

A REGIONAL PARTNERSHIP WAS CREATED TO ADJUST REGION TO FOREST CODE



Etanol
Energia Verde

The Nature
Conservancy



Proteger a natureza é preservar a vida.



adecoagro
energia em crescimento



PARTNERS: TNC, ADECOAGRO, BIOSUL, IMASUL

SUGARCANE ETHANOL ENVIRONMENTAL PERFORMANCE

Advantages of sugarcane ethanol

Source				
<i>Country</i>	<i>Brazil</i>	<i>USA</i>	<i>EU</i>	<i>EU</i>
Energy balance (units of renewable energy per unit of fossil fuel input)	9.3	1.4	2.0	2.0
Productivity (liters/hectare)	7,000	3,800	2,500	5,500
GHG reduction (from US and EU legislations)	61%-91%	0%-38%	16%-69%	52%

*Note: reduction of avoided emissions with ethanol as a gasoline substitute and calculated according to life-cycle analysis. Source: World Watch Institute (2006) and Macedo et al. (2008) – energy balance. Productivity: IEA – International Energy Agency (2005), MTEC, EU Commission, EPA and UNICA. GEE: IEA – International Energy Agency (2004) and Macedo, I. de C. et al. (2004 and 2008). Elaboration: UNICA

ADECOAGRO MEETS AMERICAN REQUIREMENTS FOR CLEAN SUGARCANE ETHANOL EXPORTS



- Since July 2011, we are able to export ethanol to US under the classification of *advanced biofuels*, which save 50% GHG emissions vs. gasoline.
- One of the main requirements is to not harvest areas deforested after December 2007.
- Depending on market conditions, premium is paid for sugarcane ethanol over American corn ethanol.
- The Californian government sets additional requirements for biofuels used in the State.
- Angélica was the 1st sugarcane mill worldwide to be granted by CARB the lowest carbon intensity (58.4 g CO₂e/MJ) based on its high level of mechanized non-burnt cane harvesting and cogenerated energy exports.

California Environmental Protection Agency

 **Air Resources Board**

ADECOAGRO'S MILLS ARE BONSUCCRO CERTIFIED

- Bonsucro is a global initiative focused on improving the social, environmental and economic sustainability of sugarcane and its products.

- It assures buyers, suppliers and consumers that sugar and ethanol are produced with a focus on fulfillment of five key items: (i) legal compliance; (ii) biodiversity and ecosystem impacts; (iii) human rights; (iv) production and processing; and (v) continuous improvement.

- It meets the sustainability criteria set by the European Union Renewable Energy Directive, which mandates 20% renewable energy consumption for its Member States by 2020.

- It is a single certification auditing both sugar and ethanol streams. This allows mills to freely switch between the two.

CERTIFICATE Bonsucro / Production and Chain of Custody



Certificate Number
Bonsucro - CUC - P&C - 821228
Awarded to:

Name of Organization: Adecoagro Vale do Sothema
Group name (if applicable): Adecoagro
Address: Rua Iguaçu, 192 - 12ª andar - São Paulo/SP
Country: Brazil
Website: www.adecoagro.com.br
CUC Client Number: 821228
Certified unit: Angélica MG
Certified product: Sugarcane
Certified area: 53.248,84 ha
Certified Sugarcane Production: 2.119.517,52 MT
Mix of Production: 170.012 tons of sugar and 125.337 m3 of ethanol
In compliance with the following standard(s): Bonsucro Production Standard - Version 4.0 - September 2011
Bonsucro MR Chain of Custody Standard - Version 3.0 - March 2011
EU Renewable Energy Directive and Fuel Quality Directive Principles
Scope: Production and Chain of Custody Standard
Assessment type: Single-Site Organization
Date of first Bonsucro Certification: 14/06/2012

Technical Manager - On behalf of the Managing Director
14/06/2012
Valid From

Bonsucro Registration Number: 90000
15/06/2013
Valid To

August 2011
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- Angélica mill was the 1st mill in Mato Grosso do Sul and the 16th worldwide to achieve the certification in July 2012. More than 33 thousand hectares were certified.

- In January 2013 it was the time for Monte Alegre mill to have 100% of its production certified, reaching 15 thousand hectares.

CERTIFICATE Bonsucro / Production and Chain of Custody



Certificate Number
Bonsucro - CUC - P&C - 827044
Awarded to:

Name of Organization: Usina Monte Alegre Ltda
Group name (if applicable): Adecoagro
Address: Fazenda Monte Alegre - Monte Belo / MG
Country: Brazil
Website: www.adecoagro.com
CUC Client number: 827044
Certified unit: Usina Monte Alegre
Certified product: Sugarcane
Certified area: 15.308,00 ha
Certified Sugarcane Production: 1.011.784,00 tons
Mix of Production: 38.038,13 m³ of ethanol and 77.792,67 tons of sugar
In compliance with the following standard(s): Bonsucro Production Standard - Version 3.0 - March 2011
Bonsucro MR Chain of Custody Standard - Version 3.0 - March 2011
EU Renewable Energy Directive and Fuel Quality Directive Principles
Scope: Production and Chain of Custody Standard
Assessment type: Single-Site Organization
Date of first Bonsucro Certification: 31/01/2013

Technical Manager - On behalf of the Managing Director
31/01/2013
Valid From

Bonsucro Registration Number: 90000
30/01/2016
Valid To

August 2011
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