Surface Transportation Board

Rail Energy Transportation Advisory Committee Meeting

Biofuels Segment Update

September 22, 2016
More corn almost everywhere. A lot more in some places.
U.S. CORN PRODUCTION

A record crop of over 15 Billion Bushels
### U.S. CORN S & D

<table>
<thead>
<tr>
<th></th>
<th>'14/15</th>
<th>15/16*</th>
<th>16/17*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planted (mln acres)</td>
<td>90.6</td>
<td>88.0</td>
<td>94.1</td>
</tr>
<tr>
<td>Harvested</td>
<td>83.1</td>
<td>80.7</td>
<td>86.6</td>
</tr>
<tr>
<td>Yield (Bu/Acre)</td>
<td>171.0</td>
<td>168.4</td>
<td>174.4</td>
</tr>
<tr>
<td>Carry-In (mln Bu)</td>
<td>1232</td>
<td>1731</td>
<td>1716</td>
</tr>
<tr>
<td>Production</td>
<td>14216</td>
<td>13601</td>
<td>15093</td>
</tr>
<tr>
<td>Imports</td>
<td>32</td>
<td>65</td>
<td>50</td>
</tr>
<tr>
<td>Total Supply</td>
<td>15479</td>
<td>15397</td>
<td>16859</td>
</tr>
<tr>
<td>Food/Industrial</td>
<td>6567</td>
<td>6567</td>
<td>6650</td>
</tr>
<tr>
<td>Feed / Residual</td>
<td>5314</td>
<td>5200</td>
<td>5650</td>
</tr>
<tr>
<td>Exports</td>
<td>1867</td>
<td>1915</td>
<td>2175</td>
</tr>
<tr>
<td>Total Use</td>
<td>137482</td>
<td>13682</td>
<td>14475</td>
</tr>
<tr>
<td>Carry-out</td>
<td>1731</td>
<td>1716</td>
<td>2384</td>
</tr>
</tbody>
</table>

- Huge increase in planted acres has us on track for a record crop
- Smaller corn crop in Brazil has moved export demand back to the US
- Carryout is expected to grow

Source: USDA projected numbers
Production exceeds RFS Mandate, but there is some margin.
Inventories are back up, but some margin exists
In-Transit Inventory has increased due in part to slower speeds.
Production has increased since 2010, to over 1 million barrels/day.
Very little Importing lately and Exports have Increased
WHERE THE EXPORTS GO

TOP DESTINATIONS FOR U.S. ETHANOL EXPORTS IN 2016

Exports to China have come on strong in 2016
Biodiesel production continues to grow, but may level off
• 2016 Production estimated 1.69 Billion Gallons (domestic only)

• 2016 Mandated usage level of 1.9 Billion Gallons (biodiesel only, 500 Million Gallon of advanced biofuel mandates in addition)

• Biodiesel components: Soyoil 46%, Canola 6%, Corn Oil 9%, Other (animal fat) etc. 34%

• There are blend credits in place for 2016. These are blender credits. Congress is looking at blend credits for the producer for 2017 but most likely will not happen in 2016

• Things to watch for: EPA finalizing 2016 Mandates Outcome of Tax Credit debate (2017)
Recent 15% drop in speed impacts efficiency and utilization
Delays have increased over the summer
Ethanol Market

• E-15 demand is benefitting from USDA infrastructure grants
• Exports must clear record weekly production to balance S/D
• Record production/cheap corn will encourage high run rates
• Increase in total gas consumption in the US is helping drive demand for ethanol
• Improved Plant efficiency is contributing to excess supply
• A drop in DDG exports to China is hurting price

Rail Comments

• Given the lower overall traffic, service continues to be good
• Locomotives have been parked and crews furloughed causing worries if there is large harvest and early winter
• Ever increasing rail rates are forcing volumes to truck & barge
• River starting to take bigger market share as barge rates drop
• Export infrastructure developing EC, GC, PNW, CAN & MEX
• RR’s need to cooperate on access & ROW’s for export infrastructure
TANK CAR ISSUES

- Dramatic increase of FRA bad order cars is concerning
- Bent washers on manway bolts are reeking havoc
- Concerns about ever longer trains due to infrastructure constraints at destinations
- Tank car regulations, HM 251, may be circumvented by rail carriers that move sooner
- ECB regulations are being challenged. When is this decided?
- Heavy tank car requalification's over the next 2 years
- Repair facility capacity remains tight
- Tank car lease prices are under pressure as more tanks get built than needed