **Control of Natural Pines with a Mix of Imazapyr, Glyphosate, and Saflufenacil and a Test of Materials to Improve Glyphosate Efficacy, October 13, 2020**  
 UGA Herbicide Update Workshop, Tift County  
 Role: Presenter, Target audience: Professionals  
 Number of participants: 28, Sessions: 1, Contact hours: 0.5 (Fully at a distance)  
 CEU/CLEs awarded: 1.400000 Category III CEUs
  - **Economics of growing longleaf pine, November 11, 2020**  
 Longleaf pine establishment and mgmt workshop  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 16, Sessions: 1, Contact hours: 1.0
  - **Longleaf pine growth rate estimates through age 32-yrs on old-field sites, November 11, 2020**  
 Longleaf pine establishment and mgmt workshop  
 Role: Presenter, Target audience: Professionals  
 Number of participants: 16, Sessions: 1, Contact hours: 1.0
  - **Maintaining pine straw prodn and wood growth of longleaf pine on cutover and old-field sites, November 11, 2020**  
 Longleaf pine establishment and mgmt workshop  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 16, Sessions: 1, Contact hours: 1.0
  - **Site preparation, November 10, 2020**  
 Longleaf pine establishment and mgmt workshop  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 16, Sessions: 1, Contact hours: 1.0
  - **Post-plant herbaceous weed control, November 10, 2020**  
 Longleaf pine establishment and mgmt workshop  
 Role: Co-presenters, Target audience: Professionals

- Number of participants: 16, Sessions: 1, Contact hours: 1.0
- **Site preparation for pine plantations, October 13, 2020–January 13, 2021**  
Forest herbicide update workshop  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 26, Sessions: 1, Contact hours: 1.0
  - **Herbaceous weed control for loblolly and longleaf pine -study results, October 13, 2020**  
Forest herbicide update workshop  
Role: Co-presenters, Target audience: Professionals  
Number of participants: 26, Sessions: 1, Contact hours: 1.0
  - **Mid-rotation woody release, October 13, 2020**  
Forest herbicide update workshop  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 26, Sessions: 1, Contact hours: 1.0
  - **Finances of mid-rotation woody release, October 13, 2020**  
Forest herbicide update workshop  
Role: Co-presenters, Target audience: Professionals
  - **Volunteer pine control herbicide trial studies results, October 13, 2020**  
Forest herbicide update workshop  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 26, Sessions: 1, Contact hours: 1.0
  - **Post-plant herbaceous weed control, July 29, 2020**  
Growth responses and financial returns from silvicultural treatments in So pine plantations  
Role: Presenter, Target audience: Professionals  
Number of participants: 17, Sessions: 1, Contact hours: 1.0
  - **Growth responses and financial returns from silvicultural treatments in So pine plantations, July 28, 2020–July 29, 2020**  
Growth responses and financial returns from silvicultural treatments in So pine plantations  
Role: Coordinator, Target audience: Professionals  
Number of participants: 17, Sessions: 14, Contact hours: 14.0
  - **Reforestation options after hurricane Michael, February 25, 2020**  
SE SAF Annual Meeting Panama City Beach, Florida  
Role: Presenter, Target audience: Professionals  
Number of participants: 130, Sessions: 1, Contact hours: 1.0
  - **Southern pine growth and yield and wood products, February 6, 2020**  
Woodland Stewards Association zoom meeting  
Role: Presenter, Target audience: Farmers/Producers
  - **An economic comparison of loblolly, longleaf and slash pine, January 14, 2020**  
Longleaf Alliance meeting – Ridgeland, SC

- Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 35, Sessions: 1, Contact hours: 1.0
- **A comparison of loblolly, longleaf and slash pine growth and yields, January 14, 2020**  
 Longleaf Alliance meeting- Ridgeland, SC  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 35, Sessions: 1, Contact hours: 1.0
  - **Site Preparation for Southern Pines, October 21, 2020**  
 Thomas County Online Forestry Meeting, Thomas County  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 18, Sessions: 1, Contact hours: 1.0 (Fully at a distance)  
 CEU/CLEs awarded: 1.800000 Category III CEUs
  - **Pine species decision-making, October 21, 2020**  
 Thomas Co forestry meeting, Thomas County  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 10, Sessions: 1, Contact hours: 1.0
  - **Chemical and mechanical site preparation, October 15, 2020**  
 Appling Co Forestry Meeting, Appling County  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 12, Sessions: 1, Contact hours: 0.5
  - **Herbaceous weed control, October 15, 2020**  
 Appling Co forestry meeting, Appling County  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 12, Sessions: 1, Contact hours: 0.5
  - **Pine straw production, October 15, 2020**  
 Appling Co forestry meeting, Appling County  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 12, Sessions: 1, Contact hours: 0.5
  - **4-H Forestry Competition (done Sept each year for SE District from 2000- 2020)**  
**SE District - set-up and judge volume estimation and compass and pacing, September 9, 2020**  
 SE District 4-H forestry competition  
 Role: Coordinator, Target audience: Youth  
 Number of participants: 20, Sessions: 3, Contact hours: 4.0
  - **Co-administrator, Longleaf Pine Establishment and Management Workshop, November 10, 2020–November 11, 2020**  
 Tift County, Target audience: Professionals  
 Annual Time Commitment (hrs): 40.0  
 Workshop covered all aspects of growing and managing longleaf pine
  - **Co-administrator, UGA Herbicide Update Workshop, October 13, 2020**  
 Tift County, Target audience: Professionals  
 Annual Time Commitment (hrs): 15.0

Provided information on forestry herbicides and herbicide studies to participants

### **2020 Projects (Applied Research and Instructional Initiatives)**

- **Longleaf pine management and financial implications, August 7, 2017–Present**  
Co-contributor(s): Li Y; Dickens E
- **Nantucket Pine Tip Moth Damage on Various Loblolly Genetic Lines, December 3, 2018–Present**  
Co-contributor(s): Benton E; Dickens E; Gandhi K; Villari C; Clabo D  
This is a Southern Pine Health Cooperative funded research project
- **Efficacy of Systemic Insecticides and Pine Tip Moth Seasonality in Young Pine Stands, November 1, 2018–Present**  
Co-contributor(s): Benton E; Dickens E  
This is a Georgia Forestry Commission funded research project

### **2019 Educational and Outreach Presentations**

- **Sequencing fertilization and herbicide use to reduce overall costs, October 23, 2019**  
Pine straw prodn, stand mgmt and economics, Tift County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.5
- **Economics of pine straw prodn, October 23, 2019**  
Pine straw prodn, stand mgmt and economics, Tift County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 1.5
- **Pine straw field session - pine straw mgmt on an oldfield site, October 23, 2019**  
Pine straw prodn, stand mgmt and economics, Tift County  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.8
- **Pine straw field session - stand mgmt pre and post-thin, October 23, 2019**  
Pine straw prodn, stand mgmt and economics, Tift County  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.8
- **Pine straw field session - prescribed fire, October 23, 2019**  
Pine straw prodn, stand mgmt and economics, Tift County  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.8
- **Pine straw field session - planting spacing, stem quality issues on oldfield sites, October 23, 2019**  
Pine straw prodn, stand mgmt and economics workshop, Tift County  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.8

- **Forest mgmt alternatives for moving a cutover stand into pine straw prodn, October 22, 2019**  
Pine straw prodn, stand mgmt and economics, Tift County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.8
- **Introduction -pine straw vs stumpage annual revenues in GA (1999-2018), factors affecting pine straw yields, October 22, 2019**  
Pine straw prodn, stand mgmt, and econ, Tift County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 1.0
- **Pine straw prodn, stand mgmt and econ workshop - Tifton GA, October 22, 2019–October 23, 2019**  
Pine straw prodn, stand mgmt and economics, Tift County  
Role: Coordinator, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 14, Contact hours: 13.0
- **Loblolly, longleaf and slash pine cutover and oldfield pine straw studies, October 22, 2019**  
Magnitude and duration of fertilization benefits on pine growth and straw prodn case studies fertilization payoffs weed regrowth with fert, Tift County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.8
- **Using diagnostic tools (Leaf area index, foliage and soil sampling), soils knowledge and yield info for determining effective fert Rx's, October 22, 2019**  
Pine straw prodn, stand mgmt and economics workshop, Tift County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.6
- **Forest floor nutrient release rates, October 22, 2019**  
Pine straw prodn, stand mgmt and economics, Tift County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 1, Contact hours: 0.5
- **Mid-rotation release treatments, August 21, 2019**  
Forest herbicide workshop, Tift County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 90, Sessions: 1, Contact hours: 0.8
- **DOW site prep timing and herbicide products/tank mixes loblolly pine study - 4 yr results, August 21, 2019**  
Forest herbicide workshop, Tift County  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 90, Sessions: 1, Contact hours: 1.3
- **Economics of mid-rotation release vs fertilization vs both treatments in loblolly, longleaf and slash pine stands, August 21, 2019**

- Forest herbicide workshop, Tift County  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 90, Sessions: 1, Contact hours: 1.3
- **Forest herbicide workshop, August 20, 2019–August 21, 2019**  
 Forest herbicide workshop, Tift County  
 Role: Coordinator, Target audience: Farmers/Producers  
 Number of participants: 90, Sessions: 14, Contact hours: 12.5
  - **Herbicides for site prep, August 20, 2019**  
 Forest Herbicide workshop, Tift County  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 90, Sessions: 1, Contact hours: 0.8
  - **Herbaceous weed control, August 20, 2019**  
 Forest herbicide workshop, Tift County  
 Role: Presenter, Target audience: Farmers/Producers  
 Number of participants: 90, Sessions: 1, Contact hours: 0.8

#### **2018 Educational and Outreach Presentations**

- **Loblolly Pine Mid-rotation Fertilization & Competition Control Value and ROR, March 21, 2018**  
 International Society of Forest Research Economists Annual Conference (ISFRE),  
 Gatlinburg, TN, United States  
 Role: Presenter, Target audience: Professionals  
 Number of participants: 20, Sessions: 1, Contact hours: 0.5 (Face-to-face)  
 CEU/CLEs awarded: 10.000000 Category I CEUs
- **An Economic Comparison of Loblolly, Longleaf and Slash Pine with and without pine straw income, EQIP Cost-share and CRP CP36 with annual rental payments, March 21, 2018**  
 International Society of Forest Resource Economists Annual Conference (ISFRE),  
 Gatlinburg, TN, United States  
 Role: Presenter, Target audience: Professionals  
 Number of participants: 15, Sessions: 1, Contact hours: 0.5 (Face-to-face)  
 CEU/CLEs awarded: 7.500000 Category I CEUs
- **Two topics presented: (1) Mid-rotation econ of herbicide and fertilizer app in slash and loblolly and (2) HWC results in loblolly and longleaf stands, June 19, 2018–June 20, 2018**  
 Mississippi State Univ Forest herbicide workshop  
 Role: Presenter, Target audience: Professionals  
 Number of participants: 85, Sessions: 2, Contact hours: 170.0 (Face-to-face)  
 CEU/CLEs awarded: 17.000000 Category I CEUs
- **Hurricane damaged stand assessments, timeline for wood to mills, lean tree recovery, October 25, 2018**



GFC & WSFNR Hurricane Michael forestry meeting for SE GA forest landowners, Decatur County

Role: Presenter, Target audience: Farmers/Producers

Number of participants: 200, Sessions: 2, Contact hours: 100.0 (Face-to-face)

CEU/CLEs awarded: 80.000000 Category III CEUs

A post hurricane Michael forest landowner meeting to help landowners with steps to take on their forest stands that were impacted by Michael held in Bainbridge GA and organized by GFC (Chuck Williams and Scott Griffin)

- **Knowledge from hurricane Hugo to help with stand assessments and timeline to get wood to mills, October 23, 2018**

Hurricane Michael planning meeting, Valdosta, Lowndes County

Role: Presenter, Target audience: Professionals

Number of participants: 65, Sessions: 1, Contact hours: 40.0 (Face-to-face)

This was a planning and information sharing meeting between GFC, FL Forest Service, loggers, wood mill mgrs., consulting foresters and WSFNR on steps to take post hurricane Michael

- **Morning session - pine straw prodn, mgmt and economics (4 sessions - 35 min each), September 20, 2018**

Agroforestry and Wildlife Field Day, Griffin, GA

Role: Presenter, Target audience: Farmers/Producers

Number of participants: 28, Sessions: 4, Contact hours: 65.0 (Face-to-face)

CEU/CLEs awarded: 6.500000 Category III CEUs

- **Afternoon Session - longleaf economics (4 sessions), September 20, 2018**

Agroforestry and Wildlife Field Day Griffin, GA, Griffin, GA

Role: Presenter, Target audience: Farmers/Producers

Number of participants: 28, Sessions: 4, Contact hours: 65.0 (Face-to-face)

CEU/CLEs awarded: 6.500000 Category III CEUs

- **Agroforestry and Wildlife Field Day (32 topics available for attendees), September 20, 2018**

Agroforestry and Wildlife Field day, Griffin, GA

Role: Coordinator, Target audience: Farmers/Producers

Number of participants: 300, Sessions: 8, Contact hours: 1380.0 (Face-to-face)

CEU/CLEs awarded: 138.000000 Category III CEUs

- **(1) Overview of concepts, (2) Making Objective Mgmt Decisions, (3) Regen Decisions, (4) Established Stand Silvi Trts - woody release, (5) Fertilization, (6) Thinning, (7) Other considerations, August 14, 2018–August 15, 2018**

Increasing Financial Returns from Southern Pine Plantations through Objective Evaluation of Silvicultural Treatments, Statesboro, GA, 30460

Role: Coordinator, Target audience: Professionals

Number of participants: 60, Sessions: 14, Contact hours: 840.0 (Face-to-face)

CEU/CLEs awarded: 84.000000 Category I CEUs

- **Herbaceous weed control near- and long-term results and recommendations in loblolly and longleaf stands, August 14, 2018–August 15, 2018**  
Increasing Financial Returns from Southern Pine Plantations through Objective Evaluation of Silvicultural Treatments, Statesboro, GA, 30460  
Role: Presenter, Target audience: Professionals  
Number of participants: 55, Sessions: 1, Contact hours: 5.5 (Face-to-face)  
CEU/CLEs awarded: 5.500000 Category I CEUs
- **Longleaf products and economics, March 22, 2018**  
Longleaf Alliance Landowner Workshop Longleaf Alliance, Waycross, GA, United States  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 35, Sessions: 1, Contact hours: 35.0 (Face-to-face)  
CEU/CLEs awarded: 35.000000 Category III CEUs
- **Longleaf products and economics, January 25, 2018**  
Longleaf Alliance Landowner Workshop Longleaf Alliance, Aiken, SC, United States  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 35, Sessions: 1, Contact hours: 35.0 (Face-to-face)  
CEU/CLEs awarded: 35.000000 Category III CEUs
- **Longleaf Production & Management Field Day, May 24, 2018**  
Longleaf Production & Management Field Day Warnell School of Forestry & Natural Resources, Tift County  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 28, Contact hours: 5.0 (Face-to-face)  
CEU/CLEs awarded: 14.000000 Category III CEUs
- **Hurricane damaged stand assessments, timeline and reforestation options, December 18, 2018**  
GFC forester training meeting, Bibb County  
Role: Presenter, Target audience: Professionals  
Number of participants: 65, Sessions: 1, Contact hours: 50.0 (Face-to-face)  
CEU/CLEs awarded: 5.000000 Category I CEUs
- **Continuing Education: Forest Management: Herbicides, Invasives, Thinning, Pine straw, June 12, 2018–June 13, 2018**  
Southeast & Southwest District Agent Natural Resource Training Warnell School Of Forestry & Natural Resources, Tifton, GA  
Role: Co-presenters, Target audience: Educators  
Number of participants: 20, Sessions: 1, Contact hours: 12.0 (Face-to-face)  
CEU/CLEs awarded: 24.000000 Category III CEUs

#### **2018 Extension Standard Program**

- **(1) Hurricane forest stand assessment, (2) pine straw, (3) thinning presentations, November 15, 2018**  
Wheeler Co forestry meeting, Wheeler County  
Role: Presenter, Target audience: Farmers/Producers

Number of participants: 60, Sessions: 3, Contact hours: 120.0 (Face-to-face)  
CEU/CLEs awarded: 12.000000 Category III CEUs

- **Stand assessment after hurricane Michael, November 13, 2018**  
Wilcox County Forestry meeting, Wilcox County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 60, Sessions: 1, Contact hours: 60.0 (Face-to-face)  
CEU/CLEs awarded: 6.000000 Category III CEUs  
A forestry meeting with GFC, CEAS and WSNR
- **(1) Longleaf pine straw prodn and stand mgmt, (2) thinning decisions, (3) differences in longleaf stem quality based on land use history, September 25, 2018**  
Longleaf Prodn and Mgmt Field Day, Rochelle, GA, Wilcox County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 26, Sessions: 3, Contact hours: 52.0 (Face-to-face)  
CEU/CLEs awarded: 5.200000 Category III CEUs
- **Longleaf Production & Management Field Day, September 25, 2018**  
Longleaf Production & Management Field Day Warnell School of Forestry & Natural Resources; Natural Resources Conservation Service (NRCS), Wilcox County, Rochelle, GA  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 28, Sessions: 1, Contact hours: 2.0 (Face-to-face)  
Category III CEUs
- **Making the most of your pines (1) marketing, (2) changing mgmt with changing prices, May 22, 2018**  
Twiggs Co forestry meeting, Twiggs County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 10, Sessions: 2, Contact hours: 15.0 (Face-to-face)  
CEU/CLEs awarded: 1.500000 Category III CEUs
- **(1) pine straw prodn (2) fertilization, May 15, 2018**  
Twiggs Co forestry meeting, Twiggs County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 12, Sessions: 2, Contact hours: 24.0 (Face-to-face)  
CEU/CLEs awarded: 2.400000 Category III CEUs
- **(1) Thinning, (2) burning and (3) competition control in pine stands, May 8, 2018**  
Twiggs Co forestry meeting, Twiggs County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 14, Sessions: 3, Contact hours: 21.0 (Face-to-face)  
CEU/CLEs awarded: 2.100000 Category III CEUs
- **(1) Pine species selection based on soils, objectives (2) differences among pine species, May 1, 2018**  
Twiggs Co forestry meeting series (1 of 4 meetings), Twiggs County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 17, Sessions: 2, Contact hours: 25.0 (Face-to-face)

- CEU/CLEs awarded: 2.500000 Category III CEUs
- **Changing rotation age with changing stumpage prices, March 29, 2018**  
Ware County Forestry Meeting, Waycross, GA, United States  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 30, Sessions: 1, Contact hours: 0.8 (Face-to-face)  
CEU/CLEs awarded: 22.000000 Category III CEUs
  - **An Economic Comparison of Loblolly, Longleaf and Slash Pine with and without pine straw income, EQIP Cost-share and CRP CP36 with annual rental payments, March 29, 2018**  
Ware County Area Forestry Meeting, Waycross, GA, United States, Ware County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 30, Sessions: 1, Contact hours: 0.5 (Face-to-face)  
CEU/CLEs awarded: 1.500000 Category III CEUs
  - **Mid-rotation woody control in pine stands - herbicides and growth benefits, March 29, 2018**  
Ware County Area Forestry Meeting, Waycross, GA, United States, Ware County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 30, Sessions: 1, Contact hours: 0.5 (Face-to-face)  
CEU/CLEs awarded: 15.000000 Category III CEUs
  - **Hurricane damage update, herbicides for fall, winter work, October 30, 2018**  
2018 SE District Extension Update Conference, Bulloch County  
Role: Presenter, Target audience: Educators  
Number of participants: 70, Sessions: 1, Contact hours: 35.0 (Face-to-face)  
CEU/CLEs awarded: 3.500000 Category III CEUs  
A hurricane Michael forest damage assessment update and fall, winter herbicide options
  - **(1) herbicides & (2) fire to control woody competition in loblolly pine stands, April 27, 2018**  
Wilkes Co Forestry Meeting, Wilkes County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 70, Sessions: 1, Contact hours: 70.0 (Face-to-face)  
CEU/CLEs awarded: 7.000000 Category III CEUs
  - **Herbicides for site prep and study findings, February 21, 2018**  
SAF Flint River meeting SAF, Moultrie, GA, United States, Moultrie, GA, United States  
Role: Presenter, Target audience: Professionals  
Number of participants: 15, Sessions: 1, Contact hours: 15.0 (Face-to-face)  
CEU/CLEs awarded: 15.000000 Category I CEUs
  - **Herbicides for herbaceous weeds and woody plants post plant and mid-rotation and study findings, February 21, 2018**  
SAF Flint River meeting SAF Flint River Chapter, Moultrie, GA, United States  
Role: Presenter, Target audience: Professionals  
Number of participants: 15, Sessions: 1, Contact hours: 15.0 (Face-to-face)

CEU/CLEs awarded: 15.000000 Category I CEUs

## 2017 Educational and Outreach Presentations

- **(1) loblolly survival and growth differences; MCP vs varieties vs OP 5 YAP, (2) loblolly vs slash vs longleaf survival and growth 5 YAP, (3) chem vs mechanical site prep, November 15, 2017**  
French Delegation forestry meeting, UGA Vidalia Onion and Veg Res Ctr, GA, United States, Toombs County  
Role: Presenter, Target audience: Professionals  
Number of participants: 12, Sessions: 3, Contact hours: 2.0 (Face-to-face)  
Category I CEUs
- **Economics of Loblolly Pine Mid-rotation Fertilization and Competition Control, November 17, 2017**  
Soc of Am Foresters annual conference Society of American Foresters, Albuquerque, NM, United States  
Role: Presenter, Target audience: Professionals  
Number of participants: 32, Sessions: 1, Contact hours: 0.5 (Face-to-face)  
Category I CEUs
- **(1) longleaf herb weed control and (2) mid-rotation loblolly and slash response and econ to fert and comp control, August 9, 2017**  
UFL - Forest Herbicide workshop Univ of Florida  
Role: Presenter, Target audience: Professionals  
Number of participants: 100, Sessions: 2, Contact hours: 150.0
- **(1) chemical site prep, (2) herb weed control, (3) herbicides for pine straw, (4) mid-rotation release, (5) DOW site prep study results, (6) Economics of mid-rotation fert and comp control, July 18, 2017–July 19, 2017**  
Forest Herbicide workshop, Tifton, GA, United States  
Role: Co-presenters, Target audience: Professionals  
Number of participants: 65, Sessions: 14, Contact hours: 12.0 (Face-to-face)  
Category I CEUs
- **2 Presentations: (1) Longleaf pine straw yields from old-field & cut-over sites; (2) Longleaf Seed Source Study, November 2, 2017**  
Vidalia Onion & Vegetable Research Center Longleaf Field Day Warnell School of Forestry & Natural Resources, Lyons, GA, Toombs County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 35, Contact hours: 2.0
- **6 Presentations on Longleaf management: (1) stem quality, (2) mean annual increments summary, (3) site index summary, (4) seed source study 3 yr results, (5) land use history effects on growth, (6) fert and comp control, November 2, 2017**  
Longleaf production workshop CPS and DOW, Reidsville, GA, United States

Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 35, Sessions: 6, Contact hours: 4.0 (Face-to-face)  
Category III CEUs

- **(1) Longleaf stem quality as a function of land use history and planting density and (2) longleaf pine straw prodn, October 4, 2017**

GFC forester annual meeting GFC, St Simons Island, GA, United States

Role: Presenter, Target audience: Professionals

Number of participants: 70, Sessions: 2, Contact hours: 2.0 (Face-to-face)

Category I CEUs

- **Income potential of growing trees - artificial vs natural loblolly regen vs upland hardwoods economics, September 16, 2017**

Managing your upstate (SC) forest Clemson University and SC Forestry Association, Greenville, SC, USA

Invited, Role: Presenter, Target audience: Farmers/Producers

Number of participants: 40, Sessions: 1, Contact hours: 1.0 (Face-to-face)

Category III CEUs

- **(1) longleaf stem quality, (2) longleaf fertilization, May 16, 2017**

Longleaf field day Natural Resources Conservation Service, Washington D.C., United States, Meigs and Moultrie, GA, United States

Role: Co-presenters, Target audience: Farmers/Producers

Number of participants: 35, Sessions: 6, Contact hours: 4.0 (Face-to-face)

Category I CEUs

- **Longleaf (1) stem quality and (2) planting density effects on # of thinnings, stem quality, and wildlife, April 11, 2017**

Longleaf field day NRCS, Natural Resources Conservation Service, Washington D.C., United States, Ogeechee Plantation, Millen, GA; Millen, GA, United States, Jenkins County

Role: Co-presenters, Target audience: Farmers/Producers

Number of participants: 42, Sessions: 6, Contact hours: 4.0 (Face-to-face)

CEU/CLEs awarded: 168.000000 Category I CEUs

- **Economics of loblolly pine mid-rotation fertilization and competition control, March 29, 2017**

GA SAF annual meeting, Athens, GA, USA

Role: Presenter, Target audience: Professionals

Number of participants: 75, Sessions: 1, Contact hours: 1.0 (Face-to-face)

CEU/CLEs awarded: 37.500000 Category I CEUs

- **(1) Proper planting steps for pines and (2) site prep and herb weed control for pines, October 24, 2017**

Bacon Co forestry meeting, Bacon County

Role: Presenter, Target audience: Farmers/Producers

Number of participants: 40, Sessions: 2, Contact hours: 1.0 (Face-to-face)

Category III CEUs

- **(1) Longleaf planting density options, (2) effects on pine straw prodn and stem quality, (3) herbicide for longleaf, October 3, 2017**  
Longleaf meeting, Thomasville, GA, United States, Lowndes County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 50, Sessions: 3, Contact hours: 2.0 (Face-to-face)  
Category III CEUs
- **6 Presentations: (1) longleaf stem quality, (2) longleaf fertilization, (3) longleaf pine straw, (4) longleaf natural vs artificial regen, (5) growth and yield, (6) land use history, September 21, 2017**  
Longleaf field day Natural Resources Conservation Service, Washington D.C., United States, Wrightsville, GA, United States, Johnson County  
Role: Co-presenters, Target audience: Farmers/Producers  
Number of participants: 40, Sessions: 6, Contact hours: 4.0 (Face-to-face)  
Category III CEUs
- **(1) Pine straw prodn by species, (2) herbicides for pine straw prodn, July 24, 2017**  
Forestry landowner meeting Bullard, GA, United States, Bullard, GA, USA, Twiggs County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 10, Sessions: 2, Contact hours: 1.0 (Face-to-face)  
Category III CEUs
- **Opportunities and challenges of growing longleaf pine, May 4, 2017**  
Pine Tree Festival - Forestry workshop, Emanuel County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 60, Sessions: 1, Contact hours: 1.0 (Face-to-face)  
Category I CEUs
- **(1) Longleaf vs loblolly vs slash pine and (2) chemical site prep, April 25, 2017**  
Camden Co Forestry Field Day NRCS, Dover Bluff, Camden County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 75, Sessions: 2, Contact hours: 2.0 (Face-to-face)  
Category I CEUs
- **Loblolly pine econ - (1) rotation age and (2) regen method effects using 4 stumpage price sets, September 26, 2017**  
Greene/Morgan Co forestry landowners association meeting, Buckhead, GA, United States, Greene County  
Role: Presenter, Target audience: Farmers/Producers  
Number of participants: 95, Sessions: 2, Contact hours: 1.0 (Face-to-face)  
Category III CEUs
- **2 Presentations; (1) Longleaf planting spacing considerations; (2) Thinning longleaf stands, May 16, 2017**  
Longleaf Pine Management & Production Field Day Warnell School of Forestry & Natural Resources; Colquitt Count Extension & NRCS, Meigs, GA

Role: Co-presenters, Target audience: Farmers/Producers

Number of participants: 45, Contact hours: 6.5

- **6 Presentations: (1) Longleaf pine planting /spacing considerations; (2) Thinning options; (3) Pruning longleaf; (4) Control of hardwoods & invasives; (5) Prescribed fire use; (6) Forest health issues, April 11, 2017**

Longleaf Management for Wildlife Warnell School of Forestry & Natural Resources, Jenkins County Extension & NRCS, Perkins, GA

Role: Co-presenters, Target audience: Farmers/Producers

Number of participants: 40, Contact hours: 6.5

- **Event administrator, Southeast District 4-H Forestry Field Day, September 7, 2017**

Tattnall County, Target audience: Youth

Annual Time Commitment (hrs): 16.0

- **Co-administrator, Forest Herbicide Workshop, July 18, 2017–July 19, 2017**

Target audience: Professionals

Information on developing & implementing safe, effective forest herbicide programs 65 attendees

- **Co-administrator, Longleaf Field Day - Vidalia Onion & Vegetable Research Center, November 2, 2017**

Tattnall County, Target audience: Farmers/Producers

Longleaf growth and yield and regional seed sources comparisons. 35 attendees

- **Co-administrator, Longleaf Management & Productivity Field Day, September 21, 2017**

Johnson County, Target audience: Farmers/Producers

Field demonstrations & evaluation of longleaf management Sponsored by NRCS 36 attendees

- **Co-administrator, Longleaf Management & Productivity Field Day, May 16, 2017**

Colquitt County, Target audience: Farmers/Producers

Field demonstrations & evaluation of longleaf management Sponsored by NRCS 45 attendees

- **Co-administrator, Longleaf Management & Productivity Field Day, April 11, 2017**

Jenkins County, Target audience: Farmers/Producers

Field demonstrations & evaluation of longleaf management. Sponsored by NRCS. 40 attendees

## **2016 Educational and Outreach Presentations**

- **Longleaf herbaceous weed control, November 4, 2016**

Longleaf Alliance 11th Biennial Conference - Savannah

Invited, Role: Presenter, Target audience: Farmers/Producers

- **Longleaf pine straw prodn, stand mgmt and economics, November 2, 2016**

Longleaf Alliance 11th biennial conference - Savannah

Invited, Role: Presenter, Target audience: Farmers/Producers

- **Longleaf fertilization, November 3, 2016**



Longleaf Alliance 11th Biennial Conference - field session - Yemessee SC

Invited, Role: Presenter, Target audience: Farmers/Producers

- **Topic # 11 - field session in a 17 yr old - old field planted longleaf stand with annual raking, October 12, 2016**  
Pine straw prodn, stand mgmt and economics  
Role: Presenter, Target audience: Farmers/Producers
- **Pine straw prodn - section #1 - intro - pine straw annual state-wide revenues, factors affecting yields, how pine straw is sold, October 11, 2016**  
Pine straw prodn, stand mgmt and economics 2-day workshop  
Role: Presenter, Target audience: Farmers/Producers
- **Topic #2 - cut-over vs old-field pine straw studies (loblolly, longleaf and slash), October 11, 2016**  
Pine Straw prodn, Stand mgmt and economics  
Role: Presenter, Target audience: Professionals
- **Topic #3 - magnitude and duration of fertilization benefits, payoffs, weed regrowth, October 11, 2016**  
Pine straw prodn, stand mgmt and economics workshop - Statesboro  
Role: Presenter, Target audience: Professionals
- **Topic #5 - pine straw nutrient levels and nutrient release rates, October 11, 2016**  
Pine straw prodn, stand mgmt and economics  
Role: Presenter, Target audience: Professionals
- **Topic #7 - pine straw yields and stand age (unthinned vs thinned stands), October 11, 2016**  
Pine straw prodn, stand mgmt and economics  
Role: Presenter, Target audience: Farmers/Producers
- **Topic #8 - sequencing herbicide use and fertilization to reduce overall costs, October 11, 2016–October 12, 2016**  
Pine straw prodn, stand mgmt and economics  
Role: Presenter, Target audience: Farmers/Producers
- **Topic #9 - forest mgmt alternatives for moving a cut-over stand into pine straw prodn, October 11, 2016**  
Pine straw prodn, stand mgmt and economics  
Role: Presenter, Target audience: Farmers/Producers
- **Topic #10 - economics of pine straw, October 11, 2016**  
Pine straw prodn, stand mgmt and economics  
Role: Presenter, Target audience: Farmers/Producers
- **Topic #12 - Increasing timberland returns through objective value added forest mgmt, August 24, 2016–August 25, 2016**  
Increasing timberland returns through objective value added forest mgmt value added  
Role: Coordinator, Target audience: Professionals
- **Guide to using Imazapyr for site prep, July 20, 2016–Present**

- Miss State Univ forest herbicide workshop  
Invited, Role: Presenter, Target audience: Professionals
- **Herbaceous weed control, July 19, 2016**  
Miss State Univ - Forest herbicide workshop  
Invited, Role: Presenter, Target audience: Professionals
  - **Mid-rotation comp control, July 19, 2016**  
Miss State Univ - forest herbicide workshop  
Invited, Role: Presenter, Target audience: Professionals
  - **Pine genetics update, December 8, 2016**  
Clemson Univ forestry meeting - Columbia SC  
Invited, Role: Presenter, Target audience: Farmers/Producers
  - **Changing rotation age and mgmt with changing pine stumpage prices, December 8, 2016**  
Clemson Univ forestry meeting  
Invited, Role: Presenter, Target audience: Professionals
  - **Topic #4 - using diagnostic tools, soils, land use history, and yields info for fertilization Rx's, October 11, 2016**  
Pine straw prodn, stand mgmt and economics workshop  
Role: Presenter, Target audience: Professionals
  - **Topics #6 -raking regimes, types of raking, soil moisture and nutrient status, October 11, 2016**  
Pine straw prodn, stand mgmt and economics  
Role: Presenter, Target audience: Farmers/Producers
  - **Longleaf site prep and herbaceous weed control, April 14, 2016**  
SC Consulting Forester Annual Meeting  
Invited, Role: Presenter, Target audience: Professionals
  - **Pine genetics update, July 24, 2016**  
GFA Annual Conference  
Invited, Role: Presenter, Target audience: Professionals
  - **Mid rotation competition control, May 18, 2016**  
Florida 44th Annual Silvi Conference  
Invited, Role: Presenter, Target audience: Professionals
  - **Site preparation, June 6, 2016**  
NE & NW district agent training - Mansfield  
Role: Presenter, Target audience: Faculty/Staff
  - **Pine species selection based on site/soils & landowner objectives, June 6, 2016**  
NE & NW district agent training  
Role: Presenter, Target audience: Faculty/Staff
  - **Herbicide options, for each pine species, timing, dosage, plants controlled, June 6, 2016**  
NE & NW district agent training

- Role: Presenter, Target audience: Faculty/Staff

  - **Fertilization, June 6, 2016**  
NE & NW district agent training  
Role: Presenter, Target audience: Faculty/Staff
  - **Rx burning, June 6, 2016**  
NE & NW district agent training  
Role: Presenter, Target audience: Faculty/Staff
  - **Thinning pine stands, June 6, 2016**  
NE & NW district agent trainings  
Role: Presenter, Target audience: Faculty/Staff
  - **Three topics - longleaf stem quality as a function of land use history, fertilization and pine straw prodn, November 10, 2016**  
Longleaf prodn and stand mgmt field day - Wheeler County  
Role: Presenter, Target audience: Farmers/Producers
  - **Longleaf site prep, October 20, 2016**  
Brantley Co area forestry meeting, Brantley County  
Role: Presenter, Target audience: Farmers/Producers
  - **Three topics - longleaf stem quality as a function of land use history, fertilization and pine straw prodn, October 18, 2016**  
Longleaf prodn and stand mgmt field day  
Role: Presenter, Target audience: Farmers/Producers
  - **Seven Presentations: 1- Pine Straw Production; 2 - Herbicide Use; 3 - Thinning; 4 - Stand Quality & Health; 5 - Enhancing Wildlife Habitat; 6 - Managing Natural Stands; 7 - Managing Cut-over Stands;, October 18, 2016**  
Longleaf Management & Production Field Day, Jesup, GA, Wayne County  
Role: Presenter, Target audience: Professionals  
Number of participants: 33, Contact hours: 6.0 (Face-to-face)
  - **Longleaf stem quality, June 9, 2016**  
Longleaf mgmt and prodn field day, Dooly County  
Role: Presenter, Target audience: Farmers/Producers
  - **Longleaf pine straw prodn and stand mgmt, June 9, 2016**  
Longleaf prodn and stand mgmt field day, Dooly County  
Role: Presenter, Target audience: Farmers/Producers
  - **Longleaf fertilization, June 9, 2016**  
Longleaf prodn and stand mgmt field day  
Role: Presenter, Target audience: Farmers/Producers
  - **Establishing longleaf pine, September 27, 2016**  
Ware Co GFC landowner meeting, Ware County  
Role: Presenter, Target audience: Farmers/Producers
  - **Chemical and Mechanical Site Prep, September 23, 2016**  
Ware Co area forestry meeting, Ware County

- Role: Presenter, Target audience: Farmers/Producers

  - **Chemical and Mechanical site prep timing, September 23, 2016**  
Ware County area forestry meeting, Ware County  
Role: Presenter, Target audience: Farmers/Producers
  - **Herbaceous weed control, September 23, 2016**  
Ware Co area forestry meeting, Ware County  
Role: Presenter, Target audience: Farmers/Producers
  - **Changing mgmt with changing pine stumpage prices, April 19, 2016**  
Burke Co area forestry meeting, Burke County  
Role: Presenter, Target audience: Farmers/Producers
  - **Pine straw prodn, stand mgmt and economics, January 19, 2016**  
Johnson Co area forestry meeting, Johnson County  
Role: Presenter, Target audience: Farmers/Producers
  - **Volume estimation and compass/pacing, August 24, 2016**  
SE 4-H forestry comp  
Role: Supporter, Target audience: Youth
  - **Field session - thinning and economics, May 13, 2016**  
SE & SW district agent training, Wheeler County  
Role: Presenter, Target audience: Faculty/Staff
  - **Pine straw prodn, May 12, 2016**  
SE & SW District agent training, Dodge County  
Role: Presenter, Target audience: Faculty/Staff
  - **Pine genetics update, May 12, 2016**  
SE & SW district agent training, Dodge County  
Role: Presenter, Target audience: Faculty/Staff
  - **Changing mgmt with changing pine stumpage prices, May 5, 2016**  
Annual Pine Tree Festival - Swainsboro, Emanuel County  
Role: Presenter, Target audience: Farmers/Producers
  - **Pine genetics update, May 5, 2016**  
Annual Pine Tree Festival - Swainsboro, Emanuel County  
Role: Presenter, Target audience: Professionals
  - **Co-administrator, Pine Straw Production: Stand Management & Economics, October 11, 2016–October 12, 2016**  
Target audience: Professionals  
Management workshop for pine straw production 20 attendees
  - **Co-administrator, Longleaf Management & Productivity Field Day, November 10, 2016**  
Wheeler County, Target audience: Farmers/Producers  
Field demonstrations & evaluation of longleaf management 40 attendees
  - **Co-administrator, Longleaf Management & Productivity Field Day, October 18, 2016**  
Wayne County, Target audience: Farmers/Producers  
Field demonstrations & evaluation of longleaf management 33 attendees

- **Co-administrator, Longleaf Management & Productivity Field Day, June 9, 2016**  
Wilcox County, Target audience: Farmers/Producers  
Field demonstrations & evaluation of longleaf management 50 attendees

<u>Year/date</u>	<u>Meeting/Conference/Workshop/Seminar</u>	<u>Role</u>	<u>Attendance (hrs)</u>
<b>2015</b>			
Jan 7	State-wide SC Veg Mgmt Annual Conf Herbicides friendly to wildlife & Herbicides for pine straw – Greenville, SC - invited speaker		268 (1.2)
Feb 4	Ware County area forestry meeting Pine straw prodn, Waycross	- speaker	55 (1)
Feb 24	Appling County area forestry meeting Pine straw prodn, Baxley	–speaker	30 (1.2)
Mar 31	Randolph County area forestry meeting Forest fertilization, Cuthbert	-speaker	89 (1)
April 21	Longleaf alliance meeting Herbicide use for site prep & HWC		
	Okefenokee NWR – speaker		60 (1.3)
May 5	Longleaf alliance meeting Sprayer calibration & mode of action		
	Buena Vista, GA – speaker		35 (1.5)
May 19	SAF Savannah Chapter meeting Forest herbicides, Pooler	– speaker	30 (1)
July 9	GFC forester training Loblolly, longleaf and slash G&Y and econ,		
	Macon – speaker		65 (2)
July 15	Multi-county half day forestry workshop Updates on comp control and fertilization, Statesboro	– speaker	60 (2)
Aug 13	SE District agent training Pine straw prodn and tour of 3 study areas		
	VOVRC – speaker		40 (3)
Aug 25-26	Multi-state Forest herbicide workshop (5 topics), Statesboro		
	Host, coordinator, speaker		75 (13)
Sept 1	Multi-county Area forestry meeting Negative aspects of pine straw		
	Raking and field session speaker		95 (2)
Sept 17	State-wide Agroforestry field day Pine straw prodn, Griffin		
	-speaker		55 (4.5)
Oct 1	DNR, NRCS, GFC training – herbicides for longleaf (4 topics), Forsyth		
	-co-coordinator, speaker		25 (3)
Oct 6	Multi-state forestry meeting and field day species selection and G&Y		
	VOVRC –host, coordinator, speaker		75 (3.5)
Oct 7	DNR, NRCS, GFC training – herbicides for longleaf (4 topics), Alma		
	-co-coordinator, speaker		35 (3)
Oct 8	DNR, NRCS, GFC training – herbicides for longleaf (4 topics), Dawson		
	-co-coordinator, speaker		45 (3)

**2014**

Mar 6	Multi-county	Assessing ice damaged stands, Sandersville – speaker	55
Mar 18	Multi-county	Assessing ice damaged stands, Midville – speaker	45
Mar 27	Multi-county	Assessing ice damaged stands, Sylvania – speaker	35
April 1	Multi-county	Herb weed control & thinning pine plantations, Vidalia –speaker	50
May 1	Multi-county	Assessing ice damaged stands, Swainsboro – speaker	55
May 1	Multi-county	Economics of growing loblolly, longleaf and slash pine w/ and w/o pine straw, different rotation ages & est costs, Swainsboro – speaker	55
June 3	SAF chapter meeting	Pine plantation economics, Milledgeville – speaker	45
June 11-12	Multi-state	Intensive mgmt. and value added, Statesboro – host	55
July 2	GFC training	Longleaf stem quality assessments, Hawkinsville – speaker	15
July 16-17	Multi-state	Miss State Univ Forest herbicide workshop – invited speaker	
		Wild pear control, longleaf HWC 5-yr findings, mid-rot fert & comp control	270
Sept 25-26	UGA Ext agent training	Intro to forestry in GA, field session, Tifton	
		Speaker	55
Sept 30	Multi-county	Pine straw prodn, stand mgmt. and econ, Lexington, SC	
		speaker	55
Oct 28-29	Multi-state	Forest landowner conference, alternative incomes – Valdosta invited speaker	60
Nov 5-6	Multi-state	Pine straw workshop, (6 presentations), Statesboro	
		host, speaker	42
Dec 4	Multi-county	Barrien Co area forestry meeting, longleaf pine mgmt. Nashville, GA – speaker	65
Dec 16	Multi-county	Lowdens Co area forestry meeting, pine mgmt. and econ Thomasville – speaker	35

**Total # or participants at meetings = 992 total education hrs @ 2279**

**2013**

Feb 6	National	Weed Science Soc of Am – Baltimore, MD – session chair	42 (4)
Mar 19	Multi-state	Longleaf Alliance Workshop – Ft Stewart - invited speaker Herbicide use in forestry, longleaf herbaceous weed control (HCW)	25(1.5)
Mar 21	Multi-county	Timber Taxation – Statesboro - coordinator	30 (3)
April 16	Multi-state	Master Tree Farmer Videoconference– invited speaker	
	Pine mgmt.	68(2.5)	
April 23	Multi-state	Longleaf Alliance – Tifton - invited speaker – Longleaf HWC	60 (1)

May 1-2	Multi-state	Clemson Univ. Forest herbicide Workshop – invited speaker	85 (6)
May 15-16	Multi-state	Clemson Univ. Longleaf mgmt. workshop – invited speaker	55 (6)
June 4	Multi-county	Forestry meeting - Old-field longleaf wood and pine straw yields	60 (2)
June 26	Multi-county	Forestry meeting – Planting the right tree in the right place	35 (1)
July 24	Multi-state	State Forester’s tour – Pembroke – speaker	30 (1)
Aug 6	Multi-state	SE-SAF meeting – Valdosta - Herbicide use and lessons learned	
	invited speaker	60(.75)	
Aug 20-21	Multi-state	Forest herbicides workshop – Statesboro – coordinator/speaker	85 (7)
Aug 26	State-wide	GFC training – St. Simons - managing stands for pine straw	
	invited speaker	100 (1)	
Oct 29	State-wide	GFC landowner meeting – Alternate incomes – invited speaker	50(1)
Nov 5-6	Multi-state	Longleaf mgmt. workshop – Statesboro – coordinator/speaker	60(7)
Nov 21	Multi-county	Forestry meeting – Jesup – the right tree in the right place speaker	60 (2)
Dec 5	Multi-state	Forestry meeting – Waycross – Short rotation woody crop options, herbicides for site prep – invited speaker	50 (2)

**Total # participants at meetings = 945 total education hrs @ meetings = 2950**

Had a field day at 1 forest demonstration site: Nov 6 (50 attendees)

**Youth service:**

May 7	K – 5 <sup>th</sup> grade at Liberty Elementary School – career day – Midway - Invited speaker	200
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**2012**

Feb 8	National	Weed Science Soc of Am Longleaf HWC– Hawaii *co-author (could not present due to wife surgery)	35
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Feb 7	Multi-county	Pine thinnings and spacings – Wrightsville invited speaker	50
April 25	Multi-county and multi-state	Mid-rotation fert and comp control – Statesboro coordinator and speaker	40
May 3	Multicounty and multi-state	Longleaf pine mgmt. invited speaker – Swainsboro	125
June 5,6	Multi-state	Forest Herbicide Workshop – invited speaker Longleaf HWC and Privet Control – Starkville, MS	100
Aug 30	Statewide	Forestry BMPs, Invasive Species, and Forest Herbicides co-coordinator and speaker – Savannah	85
Sept 20	Multi-state	Agroforestry and Wildlife Field Day – on planning committee and speaker - Griffin	450
Oct 25	Statewide	GFC Forest Landowner meeting – invited speaker Statesboro	140
Nov 13	Multi-county	SE District Co Agent Forestry Update	60
Nov 27	Statewide	GFC Forest Landowner meeting – invited speaker Athens	135

**Total # of participants at meetings = 1220 total # contact hrs at meetings = 2100**

Had a field day at 1 forest demonstration site: Sept 20 (65 of 450 attendees)

**Youth service:**

May 1	K – 5 <sup>th</sup> grade at Liberty Elementary School – career day – Midway - Invited speaker	200
Sept 5	SE District 4-H Forestry Competition – set up	50

**2011**

Feb 9	National	Weed Science Soc of Am Longleaf HWC– Portland, OR	25
Feb 15	SE US	15 <sup>th</sup> Biennial So Silvi Res Conf- Old-field longleaf pine wood and straw- yields -Charleston, SC	85
Feb 15	SE US	15 <sup>th</sup> Biennial So Silvi Res Conf- Old-field longleaf HWC results Charleston, SC	85



Feb 22,23,24	Multi-state	Longleaf Alliance meeting series – Longleaf pine spacings	
		Statesboro	70
		Lyons	60
		Waycross	50
March 1, 15, 22	Statewide	County Agent Trainings (via webinars) – Fertilization,	11
		Old-field longleaf wood and straw yields,	8
		Managing pine stands for pine straw	8
April 19	Statewide	GA Water and Wastewater Works Association Annual Meeting,	
		Macon – 2 talks – (1) Benefits of forestland	
		Applications of biosolids and water trt plant	80
		Residuals and (2) Poultry litter app in forestland	80
May 5	Multi-county	Short rotation woody crops for GA, Swainsboro Pine Tree	
		Festival	70
May 17	Multi-county	Timber mgmt for pine straw, Sandersville	20
May 18, 19	Multi-state	Forest Herbicides, Statesboro, GA	80,80
June 8	International	Agroforestry Conference, Athens	
		Landowner Technical Session-Pine straw production in GA	20
Aug 17,18	Multi-state	Pine straw prodn, stand mgmt, and econ workshop,	
		Statesboro	45,45
Aug 31	Multi-county	4-H Forestry SE District Competition (help with set-up and	
		Judging, Reidsville)	45
Nov 15	Multi-county	Ad Valorum Taxation Meeting, Statesboro	35
<b><u>Total # of participants at meetings = 1002 total # contact hrs at meetings = 1877</u></b>			

## 2010

March 9	Is intensive management viable in today's markets?		
	GFA/SAF Ocmulgee Chapter meeting, Forsyth		
		Invited speaker	45
March 31	Timber taxation, Statesboro	Coordinator	35
July 13-14	Forest Herbicides workshop, Starkville, MS	Invited speaker	85

## 2009

February 19	Pine straw operations and mgmt, Homerville	Presenter	100
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May 5-6	Pine straw production, stand mgmt, and economics Tifton	Coordinator and co-presenter	35
May 6, 7, 20, and Dec 16	Tifton, Swainsboro, Statesboro		
	Forest ethics	Presenter	48
May 19-20	Forest herbicides, Tifton	Co-coordinator and presenter	48
Sept 17	Agro-forestry field day, Griffin		
	Co-coordinator and presenter		60/400

## 2008

April 29-30	Pine straw production, stand mgmt, and economics Statesboro	Coordinator and co-presenter	35
Aug 12-13	Forest Herbicides, Starkeville, MS	Invited speaker	90

## 2007

April 5-6	Pine straw production, stand mgmt, and economics Tifton	Coordinator and co-presenter	35
Oct 15-16	Old-field longleaf pine management Tifton	Coordinator and co-presenter	32
Oct 30-31	Pine straw production and stand mgmt, Allendale, SC	Coordinator and co-presenter	50

## 2006

May 2-3	Pine straw production, stand mgmt, and economics Valdosta	Coordinator and co-presenter	30
June 27-28	Forest herbicides – Competition control and fertilization In thinned slash pine stands on Spodosols, Charleston	Invited speaker	85
17-18 Oct	Piedmont forest soils and mgmt decisions Under conflicting land uses Athens	Coordinator and co-presenter	35

## 2005

Jan 11	Forest Fertilization – SE Agri-business annual meeting, Perry	Invited speaker	100
May 4-5	Pine straw production, stand mgmt, and economics Vidalia	Coordinator and co-presenter	28
Oct 10-11	Forest soils and mgmt decisions – Coastal Plain & Sand Hills, Vidalia	Coordinator and co-presenter	27