

Qingwu Meng, Ph.D.

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EDUCATION

- Ph.D., Horticulture**, Michigan State University **2015 – 2018**
• Dissertation: spectral manipulation improves growth and quality attributes of leafy greens grown indoors
- Ph.D., Multidisciplinary Science**, Rensselaer Polytechnic Institute (transferred) **2014 – 2015**
- M.S., Horticulture**, Michigan State University **2012 – 2014**
• Thesis: investigating use of blue, red, and far-red light from light-emitting diodes to regulate flowering of photoperiodic ornamental crops
- B.E., Agricultural Engineering • B.A., English**, China Agricultural University **2008 – 2012**
• Thesis: the effects of light quality on growth and development of cucumber seedlings

PROFESSIONAL EXPERIENCE

- Assistant Professor**, University of Delaware, Newark, DE **2020 – present**
- Plant Scientist**, RoBotany, Pittsburgh, PA **2019 – 2019**
- Ph.D. Research Assistant • Lab Manager**, Michigan State University, East Lansing, MI **2015 – 2019**
- Ph.D. Research Assistant**, Rensselaer Polytechnic Institute, Troy, NY **2014 – 2015**
- M.S. Research Assistant**, Michigan State University, East Lansing, MI **2012 – 2014**
- English Teacher**, Beijing New Oriental & Technology Group Inc., Beijing, China **2011 – 2012**
- Design Intern**, Beijing Mediuspace Architectural Design Co., Ltd., Beijing, China **2011 – 2011**
- Teaching Assistant**, Beijing New Oriental & Technology Group Inc., Beijing, China **2010 – 2010**

SCHOLARSHIP

13 refereed journal publications and conference proceedings and 2 book chapters

Recent Refereed Journal Publications and Conference Proceedings

- **Meng, Q.**, J. Boldt, and E.S. Runkle. 2020. Blue radiation interacts with green radiation to influence growth and predominantly controls quality attributes of lettuce. *J. Amer. Soc. Hort. Sci.* 145:75–87.
- Runkle, E.S., **Q. Meng**, and Y. Park. 2019. LED applications in greenhouse and indoor production of horticultural crops. *Acta Hort.* 1263:17–30.
- **Meng, Q.** and E.S. Runkle. 2019. Far-red radiation interacts with relative and absolute blue and red photon flux densities to regulate growth, morphology, and pigmentation of lettuce and basil seedlings. *Sci. Hort.* 255:269–280.
- **Meng, Q.**, N. Kelly, and E.S. Runkle. 2019. Substituting green or far-red radiation for blue radiation induces shade avoidance and promotes growth in lettuce and kale. *Environ. Exp. Bot.* 162:383–391.
- **Meng, Q.** and E.S. Runkle. 2019. Regulation of flowering by green light depends on its photon flux density and involves cryptochrome. *Physiol. Plant.* 166:762–771.
- **Meng, Q.** and E.S. Runkle. 2018. Using radiation to enhance quality attributes of leafy vegetables: a mini-review. *Acta Hort.* 1227:571–578.
- Owen, W.G., **Q. Meng**, and R.G. Lopez. 2018. Promotion of flowering from far-red radiation depends on the photosynthetic daily light integral. *HortScience* 53(4):465–471.

- **Meng, Q.** and E.S. Runkle. 2017. Investigating the efficacy of white light-emitting diodes at regulating flowering of photoperiodic ornamental crops. *Acta Hort.* 1170:951–957.
- Song, J., **Q. Meng**, W. Du, and D. He. 2017. Effects of light quality on growth and development of cucumber seedlings in controlled environment. *Int. J. Agric. Biol. Eng.* 10(3):312–318.
- **Meng, Q.** and E.S. Runkle. 2017. Moderate-intensity blue radiation can regulate flowering, but not extension growth, of several photoperiodic ornamental crops. *Environ. Exp. Bot.* 134C:12–20.

Book Chapters

- **Meng, Q.** and E.S. Runkle. 2016. Control of flowering using night-interruption and day-extension LED lighting, p. 191–201. In: T. Kozai et al. (eds.). *LED Lighting for Urban Agriculture*. Springer Singapore, Singapore.
- Mitchell, C.A., M.P. Dzakovich, C. Gomez, R. Lopez, J.F. Burr, R. Hernández, C. Kubota, C.J. Currey, **Q. Meng**, E.S. Runkle, C.M. Bourget, R.C. Morrow, and A.J. Both. 2015. Light-emitting diodes in horticulture, p. 1–88. In: J. Janick (ed.). *Horticultural Reviews* vol. 43. John Wiley & Sons, Hoboken, NJ.

Trade Articles

- **Meng, Q.** and E.S. Runkle. 2019. Leafy greens: green and blue LED lighting. *Produce Grower*.
- **Meng, Q.** and E.S. Runkle. 2019. Leafy greens: green and far-red LED lighting. *Produce Grower*.
- **Meng, Q.** and E.S. Runkle. 2019. How green light affects floriculture crops. *Greenhouse Grower*.
- **Meng, Q.** 2017. Green light is more useful to plants than you might think. *Urban Ag News*.
- **Meng, Q.** and E.S. Runkle. 2017. Far red is the new red. *Inside Grower*.
- **Meng, Q.** and E.S. Runkle. 2016. Choosing the right LEDs to regulate flowering in greenhouses. Michigan State University Extension.
- **Meng, Q.** and E.S. Runkle. 2015. Can white LEDs control flowering? *Greenhouse Management*.
- **Meng, Q.** and E.S. Runkle. 2014. Evaluating different colors of LEDs to control flowering. *Greenhouse Product News*.
- **Meng, Q.** and E.S. Runkle. 2014. Control flowering with LEDs. *GrowerTalks*.

GRANTS

Runkle, E.S. and **Q. Meng (co-PI)**. 2015–2018. **\$145,724**. Michigan State University Project GREEN.

SELECTED AWARDS AND HONORS

American Society for Horticultural Science

- 1st place, Controlled Environment Working Group grad student oral competition. Washington, D.C., 2018; Waikoloa, HI, 2017; New Orleans, LA, 2015.
- 1st place, Floriculture Working Group grad student oral competition. Waikoloa, HI, 2017.
- 3rd place, Controlled Environment Working Group grad student oral competition. Atlanta, GA, 2016.

Michigan State University, East Lansing, MI

- The Bukovac Outstanding Grad Student Award in the Department of Horticulture. 2018.
- 1st place, oral competition in the Plant Science Grad Student Research Symposium. 2014; 2016–18.
- Best overall oral presentation in the 9th Grad Academic Conference. 2017.
- The John L. Arend Excellence in Grad Student Research Award. 2014; 2017.

International Society for Horticultural Science, East Lansing, MI

- 2nd place, poster competition in the 8th International Symposium on Light in Horticulture. 2016.

Committee on Controlled Environment Technology & Use (NCERA-101)

- 1st place, grad student poster competition. Fairbanks, AK, 2014.