

Sustainability Report

— 2023/2024 Harvest —



central açucareira
santo antonio s.a.

About the Report

Central Açucareira Santo Antônio S.A., also known as the Santo Antônio Group, is a privately held corporation that has two industrial units: Santo Antônio mill (acquired in 1957) and Camaragibe (acquired in 1980).

This is the second annual report describing the performance of the activities of Central Açucareira Santo Antônio S.A. and its subsidiary, Central Energética Jitituba, in the harvest period from April 1, 2023 to March 31, 2024. It was prepared with the support of Peterson Consultoria, based on the latest version of the Global Reporting Initiative (GRI) standards.

The information presented has not undergone an external verification process. However, the financial data has been audited by an independent firm. All content was developed with the supervision of the Board, comprised of shareholders, who are solely responsible for the statements contained herein.

For any questions, suggestions, or comments, please contact us by email at carlos.maranhao@usinasantoantonio.com.br.

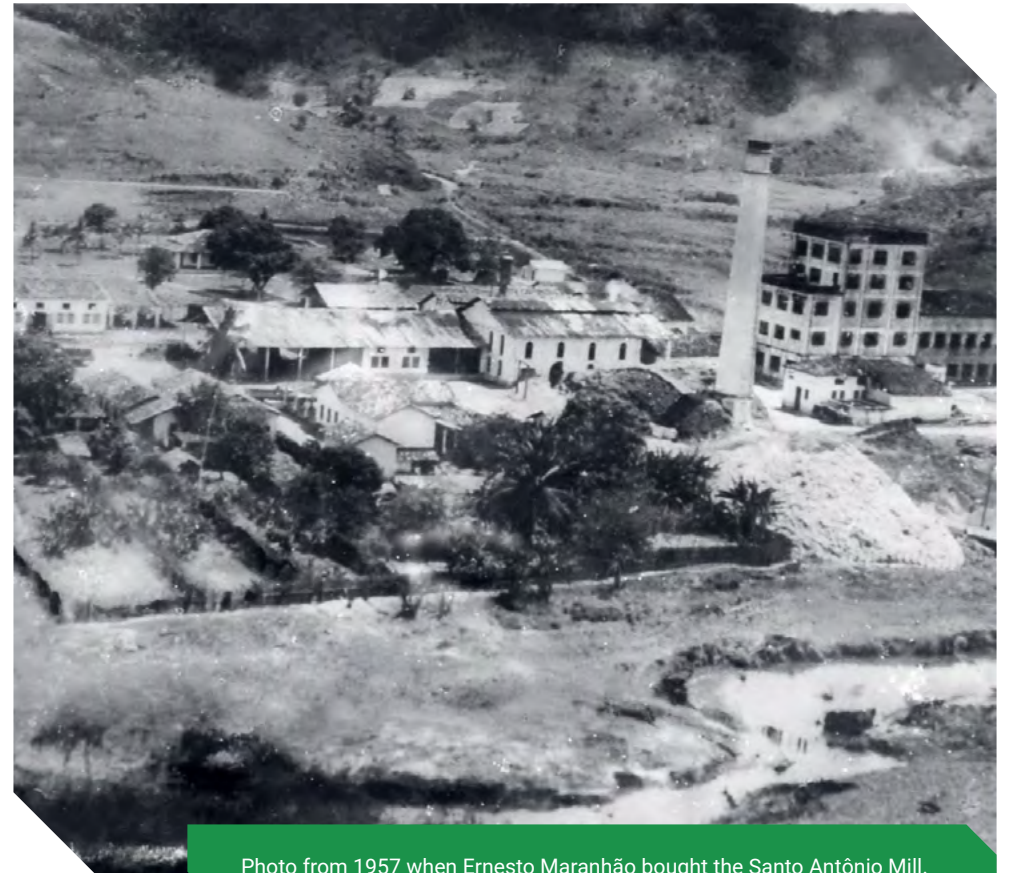


Photo from 1957 when Ernesto Maranhão bought the Santo Antônio Mill.

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Santo Antônio Group

Message from the Management Board

The sugar-energy market has faced challenges in recent harvests due to climate changes that have impacted the productivity and quality of harvested sugarcane.

For example, the previous 2022/2023 Harvest suffered from excessive rain, resulting in losses in productivity, quality, and TRS*.

The constant rain delayed milling and impacted the dynamics of the current 2023/2024 Harvest. Despite lower agricultural productivity indices, the 2023/2024 Harvest presented better TRS, managing to offset the results. In comparative terms, a smaller volume of sugarcane delivered practically the same amount of final product due to its high quality.

In the commercial landscape, sugar continued to be more valued than ethanol, allowing the company to achieve better margins by capturing and meeting market demand.

Agility and flexibility in production are strategic edges that make our business extremely competitive.



We are investing heavily in innovations and technologies that allow us to maximize our performance."

Jose Carlos Maranhão,
Director of the Santo Antônio Mill

*TRS - Total Recoverable Sugars: the quantity of total reducing sugars per ton of sugarcane calculated by the pol and reducing sugars in sugarcane, excluding industrial losses. TRS is expressed in kilograms per ton (kg/t).



We market one of the largest agricultural commodities in the country. As with any agribusiness, we are constantly attentive to weather forecasts, planning to adapt to these changes in order to maximize our results, regardless of the conditions. Excess rain has hindered the harvest. Anticipating this scenario allows us to organize and optimize milling logistics to the fullest, making better use of our manufacturing potential in an organized manner.

We are investing heavily in innovations and technology that allow us to maximize our performance. In the field, we are acquiring machinery, tracking the fleet via GPS, improving irrigation systems, expanding the use of drones, and investing in the use of microbiological agents. Our focus is on vertical growth, restoring maximum productivity through the quality of the sugarcane plantation while adhering to sustainable agriculture practices that optimize yield and resource efficiency.

In the industrial sector, the focus is on quality and efficiency. Driven by a commitment to continuous improvement, we consistently review and refine our processes and resource utilization to enhance efficiency, boost margins, and foster a better workplace for our employees.

The initiatives seek to streamline processes, increase employee safety, ensure operational efficiency, and promote prudent use of resources. Our investments are carefully calculated.

We conduct testing periods with pilot area rentals, and only based on these experiences do we evaluate the cost efficiency of the amount involved. In our governance, we never overreach, ensuring that every step is strategically calculated to achieve tangible returns for the company.

As a company that generates approximately 8,000 direct jobs, we have a significant impact on the economy and development of the surrounding communities.

We invest in training and development to provide growth opportunities for local professionals, both within our company and in the broader community. The agribusiness sector is becoming increasingly technological, and we need skilled individuals to work in our sugarcane fields.

We believe that promoting employee development is a way of sharing our success with our workforce, contributing to their earnings and strengthening the local economy.

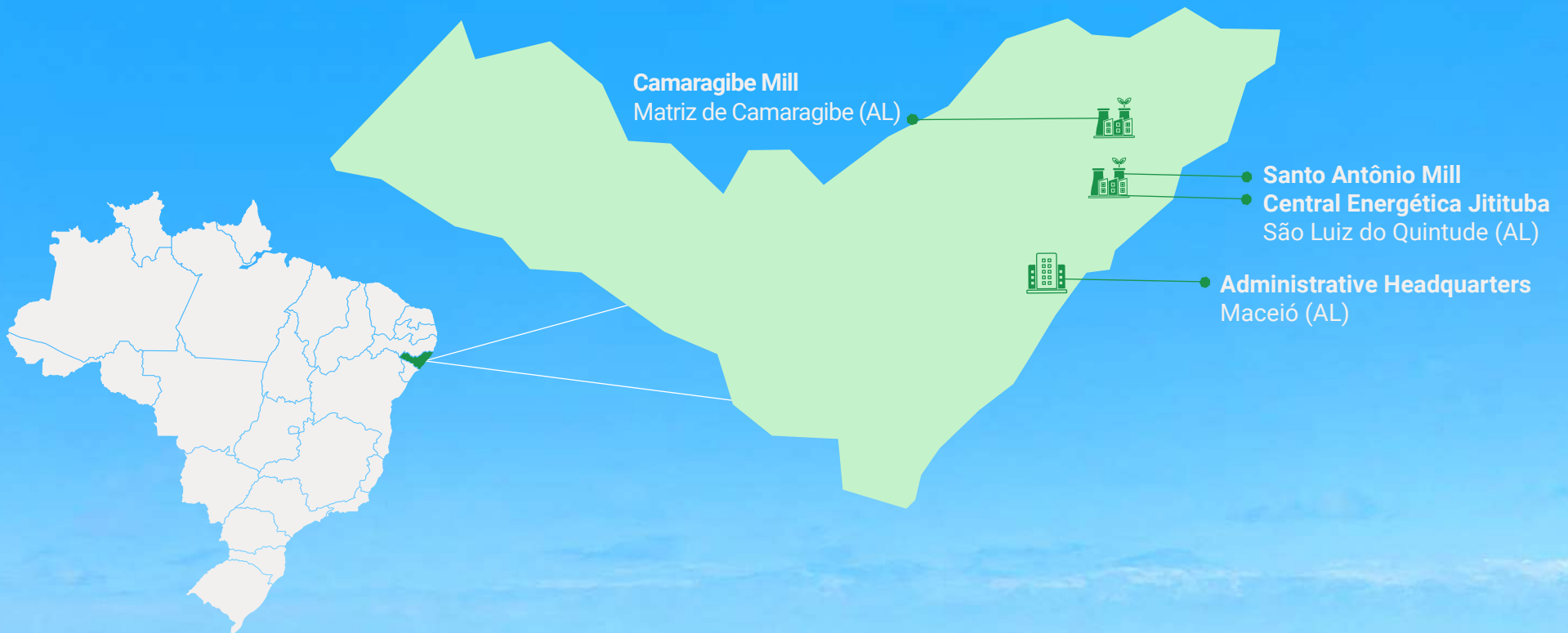
Our commitment to social and environmental responsibility is reflected in our approach to employee well-being and our efforts to adopt regenerative agriculture practices. Our positive impact is amplified by producing clean energy, generating carbon credits and preserving a large area of natural reserves. This is our way of contributing to more sustainable development, proving that it is possible to have cleaner, safer, and fairer production chains for everyone involved.

*GPS: acronym for Global Positioning System.

Our Locations

Central Açucareira Santo Antônio S.A. has two sugar-energy plants, where sugar, ethanol, and electricity are

produced from sugarcane biomass. All industrial units and offices are located in the state of Alagoas.



Our Culture



Mission

To produce sugar, ethanol and bioenergy through sugarcane, with efficiency, quality and socio-environmental responsibility.



Vision

To be a competitive and profitable company worldwide in the production and commercialization of sugarcane by-products.

Values



Ethics



Transparency



Focus on Occupational Health and Safety



Partnership with Suppliers



Respect for the Environment and Human Rights

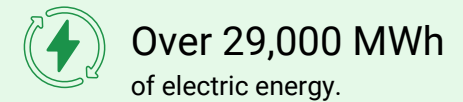
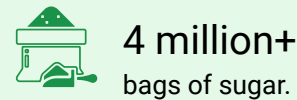
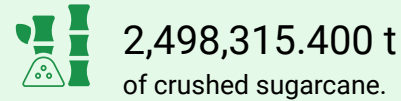


Sustainable Development

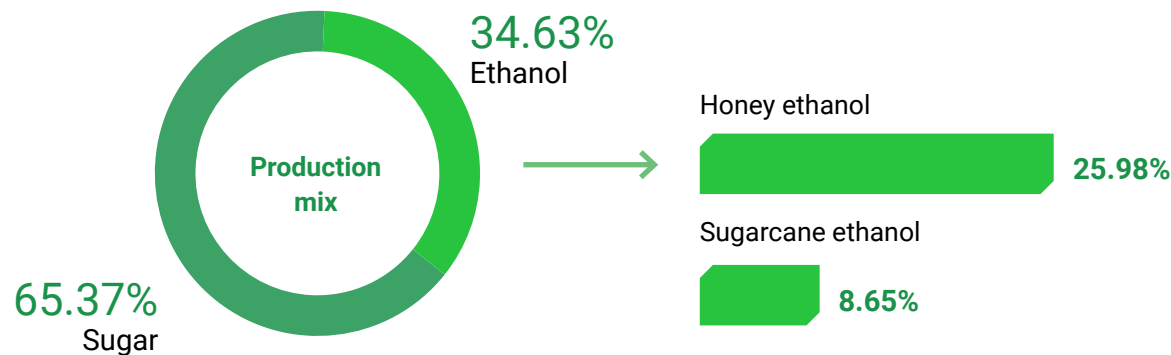
Central Açucareira Santo Antônio S.A. operates across the entire sugar-energy production chain. The process begins with planting, choosing the best crop management practices, and evolves to harvesting and transporting the sugarcane from the field to the mill. The mill is where the grinding process occurs, extracting juice from the sugarcane fiber, known as bagasse. The juice goes on to the production of sugar and ethanol, while the bagasse is burned in boilers to produce steam, which is used to drive the machinery and generate electricity.

In the 2023/2024 Harvest, Central Açucareira Santo Antônio S.A. crushed 2,498,315,400 tons of cane at its two plants, with 1,842,702,470 tons at the Santo Antônio Plant and 655,612,930 tons at the Camaragibe Mill. The company produced about 80% of the total cane crushed, and the other 20% was supplied by third parties in the region.

2023/2024 Harvest



Santo Antônio Mill



Camaragibe Mill



Sugar

Sugar was the company's main product in the 2023/2024 Harvest, accounting for 65.37% of production. All sugar produced was of the VHP (Very High Polarization) type and destined for the international market.

VHP sugar is a raw sugar with a layer of molasses coating the sugar crystals, giving it a darker color. The main type exported, VHP sugar is used as a raw

material in refineries for the production of other types of sugar and other industrial processes.

Despite a 9.57% reduction in cane crushed compared to the previous harvest, there was a 1.00% increase in sugar production at the two industrial units. This indicates the high quality of the harvested cane, which showed a better sugar yield per ton of cane.

2023/2024 Harvest Production

	Santo Antônio Mill	Camaraçibe Mill
VHP Sugar (50 kg bag)	3,063,981	1,169,885
VHP sugar (t)	153,199	58,494

More Sugar

To capitalize on rising sugar prices, Central Açucareira Santo Antônio S.A. began, at the end of the 2023/2024 Harvest, the process of expanding its Sugar Mill to increase its installed production capacity from 22,000 bags per day to 23,500 bags per day. An investment of R\$ 4.27 million was made to acquire equipment and services for installing and assembling the new production line.

The initiative, which should be ready for the 2024/2025 Harvest, projects an increase in its productive capacity by 75 tons of sugar per day. Funded with its own resources and without increasing active debt, the project aligns with Strategic Planning, enabling the company to swiftly adapt to market fluctuations while ensuring operational and financial sustainability.

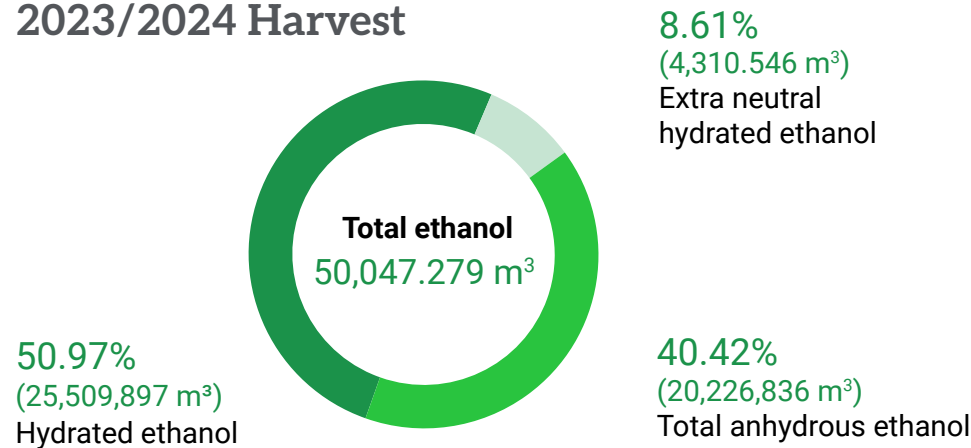
Ethanol



The Santo Antônio Mill produces three types of ethanol:

- Hydrated Ethanol Fuel (EHC): used in internal combustion engines without mixtures.
- Anhydrous Ethanol Fuel (EAC): used in a mixture with gasoline to fuel vehicles. Sold to fuel distributors.
- Extra Neutral Hydrated Ethanol: used as a raw material for the manufacture of beverages, food, cosmetics, perfumes, medicines and pharmaceutical products. Free from impurities, it is the purest alcohol. Marketed both in the external and internal markets.

2023/2024 Harvest



The ethanol market has remained stable over recent harvests, supported largely by the production of Decarbonization Credits (CBIOs). These credits play a key role in advancing the decarbonization of the fuel sector while promoting greater bioenergy integration into Brazil's energy matrix. In addition to their environmental benefits, CBIOs have also contributed to the profitability of the company's operations.

All anhydrous and hydrated alcohol was sent to fuel distributors in the Northeast Region. Most of the extra neutral alcohol produced in the 2023/2024 Harvest was sold in the Northeast Region.

However, it bears noting that when there is a large market demand for the production of this type of product, it directly impacts the production of CBIOs, since it does not enter into the calculations of the Brazilian energy matrix for the reduction of greenhouse gases.

More Ethanol

The SPC-ANP Authorization obtained in 2022, which allowed for an increase in the production by 505 m³/day of hydrated ethanol and 310 m³/day of anhydrous ethanol, represented an excellent opportunity for the company, as the renewable biofuel market is promising. In addition to the relevance in financial results, the growth perspective of this market enhances the reduction in Greenhouse Gas emissions compared to fossil fuels. Aware of these movements, the company remains ready to meet demands and contribute to decarbonization agendas, aligned with its concept of environmental responsibility.

The project took more than two years to complete and cost more than R\$4 million

in investment. Another achievement of the initiative, in addition to the increase in production capacity, is the potential for CO₂ retention. By closing part of the vats, where the fermentation that transforms sugarcane juice or molasses into alcohol and carbon dioxide takes place, we were able to capture these gases in columns that promote their recovery and transform them into ethanol again. The projection indicates the recovery of approximately 1% of ethanol over the volume produced. With this data and current values, the investment can be recovered in a maximum of three harvests.

The project will continue into the next cycle, aiming to close additional vats and further improve the results achieved.

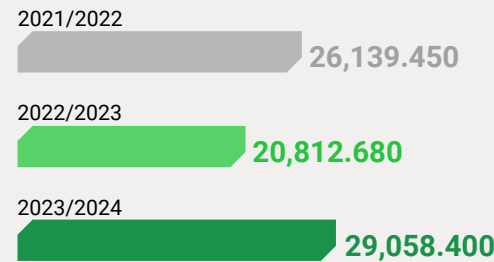
Energy

Central Açucareira Santo Antônio S.A. produces energy through the burning of sugarcane bagasse.

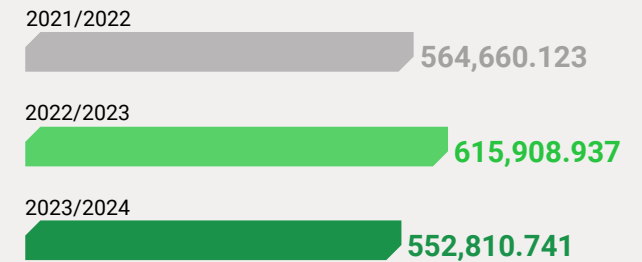
The bagasse from the mills is transported to boilers, where it is burned to generate steam. A portion of the steam is directed to support production processes, while the remainder powers turbogenerators. These turbogenerators produce enough electricity to meet all of Central Açucareira Santo Antônio S.A.'s operational needs, with any surplus exported to the electricity grid.

The 2023/2024 Harvest showed higher energy productivity, even with fewer days, when compared to the previous harvest. The higher yield is attributed to a combination of factors, including consistent daily crushing operations and boiler efficiency. The electricity generated by the generator sets ensures Central Açucareira Santo Antônio S.A.'s energy self-sufficiency, with surplus production exported and sold to ELETROBRÁS under ANEEL regulations.

Exported Electric Energy (MWh)



Sugarcane Bagasse from the Santo Antônio Mill (in tons)



2023/2024 Harvest Highlights



39,000 hectares of sugarcane.



Construction of two biofactories.



over 29,000 MWh of electric energy.



2,498,315.400 tons of sugarcane.



Over 4 million sugar bags.



100% of the sugar exported.



Over 50,000 m³ of ethanol.



80% own sugarcane.

Outlook for the 2024/2025 Harvest



Closing of three vats of 700 m³ each and investments to enhance ethanol recovery.



Modernizing the fire alarm system.



Increase in sugar production capacity.



Increased use of biological products in crops.



Start of drip irrigation.



Start of operations of the Camorim Water Pipeline Project.



Increase to 8,000 hectares of areas treated with vinasse.

Financial Performance

The sugar-energy production industry has gone through many challenging moments in recent years, with climate change, fluctuations in the foreign market, exchange rate pressure, escalating input prices, and the consequent increase in production costs. To ensure viable results and minimize impacts on the balance sheet, the Santo Antônio Group focuses on excellence in its processes, continuous efficiency improvements, and strategic investments in projects that deliver returns while preventing waste and losses.

The company's Commercial division closely monitors product appreciation in the international market and the New York Stock Exchange, conducting analyses to determine the optimal product offerings.

The announcement of an estimated reduction in sugar production in India,

the world's second-largest exporter, due to climate challenges, alongside similar concerns in Brazil, signaled a potential price increase driven by low supply. In response, the company strategically shifted its focus to sugar production, anticipating strong international demand.

The appreciation was confirmed, with sugar prices rising by 10% in the 2023/2024 Harvest compared to the previous season. As a result, the company focused its production on VHP raw sugar, exclusively targeting the international market.

The company's strategic decision to increase sugar production while reducing ethanol output proved effective, as ethanol prices declined across all types: -24.63% for Hydrated Ethanol, -3.77% for Extra Neutral Hydrated Ethanol, and -14.96% for Anhydrous Ethanol.



Main Results (R\$ thousands)

	2020/2021	2021/2022	2022/2023	2023/2024
Total assets	938,781	1,035,824	1,069,793	1,136,435
Net debt	315,169	344,779	434,173	400,176
Net debt/EBITDA	1.37	2.36	1.96	1.35
Investment (cash flow)	107,932	67,971	108,975	91,311
Net worth	158,946	248,726	249,247	289,772
Net Revenue	566,828	582,071	725,542	780,709
Consolidated net profit (loss)	89,148	32,106	29,895	31,281
Operating cash generation (EBITDA)	230,463	146,287	221,305	296,173
EBITDA Margin	41%	25%	31%*	38%

*Amounts taken from Audited Financial Statements.

*The change in relation to what was published in the previous report is due to a change in the results calculation methodology that impacted EBITDA.

The company does not release its financial report publicly, it only shares these numbers with a few strategic stakeholders. The financial statements are audited annually, both for the 12 months of the year and for the 12 months of the harvest period, ending March 31.

Business Economic Performance is one of the company's material themes, and it is what confirms the sustainability of its operations. Strategic Planning and Risk Management actively contribute to the evaluation of and response to risks, identifying potential impacts that, in some way, may compromise the company's results. Through these studies, business and investment opportunities are assessed, as well as projects that will safely bring returns and contribute to the company's financial health. This was the case with the expansion of the distillery, with irrigation projects, with the construction of biofactories, among others, which guarantee the evolution of processes, efficiency in the use of resources, and financial return, either by increasing productivity or by saving on costs.

To learn more about how the company manages its impacts and projects its future, see chapters: [Management](#) and [Risk Management](#).

Sugarcane

Responsible Agricultural Production

The Santo Antônio Group currently has a total area of about 39,000 hectares, including owned and leased areas, dedicated to sugarcane cultivation. Focused on increasing vertical productivity, it is committed to renewing its sugarcane plantation around 12% to 15% annually, without the need for expansion into new areas. Its production is deforestation-free. The plant ensures that areas of natural ecosystems and areas classified as HCVA (High Conservation Value Areas) have not been converted to sugarcane cultivation since January 1, 2008, as advocated by federal legislation.

The areas are monitored through georeferencing, production control, as well as by managers of supply areas. Central Açucareira Santo Antônio

S.A. also has a private security team and the support of the Environmental Battalion and the Institute of Environment (IMA/AL), when necessary. To emphasize the importance of preservation and the need to prevent the conversion of native areas, the company runs an environmental education program for the community. It also promotes awareness and provides training for its employees. Additionally, the company maintains Reserve areas, protects springs, and works on the recovery of Ciliary Forests.

Based on its ESG* Sustainability Policy, published in 2023, the company has defined objectives, goals, and indicators, both qualitative and quantitative, that monitor the sustainability of

its agricultural production and will be monitored annually in the ESG Sustainability Policy Indicator Monitoring Report. In the 2023/2024 Harvest, the first data collection cycle took place, and the next ones should provide sufficient information to analyze the effectiveness of the actions taken in the field in relation to responsible and sustainable agricultural production.

The Santo Antônio Group is strongly committed to employing the best agricultural management practices, guiding its teams to adopt the principles of Regenerative Agriculture, Precision Agriculture, as well as the use of technologies that promote operational efficiency and the minimization of socio-environmental impacts.

*Acronym, in English, for Environment, Social and Governance.

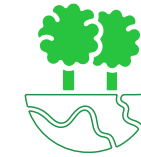
Regenerative Agriculture

Central Açucareira Santo Antônio S.A. manages its sugarcane plantations with a steadfast commitment to implementing the best agricultural practices in the industry. The company adheres to the principles of Regenerative Agriculture, which prioritize sustainable food production while ensuring the conservation and rehabilitation of natural resources. This approach focuses on regenerating soil health and vitality, enhancing biodiversity, and optimizing the water cycle. It also aims to improve environmental services, support carbon sequestration, and bolster resilience to climate change.

Based on these guidelines, see the practices adopted by the Santo Antônio Group opposite.



Minimum tillage: carried out without prior soil preparation, such as harrowing and subsoiling, it contributes to reducing soil erosion, increasing organic matter, and promoting biological activity in the soil.



Environmental preservation areas: adoption of practices to protect and promote biodiversity on the agricultural property, such as maintaining areas of native vegetation and restoring riparian forests.



Substitution or reduction of chemical fertilizers: increased use of organic production residues, rich in nutrients and minerals, which allow for the reduction of chemical fertilizers. To learn more, see the chapter: [Inputs](#).



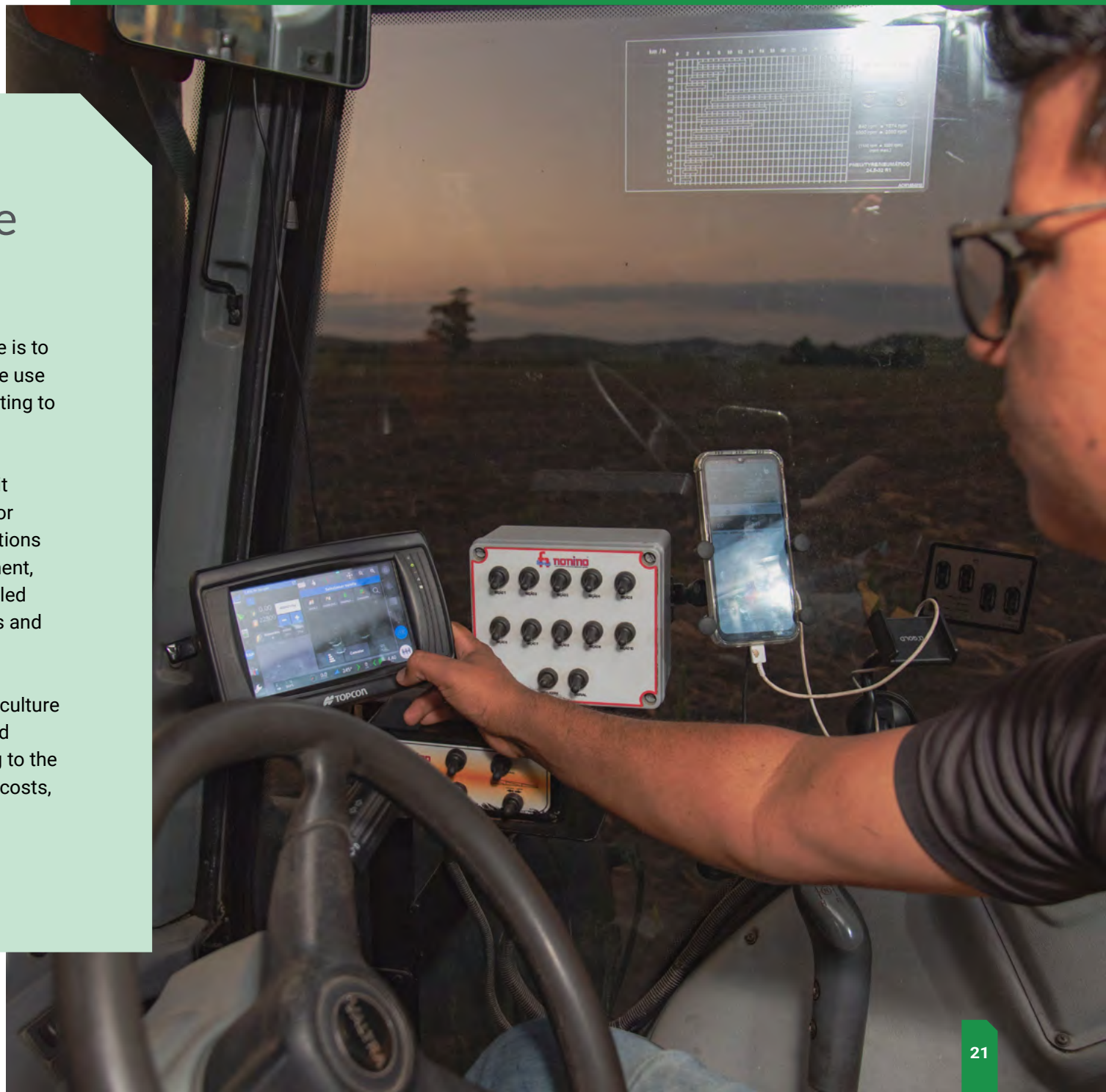
Water conservation: implementation of irrigation systems, use of wastewater and vinasse, and the use of management techniques, such as subsoiling and georeferenced planting, to promote water retention in the soil.

Precision Agriculture

Precision Agriculture is a method of information management for agricultural crops whose purpose is to improve management, reducing and optimizing the use of resources, increasing productivity, and contributing to the sustainability of the activity.

Associated with the use of advanced technology, it is an innovative approach to the field and allows for precise assessment and monitoring of area conditions and agronomic practices. Through data management, information about soil, climate, and inputs is handled accurately, allowing for more assertive projections and decision-making.

The Santo Antônio Group invests in Precision Agriculture aiming to increase the reliability of information and enhance the application of resources, contributing to the reduction of waste and, consequently, production costs, improving operational efficiency.



Soil Management

The Santo Antônio Group's soil management plan is based on two systems: minimum tillage and conventional planting.

In the first system, sugarcane ratoons are eliminated with the use of herbicides and become cover plants, protecting the soil against rain, wind, or surface runoff erosion. In the next stage, the soil

is furrowed for the new planting, without disturbing the surface layers, thus avoiding its degradation and potential erosion.

The second system uses the turning of the surface layers of the soil with agricultural machinery and implements. This method is necessary to decompact the soil for a new planting and is

adopted in times of low rainfall, with the support of irrigation. The two management systems used in the Santo Antônio Group do not pose any threats to the soil structure. The concepts of Regenerative Agriculture bring a conservation and rehabilitation approach to agricultural systems, concentrating on practices that promote soil regeneration.



Ratoon

When harvesting sugarcane, only the upper part of the plant, known as the stalk, is removed. The base of the plant, called the ratoon, remains in the soil. It is made up of a series of buds and roots that are still alive and can continue to grow, giving rise to new plants in subsequent cycles of cultivation, a process known as ratooning or regrowth. This is what allows the renewal of sugarcane plantations without the need for replanting during each cultivation cycle.

Inputs

Agricultural inputs are essential for crop development and their main contributions are increased productivity, improved quality and fighting pests and diseases. The Santo Antônio Group uses mineral and organic fertilizers, with a gradual reduction in chemicals, aiming to expand the use of biological products.

Fertilizers restore the physical properties and balance the pH of the soil, increase the availability of some nutrients, water and the microbial population for plants, stimulate defense mechanisms, promoting improvements in the plant's physical structure.

The Santo Antônio Group uses Integrated Pest Management (IPM) with an emphasis on biological control. However, when agrochemicals are used, they must be carefully selected for low

hazard risk and used below the level of economic damage caused by the pest. All fertilizer and corrective applications are recommended based on soil analyses and the extraction of nutrients from the previous cycle's crop.

Recommendations for the use of chemicals follow manufacturers guidelines, and input application equipment is equipped with flow controllers and GPS, avoiding overlap, waste, and providing precision in agricultural operations.

The Santo Antônio Group carries out more sustainable agricultural practices, investing in the production of macrobiologicals and multiplication of microbiologicals, in the use of more resistant varieties, monitoring, and control of pests during the sugarcane crop cycle.

Circular economy



Recommendations for the use of chemicals follow manufacturers guidelines, and input application equipment is equipped with flow controllers and GPS, avoiding overlap, waste, and providing precision in agricultural operations.

Biologicals

Central Açucareira Santo Antônio S.A. is investing in the precepts of Regenerative Agriculture and, aligned with this, is using biologicals, a consolidated practice in continuous expansion in the company.

The pursuit of improved results, coupled with a strong commitment to minimizing environmental impacts, drives the company to adopt biological alternatives. This approach aims to reduce the reliance on agrochemicals in sugarcane management.

For 24 years, the company has had a Biological Control Laboratory, in which two species of parasitoids of one of the main sugarcane pests, popularly known as the sugarcane borer (*Diatraea spp.*), are created. With the mass rearing and release of these two biological control agents in the field, it is possible to keep

the pest population well below the control level.

During the 2023/2024 Harvest, the Santo Antônio Group invested more than R\$200,000 in the construction of two biofactories for producing bioinputs, in which beneficial fungi and bacteria began to be multiplied for the production system.

Tests with the new biologicals were conducted on an experimental scale but should be applied in commercial production areas starting next cycle.

The expectation is that the Santo Antônio Group can increase the use of biologicals and decrease the use of chemicals, contributing to minimizing the impacts of agricultural practices on the environment, workers, and consumers.



Biological Production

Bacteria

<i>Bacillus subtilis</i>	Nematicide, growth and rooting promoter.
<i>Bacillus pumilus</i>	Control of foliar diseases.
<i>Bacillus aryabhattai</i>	Helps in situations of water stress.
<i>Bacillus thuringiensis</i>	Helps control insect pests.
<i>Bacillus licheniformis</i>	Nematicide, fungal disease controller.
<i>Pseudomonas sp</i>	Growth and rooting promoter, helps in potassium solubilization, phosphate availability and nitrogen fixation.
<i>Azospirillum brasiliensis</i>	Helps in nitrogen fixation and phytohormone activation.

Fungi

<i>Trichoderma harsianum</i>	Fungal disease controller, growth and rooting promoter.
<i>Beauveria bassiana</i>	Entomopathogenic fungus.
<i>Metarhizium anisopliae</i>	Entomopathogenic fungus.
<i>Isaria fumosorosea</i>	Entomopathogenic fungus.

Parasitoids

<i>Cotesia flavipes</i> (Hymenoptera; Braconidae)	Used to control of common stock borer (<i>Diatraea spp.</i>).
<i>Tetrastichus howardi</i> (Hymenoptera; Eulophidae)	Used to control of common stock borer (<i>Diatraea spp.</i>).



Vinasse

Vinasse is a liquid byproduct derived from the distillation of wine, resulting from the fermentation of sugarcane juice or molasses. During the must fermentation stage, the sugar present in the broth is transformed into ethanol through the action of yeast. This process accumulates a large amount of nutrients that

were originally present in the sugarcane, in addition to fermentation by-products, giving rise to vinasse.

Vinasse contains several nutrients essential for plant growth, including nitrogen, phosphorus, potassium, calcium, magnesium, among others,

and when applied to the soil, it provides these nutrients directly to the plant roots. Central Açucareira Santo Antônio S.A., aware of these benefits, has been gradually increasing the application of vinasse in its sugarcane fields and is already projecting an even more significant increase for the next cycle.

Areas treated with vinasse (in hectares)



*Projected outlook for the 2024/2025 Harvest.



Hover to learn more.

Filter Cake

Filter cake is a byproduct of sugarcane, comprised of soluble and insoluble residues, which are equivalent to the precipitate (sludge) formed in the sugarcane juice clarification stage. The sludge formed, insolubilized organic and inorganic compounds, undergoes a filtration process, thus receiving the name filter cake.

The filter cake is composed of organic matter and minerals important for sugarcane nutrition, such as phosphorus, nitrogen, and calcium, and is considered one of the alternatives to minimize fertilization with chemical fertilizers in sugarcane nutrition, increasing agricultural productivity and decreasing fertilization costs. The application contributes to increasing the productivity and sustainability of sugarcane plantations.

The use of filter cake represents a sustainable alternative and a prime example of circular economy principles. By reusing industrial waste generated during the production process, it eliminates disposal costs, reduces the risk of contamination, and contributes to environmental preservation.

Boiler Ash

The process of burning sugarcane bagasse in boiler furnaces generates residues called ash. These residues are rich in nutrients and silica and sent to the agricultural area. Plant ash contains calcium, magnesium,

phosphorus and other elements that can influence the development of sugarcane fields at Central Açucareira Santo Antônio S.A., where it is incorporated into the soil during sugarcane planting.

Ash in metric tons



Technology in the Field

Central Açucareira Santo Antônio S.A. is responsible for managing 39,000 hectares of sugarcane fields and sees technology as an ally in optimizing its business performance. The company invested in drone rentals to familiarize itself with new technologies, GPS to

optimize the use of agricultural implements, telemetry to monitor the performance of the fleet and other equipment, implements for applying limestone in areas with steep slopes, and localized vinasse applicators.



Drones

In the 2023/2024 Harvest, Central Açucareira Santo Antônio S.A. expanded its use of drone technology across its sugarcane plantations. Recognizing the significant benefits that advanced technology offers to cultivation, the company employs drones for tasks such as topographic surveys and the precise application of agricultural inputs.

Drones equipped with sensors and cameras are used to map the terrain and monitor the development of sugarcane fields. After collecting the images, georeferenced mosaics are created, identifying the characteristics of the terrain and the area of the lots, allowing for planting projects to be designed or the identification of needs for specific management.

The sensors are capable of detecting variations in vegetation, areas with water stress, nutritional deficiencies and infestations of weeds, pests and diseases. With the agility offered by it, response time is shorter and the result more effective. The application of inputs, whether chemical, biological or nutritional, becomes safer, more precise and efficient and operates with a smaller amount of water, enhancing operational efficiency and sustainability. Chemical applications by drone

contribute to the safety of workers who operate from a distance. Drones are adaptable to any terrain, providing agility and precision in areas that are challenging for traditional machinery or employees to access. For the first tests, the Santo Antônio Group opted to rent the equipment in order to understand the difference between the models available on the market, their operation and potential.

The strategy avoided an initial investment, ensuring decision-making with verified results. Furthermore, by renting the equipment, the company had access to all the technical support and training offered by the supplier.

Based on findings that the equipment performs tasks efficiently, with broader coverage and in less time, the Santo Antônio Group recognizes the investment as both secure and instrumental in boosting its operational efficiency. With that, it is preparing to invest more than R\$400,000 in the acquisition of three units of two different models that will meet its needs.

The adoption of these technologies also brings social benefits, as they are an opportunity for

professionals in the field to learn how to manage them and specialize to understand and enhance the results. The Santo Antônio Group offers these training courses, promoting development and offering new opportunities for its employees.

To learn more about this technology and how it can impact the professional development of field workers, watch the video below.



[Click here and watch.](#)

GPS

Technology is also present in the sensors embedded in agricultural machines. Some of the more advanced models are equipped with onboard computers and GPS, enabling integration with other systems to ensure precise navigation and accurate positioning during operations.

The company's older machines are being equipped with mobile devices that guarantee the same connection. Therefore, with the

support of technology, the company is able to map, define management and handling routes to drive machines and equipment with strict precision, based on GPS data.

The optimization of routes achieved through this traceability allowed the company to reduce fuel costs and avoid the repeated application of inputs in the same area, as well as reducing the emission of polluting gases from vehicles.

Master Cana Nordeste Award

On November 30, 2023, the Santo Antônio Group received the prestigious Master Cana Nordeste Award in the Agricultural Automation – Technology & Innovation category. This recognition celebrates the achievements of organizations and individuals dedicated to advancing the socioeconomic and sustainable technological development of the bioenergy agribusiness sector. Our Group acquired the Axiagro system, which integrates our logistics,

scale, and operator report areas with the GATEC system, thus allowing better agricultural management and enabling a reduction in the costs of the entire process.

The significant participation of industry professionals, both in research and in award events, has transformed the *Master Cana* Award into a benchmark of credibility and a symbol of market recognition in Brazil and worldwide.





Telemetry

The use of telemetry in agricultural machinery to monitor its performance and operational condition in real-time has gained space in the Santo Antônio Group. The system collects vehicle information remotely and can report data such as average and real-time speed, distance traveled, location, fuel consumption, and downtime. This data allows for the early identification of failures and the need for preventive maintenance, ensuring the availability and efficiency of equipment during agricultural operations.

Equipment

Other equipment bringing technology to the field includes fertilizer applicators and sprayers, which are used for precise input application. Equipped with extensive innovation, they also contribute to Precision Agriculture, allowing rigorous control of the amount of inputs applied according to the information determined in the management maps.

Mechanized Harvesting

In the 2023/2024 Harvest, the Santo Antônio Mill experimented with mechanized harvesting in its production areas for the first time.

In a region characterized by irregular topography, the use of machinery poses significant challenges. However, by carefully defining the

appropriate perimeters, the company successfully implemented and gained expertise in mechanized harvesting. Despite the substantial investment of approximately R\$2 million, this was an experience that will contribute to the continuous improvement of the Santo Antônio Group's operational efficiency. Although this first test shows a slightly higher

operating cost per hectare compared to manual harvesting, the company expects the investment to offer better productivity and performance. In this harvest, mechanized harvesting represented 0.89% of the total sugarcane harvested and the forecast is that in the next cycles, the company will invest in increasing the number of machines.



Irrigation



The Santo Antônio Group uses irrigation and fertigation (vinasse) systems by conventional sprinkler and self-propelled reels, to supply water and nutrients accurately and efficiently, according to the specific needs of each crop phase. In addition to these systems, the company invested in localized applications of vinasse enriched with macro and micronutrients, carried out by equipment adapted to the reality of the cultivation areas.

Camorim Pipeline Project

The pipeline is a project that directs sugarcane scrubbing wastewater to the field through pipes. The same system will transport vinasse, residual material from the Distillery. The project consists of three pipelines and a reservoir to receive and mix sugarcane scrubbing water and vinasse, and then pumps it to the production area, away from the industrial perimeter. In total there are more than 9,000 meters of pipeline and four smaller reservoirs, an investment of almost R\$13 million.

The initiative will promote a regular water supply to the plants, reducing dependence on rainfall and providing greater vegetative growth, increasing the number of stalks per plant, and planting during the dry season. The total area to be covered by the project is 455.94 hectares; however, with the adaptation of the collection points and pipelines, another 261.91 hectares could be included.

Another sustainable initiative by the Santo Antônio Group, the pipeline not only facilitates the proper disposal of residual materials from industrial processes but also reduces costs and mitigates environmental risks associated with waste generation and soil fertility. This system will be entirely powered by renewable energy produced on-site at the Santo Antônio Mill. Learn more about the project [here](#).

Traceability

The Quality and Food Safety Management System (SGQSA) of Central Açucareira Santo Antônio S.A. and all the necessary monitoring and records to guarantee its certifications are used to ensure transparency in its quality processes. All raw materials, inputs and chemicals purchased enter the company through the Acquisition Management area, which maps and tracks all information from its suppliers in a standardized process. The company sets specific guidelines to ensure that its external suppliers are carefully qualified to become business partners. This qualification includes Critical Suppliers, those who, in some way, can provide inputs and/or materials with the potential to impact the quality or safety of products.

Supplier Approval consists of the preliminary analysis of a series of requested documents that are analyzed by the Purchasing/Supplies Department, by specific Managements

and by the Food Quality and Safety Management System (SGQSA).

Central Açucareira Santo Antônio S.A.'s suppliers are monitored by internal systems, which map all inputs and/or materials acquired by the company, and their quality is systematically assessed by the leaders of the respective technical areas. These reviews categorize suppliers as: Preferred, Trusted, With Restrictions or Rejected. This assessment methodology guarantees the level of quality required by the company.

The company maintains a meticulous recording system of all inputs and cultural treatments adopted in the field.

Upon arrival at the plant in the Sugarcane Scale, a Loading Guide is delivered, which contains all the information about the origin of the sugarcane that

arrived. With the information and the registration of the Loading Guide, an Analysis Bulletin is generated and the load is directed for sample collection.

All results, along with the origin and quantity of the sugarcane, are compiled into a daily volume and quality report. This report enables the company to track the raw materials used in the sugar or ethanol production process.

From the batches of sugar and ethanol formed, it is possible to track the entire history of the products, from the field to the plant.

Central Açucareira Santo Antônio S.A. carries out an annual Traceability Test to ensure the effectiveness of its processes. Also, that testing is subject to internal and external audits. The Traceability Test is carried out through a Recall Simulation.



Governance

Management



Since 1957, Ernesto Maranhão and his descendants have been at the forefront of the company's governance. Guided by the principles of ethics, transparency, partnership, and with a focus on safety and human rights, promoting the preservation of the environment and sustainable development.

The company does not have a President: all decisions are made jointly by the Management Board. They are responsible for managing the main environmental, social, and economic impacts that may affect stakeholders.

To learn about the company's governance structure, [click here](#) to see the 2022/2023 Sustainability Report. The company

identifies and manages its actual and potential negative and positive impacts in the economic, environmental, and social spheres, based on the following perspectives: Financial, Customers and Consumers, Internal Processes, and Learning and Growth. For each impact, the following are analyzed: strengths, weaknesses, threats, opportunities and risks to the culture and organizational Strategic Plan. Corporate Risk Management is added to this analysis, as detailed in the chapter [Risk Management](#).

All corporate documents, such as policies, are aligned with the Strategic Plan and Organizational Culture. These documents result in goals and indicators, which are periodically reviewed, discussed in Critical Analysis

Meetings and disclosed to stakeholders. To learn more about how the company conducts its relationship with stakeholders, see the chapter [Stakeholder Engagement](#).

Seeking to consolidate an increasingly humanized governance, based on clear and transparent communication, the company's Board adopts active involvement and is continuously present in the field and at the plants, developing strategies that offer improvements and quality of life to employees.

Through active listening, it monitors the needs of employees, whether individual or collective, and offers daily assistance, participating in issues that demand more urgent and prompt care.

Materiality

In 2022, Central Açucareira Santo Antônio S.A., with the support of Peterson Consulting, conducted its first process for identifying and defining Material Topics.

The methodology employed considered an analysis of organizational maturity, industry benchmarking,

and consultation with the company's internal and external stakeholders. The result of an impact analysis and initial considerations allowed us to feed a matrix that indicated the most relevant material themes for the organization.

To learn more about this process, [click here](#).

Material Themes:



Responsible
Agricultural Production



Risk Management



Business
Economic Performance



Governance



Training and
Appreciation of People



Health and Safety



Local Socio-economic
Development



Risk Management

Risk Management is conducted with the objective of identifying and mapping activities and implementing actions to control, mitigate, eliminate, change the probability or consequences, share and/or assume risks to promote the best business opportunities.

After determining the significance of the risk, the actual and potential, positive and negative impacts are identified, as well as the mechanisms to be used to demonstrate the control of these impacts for the company to ensure the sustainability of its business.

These systematic studies provide the company's governance with a broader view of the possibilities, providing an opportunity to anticipate action planning. Several of these initiatives are already in place, contributing to strengthening management and increasing its results, thus promoting business sustainability. As an example, we can mention the attention to climate change, which defined actions for the adoption of more

sustainable practices that respond to periods of drought, and the completion of the company's first Greenhouse Gas Inventory in the next cycle, aiming to define goals to reduce its emissions.

Climate change directly affects agricultural production, and the effects of drought or high rainfall can bring benefits and challenges to sugarcane cultivation. Water scarcity helps to concentrate the sucrose content in sugarcane, enhancing the quality of the raw material, while also tending to reduce crop productivity. It usually results in loss of revenue, early end of the harvest, prolonged off-season, and increased operating costs due to the need for irrigation.

In these cases, irrigation guarantees crop productivity, and, because of this, the company is investing in modern and efficient irrigation systems, ensuring the optimization of resources and avoiding waste. To learn more, see the chapter: [Irrigation](#).

Rains tend to increase productivity; however, there is usually a drop in the industrial utilization rates, and they disrupt field management and outflow logistics, delaying harvesting.

For this type of occurrence, the company established an emergency harvesting process, in which it establishes the flow of cutting and transporting cane under adverse conditions to guarantee the supply of raw materials to the plant. It should be noted that, annually, the Risk Management and Strategic Planning processes are audited by external certification bodies, which represent certifications such as FSSC 22000 and ISO 9001. In the last two years, no failures were identified that generated non-conformities or compromised the company's continuous improvement process. These assessments recognize the evolution and consolidation of the company's governance, socio-environmental and financial sustainability practices.

Compliance

Central Açucareira Santo Antônio S.A. holds all legal licenses for its lands, whether owned or leased, in addition to being compliant with all permits and environmental licenses necessary for its operation.

The company has been managed by the same family for 67 years, with almost exclusive dedication from its members. There are no processes in place to identify conflicts of interest, but any business dealings between family members' companies and Central Açucareira Santo Antônio S.A. are prohibited.

The company's biggest challenge lies in hiring professionals with disabilities. There is a significant shortage of candidates with this profile in the region, and to meet the legal quota, the Santo Antônio Group has established recruitment and training strategies. To this end, it has strengthened relationships with organizations and

associations that support people with disabilities, created specific vacancies according to the candidates' needs, and partnered with institutions that offer training programs for this demographic.

Central Açucareira Santo Antônio S.A. does not tolerate, within its facilities or those of its suppliers and business partners, any form of forced, slave, or slave-like labor, nor the use of child labor, or any form of sexual exploitation of children or adolescents. It is not permitted, under any circumstances, for children or underage relatives to be brought to the company by employees, third parties, administrators, representatives, suppliers, or service providers. Should this occur, the responsible adult will be released from their duties until the situation is resolved. Minors aged between 16 and 18 may be hired as apprentices, in accordance with current laws, provided that the work does not interfere with their studies.

Ombudsman

Central Açucareira Santo Antônio S.A. provides all its stakeholders with a dedicated channel for registering communications, complaints, or suggestions. Its purpose is to mediate potential conflicts, based on the principles of ethics, efficiency, confidentiality, good faith, and transparency.

This mechanism was implemented in July 2017, arising from the need to establish a strategic channel between stakeholders and the company. Reports can be submitted via the website, with the option of anonymity, or by telephone. The channel is promoted to the general public via the company's website and during the annual shareholders meeting. For the internal audience, information is reinforced during employee onboarding, in training sessions, and through banners displayed throughout the company.

During the 2023/2024 Harvest period, a single report was received and the issue, which was not serious, was resolved.



usinasantoantonio.com.br/ouvidoria
Available 24h.



(82) 3215-2196
Business hours.

Stakeholder Engagement

Maintaining and fostering dialogue and engagement with stakeholders is one of the public commitments made by the company in its Corporate Sustainability Policy.

The company manages all relationships with a commitment to ethics, transparency, partnership, and respect for the environment and human rights. It prioritizes occupational health and safety while aiming to promote sustainable development.

Each department is responsible for overseeing stakeholder engagement within its processes.

In addition to the official corporate channels, contact information for specific areas or employees is made available as focal points.

Annually, Central Açucareira Santo Antônio S.A. holds a meeting with its stakeholders, including: Public Authorities, Fire Departments, Unions, Associations, suppliers, schools, religious entities, representatives of social projects and collaborators.

The event presents general aspects of the company, such as the social projects supported

or developed, and environmental responsibility and quality initiatives. This gathering provides a valuable opportunity for exchange among those involved, bringing the company's governance closer to its main stakeholders, allowing it to showcase its initiatives, clarify doubts, gauge expectations, and strengthen relationships. In addition to this event, the company strives to communicate its achievements continuously by promoting projects on its website and publishing its annual Sustainability Report, which showcases all initiatives and the management of its business and the impacts of its operations.



Quality and Certifications



The company constantly invests in projects and initiatives aimed at adding quality or safety to its processes and products. As some of its products are intended for food, production standards and inputs used in production are carefully analyzed and monitored. This attention and dedication to operational excellence has provided the company with a significant competitive advantage, opening up international markets and allowing it to compete with the most important players in the market.

To ensure this operational excellence, Central Açucareira Santo Antônio S.A. maintains and continuously improves its Quality and Food Safety Management System (SGQSA), which includes processes and procedures that comply with ISO 9001, FSSC 22000, Bonsucro, and RenovaBio standards. To this end, its procedures are documented and aim to guarantee the quality and safety standards necessary for the company's

continuous improvement. Food-grade products refer to those that can be used for human consumption, such as raw and crystal sugar, and extra neutral ethanol.

The company has no history of non-compliance with laws or voluntary codes that could or can impact the health and safety of its consumers, nor has it had products recalled under those arguments, prioritizing the quality, safety, and traceability of its inputs.

Central Açucareira Santo Antônio S.A. invests in certifications as a means to validate its processes and products while demonstrating its commitment to continuous improvement.

Since achieving its first certification 18 years ago, the company has consistently demonstrated growth in organizational maturity and its management systems.

Certifications

During the 2023/2024 Harvest, the company underwent three external audits (ISO 9001, FSSC 22000, and Bonsucro) and two internal audits (ISO 9001 + FSSC 22000 and Bonsucro Production Standard) related to its certifications. In addition to these, two audits were conducted by two different clients. One, a leading pharmaceutical company, whose positive assessment granted the company recertification as an approved supplier of extra neutral hydrated ethanol for another five years.

The other, a major international client and the world's largest sugarcane refiner and trader, conducted an audit based on the ProTerra Standard, carried out by a third-party certification body.

In total, Central Açucareira Santo Antônio S.A. underwent three external audits, two internal audits, and two more at the request of clients.



ISO 9001 | Quality Management System: assesses and ensures quality management and the constant pursuit of continuous improvement. Audited annually by a third party recognized by the ISO 9001 International Certification Body.



FSSC 22000 | Food Safety System Certification: based on the ISO 22000 standard and the additional requirements of the FSSC 22000 scheme, this is the internationally recognized certification for food safety management systems. All sugar produced at the company is FSSC 22000 certified. It is audited annually by a third party recognized by the GFSI (Global Food Safety Initiative).



Bonsucro | Bonsucro Production Standard and Bonsucro Mass Balance and Chain of Custody Standard (ChoC): all products are certified through the Bonsucro metric process, demonstrating a commitment to the socio-environmental sustainability of sugarcane. This globally recognized and respected initiative attests to the compliance of exporting companies that use sugarcane as a raw material. It is audited annually by a third party, both in the field and in the industrial setting.



RenovaBio: with the exception of extra neutral ethanol, all products are certified under RenovaBio, a National Biofuel Policy that aims to contribute to energy security, market predictability, and the mitigation of greenhouse gas emissions in the fuel sector. Through this certification, the Santo Antônio Mill is authorized to issue Decarbonization Credits (CBIOs).

CBIOs

The Decarbonization Credit (CBIO) is one of the instruments adopted by RenovaBio as a tool to achieve the obligations assumed by Brazil at the United Nations Conference on Climate Change. The process defines the guidelines for biofuel producers to offer CBIOs, which are Decarbonization

Credits, to fuel system operators, so that this acquisition offsets their emissions.

The government's strategy aims to encourage increased consumption of biofuels as opposed to fossil fuels.

Through an Energy-Environmental Efficiency Score, which indicates the portion of greenhouse gas mitigation in relation to its fossil fuel substitute (in terms of tons of CO₂ equivalent), biofuel producers issue their CBIOs.

Anhydrous Ethanol

Anhydrous Ethanol Production (in liters)

2022/2023 Harvest



2023/2024 Harvest



CBIOs (tCO₂eq)

2022/2023 Harvest



2023/2024 Harvest



To be invoiced Invoiced until 03/20/2024

Hydrous Ethanol

Production (in liters)

2022/2023 Harvest



2023/2024 Harvest



CBIOs (tCO₂eq)

2022/2023 Harvest



2023/2024 Harvest



Total CBIOs (Anhydrous + Hydrated Ethanol)

2022/2023 Harvest



2023/2024 Harvest



To be invoiced Invoiced until 03/20/2024

Evolution of CBIOs

Anhydrous Ethanol

2021/2022 Harvest



2022/2023 Harvest



2023/2024 Harvest



Hydrous Ethanol

2021/2022 Harvest



2022/2023 Harvest



2023/2024 Harvest



Training of Good Manufacturing Practices Advocates

During the 2023/2024 Harvest, the company, through its Quality and Food Safety Management System (QFMS), organized training sessions for Good Manufacturing Practices (GMP) Advocates. This course aimed to train employees to effectively

disseminate GMPs within the company. Eleven advocates from the following departments were trained: Human Resources, Labor, Occupational Safety, Archive, Cafeteria, Garage and Biological Control Laboratory. Following the GMP

Advocate Training Course, 26 meetings were organized across several areas of the company, where the advocates had the responsibility of sharing the knowledge acquired, in addition to promoting a culture of quality and food safety within the company.





Environment

Environmental Management



The Mill periodically conducts surveys and assessments of the environmental impacts of its operations. This allows for the recurring identification of potential negative and positive aspects or impacts. Among the main positive impacts observed in the studies, the following stand out: The Water Pipeline Project, supported social projects, rural employment rate, influence on changes in agricultural activities and municipal finances. Potential positive impacts include: increased job opportunities due to the expansion of the ethanol distillery, and a potential boost to the local economy from greater profitability within the surrounding area.

Regarding potentially negative impacts, classified as negligible, these relate to possible changes in social dynamics and cultural elements.

Regarding the distillery expansion and the Pipeline Project, there's a hypothetical risk of leaks, which could lead to environmental contamination or explosions. To address this and all other potential issues, the company has developed comprehensive risk management plans that prioritize the safety of its facilities and the surrounding communities. Importantly, these assessments have not found any significant negative impacts. This demonstrates the company's genuine commitment to managing its environmental and social responsibilities.





Residue

The Santo Antônio Group manages the waste generated in its production processes according to its Waste Management Plan, which prioritizes guidelines that steer towards waste reduction, reuse, recycling, monitoring, sorting, storage, and proper disposal.

All waste is routinely segregated. Class I waste and recyclable waste are stored in a temporary storage shed until their final destination, which is determined by the Waste Management Plan or the company's environmental manager.

The area with the highest concentration of waste generation is the milling sector, where sugarcane bagasse is produced. Filter cake

and vinasse are obtained from the industrial process. Other sectors, such as the Mechanical Workshop, generate used oils and greases, contaminated wipes, tires, batteries, and various ferrous scrap materials.

The waste generated in the production sectors is primarily intended for reuse.

Those with commercial value for recycling, such as iron, steel, stainless steel, aluminum, paper, cardboard, and plastic scrap, are weighed and either donated or sold to recycling companies.

Medical waste from the infirmary is sent to a specialized company for incineration.

Most of the organic waste from the production processes is reused within the company itself. Filter cake and vinasse are sent to the fields for use as fertilizer, and sugarcane bagasse is burned in boilers to generate steam. During the 2023/2024 Harvest, 9,161.47 metric tons of this type of waste were reused internally.

The company has its own system for separating oil from water using centrifugation or separation tanks. After this process, the water is directed to effluent treatment, the lubricating oil is forwarded for processing by a certified company, and the remaining oily waste is transported to a licensed hazardous waste landfill.

To learn about all waste types, their destinations, and the volumes generated, please refer to the [Annex](#) of this report.

During the 2023/2024 Harvest, 9,161.47 metric tons of organic waste were reused internally.



Rotatory Sieve

A significant investment made by the company in the 2023/2024 Harvest, which will further contribute to waste utilization, was the acquisition and installation of the rotary screen designed to capture ash (soot), bagasse, and sand from the gas scrubbers scheduled for installation in the coming years.

These retained materials will be sent to a hopper for transport and final disposal. The rotary screen

is part of the soot separation system project and will include future installations of the following equipment: gas scrubber, hopper for storing bagasse, ash and sand and a decanter.

The complete project will require substantial investment and, as such, has been divided into phases. The first phase involved investing in the acquisition and installation of the rotary screen,

utilizing nearly R\$1 million from the company's own funds, without impacting its debt.

Over the next three annual cycles, the project will include the phased acquisition and installation of three gas scrubbers, with one being added each cycle to the boilers at Central Açucareira Santo Antônio S.A. This initiative aims to create a cleaner and more sustainable environment.



Water

In the agricultural area, irrigation covers 6,365.32 hectares across various farms. Water extraction occurs from four different rivers: the Santo Antônio River, the Sapucaí River, the Camaragibe River, and the Jitituba River. It should be noted that, when irrigation is necessary, it's used for Salvation Irrigation, meaning it meets the minimum crop water requirements only during critical dry periods. For industrial operations, water is essential for milling, evaporation condensers, and crystallizers. After passing through the

condensers, it's used for sugarcane washing and then directed towards irrigating the cane fields. This water is drawn from the Santo Antônio River, part of the Northern Coast of Alagoas Hydrographic Basin.

In other processes, the water undergoes cooling and returns to the production line in a closed circuit, preventing waste. The entire water extraction process is licensed through grants from the relevant environmental agencies, and

collection limits are strictly adhered to. During the 2023/2024 Harvest, the industry used 70.5% of the volume authorized by the license, while the agricultural area captured, on average, 11.5% of the amount stipulated based on the sum of the flows granted for the four rivers. The hydrographic basins in the region do not show potential risks of water stress and the plant actively participates in the State's Hydrographic Basin Committees to contribute to relevant discussions about local rivers.

Water Consumption in m³ per day

Irrigation



Industry



Effluents

The main effluent from the plant's processes is organic and comes from scrubbing the sugarcane. The residue passes through three settling tanks and four treatment ponds before being returned to the local water source. All parameters are rigorously certified according to legislation, and the company is continuously committed to reducing these effluents.

One of the goals established in its Corporate Sustainability Policy is the complete reuse of sugarcane washing effluents for irrigation purposes, contributing to the sustainable use of this resource and to the region's water security. To advance toward this goal, the plant invested in the Camorim Pipeline Project.

Treated Effluent in m³ per day



Emissions

Central Açucareira Santo Antônio S.A., committed to its risk management and addressing climate change, contracted a third-party consulting service at the end of 2023 to assist the company's technicians in compiling its First Greenhouse Gas (GHG) Inventory. The project is still underway

and in the phase of collecting agricultural and industrial data. It will encompass the following scopes: Scope 1 and Scope 2.

After the information gathering phase, the data will be calculated based on existing methodologies to

compile the Greenhouse Gas Inventory. From this stage, emission reduction targets will be defined, as well as deadlines for achieving net-zero total emissions. The Greenhouse Gas Inventory of Central Açucareira Santo Antônio S.A. is expected to be published in the second half of 2024.



Scope 1: direct emissions from sources owned or controlled by the company.



Scope 2: indirect emissions from the purchase of electricity from third parties.

Preservation Areas

The sugar-energy sector is the holder and guardian of the Atlantic Forest and all its biodiversity in the Northeast region of the country. Almost all of the remaining areas are a type of Legal Reserve, Permanent Preservation Area or Private Natural Heritage Reserve (RPPN) on these rural properties.

The Santo Antônio Group is deeply committed to protecting this biome, regarded by researchers as essential for the survival of various threatened or vulnerable species.

During the 2023/2024 Harvest, the Group managed 220 properties, both leased and owned, that contain or are adjacent to preservation areas. All potential impacts of the plant's operations are mapped and constantly monitored.

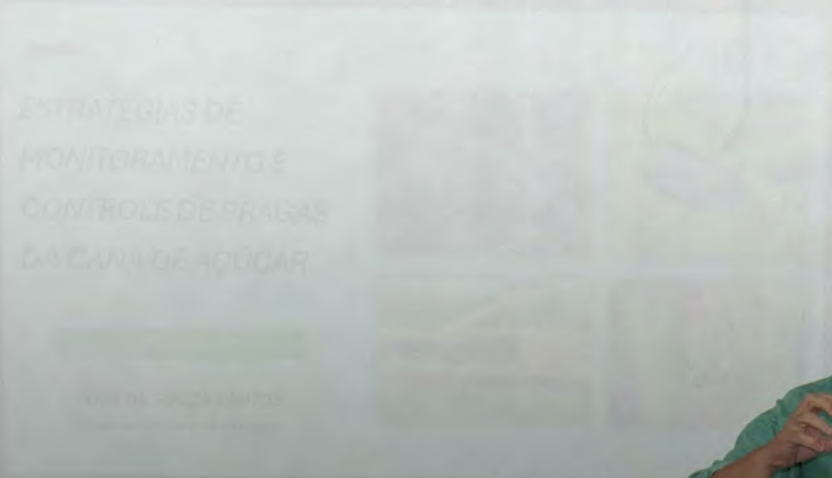
The company implements a Biodiversity Management Plan to identify and protect all endemic or endangered flora and fauna species. The company has also an Emergency Response Plan for unexpected situations, such as environmental emergencies, and a Degraded

Area Recovery Plan, activated in cases of invasions or illegal deforestation, which monitors restoration efforts and submits reports to the appropriate environmental agency.

The Group's Private Natural Heritage Reserves (RPPNs), recognized by UNESCO, encompass about 356 hectares of rainforest. The conservation of these habitats is such that, in partnership with IBAMA (Brazilian Institute of Environment and Renewable Natural Resources), the plant released it over a thousand wild animals within its preservation areas during this harvest alone. To learn about the main endangered species found in the Santo Antônio Group's protected areas, [click here](#).

Beyond maintaining its reserves, the company is committed to sharing its acquired knowledge and raising awareness about the importance of preserving natural resources. To that end, the company has created a visitor center where lectures and events are held to reinforce these concepts, either before or after a walk along the ecological trail. To learn more, [click here](#).





Personnel Management



Human Resources

People are a company's most valuable asset, and for this reason, the Santo Antônio Group continually strives to enhance working conditions and improve the quality of life for its employees. In line with this, the company understands that training and appreciating people have a decisive impact on improving results and the organizational environment. The Santo Antônio Group is a major employer in the region and in the State of Alagoas. The impact of this job creation


affects the quality of life of thousands of families and strengthens the economies of municipalities.

In line with this responsibility, the company's governance is committed to ensuring business sustainability, organizing its Risk Management and Strategic Planning with a solid and reliable approach. All employees have permanent, full-time contracts with the company. In all cases – 100% of employees – hiring practices

adhere to current legislation and collective bargaining agreements.

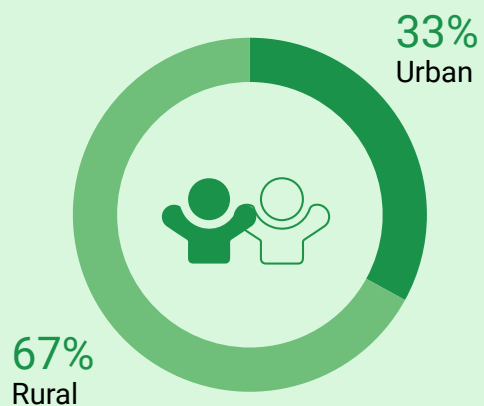
Important or urgent communications are delivered through team leaders, employee union representatives, or official announcements.

For communication in the opposite direction, the company provides support through its Human Resources or Personnel departments.

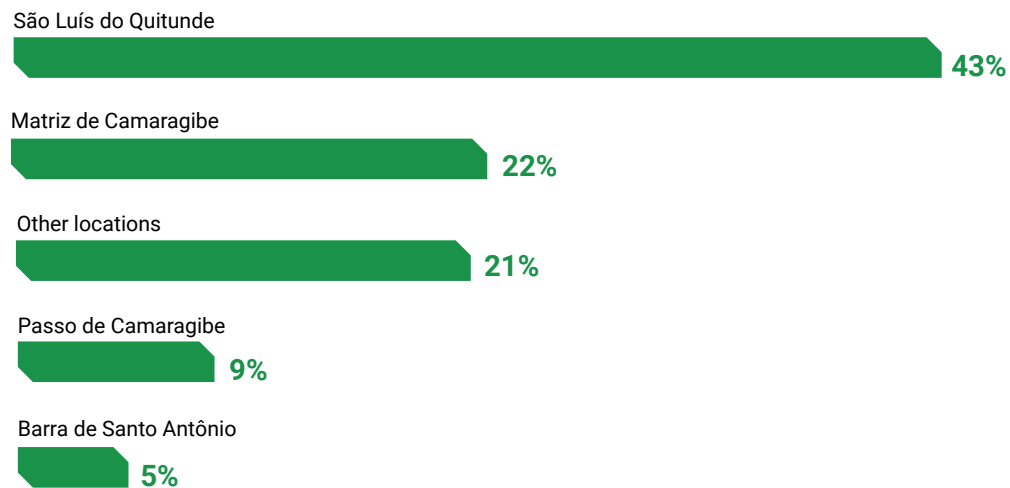


The Santo Antônio Group has a total of 7,563 employees.

Job Category



Employee Origin by Municipality



Age Bracket

2021/2022

Under 30



30 to 50



Over 50



2022/2023

Under 30



30 to 50



Over 50



2023/2024

Under 30



30 to 50



Over 50



Gender

2021/2022

Women



Men



2022/2023

Women



Men



2023/2024

Women



Men



Ethnic-Racial Profile

2021/2022

Yellow/indigenous



Black



Brown



White



2022/2023

Yellow/indigenous



Black



Brown



White



2023/2024

Yellow/indigenous



Black



Brown



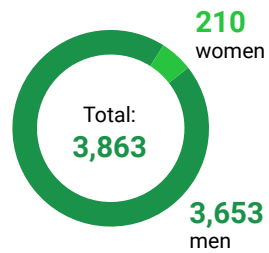
White



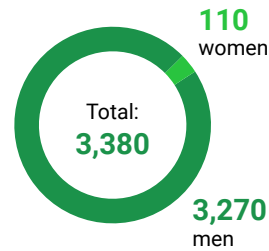
Hiring

Gender

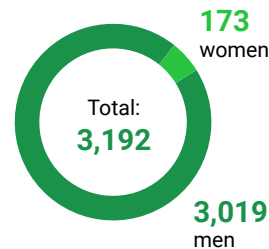
2021/2022



2022/2023

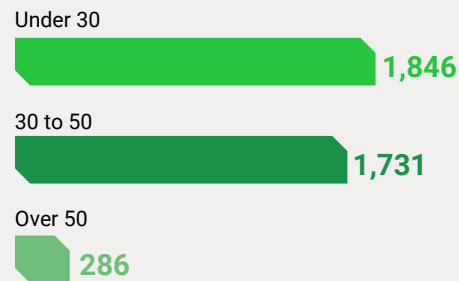


2023/2024

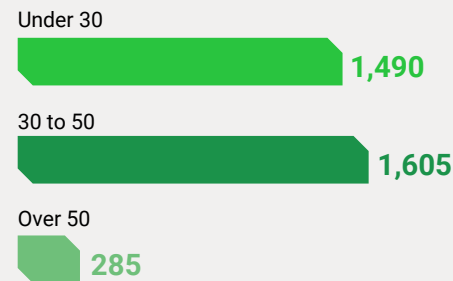


Age Bracket

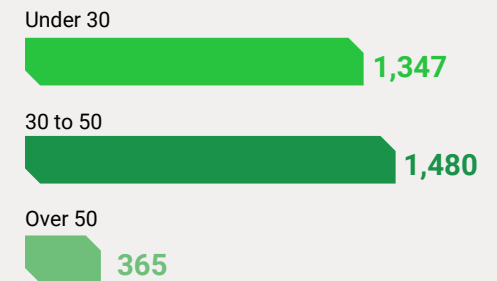
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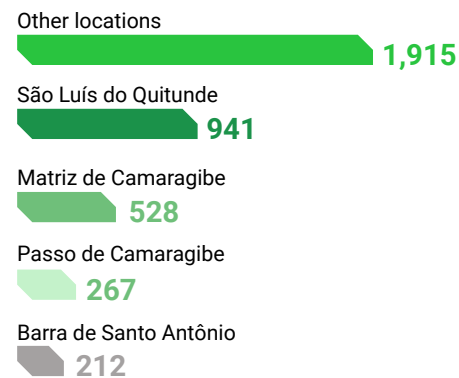


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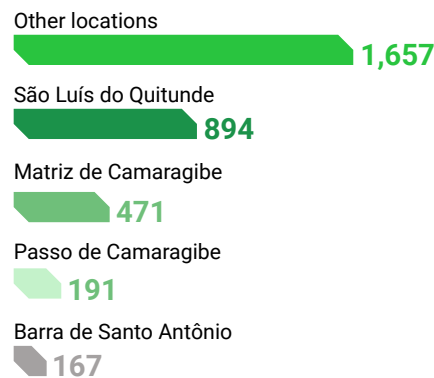


Region

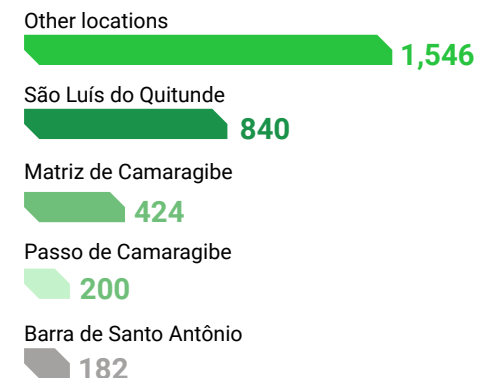
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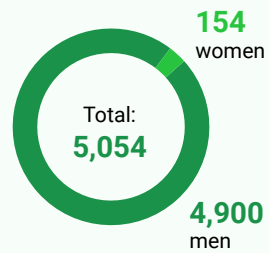
2023/2024



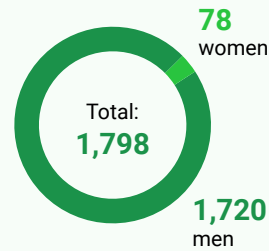
Termination

Gender

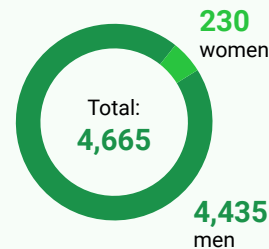
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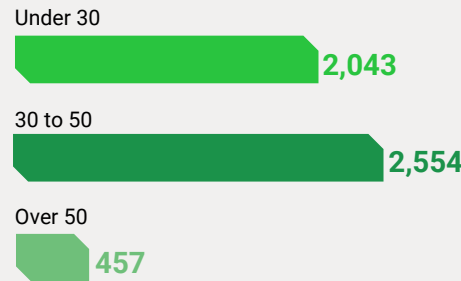


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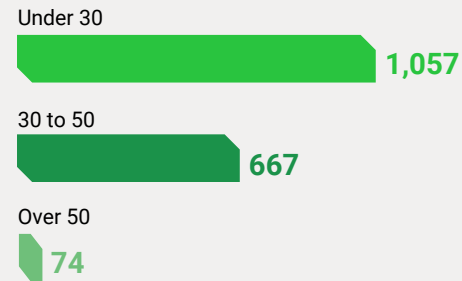


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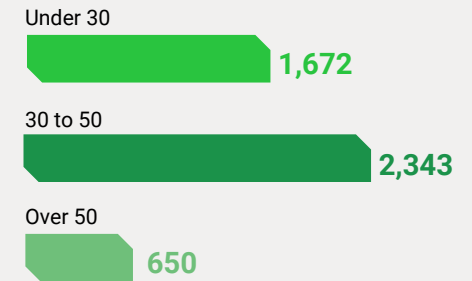
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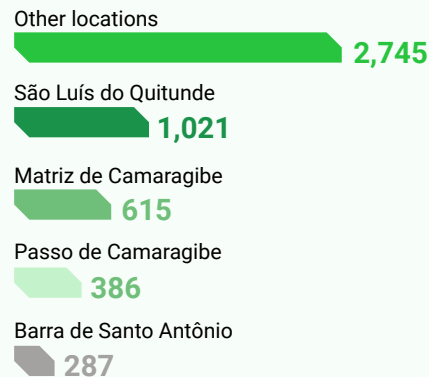


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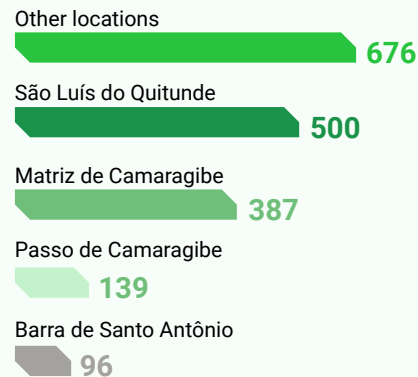


Region

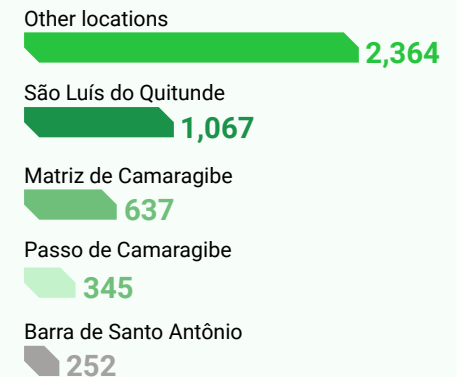
2021/2022



2022/2023



2023/2024



Rural Worker

One of the main challenges in Personnel Management is ensuring the recruitment of employees needed for rural operations. The company prioritizes hiring local labor; however, due to a shortage of candidates, it is sometimes necessary to recruit professionals from other locations. To enhance recruitment, the company conducts active searches in places frequented by potential candidates, such as street markets, squares, and clubs, both during the harvest and off-season, in the areas surrounding the plants as well as in other cities and states.

To improve workforce management, the company's leadership actively listens to and addresses employee needs. In urgent cases, the company offers assistance and transportation for employees to return to their places of origin.

To support the recruitment and retention of these employees, the company provides comfortable accommodations and awards performance bonuses in several areas, such as: sugarcane cutters, drivers, and operators. It also offers opportunities for professional growth through internal recruitment and the Machine Operator Training School.



Accommodations

Over 70% of the Group's employees are field workers, many of whom come from other regions seeking opportunities. The company provides housing for about a thousand temporary employees who contribute to different stages of agricultural management.

Providing good accommodation for these individuals who are away from their families—ensuring their well-being, comfort, quality food, health, and safety—directly influences their satisfaction and productivity.

Through active listening, the leadership understood that one of the essential items, according to the residents themselves, was internet access, used to communicate with families and for various leisure activities.

To meet this demand, the company invested in satellite internet and constantly monitors signal quality.

Six housing facilities are divided between the two plants, with a total capacity to accommodate 1,042 people.

They have kitchen, cleaning, security, and maintenance staff, seeking to offer a safe, comfortable, and welcoming environment.

In addition to daily active listening, the company conducts periodic surveys to assess satisfaction with the services provided. This feedback allows the company to identify and quickly implement improvements. For example, in the last cycle, adjustments were

made to the menu, and the soccer fields and board games were reactivated, generating very positive feedback. Besides internet access, leisure options, and menu improvements, investments were also made in bathroom facilities and structural renovations of the buildings.

The dedication and constant on-site assistance of the team, aiming for a welcoming atmosphere and solutions, resulted in a positive work environment that certainly contributed to achieving increased productivity throughout the harvest.

During this period, recreational awareness-raising activities were carried out, such as theater performances in all the housing facilities and bingo games, aiming to further promote moments of leisure, fun, and interaction.



Facial Recognition Time Clock

Technology has also been integrated into the Personnel Management processes of the Santo Antônio Group.

To improve employee attendance tracking, the company invested in a facial recognition time clock system during the 2023/2024 Harvest. The teams have already adapted to the implementation, and the system is well-established among urban workers. In the field, 99.5% of active rural workers have their faces registered in the system.

FAT

The Workers Assistance Fund (FAT) is a Federal Government initiative to increase employability in the country. Through it, the Santo Antônio Group can maintain its workers' contracts even during the off-season.

A financial aid benefit is granted when the employment contract is suspended and, during this period, workers participate in professional training courses offered by the company. During the 2023/2024 Harvest, the company referred 630 employees to FAT, and the courses offered were: Maintenance Driver, Sugarcane Cultivation, Agricultural Mechanization, Interpersonal Relations and Occupational Health and Safety.

Compensation and Benefits



All Santo Antônio Group employees receive remuneration above the national minimum wage. The amount allocated to rural workers is 2% above this minimum wage, while urban workers receive 10% more.

Both the Management Board and Shareholders receive equal remuneration. Executives at the managerial level and other employees are paid according to established salary ranges, which may be adjusted as needed.



Training

Work in agribusiness, as well as its equipment and practices, has evolved significantly in recent years. With the exponential use of technology in the field, there is an increasing need to train professionals to operate equipment and understand the data collected.

Investing in employee training ensures greater safety for everyone involved in production, higher quality assurance in services, and values the time and energy that these professionals dedicate to the Santo Antônio Group.

Training usually stems from needs assessments conducted by departments, as well as from changes in processes, mandatory training, innovations, or non-conformities detected during audits.

When a job opportunity arises, the company seeks to promote internal recruitment, contributing to the career development of its professionals. During the 2023/2024 Harvest, 148,708 hours of training were offered, an average of almost 20 hours per employee.

Training Center

During the 2023/2024 Harvest, Usina Santo Antônio inaugurated its new Training Center. A former accommodation building was completely remodeled and now features a reception area, 7 air-conditioned rooms, a

pantry, a reading room, and male and female restrooms. This dedicated space will centralize all training and courses offered by the company, eliminating expenses related to renting external venues or employee travel.



Operator Training Program

In the 2022/2023 Harvest, the Santo Antônio Group offered a training course for Agricultural Machine Operators to professionals working in its rural areas. This initiative aimed to provide development and professional growth opportunities for these employees while also retaining them within the company.

Of the class trained in the 2022/2023 Harvest, 25 rural workers were promoted to Tractor and Loader Operators, the rest remained on a reserve pool and were able to be reassigned in the 2023/2024 Harvest, providing growth opportunities for 13 more professionals.

38 rural workers were promoted to Agricultural Machine Operators after completing the training provided by the Santo Antônio Group.



My name is Anaelson José dos Santos de Araújo, I am a tractor driver and I have worked at the Santo Antônio Mill for 19 years. During this time, I worked in the fields, but I had a dream of learning to work with machines, with tractors. That dream come true thanks to the course that the Mill offered us. A fantastic project that taught us a lot. Now, my colleagues and I are employed, waiting for new opportunities.”

Anaelson José dos Santos de Araújo
Tractor Driver



Health and Safety



Health and safety are crucial issues for the Santo Antônio Group. Aware of its responsibility to the region's economy due to its high level of employment, the company invests heavily in protecting its employees from the risks of occupational accidents or diseases. All these risks are meticulously mitigated and controlled

through targeted actions. The company strives to promote the health and physical and mental well-being of its workers, basing its conduct on regulatory standards, labor and administrative legislation, and the guidelines of the International Labor Organization (ILO). The team overseeing the company's Health and Safety Programs is

known as the Specialized Services in Safety and Occupational Medicine (SESMT). It is comprised of Occupational Safety Engineers, Occupational Health Physicians, Occupational Safety Technicians, Occupational Health Nurses, and Occupational Nursing Technicians, all hired by the Santo Antônio Group.



Safety

The Santo Antônio Group structures its safety management based on its Rural Work Risk Management Program (PGRTR) for the agricultural area and the Risk Management Program - Occupational Risk Management (PGR-GRO) for the urban area.

Based on these programs, analyses and assessments are made of each activity in relation to the hazards and risks inherent in the production processes. For this identification, the Technical Report of Unhealthy and Hazardous Conditions (LTIP) is used, and for each identified item, the SESMT develops measures to eliminate, control, and prevent risks. Corrective actions are sent to the company's administration, which enables their implementation.

The actions follow the PDCA logic, an acronym that refers to Plan, Do, Check, and Act. This practice seeks to identify safety flaws and subsequently correct them. The entire process occurs through planning actions, implementation, evaluation of results, and application of corrections.

The process of investigating incidents and accidents starts with an on-site investigation and gathering information from witnesses, which helps identify possible causes. Improvements in investigating causes have enhanced risk management standards, with positive impacts on the safety management of activities. New safety measures, techniques, and recommendations have been created, ranging from the use of materials to the formalization of new procedures.

The perception and effectiveness of this dynamic are monitored through worker feedback, inspections of activities and sectors, and systematic monitoring of indicators. With this practical methodology, the Santo Antônio Group is constantly improving its occupational risk analysis and the management of health and safety indicators.

During the 2023/2024 Harvest, 136 incidents were recorded out of over 17 million hours worked. For each incident, the company initiates an investigation and identifies response actions to prevent the problem from recurring.

Digitization of Safety

The SESMT team has adopted a digital platform to collect information from safety monitoring activities using Internet-connected smartphones. After completing all the information, a report is automatically generated and sent to an email address.

A new demonstration report has also been developed for recording accidents and incidents, which aims to gather the various pieces of information extracted from these occurrences.

The reports are processed by safety technicians and engineers, who gather and analyze the information systematically, detailing possible causes, activities, types of injuries, and other important factors for analysis.

The primary objective of this change is to generate a statistical database, to assist in accident management, safety inspections, and preventive and corrective actions.

Environmental Risk Review

During the 2023/2024 Harvest, the Group hired a specialized consultant to assess the risks related to vibration, dust, and heat in the work environment. Based on this updated information about worker exposure to physical, chemical, and biological agents, the company can plan appropriate actions to eliminate or control the risks of accidents or occupational diseases.

The assessment, organized by activity, spanned approximately three days and encompassed all sectors outlined in the program.

However, some factors will continue to be monitored due to the need to track changes in activities. The results were satisfactory. For those risks that cannot be completely eliminated, the level of exposure is

within the limits due to source control and the use of Personal Protective Equipment (PPE).

However, the organization seeks to intensify worker awareness of safety procedures, as well as replace, if necessary, some individual or collective protective equipment, thus correcting any non-conformities found.

Regular Security Dialogue

A Regular Security Dialogue (DRS) is systematically conducted in the workplace, involving the active participation of all employees.

During the 2023/2024 Harvest, the practice was also carried out via radio,

using the frequency channel of portable and fixed radios, through which the SESMT team sends information about health, safety, guidelines, and alerts.

This practice is crucial for maintaining consistent preventive measures,

addressing and correcting potential unsafe behaviors and boosting awareness of the importance of prevention. Broadcasting these dialogues via radio ensures that information reaches everyone equally and simultaneously.

Fire Prevention System

During the 2023/2024 Harvest, the company reviewed its entire fire prevention system, checking and remodeling its hydrant system, portable and wheeled extinguishers, the Foam Generating Liquid System, and all signage required by the Safety Code, indicating emergency exits and escape routes.

The industrial complex is equipped with water trucks, which are dispatched through the radio control center.

For the next cycle, the company plans to upgrade its alarm system, transitioning from an electric setup to a modern wireless system.

Incident Committee

The Incident Committee is responsible for participating in and evaluating the investigation of immediate, underlying, and latent factors related to incidents, and thereby developing and delegating appropriate measures. Meetings are held weekly and seek to define resolutions regarding the incidents. Participants in this forum include managers from the Agricultural and Administrative areas, the Occupational Safety Engineer, and the Operational Instructor.



Health

Occupational health management at the company is based on its Occupational Health Medical Control Program (PCMSO) and is managed by a team comprised of four occupational physicians, two occupational health nurses, five occupational nursing technicians, a speech therapist, an ambulance driver, and a department administrator. A development during the 2023/2024 Harvest was the permanent assignment of a dedicated nurse to each plant, enabling closer monitoring and focused attention on occurrences within each industrial unit.

This team is responsible for managing medical examinations, including pre-employment, periodic, occupational risk change, return-to-work, and termination exams, as well as providing care in cases of work-related accidents. The team also offers educational lectures, training, preventive campaigns, referrals to Social Security, and medical care. The infirmaries operate during business hours, Monday through Saturday, and offer occupational and elective care, with the possibility of medication when necessary.

All employee-related information is confidential and protected in password-accessible systems, to which only the technical team has access.

No occupational diseases were recorded among the mill workers during the 2023/2024 Harvest.



**During the 2023/2024 Harvest,
5,663 elective consultations
were conducted.**

Coração da Indústria Project

The *Coração da Indústria* (Heart of Industry) Project was carried out in the units in partnership with the Social Service of Industry (SESI) and the Cordial Foundation, with the aim of screening people with cardiovascular diseases among the company's employees.

The first stage consisted of a questionnaire, vital sign assessment, and a survey of health history and physical habits. This resulted in the selection of 543 professionals from the Santo Antônio Mill and 116 from Camaragibe Mill for further screening.

Based on the initial assessment data, it was determined which employees needed further examinations to confirm potential heart conditions. These exams were conducted on-site at the company using mobile units, with 263 employees participating.

All employees underwent a medical consultation to receive their exam results. Those with indications of heart problems were referred to *Hospital do Coração* (Heart Hospital) in Maceió, where they received appropriate treatment according to their needs.

Focus on Women's Health

The Santo Antônio Group, in partnership with the Social Service of Commerce (SESC) in Maceió and *Hospital do Amor de Barretos* (SP), provided mammography exams for breast cancer prevention and cytology exams for cervical cancer prevention.

In total, 32 female employees were taken to the state capital to undergo exams in SESC's Mobile Unit. They received their results digitally, enabling them to share the information with their doctors.

Focus on Nutrition

To encourage healthier habits among employees, the cafeteria updated its menu by incorporating nutritious options and reducing the fat, salt, and sugar content in its meals.

In November 2023, the Santo Antônio Mill cafeteria underwent improvements, providing teams with a more comfortable, attractive, and pleasant dining environment.

Young Apprentices



The selection process for Young Apprentices at the Santo Antônio Group is always highly competitive. Seen as a desirable employer in the region, the company attracts many candidates interested in receiving qualifications and competing for career opportunities. Since the program began in 2014, 143 young people have been hired by the company, and during the 2023/2024 Harvest, 37 young apprentices were hired.

The selection process begins with advertising the openings, candidate registration, and Portuguese

and Math tests. After this initial screening, candidates undergo interviews, and those selected enter the program. In the last selection process, 1,084 young people applied for 200 vacancies.

The courses offered were for Warehouse Clerk, Logistics, and Industrial Mechanics, taught by the National Industrial Training Service (SENAI), resulting in 1,920 theoretical hours. The National Rural Apprenticeship Service (SENAR) taught courses in Rural Administration, Rural Electrician, and Vegetable Growing, with workloads varying between 400 and 880 hours.

After the theoretical period, the young people are placed in professional practice within the company.

With this project, the company opens doors for the training of young people in the region, providing qualifications for positions that offer opportunities in its operations.

For young people, it is a stimulus for learning and a chance for insertion into the formal job market. For the community, it represents an increase in employability and a boost to the local economy.



During the 2023/2024 Harvest, 1,084 young people applied for 200 vacancies. Of these, 37 were hired.



My name is Eduarda Valéria da Conceição, I am 26 years old and I started here at the Santo Antônio Mill in 2018 as a Young Apprentice. I spent the first 6 months in the theoretical phase of the program, taking the SENAI Logistics Processes course, before starting the practical stage. Initially, I was assigned to work in the Legal Department, then I was redirected to the Human Resources area, where I ended up finding my vocation. At the end of my contract, in November 2020, the Human Resources Coordinator made me an offer to stay in HR, and here I am to this day. The Santo Antônio Mill apprenticeship program plays a very important role in the professional lives of young people here in the municipality, as it allows them to have the opportunity to develop professionally and build a successful career.”

Eduarda Valéria da Conceição
Employee

Citizenship Project

To raise awareness and inform young people about the importance of blood donation and encourage them to exercise their role as citizens, the company developed the Citizenship Project among its Young Apprentices.

A large blood donation campaign was organized, involving the participation of 57 young people, of whom 54 were eligible to

donate and 2 became bone marrow donors. The Santo Antônio Group provided logistics for transporting the young people to the Alagoas Blood Center unit, at the Metropolitan Hospital, in Maceió.

To learn more about this project, [click here](#) to see the video that highlights the relevance of initiatives like this.

Socio-educational Project

The company, in partnership with SENAR, the State Secretariat for Violence Prevention, the Labor Prosecution Office, and the Labor Superintendence of the state of Alagoas is carrying out a project to provide training to 20 young people in semi-liberty through the Young Apprentice Program.

The course offered was in Vegetable Gardening. The young people will participate

in two stages during the project: the first theoretical and the second practical, which will be carried out in the garden available at the Male Semi-Liberty Unit.

With the content and learning acquired in the classroom, the idea is that these young people will be qualified and prepared for new opportunities when they are reintegrated into society.

Outsourced Services



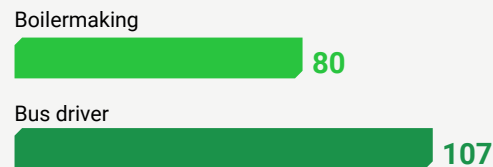
The organization requires all its service providers to initially present legal documentation related to the hiring and health and safety of workers. When services are contracted, these

employees are informed about the hazards and risks present in the Santo Antônio Group's environment and the appropriate prevention and protection measures. In this way, the

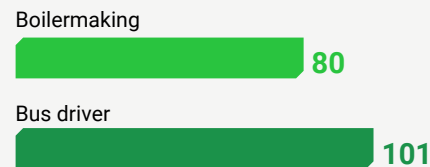
company guarantees conduct and safety standards in its operations, preventing inherent risks and ensuring the integrity of everyone involved in its processes.

Type of Outsourced Work

2020/2021: 187



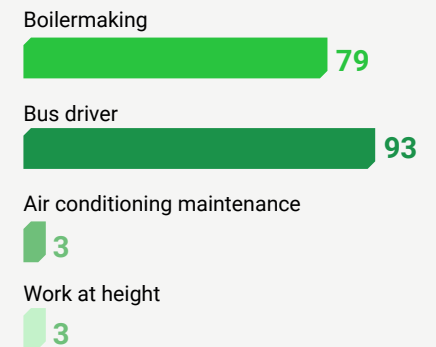
2021/2022: 181



2022/2023: 186



2023/2024: 178





Social/Environmental

Communities



Over the years, Central Açucareira Santo Antônio S.A. has been actively involved in the development of the communities where its units operate. It seeks to promote social and economic initiatives that increase the engagement of these communities and prevent the migration of individuals or families to other cities or states in the country.

As shown by the environmental impact study, among the main positive impacts arising from its operations are the generation of direct and indirect jobs, with a strong influence on the purchasing power of the population, which is reflected in greater local economic activity. Some of these municipalities are characterized by high poverty rates. To further enhance this positive influence in the region, the Group needs to be strategic and assertive in the results of the initiatives developed.

To be approved for support, projects must promote the quality of life or sustainable development of the communities located around its units. Seeking to select proposals that bring significant positive results, the company has established guidelines for participation. They include maintaining an investor-focused perspective on contributions to prevent inadequate or unnecessary expenses; selecting ethical and responsible partners; implementing efficient management practices supported by traceable records and evidence; and ensuring the safety of everyone involved.



Social Projects



Escola de Futsal Falcões de Ouro

Located in the municipality of São Luís do Quitunde, in the state of Alagoas, the *Falcões de Ouro Futsal* School transforms the lives of dozens of children and young people from Quitunde, showing that sport and discipline may help the dream of a dignified and quality future come true.

Aware of the importance of encouraging sports, Central Açucareira Santo Antônio S.A. has become a major partner of the school, facilitating its operation and supporting its projects. The Santo Antônio Group always seeks to support and encourage important social projects like this. The *Falcões de Ouro Futsal* School reaches about 75 children and young people.

Access to sports, in addition to directly impacting the quality of life of those who practice it, enables the development of physical and mental health and makes it possible to train potential local athletes.

Classes take place twice a week and are divided into categories: sub9 - 6 to 9 years old; sub11 - 10 to 11 years old; sub13 - 12 to 13 years old; sub15 - 14 to 15 years old, and sub17 - 16 to 17 years old.

For the company, it is gratifying to know that it positively impacts the local community, making a difference and enhancing the fulfillment of dreams for those who need it most.

***Falcões de Ouro Futsal* School positively impacts the lives of dozens of young people and children in São Luís do Quitunde.**



Qualification Courses

Central Açucareira Santo Antônio S.A., in partnership with the National Rural Apprenticeship Service – SENAR, has been conducting several training and development courses for the community of São Luís do Quitunde (AL) and Matriz de Camaragibe. A total of 288 people were trained in 2023 and 108 up to the first half of 2024, totaling 396 people reached in the courses such as Rural Electrician, Digital Inclusion (IT), Homemade Bread Making, Cassava Processing, Candy Industrialization, Fruit Pulp Processing, Casual Wear, Underwear and Beachwear. This initiative strengthens ties with the local community, contributing to development, providing growth opportunities, and generating income.



Seamstress Training

The company supports a project for Training Seamstresses in the community of São Luís do Quitunde (AL). This initiative seeks to promote autonomy and income generation through qualification, thus contributing to increasing the purchasing power and quality of life of the participants. Classes are held in a location provided free of charge by the company.

Bolinha Vai e Vem Workshop

To promote awareness through environmental education, the Santo Antônio Group offered a practical workshop to students in the 1st and 2nd grades of elementary school at *Escola Municipal Ernesto Gomes Maranhão*, in the municipality of Passo de Camaragibe (AL). To engage children in

a fun and interactive way, the workshop featured a hands-on activity that repurposed recyclable materials, fostering creative development while promoting environmental education.

The materials used were roll-on deodorant balls, paper, glue and elastic.



Annual 'Tree Day' Celebration

The Santo Antônio Mill Ecological Reserve, in partnership with the Roncador/Flor do Vale Farm, carries out the planting of native seedlings in the vicinity of the farm with the aim of promoting reforestation, protecting water resources, and raising environmental awareness. In 2023, in reference to Tree Day, a gathering was organized with the

participation of 62 students and teachers from the municipality of São Luís do Quitunde (AL).

At the event, an illustrative model was built to explain the importance of riparian forests, followed by the planting of 30 native tree seedlings on the banks of a stream on the property.

Recycling Workshop

With the same goal of promoting environmental education with a playful appeal, the company organized another type of workshop for municipal schools (*Escola Municipal Ernesto Gomes Maranhão* and *Escola Municipal Severino Carlos Correia Maranhão*, both from Passo de Camaragibe).

This workshop went beyond crafting educational games using recyclable materials like cardboard, paper, and plastic bottles. It also highlighted the importance of solid waste segregation, selective collection, and understanding the decomposition time of various materials.





Annex

Employees



Gender and location									
Municipalities	2021/2022			2022/2023			2023/2024		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
São Luís do Quitunde	2,672	224	2,896	2,757	240	2,997	3,025	256	3,281
Matriz de Camaragibe	1,472	80	1,552	1,455	78	1,533	1,559	80	1,639
Passo de Camaragibe	643	38	681	600	37	637	636	40	676
Barra de Santo Antônio	308	22	330	297	18	315	338	18	356
Other locations	1,551	70	1,621	1,363	58	1,421	1,549	62	1,611
Total	6,646	434	7,080	6,472	431	6,903	7,107	456	7,563

Functional category			
	Men	Women	Total
Urban	2,243	289	2,532
Rural	4,864	167	5,031

Maternity and Paternity Leave



		2021/2022	2022/2023	2023/2024
Employees who took maternity and paternity leave in the current year	men	224	223	224
	women	7	13	17
Employees who took and returned from maternity and paternity leave in the current year	men	224	223	223
	women	3	8	14
Total number of employees who took maternity and paternity leave in the current year, and whose leave ends in the following year	men	0	0	1
	women	4	5	3
Total number of employees expected to return in the current year	men	226	223	224
	women	5	12	19
Total number of employees who returned to work, in the reporting period, after the end of maternity and paternity leave	men	226	223	224
	women	5	12	19
Total number of employees who did not return to work, in the reporting period, after the end of maternity and paternity leave	men	67	20	15
	women	3	3	1
Total number of employees who returned to work after maternity and paternity leave and who were still employed 12 months after returning to work	men	152	203	154
	women	2	9	6
Rate of return	men	1	1	1
	women	1	1	1
Retention rate	men	0.67	0.91	0.69
	women	0.40	0.75	0.32

Governance Body Profile



Job category		2021/2022	2022/2023	2023/2024
Gender	Men	9	9	9
	Women	7	7	7
Age bracket	Under 30	0	0	0
	30 to 50	9	7	6
	Over 50	7	9	10
Ethnic-racial characteristics	White	16	16	16
	Brown	0	0	0
	Black	0	0	0
	Yellow/indigenous	0	0	0

Corporate Policy



Sustainability Policy - ESG	Promotes awareness and meets the expectations of stakeholders regarding the company's sustainable practices.
Food Quality and Safety Policy	Meets the requirements of both ISO 9001 (Quality Management System) and the requirements specified in the FSSC 22000 Scheme [Food Safety Management System (ISO 22000) and the Food Safety Prerequisite Program (ISO/TS 22002-1)].
Integrated Sustainability Policy	Meets the requirements of Bonsucro Certification and promotes employee awareness of the company's sustainable practices.

Residue



Waste reuse in 2023/2024 in metric tons

Within the organization	Outside the organization
9,161.47	598,762.243

Activity	Raw materials	Raw materials with hazardous characteristics	Activity	Main waste generated	Waste with hazardous characteristics	Forwarded for external destination	Destination
Agricultural Production:	Sugarcane, agricultural inputs, fuels	Agrochemicals	Agricultural management	Agrochemical packaging	Contaminants	Agrochemical packaging	Recycling and/or incineration
Ethanol production	Sugarcane, sugarcane juice, honey, chemical inputs	Chemical inputs	Production of anhydrous, hydrated and extra neutral ethanol	Vinasse, packaging, contaminated rags and used PPE	Contaminants	Packaging, contaminated rags and used PPE	Recycling and/or incineration
VHP sugar production	Sugarcane, sugarcane juice, chemical inputs	Chemical inputs	VHP sugar production	Bagasse, filter cake, packaging, contaminated rags and used PPE	Contaminants	Packaging, contaminated rags and used PPE	Recycling and/or incineration

Activity	Raw materials	Raw materials with hazardous characteristics	Activity	Main waste generated	Waste with hazardous characteristics	Forwarded for external destination	Destination
Crystal sugar production	Sugarcane, sugarcane juice, chemical inputs	Chemical inputs	Crystal sugar production	Paper or cardboard waste, bagasse, filter cake, packaging, contaminated rags and used PPE	Contaminants	Packaging, contaminated rags and used PPE	Recycling and/or incineration
Energy production	Bagasse	No	Power generation	Ash and inert sludge, boiler furnace slag		No	All are incorporated into the fertilizer
Administration	Cardboard boxes, plastic packaging, disposable cups, toner and printer cartridges	No	Office	Paper or cardboard waste, packaging of materials received in the areas and warehouses	No	Paper or cardboard waste and plastic packaging	Recycling

Non-hazardous waste				
Waste	Description	Weight in metric tons		
		2021/2022	2022/2023	2023/2024
Filter cake	Sludge after passing through purification process	27,849.28	28,611.66	21,347.00
Sugarcane bagasse	Sugarcane biomass after juice extraction	691,351.07	615,908.94	552,810.74
Ash	Slag from boiler furnaces	10,137.05	10,265.15	8,585.19
Plastic Packaging	Plastic packaging waste	51.66	42.42	44.24
Paper packaging	Paper or cardboard waste from packaging	12.60	14.22	3.46
Uncontaminated ferrous scrap	Metal scrap	405.09	831.75	523.90
Plastic containers	Plastic drums	2,611*	934*	5,697*
Waste tires	Rubber/steel	Not accounted for	35.80	27.16

*In units.

Hazardous waste					
Waste	Description	2021/2022	2022/2023	2023/2024	Unit
Oily waste - Class I	Oil filters, rags, various residues contaminated with oil	15.84	14.9	15.56	Metric tons
Waste mixtures containing some hazardous waste - Class I	Used PPE, rags, paint cans, absorption blankets, filters and other materials contaminated by any type of chemical product	28.91	33.94	18.82	Metric tons
Plastic containers for agrochemicals	Plastic agrochemical drums	33,608 Un.	6.665 tons		Metric tons
Cardboard boxes contaminated with agrochemicals	Agrochemical packaging	1,599 Un.	0	17.14	Metric tons
Laminated bags contaminated with agrochemicals	Agrochemical packaging	30,405 Un.	2,780		Metric tons
Oily water from process - Class I	Waste from separator boxes	1,720	3,600 L	6,000	Liter
Sand with oil	Waste from separator boxes	1,000 L		1.2	Metric tons

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