

# Summary of 2<sup>nd</sup> Americas Sugar Trade & Ethanol Conference Miami, FL--November 12 & 13, 2007

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**Ethanol Transportation:** Speaker from fuel transportation/blender Kinder Morgan underscored logistical constraints that place ethanol at a competitive disadvantage from a transportation standpoint with traditional motor fuels that are distributed through US fuel distribution network developed over last 100 years. The US needs over 25 facilities capable of unloading 100 car ethanol unit trains to meet projected US ethanol expansion pace vs. only 5-6 in operation today. Approximate costs to transport a gallon of fuel in truck, rail, barge, pipeline are 20/10/5/2 cents respectively placing gasoline and diesel (which move via barge & pipelines) at a competitive advantage to ethanol (which moves via truck and rail) from a distribution standpoint. This expert sees potential for unused pipelines to be used for pure ethanol distribution from hub cities in southwest and southeast to small cities for subsequent blending with gasoline at lower costs than trucks although efficient distribution network from large Midwest ethanol production areas to southern distribution hubs do not currently exist. Look for FL (with gasoline usage of 1 bil gal/year –larger than entire Brazil ethanol domestic usage) to open up for ethanol next year. FL characterized as “battleground” state for ethanol sales with both domestic and Caribbean/Brazilian ethanol producers vying for market share. In summation, US ethanol production capacity is outpacing demand growth-in part-due to blending/distribution inefficiencies suggesting that ethanol prices will remain at a wide discount to gasoline for the foreseeable future.

**Sugar price outlook:** Select attendees expressed view that sugar market has fully discounted negative fundamentals headlined by huge sugar stocks in India. Next 2 cents in sugar is likely to be higher –not lower--as world sugar price below cost of production which will temper gains in new sugar crop production. India’s huge sugar stocks, due to logistical constraints, are unlikely to leave the country. Expansion in '08 Brazilian sugar production (10% of total Brazilian crop area) will be absorbed by growing demand for ethanol.

**Brazil Ethanol Update:** Expect 50% of Brazilian auto fleet to be flex fuel in 4 years vs. 28% today as 85% of all new car sales are flex fuel. Brazil ethanol industry thus laying plans for dramatic expansion in fuel ethanol demand—both domestic and export with the later facilitated by efforts to lower distribution costs to key importer destinations in EU, Japan and the US. Only 10% of Brazil crop acreage planted to sugar (primarily in Parana and Sao Paulo) although 543 mil acres in cattle and another 262 mil acres of undeveloped crop land outside of Amazon basin are potential sources for expected tripling of Brazilian sugar production over next decade. Brazilian ethanol spokesperson noted that 1 unit of fossil fuel energy converts to 8 units of sugar based ethanol energy vs. a 1 to 1.3 ratio for corn into ethanol. Brazilian '07/08 ethanol exports to US down vs. prior year on lower ethanol prices and completion of US ethanol demand surge following MTBE phase-out. Most Brazilian ethanol mills are energy self-sufficient with newest ethanol mills engineered to sell excess energy to the nation’s electrical power grid. Unlike the US, which blends ethanol with gasoline immediately prior to semi-tanker truck delivery to retail fuel stations, Brazil blends ethanol at refinery level with Brazilian ethanol

proponents insisting that with at 25% ethanol blends or higher there is a marked reduction in air pollution from flex fuel vehicles.

**Challenges facing Crude Oil Industry:** Expansion in global refining capacity ranked as number 1 challenge facing energy companies. Over the next 6 years, look for 40% of global refining capacity expansion to occur in Asia, 25% in Middle East, 15% in North America (via expansion of existing facilities) and 5% in South America. US pipeline companies have no interest in investing in new ethanol pipelines (\$1 million/mile construction costs) given ethanol's corrosive impact on steel and uncertain outlook on production expansion given recent shrinkage in ethanol margins. Highest growth rates for gas/diesel demand will occur in Asia, Russia and Brazil over next 20 years. Graphics at conference depicting relationship between per-capita income and energy use underscore enormous growth potential in developing country demand for fossil fuel energy where rising incomes--driven by free trade, capitalism and doubling of freely elected democracies since 1975—are propelling gas/diesel usage higher at an accelerating rate. Large integrated oil companies remain reluctant to engage in ethanol production given their criteria that new energy production/refining ventures fit into existing distribution network. Furthermore, big oil prefers that feedstock source be sustainable, and that new production facilities process at least 200K barrels/day vs. standard ethanol plant capacity of only 30-40K barrels/day. Despite escalating momentum for bio-fuel expansion by energy deficit nations, OPEC nations will continue to invest heavily in expanding fossil fuel production, refining and distribution capabilities as they perceive ethanol and bio-diesel as relatively small contributors to expanding growth in fossil fuel energy demand.

**Blend Wall and Ethanol Policy:** Growing bio-fuel backlash from odd alliance of food/feed users, environments, faith groups and even the UN where a spokesperson recently characterized ethanol as “a crime against humanity” underscores design flaws in US ethanol policy. For the near term look for ethanol lobby and farm groups to drive US ethanol policy—not the greens and food/feed/faith lobbies. Nonetheless, growing pressure from ethanol opponents suggests that ethanol industry would be best served over the long run by eliminating ethanol's 54 cent/gallon import tariff and 51 cent/gallon blender tax credit. It will be increasingly difficult for Congressional leaders—who support ethanol on the grounds of diversifying energy sources, to justify taxing ethanol imports at 54 cents/gallon while fending off increasingly heated fuel vs. food debate as they give blenders a 51 cents/gallon to stimulate blenders to spur ethanol producers to convert corn into ethanol. FIMAT Energy Analyst anticipates upcoming wave of US ethanol industry consolidation driven in part by cuts in ethanol capacity utilization and inherent incompatibility of ethanol and crude oil industries. New capital for ethanol expansion is drying up. The so called “blend wall” is coming and is unlikely to be scaled. Ethanol woes will be exacerbated by prospects for continued slowdown in US gasoline demand which is highly correlated with weakness in housing and GDP growth. Bottom line—4.6 bil gallons of US ethanol capacity under construction on top of 7.5 bil gallons of existing capacity suggests a challenging time ahead for ethanol industry.

#### **Other tidbits:**

Although net energy balance of corn ethanol production is not as favorable as sugar—steady improvement in corn ethanol conversion continues with some plants extracting 3 gallons of ethanol per bushel. Look for corn's net energy balance to continue to improve as both corn yields and ethanol plant efficiency improve.

Ethanol provides only 70% of BTU power as pure gasoline vs. Bio-diesel which has 90-% of BTU power as pure petroleum based diesel.

USDA's Senior Economist in office of Energy Policy and New Uses stated that profitable conversion of cellulosic materials to ethanol is 10 years away.

South Korean equity market advanced 50% following conclusion of Seoul Olympics.

Former International Energy Agency (IEA) Economist expressed view that US Energy Information Agency cranks out better numbers than EU based IEA.

CA is gearing up for E-10 statewide vs. E-7 today. Increase in CA ethanol off usage over next 2 years along with E-10 penetration of US markets in southeast and southwest will not be enough to offset upcoming surge in new ethanol refining capacity until 2011.

Ethanol penetration in US Midwest gasoline market exceeds other regions because of close proximity to ethanol plants and above normal glitches in Midwest refineries which have lowered gasoline supplies.

Picked up a new acronym at this conference—**EPEC**—Ethanol Producing and Exporting Countries.

Look for US ethanol industry to push for increasing E-10 blends to E-15 blends as a stop-gap measure to partially offset upcoming surge in US ethanol supply.

Brazilian soybean production expected to increase 16 mmt over the next 10 years (which is only 1.6 mmt/year vs. global growth in soybean demand of 10 mmt/year). Over the same period, Brazil's Ag minister projects a near doubling of ethanol output on a 3 fold increase in sugar production.

MFGR 2010 CN/BN/WHT end stocks estimates of 1.149/0.187/0.373 bil bu respectively on '09 acreage changes vs. '08 of plus 5, plus 3 and minus 6 mil acres respectively leave little room for crop shortfalls in either '08 or '09. (See table below).

## US Acreage Long View: Is There Enough?

Opening CRP- admission that rising bio-fuel demand threatens fragile acres

	'08 Change vs '07	2009 Stocks	'09 Change vs '08	2010 Stocks	In mil acres & mil bu.
Corn	-8	1236	+5	1149	
Beans	+7	183	+3	187	
Wheat	+3.5	457	-6	373	
Net	+2.5		+2.0		

	Assumptions					
	Corn		Beans		Wheat	
	'08	'09	'08	'09	'08	'09
Yld	158	160	42	42	43	43
Use	13025	13600	2955	3050	2250	2300

