Potential Market Development for Miscanthus x giganteus in Southern Illinois

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Introduction
Faced with an energy situation that cannot be described as sustainable in the long term, it should come as no surprise that our country is devoted to exploring a variety of energy options that could potentially have greater longevity, environmental friendliness, and reliability. One such source that has received a growing amount of attention is energy derived from biomass, in a variety of forms, including miscanthus (Miscanthus x giganteus). Miscanthus has a great deal of potential for the country’s energy future and the economy of Southern Illinois. The region’s climate and poor soil could be put to good use cultivating biomass in a variety of forms. County-by-county yield estimates have indicated that yields are highest in the southern and southwestern Illinois, correlated with the number of Growing Degree Days (GDD). In order to do so, however, much depends on the location of processing facilities and transportation costs. One key feature of the region that will assist in the movement from the current state of affairs with regards to miscanthus production in the Dixon Springs Agricultural Center (DSAC). DSAC has long history in the community, has played a prominent role in the agriculture of the region, and could have a significant role to play in educating area farmers about the new trends in energy production.

Objectives
This study sought to analyze the potential for a miscanthus market to develop in Southern Illinois, in order to evaluate the steps necessary for miscanthus and other sources of biomass energy to become worthwhile sources of income for producers in the region.
- Demonstrate the current lack of a market for biomass crops in this part of the state.
- Analysis of the market structures necessary for the adoption of miscanthus as a marketable crop.
- Potential costs and benefits to Southern IL.
- Qualitative comparison of Southern IL to the 5 Biomass Crop Assistance Program (BCAP) Areas and Central IL.

Methods
- Interviews and meetings with various local stakeholders from different sectors of the food and energy industries
- Questions on the benefits and costs of a growing miscanthus market to their industry

Results
Comparison of Southern IL, Central IL, and BCAP areas

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<th>Avg CRP Acres</th>
<th>Avg Annual Payment</th>
<th>Avg Corn Yield</th>
<th>Avg Soybean Yield</th>
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<td>Central IL</td>
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Conclusions
- Southern Illinois is, on average, very similar to the BCAP areas, with Central Illinois not, demonstrating the suitability for eventually receiving BCAP status.
- 3 of these variables were very strongly negatively correlated with having CRP (Corn Yield, Soybean Yield,
- and Average CRP Payment). However, production facilities for miscanthus are absolutely necessary.
- Currently, the simplest end use for miscanthus and other forms of biomass are as on-farm fuel sources to provide heat.
- DSAC will play a crucial role in the local understanding of miscanthus, a pelletizer and greenhouse heating program at DSAC could serve as a demonstration of on-farm uses of biomass.
- There are, however, potential concerns to growing miscanthus on a large scale in Southern IL.
- Perceived threat to the coal industry
- Fears of invasiveness
- "Chicken and egg" market development conundrum

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