

# ETHANOL SUMMIT

Professor José Goldemberg

28/06/2013

## ETHANOL REQUIREMENTS IN 2021

(billion liters)

	<b>Ethanol production in 2015 (billion liters)</b>	<b>Estimated area in 2015 (Mha)</b>	<b>Additional ethanol amount needed in 2021 (billion liters)</b>	<b>Sugarcane area needed to produce the additional ethanol (Mha)</b>
United States (from corn)	57.0 <sup>1</sup>	14.5 <sup>3</sup>	79.8	
Brazil (from sugarcane)	37.4 <sup>2</sup>	6.0 <sup>2</sup>	24.2	
E10 for other countries			34.8 <sup>4</sup>	
<b>Total</b>			138.8	24.8 million hectares *

<sup>1</sup> EPA (2010); <sup>2</sup> EPE (2012); <sup>3</sup> baseado em USDA (2012); <sup>4</sup> baseado em REN21 (2012)

\* Baseado em: 5600 litros de etanol/ha

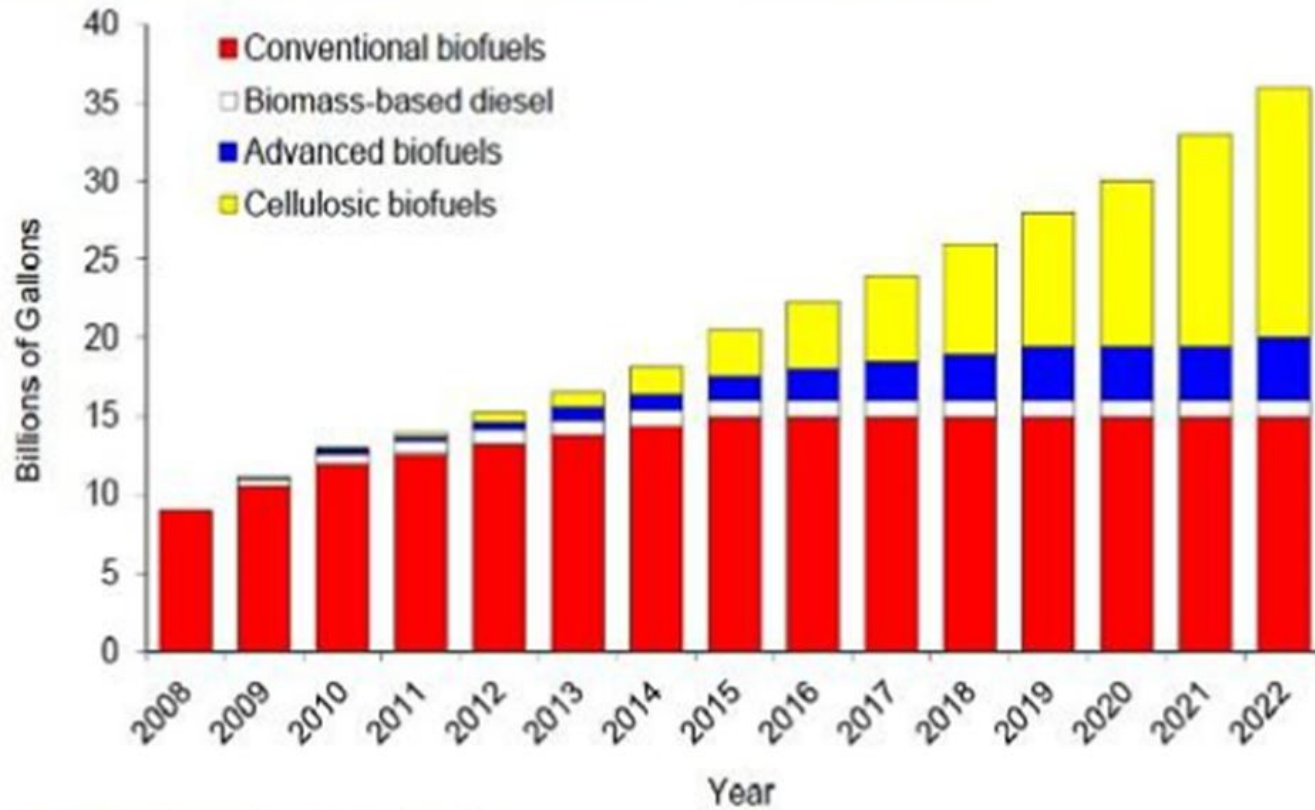
EPA – US Environmental Protection Agency. Renewable Fuel Standard 2 – RFS2, 2010. Available at:  
<http://www.epa.gov/otaq/fuels/renewablefuels/index.htm>

EPE – Empresa de Pesquisa Energética. Plano Decenal de Expansão de Energia – PDE 2021, 2012. Available at:  
<http://www.mme.gov.br/mme/menu/pde2021.html>

USDA – US Department of Agriculture. Economic Research Service. Biofuel Feedstock & Coproduct Market Data, 2012. Available at:  
<http://www.ers.usda.gov/topics/farm-economy/bioenergy/biofuel-feedstock-coproduct-market-data.aspx>

REN21 – Renewable Energy Policy Network for the 21<sup>st</sup> Century. Global Status Report, 2012. Available at:  
<http://www.ren21.net/REN21Activities/GlobalStatusReport.aspx>

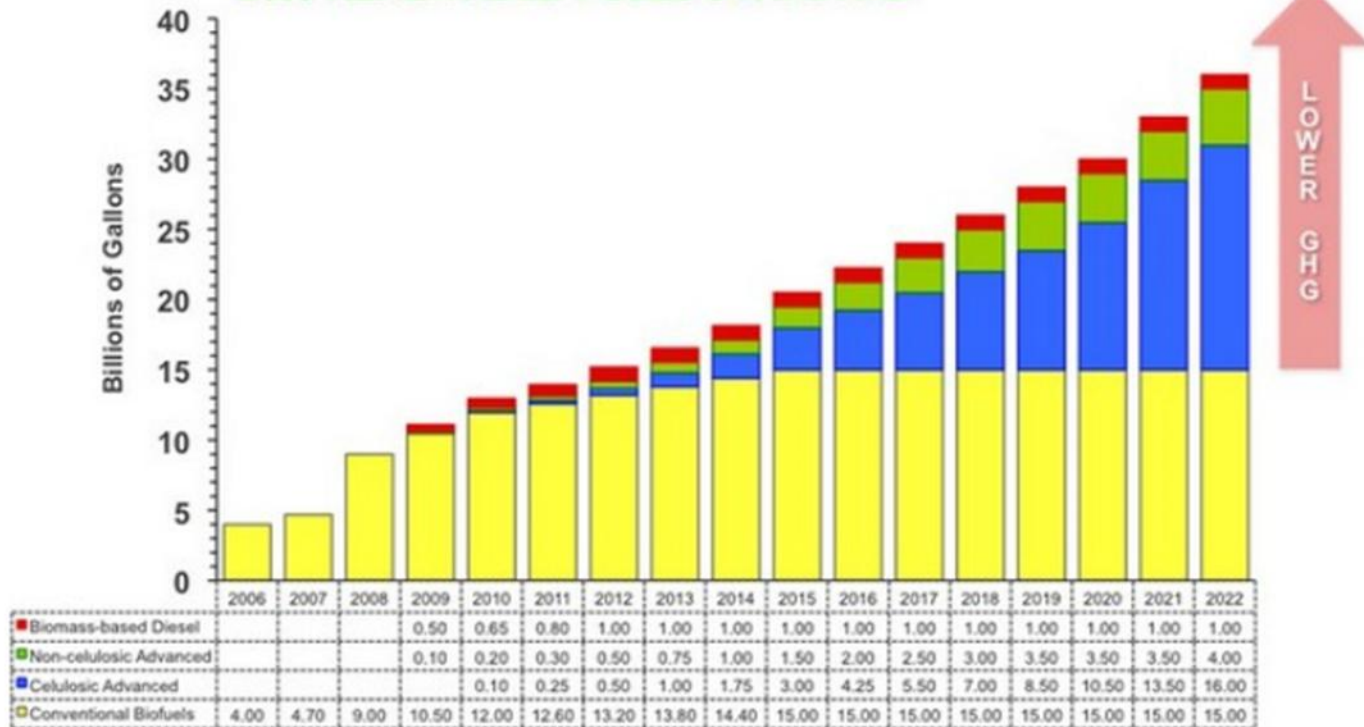
## The Renewable Fuel Standard Consumption Mandate



Source: National Academy of Sciences

Site de referencia: <http://seekingalpha.com/article/711481-understanding-the-rfs2-and-biofuel-profitability>

## U.S. RENEWABLE FUELS STANDARD



Site de referencia : <http://english.unica.com.br/releases/show.asp?rlsCode=%7B4D7FEE18-11C4-412E-9E26-5F4B7831F4B3%7D>