Integrated Landscape Management

Pathway to Reduce Biomass Access Costs and Balance Logistics and Sustainability Outcomes in Agricultural Fields

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Bio-Restore Workshop
September 25 & 26, 2019
INTEGRATED LANDSCAPE MANAGEMENT

• Agricultural producers and land managers are potential major suppliers of biomass materials for energy conversion.

• The diverse agricultural landscape represents a significant opportunity to source biomass feedstocks from excess crop residues and cultivated perennial energy crops such as Panicum virgatum (switchgrass) and Miscanthus x giganteus (miscanthus).
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- Apply appropriate ILM designs with reduced biomass feedstock production costs and model economic and sustainability outcomes.

- ILM designs include low-yielding subfields, high-slope areas (prairie strips), and annual energy crops (biomass sorghum) integrated with suitable crop rotation patterns.
INTEGRATED LANDSCAPE MANAGEMENT

- Developed modelling and simulation capabilities to measure field operation efficiency to account for Integrated Landscape Management impacts on biomass harvest and logistics costs and grower field operations efficiencies.

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FE = \frac{T_{work}}{T_{work} + T_{breaks}}
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Questions?