



Environmental Challenges Associated with Corn Ethanol Production

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Challenge from Energy Conservation

- Addresses Global Warming Not Just Energy Independence
- 10% to 40% Reduction in GHG at No Cost
- California Example
 - Near Zero Increase in Energy Use Since 1974
 - \$800 Saving/Year/Family
- Future Potential of Plug-In Cars

Vulnerability of Conservation Programs

- Plow-Out of the Seventies
- In 1985, Conservation Reserve Program (CRP), Swampbuster, Conservation Compliance
- Similar Challenge with Today's High Prices

Vulnerability of Compliance Programs

- 40 % Reduction in Cropland Soil Erosion
- Reversed the Dramatic Draining of Wetlands
- In Contrast, Rocky History for Practice Subsidies

Prairie Vulnerabilities

- Recent Trends – Could Lose Half of Key Pothole Region Grasslands in 34 Years
- Not Covered by Sodbuster
- Not Much Wildlife Habitat Left in the U.S.

Tropical Deforestation/Sodbusting

- Synergy Between U.S. Biofuels and Loss of Tropical Forests and Savannas - Where We Get the Land
- Only a Fourth of the Potential Cropland in Brazil Is in Crop Uses

Indonesia – World’s Third Largest Source of Green House Gas

- FAPRI 2005 Outlook – Oil Crop Prices Flat
- FAPRI 2007 Outlook
 - U.S. Soybean Acres Shift to Corn
 - Vegetable Oil Price Increases, Palm Oil Price “Skyrockets”
 - 57 % Increase in Palm Oil in Indonesia, One Third of It Due to Biofuels
- Roughly 1.5% Increase in the World’s Greenhouse Gases

Challenge from Increased Concern over Global Warming

- Recent Studies Much More Pessimistic
- Reinforcing Mechanisms:
 1. More Heat Absorbed in the Artic Ocean
 2. Ocean too Warm for Algae
 3. Release of Greenhouse Gases as Artic Thaws
 4. Potential Run-Away Release of Greenhouse Gas

Challenges and Policy Implications

- Climate Literature Has Changed
- U.S. Conservation Programs Are Vulnerable
- U.S. Prairie Is Vulnerable
- Increased Tropical Deforestation and Major Increases in Greenhouse Gases
- Advantages of Conservation and Plug-In Cars