

2018 ASABE Fellow



Lawrence D. Gaultney, senior engineering associate, E.I. duPont de Nemours and Company, Wilmington, Delaware, is being honored for development of innovative agricultural chemical applicators and dispensing systems, other machinery systems, and for outstanding support of preprofessionals.

With a team of graduate students, Gaultney developed a real-time organic matter sensor; one

of the first compact soil properties sensors. It demonstrated the value of collecting many data points to prepare accurate soil properties maps. A direct injection system for granular crop protection products allowed use of previously unavailable products for spraying without needing to tank mix products, thereby making sprayer clean-out easier and reducing the impact on the environment. Gaultney has developed electronic dispensing systems that have improved the convenience and accuracy of applying crop protection products. The systems prepare customized mixtures of products for each field or sprayer load, improving performance and minimizing environmental impact. Through his research career, Gaultney has created an application technology program that increases agricultural production, reduces environmental impact, and improves conditions for agricultural workers.

A 34-year member of ASABE, Gaultney has served as a member on numerous ASABE committees, including many within the Machinery Systems technical community. He is a member of the Precision Agriculture committee and is active in several standards committees including the Application Systems & United States Technical Advisory Group ISO TC23/SC6 and the standards development committee for X635. He is a past member of the Yoerger Preprofessional Engineer of the Year award committee and the Education, Outreach, & Professional Development Engineering & Technology Accreditation committee. For many years, Gaultney has used his expertise to work as a program evaluator for the Accreditation Board of Engineering and Technology, helping to ensure high-quality standards for engineering education.

Gaultney is author or coauthor of more than 20 publications and the inventor or co-inventor on seven patents, with an additional three pending. His work has been recognized with numerous awards including two AE-50 awards, the DuPont Engineering Excellence award, and the DuPont Volunteer Recognition award. He received the Agricultural and Biological Engineering Outstanding Alumni Award at Purdue University and received a Distinguished Alumnus award from the Biosystems Engineering and Soil Science Department at the University of Tennessee.