

Why Thermochemical?

- Higher fuel yield, energy efficiency and lower per-BTU cost than cellulosic ethanol
- Relatively robust w.r.t. feedstock source and condition
- Offers plant breeders clear, achievable objectives
- FT coal conversion already done at commercial scale; Choren FT-biomass-to-diesel facility under construction in EU

Why Diesel?

- High fuel yield [vs. FT-ethanol]
- Preferred fuel for most farm equipment
- Drop-in fuel can leverage blending mandates

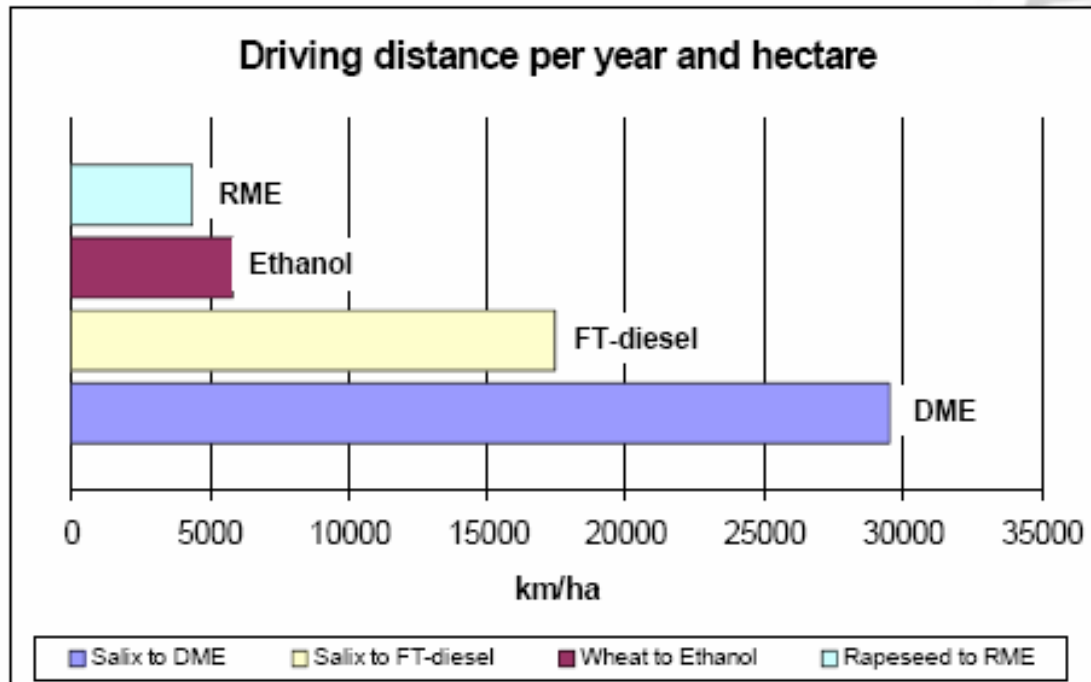
Why Distributed?

- Minimize transport of low-density biomass
- Ensures security of food supply
- Max. wealth-creation in rural communities



Synfuels Yield Advantage

Biofuels from 1 hectare of land – how far can you get?
(Medium/Heavy Duty truck, 30 liter/100 km)

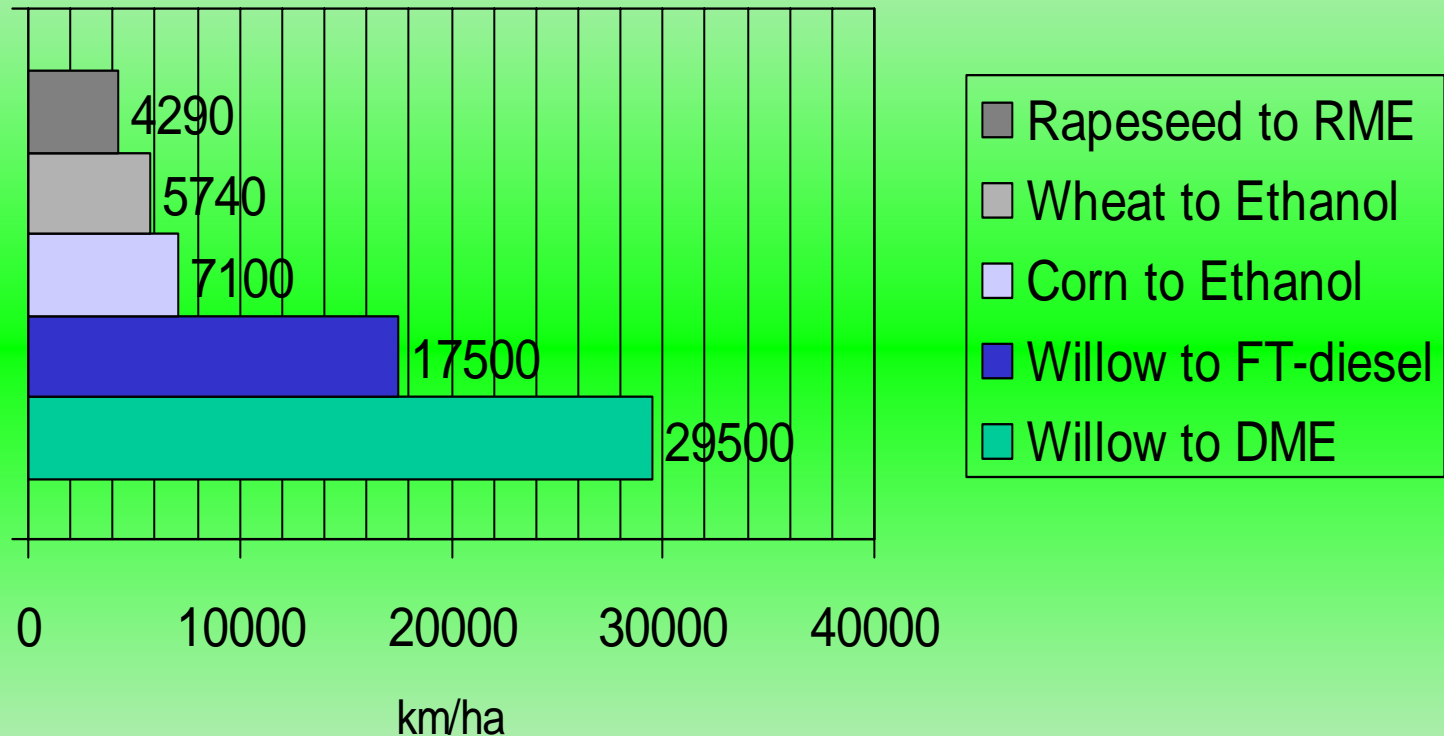


Source: Röj, A. (Volvo Technology Corporation, anders.roj@volvo.com), First International Biorefinery Workshop, Washington, D.C., July 20-21, 2005



Synfuels Yield Advantage

Driving distance



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Workshop Objectives

1. Understand the most promising technologies

- What feedstocks (crop residues, woody residues, energy crops, manures, black liquor, MSW)?
- What preprocessing (e.g., chopping, sizing) and where?
- Transportation and storage needs?
- Scale (size)?
- Energy efficiency?
- Equipment maintenance needs/uncertainties?
- Emissions and waste disposal issues/uncertainties?
- Post-processing of fuel (incl. location and scale)?
- Co-products and their post-processing needs?
- Assuring product quality?
- Others?



Workshop Objectives

2. Identify the technical barriers

- What prevents commercial deployment?
- Which should receive the most attention & when (critical path w.r.t. difficulty, timing and/or importance)?
- Work to maintain/leverage the technology's advantages

3. Identify some R&D to address barriers

- Where might the R&D be done?

4. Encourage national network

- Leverage available resources to maximize and hasten commercial impact



Build the Foundation for a USDA/DOE Initiative

