


NDEPA
NORTH DAKOTA ETHANOL PRODUCERS ASSOCIATION


**Energy Development and
Transmission Committee Meeting**
September 17, 2007



Feedstock

- Corn is the Most Genetically Modified Crop
- Over 90% of North Dakota Corn Farmers Use Corn Seed that is Genetically Advanced
- Soon There Will be Seed That is Cold and Drought Tolerant
 - Enhancing even more corn production


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Agenda

- Introduction to NDEPA
- Feedstock
- Production
- Marketing and Distribution
- Retail
- Q&A


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ND Feedstock


- 279 Million Bushels of Corn is Equal to 767 Million Gallons of Ethanol Production
- Today ND's Currently Produces
 - 140 Million Gallons of Ethanol

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FEEDSTOCK

- Mark Erickson, Treasurer
- Yellowstone Ethanol, Williston ND (development stage)



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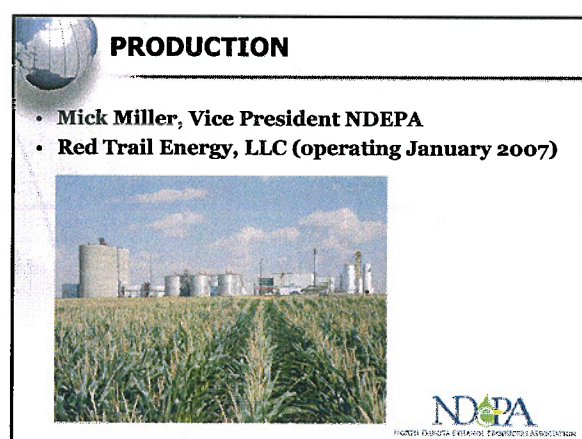
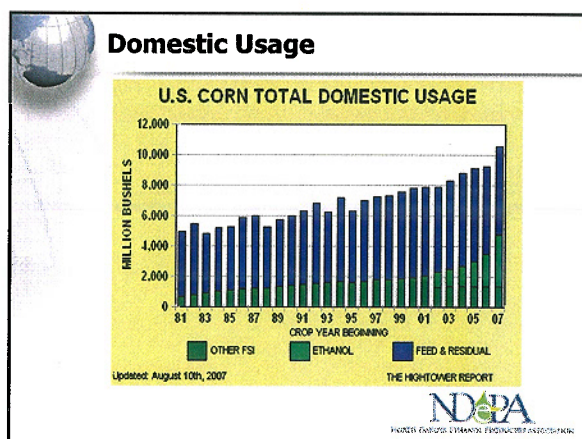
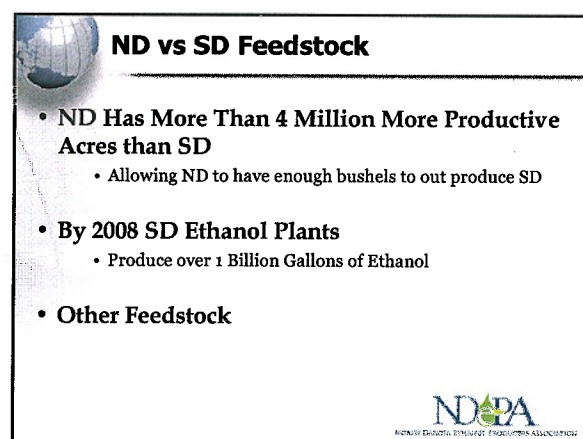
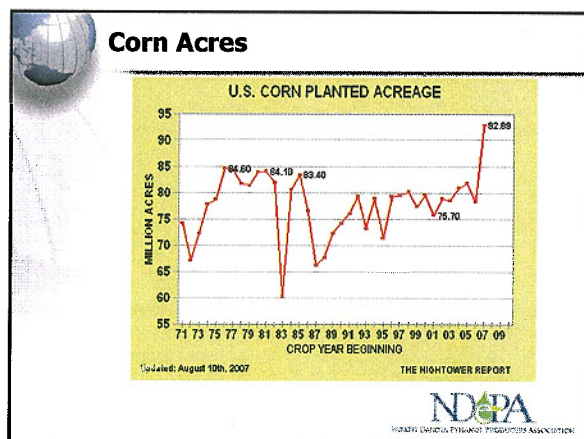
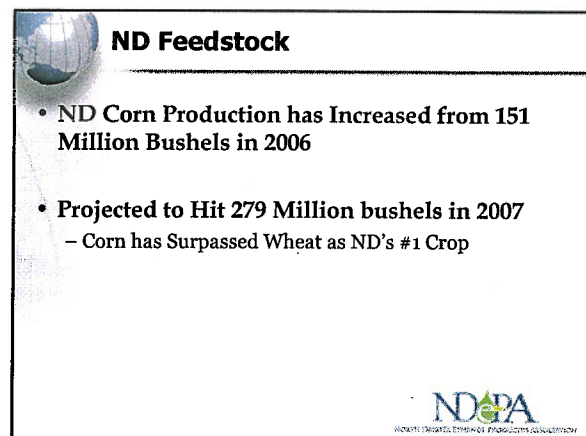
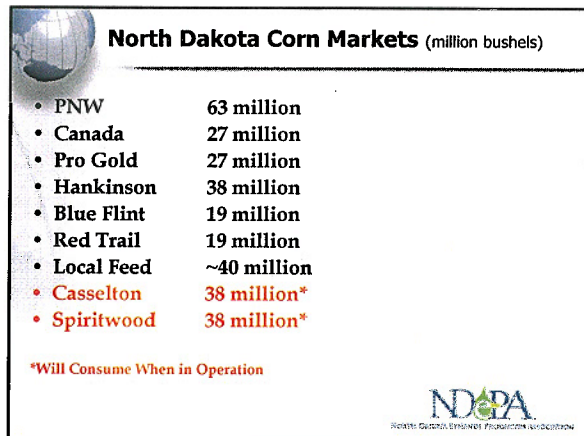


North Dakota Corn Destinations
(July 2006 – June 2007)

• PNW	53% (63 million)
• Other (Canada)	22% (27 million)
• North Dakota	17% (20 million)
• Mpls	4%
• MN/WI	3%
• Misc.	1%

(Source: UGPTI)

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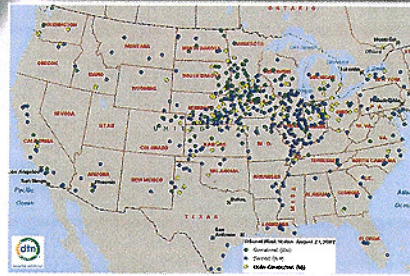
Agenda

- What is Ethanol
- US & ND Production
- Transportation Fuels
- Economic Impact
- Industry Growth



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US Production



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What is Ethanol

- A biodegradable alternative fuel.
- Can be produced from any biological feedstock (starch crops) with high amounts of starch or cellulose
- By using corn plants will produce 2.8 gallons of ethanol per bushel of corn



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ND Production

- **4 Plants in Operation**
 - ADM, Wallhalla, ND
 - Alchem Ltd, LLP Grafton, ND
 - Red Trail Energy, LLC Richardton, ND
 - Blue Flint Ethanol, Underwood, ND
- **2 Plants in Construction**
 - US BioEnergy, Hankinson, ND
 - Tharaldson, Ethanol Casselton, ND
- **More Plants in Developmental Stages**
 - Spirit Energy, Spiritwood, ND
 - Yellowstone Ethanol, Williston, ND



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US Production

- **Annual production capacity in 2006 of 5.3 bgy**
 - Actual 2006 production of 4.9 bgy
 - 2006 demand of approx. 5.4 billion gallons
- **120 plants in 19 states with nearly 6.2 bgy of capacity today (May, 2007)**
- **79 plants under construction, combined with 8 expansions, will increase industry capacity by an additional 6.4 bgy (May, 2007)**
- **Dozens of additional plants in various stages of development in every corner of the country**



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Transportation Fuels

- **Gasoline - 140 billion gallons**
- **Diesel - 45 billion gallons**
- **E85 - 50 million gallons**
 - More than 1,200 E85 retail stations
- **Ethanol as an additive (E-10)**
 - 5.3 billion gallons of MTBE replacement in 2006
 - Extends Gasoline – blended in 50% of gasoline
 - Adds 380,000 barrels of supply daily



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Economic Development



- Ethanol contributes substantially to the nation's economy:
 - Added \$41.1 billion to gross output
 - Created 160,231 jobs in all sectors of the economy
 - Contributed \$2.7 billion of tax revenue for the Federal government and \$2.3 billion for State and Local governments
 - Reduced imports by 206 million barrels of oil, valued at \$11.2 billion
 - ND Impact

Source: "Contribution of the Ethanol Industry to the Economy of the United States," LECG, LLC, February 2007




Ethanol Marketing and Distribution

- Producer to Blender to Wholesaler to Retailer
- Third party marketer common


Projected Growth

Year	RFS	RFA Projections	
		Capacity	Production
2006	4.0	5.3	4.9
2007	4.7	8.4	7.1
2008	5.4	11.2	10.0
2009	6.1	12.0	10.8
2010	6.8		12.0
2011	7.4		
2012	7.5		




Ethanol Marketing and Distribution

- 17 M gallons of ethanol consumed in ND
- Most of product is shipped by rail
- BFE -155 Rail Tank Cars
- Rail car lease \$700 / car / month
- 36 day turn time on cars
- 20 cents freight to move product to coast
- 2 to 6 cents freight to move product in state




MARKETING/DISTRIBUTION

- Jeff Zueger, Secretary NDEPA
- Blue Flint Ethanol, (Operating)


Ethanol Marketing and Distribution Challenges and Opportunities

- Significant infrastructure challenges in market areas, not enough storage or off loading capacity
- Product moved by rail instead of pipelines 20 cents vs. 2 cents per gallon
- Blending infrastructure non existent
- EPA blending restriction in key market areas
- Direct marketing of product to retailer to eliminate loss of pricing controls




Co-Product Marketing and Distribution

- Producer to Point of use
- DDGS - 12% moisture
- Wet Cake- 50% to 65% moisture
- DDGS common third party marketer
- Wet cake commonly marketed directly by facility
- Ratio of wet to dry varies from 0 to 100%
- Rail costs to move DDGS up to \$60/ton
- DDGS worth about 65% to 90% dry matter basis of corn at facility
- Wet product typically used within 75 mile radius of production




Ethanol Retail

- State Infrastructure Assistance
- Federal Infrastructure Assistance
- Market Size in North Dakota
 - 336 Million Gallons Gasoline (2006)
 - 17 Million Gallons of Ethanol (2006)
 - 15,000 Flex Fuel Vehicles in ND (2006)
- Market- Product Availability in ND
- Market- Ethanol Story




Co-Product Marketing and Distribution – Challenges and Opportunities

- Education on feed value of product
- Variability of product between facilities
- Long term storage of wet cake
- Value add products from distillers grains
- Transportation – Rail car lease \$700/car/month
- BFE - 120 rail cars in fleet




Challenges

- Cost of Education of ND Consumers
- Corn Storage in ND
- ND Ethanol Incentive Program
- Rail to Pipeline
- E85 Pumps
 - Increase usage of E10 in ND
- NDSU Feedstock Research
- DDGS Growing Industry




RETAIL

- Randy Schneider, President
- US BIO Hankinson (Construction)



US BIO Location
Platte Valley



Thank You!

Q and A Session

