Surface Transportation Board

Rail Energy Transportation Advisor Committee Meeting Biofuels Segment Update December 1, 2015
US Corn Production

2015/16 Production Estimate at 13.654 Bill Bushels
### US Corn Situation

<table>
<thead>
<tr>
<th></th>
<th>13/14</th>
<th>14/15*</th>
<th>15/16*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planted (mln acres)</td>
<td>95.4</td>
<td>90.6</td>
<td>88.4</td>
</tr>
<tr>
<td>Harvested</td>
<td>87.5</td>
<td>83.1</td>
<td>80.7</td>
</tr>
<tr>
<td>Yield (Bu/Acre)</td>
<td>158.1</td>
<td>171.0</td>
<td>169.2</td>
</tr>
<tr>
<td>Carry-In (mln Bu)</td>
<td>821</td>
<td>1232</td>
<td>1731</td>
</tr>
<tr>
<td>Production</td>
<td>13829</td>
<td>14216</td>
<td>13654</td>
</tr>
<tr>
<td>Imports</td>
<td>36</td>
<td>32</td>
<td>30</td>
</tr>
<tr>
<td>Total Supply</td>
<td>14686</td>
<td>15479</td>
<td>15415</td>
</tr>
<tr>
<td>Food/Industrial</td>
<td>6503</td>
<td>6568</td>
<td>6555</td>
</tr>
<tr>
<td>Feed / Residual</td>
<td>5030</td>
<td>5315</td>
<td>5300</td>
</tr>
<tr>
<td>Exports</td>
<td>1920</td>
<td>1864</td>
<td>1800</td>
</tr>
<tr>
<td>Total Use</td>
<td>13454</td>
<td>13748</td>
<td>13655</td>
</tr>
<tr>
<td>Carry-out</td>
<td>1232</td>
<td>1731</td>
<td>1760</td>
</tr>
</tbody>
</table>

* Projected estimates – USDA: Crop Year 2015/16
US Corn Production for 2015 over difference from 2014

Data = 2015 over difference from 2014
Stocks to Use % is a measure of carryout to use (annual bases)
US ETHANOL PRODUCTION vs. CORN DRY MILL MARGIN

EIA Weekly Production
STEO Monthly Prdn. Actual
STEO Monthly Prdn. Forecast
RFS2 Conventional Biofuel (PRX calc)
JSA Dry Mill Margin Estimate

VEETC expires
Ethanol Production (Weekly & Monthly)
RFS2
EIA STEO ethanol prdn forecast, including exports

JSA’s NE Grp 3 ethanol margins fell 3.8 cents last week, down to 36.5 cents and are back up this week to 40.3 cents

Corn dry mill margin (vs. approx breakeven at $0.38/gal)
Corn dry mill margin (vs. approx breakeven at $0.2/gal)

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EPA to finalize volume requirements for 2014 and 2015 by November 30th
Ethanol Exports/Imports

- US now structural exporter of Ethanol
- Production capacity in the US needs this export demand
- Currencies/Weather changes/RIN spreads can change arbs quickly
• Jan-Aug, 2015 production running about 7% above 2014 and 7% above 2013 y-t-d.
• Revised EPA volume obligations 1.7 bill gal 2015, 1.8 bill 2016, 1.9 bill 2017.
• Note obligations can also be filled by imports (=300 mil gal 2014, 317 mil gal y-t-d ‘15).
• Tax credit still not passed, may change to producer’s credit ➔ higher production in 2016?
Weighted Average Train Speed for Ethanol, MPH

Source: Houston Biofuels Consultants
Total Loaded Ethanol Cars not Moved in Greater than 48 Hours

Source: Houston Biofuels Consultants
BIOFUELS OUTLOOK AND ISSUES

Rail Service:

All carriers are providing an acceptable level of service today and are anticipated to continue to do so thru the fall and winter period.

Carriers were well positioned to handle fall grains and oilseeds harvest.

Carriers seem to have resources in place for any adverse winter weather.

Chicago gateway is fluid, less traffic than a year ago, and operational plans are in place to manage weather and potential congestion as it arises.

Market Dynamics:

Some carriers are pushing for larger ethanol trains, 100’s vs. 80’s, which the market is not ready for and incentives offered to shippers have created a disincentive to ship units. Manifest movements should increase as a result.

Adequate yellow corn supply will support ethanol production in excess of mandated levels. Eastern Corn Belt ethanol plants will struggle to procure corn stocks in the last half of the crop year due to production shortfall. This should/will create additional opportunities to move ethanol over Chicago from producers located in the Western Corn Belt.

Last reporting identified ten ethanol plants off line. Current margins would suggest this number should remain in this range for the time being.

Congress is pushing for blender credits for Biodiesel which turn into producer blend credits in 2016 if passed.
Other:

Recent actions by AAR requires that Group E slack adjuster on all hazmat tank cars be replace with a new model less prone to freezing. The deadline for change out is 12/31/15 and effects 45,000 tank cars most of which are in ethanol service. Best case projections would suggest that only 60% of the identified fleet will be modified by the current deadline. Ethanol stakeholders have petitioned for an extension to this deadline. The potential for major disruptions in the shipment of ethanol by rail could occur if no extension is granted.

New tank car regulations, released in May 2015, were challenged at the various issuing agencies by stakeholders in an attempt to modify the rule making to better meet their needs or desires. All challenges were denied. ECB braking application(s) are currently being challenged in court by a Class 1 carrier.

Potential “Shadow Regulations” by carriers has created uncertainty for lessors and lessees as it relates to investing to modify existing DOT 111 and CPC 1232 car types. Simply put, will carriers allow the new tank car regulations play out or will they circumvent with surcharges to expedite removal of these cars from the US tank fleet.