

Report by the ICEAF Subcommittee

USDA AAQTF Task Force Meeting
October 2-5
Indianapolis, Indiana

Outline

- Bioenergy Status Overview and Issues
- ICEAF activities and recommendations
- Discussion

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Sources of Imported Oil

Canada 10.4

Mexico 10.3

Mid East 14.6

 Saudi Arabia (9.3)

 Iraq (4.1)

 Kuwait (1.2)

Venezuela 8.7

Nigeria 7.1

Other 9.9

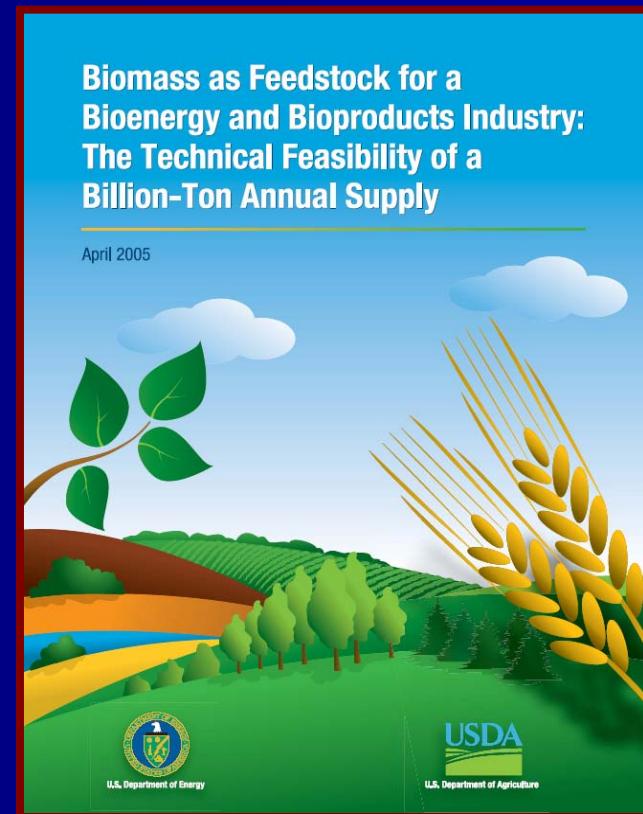
TOTAL 60.0

Manternach, 2004

DOE Biomass Supply Requirements

- 428 million dry tons of crop residue
- 377 million dry tons of dedicated crops
- 87 million dry tons of grains
- 106 million dry tons of animal manure

*ie 800 MT from
Agriculture = 110,000
trailer truck loads/day!*



Assumptions to Meet Biomass Requirements

- Land available
- Equipment technology available
- Seedstocks available
- Producer buy-in
- Conversion technologies progress as expected

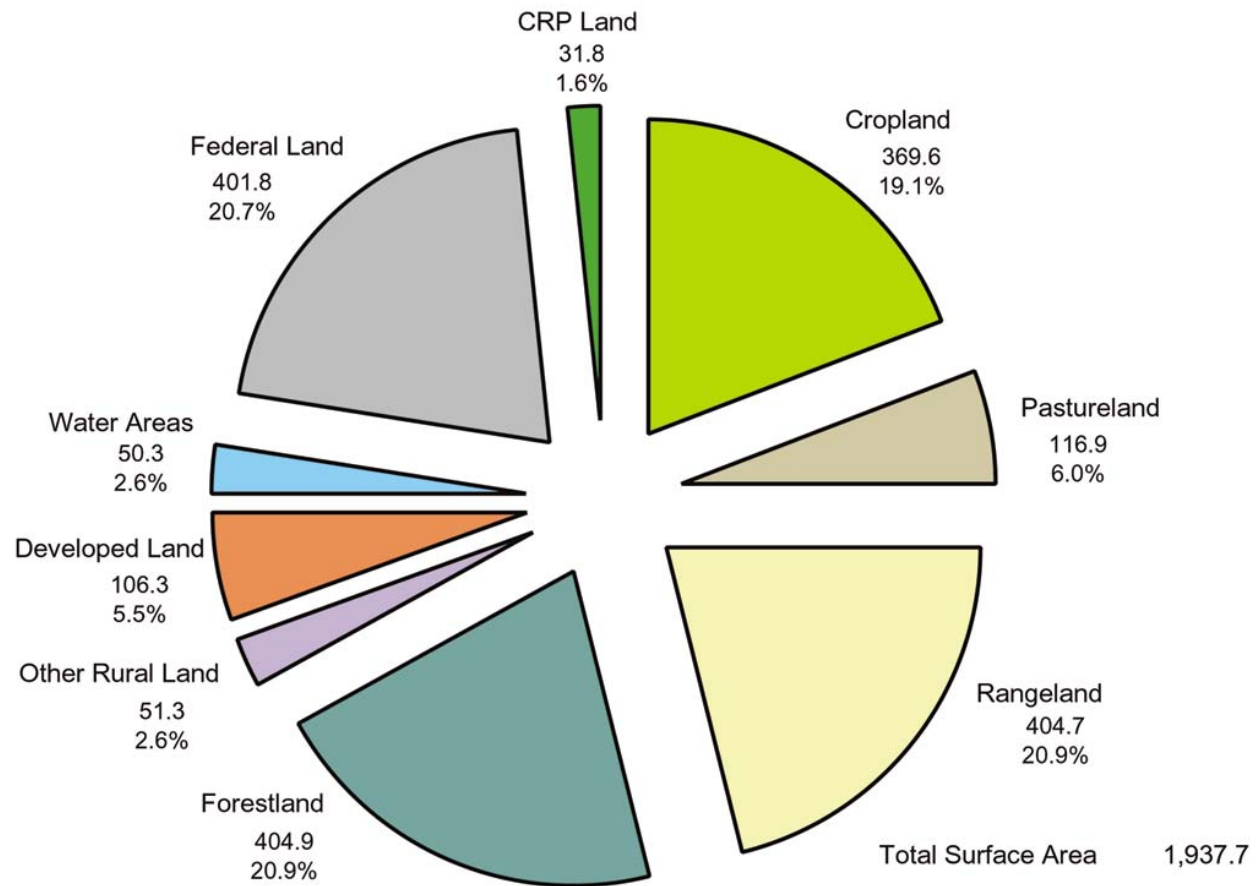


Required Acreages

- 428 million tons of residue = 200 million acres
- 377 million tons of dedicated energy crops = 37.7 million acres
- 369 million acres of crop land*
- 55 million acres of idle crop land*
- 117 million acres of pasture*

* USDA-NRCS, 2001 National Resources Inventory

**U.S. Total Surface Area, by Land Cover/Use, 2001,
Excluding Alaska, Hawaii, and Caribbean Area
(Millions of Acres and Percent of Total Surface Area)**



*** USDA-NRCS, 2001 National Resources Inventory**

Ethanol

- 119 grain-based ETOH plants (6.2 billion gallons) (Source RFA)
- 86 under construction with (6.4 billion gallons)
- All US corn production = 15-20% of US gasoline supply
- Non-grain feedstocks will be crucial
- Cellulosic conversion technology available
- Grain availability

ETOH Continued

- Positive energy balance (+10–20%)
Continued MTBE replacement market
- ETOH supply and demand
- Increasing plant costs (Cancellations/delays)
- ETOH cannot be shipped by existing pipelines.
- Grain supply and demand
- Distillers grain replacement value
- Environmental issues (Air and Water)

Biodiesel

- 148 plants (1.39 billion gallons capacity)
(Source NBB)
- Production 300 million gallons in 2007
- US consumes 40 billion gallons/yr
- Feedstock supply/demand problematic
- Small plants are in trouble
- Soy oil and imported palm oil are major sources
- Emission issues

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Biofuels Conference

- CenSARA will host a biofuels conference in Kansas City June 16-18, 2008 to focus on challenges associated with biofuels production such as:
 - Status of the biofuels industry
 - Siting of production facilities
 - Anticipated air emissions
 - Control approaches and technologies

Recommendation to Secretary

The ICEAF subcommittee recommends that a research collection be established that tracks research on biofuel issues. This collection could be housed at the USDA Beltsville Agricultural Library and a citation collection summary available to the public online.

Objective

- Promote sharing and wide-distribution of research results
- Facilitate nationwide research efforts
- Save researchers across the U.S. significant amounts of time
- Promote biofuels research and application decision-making based on best available science

Ongoing Work Efforts

- Data collection on a white paper on the topic of anticipated emissions from gasification, pyrolysis and co-firing using agricultural by-products
- Compilation of responses to research query
- Continued activity on work plan

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