

**Kent D. Kobayashi**  
**College of Tropical Agriculture and Human Resources**  
**Department of Tropical Plant and Soil Sciences**  
 FTE Distribution: 70% R; 15% I; 15% E

**Education**

<u>Degree</u>	<u>University</u>	<u>Major</u>
PhD	Oregon State University	Horticulture
BS	Oregon State University	Horticulture
MAg	Oregon State University	Agronomic Crop Science
BS	University of Hawaii	Entomology

**Professional Appointments**

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Associate Professor	University of Hawaii	1987 to present
Assistant Professor	University of Hawaii	1982 to 1986

**Courses Taught**

<u>Course ID and name (credits)</u>	
AGRN 220	Agricultural Systems Analysis (3). Team taught.
TPSS 300	Tropical Production Systems (4)
HORT 390	Undergraduate Seminar (1). Team taught.
TPSS 491	Scientific Communications (1)
TPSS 601	Crop Modeling (3)
TPSS 654	Communications in the Sciences (1)
HORT/TPSS 667	Graduate Seminar (1).
TPSS 674	Plant Growth and Development (3). Team taught.
TPSS 711	Scientific Communications (1)

**Publications (reverse chronological order)**

Conference Proceedings

- Kobayashi, K.D.\* and H. Reed. 2023. An individualized mentored course to supplement a graduate scientific communications course. 2023 Hawaii International Conference on Education-Conference Proceedings, p. 72-76.
- Kobayashi, K. 2023. Helping students and the public engage in Hawaii's self-sufficiency in food production. 2023 Hawaii International Conference on Education-Conference Proceedings, p. 1083-1092.
- Nelson, B. and K.D. Kobayashi\*. 2023 A mentee-mentor research relationship in a lab on the edge of forever. 2023 Hawaii International Conference on Education-Conference Proceedings, p. 616-622.
- Kobayashi, K.D. 2021. Tomorrow is yesterday—Transmuting a tropical crop production course due to COVID-19. 2021 Hawaii International Conference on Education-Conference Proceedings, p. 470-481.
- Kobayashi, K.D. and K. Perez. 2021. Attending an inaugural virtual horticulture conference: Experiences and lessons learned. 2021 Hawaii International Conference on Education-Conference Proceedings, p. 532-544.
- Perez, K. and K.D. Kobayashi. 2021. Planting the seeds: Recruiting strategies for agricultural students of the 21st century. 2021 Hawaii International Conference on Education-Conference Proceedings, p. 458-469.
- Kobayashi, K.D. 2020. The lab on the edge of forever. 2020 Hawaii International Conference on Education-Conference Proceedings, p. 841-849.
- Kobayashi, K.D. 2019. Virtual field trip—Quantum leap. 2019 Hawaii International Conference on

Education-Conference Proceedings, p. 167-176.

Teng, E., A. Corpuz, K. Perez, and K.D. Kobayashi. 2019. Horticultural experiential learning through poinsettia fundraising sales: lessons learned. 2019 Hawaii International Conference on Education-Conference Proceedings, p. 704-715.

### Refereed Journal Publications

Cox, J.A., N.V. Hue, A. Ahmad, and K.D. Kobayashi. 2021. Surface-applied or incorporated biochar and compost combination improves soil fertility, Chinese cabbage and papaya biomass. *Biochar* 3:213-227.

### Extension Publications

Kurasaki, R., M. Byrd, and K. Kobayashi. 2023. Low-cost light sensors for indoor agriculture. *Extension Bulletin CTAHR FST-68*.

### Miscellaneous Publications

Nelson, B. and K. Kobayashi. 2022. Controlled environment agriculture for homeowners. *Hanai' Ai* Vol. 45 Jan|Feb|March 2022.

Kobayashi, K. 2021. Controlled environment agriculture and artificial lighting to grow plants. *Hawaii Landscape* May|June 2021, p. 14-16.

Kobayashi, K. and C. Kubota. 2020. Technology Applications in Horticulture. *ASHS E-News* November 30, 2020.

Kobayashi, K. 2020. Micro-Hydroponics in your apartment. *CTAHR News*. College of Tropical Agriculture and Resources, University of Hawaii at Manoa.

Kobayashi, K. 2020. Farm at home during COVID-19 crisis. *University of Hawaii News*.

Kobayashi, K.D. and K. Perez. 2019. Flipped classroom and virtual field trips. *Chronica Horticulturae* 59(2):9-12.

### Creative Works (ex. Extension Videos, Websites, Blogs, Creative Designs and Exhibitions, etc.)

#### Websites

Crop Modeling in Macadamia. (with M. Nagao).

< <http://www.ctahr.hawaii.edu/kobayashik/Macfruit.html> >.

Predicting Watercress Yield. (with J. McHugh, Jr.)

< <http://www.ctahr.hawaii.edu/kobayashik/Watercre.html> >.

Predicting the Harvest of Cycled 'Beaumont' Guava. (with H.C. Bittenbender).

< <http://www.ctahr.hawaii.edu/kobayashik/Guavharv.html> >.

Defoliation and Vegetative Regrowth of *Psidium Guajava* with Ethephon and Gibberellic Acid.

< <http://www.ctahr.hawaii.edu/kobayashik/Guavdefo.html> >.

Irrigation Effects on Vegetative Growth of Coffee. (with M. Nagao).

< <http://www.ctahr.hawaii.edu/kobayashik/Coffeeir.html> >.

Biomass Production of Four Turfgrasses in Different Light Conditions in Hawaii. (with L. Liu).

< <http://www.ctahr.hawaii.edu/kobayashik/Turflite.html> >.

Evaluation of Four Rates of Eucalyptus Mulch for Weed Control in a 'Tahitian' Lime Orchard. (with R.M. McLean).

< <http://www.ctahr.hawaii.edu/kobayashik/Mulchweed.html> >.

Virtual Field Trips.

< <http://twominuteteachingtips.weebly.com/virtual-field-trips.html> >.

Micro-Hydroponics.

< <http://microhydroponics.weebly.com> >.

Farmer's Bookshelf - Information on Tropical Crop Production in Hawaii. (With H.C. Bittenbender and I.S. Campbell). Started in 1987.

Orchid Care for the Novice—An Orchid's Perspective.

< <http://www.ctahr.hawaii.edu/kobayashik/Orchids.html> >.  
Growing Plants Indoors under Supplemental Lighting.  
< <http://www.ctahr.hawaii.edu/kobayashik/supplemental.html> >.  
Benefits of Plants in Your Dormitory, Home, and Office. (with A. Kaufman and A. Ohama).  
< <http://www.ctahr.hawaii.edu/uhtmlplants/home.htm> >.  
Making Your Own Terrariums.  
< <https://www.ctahr.hawaii.edu/kobayashik/Terrarium.html> >.  
Building Your Own Indoor Tabletop Fountain.  
< <http://www.ctahr.hawaii.edu/kobayashik/H2OFount.html> >.  
Simple Flowering Arranging.  
< <http://www.ctahr.hawaii.edu/kobayashik/Flowerarr.html> >.  
Running Effective Meetings.  
< <http://www.ctahr.hawaii.edu/kobayashik/Meetings.html> >.  
E-mail Etiquette.  
< <http://www.ctahr.hawaii.edu/kobayashik/emaileti.html> >.  
Webmaster for the extension publication series "Landscape, Floriculture, and Ornamentals News."  
(with K. Leonhardt and J. Deputy).  
< <http://www.ctahr.hawaii.edu/TPSS/digest/lfon.html> >.  
Webmaster for the extension publication series "Horticulture Digest." (with F. Rauch and D. Hensley).  
< <http://www.ctahr.hawaii.edu/TPSS/digest/index4.html> >.

### Videos

Help Meet Hawaii's Food Security and Self-Sufficiency in Food Production. Honua Highlights.  
Laulima Symposium. August 20, 2022.  
< <https://www.youtube.com/watch?v=P0hVJwX8hIU> >.  
Kent Kobayashi Introduction.  
< <https://www.youtube.com/watch?v=J887VfXVdH8> >.  
DIY Milk Carton Hydroponics  
< <https://www.youtube.com/watch?v=fC9RXkExxIY> >.

### E-Books

Bottle Cap Gardens. Created with the iPad app "Book Creator."

### Leadership Roles (Committees, Boards, Advisory, etc.)

Fellow. 2016. American Society for Horticultural Science. Election as a Fellow of the Society is the highest honor that ASHS can bestow on its members, in recognition of truly outstanding contributions to horticulture and the Society.  
Peer Review Award. 2020. American Society for Horticultural Science. Outstanding contributions to *HortTechnology* as a peer reviewer of manuscripts.  
Consulting Editor for Urban Horticulture and Controlled Environments for the peer-reviewed journal *HortTechnology*. 2023-25. American Society for Horticultural Science. Appointed unanimously by the *HortTechnology* Editorial Board.  
Invited interview for HortLegends at the American Society for Horticultural Science Conference, Orlando, FL. 2023. HortLegends is a video series of interviews in which longtime ASHS members reflect on their careers, what being a member of ASHS has meant to them, their advice for the next generation, and what excites them most about the future of horticulture.  
Ka Pouhana (Mentor) Award. 2017. CTAHR, University of Hawaii at Manoa.

### ***American Society for Horticultural Science***

Professional Interest Group--Computer Applications in Horticulture  
Secretary: 2018-2019

Chair-elect: 2019-2020

Chair: 2020-2021

Collegiate Activities Committee (CAC)

2016-2020

Graduate Student Activities Committee

2017-2025

ASHS Membership Representative (for Hawaii)

2015-present

ASHS Media Communications Committee

Chair: 2017-2020

Professional Interest Group -- Plant Nutrient Management

Chair: 2017-2019

Selection Committee for Career Awards / Outstanding Graduate Educator Award

2021-2024

Chair: 2023-2024

Education Planning Committee

2019-2022

Screening Committee for Publication Award / Education Publication Award Selection

2020-2023

Chair: 2022-2023

Professional Interest Group - Teaching Methods

Secretary: 2020-2021

Chair-elect: 2021-2022

Chair: 2022 - 2023

Professional Interest Group - Growth Chambers and Controlled Environments

Secretary: 2021-2023

Chair-elect: 2023-2024

Fellows Screening Committee

2021-2024

ASHS Mentor

2022-present

## **Graduate Students**

<u>Category</u>	<u>Current Number of Students</u>	<u>Number Graduated (Career)</u>
<i>Chair</i> of Master Committees	2	9
<i>Chair</i> of PhD Committees	0	0
Member of Master Committees	2	
Member of PhD Committees	5	

## **Grant Support**

### Grants

University of Hawaii Women's Campus Club Grant. Purchase instruments to measure light, temperature, and relative humidity for student use in TPSS courses and their independent research projects. \$318. 2021. PI.

CTAHR Supplemental Funding. "Light Environment Management of Tropical Crops." University of Hawaii College of Tropical Agriculture and Human Resources. \$2,000. 2018-2019. PI.

### Travel Grants

Travel Award from the Office of the Vice Provost for Research and Scholarship (OVPRS), University of Hawaii. \$1,400. 2023. Funding to attend the American Society for Horticultural Science Annual Conference in Orlando, FL.

Travel Award from the Office of the Vice Provost for Research and Scholarship (OVPRS), University of Hawaii. \$1,500. 2022. Funding to attend the American Society for Horticultural Science Annual Conference in Chicago, IL.

Travel Award from the Office of the Vice Provost for Research and Scholarship (OVPRS), University of Hawaii. \$1,200. 2019. Funding to attend the American Society for Horticultural Science Annual Conference in Las Vegas, NV.

### **Presentations at Conferences**

Kobayashi, K.D.\* and B. Nelson. 2023. LED and fluorescent lighting effects on hydroponically grown 'UH Manoa' lettuce and 'Hirayama' kai choy. 2023 American Society for Horticultural Science Annual Conference. July 31-August 4, 2023. Orlando, FL. HortScience 58(9) Supplement:S274.

Kobayashi, K.D.\*, K. Gaughen, and Emilie R. Kirk. 2023. Mentor-mentee graduate scientific communications course. 2023 American Society for Horticultural Science Annual Conference. July 31-August 4, 2023. Orlando, FL. HortScience 58(9) Supplement:S274.

Kobayashi, K.D.\*, J. Kobayashi, and B. Nelson. 2023. Using table displays and physical models to promote controlled environment agriculture. 2023 American Society for Horticultural Science Annual Conference. July 31-August 4, 2023. Orlando, FL. HortScience 58(9) Supplement:S281.

Kobayashi, K.D.\* and H. Reed. 2023. An individualized mentored course to supplement a graduate scientific communications course. 2023 Hawaii International Conference on Education-Conference. January 2-6, 2023. Honolulu, HI.

Kobayashi, K. 2023. Helping students and the public engage in Hawaii's self-sufficiency in food production. 2023 Hawaii International Conference on Education-Conference. January 2-6, 2023. Honolulu, HI.

Nelson, B. and K.D. Kobayashi\*. 2023 A mentee-mentor research relationship in a lab on the edge of forever. 2023 Hawaii International Conference on Education-Conference. January 2-6, 2023. Honolulu, HI.

Kobayashi, K.D.\* and B. Nelson. 2022. LED lighting effects on hydroponically grown 'UH Manoa' lettuce. 2022 American Society for Horticultural Science Annual Conference. July 30-August 3, 2022. Chicago, IL. HortScience 57(9) Supplement:S8.

Nelson, B. and K.D. Kobayashi\*. 2022. Effects of simulated Martian soils on the growth and development of kale, tomato, and radish. 2022 American Society for Horticultural Science Annual Conference. July 30-August 3, 2022. Chicago, IL. HortScience 57(9) Supplement:S9.

Kobayashi, K.D.\* and M. Russo. 2022. Evolution of an In-person horticulture graduate Scientific communications course going online. 2022 American Society for Horticultural Science Annual Conference. July 30-August 3, 2022. Chicago, IL. HortScience 57(9) Supplement:S210-211.

Nelson, B.\* and K. Kobayashi. 2021. Farming on the final frontier: Space farming with Martian soil simulants. University of Hawaii at Manoa Undergraduate Showcase, December 10, 2021. Honolulu, HI.

Kobayashi, K.D.\* and T.D. Amore. 2021. LED and fluorescent lighting effects on hydroponically

- grown watercress. 2021 American Society for Horticultural Science Annual Conference. August 5-9, 2021. Denver, CO. HortScience 56(9) Supplement:S188-S189.
- Kobayashi, K.D.\* and T.D. Amore. 2021. Red LED and fluorescent lighting effects on hydroponically grown 'Koba' green onion. 2021 American Society for Horticultural Science Annual Conference. August 5-9, 2021. Denver, CO. HortScience 56(9) Supplement:S83.
- Kobayashi, K.D.\* and K. Perez. 2021. Adaptation of a tropical crop production systems course: Lessons learned. 2021 American Society for Horticultural Science Annual Conference. August 5-9, 2021. Denver, CO. HortScience 56(9) Supplement:S235-236.
- Ritchie, M.T.\* and K.D. Kobayashi. 2021. Student and instructor perspectives of an in-person graduate scientific communications course going virtual. 2021 American Society for Horticultural Science Annual Conference. August 5-9, 2021. Denver, CO. HortScience 56(9) Supplement:S234-S235.
- Kobayashi, K.D. 2021. Tomorrow is yesterday—Transmuting a tropical crop production course due to Covid-19. 2021 Hawaii International Conference on Education-Conference. January 4-7, 2021. Honolulu, HI.
- Kobayashi, K.D.\* and K. Perez. 2021. Attending an inaugural virtual horticulture conference: Experiences and lessons learned. 2021 Hawaii International Conference on Education-Conference. January 4-7, 2021. Honolulu, HI.
- Perez, K.\* and K.D. Kobayashi. 2021. Planting the seeds: Recruiting strategies for agricultural students of the 21st century. 2021 Hawaii International Conference on Education-Conference. January 4-7, 2021. Honolulu, HI.
- Kobayashi, K.D.\* and T.D. Amore. 2020. LED and fluorescent lighting effects on hydroponically grown baby choi cabbage. 2020 American Society for Horticultural Science Annual Conference. August 9-13, 2020. Orlando, FL. HortScience 55(9) Supplement S249.
- Kobayashi, K.D. 2020. Simulated Martian soil for hydroponically grown pak choi plants. 2020 American Society for Horticultural Science Annual Conference. August 9-13, 2020. Orlando, FL. HortScience 55(9) Supplement S135.
- Kobayashi, K.D. 2020. The lab on the edge of forever—mentoring space farming student projects. 2020 American Society for Horticultural Science Annual Conference. August 9-13, 2020. Orlando, FL. HortScience 55(9) Supplement S225-S226.
- Kobayashi, K.D. 2020. The lab on the edge of forever! 2020 Hawaii International Conference on Education-Conference. January 4-7, 2020. Honolulu, HI.
- Kobayashi, K.D.\* and T.D. Amore. 2019. LED and fluorescent lighting effects on hydroponically grown Hawaiian chili pepper and 'Koba' green onion. 2019 American Society for Horticultural Science Annual Conference. July 22-25, 2019. Las Vegas, NV. HortScience 54(9) Supplement:S333-S334.
- Kobayashi, K.D. 2019. Simulated Martian soil for hydroponically grown 'koba' green onions. 2019 American Society for Horticultural Science Annual Conference. July 22-25, 2019. Las Vegas, NV. HortScience 54(9) Supplement:S334.
- Perez, K.\* and K.D. Kobayashi. 2019. Filling two needs with one deed: Enhancing teaching experiences for graduate students while simultaneously enhancing learning experiences for undergraduates. 2019 American Society for Horticultural Science Annual Conference. July 22-25, 2019. Las Vegas, NV. HortScience 54(9) Supplement:S205.
- Kobayashi, K.D. 2019. Virtual field trip—Quantum leap. 2019 Hawaii International Conference on Education-Conference. January 5-8, 2019. Honolulu, HI.
- Teng, E., A. Corpuz, K. Perez, and K.D. Kobayashi\*. 2019. Horticultural experiential learning through poinsettia fundraising sales: lessons learned. 2019 Hawaii International Conference on Education-Conference. January 5-8, 2019. Honolulu, HI.

Invited Speaker

Invited speaker and moderator in “Growing Horticulturists: Being Successful in your Career” workshop held at the 2019 American Society for Horticultural Science Conference, July 22-25, 2019. Las Vegas, NV. “Characteristics of Success and Leadership.”