Richard Stroshine

Ph.D. Cornell University - 1980

Professor

Award for Excellence – 2005 (Anderson Cereals and Oilseeds recognizing superior contributions to science and education related to cereals and oilseeds)

Research Areas:

Physical Properties of Biomaterials, Agricultural Materials & Food Products – Magnetic resonance detection of quality in agricultural materials & food products; measurement of grain storability & quality; grain drying & storage; physical properties related to quality of agricultural products & foods; properties of biomaterials as they relate to biomedical & bioprocess engineering.

Classes Taught:

ABE 305 – Physical Properties of Biological Materials
ABE 450 – Design and Optimization in Finite Element Analysis
ABE 550 – Grain Drying and Storage
ASM 245 - Materials Handling and Processing

Selected Publications (last 5 years):

Moog, D.J.P, R.L. Stroshine, and L.M. Seitz. 2008. Relationship of Shelled Corn Fungal Susceptibility to Carbon Dioxide Evolution and Kernel Attributes. Cereal Chemistry 85:19-26.

Cho, B.-K., W. Chayaprasert, and R. Stroshine. 2008 "Effects of Internal Browning and Watercore on Low Field (5.45 MHz) Proton Magnetic Resonance Measurements of T_2 Values of Whole Apples. Postharvest Biology & Technology 47:81-89.

Ileleji, K.E., K.S. Prakash, R.L. Stroshine, and C.L. Clementson. 2007. An Investigation of Particle Segregation in Corn Processed Dried Distillers Grains with Solubles (DDGS) induced by Three Handling Scenarios. Journal of Bulk Solids and Powder Science and Technology 2:84-94.

Granizo, D.P., B.L. Reuhs, R. Stroshine, and L.J. Mauer. 2007 "Evaluating the solubility of powdered food ingredients using dynamic nuclear magnetic resonance (NMR) relaxometry. LWT – Food Science and Technology 40:36-42.

Indrawati, L., R.L. Stroshine, and G. Narsimhan. 2007. Low Field NMR - A Tool for Studying Protein Aggregation. Journal of the Science of Food and Agriculture 87:2207-2216.

Ninan, L., R.L. Stroshine, J.J. Wilker, and R. Shi. 2007. Adhesive Strength and Curing Rate of Marine Mussel Protein Extracts on Porcine Small Intestinal Submucosa. Acta Biomaterialia 3(5):687-694.

Chayaprasert, W. and R. Stroshine. 2005. Rapid Sensing of Internal Browning in Whole Apples Using a Low-Cost, Low-Field Proton Magnetic Resonance Sensor. Postharvest Biology and Technology 36:291-301.

Ninan, L., J. Monahan, R.L. Stroshine, J.J. Wilker, and R. Shi. 2003. Adhesive Strength of Marine Mussel Extracts on Porcine Skin. Biomaterials 24:4091-4099.

Onyango, E.M., P.Y. Hester, R. Stroshine, and O. Adeola. 2003. Bone Densitometry as an Indicator of Percentage Tibia Ash in Broiler Chicks Fed Varying Dietary Calcium and Phosphorus Levels. Poultry Science 82:1787-1791.

Selected Conference Presentations (last 5 years):

Ramos, O. , R.L. Stroshine and P. Armstrong. 2008. Physical Attributes and Composition of White, Yellow, and Specialty Type Maize Hybrids Grown in the MidWestern United States. International Grain Quality and Technology Conference, Chicago, Illinois, July 15 to18,2008.

Ileleji, K.E., K.S. Prakash and R. L. Stroshine. 2007. Morphological characterization of particles taken from bulk samples of distillers dried grains with solubles (DDGS). 9th International Conference on Bulk Materials, Storage, Handling & Transportation, 9th - 11th October, 2007, Callaghan, NSW, Australia.

Clementson, C.L., K.E. Ileleji, and R.L. Stroshine. 2007. Particle Segregation in Bulk Distillers Dried Grains with Solubles (DDGS) and its effect on Chemical Variability in the Bulk. Paper 07-6214. ASABE, St. Joseph, MI.

Carroll, N., L.J. Segerlind, R. Stroshine, and C. Nyquist. 2006. Introducing Undergraduate and Graduate Students to Finite Element Analysis. Paper 06-8033. ASABE, St. Joseph, MI.

Dale, J.P. Moog, Richard L. Stroshine, Larry M. Seitz, Marvin R. Paulsen, and Charles P. Woloshuk. 2004. Storability Measurement of Shelled Corn. The International Quality Grains Conference, Indianapolis, Indiana, July 19-22, 2004.

Granizo, D.P., L.J. Mauer, and R.L. Stroshine. Characterization of hydration kinetics of proteins and carbohydrates using nuclear magnetic resonance (NMR) relaxometry. Abstract 60D-8. 2003 Institute of Food Technologists Annual Meeting, July 13-16, 2003. Chicago, Illinois.

Ninan, L., R.L. Stroshine, and R. Shi. Mechanical and Electrophysiological Properties of Guinea Pig Peripheral Nerves. Session 54, Poster C12, ASME Summer Bioengineering Conference, June 25-29, 2003. Key Biscayne, Florida.