

R.P. Kingsly Ambrose

PhD 2010, Purdue University, Agricultural & Biological Engineering. Dissertation: Caking behavior of corn distillers dried grains with solubles.

MS 1998, Tamil Nadu Agricultural University, Agricultural Processing. Thesis: Fabrication and performance evaluation of a brinjal seed extractor

BS 1996, Tamil Nadu Agricultural University, Agricultural Engineering

Academic Experience: Purdue University

- Associate Professor, Agricultural and Biological Engineering; 2018 – Present. Full time.
- Assistant Professor, Agricultural and Biological Engineering; 2015 – 2018. Full time.
- Postdoctoral Research Assistant, Agricultural and Biological Engineering, 2011. Full time.
- Graduate Research Assistant, Agricultural and Biological Engineering. 2007 – 2010. Full time.

Other:

- Assistant Professor, Kansas State University, 2012 – 2015. Full time
- Scientist, Central Institute of Post Harvest Engineering and Technology, Indian Council of Agricultural Research. 2001 – 2007. Full time.

Professional Organizations: American Society of Agricultural and Biological Engineers; American Association of Cereal Chemists; American Institute of Chemical Engineers

Honors and Awards:

- **ASABE 2018 Educational Aids Blue Ribbon Award** for ‘Grain Drying, Handling, and Storage Handbook – MWPS-13’. (Maier, D., McNeill, S., Hellevang, K., Ambrose, R. P. K., Ileleji, K. E., Jones, C. and Purschwitz, M.)
- **ASABE 2017 Educational Aids Blue Ribbon Award** for ‘Training on prevention of grain dust explosions’. (Ambrose, R. P. K., Mosher, G. A. and Maier, D. E.)
- The Andersons Cereals and Oilseeds – **2014 Early-in-Career Award of Excellence.**
- **Bilsland Dissertation Fellowship**, 2010. Purdue University, West Lafayette, IN, USA.
- **Purdue Agriculture TEAM Award**, 2009. The Integrated Corn Ethanol Co-Products Team. Purdue University, West Lafayette, IN, USA.

Service Activities (past five years):

- CoE Engineering Advisory Council (2016-present)
- ABE Academic Programs Committee (2016-present)
- ABE ABET committee (2016-present)
- NSF GRPF panelist (2013-2018)
- USDA NIFA review panel (2014)

Publications (select list from recent publications):

1. Babu, K. S., Siliveru, K., Amamcharla, J. K., Vadlani, P. V. and **Ambrose, R. P. K.** 2018. Influence of protein content and storage temperature on the particle morphology and flowability characteristics of milk protein concentrate powders. *Journal of Dairy Science*. 101(8): 7013 - 7026.
2. Zhao, Y. and **Ambrose, R. P. K.** 2018. A laboratory scale tempering and milling method for grain sorghum. *Transactions of the ASABE*. 61(2): 713-721.
3. Kwek, J. W., Siliveru, K., Cheng, S., Xu, Q., **Ambrose, R. P. K.** 2018. Zein film functionalized atomic force microscopy and Raman spectroscopic evaluations on surface differences between hard and soft wheat flour. *Journal of Cereal Science*. 79: 66-72.

4. Maier, D., McNeill, S., Hellevang, K., **Ambrose, K.**, Ileleji, K., Jones, C. and Purschwitz, M. 2017. Grain Drying, Handling, and Storage Handbook. MWPS-13 Third Edition. MidWest Plan Service, Iowa State University, Ames, Iowa.
5. Bhadra, R., **Ambrose, R. P. K.**, Casada, M. E., Simsek, S. and Siliveru, K. 2017. Air and moisture transport properties of low-oil DDGS. *Cereal Chemistry*. 94(6): 934-941.
6. Sanghi, A., **Ambrose, R. P. K.** and Maier, D. E. 2017. CFD simulation of corn drying in a natural convection solar dryer. *Drying Technology*. 36: 859-870.
7. Siliveru, K., Jange, C. G., Kwek, J. W. and **Ambrose, R. P. K.** 2017. Granular bond number model to predict the flow of fine flour powders using particle properties. *Journal of Food Engineering*. 208:11-18.
8. Mitra, H., Pushpadass, H. A., Emerald, F. M. E., **Ambrose, R. P. K.**, Ghoroi, C. and Nath, S. 2017. Influence of moisture content on the flow properties of *basundi* mix. *Powder Technology*. 312:133-143.
9. Bhadra, R., **Ambrose, R. P. K.**, Casada, M., Simsek, S. and Siliveru, K. 2017. Optimization and modeling of flow characteristics of low-oil DDGS using regression techniques. *Transactions of the ASABE*. 60(1): 249-258.
10. Siliveru, K., **Ambrose, R. P. K.** and Vadlani, P. V. 2016. Significance of composition and particle size on the shear flow properties of wheat flour. *Journal of the Science of Food and Agriculture*. 97: 2300-2306.
11. **Ambrose, R. P. K.**, Ileleji, K. E., Doane, P. and Cecava, M. 2016. Liquid holding capacity of corn wet mill liquid coproducts to corn stover. *Applied Engineering in Agriculture*. 32(6): 909-914.
12. Patwa, A., **Ambrose, R. P. K.** and Casada, M. E. 2016. Discrete element method as an approach to model the wheat milling process. *Powder Technology*. 302: 350-356.
13. Ileleji, K. E., Li, Y., **Ambrose, R. P. K.** and Doane, P. H. 2016. Experimental investigations towards understanding important parameters in wet drum granulation of corn stover biomass. *Powder Technology*. 300: 126-135.
14. Sanghi, A. and **Ambrose, R. P. K.** 2016. Analysis of the effect of prevailing weather conditions on the occurrence of grain dust explosions. *Journal of Agricultural Safety and Health*. 22(3): 187-197.
15. Siliveru, K., Kwek, J. W., Lau, G. M. L. and **Ambrose, R. P. K.** 2016. An image analysis approach to understand the differences in flour particle surface and shape characteristics. *Cereal Chemistry*. 93: 234-241.
16. **Ambrose, R. P. K.**, Jan, S. and Siliveru, K. 2016. A review on flow characterization methods for cereal grain-based powders. *Journal of the Science of Food and Agriculture*. 96:359-364.
17. Alavi, S. and **Ambrose, R. P. K.** 2015. Particulate flow and agglomeration in food extrusion. In: *Production, Handling and Characterization of Particulate Materials*. (Ed: Merkus, H. G. & Meesters, G. M. H.). Particle Technology Series Volume 25. Springer. pp: 137-155

Recent Presentations

1. Jange, C., Shetty, A. and **Ambrose, K.** 2018. Assessment of powder cohesion using shear cell and Warren spring cohesion testers. *World Congress on Particle Technology*. Orlando, FL.
2. Salish, K., Mosher, G. A. and **Ambrose, K.** 2018. Developing GUI to predict the contamination of GM corn in non-GM corn. *NC-213 Annual Meeting*. Kansas City, MO.
3. Pathak, V. and **Ambrose, K.** 2018. Effect of starch-based hydrogel coating on early growth of corn. *NC-213 Annual Meeting*. Kansas City, MO.
4. Jange, C. G. and **Ambrose, K.** 2017. Surface Energy and its Effect on Interparticle Interaction during Particle Flow. *AIChE Annual Meeting*. Minneapolis, MN.
5. Jange, C. and **Ambrose, K.** 2017. Surface compositional effects on powder shear flow properties. *International Symposium – Reliable Flow of Particulate Solids V (RelPowFlo V)*, Skein, Norway.