

GNC09-107

*Incorporating native prairies into working farm landscapes*

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**Abstract**

Before European settlement, more than 85% of Iowa was tallgrass prairie. By 2007, 64% of Iowa was cropped in either corn or soybean, and less than 0.1% of the land was tallgrass prairie. Increasing the amount of prairie in Iowa will improve environmental quality and the natural resource base on which Iowa agriculture depends and may also improve farmer profitability if the prairies provide a market-valued product. The intended outcomes of this project are to 1) determine the efficacy of using prairies as biomass feedstocks for the production of liquid fuels, 2) disseminate that knowledge through existing extension workshops, 3) inform farmers of the opportunities and challenges of applied uses for prairies on working landscapes, 4) provide demonstrations of prairies managed for applied uses through field days, and 5) aid Iowa farmers in establishing prairies on working landscapes. Experimental plots of prairies grown as biomass feedstocks were established in May 2008 and will be used to determine the effects of plant functional group diversity and nitrogen fertilization on prairie productivity. Results from this experiment will be disseminated to Iowa farmers, extension field agronomists, and the broader scientific community through extension workshops and scientific papers and presentations. Field days and an extension publication will provide farmers information regarding the opportunities and challenges of incorporating prairies into working landscapes. Prairies will also be established on farmers' lands and will serve as future demonstration sites. Outputs from this project include establishment of prairies on Iowa farms, increased knowledge of prairies grown as biomass feedstocks, scientific and extension publications and presentations, and field days. Increased farmer familiarity with the establishment, utility, and environmental benefits of native tallgrass prairies will encourage planting of prairies in agriculturally-dominated landscapes.