#### Curriculum Vitae Richard L. Stroshine Professor Department of Agricultural and Biological Engineering Purdue University, ABE Building 225 South University Street West Lafayette, Indiana 47907-2093 Phone: (765) 494-1192 Fax: (765) 496-1115

#### ACADEMIC RANK: Professor

#### EDUCATION:

B.S.,	Ohio State University	_	Agricultural Engineering, 1971
M.S.,	Ohio State University	-	Agricultural Engineering, 1971
Ph.D.,	Cornell University	-	Agricultural Engineering, 1980

#### EXPERIENCE:

#### **Purdue University**

Professor, July 1994 to present, Associate Professor, July 1986 to July 1994, Assistant Professor, 1980 to 1986. Current Teaching Responsibilities: (1) "Physical Properties of Plant and Animal Materials" for Agricultural Engineering juniors; (2) "Materials Handling and Processing" for Agricultural Systems Management Sophomores; Research emphasis: (1) physical properties and quality of agricultural materials and food products; (2) magnetic resonance sensing of quality of fruits and vegetables, food products, and other agricultural materials, (3) maintaining grain quality during handling, drying, and storage;

#### United States Navy

Title: Lieutenant (jg), Line Specialist; Communications Officer, and Classified Material Systems Custodian (1974-1975). Main Propulsion Assistant (1973-1974). B Division Officer (1972-1973). U.S. Naval Officer Candidate School (1972).

#### ACADEMIC and PROFESSIONAL HONORS:

Tau Beta Pi; Gamma Sigma Delta; Alpha Zeta Agricultural Honorary Fraternity; Alpha Epsilon; John G. Sutton Award presented by ASAE (1970); 1985 ASAE Blue Ribbon Award in educational aids competition for *Grain Drying and Storage Self Study Guide*; ASAE Transactions Paper Award (1992, 2014); Agricultural and Biological Engineering Department Teaching Award - Engineering (2004, 2013); The Anderson Cereals and Oilseeds Award of Excellence (February 2005) which recognizes individuals that have made superior contributions to science and education related to cereals and oilseeds. 2009 College of Agriculture Dean's Team Award for the Integrated Corn Ethanol Co-Products Team composed of 40 researchers representing 5 departments. Purdue University Cooperative Extension Specialist Association 2010 Team Award for Managing Moldy Corn Team composed of 24 Purdue staff members from 5 departments (Richard Stroshine, William Field and Matt Roberts from ABE).

#### **TEACHING RESPONSIBILITIES:**

ABE 305, Physical Properties of Biological Materials, cr. 3 (1980-present); ASM 550, Processing and Storing of Farm Crops, cr. 3 (1980-1994; even numbered years from 1996 through 2014); ASM 245, Materials Handling and Processing, cr. 3 (1995-present); ABE 450, Finite Element Analysis in Design and Optimization, cr. 3 (50% responsibility, 2003 - 2014)

# **EXTENSION RESPONSIBILITIES:**

From 2008 to 2013 between 5 and 15% time spent on extension activities related to grain quality and grain drying, storage and handling while Department lacked other resources in this area.

# ACADEMIC PROGRAM RESPONSIBILITIES:

Chairman or Co-Chairman of the Academic Programs Committee since 2005; (curriculum updates, overseeing student advising, etc.) academic advising 40 to 65 undergraduate students per semester; Chairman of Department ABET Accreditation Committee 2011 – 2017 Led the Department in the development of a "two plus two" programs with China Agricultural University in Beijing, China (first class of students transferred to Purdue in the Fall of 2015) and continue to advise the students who transfer to Purdue to complete their studies.

# **PROFESSIONAL ACTIVITIES:**

#### Memberships

American Society of Agricultural Engineers, American Association of Cereal Chemists, Sigma Xi

# **Participation in Professional Organizations**

- NC-213 USDA Regional Research Committee: member, 1980-present; Indiana Agricultural Experiment Station representative, 1984-93; Secretary, 1985-86; Vice Chairman, 1986; Chairman, 1987.
- NE-1008- Assuring Fruit and Vegetable Product Quality and Safety through the Handling and Marketing Chain: member, 1993 to 2007; Indiana Experiment Station representative, 1997-2007. Secretary 1998-99, Chairman 1999-2000.

ASABE Transactions, Structures and Environment Division: associate editor, 1985-1987. ASABE FPE-702 Grain and Feed Processing and Storage Committee: member, 1980-

present; Program Chairman, 1984-85; Secretary, 1985-1987; Chairman, 1987-1989. ASABE FPE-701 Physical Properties of Agricultural Products Committee: member,

1985-1989, 1992 – 96; periodically between 2000 and present.

# ASABE P-514 Textbook Committee, 1992 - 2001.

# JOURNAL PUBLICATIONS:

- Baker, K.D., R.L. Stroshine, G.H. Foster and K.J. Magee. 1985. Performance of a pressure pneumatic grain conveying system. *Applied Engineering in Agriculture* 1(2):72-78.
- Baker, K.D., R.L. Stroshine, K.J. Magee, G.H. Foster and R.B. Jacko. 1986. Grain damage and dust generation in a pressure pneumatic conveying system. *Transactions of ASAE* 29(3):840-847.
- Barzegar, M., D. Zare, and R.L. Stroshine. 2015 An integrated energy and quality approach to optimization of green peas drying in a hot air infrared-assisted vibratory bed dryer. *Journal of Food Engineering* 166:302-315
- Budiman, M., R. Stroshine, and O. Campanella. 2000. Stress Relaxation and Low Field Proton Magnetic Resonance Studies of Cheese Analog. *Journal of Texture Studies* 31(5):477-498.
- Budiman, M., R. Stroshine, and P. Cornillon. 2002. Moisture Measurement in Cheese Analog using Stretched and Multi-Exponential Models of the Magnetic Resonance T<sub>2</sub> Relaxation Curve. *Journal of Dairy Research* 69(4):619-632.
- Cantone, F.A., J. Tuite, L. Bauman and R. Stroshine. 1983. Differences in reactions among corn genotypes to fungal attack in storage. *Phytopathology* 73:1250-1255.

- Cardenas-Weber, M., R.L. Stroshine, K. Haghighi, and Y. Edan. 1991. Melon Material Properties and Finite Element Analysis of Melon Compression with Application to Robot Gripping. *Transactions of ASAE* 34(4):920-929.
- 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.
- 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 T2 Values of Whole Apples. Postharvest Biology and Technology 47(1):81-89.

Cho, S.I., V. Bellon, T.M. Eads, R.L. Stroshine, and G.W. Krutz. 1991. Non-destructive Sugar Content Measurement in Fruit Tissue using <sup>1</sup>H MR. *Journal of Food Science* 56(4):1091-1094.

- Cho, S.I., R.L. Stroshine, I.C. Baianu, and G.W. Krutz. 1993. Non-destructive Sugar Content Measurements of Intact Fruit using Spin-Spin Relaxation Time (T2) Measurements by Low Resolution Pulsed 1H Magnetic Resonance (1H-MR). *Transactions of ASAE* 36(4):1217-1221.
- Clementson, C., K. E. Ileleji and R. L. Stroshine. 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.
- DeHoff, T.W., R. Stroshine, J. Tuite and K. Baker. 1983. Corn quality during barge shipment. *Transactions of ASAE* 26(1):259-264.
- Edan, Y., K. Haghighi, and R.L. Stroshine. 1992. Robot gripper analysis: Finite element modeling and optimization. *Applied Engineering in Agriculture* 8(4):563-570.
- Fernandez, A., R. Stroshine and J. Tuite. 1985. Mold growth and carbon dioxide production during storage of high-moisture corn. *Cereal Chemistry* 62(2):137-144.
- Friday, D., R. Stroshine and J. Tuite. 1990. Effect of hybrid and damage on mold development during low temperature drying and storage of high moisture shelled corn. *Drying Technology* 8(3):499-531.
- Friday, D., J. Tuite and R. Stroshine. 1989. Effect of hybrid and physical damage on mold development and carbon dioxide production during storage of high-moisture shelled corn. *Cereal Chemistry* 66(5):422-426.
- 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.

Haghighi, K., J. Irudayaraj, R.L. Stroshine, and S. Sokhansanj. 1990. Grain Kernel Drying Simulation using the Finite Element Method. *Transactions of ASAE*. 33(6):1957-1965.

- 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
- 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.
- Irudayaraj, J., K. Haghighi, and R. Stroshine. 1990. Nonlinear Finite Element Analysis of Coupled Heat and Mass Transfer Problems. *Drying Technology* 8(4):731-749.
- Irudayaraj, J., K. Haghighi, and R. Stroshine. 1992. Finite element analysis of drying with application to cereal grains. *Journal of Agricultural Engineering Research* 53:1-21.
- Irudayaraj, J., K. Haghighi, and R. Stroshine. 1993. Stress Analysis of Viscoelastic materials

During Drying: Application to Grain Kernels. Drying Technology 11(5):929-959.

- Lawrence, Johnselvakumar, Dirk Maier, and Richard Stroshine. 2013. Three-Dimensional Transient Heat, Mass, Momentum and Species Transfer in the Stored Grain Ecosystem. Part I. Model Development and Evaluation. *Transactions of ASABE* 56(1):179-188
- Lawrence, Johnselvakumar, Dirk Maier, and Richard Stroshine. 2013. Three-Dimensional Transient Heat, Mass, Momentum and Species Transfer in the Stored Grain Ecosystem. Part II Model Validation. *Transactions of ASABE*. 56(1):189-201.
- Keener, K.M., R.L. Stroshine, and J.A. Nyenhuis. 1997. Proton Magnetic Resonance Measurements of Self-Diffusion Coefficient of Water in Sucrose Solutions, Citric Acid Solutions, Fruit Juices, and Apple Tissue. *Transactions of ASAE* 40(6):1633-1641.
- Keener, K.M., R.L. Stroshine, and J.A. Nyenhuis. 1999. Evaluation of Low Field (5.40 MHz) Proton Magnetic Resonance Measurements of D<sub>w</sub> and T<sub>2</sub> as Methods of Nondestructive Quality Evaluation of Apples. *Journal of American Society for Horticultural Science* 124(3):289-295.
- Kim, Yong-Ro, M.T. Morgan, M.R. Okos, and R.L. Stroshine. 1998. Measurement and Prediction of Dielectric Properties of Biscuit Dough at 27 MHz. *Journal of Microwave Power* and Electrical Energy 33(3):184-194.
- Kingsley, A.R.P., K.E. Ileleji, C.L. Clementson, A. Garcia, D.E. Maier, R.L. Stroshine, and S. Radcliffe. 2010. The Effect of Process Variables during Drying on the Physical and Chemical Characteristics of Corn Dried Distillers Grains with Solubles (DDGS) – Plant Scale Experiments. *Bioresource Technology* 101(1):193-199.
- Kingsley, A.R.P., K.E. Ileleji, and R.L. Stroshine. 2013. Stress relaxation behavior of corn distillers dried grains with solubles (DDGS) in relation to caking. *Powder Technology* 235:866-872.
- Kirleis, A. W. and R.L. Stroshine. 1990. Effects of Hardness and Drying Air Temperature on Breakage Susceptibility and Dry Milling Characteristics of Yellow Dent Corn. *Cereal Chem.* 67(6):523-528.
- Liu, M, K. Haghighi and R.L. Stroshine. 1989. Viscoelastic characterization of the soybean seedcoat. *Transactions of ASAE* 32(3):946-952.
- Liu, M., K. Haghighi, R.L. Stroshine and E.C. Ting. 1990. Mechanical properties of the soybean cotyledon and failure strength of soybean kernels. *Transactions of ASAE* 33(2):559-566.
- Marks, B.P., and R.L. Stroshine. 1995. Effects of Previous Storage History, Hybrid, and Drying Method on the Storability of Maize Grain. *Journal of Stored Products Research* 31(4):343-354.
- Marks, B.P. and R.L. Stroshine. 1998. Relating Electrolyte Leakage to Shelled Corn Storability. *Cereal Chemistry* 75(5):651-655.
- Marks, B., R.L. Stroshine, and L. Dunkle. 1993. Effect of Storage History and Hybrid on Carbon Dioxide Production by Rewetted Shelled Corn. *Cereal Chemistry* 70(6):656-661.
- Marks, B., R.L. Stroshine, and B.F. Jones. 1994. Industry Opinions Regarding Corn Storability Testing. *Applied Engineering in Agriculture* 10(1):73-77.
- 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(1):19-26.
- Moog, D.J.P., R.L. Stroshine, and L.M. Seitz. 2010. Fungal Susceptibility at Four Temperature-Moisture Combinations and Carbon Dioxide Kit Color Reader Evaluation. *Cereal Chemistry* 87(3):182-189.
- 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.

- 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.
- 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.
- Orban, J.I., O. Adeola, and R. Stroshine. 1999. Microbial Phytase in Finisher Diets of White Pekin Ducks: Effect on Growth Performance, Plasma Phosphorus Concentration, and Leg-Bone Characteristics. *Poultry Science* 78:366-377.
- Roberts, M.J., W.E. Field, D.E. Maier, and R.L. Stroshine. 2012. Determination of Effort Required to Insert a Rescue Tube into Various Grain Types. *Journal of Agricultural Safety and Health.* 18(4):293-308.
- Roberts, M.J., W.E. Field, D.E. Maier, and R.L. Stroshine. 2015. Determination of Entrapment Victim Extrication Forces with and without Use of a Grain Rescue Tube. *Journal of Agricultural Safety and Health.* 21(2):71-83.
- Schenck, E.L., K.A. McMunn, D.S. Rosenstein, R.L. Stroshine, B.D. Nielsen, B.T. Richert, J.N. Marchant-Forde, and D.C. Lay Jr. 2008. Exercising stall-housed gestating gilts: Effects on lameness, the musculo-skeletal system, production, and behavior. *Journal of Animal Science* 86:3166-3180.
- Shi, Hu, B. Cooper, R.L. Stroshine, K.E. Ileleji, and K. Keener. 2017. Structures of degradation products and degradation pathways of Aflatoxin B1 by high-voltage atmospheric cold plasma (HVACP). *Journal of Agricultural and Food Chemistry* 65:6222-6230.
- Shi, Hu, K. Ileleji, R.L. Stroshine, and K. Keener. 2017. Reduction of aflatoxin in corn by high voltage atmospheric cold plasma. *Food and Bioprocess Technologies*. doi:10.1007/s11947-017-1873-8
- Shi, H., R.L. Stroshine, and K. Ileleji. 2017. Differences in kernel shape, size, and density between healthy kernels and mold discolored kernels and their relationship to reduction in Aflatoxin levels in a sample of shelled corn. *Applied Engineering in Agriculture* 33(3):421-431.
- Shi, Hu, R.L. Stroshine, and K. Ileleji. 2017. Determination of the relative effectiveness of four food additives in degrading Aflatoxin in Distillers Wet Grains and Condensed Distillers Solubles. *Journal Food Protection* 80(1):90-95.
- Singh, N., R.K. Singh, A.K. Bunia, and R.L. Stroshine. 2002. Effect of inoculation and washing methods on the efficacy of different sanitizers against *Escherichia coli* O157:H7 on lettuce. *Food Microbiology* 19:183-193.
- Singh, N., R.K. Singh, A.K. Bunia, and R.L. Stroshine. 2002. Efficacy of Chlorine Dioxide, Ozone, and Thyme Essential Oil or a Sequential Washing in Killing *Escherichia coli* O157:H7 on Lettuce and Baby Carrots. *Lebensmittel Wissenschaft und Technologie* 35:720-729.
- Smith, R.D. and R.L. Stroshine. 1985. Aerodynamic properties of corn harvest residues. *Transactions of ASAE* 28(3):893-897, 902.
- Streicher, E.A., R.L. Stroshine, G.W. Krutz and C.N. Hinkle. 1986. Cleaning shoe air velocities, material flow rates, and losses in combine harvesting of wheat. *Transactions of ASAE* 29(4):923-928.
- Stroshine, R.L., R.H. Rand, J.R. Cooke, J.M. Cutler and J.F. Chabot. 1985. An analysis of pressure chamber efflux experiments based upon resistance to water movement across cell membrane and through xylem vessels. *Plant, Cell and Environment* 8(1):7-18.

- Stroshine, R.L. and E.P. Taiganides. 1982. Soil oxygen demand test. *Agricultural Wastes* 4(2):83-95.
- Stroshine, R.L. and X. Yang. 1990. Effects of Hybrid and Grain Damage on Estimated Dry Matter Loss for High-Moisture Shelled Corn. *Transactions of ASAE* 33(4):1291-1298.
- Stroshine, R.L., J.F. Tuite, A.W. Kirleis, L.F. Bauman and A. Emam. 1986. Differences in grain quality parameters among selected corn inbreds and hybrids. *Cereal Foods World* 31(4):311-316.
- Tuite, J., C. Koh-Knox, R. Stroshine, F.A. Cantone and L.F. Bauman. 1985. The effect of physical damage to corn kernels on the development of *Penicillium* spp. and *Aspergillus* glaucus in storage. *Phytopathology* 75(10):1137-1140.
- Upchurch, B.L., G.E. Miles, R.L. Stroshine, E.S. Furgason and F.H. Emerson. 1987.Ultrasonic measurement for detecting apple bruises. *Transactions of ASAE* 30(3):803-809.
- Wai, W.K., R.L. Stroshine, and G.W. Krutz. 1995 Modifications of the Hahn Echo Pulse Sequence for Fast Measurement of Percent Soluble Solids Content of Fruits in Proton Magnetic Resonance (<sup>1</sup>H-MR). *Transactions of ASAE* 38(3):849-855.
- Yee, O.P., J.A. Nyenhuis and R.L. Stroshine. 1995. Magnetic Field Inhomogeneity Effects on Spin Echo NMR Diffusion Measurements. *IEEE Transactions Magnetism*. 31:3584-3586.

# OTHER REFEREED RESEARCH PUBLICATIONS:

- Paulsen, M.R., L.L. Darrah, and R.L. Stroshine. 1992. Genotypic Differences in Breakage Susceptibility of Corn and Soybeans. pp. 54-69 in: R. L. Stroshine (editor) *Fine Material in Grain.* North Central Regional Research Publication 332. Ohio Agricultural Research and Development Center, Wooster, Ohio. 15 p.
- Stroshine, R.L. 1992. Fine Material in Grain: An Overview. pp. 1-10 in: R.L. Stroshine (editor) *Fine Material in Grain*. North Central Regional Research Publication 332. Ohio Agricultural Research and Development Center, Wooster, Ohio.

# PUBLICATIONS EDITED:

Stroshine, R.L. (editor). 1992. *Fine Material in Grain*. North Central Regional Research Publication 332. Ohio Agricultural Research and Development Center, Wooster, Ohio. 70 p.

# **BOOK CHAPTERS:**

Abbott, J., R. Lu, B. Upchurch, and R.L. Stroshine. 1997. Nondestructive Technologies for Determination of Fruit and Vegetable Quality. *Horticulture Reviews* 20:1-120.

- Stroshine, R.L. 1989. Physiological Factors in Drying and Storing Farm Crops. 1989. Chapter 10 (pp. 10.1 to 10.16) in: 1989 ASHRAE Handbook of Fundamentals. American Society of Heating, Refrigerating and Air-Conditioning Engineers. Atlanta, Georgia.
- Stroshine, R.L., G.G. Dull, J. Abbott, V. Bellon, D. Beaumele, M. Benady, R. Cavalieri, P. Chen, W.R. Forbus, Jr., N. Galili, A. Mizrach, S. Nelson, Y. Sarig, D. Slaughter, J.E. Simon, and B. Zion. 1994. NonDestructive Sensing of Internal Composition.pp. 97-110 In: G. Brown and Y. Sarig (editors) *Nondestructive Technologies for Quality Evaluation of Fruits and Vegetables*. ASAE, St. Joseph, Michigan
- Pitts, M., J. Abbott, H. Arevalo, P. Armstrong, G.Brown, J. Brusewitz, D. Davis, M. Delwiche, S.J. Falconer, N. Galili, S. Gan-Mor, C.G. Haugh, R.B. Jordan, D. Massey, J. Mehlschau, R.A. Mills, A. Mizrach, D. Nahir, K. Peleg, R. Rohrbach, D. Rosenfeld, Y. Sarig, P.N. Schaare, Z. Schmilovitch, I. Shmulevich, B. Stevenson, M. Stone, R. Stroshine, and F. Younce. 1993. Sensing Fruit and Vegetable Firmness. In: G. Brown and Y. Sarig (editors) *Nondestructive Technologies for Quality Evaluation of Fruits and Vegetables*. ASAE, St. Joseph, Michigan.

#### **INSTRUCTIONAL MATERIALS:**

- Stroshine, R., J. Tuite, G. Foster and K. Baker. 1985. Self-Study Guide for Grain Drying and Storage. Departments of Agricultural Engineering and Botany and Plant Pathology, Purdue University, W. Lafayette, Indiana 47907.
- Stroshine, R.L. 1987. Workbook of Problems on Physical Properties of Agricultural Materials. Department of Agricultural Engineering, Purdue University, West Lafayette, Indiana 47907.
- Stroshine, R.L. 2002. *Physical Properties of Agricultural Materials and Food Products* (book manuscript- ca. 350 pgs). Department of Agricultural Engineering, Purdue University, West Lafayette, Indiana.
- Stroshine, R.L. 2000. Handling and Processing of Agricultural Materials and Food Products (course notes for ASM 245, 90 p.). Department of Agricultural Engineering, Purdue University, West Lafayette, Indiana.

# **TEACHING MODULES:**

- Keener, K.M. and R.L. Stroshine. 1995. Structure of Cells, Grains and Seeds, and Meat. Hypertext teaching module for course on physical properties of agricultural and biological materials. 652K file.
- Keener, K.M. and R.L. Stroshine. 1995. Thermal Properties of Agricultural Materials and Food Products. Hypertext teaching module for course on physical properties of agricultural and biological materials. 485K file.
- Nyquist, and R.L. Stroshine. 1996. Viscoelastic Models of Agricultural Materials and Food Products." Department of Agricultural and Biological Engineering, Purdue University, W. Lafayette, IN.
- Nyquist, and R.L. Stroshine. 1997. "Moisture Content Determination of Agricultural Materials and Food Products." Department of Agricultural and Biological Engineering, Purdue University, W. Lafayette, IN.

# **EXTENSION MATERIALS:**

- Maier, D.E., and R.L. Stroshine. 1992. Low-Temperature Drying of the 1992 Indiana Corn Crop. Grain Quality Task Force Fact Sheet #5. Purdue University, W. Lafayette, IN. 47907. 9 pgs.
- News and Information articles for the Post Harvest Grain Quality and Stored Product Protection website, <u>www.grainquality.org</u> (six articles, one to two pages each posted in 2009-2010)

# DEPARTMENT AND COLLEGE COMMITTEES:

ABE Department Academic Programs Committee (Chairman), August `05 – present.
ABE Department Facilities Planning Committee (Chairman), June `96 – August `05.
Biological Engineering Position Search Committee – Chairman July `03 – June `05.
Grain Quality and Stored Product Protection Search Committee – Chairman June `08-December `10.

College of Engineering Safety Committee – September `04 – August `05. College of Agriculture Area Promotions Committee, `01 – `04 College of Engineering Undergraduate Chairs Committee: 2010 - present