



Surface Transportation Board

Rail Energy Transportation Advisory
Committee Meeting

Biofuels Segment Update

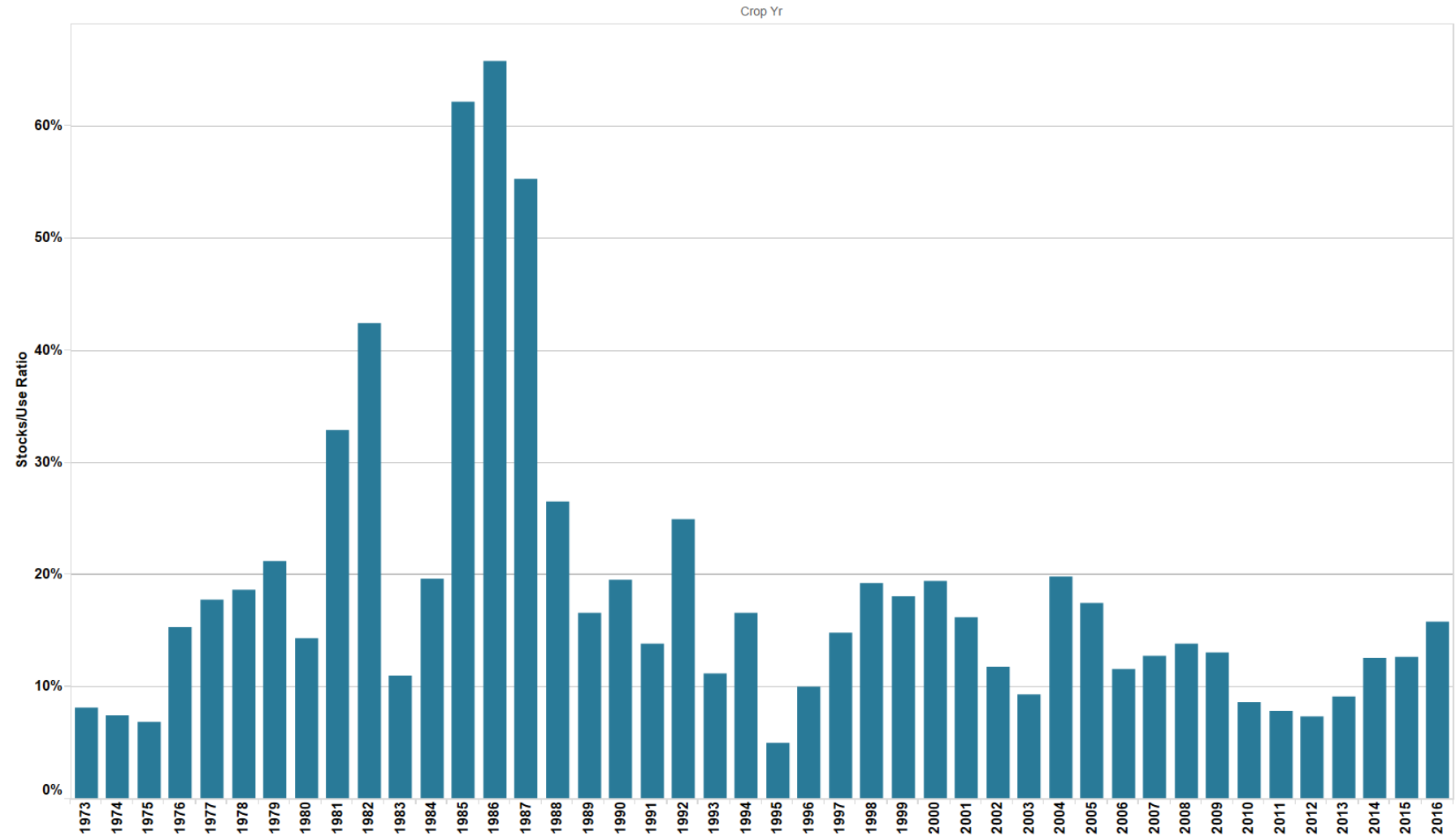
April 6, 2017

	<u>'14/15</u>	<u>15/16*</u>	<u>16/17*</u>
Planted (mln acres)	90.6	88.0	94.0
Harvested	83.1	80.8	86.7
Yield (Bu/Acre)	171.0	168.4	174.6
Carry-In (mln Bu)	1232	1731	1737
Production	14216	13602	15148
Imports	<u>32</u>	<u>67</u>	<u>55</u>
Total Supply	15479	15401	16940
Food/Industrial	6601	6646	6845
Feed / Residual	5280	5224	5550
Exports	<u>1867</u>	<u>1898</u>	<u>2225</u>
Total Use	13748	13664	14620
Carry-out	1731	1737	2320

- Ethanol is expected to use 5.4 Bill bushels of corn in 2016-17
- Prospects for better production in South America and South Africa will challenge expansion of US exports

U.S. CORN ENDING STOCKS

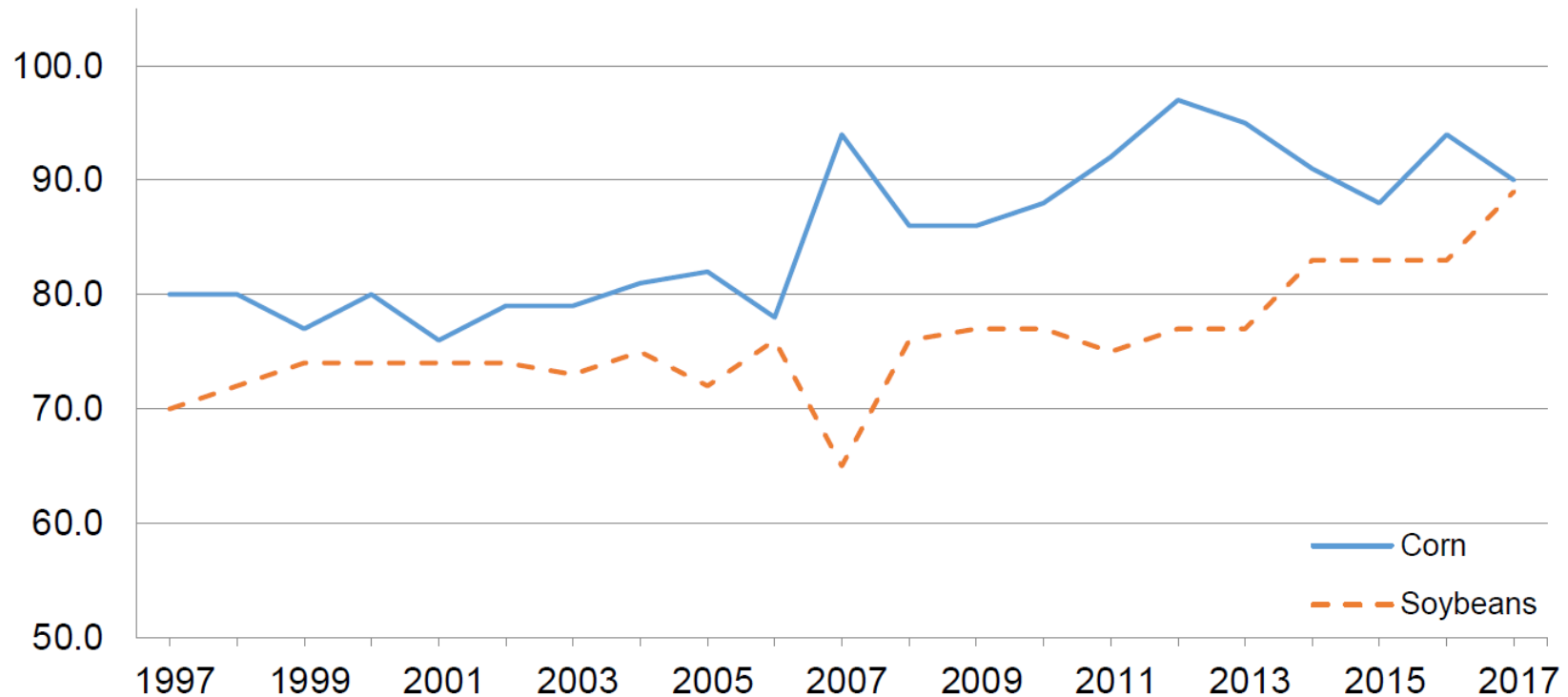
US Corn Stocks



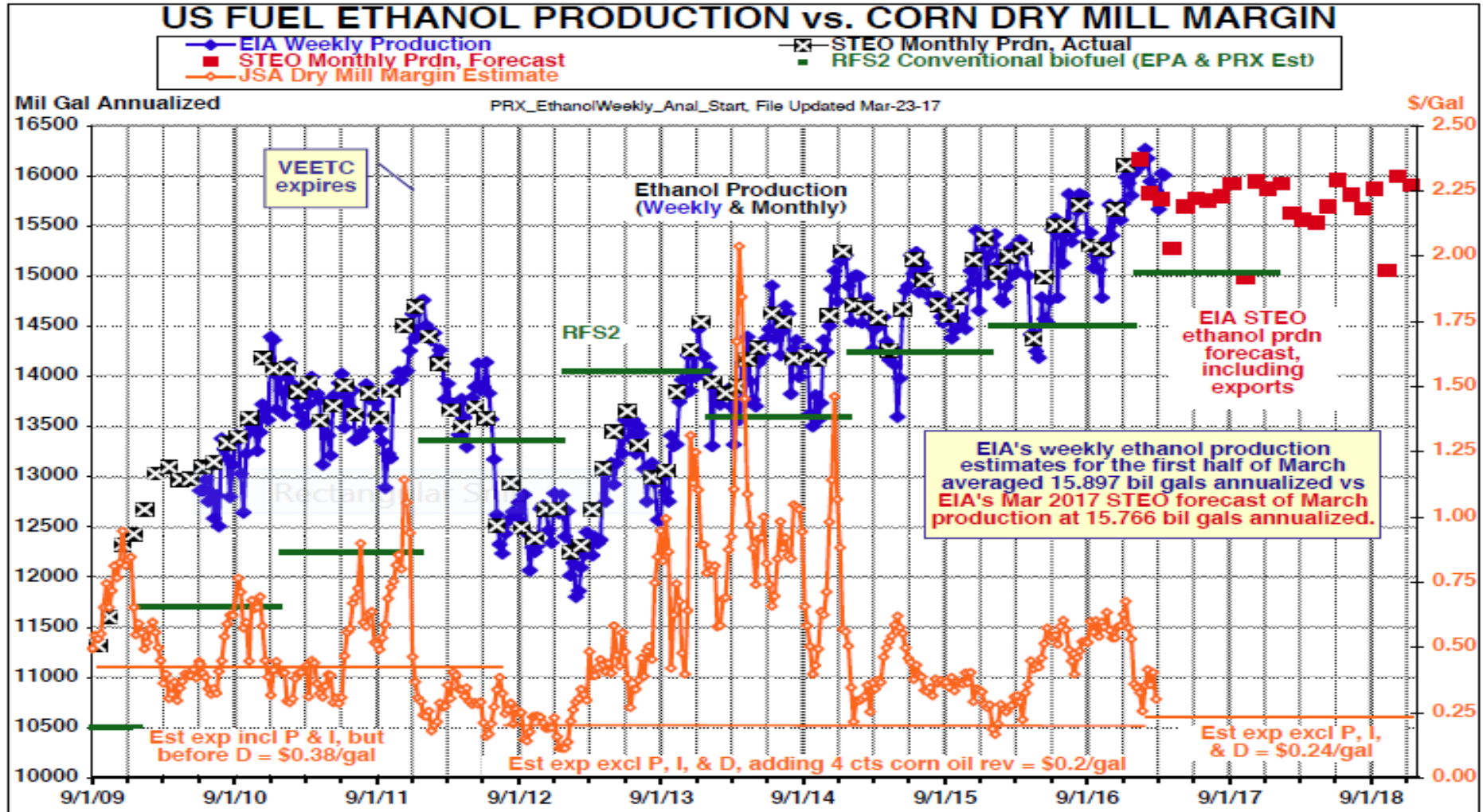
- US carryout is expected to be the highest it has been in over 10 years

Corn and Soybean Planted Acreage - United States

Million acres

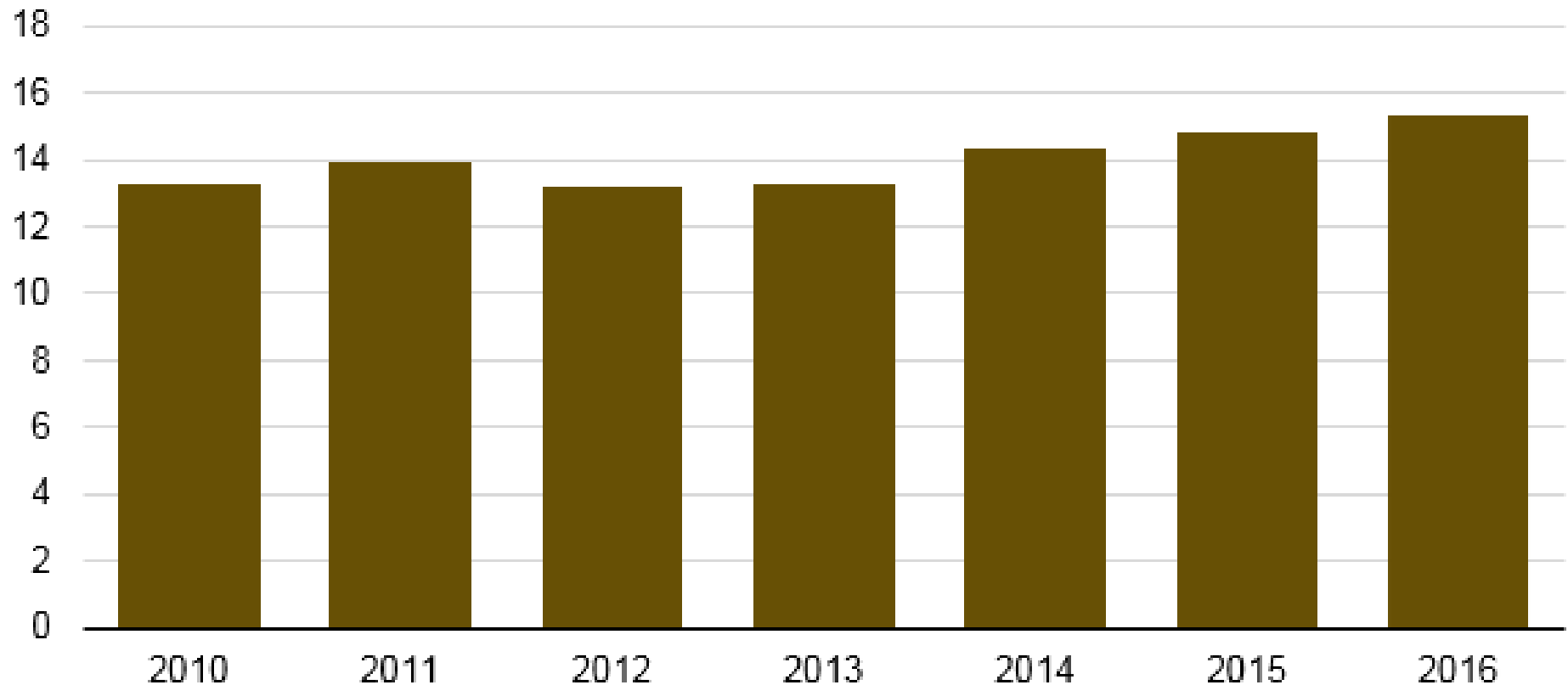


- US growers are expected to plant more beans this spring given the cheaper cost of production
- Source: USDA March 31 planting intention report



U.S. ethanol production (2010-16)

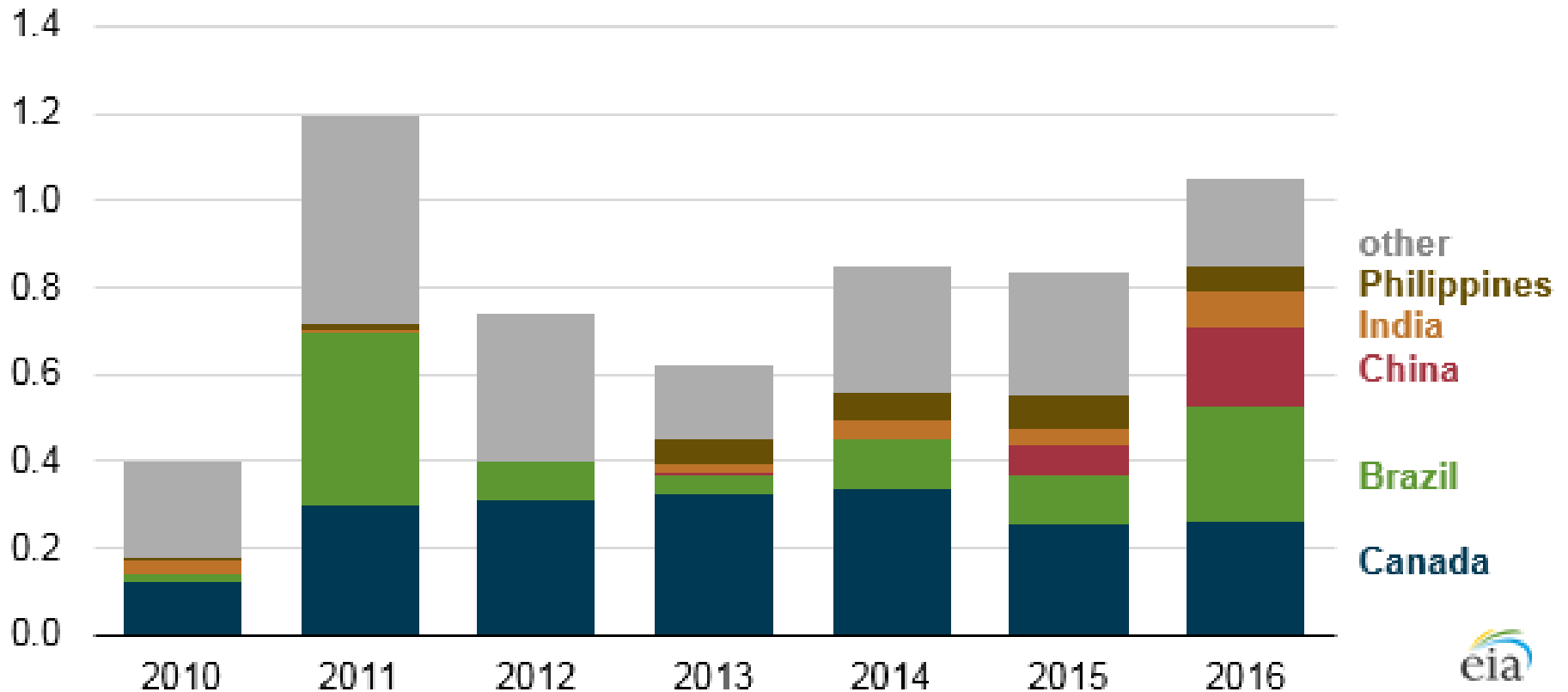
billion gallons



Estimated 2017 production is 15.8-16.0 billion gallons.

Estimated domestic use 14.5 billion gallons. Estimated export projections 1.0 billion gallons.

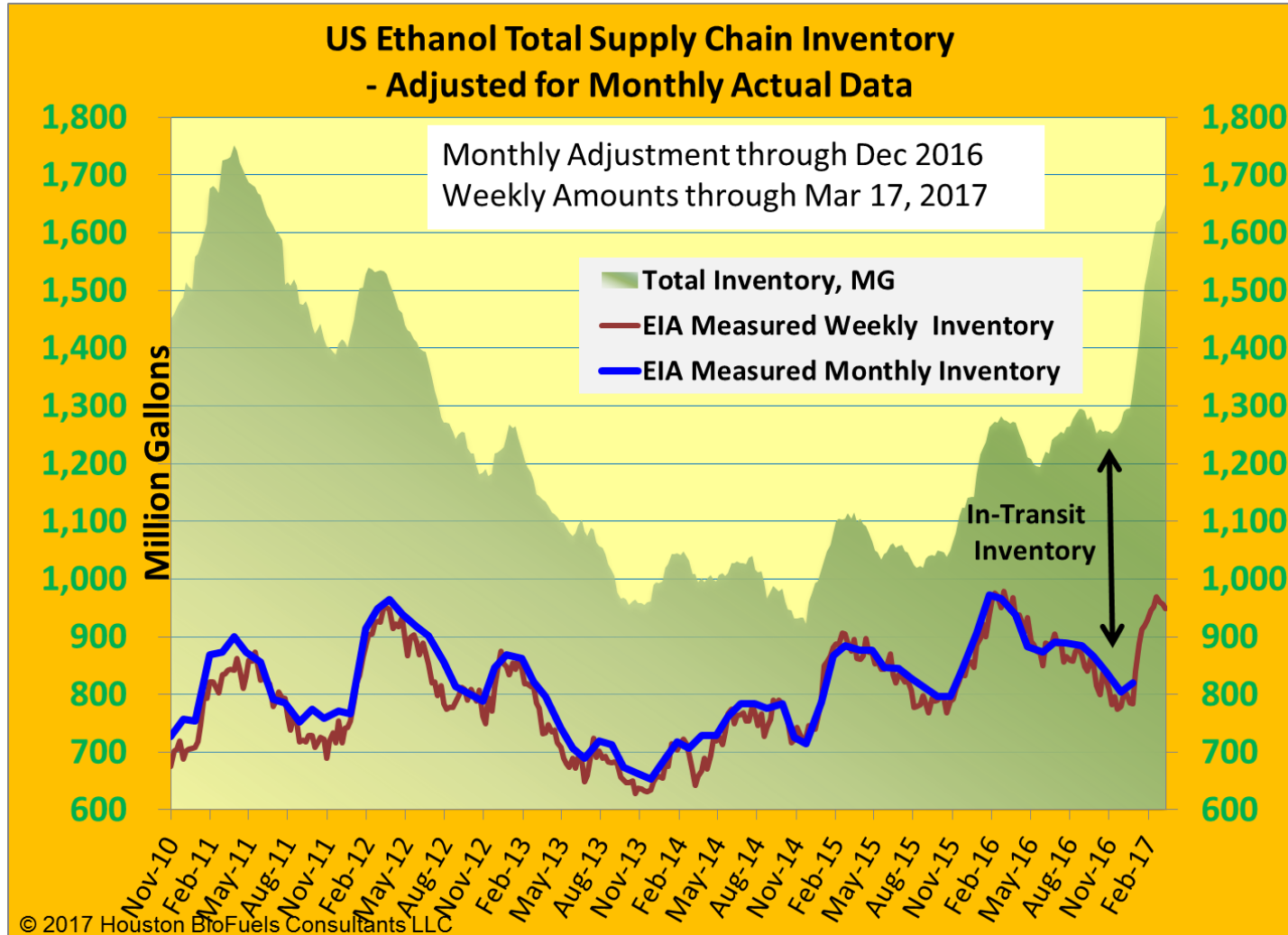
Annual U.S. exports of fuel ethanol (2010-16)
billion gallons



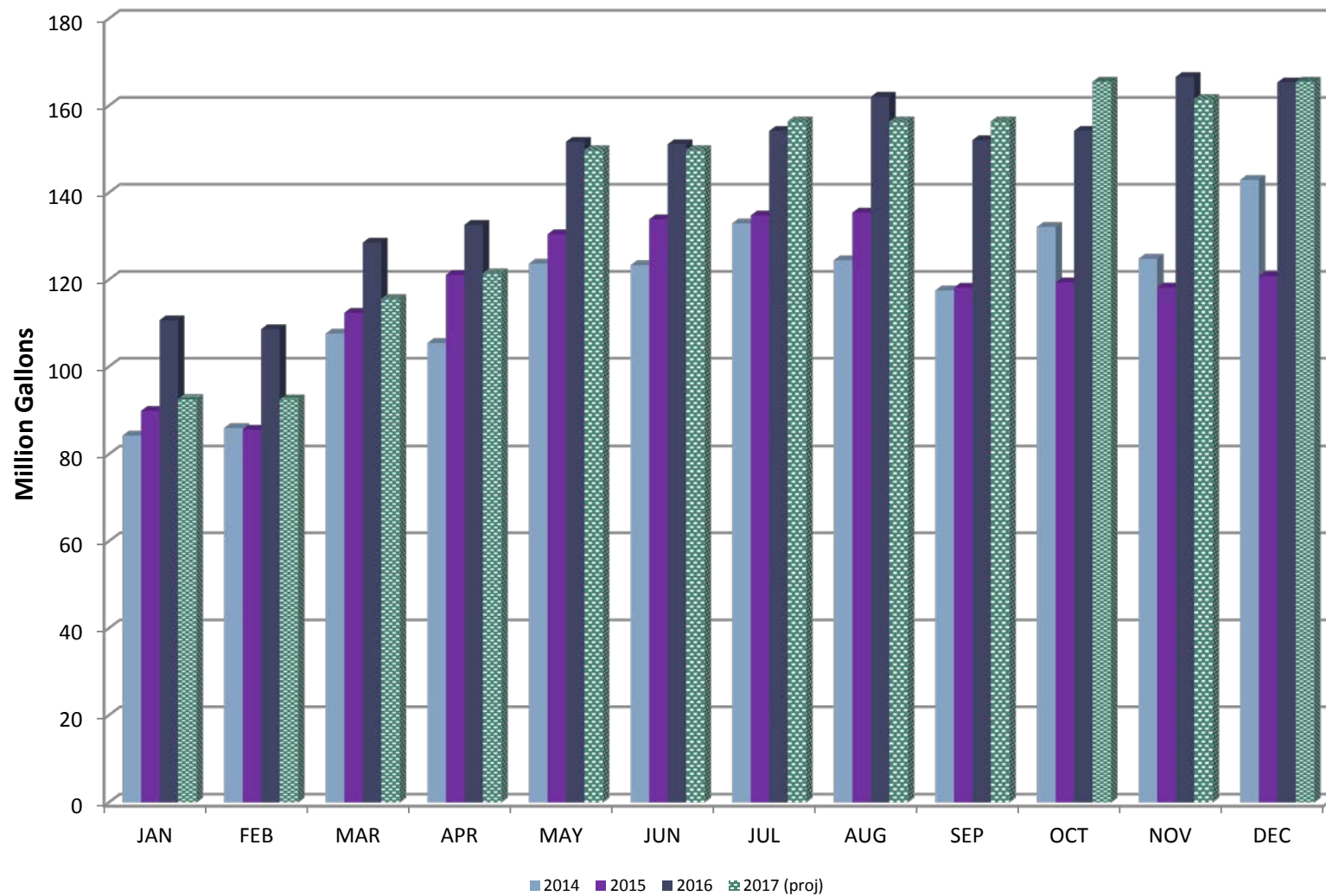
2016 Ethanol Exports at 1.1 billion gallons. Projections for exports in 2017 at 1.0 billion gallons.

Need exports to balance growing production of 16.0 billion gallons with domestic consumption levels at 14.5 billion gallons

US ETHANOL TOTAL SUPPLY CHAIN INVENTORY

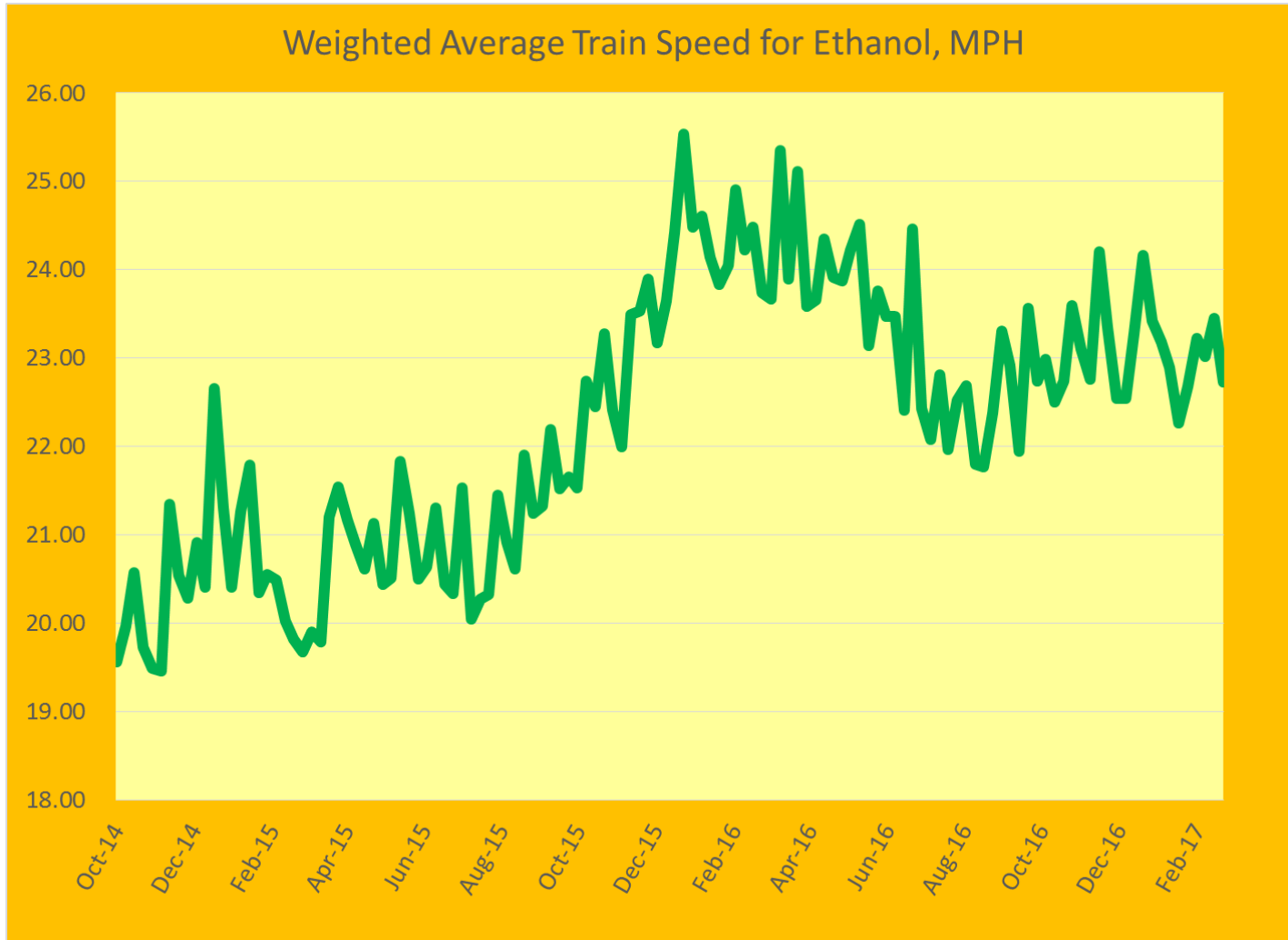


Monthly US Biodiesel Production

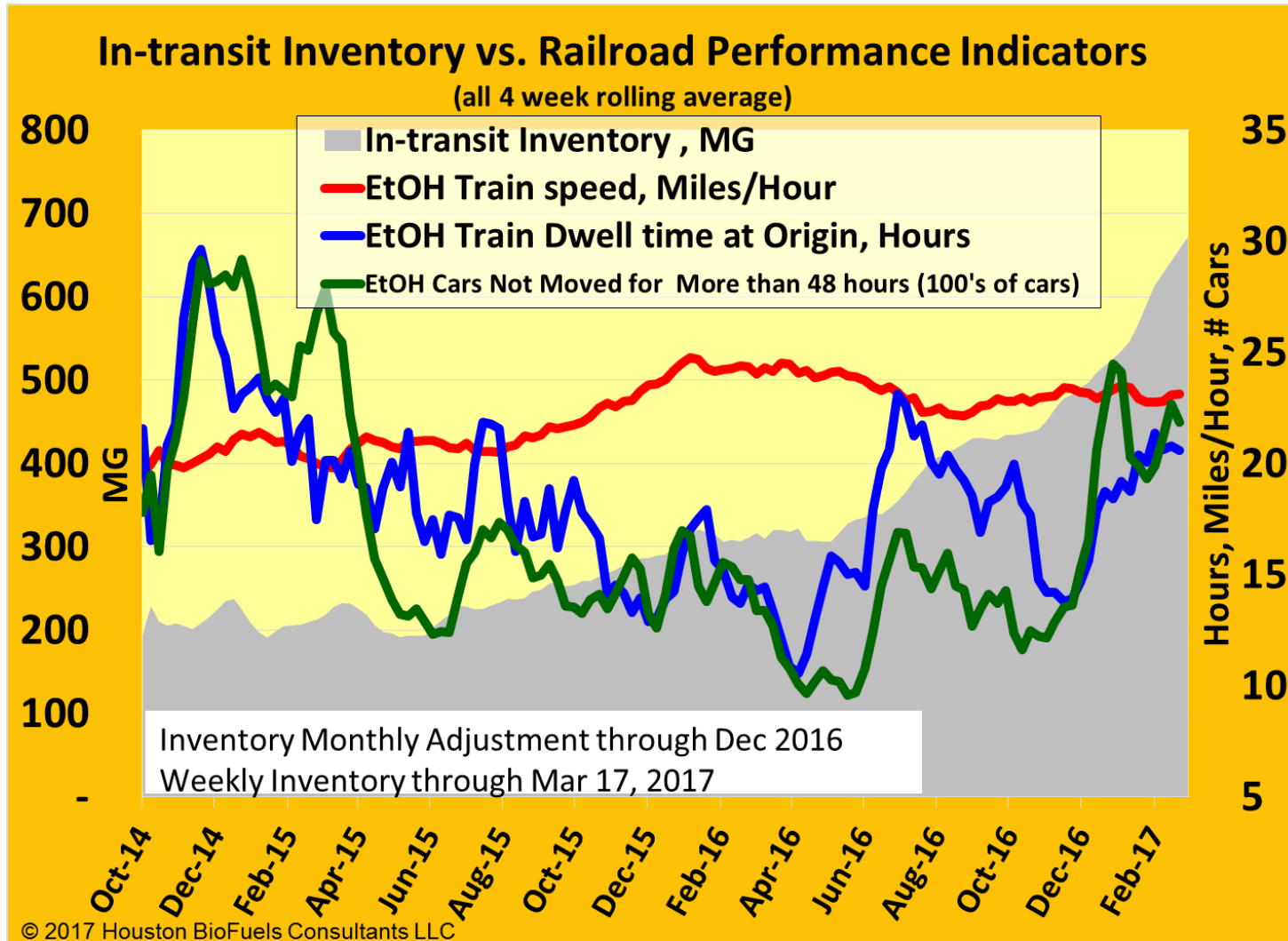


- 2017 Production estimated 1.69 Billion Gallons (domestic only)
 - 2016 Actual Production 1.74 Billion
- 2017 Mandated usage level of 2.0 Billion Gallons (biodiesel only; Total Advanced Biofuel Mandate 4.28 Billion Gallons ethanol equivalent)
- Biodiesel components: Soyoil 46%, Canola 9%, Corn Oil 10%, Other (animal fat) etc. 35%
- Tax Credit Expired 12/31/2016. Unlikely any form of credit passes prior to late 2017; anyone's guess whether producer or blender
- Things to watch for:
 - 2018 Mandate levels to be proposed June-Aug, finalized Nov. 30
 - Tax credit debate (likely Nov/Dec)

WEIGHTED AVERAGE TRAIN SPEED FOR ETHANOL, MPH



Houston BioFuels Consultants LLC



Ethanol Market

- E-15 demand is benefitting from USDA infrastructure grants
- Exports must clear record weekly production to balance S/D. Estimate for 2017 at 1.0 bill gallons
- Record production/cheap corn will encourage high run rates
- Flat growth of gas consumption has limited ethanol blend demand
- Improved Plant efficiency is contributing to excess supply
- Tax duties into China and import restrictions into Vietnam have hurt DDG prices
- Rumored changes in RFS obligated parties still being reviewed for potential impact to industry

Rail Comments

- Overall service has been good with a few areas, PNW and N CA, hurt by adverse weather issues
- Less resources, locomotives and crews, parked or furloughed at this time versus fall 2016. Heavier grain and coal shipments have required more resources
- High rail rates for ethanol and DDG's are bringing optional modes of transportation into play. Some carriers are starting to recognize this and adjusting pricing on competitive business

- Dramatic increase of FRA bad order cars is continuing and concerning
- A carrier is offering pricing options to change out DOT 111's to new DOT 117J and R cars
- ECB benefit analysis still underway, seems to have gone silent
- Heavy tank car requalification's over the next 2 years
- Repair facility capacity remains tight
- Tank car lease prices seem to have stabilized but at lower price levels than they were at 18 months ago