

Embracing High Throughput Technology to Accelerate Agrochemical R&D

Abstract: High-throughput experimentation (HTE) allows for execution of many hypotheses in parallel and reduction of the overall labor per experiment compared to traditional experimental methods. The vast number of choices a formulation scientist is facing when developing a new product, led the team to seek out innovative approaches to automating solids and liquids dispensing to produce formulated agrochemical probe samples. In this presentation I will discuss the strategy to select the right automation tools for optimization and characterization in agrochemical product development. With a focus on sustainable practices, at Corteva Agriscience, the high throughput automation teams seek to deliver environmentally friendly and innovative solutions to the field by maximizing experimental data and minimizing research waste.

Biography: Susie has been with Corteva Agriscience since 2019. She joined the company as a formulation scientist, acting as the lead scientist on the development of a microplastic free WG for Europe. In 2021 she took on leadership of the Formulation Support and Characterization Team (FSC) and the Enabling Capabilities Automation Group in 2023. She currently leads a dynamic team that supports formulation development and characterization on the bench as well as via high throughput automation. Through her leadership, the teams conducted a LEAN optimization of the Formulation lab to design the FORCE (Formulation Optimization Research Capability Enablement) lab to support the Next Generation of Formulation Development via automation & high throughput experimentation. She was externally recognized as a C&EN Talented 12 honoree in 2023 for development of the FORCE lab and nominated in 2024 for the Rising Star Women & Hi Tech Leading Light Award. Susie holds a PhD in Inorganic Chemistry from Purdue University and a BS in Chemistry from Butler University. She is an active member of Corteva's business resource groups supporting women in STEM and Diversity, Equity & Inclusion.



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