

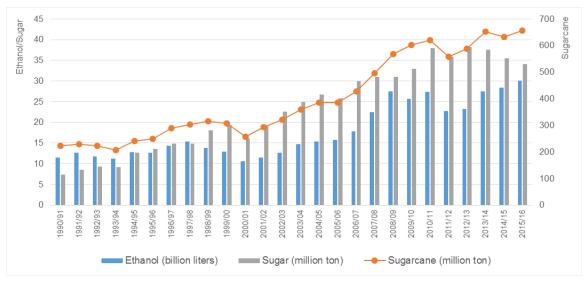
## **Updated Information on Brazil's Sugarcane Production – October 2015**

#### 1. 2015/2016 Harvest estimate - Brazil

Products	Crop year		
Products	2014/2015	2015/2016-e	Var. (%)
Sugarcane <sup>1</sup>	632.127	657.100	<b>1</b> 3,95%
Sugar¹	35.548	34.100	<del>-4</del> ,07%
Anhydrous ethanol <sup>2</sup>	12.095	12.002	<del>-</del> -0,76%
Hydrous ethanol <sup>2</sup>	16.300	18.062	<b>1</b> 0,81%
Total ethanol <sup>2</sup>	28.394	30.064	<b>1</b> 5,88%
ATR <sup>1</sup>	85.640	86.746	<b>1</b> ,29%
ATR/ ton of sugarcane <sup>3</sup>	135,48	132,01	<del>-</del> -2,56%
sugar Share (%) ethanol	43,56%	41,26%	<del>-5,30%</del>
	56,44%	58,74%	<b>1</b> 4,09%

Source: UNICA. Note: ¹thousand ton; ²million liters. ³ATR is equivalent to TRS - acronym used to "Total Recoverable Sugars". Note: corn ethanol production by the Center-South region is considered.

# 2. Sugarcane crushing history and ethanol and sugar production in Brazil – 1990/91 to 2015/16 (estimate)



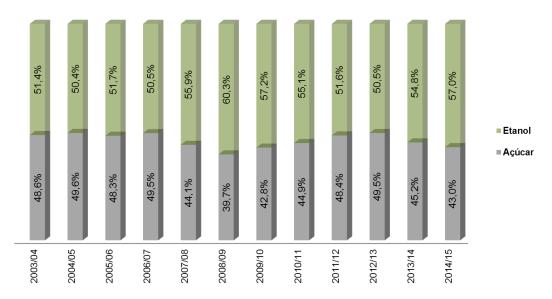
Source: UNICA and MAPA. 2015/16 - estimate.

The 2015/2016 harvest will reach a new record of ethanol production in Brazil, and should exceed the 30 billion-liter mark – an increase of more than 1.5 billion liters if compared to the previous harvest (2014/2015), which reiterates the existence of a high production capacity installed in the country.



The sugarcane crushing should reach its historical record on the current agricultural cycle. In contrast, the projected sugar production for the 2015/26 harvest shows the lowest result of the last 5 harvests (i.e. from the 2010/11 to 2014/15 harvest, the manufactured amount of sugar was superior than the estimate value for the current agricultural cycle – 2015/16). This behavior reflects the permanence of a production mix that favors ethanol production, following the historical pattern (graphic 3).

## 3. Historical evolution of the destination of the sugarcane processed by the Center-South region. Values in %



Source: UNICA.

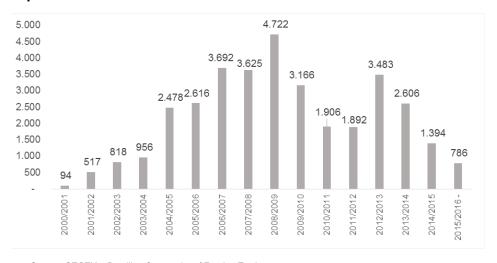
It is estimated that the quantity of left over sugarcane ("bisada" cane)<sup>1</sup> may reach 30 million tons, leading the expectations of an early start to the next harvest (2016/2017). These characteristics refer to a probable bigger offer of ethanol and sugarcane for the 2016/17 harvest, when compared to the current harvest results (2015/16), even if the canefield is aging.

With regards to the Brazilian exports of ethanol, it is estimated that it will exceed in up to 0.5 billion liters the volume commercialized in the previous cycle (2014/2015) of 1,39 billion liters. From April (beginning of the crop) to September (last month for which statistical data is available), Brazil exported 786 million liters. Today is projected the total volume exported in the current harvest add to about 1.8 billion liters.

<sup>&</sup>lt;sup>1</sup> Sugarcane unmilled in the current harverst and, therefore, available for harvest in the next agricultural cycle (2016/2017)



### 4. Ethanol exports from Brazil. Values in millions of liters.



Source: SECEX - Brazilian Secretariat of Foreign Trade

The volume exported from Brazil to China in September 2015 reached unprecedented 73 millions of liters. In the accumulated of April 2015 to March 2016 there are indications that the total exports to the Chinese market will total 180 million liters – i.e., more than 100 million liters remain to be exported. It is believed that this peak export to China is an one-off event; a window of opportunity that arose, as shown in the historical data below. China does not appear as a traditional destination to Brazilian ethanol.

Along these lines, it is noteworthy that the arbitration between prices charged defines the commercialization of biofuels between market agents.

## 5. Ethanol exportation from Brazil to China. Values in m<sup>3</sup>

Safra	Exportação Brasil (a)	Exportação Brasil para China (b)	Participação (b/a)
2005/06	2.615.622	0	0,000%
2006/07	3.691.610		
2007/08	3.624.823	47	0,001%
2008/09	4.721.898	4.046	0,086%
2009/10	3.165.592		
2010/11	1.905.621	24	0,001%
2011/12	1.892.026	14.944	0,790%
2012/13	3.482.800		
2013/14	2.605.640		
2014/15	1.393.891		
2015/16*	786.024	89.567	11,395%
Harvest	Brazilian Exports (a)	Brazilian Exports to China (b)	Percentage (b/a)

Source: SECEX. \*accumulated April to September



Additionally, there is a regulation in China that restricts the use of imported ethanol as fuel. Only government agencies (SOE) are authorized to import fuel ethanol and, even then, these imports are commonly performed only as a test to check the country's viability to import biofuel.

In the current line up of ethanol there is no chartered ship to China.