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Prospects of Entry into the Energy Market by Small and Mid-Sized Farmers: Evidence from Tennessee

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Abstract

The goal of this study was to get feedback from farmers in selected Tennessee counties on their willingness to grow switchgrass as a dedicated bioenergy crop. Switchgrass can be grown on marginal land. It is environmentally friendly (useful for erosion control etc.) and can assist rural communities by developing rural infrastructure and job creation. There is call for shift from using food products such as corn to cellulosic source such as switch grass as feedstock for bioenergy. Recent increase in the price of corn is noted to have impact of increasing its price, demand for land and more application of fertilizer thereby having undesirable outcomes on economic and environmental aspects.

Keywords: Focus groups and surveys; willingness to grow Switchgrass; bioenergy; Small and mid-sized Tennessee farmers

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Methodology and Data

Pre- and post-focus group surveys were administered face to face to forty four farmers from Robertson, Franklin, Montgomery, and Haywood counties between June 20 and August 18, 2011. The focus group discussion and the surveys involved various issues ranging from their farm operations to willingness to grow switchgrass as a dedicated bioenergy crop. Participating farmers operated different enterprises and were recruited by county extension agents. The farmers were provided basic information about switchgrass, including the length of the establishment period, the type of land on which it can be grown, and the amount of subsidy given to farmers during the transition period. The focus group meetings were moderated by project researchers.

Results and Discussion

Initially, the farmers' knowledge of switchgrass as a feedstock for bioenergy was very limited and was enhanced after participating in the focus group meetings (Figure 1). In terms of intentions to grow switchgrass, the number of farmers that indicated their willingness to grow it was higher after the focus group meetings compared to the pre-focus group meetings (Figure 2). Farmers were also asked to indicate factors that may influence their intention to produce it. In response, availability of information about switch grass in general and price/market for it, cost of production, land/equipment needs, and profits in particular were found to be important (Figure 3). Extension agents, other farmers and focus group meetings were found to play role in influencing the farmers' decision making (Figure 4).

During focus group meetings, the farmers noted the importance of getting research based information on marketing and profitability of switchgrass. They also stated the need for technical assistance in planting, weed control, and harvesting. In addition, they pointed out that uncertainty plays a role in their decision making regarding participation in producing switchgrass. Changes in government policies pertaining to bioenergy; demand and stability of market for switchgrass; cost of production; availability of processing facilities in the local area; and finance are noted to be key issues contributing to uncertainty. There is need to engage the above issues to encourage entry of small and mid-sized farmers into the energy market.

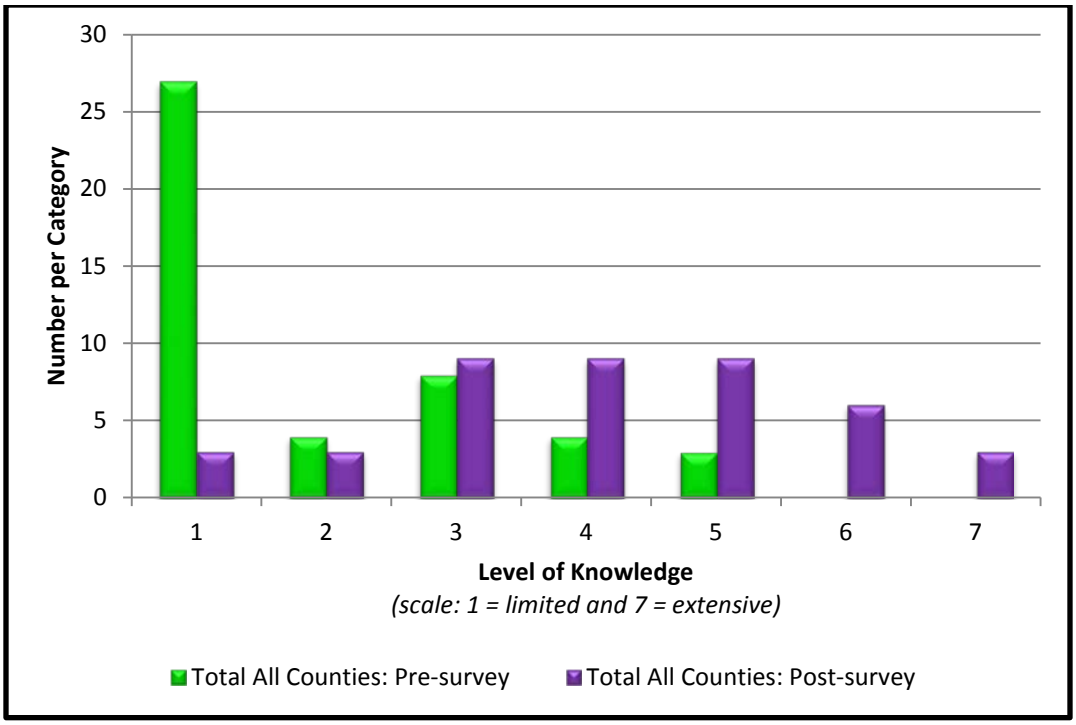

Figure 1. Farmers' Knowledge of Switchgrass as Energy Crop

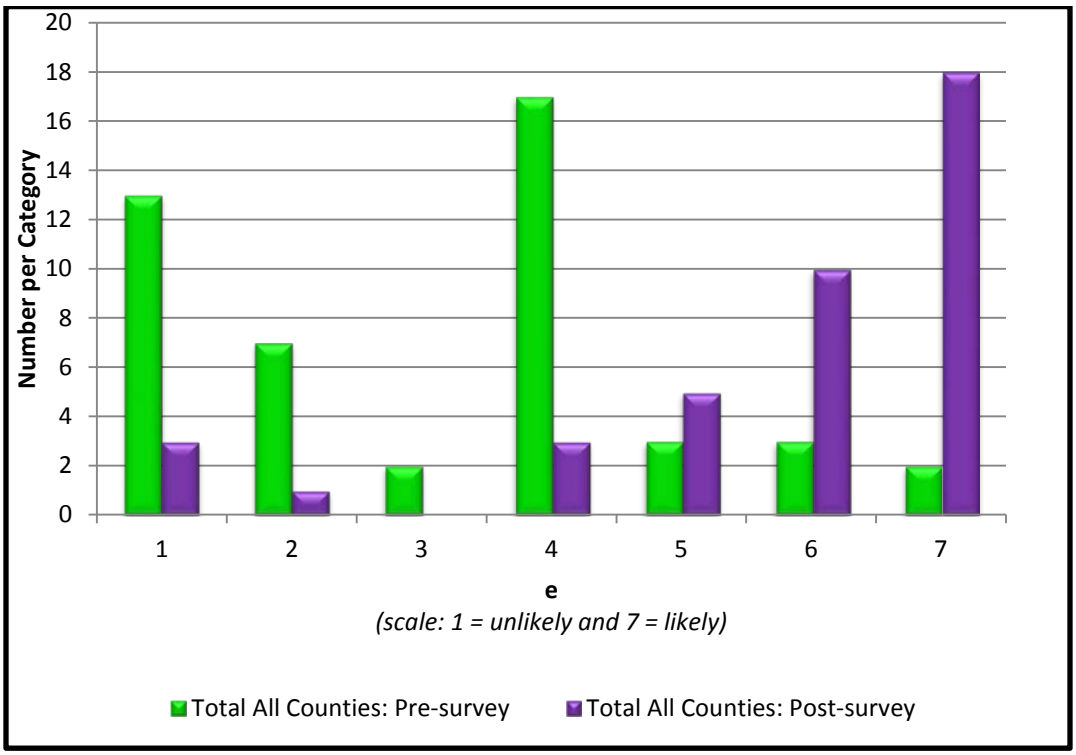

Figure 2. Farmers' Intent to Grow Switchgrass

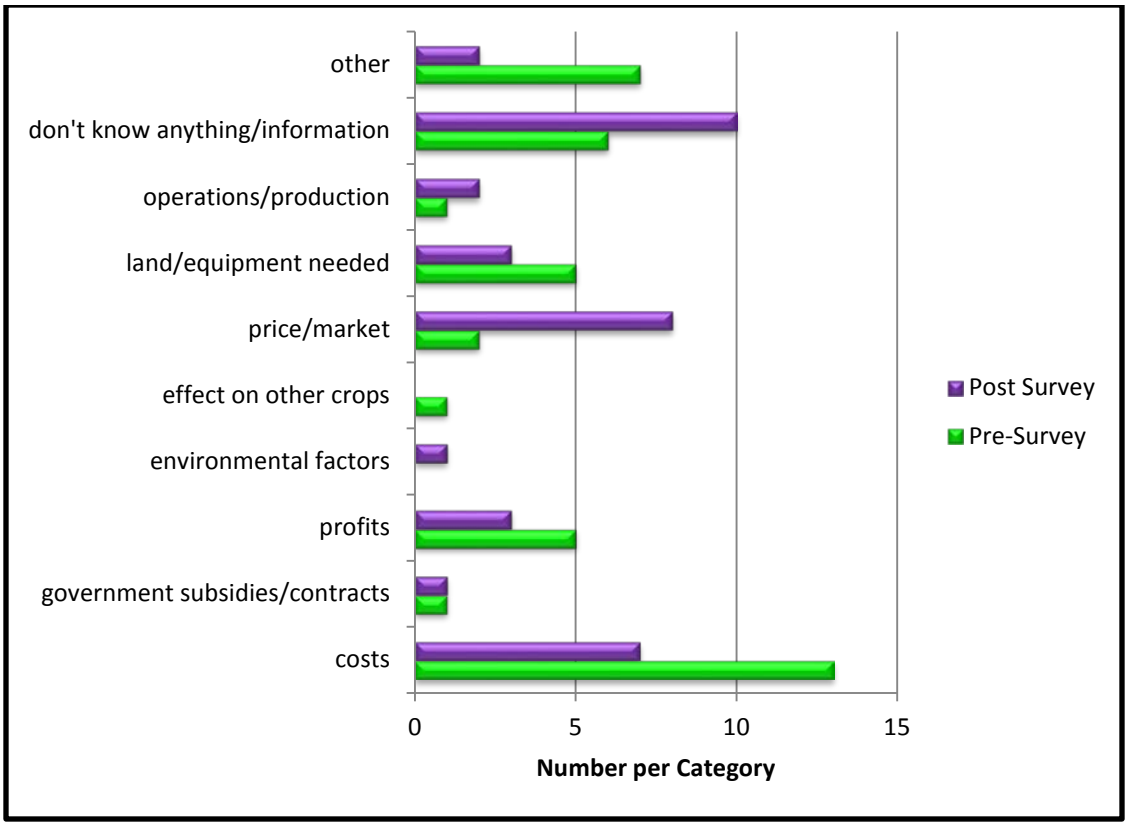

Figure 3. Factors Affecting the Farmers' Intent to Grow Switchgrass

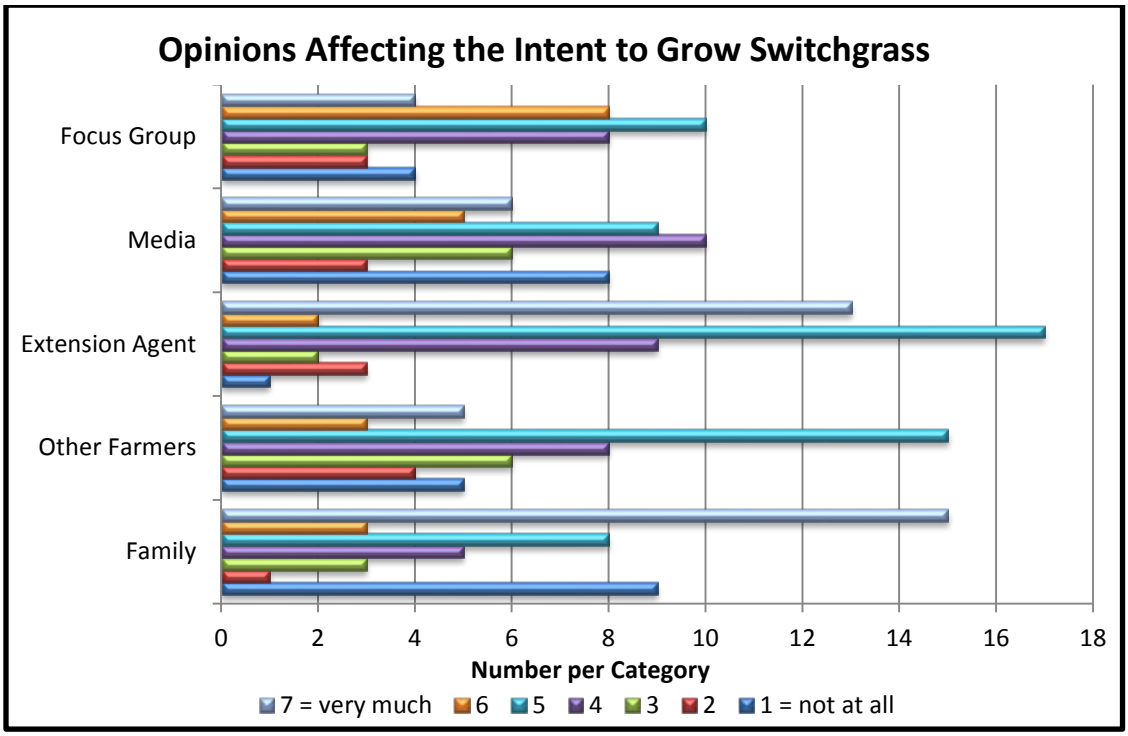

Figure 4. Opinions Affecting Farmers' Intent to Grow Switchgrass