



Doctoral student Regina O'Brien.

In December, food science doctoral student Regina O'Brien presented an educational micro-session at the New York Produce Show and Conference regarding her ongoing research on baby leafy greens. Her research advisor is Beverly Tepper, professor in the Department of Food Science. The New York Produce Show, co-sponsored by the Eastern Produce Council, is the second largest in North America, attracting roughly 5,000 attendees and 400 exhibitors from the produce industry.

“Along with SEBS faculty and academic deans, our SEBS undergraduate and graduate students participate in the NY Produce Show and Conference each year,” said Joe Ventola, assistant dean. “It is a tremendous learning experience for students in academic disciplines relating to agriculture, business economics, food science, and food systems. The conference provides numerous enlightening opportunities including educational sessions, a trade show, a global symposium, and an industry bus tours. Our students return from the conference with a greater understanding and passion for their field of interest.”

O'Brien's talk, “Controlled Environment Agriculture: A Tool to Understand Flavor Profiles and Consumer Demand for Baby Leafy Greens,” detailed the current collaborative research between Newark's AeroFarms and the newly established Center for Sensory Sciences and Innovation, which was co-founded and directed by Prof. Tepper. The presentation highlighted ongoing research funded by the Foundation for Food and Agriculture Research examining the use of Controlled Environment Agriculture in Sensory Science and Food Science research. The grant focuses on manipulation of abiotic conditions in the growing environment and the resulting impact on flavor and nutrition of baby leafy greens.

O'Brien's presentation also described her ongoing research on consumer liking of baby greens, supporting by a Northeast Sustainable Agriculture Research and Education Graduate Student grant which she received in August 2019. The goal of this grant is to develop a predictive model for consumer liking based on genetic and personality characteristics of consumers to aid in plant variety selection for producers of baby leafy greens.

These two projects form the basis of O'Brien's doctoral dissertation which is designed to answer two fundamental questions; how can indoor farming best be used to tailor leafy greens to deliver optimum taste and nutrition, and how can we assist CEA operators in choosing the varieties to grow that meet consumer expectations.

“It has been fascinating to see how emerging technologies in agriculture relate to consumer choice, said O'Brien. “Sustainable methods of farming are increasingly needed, and I couldn't be happier to be focusing on the advancement of sustainable agriculture. Attending the NY Produce Show was a great opportunity to understand the current needs and demands of the produce industry. I am so grateful for the opportunity to share my research with those who will be directly impacted by the results. I'm excited to see what the future holds for indoor farming.”