



## Klein Ileleji

Ph.D. Slovak Agricultural University in Nitra, Slovakia - 1998

### Associate Professor

**2014 Seed for Success Award.** USAID Funded Feed-the-Future Food Processing Lab

**College of Engineering Pre-eminent Team Award:** Designer Particulate Products

#### Research Areas:

Biomass processing, handling, transport & storage, modeling transportation, distribution logistics of feedstock & fuels (Biomass Feedstock Systems Engineering), particle/powder technology, post-harvest technology, energy efficiency & renewable energy systems.

#### Classes Taught:

ASM 420 - Electric Power and Controls, 3 cr.  
ABE 591K - Biomass Feedstock Systems Engineering, 3 cr.  
GEAPS 590 - Fundamentals of Fuel Ethanol Production, 1 cr. CEU

#### Selected Publications (last 5 years):

- Clementson\*, C.L., K. E. Ileleji\* and R. L. Strohshine. 2009. Particle segregation within a pile of bulk dried distillers grains with soluble (DDGS) formed by gravity-driven discharge and variability of nutrient content. *Cereal Chemistry* 86(3): 267-273.
- A.R.P. Kingsly\*, K.E. Ileleji\*, C.L. Clementson\*, A.A. Garcia, D.E. Maier, R.L. Strohshine and S. Radcliff. 2010. The effect of process variables on the physical and chemical properties of corn distillers dried grains with solubles (DDGS) – plant scale experiments. *Bioresource Technology* 101(1): 193-199.
- Jiru\*, T., B.G. Kaufman\*, K.E. Ileleji\*, D.R. Ess, H.G. Gibson, and D.E. Maier. 2010. Testing the performance and compatibility of degummed soybean heating oil blends for use in residential furnaces. *Fuel* 89 (1):105 - 113.
- Ogden\*, C.A., K.E. Ileleji\*, K. Johnson and Q. Wang. 2010. In-field direct combustion fuel property changes of switchgrass harvested from summer to fall. *Fuel Processing Technology* 91 (2010) 266-271.
- Ileleji\*, K. E., A.A. Garcia\*, A.R.P. Kingsly and C. Clementson. 2010. A comparison of standard moisture loss on drying methods to determine the moisture content of corn distillers dried grains with solubles (DDGS). *Journal of Association of Official Analytical Chemists International* 93(3): 825-832
- Ogden\*, C.A., K.E. Ileleji\*, and F. Richardson. 2010. Morphological properties and breakage behavior of three ground biofeedstock by hammermilling. *Transactions of the ASABE* 53 (1) 199-204.
- Krishnakumar, P. and K.E. Ileleji. 2010. A Comparative Analysis of the Economics and Logistical Requirements of Different Biomass Feedstock Types and Forms for Ethanol Production. *Applied Engineering in Agriculture*. 26(5): 899-907.
- Brechbill, S., W. Tyner, and K.E. Ileleji. 2011. The economics of biomass collection and transportation and its supply to Indiana coal-fired power plants. *Bioenerg. Res.* (2011)4:141-152.
- Kingsly, A.R.P. and K.E. Ileleji. 2011. Glass transition behavior of corn distillers dried grains with soluble (DDGS). *Cereal Science* 54 (2011): 332-338.
- Agusdinata, D.B., F. Zhao, K. Ileleji and D. DeLaurentis. 2011. Life cycle assessment of potential biojet fuel production in the United States. *Environ. Sci. Technol.* 2011(45): 9133-9143.
- Tsai, W.T., L.J. Mason, W. Chayaprasert, D.E. Maier and K.E. Ileleji. 2011. Investigation of fumigant efficacy in flour mills under real-world fumigation conditions. *Journal of Stored Products Research* 47(2011): 179-184.
- Clementson, C.L. and K.E. Ileleji. 2012. Particle heterogeneity of corn distillers dried grains with solubles (DDGS). *Bioresource Technology* 107 (2012): 213-221.
- Dweikat, I., Weil, C., Moose, S., Kochian, L., Robert W., Mosier, N., Ileleji, K., Brown, P., Peer, W., Murphy, A., Taheripour, F., McCann, M., Carpita, N. 2012. Envisioning the transition to a next-generation biofuels industry in the Midwest. *Biofuels, Bioprod. Bioref.* 6:376–386 (2012); DOI: 10.1002/bbb.
- Yu, H., Q. Wang, K.E. Ileleji, C. Yu, Z. Luo, K. Cen and J. Gore. 2012. Design and analysis of geographic distribution of biomass power plant and satellite storages in China. Part 1: Straight-line Delivery. *Biomass and Bioenergy* 46 (2012): 773-784.
- Yu, H., Q. Wang, K.E. Ileleji, C. Yu, Z. Luo, K. Cen and J. Gore. 2012. Design and analysis of geographic distribution of biomass power plant and satellite storages in China. Part 2: Road Delivery. *Biomass and Bioenergy* 46 (2012): 785-792.
- Kingsly, A.R.P., K.E. Ileleji and R.L. Strohshine. 2013. Stress relaxation Behavior of Corn Distillers Dried Grains with Solubles (DDGS) in Relation to Caking. *Powder Technology* 235 (2013): 866-872.
- Mahsa Fardisi, M., L. J. Mason, and K. E. Ileleji. 2013. Development and Fecundity rate of *Tribolium castaneum* (Herbst) on Distillers Grain with Solubles (DDGS). *Journal of Stored Products Research* 52 (2013): 74-77.
- Probst, K.V., K.E. Ileleji, A.R.P. Kingsly, C. L. Clementson, A. A. Garcia and C.A. Ogden. 2013. The Effect of Condensed Distillers Solubles on the Physical and Chemical Properties of Maize Distillers Dried Grains with Solubles (DDGS) using Bench Scale Experiments. *Biosystems Engineering* 115 (2013) 221-229.
- Probst, K.V, A.R.P. Kingsly, R.L. Pinto, R. Bali, P. Krishnakumar and K.E. Ileleji. 2013. The Effect of Moisture Content on the Grinding Performance of Corn and Corn Cobs by Hammermilling. *Trans ASABE*. 56(3):1025-1033.
- McClurkin, J.D., D. E. Maier and K. E. Ileleji., 2013. Half-life time of ozone as a function of air movement and conditions in a sealed container. *Journal of Stored Product Research* 55 (2013) 41-47.
- Craig, A. P, A. S. Franca, L. S. Oliveira, J. Irudayaraj, and K. E. Ileleji. 2014. Application of elastic net and infrared spectroscopy in the discrimination between defective and non-defective roasted coffees. *Talanta* 128 (2014): 393-400.
- Craig, A. P, A. S. Franca, L. S. Oliveira, J. Irudayaraj, and K. E. Ileleji. 2015. Fourier transform infrared spectroscopy and near infrared spectroscopy for the quantification of defects in roasted coffees. Accepted in *Talanta* (2015).