

Renewable Chemicals and Fuels

BIO Pacific Rim Conference

October 2012



Multiple Feedstocks; Proprietary Technology; Numerous End Markets



Feedstock

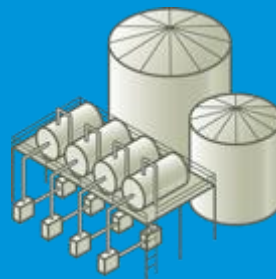


Proprietary Technology

Bio-Cracker



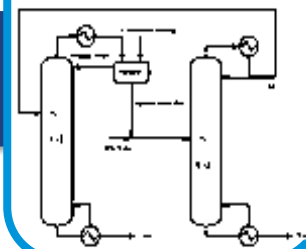
GIFT® Separator



Direct "drop-in"



Green Processing



Target Markets

Seven Strategic End Markets; Strong Customers



Specialty Chemicals

Gasoline Blendstock

C4 Market

Bio-PX/PET

Bio-Jet

Hydrocarbon Fuels

Co-Product Revenues

SASOL
reaching new frontiers



LANXESS



TORAY



U.S. AIR FORCE



Mansfield
Fuels Simplified



"Lower Cost, Drop-In"

~\$7bln TAM

"Cleaner Performance"

~\$100bln TAM

"Structurally Short Supply"

~\$8bln TAM

"Green Supply Chain"

~\$100bln TAM

"High Performance"

~\$200bln TAM

"Fully Renewable"

>\$1trl TAM

"Food First"

~\$6bln TAM

Sasol off-take and distribution agreement in place

Accounts for majority of Luverne and Redfield capacity

Sasol has begun customer sampling of Gevo's isobutanol

Mansfield agreement, with their 900+ supply points, will initially focus on Marine

VP Racing Fuels to evaluate a wide array of fuel applications

LOI with Total to evaluate isobutanol as a second-gen biofuel blendstock

LANXESS 10-year exclusive global supply agreement in place

Negotiating terms for Canadian supply agreement

Coca-Cola partnership to create fully renewable PET for plant-based packaging

Toray off-take agreement to create renewable Paraxylene for fibers and films

U.S. Air Force's (USAF) initial volume delivered with testing underway

USAF interested in energy security / alternative jet fuel supply

USAF test flight end of June

United Airlines LOI in place

Mansfield agreement, with supplier network in place, will support regional distribution rollout strategy

Purina, the premier brand owner, partnership to maximize value of co-products

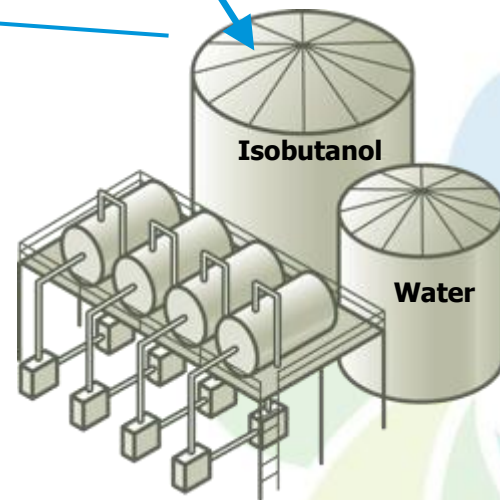
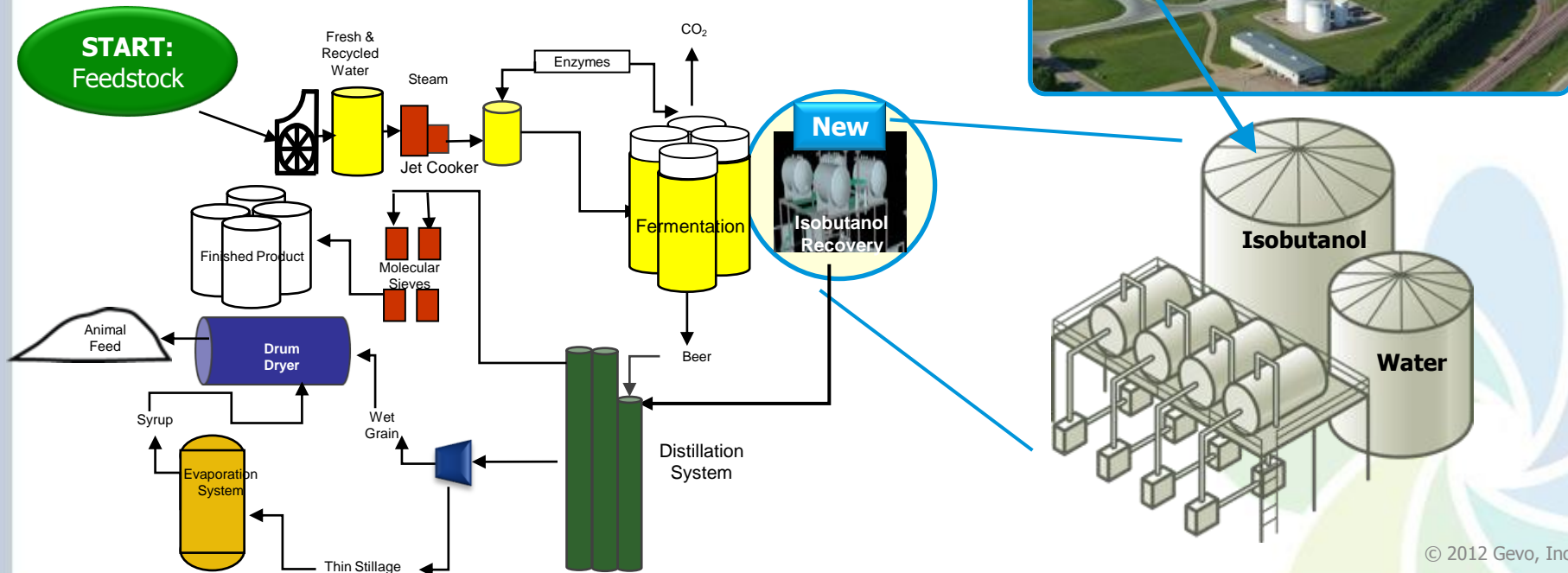
Exploring how to enhance the value of isobutanol Distillers Grains (iDGs™ or animal feed)

How We Produce Isobutanol (GIFT®)

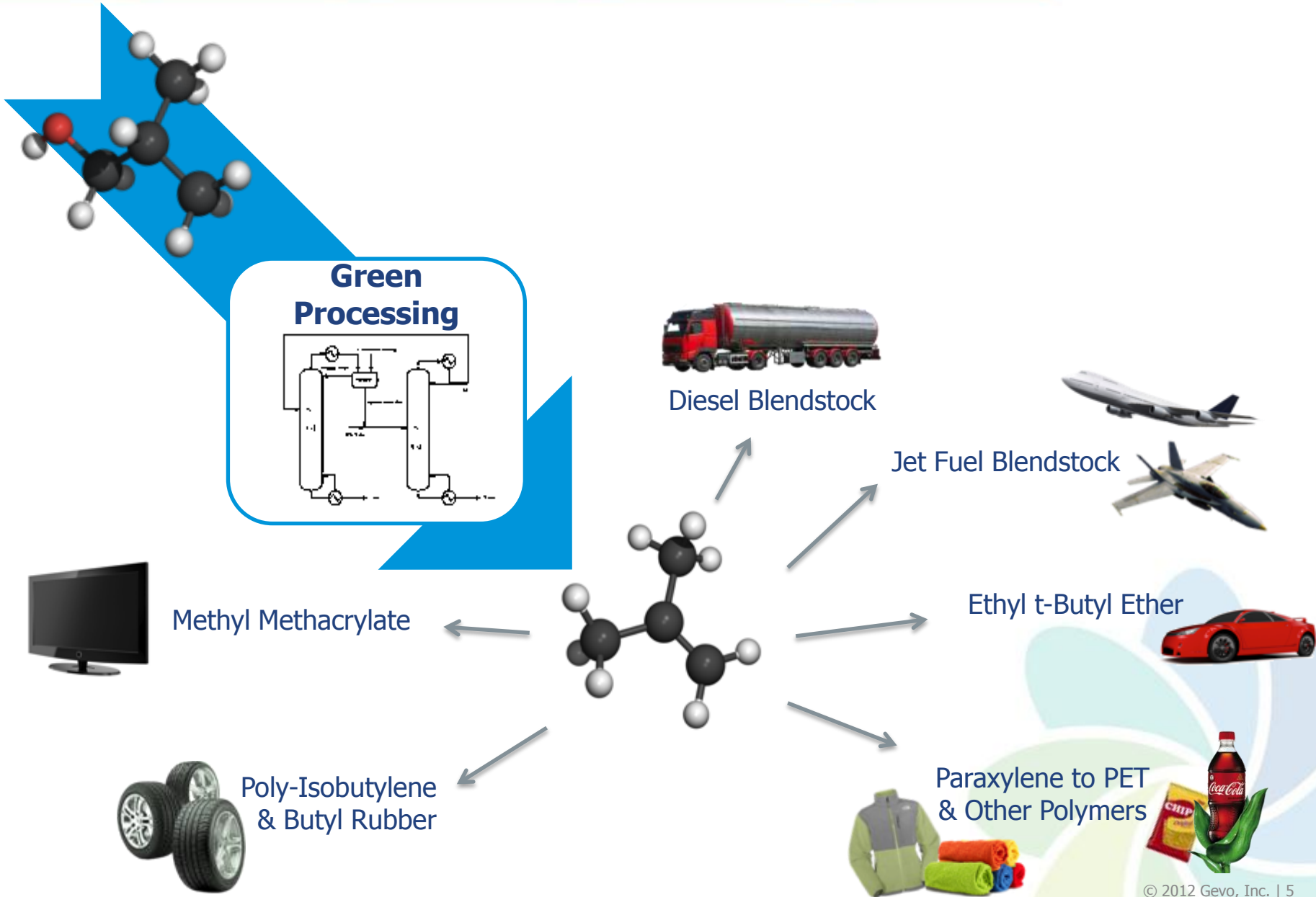


- Our patented, proprietary yeast produces only isobutanol from carbohydrates.
- Our patented Gevo Integrated Fermentation Technology® (GIFT®) continually separates isobutanol during fermentation

Standard Fermentation Process



Downstream Hydrocarbons: Unlimited Potential



A small version of the Gevo logo, a stylized flower with green and blue petals.

Feedstocks

- Food First (nutrition/protein)
- Use carbohydrates for feedstocks
- Use lignin (the woody part) for energy
- Land quality can't degrade
- Can't pollute the water

A small version of the Gevo logo, a stylized flower with green and blue petals.

Processing and Products

- Reduce and eliminate toxic trace chemicals
- Safe processing for people and environment

Corn Starch & Sustainable Corn

- First two Gevo plants are planned to be based on corn starch as feedstock (lowest cost today)
- Initial results from UM study show that corn supplied to Gevo has a much lower carbon footprint than US avg – we are developing a position for “sustainable corn”

Biomass/ Cellulosic Feedstocks

- Gevo continues to work with leaders in the conversion of biomass to fermentable sugars
- Two active projects
- High capital cost for conversion of biomass to fermentable sugars



Measuring the carbon footprint of Gevo, Inc's corn supply

A SURVEY BASED ASSESSMENT OF THE POTENTIAL FOR DELIVERING A LOW CARBON CORN GRAIN FEEDSTOCK FOR BIOFUELS



A report submitted to Gevo, Inc. by

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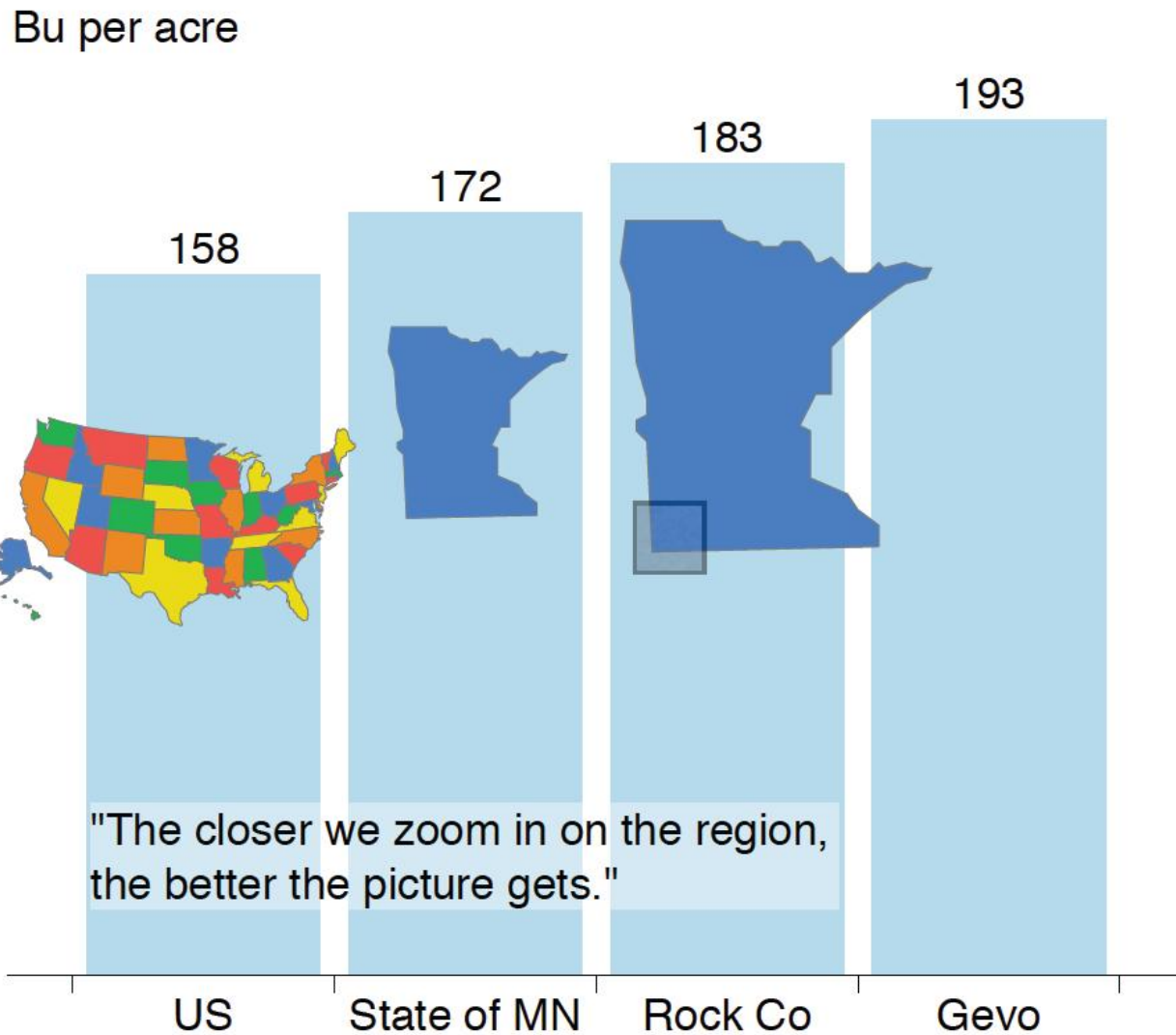
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INSTITUTE ON THE
ENVIRONMENT

UNIVERSITY OF MINNESOTA
Driven to Discover™



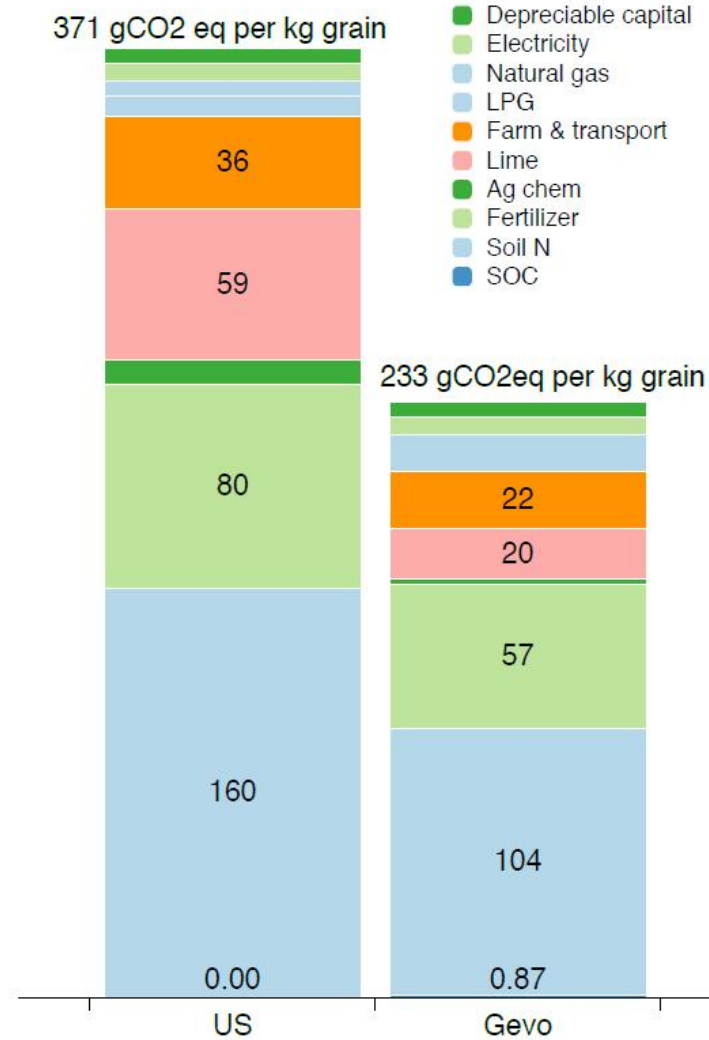
Corn Yields



Overall Carbon Footprint – US avg. vs. Gevo



The overall carbon footprint



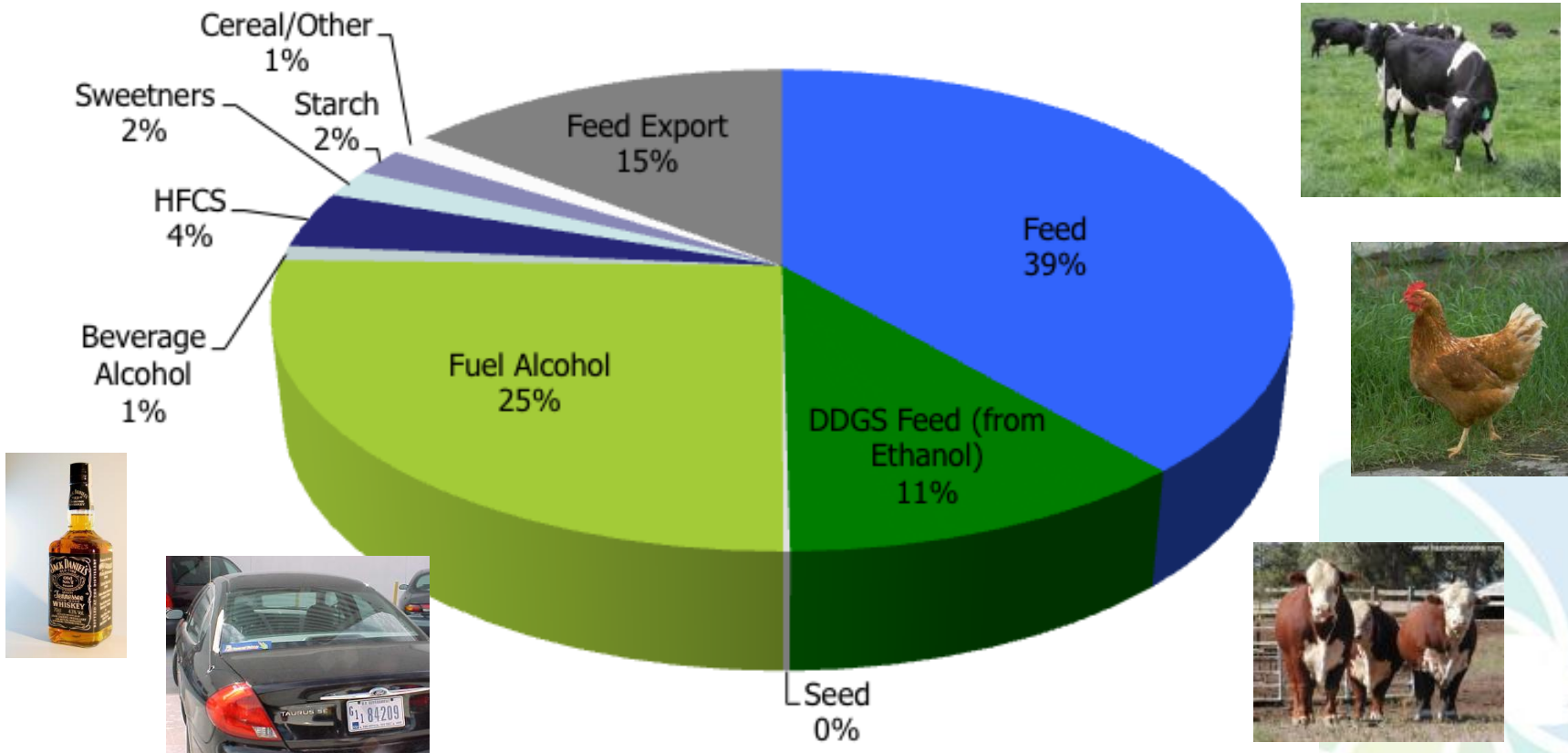
2010 Corn Use

~13 Billion Bushels

86% uses no irrigation

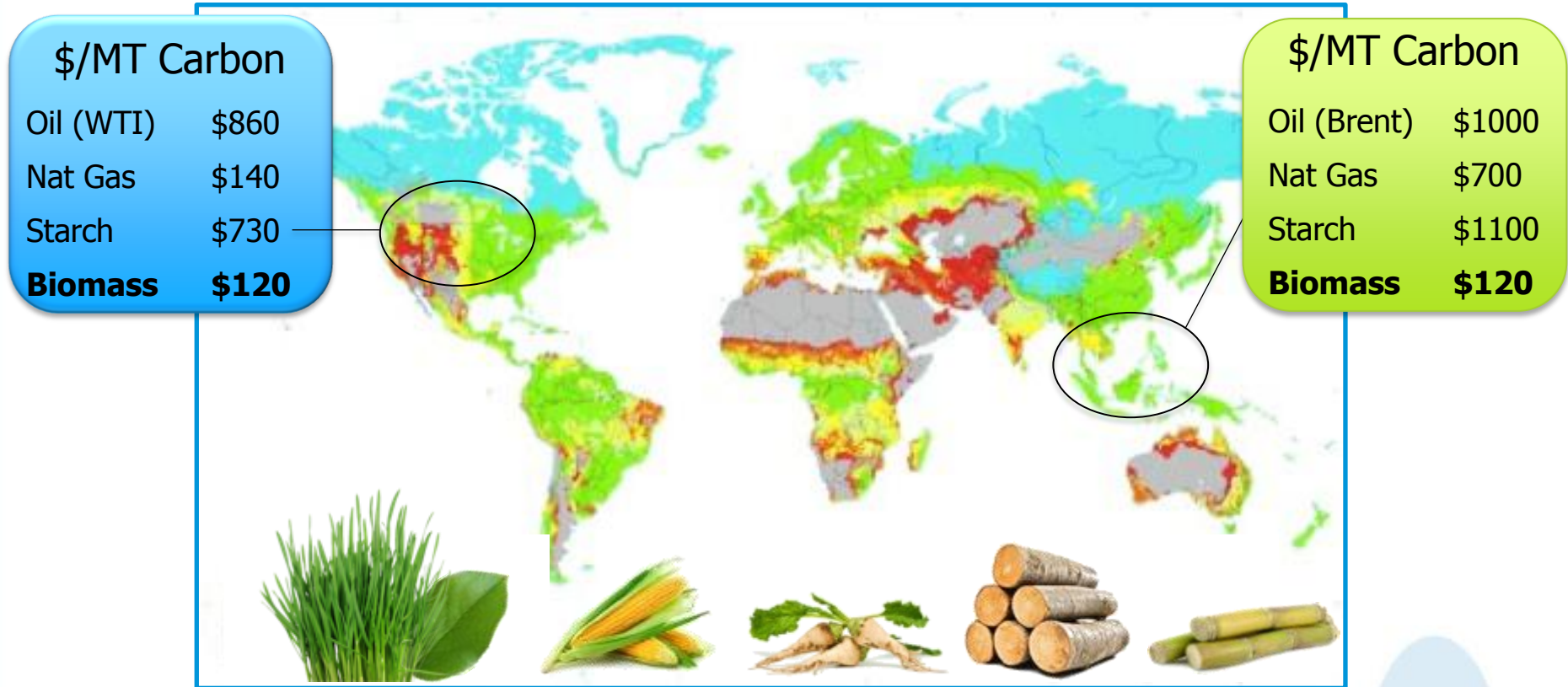
~1% is directly used as food

>60% produced using soil conservation practices



Source: USDA National Agricultural Statistics Service and National Corn Growers Association

Biomass is Abundant



We believe our technology will allow us to make isobutanol with many cost-competitive carbohydrate source, not just corn

-  Crop residues
-  Forest products
-  Wood
-  Energy Crops
-  Waste product residues

More biomass should increase the available pool of carbohydrates and keep costs relatively low