



# **Agricultural Crop Residue Removal Sustainability**

**presentation by:**

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**Biomass 2011: Replace the Whole Barrel, Supply  
the Whole Market**

***The New Horizons of Bioenergy***

# Key points about Agricultural Crop Residues and their Use as a Bioenergy Feedstock

- Agricultural crop **residues** are abundant, a function of crop yield, and will continue to increase due to yield increases especially in corn
- **Removal** of agricultural crop residues is highly site-specific (e.g., soil type and field-scale) and is dependent upon a number of factors such as crops and rotations, field management (e.g., tillage), soils and field topography, and climate

# Key points about Agricultural Crop Residues and their Use as a Bioenergy Feedstock

- **Soil sustainability** is the key factor with respect to the farmer/landowner closely followed by crop choice which is directly related to commodity and energy markets
- **Large-scale removal** scenarios have been computer modeled, but not performed both spatially as well as temporally to study the effects on soil sustainability
- The US Department of Energy has completed efforts that look at **site-specific residue removal** with respect to crops, rotations, field management, and soils and climate and are continuing to investigate constraining factors to effectively develop the agronomic strategies