

# 2025 PRE-CONGRESS



XXXII  
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CENTENNIAL  
CONGRESS  
CALI - COLOMBIA  
Digital - Innovative - Sustainable





## Production – Colombian Sugarcane Agroindustry

In 2024, a total of 22.1 million tonnes of sugarcane were crushed, resulting in:



2 million tonnes of sugar



406 million litres of bioethanol



1,876 GWh of electricity



6.3 million tonnes of bagasse, used for cogeneration and paper production



184,000 tonnes of final molasses



322,000 tonnes of organic-mineral fertilisers



**Planted Area:**  
239.472 hectares



**Departments:** Valle, del Cauca, Cauca, Risaralda, Caldas, Quindío  
**Municipalities:** 50





## Farm size and productivity

### Farms under 10 ha



**Cauca:**  
64%



**Valle del Cauca:**  
32%

### 2024 Agricultural Yields



**113,9 TCH** (tonnes of cane per hectare) – (+11,6%)

**11,8 TAH** (tonnes of sugar per hectare) – (+9,3%)

## Processing Plants



**Total: 15 plants**  
8 sugar only  
6 sugar + ethanol  
1 ethanol only



All generate energy through cogeneration

## Employment and Community Wellbeing



- **Over 286,000 direct and indirect jobs**
- **12,000 sugarcane-growing families**
- **6 out of 10 families** in municipalities where the industry is present depend economically on this sector



## A Sustainable Sector



**A leader in circular economy** within Colombia's agroindustry



**50% reduction in irrigation water** use over the past decade



**100% biological control** in crops – no chemical pesticides used



**26 river basins protected** through the *Fondo Agua por la Vida y la Sostenibilidad* run by the sugar mills (conservation actions across 14,100 ha and more than 1.3 million trees planted)



Development of an **890 km biological corridor** linking the main river (**río Cauca**) with 13 tributaries and 80 wetlands—**over 6,500 ha** of protected land within sugarcane-growing areas



**San Antonio de los  
Caballeros**  
Florida, Valle del Cauca

Colombian Sugarcane Research Center generates knowledge, conducts scientific research, and develops and validates technologies to discover the possibilities of the crop, explore new opportunities for sustainable progress, and create value for industries.

Cenicaña is a private, non-profit corporation founded in 1977 at the initiative of the Colombian Sugarcane Growers Association (Asocaña) and funded by donations from sugarcane mills and cane suppliers located in the Cauca River Valley.





tecnicaña

FRIDAY  
AUGUST 22 /2025

Welcome General Director  
Freddy Garcés

15 min.

STATION  
1

John Jaime Riascos  
Variety Program  
Director

20 min.

Breeding station

STATION  
2

Freddy Antonio Salazar  
Genetic Improvement  
Area Leader

20 min.

New resilient  
Cenicaña Colombia  
varieties

STATION  
3

María Claudia Pizarro  
Transfer Specialist

20 min.

Transfer & extension  
strategies for sustainability

STATION  
4

Julio Calpa  
Automation and  
Control Coordinator

20 min.

Smart factory solutions:  
Digital tools for the sugarcane  
industry

STATION  
5

Alberto Arroyo  
Soil and Water Engineer

20 min.

Applied Digital  
Innovation in Agriculture

STATION  
6

Julián Mateus  
Director of the  
Agronomy Program

20 min.

Sugarcane Soil/  
Climate-Smart  
Agriculture

STATION  
7

Pedro F. Sanguino  
Mechanization  
Coordinator

20 min.

Tools for Precision  
Agriculture

STATION  
8

Samuel Galeano  
Head of the Technical  
Cooperation and  
Technology Transfer  
Service

20 min.

SmartCane  
Operations Center

STATION  
9

Lina Arevalo  
Diversification and  
Sustainability Coordinator

20 min.

Unlocking the full potential  
of sugarcane by-products

Lunch

FINISH



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# Manuelita

## Growing Goodness



**Palmira**  
Valle del Cauca

Manuelita is an agro-industrial organization diversified mainly in the food and renewable energy sectors, with presence in several countries and productive areas of the Americas. With a diversified portfolio of value-added products, Manuelita produces sugar (refined, crude and organic) bioelectricity and biofertilizer. Guided by a sustainable business model, it develops products from renewable sources, promoting the responsible use of natural resources and contributing to the well-being of surrounding communities.



**CERTIFICATIONS**



## Relevant Field Data - Harvest



TCH (Tons of sugarcane per hectare)



Between 125 and 135



PP (mm)  
Precipitation



Between 900 and 1,100 mm/year



tecnicaña

## Relevant Data Industrial Processes



Milling Capacity  
(TCD)

11.000



Milling Days  
(Days/year)

315



Fiber %  
sugarcane

15,0



Sucrose %  
sugarcane

13,4

## Mill Products (2024 production data):

Ground Sugarcane:	2.663.411 t.
Refined Sugar:	200.200 t.
Brown + Raw Sugar:	19.291 t.
Organic Sugar:	13.330 t.
Alcohol:	58.401.398 liters
Electric Energy Sold:	51,1 Mwh



# Factory

**SATURDAY**  
**AUGUST 23/ 2025**

**STATION 1**

**Jorge Casas**  
Factory Manager

60 min.

Welcome – Human  
Resources  
Auditorium  
Safety instructions

**STATION 2**

**Carlos Vélez**  
Maintenance Manager

30 min.

Milling:  
Preparation and  
Extraction

**STATION 3**

**José Antonio Gutiérrez**  
Production Manager

30 min.

100% mechanical harvesting  
management in a refining process

**STATION 4**

**Gilberto Monroy**  
Alcohol Plant  
Operation Engineer

30 min.

Alcohol production and value added  
from vinasse: additives for the  
construction industry and others

**STATION 5**

**Antonio Ramírez**  
Technical Area  
Manager

30 min.

The golden age of paper in search  
of sustainability for packaging



Lunch

**STATION 6**

**Valentina Vergara**  
Social Management  
Analyst

60 min.

Visit to the Manuelita Museum

**FINISH**





**We Create Value and Flavor for the World**



**Candelaria**  
Valle del Cauca

Founded in 1937, Mayagüez is a leading Colombian agro-industrial group with 88 years of experience, transforming sugarcane into sugar, bioethanol, biofertilizers, and energy. Guided by a philosophy of well-being and sustainability, it creates lasting social, environmental, and economic value. Globally recognised for its efficiency in saccharose extraction, milling, and regenerative agriculture, it plays a key role in Colombia's energy and sugarcane cluster, driving development in Valle del Cauca and beyond.



**CERTIFICATIONS**



### Relevant Data Industrial Processes



Milling Capacity  
(TCD)



10.000



Milling Days  
(Days/year)



334



Fiber %  
sugarcane



16.10



Sucrose %  
sugarcane



12.20

### Mill Products (2024 production data):

Ground cane:	2,630,130 t.
Packaged sugar:	4,539,311 t.
Sugar equivalent:	5,645,128 t.
Alcohol:	58,181,182 liters
Energy generated:	248,525 MWh
Energy sold:	129,602 MWh
Compost produced:	52,330.4 t.





## Factory

FRIDAY  
AUGUST 22/2025

### Main products

- Special direct white sugar (>150 IU)
- Natural sugar (up to 3,500 IU)
- Turbinado sugar
- Organic sugar



## Field

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AUGUST 23/2025

### Relevant Field Data - Harvest



TCH (Tons of sugarcane per hectare)

128.17



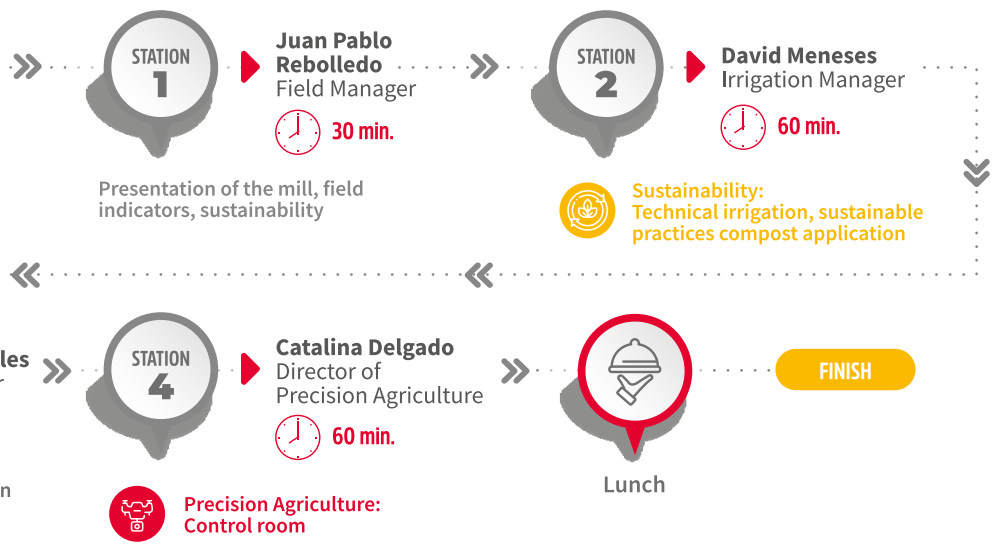
PP (mm)  
Precipitation

1.092 mm



Planted Area  
in Hectares

23.843 Ha



**incauca**

## Transforming lives with energy



**El Ortigal, Miranda  
Cauca**

Incauca is an agroindustrial company based in Miranda, northern Cauca, with 62 years of experience. It produces sugars, sweeteners, fuel alcohol, and electricity, and was a pioneer in Colombia in launching half-calorie sugar and producing fuel alcohol. Today, it stands as the country's largest energy cogenerator, driven by the purpose of transforming lives with energy.



**CERTIFICATIONS** >>

FSSC 22000



## Relevant Data Industrial Processes



Milling Capacity  
(TCD)

19,500



Milling Days  
(Days/year)

310



Fiber %  
sugarcane

15,4



Sucrose %  
sugarcane

11,14

## Mill Products (2024 production data):

Crushed Cane:	3,207,531 t.
Sugar production:	258,286 t.
Alcohol production:	64,630,000 liters
Energy generation:	337,993,687 MWh
Compost production (organic fertilizer):	92,486 t.





## Factory

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### Sugar Product Portfolio

- Incauca Special White
- Incauca Life with Organic Stevia,
- Incauca Life + with Organic Stevia, Calcium Citrate and Vitamin D3
- Incauca Brown Sugar
- Turbinado Sugar
- Incauca Extra-Fine Sugar
- Incauca Organic Sugar
- Incauca 5X Micropulverized Sugar
- Incauca Vital (Stevia Sweetener)
- Incauca Vital (Sweetener with Erythritol and Sucralose).

STATION 1

Harol Home  
Factory Manager

60 min.

Welcome to Incauca.  
Corporate presentation and  
key plant indicators.

STATION 2

Ana Cristina Rodríguez  
Sugar and Alcohol  
Production Director

40 min.

Cogeneration: Incauca is the largest  
cogeneration plant in Colombia  
(steam and power generation).

STATION 3

Luis Enrique Prado U.  
Distillery Director

40 min.

Anhydrous alcohol production; raw material  
pretreatment; preparation of a mixture with  
B and C molasses; continuous fermentation,  
distillation, and dehydration; vinasse  
management.

STATION 4

Jhon Jairo León González  
Electrical Director

40 min.

Compost production at the largest organic  
fertilizer production plant in Latin America and the  
third largest in the Americas; production of  
Biocane powder and Biocane soil conditioner from  
sugar and alcohol production waste.

Lunch

FINISH

## Field

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### Relevant Field Data - Harvest



TCH (Tons of  
sugarcane per hectare)

124.2



PP (mm)  
Precipitation

1.607 mm



Planted Area  
in Hectares

36.657 Ha

STATION 1

Carlos E. Córdoba  
Senior Field Manager

40 min.

Welcome to Incauca.  
Corporate presentation and key  
indicators for field and harvesting.

STATION 2

Mauricio Quevedo  
Agronomy and  
Agricultural Quality  
Director

60 min.

Seed thermal treatment and  
nursery management

STATION 3

Diego Raigoza Sanabria  
Seed Cutting and  
Sowing Leader

60 min.

Mechanized seed  
cutting and planting

STATION 4

Juan Carlos Rosero Cerón  
Harvest Director

60 min.

100% mechanized  
harvesting process

Lunch

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# PROVIDENCIA<sup>®</sup>

## Sustainable Sweetness



**El Cerrito**  
Valle del Cauca

We are a Colombian company in the sugarcane agro-industrial sector, recognized for its sustainable sweetness. With 99 years of experience, we have evolved to integrate responsible and innovative practices in the production of sugar, alcohol, compost, and cogeneration of electricity, always under the highest standards of quality and safety.



**CERTIFICATIONS** >>



## Relevant Field Data - Harvest



Number of Tons

3,314,931 tons of  
ground cane in 2024



PP (mm)  
Precipitation

808  
mm/year



Cultivated  
Hectares

30,109 Ha





## Field / Harvest

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**Vicente Borrero**  
General Manager  
**Álvaro José López**  
Field Manager

40 min.

Welcome to Providencia.  
2024 management figures, sustainability



**Elkin Giovani Sánchez**  
Director of Agronomy

65 min.

Development of an irrigation strategy plan:  
technical irrigation, frequent irrigation with  
controlled water levels



**Diego Sandoval López**  
Director of Precision  
Agriculture

65 min.

Use of drones for  
field work and crop  
optimization



**Paula Andrea Valencia**  
Director of Agricultural  
Quality

20 min.

Predictive models for  
sucrose and TCH



**María Leonor Velásquez**  
Director of Ecological Park

20 min.

Ecological Park: restoration and  
characterization of birds and sustainability  
with increased organic farming areas.



**Angie Riascos Rojas**  
Director of Sustainability

20 min.

Sustainability in  
Providencia



Lunch

FINISH

## Relevant Data Industrial Processes



Milling Capacity  
(TCD)

12.000



Milling Days  
(Days/year)

334



Fiber %  
sugarcane

15

### Sugar Product Portfolio

- White
- Brown
- Organic white and brown sugar
- Micropulverized



## Factory

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AUGUST 23/2025



**Milton Sánchez**  
Factory Manager

40 min.

Welcome to Providencia  
2024 Management Figures,  
Sustainability



**Juan David Araujo**  
Milling Director  
**Juan David Balcázar**  
Production Leader

40 min.

Visit to the preparation  
and milling station



**Arbey Carvajal**  
Project Manager

40 min.

Heating technologies:  
Plate and plate heating



**Carlos Adolfo Restrepo**  
Production Maintenance Manager

40 min.

Use of first-effect  
Multi-calandria evaporator



Lunch

FINISH



## We make it possible



**Balboa,  
Risaralda**

Ingenio Risaralda is a leading company in the Colombian agro-industry. It has been dedicated to the sustainable processing of sugarcane for 47 years, serving as a driving force of economic and social development for the Risaralda region, northern Valle del Cauca, and western Caldas.



**CERTIFICACIONES**



## Relevant Data Industrial Processes



Milling Capacity  
(TCD)



5.400



Milling Days  
(Days/year)



330



Fiber %  
sugarcane



15.3 (Industrial)



Mill products:

Cogeneration capacity:

**Sugar types:**  
Brown, organic, etc.)



Alcohol, Energy, Biofertilizer,  
Sugar (white, raw, and refined)

34.5 MW/hr

White, Special White, Brown,  
Turbinado, Refined







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## Relevant Field Data - Harvest



TCH (Tons of sugarcane per hectare)

116.3



PP (mm)  
Precipitation

1626.59 mm



Planted Area  
in Hectares

16,543.78 Ha

FRIDAY  
AUGUST 22/ 2025



Field



Harvest



Sustainability



STATION  
1

Juan José Uribe  
Field Director

40 min.

Welcome.  
Varieties, Sucrose, Ripening



STATION  
2

José Augusto Vasco  
Executive Director  
Edwin Ocoro  
Board Member

45 min.

ASONORTE: Collaborative Management for  
Agricultural Production and Sustainability in  
the Northern Cauca Valley.



STATION  
3

José Manuel Bolívar  
Harvest Director

30 min.

Harvest Quality and Implementation  
of Louisiana-Type Harvesters



STATION  
4

Alexander Mauricio  
Caballero  
Head of A.P.

40 min.

Precision Agriculture  
Technologies (LiDAR, GIS)

FINISH



Lunch – Coffee Route

GRUPO AGROINDUSTRIAL

**RIOPAILA**  **CASTILLA**  
C O M P R O M I S O   D E S D E   1 9 1 8

**Commitment since 1918**



**Zarzal**  
Valle del Cauca

We are an agro-industrial group dedicated to the transformation of food products (sugar, molasses, syrups, blends, palm oil, and livestock), green energy (cogeneration), and renewable fuel (fuel-grade ethanol), with 107 years of commitment to Colombia. Behind this commitment, which began on March 6, 1918, are more than 4.000 workers, 94% of whom belong to our direct operating areas; and more than 2,000 suppliers of sugarcane, goods, works, and services linked to our value chain in the departments of Valle del Cauca, Cauca and Vichada. Our products also have a presence in 46 countries.



**CERTIFICATIONS** »



### Relevant Data Industrial Processes



Milling Capacity  
(TCD)



10.000



Milling Days  
(Days/year)



300



Fiber %  
sugarcane



17.2



Sucrose %  
sugarcane



12.4

### Mill Products (2024 production data):

Crushed Cane:	2,384,473 t.
Packaged sugar:	172.328 t.
Ethanol:	61,323,617 liters
Energy:	185,916 MWh





## Sugar Product Portfolio

- White
- Special white
- Brown
- Refined
- Blonde
- Powdered



### Specialty products:

- Light
- Senza

## Relevant Field Data - Harvest



TCH (Tons of sugarcane per hectare)

120



PP (mm) Precipitation

1.320 mm



Planted Area in Hectares

27.500 Ha



## HARVEST AND AGRICULTURAL SERVICES

**SATURDAY  
AUGUST 23/ 2025**

STATION  
1

**Luisa Benedicta Barona**  
Industrial Derivatives Manager  
**Guillermo Carvajal**  
Corporate Affairs Manager

60 min.

Welcome to Riopaila Mill: History, sustainability, and vision

STATION  
2

**Juan David Montaña**  
Mechanized Harvesting Engineer

30 min.

High-yield mechanical harvesting

STATION  
3

**Geovanny Bulla**  
Agricultural Workshop Manager

30 min.

Zero trampling: Machinery modifications to reduce Stool damage

STATION  
4

**Angela Cuellar**  
Compost and Fertility Plant Engineer

30 min.

FertiRio:  
Fertilizer, a byproduct of vinasse as a source of potassium and minor elements.

FINISH



Lunch

STATION  
5

**Cristian Ibarguen**  
Agricultural Operations Manager

30 min.

Centering plant (subsoil-harrowing-polishing-furrowing on autopilot)

# WE ARE MORE THAN CANE!



Field



Harvest



Investigation



Factory



## Knowledge that drives sector transformation

### Who are we?

We are the Colombian Association of Sugarcane Technicians, founded in 1983. We bring together sugarcane mills, professionals, growers, researchers, and partner institutions to strengthen the technical development of the Sugarcane Agroindustry in Colombia and Latin America.

### Flagship Event:

**Tecnicaña Congress** – held every three years, with national and international reach.

### What do we do?

We promote training and knowledge exchange through:

- Congresses
- Seminars
- Workshops
- Webinars
- Technical Talks
- Technical Tours
- Diploma Programmes

### Our Platforms

#### **Tecnicaña Magazine:**

Published since 1997, with over 60 issues and distribution in 40 countries.

#### **Website:**

A reliable, up-to-date source of specialised information.  
[www.tecnica.org](http://www.tecnica.org)

#### **Tecnicaña App:**

Everything you need to stay connected to the sector and our events.







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