

## The National Significance of Biofuels

- 2005 Congressional goal for 2012 7.5b gallons
  - Will be met this year (2008)
- 2006 production 5b gallons
- 2007 Energy Bill 36b gallons by 2022
- Long-term potential 3 studies:
  - 87b gallons by 2025 U of Tennessee
  - 100b gallons Aspen Institute
  - 50b gallons Battelle Memorial Institute



## **Comparing Fuels:**



Estimated change in greenhouse gas emissions if petroleum fuel is replaced by one of these alternatives

## Lifecycle Greenhouse Gas Emissions **Associated with Different Fuels**





86%

Biomass

Sources: Wang et al, Environ. Research Letters, May 2007; Wang et al, Life-Cycle Energy Use and GHG Implications of Brazilian Sugarcane Ethanol Simulated with GREET Model, Dec. 2007.