



Kingsly Ambrose

Kingsly Ambrose is the recipient of the 2025 SMV Technologies Ergonomics, Safety, and Health award for integrating scientific fundamentals with engineering principles to develop technologies to achieve excellence in safety during handling of grains.

As a professor of agricultural and biological engineering at Purdue University, Ambrose's teaching and research are centered on the relationship between the fundamental physical properties of agricultural particulate materials and their resulting macroscopic behavior during various processing and utilization stages. His vision is to achieve excellence in creating cutting-edge technologies and predictive models that enhance both the efficiency and safety of handling and processing these essential agricultural materials.

Ambrose's research has yielded crucial fundamental insights into leveraging particle-scale data to enhance our understanding of the bulk behavior of agricultural materials. Driven by a vision of eliminating safety hazards in the agricultural industry, his federally and industry-supported work has provided innovative solutions with significant societal benefits. His technology for sensing suspended dust concentration directly addresses his goal of eliminating risk of grain dust explosions. Furthermore, his developments in systems and methods for promoting bulk flow aim to prevent dangerous human entrapments and structural failures in storage bins caused by irregular material flow. Beyond his technological innovations, Ambrose actively

disseminates science-based knowledge to grain handling and processing professionals, empowering them to make informed decisions that prevent dust explosions.

An 18-year member of ASABE, Ambrose's commitment to the professional community is evident through his service as the current processing systems community editor for ASABE journals and chair of the Crop and Feed and Storage committee, as well as his roles on the editorial boards of *Biosystems Engineering*, *Grain and Oil Science and Technology*, and the *Journal of Agricultural Engineering* (India).

Ambrose has been recognized with several prestigious awards, including the Andersons Cereals and Oilseeds Award of Excellence and the distinction of Fellow in both the National Academy of Agricultural Sciences (India) and the Indian Society of Agricultural Engineers. His contributions to the scientific community were further acknowledged as an Outstanding Associate Editor of ASABE journals and through his selection as a Fulbright Scholar. His extensive scholarly output includes over 120 peer-reviewed journal articles and more than 130 conference presentations. Additionally, Ambrose's innovative work has resulted in four patents, three copyrights, and one provisional patent. He is also a sought-after speaker, having delivered over 50 invited talks internationally. His professional affiliations include membership in the Grain Elevators and Processing Society and the Indian Society of Agricultural Engineers.