

# Feedstock Production & Management IWG

Biomass R&D TAC Meeting  
August 22, 2018

# Key Activities/Deliverables Planned in FY18

- Continue to support fundamental crop breeding research.
- Exchange information on best performing cultivars so that agencies can build on each other's advances (with Genetic Improvement & Logistics IWGs).
- Support adoption & improvement of regional BMPs.
- Identify feedstock quality characteristics that need to be improved to meet desired conversion specifications (with Conversion IWG).
- Organize an interagency working group site visit to see USDA-led field trials of bioenergy crops.
- Increase IWG membership.

# Progress Toward FY18 Deliverables

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- Support empirical data collection and modeling on the environmental, social, and economic effects of biomass production.
- Support R&D of landscape design principles for a range of biomass types and regional contexts.
- Support on-the-ground projects that test landscape design principles while monitoring key measures of sustainability; disseminate the practices and tools developed to enable private-sector replication and scale-up.

# FY18-19 Path Forward

- Conduct R&D that increases feedstock production & decreases variability per acre
- Conduct regional R&D comparing revenue potential for biomass feedstocks and current production options, in addition to evaluating scenarios for producer participation
- Increase delivery of extension publications on BMPs for agricultural and forestry bioenergy crops, as well as waste resources, to stakeholders
- Continue fundamental crop breeding research to increase yields, improve rate of establishment, improve feedstock quality and robustness, provide clear guidance on BMPs, and maintain a repository of commercial breeding material
- Collaborate with the Conversion IWG to assess and characterize agricultural and forestry crop residues and waste resources and identify the feedstock characteristics that need to be improved to meet desired conversion specifications
- Develop precision agricultural and forestry systems suited to bioenergy landscapes
- Encourage rapid establishment through better management guidelines, as well as availability of planting stock through integration with the FGI IWG
- Conduct regional field trials and management of energy crops across varying climate and soils to encourage adoption of regional BMPs.

# FY19 and Beyond

## FPM, Genetic Improvement, Logistics, & Conversion IWGs are Intertwined

- **There are suboptimal feedstock yields due to lack of uniform implementation of BMPs at the farm-scale for dedicated agricultural and forestry energy crops and crop residues.** Feedstock production revenue must meet or exceed the revenue potential for existing practices or producer participation will be limited.
- **Infrastructure (e.g., planting and other production equipment, land access for growing and storage) specific to biomass feedstocks is limited or outdated on most farms.** Transitioning farmland to biomass will require new feedstock-specific machinery or the development of custom operations.
- **The effect of growing large quantities of biomass for bioenergy on environmental, social, and economic outcomes is not well known.** Economic and social issues such as food security, workforce development, human health, and landowner adoption need to be addressed through R&D, decision support tools, and outreach at the landscape scale.
- **Improve awareness of and access to existing databases.** Coordinating activities across agencies, labs, and funding sources is needed to demonstrate value and vision.