

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

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 and of Kentucky and Agricultural Service Provider Directory of Kentucky (<http://www.uky.edu/ccd/maps>)

Mobile-friendly, interactive maps of Horticultural Resources and Agricultural Service Providers

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

"Water Scarcity Footprint Analysis of Container-Grown Plants in a Model Research Nursery as Affected by Irrigation and Fertilization Treatments"

Primary authored publication for *Water* 11(12), 2436. 2019.

"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* 1(aop): 1-7. 2019.

"Modeling container-grown Euphorbia pulcherrima: Impacts on carbon footprint and variable costs using life cycle assessment"

Co-authored publication for *HortScience* 54.2: 262-266. 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.

AWARDS

ASHS Extension Division Education Materials Award in Primarily Visual Category, "High Tunnel Planting Calendar for Annual Crops", July 2019. Las Vegas, NV

ASHS Extension Division Education Materials Award in PowerPoint Category, "Horticulture Agent High Tunnel Presentation", July 2019. Las Vegas, NV

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