

## **KNIGHT, JOSHUA**

**Senior Extension Associate**, Horticulture  
Center for Crop Diversification  
University of Kentucky  
Spring 2018-Present

Extension Associate, Nursery Crop Production  
University of Kentucky  
Fall 2014-Spring 2018

### **EDUCATION**

- MS** University of Kentucky, Integrated Plant and Soil Science, GPA 4.0 December 2018  
Research Topics: Carbon and Water Footprint Analysis, Life Cycle Assessment, and Soil Carbon Interactions  
Advisor: Dewayne Ingram  
Graduate Certificate in Digital Mapping, GPA 4.0
- BS** University of Kentucky, Sustainable Agriculture, GPA 3.886 Spring 2013  
Graduated *Summa Cum Laude*  
Minored in Animal Science & Plant and Soil Science

### **RESEARCH PROJECTS**

USDA-SCRI Clean Water3 – Reduce, Remediate, Recycle: Informed Decision-Making to Facilitate Use of Alternative Water Resources and Promote Sustainable Specialty Crop Production.  
ACI Slow Release Fertilizer Study Alternative Coating Trials N-P-K, Thuja & Spirea  
ACI Slow Release Fertilizer Study Aluminum Sulfate, Hydrangea

### **EXTENSION/OUTREACH**

- Contributor, Managing Editor, Nursery Crops Newsletter Bulletin  
*Monthly Publication for Kentucky Nursery/Landscape Industry and Extension Personnel*
- Webmaster, Nursery Crops Extension-Research Website (<http://NCER.ca.uky.edu>)  
*Providing Nursery Crop Production resources to ornamental growers, academic researchers, community stakeholders and anyone with general interest in the green industry.*
- Administrator, Kentucky Nursery Crops Mailing List  
*Distribution list for the nursery industry in Kentucky, ~150 subscribers including nursery wholesalers, retailers, landscapers, and Cooperative Extension personnel.*
- Director & Lead Developer, Geographic Horticulture Directory of Kentucky (<http://www.uky.edu/ccd/maps>)  
*Mobile-friendly, interactive map of Horticultural Resources*
- Administrator, University of Kentucky Horticulture YouTube Channel  
*Primary outlet for Extension video content developed in the Horticulture Department with over 1,500 subscribers and over 9,000 views per month.*

**EXTENSION PUBLICATIONS**

*"HO-121: Ecosystem Services of Woody Landscape Plants: A Guide for Consumers and Communities"*  
University of Kentucky Cooperative Extension Service, Horticulture Department

*"HO-111: Ecosystem Services of Woody Landscape Plants: A Guide for Green Industry Professionals"*  
University of Kentucky Cooperative Extension Service, Horticulture Department

*"CCD-IG-1: High Tunnel Planting Calendar for Annual Crops (Region 1)"*  
University of Kentucky Cooperative Extension Service, Center for Crop Diversification

*"CCD-IG-2: High Tunnel Planting Calendar for Annual Crops (Region 2)"*  
University of Kentucky Cooperative Extension Service, Center for Crop Diversification

*"CCD-IG-3: High Tunnel Planting Calendar for Annual Crops (Region 3)"*  
University of Kentucky Cooperative Extension Service, Center for Crop Diversification

*"CCD-FS-9: High Tunnel Planting Calendar Fact Sheet"*  
University of Kentucky Cooperative Extension Service, Center for Crop Diversification

*"Summary of 10 Years of Research on Carbon Footprint, Variable Costs of Landscape Plant Production and Useful Life in the Landscape"*  
University of Kentucky, Department of Horticulture

*"HO-123: What is a Carbon Footprint and How Does It Relate to Landscape Plants."*  
University of Kentucky, Cooperative Extension Service, Horticulture Department

**PEER REVIEWED JOURNAL PUBLICATIONS**

*"Understanding irrigation water applied, consumptive water use, and water footprint using case studies for container nursery production and greenhouse crops."*  
Primary authored publication for HortTechnology XX:(Accepted). 2019.

*"Modeling container-grown Euphorbia pulcherrima: Impacts on carbon footprint and variable costs using life cycle assessment"*  
Co-authored publication for HortScience 29:(In Press). 2019.

*"Analysis of Production System Components of Container-grown chrysanthemum for their impact on carbon footprint and variable costs using life cycle assessment"*  
Co-authored publication for HortScience 56:1139-1142. 2018.

*"Global warming potential, variable costs, and water use of a model greenhouse production system for 11.4-cm annual plants using life cycle assessment"*  
Co-authored publication for HortScience 53:441-444. 2018.

*"Modeling Global Warming Potential, Variable Costs, and Water Use of Young Plant Production System Components Using Life Cycle Assessment"*

*Co-authored publication for HortScience 52(10):1356-61. 2017.*

*"Comparison of Three Production Scenarios for Buxus microphylla var. japonica 'Green Beauty' Marketed in a No. 3 Container on the West Coast Using Life Cycle Assessment"*

Co-authored publication for HortScience 52(3):1-9. 2017.

*"Plant Growth and Leachate Electrical Conductivity and pH as Influenced by Controlled-release Fertilizer Blends and Coating Technologies"*

Co-authored publication for HortTechnology 27(5):639-43. 2017.

*"Carbon footprint and variable costs of production components for a container-grown evergreen shrub using life cycle assessment; an east coast U.S. model"*

Co-authored publication for HortScience 51(8):989-994. 2016

## **PRESENTATIONS**

*"Understanding Irrigation Water Applied, Consumptive Water Use, and Water Footprint in Container Nursery and Greenhouse Production"*

Integrated Plant and Soil Science Mini-Symposium, Lexington KY, December 2018

*"High Tunnel Production Training and Mapping Resources"*

Horticulture Agent Training, Independence KY, November 2018

*"Upcoming Projects for the Center for Crop Diversification"*

Kentucky Association of County Agriculture Agents Annual Meeting, Frankfort KY, June 2018

*"Building a Geographic Directory of Horticulture for Kentucky"*

Final Project Presentation for Digital Mapping Certificate, Lexington KY, June 2018.

*"Current Extension and Research Projects in Nursery Crops" Lecture*

Horticulture Agent Training, Danville KY, November 2017

*"Understanding Water Footprint" Lecture*

2017 California Nursery Conference, Irvine CA, July 2017

*"i-Tree Tools for Landscaping and Marketing" Lecture*

Kentucky Nursery and Landscape Association Winter Meeting, Louisville KY, January 2017

*"Ecosystem Services of Landscape Plants: A Brief Guide for Communities" Lecture*

CSA and Local Agriculture Event, Lexington KY, February 2016

*"Water Footprint Calculation and Research Data Checklist" Lecture*

Water3 Research and Outreach Committee, Greenville SC, July 2016

*"Ecosystem Services of Landscape Plants: A Guide for Green Industry Professionals" Lecture*

Kentucky Nursery and Landscape Association Winter Meeting, Louisville KY, January 2016

## **PROFESSIONAL DEVELOPMENT**

Southern US Vegetable Extension Specialists Agriculture and Horticulture Study Tour in Cuba, 2019.

UF/IFAS Extension Course for Irrigation Water Quality & Treatment Certificate, Online, December 2018.  
Transition Trainer, International Organic Inspectors Association, Lexington KY, May 2018.

**PROFESSIONAL CONFERENCES**

University of Kentucky Plant Pathology and Integrated Pest Management Seminar, Lexington KY, May 2016.  
International Plant Propagators' Society, Eastern Region Annual Conference, Cincinnati OH, September 2015.

**ORGANIZATIONS**

Organic Association of Kentucky  
Kentuckians For The Commonwealth  
Kentucky Nursery and Landscape Association  
Member, Community Farm Alliance  
Member, Sigma Gamma Delta, Honor Society of Agriculture