**Farm supply response for bioenergy feedstocks in the Midwest**

In order to successfully develop a second-generation biofuels industry, the agricultural sector will need to supply bioenergy feedstocks, which refer to cellulosic biomass (non-food plants), which typically consists of crop residues, perennial grasses, and short-rotation trees. It is expected that a large share of these needs will be met by private farmers, and currently, relatively little data on farm supply response for these feedstocks exists. To fill this knowledge gaps, research is done on two contexts: (1) legislated renewable energy targets and (2) analyzing what factors influence farmers’ feedstock choices, such as farm and farmer characteristics, social attitudes, and environmental preferences. It is in the latter where researchers in the DOE’s Great Lakes Bioenergy Research Center have focused by analyzing farm supply responses for two prospective bioenergy feedstocks (corn stover and switchgrass) in Wisconsin. These feedstocks are expected to be among the first to be commercialized, and already have state-level production and harvesting guidelines in place. They did this by sending out surveys to roughly 1,500 farmers representing 440,000 total cultivable acres in southwestern Wisconsin; over half of the farmers contacted replied and based on the areas represented, the results presented in the paper represent approximately 12% of the total cultivable area within the selected region. The purpose of the survey was to gather information regarding boundary values for feedstock supply prices. The *ex-ante* model used these values and predicted the proportion of farms that would supply said feedstocks at a given price and the share of land that they would be willing to dedicate to those feedstocks at that price. Their surveys, which showed heterogeneity in the price within and across the farm types, suggested that there is a low proportion of farmers who would be willing to supply either feedstock even at higher prices than the set price (<15-40% for switchgrass and corn stover, respectively). This means that even at higher prices offered, there would be relatively small land areas allocated to bioenergy feedstocks, which indicate a need for more attention to be devoted to the role of micro-level factors associated with second-generation bioenergy feedstock supplies.

**References:** Mooney DF, Barham BL, and Liang C. “Inelastic and Fragmented Farm Supply Response for Second-generation Bioenergy Feedstocks: Ex Ante Survey Evidence from Wisconsin”. Applied Economic Perspectives and Policy (2014). doi:10.1093/aepp/ppu033

**Contact**: Dr. N. Kent Peters, SC-23.2, (301) 903-5549