Dr. Stacy Bonos, Rutgers University

Although perennial grasses such as switchgrasses are expected to be used as a biofuel crop on marginal land there has been little to no extensive research to evaluate their performance on marginal land. Initial studies comparing switchgrass yields on marginal land vs. prime farmland found that performance across environments was not consistent and that the top performing entry is not the same on both soil types.

OBJECTIVES

1) Identify optimum breeding and selection techniques to identify the best performing switchgrass plants on marginal land (with low N) in Northeastern US and identify germplasm with improved performance on marginal land to use in a breeding program.

2) Identify cultivars of switchgrass with high biomass potential on marginal land (with low N) in the Northeastern US.

3) Develop new cultivars with improved biomass production on marginal land in order to optimize land use and provide a profitable biofuel crop for the North Eastern US.

4) Disseminate information to stakeholders in the industry through various outreach methods (e.g., fact sheets, presentations, internet postings, articles in trade magazines, and a workshop.

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