

ECOLOGICAL SERVICES PAYMENTS ENHANCE THE ECONOMIES OF SUSTAINABLY-GROWN FEEDSTOCKS

Linda Meschke

Rural Advantage

A major challenge of sustainable biofuels, bioenergy, and bioproducts production is being able to compete economically with annual crops such as corn, soybeans, or wheat. At this stage, it looks like the amount an energy facility might pay for the biomass feedstock is not enough to drive significant landscape change from annual cropping systems to systems that include perennials. To have successful sustainable agricultural and forest crop bioenergy systems, the production must be able to be economically competitive with the annual crops currently grown. Rural Advantage has developed a concept for how perennial biomass crops can compete with traditional annual crops. This concept provides for a payment to the landowner for a package of ecological services provided by sustainable bioenergy feedstock production to complement the biomass production payment from the energy facility. The concept is a market-based approach for an aggregator to “package” together payments for various ecological services and then make a single payment to the landowner. Ecological services supplied by perennial bioenergy crops for which there currently are markets for include carbon, greenhouse gas emission reductions, nitrogen and phosphorus reductions, habitat improvement, and aquifer recharge/water storage. These market mechanisms exist individually around the globe. Rural Advantage is reviewing these mechanisms and is developing an overall payment package to enable the landowner to get paid for the ecological services provided by perennial bioenergy systems. When payments are packaged together, landowners are able to receive a payment for their ecological services for which they probably would be unable to collect on their own. In addition, the aggregator would be working with presumably several thousand acres and would be able to leverage a higher payment for each service.

KEY WORDS: ecological services, perennial, bioenergy, biomass, feedstocks

*Contact information: 1243 Lake Avenue, Suite 222, Fairmont, MN 56031-1942; Phone: (507) 238-5449; Email: linda@ruraladvantage.org