Sustainability and Carbon Emissions requirements within International Markets

ISCC Regional Stakeholder Dialogue Latin America
Jennifer Jiménez – Ethanol and Molasses Trader Pantaleon
Jennifer.jimenez@pantaleon.com
Agenda

- World fuel ethanol market
- Sustainability and Carbon Emissions Requirements
  - EU
  - USA
- Pantaleon sugar at a glance
World Fuel Ethanol Market

- Global demand is growing in Brazil, USA, China, Thailand and India.
- Feedstock use for fuel ethanol production comes from sugar cane, beet molasses and from grains (wheat, corn).

Source: ISO Ethanol yearbook. 2019 estimated values

Fuel ethanol production and consumption (mln liters)

Fuel ethanol producers

Fuel ethanol consumers

USA
Brazil
EU
China
Canada
India
Thailand
Argentina

USA
Brazil
EU
China
Canada
India
Thailand
Others

Global demand is growing in Brazil, USA, China, Thailand and India.
Feedstock use for fuel ethanol production comes from sugar cane, beet molasses and from grains (wheat, corn).

Source: ISO Ethanol yearbook. 2019 estimated values
Sustainability and Carbon Emissions requirements
What do our customers want?

- Compliance with Laws and International treaties
- Environmental protection
- Good agricultural practices
- Community protection and development
- Safe working conditions
- Good manufacturing practices
- Product traceability
Why are there so many sustainability requirements?

- Our climate is changing at an alarming rate and we’re already feeling the impacts.
- More and more consumers are looking for more transparency about what they use, eat and drink.
- Consumers increasingly distrust.
- Large companies have Responsible Supply Chain Policies and needs to buy from companies that meet their Sustainability goals.
Fuel ethanol demand is mandate blend driven

According to the European Commission (RED II mandate) it is mandatory to use Advanced Ethanol that has sustainability certifications.

87% of biofuels demands derives from mandates. As the Paris Climate Agreement progress, we can expect to see more countries adding blend mandates.

Source: S&P Global Platts Analytics
EU - RED II

- RED II 32% share for renewable energy (review clause in 2023)
  - 14% renewable energy for transport sector (rail & road).
  - Crop-based fuels at maximum 7%.
- GHG reduction target for suppliers by 6%.

- Renewable ethanol is expected to play an important role in the realization of the EU’s energy and climate ambitions to 2030.
- In order to demonstrate compliance with the EU’s sustainability criteria, biofuels needs to be validated by voluntary schemes approved.
The RFS sets the annual mandate levels for various classes of renewable fuels.

Each refinery is required to blend a certain number of gallons based on the percentage of the total US refinery capacity made up by their production.

- EPA proposed regulatory changes to allow gasoline blended with up to 15 percent ethanol.
- E15 would be allowed to be sold year-round, rather than just eight months of the year.
- Substantial growth for biofuels demand is expected.

Congressional Volume Target for Renewable Fuel

Source: EPA
What are other countries working on?

- **Brazil**: has launched Renovabio, a Brazilian policy for the decarbonization of the transport sector, which aims to incentivize the use of renewable energy.

- **Thailand**: Energy Ministry has set a time frame to promote E20 as the primary petrol product by early 2020.

- **India**: ethanol blend rate in gasoline is mandated to reach 10% by 2022.

- **China**: has suspended its plan to implement a nationwide gasoline blend containing 10% ethanol this year, due to sharp decline in the country’s corn stocks and limited production capacity of the biofuel.
Pantaleon Sugar Holdings at a glance

- Panuco (MX)
- Montecora (NI)
- Vale do Paraná (BR)
- Panor (CH)
- PCC (USA)
- Pantaleon & Concepcion (GT)

**Crushing installed capacity**: 1.14 MM ton / year

**Sugar produced**: 242,000 m³ / year

**Alcohol produced**: 581 GWh / year

**Energy sold**: 435,000 mt / year

**Molasses produced**: 78,500 mt / day
What are we doing in terms of Sustainability?

**People**

We adopt practices that contribute to our employees’ health, safety and personal development.
- +25,600 employees during harvest season.
- Total Worker Health® approach
- >68,000 free medical visits in our health clinics that offer primary care, ophthalmology and dentistry services.

**Prosperity**

We contribute to the well-being of the communities in which we operate.
- 27 education projects
- 10 health projects
- 15 community development projects
- 39,983 people directly benefited by programs
- $4.55MM community investment

**Planet**

We establish environmental efficiency goals, and train our staff continuously.
We comply with the regulatory requirements in environmental matters of the legislation of the countries where we operate and customer requirements.
- 98% use of renewable energy.
- 94% of waste is reused or composed.
- 135.66 hectares reforested in 2018

**Product**

We offer clients high quality products that comply international sustainable production practices.
Our tech investments allow for efficient harvesting, processing and logistics.
We work with cane suppliers to ensure a sustainable supply chain.
Our certifications help us to comply with the requirements of our customers and markets

- **Pantaleon**: ISSC Plus, ISCC EU, Bonsucro, Kosher, HACCP, FSSC 22000, ISO 9001.
- **Concepcion**: ISSC Plus, ISCC EU, Kosher, HACCP, FSSC 22000, ISO 9001.
- **Bioetanol**: ISCC EU, Bonsucro, Kosher, HACCP, FSSC 22000.
- **Monte Rosa**: Bonsucro, Kosher, HACCP, ISO 9001, ISO 22000, GMP+, OHSAS 18001.
- **Panuco**: ISO 9001, FSSC 22000, OHSAS 18001, ISO 14001, Kosher.