



Ali Demirci

Ali Demirci, ASABE Fellow, is the recipient of the 2024 International Food Engineering award for significant contributions to the development of non-thermal food processing methods for food decontamination and process development of value-added products.

Demirci is a graduate studies committee chair and professor of agricultural and biological engineering at Penn State University. Demirci teaches courses and conducts research in food engineering and bioprocessing. He is also the Professor-in-Charge of the CSL Behring Fermentation Facility at Penn State University.

Demirci's research focuses on microbiological engineering, creating value-added products via microbial fermentation and inactivation and control of pathogenic microorganisms in foods and environment by novel non-thermal processing methods. His research is well known nationally and internationally, specifically his work on pulsed UV light and electrolyzed oxidizing water for decontamination of foods. He successfully demonstrated that these technologies can be applied for various food commodities including meat, poultry, eggs, grains, fruits, and vegetables. He not only evaluated these technologies at the lab scale, but also developed pilot scale systems to help their adoptability to the food industry. He is also involved in bioprocessing/fermentation processes for the productions of value-added products such as biofuels, organic acids, enzymes, and antibiotics. Demirci has developed undergraduate and graduate courses, strengthening a growing food and bioprocessing engineering emphasis within the biological engineering cur-

riculum in the department. Furthermore, he led the efforts to develop the online Intercollege Master Program in Renewable Energy and Sustainability Systems (iMPS-RESS) at Penn State and served as the chair between 2013 and 2018. He also regularly organizes and teaches "Fermentation Workshop Series" for professionals in the food, biotech, and pharmaceutical industries.

As a 25-year member of ASABE, Demirci has been an engaged member and leader in the Processing Systems Technical Community, NABEC Section, as well as serving on the Publications Council for several years. He has also been an associate editor for ASABE journals since 2008. He is a longstanding member of two USDA Multi-State Research Committees on "Science and Engineering for a Biobased Industry and Economy" and "Engineering for Food Safety and Quality."

Demirci has authored or coauthored over 180 refereed journal articles, 40 book chapters, and edited 3 books. He has made numerous presentations at regional, national, and international conferences and holds three US patents. Throughout his career, Demirci has received numerous awards including the NABEC Young Engineer of the Year award and Distinguished Service award. He also received an ASABE Superior Paper award, Outstanding Associate Editor award, and the Alex and Jesse C. Black award for Excellence in Research at Penn State.