# Carrie Lyn Brown

**Environmental Horticulture & Controlled Environment Agriculture Advisor**

University of California Cooperative Extension | [redacted]

## PROFESSIONAL PROFILE

Environmental horticulture and controlled environment agriculture advisor with experience spanning commercial greenhouse production, nursery and landscape horticulture, native plant propagation, applied research, and Cooperative Extension. Leads a multi-county UC program serving nursery, greenhouse, floral, landscape, and controlled environment agriculture industries, with emphasis on integrated pest management, water and nutrient use efficiency, climate resilience, and production systems. Experienced in building partnerships among growers, industry organizations, government agencies, and university researchers to address applied industry needs.

## EDUCATION

**M.A., Biology** | Miami University, Oxford, Ohio 2015
**B.S., Middle Childhood Education** | Ohio University, Athens, Ohio 2008

## RELEVANT PROFESSIONAL EXPERIENCE

**Environmental Horticulture & Controlled Environment Agriculture Advisor** | University of California Cooperative Extension, Santa Cruz, Monterey, San Benito & San Mateo Counties | *2026–Present*

- Develop and lead a multi-county applied research and extension program serving California nursery, greenhouse, floral, landscape, and controlled environment agriculture industries.
- Conduct stakeholder-driven research and educational programming focused on integrated pest management, water and nutrient use efficiency, climate-resilient horticultural systems, and emerging production technologies.
- Provide science-based technical assistance through site visits, consultations, workshops, field demonstrations, webinars, and extension publications; provide academic oversight for UC Master Gardener programs in Monterey, Santa Cruz, and San Benito Counties.
- Build collaborative partnerships with growers, industry organizations, commodity groups, government agencies, and university researchers, and develop externally funded research and extension initiatives addressing industry priorities.

**Extension Educator – Agriculture & Natural Resources** | Ohio State University Extension, Fairfield County | *2021–2026*

- Led applied research and extension programs in horticulture, specialty crops, integrated pest management, climate resilience, pollinator habitat, and natural resource management.
- Designed and delivered workshops, field demonstrations, short courses, and technical assistance for growers, landowners, green industry professionals, and community partners.
- Built partnerships with growers, commodity groups, agencies, and university specialists to align applied research and outreach with stakeholder needs.

**Engineering Technician** | Fairfield Soil & Water Conservation District | *2019–2021*

- Worked directly with agricultural landowners to plan and implement conservation practices supporting water quality, soil health, and resource management.
- Collaborated with USDA agencies, agricultural organizations, contractors, and producers while providing technical assistance and educational outreach.

**Conservation Project Manager** | The Dawes Arboretum | *2015–2019*

- Directed native plant propagation, greenhouse operations, restoration projects, and tree establishment research, including environmental controls, pest management, and production scheduling.
- Developed propagation protocols and conducted applied research on tree establishment, climate resilience, vegetative competition, and wildlife browse deterrence.

**Lead Greenhouse Technician** | Nightcrawler Gardens | *2005–2011*

- Managed commercial greenhouse production including propagation, irrigation, fertility management, pruning, environmental controls, and integrated pest and disease management.
- Monitored plant health and production quality, calibrated equipment, maintained production records, and supported efficient greenhouse operations.

## RESEARCH & GRANTS

### Current Funded Research

**Assessing the Salinity Tolerance of Common Street Trees in California** *(2026–2028)*
**The Britton Fund, $29,962. Research Collaborator.** Multi-year study evaluating salinity tolerance of common and emerging California street tree species to support nursery production and landscape management recommendations under saline and

recycled-water irrigation conditions. The first cohort evaluates eight tree species under three salinity treatments at Elkus Ranch Research and Extension Center. (PI: Jessie Godfrey; in progress)

### Pending Research Proposals

**Development of Crop Conversion Coefficients and Analysis of Nitrogen Management for California's Cut Flower Industry** *(2027–2029 proposed)*
**CDFA Fertilizer Research and Education Program (FREP), $186,762 requested. Co-PI.** Proposed statewide research to develop crop conversion coefficients for 15 economically important cut flower crops and five foliage crops and assess barriers to adoption of best nitrogen management practices. Responsibilities include grower recruitment and sample collection, survey development and deployment, dissemination of coefficients, and development of extension and research outputs. (PI: Emma Volk; submitted, decision pending)

**Managing Root Rots: Effective Oomycete Management in Greenhouse and Nursery Crops** *(2027–2030 proposed)*
**CDFA Specialty Crop Block Grant Program. Research Collaborator and Monterey County Trial Lead.** Proposed statewide research evaluating sanitizer efficacy against oomycete propagules, fungicide resistance in California Phytophthora, Pythium, and Phytopythium populations, and efficacy of biological and synthetic fungicides in nursery production. Lead a commercial nursery efficacy trial in Monterey County and contribute to statewide extension and outreach. (PI: Johanna Del Castillo; submitted, decision pending)

### Selected Prior Research and Applied Projects

**Extension Implementation Program** *(2024–2026).* USDA National Institute of Food and Agriculture, $230,365. Research Collaborator. Supported integrated extension and applied research initiatives focused on IPM and emerging agricultural and horticultural challenges across Ohio. (PI: Minter, L.; overall project funded through 2027)

**On-Farm Applied Research Trials: Statewide Pest Monitoring Network** *(2021–2026).* Research Collaborator. Conducted monitoring in specialty and field crops for dogwood borer, brown marmorated stink bug, spotted wing drosophila, fall armyworm, and apple leaf spot.

**Perennials for Pollinators: Floral Preference Survey** *(2022–2024).* Research Collaborator. Evaluated pollinator visitation patterns and floral preferences among native plant cultivars in collaboration with OSU horticulture, entomology, Extension, and Cincinnati Zoo & Botanical Garden.

**Tree Establishment and Reforestation Research** *(2015–2017).* Research Collaborator, The Dawes Arboretum. Evaluated tree survival, vegetative competition, and wildlife browse deterrent methods to inform restoration and land management practices.

## SELECTED PUBLICATIONS & EXTENSION PRODUCTS

- **Brown, C.L. (2026–present).** Nursery and Flower Grower, UC Agriculture and Natural Resources blog. Lead author/editor; assumed responsibility for the existing blog in 2026.
- **Brown, C.L. (2026).** Learning in the Field: Reflections on Southern California Nursery Production and Extension. University of California Nursery and Floriculture Alliance Newsletter.
- **Brown, C.L., Hill, J., Leeds, R., Wilson, A. (2026).** Farm Resilience for Weather Emergencies: Farm Preparedness Plan. Ohioline, ANR-0224.
- **Wilson, A., Beers, L., Brown, C.L., et al. (2024).** Climate Change Impacts on Ohio Agriculture. USDA Midwest Climate Hub. DOI: 10.22004/ag.econ.355631.
- **Brown, C.L., Stone, A. (2024).** Invasive Species [Chapter]. Ohio State University Master Gardener Volunteer Manual.
- **Signorini, G., Minter, L., Brown, C., Lima, D. (2025).** Feasibility Assessment of Commercial Pawpaw Operations. Ohioline, ANR-0207.

## SELECTED INDUSTRY, EXTENSION & PROFESSIONAL LEADERSHIP

**Senior Editor, UC Nursery and Floriculture Alliance Newsletter** *(2026–present).* Coordinate article solicitation, peer review, and development of grower-focused newsletter issues.

**Monterey Bay nursery industry chapter relaunch, Co-organizer** *(2026).* Worked with industry partners to reconnect regional nursery and greenhouse professionals and identify priorities for future programming.

**Association of Natural Resource Extension Professionals, Ohio Chapter President** *(2023–2024).* Provided statewide leadership for Extension professionals working in environmental and agricultural disciplines.

**Farm Science Review, Gwynne Conservation Area Speaker Committee Chair** *(2023–2026).* Coordinated 40+ expert speakers from multiple agencies each year for horticulture and natural resource presentations, demonstrations, and tours.

**National Native Plant Task Force, Lead** *(2018–2020).* Led a multidisciplinary stakeholder group advancing native plant use and science-based plant selection for habitat restoration and climate resilience.

## ADDITIONAL QUALIFICATIONS

- Spanish: Conversational; continuing study toward intermediate proficiency for workforce and grower communication.