



Developing Rural Scotland

Farmer attitudes and intentions towards the adoption of energy crops

Alan Renwick and Chris Sherrington

Email: alan.renwick@sac.ac.uk Scottish Agricultural College, Edinburgh

Encouraging the bioenergy sector in the UK

The Energy White Paper (DTI et al., 2003) identifies bioenergy as an important means of meeting the Government's energy and environment objectives, including energy security and the reduction of greenhouse gas emissions.

The White Paper indicates that bioenergy could be a major contributor to the renewable energy resource by 2020.

However, attempts by the Government to stimulate the bioenergy sector in the UK have so far had limited success.

On-going research seeks not only to estimate the true economic costs and returns from energy crops but also to identify attitudes and intentions of UK farmers towards the adoption of dedicated energy crops such as Short Rotation Coppice (SRC) Willow and Miscanthus to gain a better understanding of current barriers to adoption.

Surveying farmer attitudes

On-farm surveys of energy crop producers have been used to estimate the true economic costs and returns from SRC and Miscanthus production

Farmers' attitudes towards and likely responses to the potential for adoption of dedicated energy crops are currently being investigated. The first stage of the process used focus groups to elicit statements, and included a meeting at Scotlandwell (Fife). The groups consisted of farmers who had either already allocated some of their land to SRC Willow or Miscanthus, or those who had an interest in growing energy crops, in the future.



Economic returns and farmers' perceptions

- Our estimates are that the mean cost of production for SRC and Miscanthus are £66 and £46 per oven dried tonne respectively, which is significantly higher than the current commodity prices. This indicates that returns need to increase (through higher price or alternative revenues) or costs need to decrease (technological improvement) to encourage widescale adoption
- Even if the economics for the crops improve, farmers perceive fixed contracts to be a riskier prospect than selling alternative crops on the open market. There are concerns that end users could always back out, and that enforcing contracts with a single end-user can be very difficult
- There is interest in developing local supply chains such as for schools and hospitals and in capturing more of the value in the supply chain, by selling kilowatt-hours rather than just the fuel
- Producer groups are seen as important due to the cost of specialist machinery and because purchasers of energy crops do not want to deal with individual farmers



Implications for bioenergy and landscape policy

Focus group statements will be used in a quantitative survey to obtain a statistically relevant indication of the behavioural intentions of UK farmers towards the adoption of dedicated energy crops.