

## **Regional Feedstock Partnership Highlights—Northeast Region Biomass Resource Assessment**

Development of a large bioenergy economy in the USA requires a dramatic increase of sustainable biomass feedstock production. Northeast forests are significant sources of potential feedstocks as analyzed by the USDA Forest Service. We quantified land availability and potential feedstock production on non-forest lands for the 14-state Northeast Sun Grant region (Michigan - West Virginia - Maine). We compiled a comprehensive database of biomass crop yield data, including spatial attributes, weather, management, and composition. We analyzed the land currently in non-forest cover that could be available for bioenergy feedstock production without competing with current agricultural production and found that it totaled 10.2 million acres (see A below). Based on historical trends of increasing yield of individual crops, we project that 1.8 million acres of cropland could become available for feedstock production in 2020 while maintaining current crop production (See B). However, we estimate that only half of owners of potentially available land might be interested in producing bioenergy feedstocks. Using regression models of feedstock production we project total potential feedstock production on half of these potentially available lands could be at least 32 million dry tons per year. Achieving these perennial feedstock yields will require substantial field research, some of which is being conducted by collaborators in the Partnership. Our results have been shared in peer-reviewed publications, presentations throughout the region and the country, and “train-the-trainer” sessions with Cooperative Extension educators, K12 educators, and college students.



A. Land currently in herbaceous cover that is suitable and potentially available for bioenergy feedstock production (not used for current agricultural production of hay, pasture, etc.).



B. Cropland that could become available by year 2020 for bioenergy feedstock production due to increases in crop yield. Note that this land could alternately be used to increase total crop production above 2007 levels.

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