



**Patrick Murphy**  
Ph.D. Iowa State University - 2009

**Assistant Professor**

**Research Areas:**

Lignocellulosic feedstock production and storage and determination of feedstock quality for processing to fuels and chemicals

**Classes Taught:**

ASM 495 – Agricultural Systems Management

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

- White, S. D., P. T. Murphy, C. J. Bern, J. van Leeuwen. 2008. Controlling deterioration of high moisture maize by ozone treatment. *Journal of Stored Products Research*.
- Isci, A., P. T. Murphy, R. P. Anex, K. J. Moore. 2008. A rapid simultaneous saccharification and fermentation (SSF) technique to determine ethanol yields. *BioEnergy Research* 1:163-169.
- Murphy, P. T., K. J. Moore, T. L. Richard, C. J. Bern, T. J. Brumm. 2007. Use of swine manure to improve solid-state fermentation in an integrated storage and conversion system for corn stover. *Transactions of the ASABE* 50(5): 1901-1906.
- Murphy, P. T., K. J. Moore, T. L. Richard, and C. J. Bern. 2007. Enzyme enhanced solid-state fermentation of kenaf core fiber for storage and pretreatment. *Bioresource Technology* 98(16): 3106-3111.

**Selected Conference Presentations:**

- Isci, A. P. T. Murphy, R. P. Anex, K. J. Moore. 2008. A rapid simultaneous saccharification and fermentation (SSF) technique to determine ethanol yields. 30th Symposium of Biotechnology for Fuels and Chemicals, New Orleans, Louisiana, May 4-7.
- Bly, S. T., A. Isci, P. T. Murphy, J. Himmelsbach, A. Duetmeyer, D. R. Raman, R. P. Anex. 2008. Development of high-throughput fermentation assay using colorimetric measurement of gas production. Presented at the Institute of Biological Engineering – 2008 Annual Conference, Chapel Hill, North Carolina, March 6-9.
- Murphy, P. T., K. J. Moore, and D. R. Raman. 2007. Biomass availability model for determining lignocellulosic biomass quality. Presented at ASA-CSSA-SSSA International Annual Meeting, New Orleans, Louisiana, November 4-8.
- Murphy, P. T., K. J. Moore, and D. R. Raman. 2007. Carbohydrate availability assay for determining lignocellulosic biomass quality. ASABE Paper No. 077077. St. Joseph, Mich.: ASABE.
- Murphy, P. T., K. J. Moore, T. L. Richard, C. J. Bern, and T. J. Brumm. 2006. Use of iodoform to improve lactic acid production in the biomass ensilage conversion system. ASABE Paper No. 067004. St. Joseph, Mich.: ASABE.

