

WWW.SUNGRANT.OKSTATE.EDU



U.S. Department of  
Transportation



**Project Title:** *Farmers' Willingness to Produce Cellulosic Biofuel Feedstocks Under Alternative Contractual, Pricing, and Harvesting Arrangements*

DR. JASON BERGTOLD

#### Project Goal

The overall purpose of this project was to determine farmers' willingness to produce alternative sources of biofuel feedstocks in Kansas and surrounding states. Data was collected from commercial farm operations using enumerated surveys with stated choice experiments about their willingness to produce corn stover, sweet sorghum and switchgrass under contract.

#### Project Outcomes

- Feedstock adoption for value-added crop residues, dedicated annual bioenergy crops as well as dedicated perennial bioenergy crop by farmers is higher in the eastern Kansas and the surrounding area and declined going west.
- On average, farmers were willing to allocate 122 acres to try a dedicated annual bioenergy crop and 101 acres for a perennial bioenergy crop.
- The probabilistic models examining farmers' willingness to produce feedstocks under alternative contractual conditions found that the likelihood of producing a feedstock will increase: a) if the level of net returns per acre under contract is increased, b) having a biorefinery harvest option, c) availability of insurance especially for sweet sorghum and switchgrass, d) nutrient replacement if corn stover is harvested, and e) incentive payments and establishment cost share for bioenergy crops. On the other hand, likelihood of production for each feedstock will decrease if the length of contract increases.

**Other Sources of Funding:** Kansas State University: Cost share for salaries and benefits of PIs, as well as F&A. Oklahoma State University: Cost share is for academic salary and fringe benefits.



**PI: Dr. Jason Bergtold**

Kansas State University  
*Ag Econ*

**Co-PI: Dr. Richard Nelson**

Kansas State University  
*Engineering Extension*

**Co-PI: Dr. Scott Staggenborg**

Kansas State University  
*Agronomy*

**Co-PI: D. Jeffery Williams**

Kansas State University  
*Ag Econ*

**Co-PI: Dr. Francis Epplin**

Oklahoma State  
University *Ag Econ*

**Co-PI: Dr. Michael Langemeier**

Kansas State University  
*Ag Econ*

**Funded:** \$233,000

**Start Date:** 07/01/2009

**End Date:** 06/30/2013