



SUSTAINABILITY REPORT

2023

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ABOUT THIS REPORT

This Sustainability Report reflects Alto Ingredients' ongoing commitment to sustainability and provides all stakeholders with insight into our programs and performance. This summary contains data for the 2023 calendar year, covering January 1, 2023, to December 31, 2023, unless otherwise noted.

For more information or to get in touch with our team, please visit our Investor Relations website at <https://ir.altoingredients.com/> or please contact us at info@altoingredients.com.

LETTER FROM THE CEO AND BOARD OF DIRECTORS



Bryon McGregor,
President, CEO and
Director



Michael Kandris,
Sustainability Board
Chair and Director

Reflecting on Alto Ingredients' history, it's remarkable to see several of our facilities with a legacy of over 120 years in the communities in which we operate and live. Generations of employees have worked tirelessly to improve efficiency, adopt new technologies, and transform each site to safely meet the evolving needs of our customers, business partners, and industries. From specialty alcohol and essential ingredients to renewable fuels and plant-based proteins, we proudly offer 100% bio-based renewable products. By implementing sustainable best practices, we aim to reduce emissions and benefit our business and all stakeholders.

Over the past decade, Alto has integrated various facilities with unique capabilities and strategic locations. Our highly efficient dry grind facilities are striving for carbon intensity scores below 50 by optimizing efficiency, upgrading energy infrastructure, and selecting sustainable feedstocks. At our specialty alcohol and wet mill essential ingredients facilities, we continue to modernize equipment, improve reliability and efficiencies, and lower the environmental impact of our operations. Most recently, we have engaged highly regarded, third-party engineering services to aid us in our strategic planning to further identify activities to improve our position both today and well into the future to succeed and build a long-term, sustainable and consistently profitable company.

Environmental health and safety are at the core of our operations. We are committed to maintaining safety standards and proactively managing environmental impacts. Our health and safety programs are designed to protect our employees, communities, and the environment. By implementing comprehensive safety protocols and continuously monitoring our environmental footprint, we aim to ensure

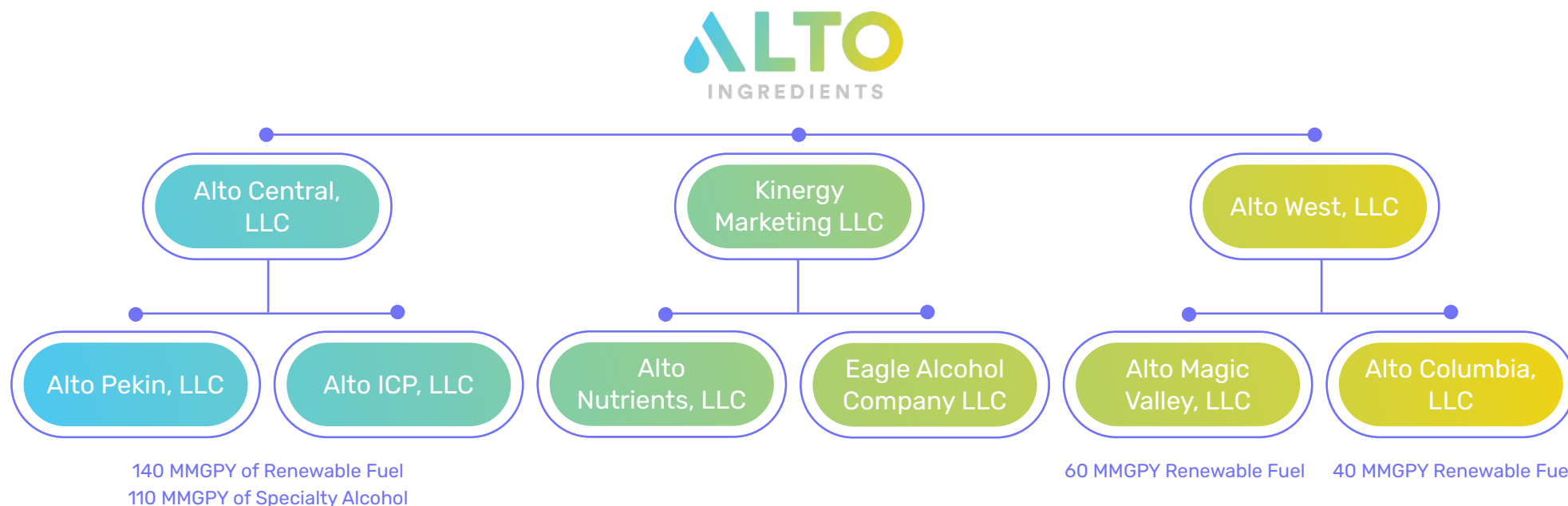
a safe working environment and minimize our ecological impact, aligning with our broader sustainability goals.

We remain committed to our core values of responsibility, integrity, and quality, and our mission to produce the highest quality, sustainable ingredients that make everyday products better. Our dedication to sustainability and social responsibility extends to our customers, employees, investors, partners, and consumers, along with a focus on product quality and safety. We believe this commitment will enable us to serve our customers for many years to come.

ABOUT ALTO INGREDIENTS

Alto Ingredients, Inc. (NASDAQ: ALTO) is a leading producer and distributor of specialty alcohols, renewable fuel and essential ingredients. Leveraging the unique qualities of its facilities, the company serves customers in a wide range of consumer and commercial products in the Health, Home & Beauty; Food & Beverage; Industry & Agriculture; Essential Ingredients; and Renewable Fuels markets. Our alcohol products are used in food, beverage, pharmaceutical, dietary supplement, and cosmetic products, in addition to industrial applications and renewable fuel. Kinergy Marketing and Alto Nutrients market the company's alcohol and essential ingredients, including Alto Yeast™, corn protein meal, corn germ, corn oil, distillers grains, including Alto Corn Protein™, and CO₂. They offer consistent product quality in logistically preferred locations as well as provide reliable service and delivery. Alto sells its products in domestic and international markets.

Alto operates five alcohol production facilities and a food-grade yeast plant. The yeast plant and three alcohol production facilities are located in Illinois, and the two additional alcohol facilities are located in Oregon and Idaho. Wholly owned subsidiary Eagle Alcohol Company is located in Missouri and specializes in break bulk distribution of specialty alcohols. Alto's manufacturing and distribution combine to provide a strong product portfolio.



MMGPY = million gallons per year

* as of 10/10/2024

ALTO AT A GLANCE



Wet Mill facility producing high quality alcohol, including beverage grade and low-moisture 200-proof



Distillery producing high quality alcohol, including beverage and pharmaceutical grades



GFSI-certified food-grade yeast plant



Efficient renewable fuel dry grind facilities

SOLD IN 2023

77

million gallons
of specialty alcohol

26

thousand tons
of plant-based yeast
protein

82

thousand tons
of renewable corn oil
and corn germ

1.5

million tons
of (dry basis) essential
ingredients



99.7 million bushels
of corn processed in
2023

100% U.S. domestic
corn as a grain
feedstock¹



1 newly commissioned
high protein distillers
grains system

103 million third-party
gallons sold in 2023



203 million gallons
of renewable fuel
produced in 2023

**214 thousand
metric tons** of CO₂
utilization in 2023



455 employees
across the US²

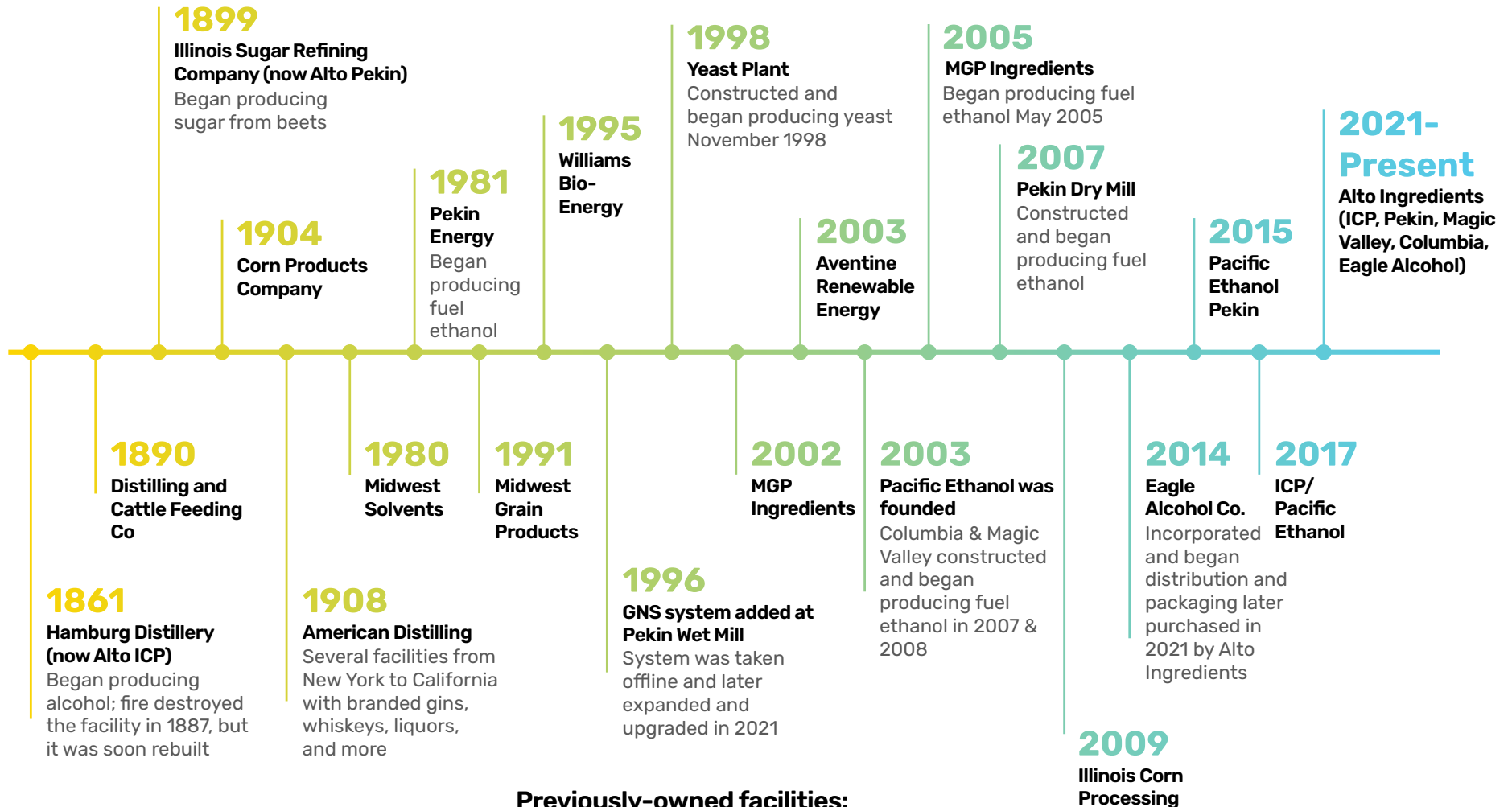
100% of high-quality alcohol and food production third-party certified for applicable quality, food safety, environmental, and social responsibility programs, including: ISO 9001, ICH Q7, EXCiPACT, FSSC 22000, FSC 36, EcoVadis, and ACD Responsible Distribution®

¹Complies with Renewable Fuel Standard regulations 40 CFR 80 Subpart M

²As of April 22, 2024

COMPANY TIMELINE

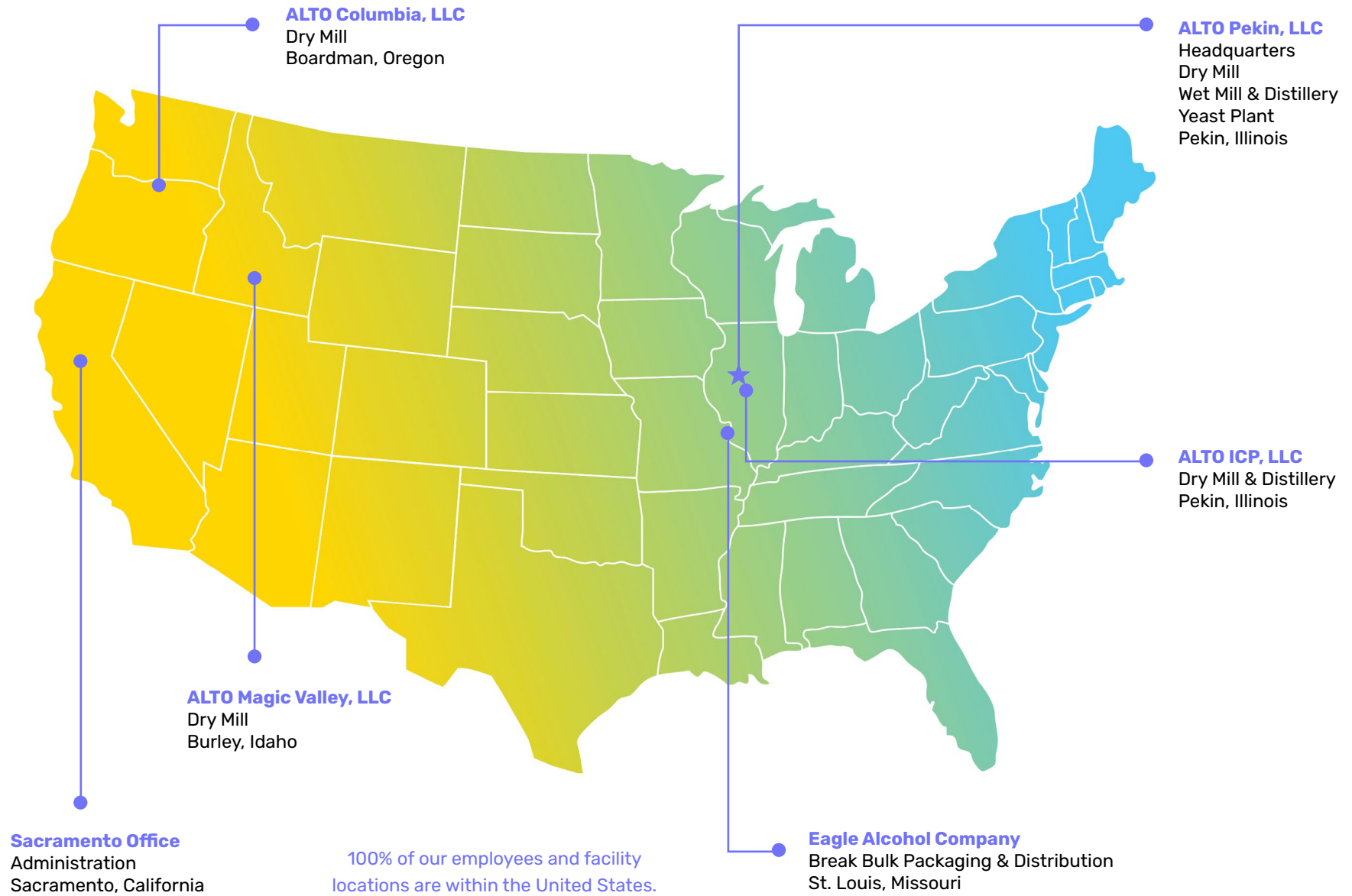
Alto Ingredients' facilities date back to 1861 with the founding of Hamburg Distillery. The timeline below shows the history of company name changes through the years along with a selection of key product and system changes.



Previously-owned facilities:

2010-2024: Pacific Ethanol Canton (IL) 37 MMGPY
 2008-2021: Pacific Ethanol Stockton (CA) 60 MMGPY
 2006-2021: Pacific Ethanol Madera (CA) 40 MMGPY
 2008-2020: Aurora West (NE) 110 MMGPY
 1994-2020: Nebraska Energy LLC "NELLC"/Aurora East (NE) 45 MMGPY
 2010-2014: Aventine Renewable Energy Mount Vernon (IN) 110 MMGPY

OUR LOCATIONS





SUSTAINABILITY AT ALTO INGREDIENTS

OUR APPROACH

Founded in 2003, Alto Ingredients is proud to be a leading producer of a wide range of premium products, which are incorporated into a myriad of vital finished goods that touch people's lives from cleaning solutions to pharmaceuticals. Alto's mission is to produce the highest quality, sustainable ingredients from renewable resources that make everyday life better. Our business is built on trust and an unwavering commitment to our employees,

investors, partners, consumers, and the planet we all share. Our approach is informed by these values and represented by our dedication to responsibility, integrity, quality, and managing the impacts of our operations.

Alto has conducted several materiality assessments with internal and external stakeholders, and our priority topics follow:

- ✓ Climate Change and GHG Emissions
- ✓ Environmental Management
- ✓ Employee Health & Safety
- ✓ Protection of Human Rights
- ✓ Sustainable Sourcing & Supply Chain Management
- ✓ Product Quality & Safety
- ✓ Opportunities in Clean Technology
- ✓ Toxic Emissions & Waste
- ✓ Corporate Governance

CLIMATE-RELATED RISKS

Risks		Type ¹
Feedstock	- commodity prices, including cost of corn - supply of raw materials, including corn, water, electricity, and natural gas - prices of alcohols and essential ingredients we sell	Chronic Chronic Chronic
Water	- dependence on surface river water and well water resources at the Pekin campus, lack of consistent supply of clean water for both the process and for cooling may negatively impact the site - higher water temperatures due to increased global or regional temperatures may negatively affect production efficiencies and capacities - water resource limitations may result from drought and other inclement weather and may also result from rationing and other governmental regulations limiting water use	Chronic Chronic Chronic ²
GHG Emissions	- costs and regulatory burdens associated with governmental regulations that limit or tax greenhouse gas emissions, such as CO₂, from alcohol production and distribution, or from truck transport and packaging associated with Eagle Alcohol's business and use of drums and totes, will negatively impact us - regulatory and market transition away from combustion fuels and fuel-grade ethanol blending may threaten the viability of our renewable fuels business - electricity and natural gas, consistent availability and pricing; an overall increase in energy costs will negatively impact our production costs generally and may critically impact certain high energy-intensive production technologies, such as our wet milling and multiple distillation processes for high-quality alcohol	Chronic ² Chronic ² Chronic
Energy Transition	- price of gasoline and petroleum, output by OPEC and their allies - other climate-related supply chain disruptions caused by dependence on rail and port storage and distribution infrastructure	Chronic Acute
Physical Risks Due to Climate/Temperature	- equipment failures, fires, explosions, abnormal pressures, blowouts, ruptures, accidents - natural disasters such as earthquakes, floods and storms; flooding and other inclement weather may negatively impact incoming corn quality and volumes, river access, other transportation logistics and costs, and storage requirements	Acute Acute
Safety	heat-related risks for personnel	Acute

¹Acute risks are short-term and event-driven and chronic risks are due to long-term shifts in climate patterns.

²This is also a transitional risk. Transitional risks are associated with adaptation to climate change, reduction of greenhouse gas emissions, or transition to renewable energy.



OPPORTUNITIES

NEW MARKETS

- ✓ Novel end uses for waste products (fusels, ISCC¹ markets)
- ✓ Alcohol to Jet (ATJ), Sustainable Aviation Fuel (SAF)
- ✓ Voluntary carbon markets
- ✓ Carbon capture & storage

RESOURCE EFFICIENCY

- ✓ Technologies, including cellulosic conversion, C5 fermentation, new feedstocks
- ✓ Various governmental policies in the U.S. and throughout the world for bio-based products and carbon
- ✓ Expansion of bio-based products
- ✓ Energy efficiency upgrades
- ✓ Expanded carbon utilization

¹ISCC is a globally applicable sustainability certification system and covers all sustainable feedstocks, including agricultural and forestry biomass, biogenic wastes and residues, circular materials and renewables.

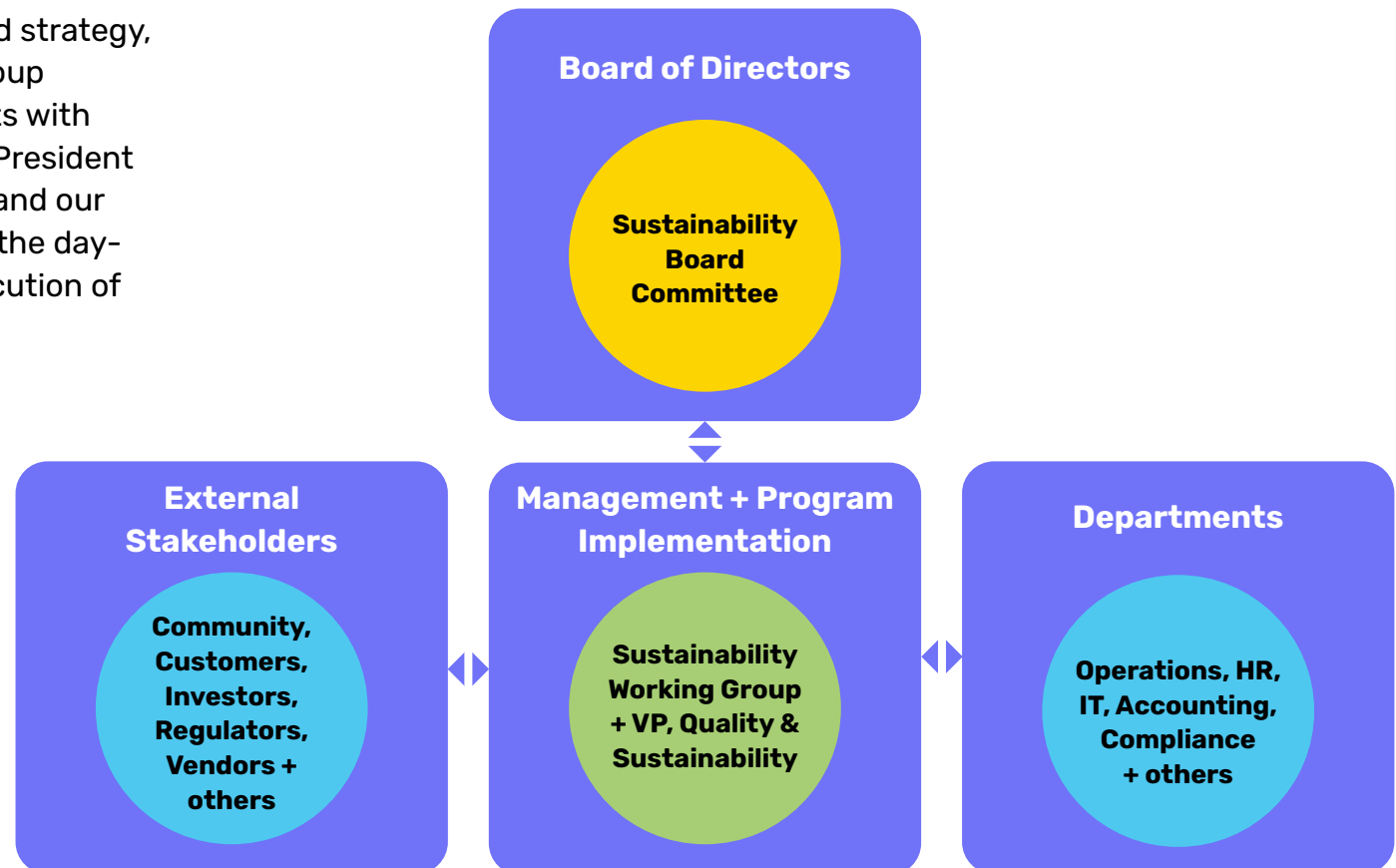
OVERSIGHT

Our sustainability efforts are overseen by our Board of Directors. Alto has also established a Sustainability Board Committee dedicated to supporting the company's efforts. This committee is responsible for matters related to strategy, material sustainability-related risks and opportunities, and public disclosures through sustainability reports, SEC filings, and the company website. This committee meets quarterly and, if deemed appropriate, more frequently. In addition, the Committee regularly updates the full Board on relevant developments no less than quarterly through Board presentations, notification on standards and ratings updates, and summarized feedback from materiality surveys. Specific responsibilities of the committee are outlined in our [Sustainability Board Committee Charter](#), which can be found on our website.

While our Board holds primary oversight of our initiatives and strategy, our Sustainability Working Group Committee coordinates efforts with our executive team, our Vice President of Quality and Sustainability, and our senior management team on the day-to-day identification and execution of our initiatives.

Program is informed by:

- ✓ Risk assessments
- ✓ Materiality surveys & stakeholder feedback
- ✓ Customer questionnaires
- ✓ Regulatory changes
- ✓ External governance & sustainability standards
- ✓ Strategic planning
- ✓ KPIs and trending



ENVIRONMENT

The products we manufacture are 100% renewable and bio-based, and are ingredients to five key markets: health, home & beauty; food & beverage; industry & agriculture; essential ingredients; and renewable fuels. We are committed to being responsible stewards of the environment by identifying opportunities to limit our natural resource use and consistently employing ways for reducing pollution and minimizing waste. Fueling a low-carbon economy was a founding value of our company and continues to be a key pillar of our commitment to sustainability.

KEY MARKETS



**Health, Home
& Beauty**



**Food &
Beverage**



**Industry &
Agriculture**



**Essential
Ingredients**



**Renewable
Fuels**

CLIMATE CHANGE

We are committed to implementing sustainable practices that prioritize the well being of our planet and mitigate climate-related risks. Lowering our carbon footprint is a key part of our diversification and business strategy, and we aim to adopt responsible sourcing and processing methods that ensure the preservation of valuable resources and lower our net carbon output throughout our operations.

All production facilities are undergoing life-cycle analysis (LCA) for fuel ethanol products using publicly available models, including the Argonne National Laboratory's Greenhouse Gases, Regulated Emissions, and Energy use in Transportation (GREET) model, to better understand the current impacts, as well as projected impact of capital projects and process optimization.

Alto Columbia is a registered low carbon fuel ethanol producer in both Oregon's Clean Fuels Program (CFP) and Washington's Clean Fuels Standard (CFS) program. Both programs require registration and obtaining certified pathways in which a fuel producer's carbon intensity (CI) is quantified using a version of the GREET model that each state has

developed with their programs.

LCAs are not isolated to the low carbon programs - Alto is committed to collecting data to ensure that customers have access to a product carbon footprint for various products amongst all of our production facilities.

The Oregon CFP uses an Oregon version, OR-GREET, to calculate carbon intensities of transportation fuels used in the state. Washington has established a CFS that has adapted a WA-GREET model to calculate CIs of transportations fuels used in the state.

Alto Columbia currently holds a certified pathway in Oregon's program with a carbon intensity of 53.91 gCO₂e/MJ as well as a certified

pathway in Washington's program with a CI of 67.49 gCO₂e/MJ. The above pathway CIs are active through Q4 2024. Pathway codes are maintained in accordance with state regulations and are subject to review and verification on an annual basis.

The natural gas and electricity consumption required in corn milling and production of ethanol is a significant contributor to our footprint. We consistently identify opportunities in clean technology, such as carbon capture & storage, renewable natural gas, and increased energy efficiencies throughout our operational facilities. For more information on initiatives to manage our footprint, increase efficiencies and improve our performance, please visit our latest investor presentation at <https://ir.altoingredients.com/>.

GHG EMISSIONS

We have measured our Scope 1 and 2 greenhouse gas (GHG) emissions across our five production facilities to understand and manage our climate impact. Our production facilities were operating for all of 2022, but in 2021 and 2023 our Magic Valley production facility was temporarily idled, which resulted in a slight increase in emissions for 2022 compared to the

other two years. We may increase, decrease, or idle production at one or more operating facilities or resume operations at any idled facility as market conditions change, which may be reflected in our total GHG emissions.

As part of this effort, we engaged a third-party to verify our emissions calculations; our assurance statements

can be found on our website. We have entered into a multi-year agreement with SEDEX, a sustainable supply chain solutions provider, to support initial data collection for Scope 3 GHG estimates. We will continue to work toward understanding our Scope 3 emissions to manage our carbon footprint throughout the value chain.

GHG Emissions Data ¹	2021	2022	2023
Scope 1 Emissions (thousand MT CO ₂ e from natural gas & biogas)	747	797	812
Scope 2 Emissions (thousand MT CO ₂ e)	163	181	156
Scope 1 + 2 Emissions (thousand MT CO ₂ e from natural gas, biogas, and electricity)	910	977	968
Biogenic CO ₂ from Fermentation (thousand MT CO ₂ e)	Not Verified	Not Verified	895
Sold CO ₂ (thousand MT CO ₂ e)	200	199	214
Company vehicle emissions (thousand MT CO ₂ e)	Not Verified	Not Verified	0.58
Scope 1 & 2 Emissions (thousand MT CO ₂ e) Total	Not Verified	Not Verified	1,650

¹ The emissions data above covers 100% of our production facilities (e.g. Pekin, ICP, Magic Valley, and Columbia facilities) and our diesel usage for distribution at St. Louis. It excludes our Sacramento office and St. Louis distribution utilities, Kinergy trading activities, contractor equipment emissions, fugitive component emissions, emissions associated with refrigerant leaks, and emissions associated with fire suppression usage. The sum of all omissions is anticipated to be a immaterial (<5%) contributor to our Scope 1 & 2 emissions.

ENVIRONMENTAL MANAGEMENT

We have implemented processes for ongoing monitoring and management of key environmental risks, including energy use and efficiency, emissions, waste, and water usage. Wastewater treatment and discharge monitoring, as well as complying with air permit requirements represent some of the most significant environmental risks within our operations.

All our operational facilities are Very Small Quantity Generators (VSQGs) of hazardous waste, which produce less than 400 kg of waste per month as a company, almost exclusively due

to EPA water quality wet chemistry testing. Even with this limited footprint, we continue to explore opportunities to eliminate this testing as regulatory requirements allow.

We conduct ongoing monitoring of potential water-related risks and impacts across our operations through our environmental, health & safety (EHS) programs. All our production and office facilities are located in regions of low to low-medium baseline water stress as classified by Aqueduct, the World Resources Institute's (WRI) Water Risk Atlas tool

with the exception of our Magic Valley facility and Sacramento office. We will continue to monitor these risks and evaluate strategies to mitigate potential impacts related to our operations through our EHS programs.

We recognize the need to reduce and recycle water at all of our facilities, especially at Magic Valley which is in a high water stress region. The facility uses fresh water primarily for its cooling tower and scrubbers, and we have active monitoring in place to track fresh water used for these and any other purposes to optimize usage.

Location	Major Basin	Overall Water Risk	Physical Risks Quantity	Water Stress	Groundwater Table Decline	Interannual Variability	Seasonal Variability	Drought Risk	Riverine Flood Risk Stress
Eagle Alcohol	Mississippi-Missouri	Low (0-1)	Low (0-1)	Low (<10%)	Insignificant	Low-medium (0.25-0.50)	Low-medium (0.33-0.66)	Medium (0.4-0.6)	Low (0 to 1 in 1000)
Alto Pekin	Mississippi-Missouri	Low-medium (1-2)	Medium-High (2-3)	Low-Medium (10-20%)	Insignificant	Medium-high (0.50-0.75)	Low-medium (0.33-0.66)	Medium (0.4-0.6)	Low (0 to 1 in 1000)
Alto ICP	Mississippi-Missouri	Low-medium (1-2)	Medium-High (2-3)	Low-Medium (10-20%)	Insignificant	Medium-high (0.50-0.75)	Low-medium (0.33-0.66)	Medium (0.4-0.6)	Low (0 to 1 in 1000)
Alto Magic Valley	Columbia and NW	High (3-4)	Extremely High (4-5)	Extremely high (>80%)*	Low-medium (0-2 cm/yr)	Medium-high (0.50-0.75)	Medium-high (0.66-1.00)	Low-medium (0.2-0.4)	Low-medium (1 in 1000 to 2 in 1000)
Alto Columbia	Columbia and NW	Low (0-1)	Low (0-1)	Low (<10%)	Low-medium (0-2 cm/yr)	Low (<0.25)	Low (<0.33)	Low-medium (0.2-0.4)	Low (0 to 1 in 1000)
Sacramento Office	California	Medium-high (2-3)	High (3-4)	Medium-High (20-40%)	High (4-8 cm/yr)	Medium-high (0.50-0.75)	Medium-high (0.66-1.00)	Low-medium (0.2-0.4)	Low-medium (1 in 1000 to 2 in 1000)

Matrix above is current as of September 10, 2024. All have low (0 to 9 in 1,000,000) coastal flood risk.

*Water depletion is major contributor. This value is calculated using consumptive withdrawals for uses such as domestic, industrial, irrigation, and livestock.

SUSTAINABLE DEVELOPMENT GOALS



Supporting sustainable farming and local farmers

- ✓ Annual company food drive for local pantries
- ✓ Investment in infrastructure for food and feed
- ✓ Plant-based proteins, high protein feed products, corn oil for food and feed uses, high-quality alcohols for vinegar and beverage/food industry



Providing healthcare for employees

- ✓ Social responsibility programs covering vendors
- ✓ Employee assistance programs
- ✓ Reducing air, water, and soil pollution and contamination from hazardous chemicals
- ✓ Production of pharmaceutical-grade products



Maintaining robust anti-discrimination, whistleblower and ethics policies

- ✓ Employee assistance program
- ✓ Encouragement of women and minority applicants
- ✓ Training on harassment and discrimination prevention
- ✓ Protect labor rights, maintain systems that prohibit all forms of forced labor, modern slavery, human trafficking, child labor, and discriminatory practices



Producing bio-based renewable fuel at low cost to gasoline derived from fossil fuels

- ✓ Continue to increase percentage of renewable energy at operational facilities
- ✓ Improve efficiencies with cogeneration and renewable natural gas projects
- ✓ Carbon capture projects being developed for both biogenic and cogeneration CO2



Adapting to climate change, including carbon capture & storage

- ✓ Improved energy and water efficiencies
- ✓ Innovation for higher yields and more efficient processes
- ✓ Sustainably sourced ingredients
- ✓ Waste management systems

AWARDS & CERTIFICATIONS



EcoVadis In our second-year reporting to EcoVadis, Alto ICP was in the 82nd percentile and Alto Pekin was 67th percentile, with both facilities achieving Bronze Medal ratings in the top 35% of facilities assessed. These locations represent three out of Alto's five plants and cover 70% of our production capacity and all of our food and high-quality alcohol business.



ACD Responsible Distribution™ Our break-bulk packaging and distribution facility, Eagle Alcohol Company, has maintained a ACD Responsible Distribution certification since 2017. ACD Responsible Distribution is a standard with a framework built on environmental, health, safety, and security standards to continuously improve the chemical storage, handling, transportation, and disposal sector.



FSSC 22000 FSSC 22000 is a global food safety initiative (GFSI) recognized scheme that provides a certification model that can be used in the food manufacturing industry and the related supply chain to ensure food safety standards and processes. Our Alto Pekin Yeast Plant successfully completed FSSC 22000 certification for our yeast products, Alto Yeast™. With this certification, we have strengthened our food safety program and created more opportunities to sell to the global market.



FSC36 (Safe Feed/Safe Food) Safe Feed/Safe Food (SF/SF) is a Safe Quality Food Institute (SQFI) recognized standard. The SF/SF standard ensures compliance with the Food Safety Modernization Act's animal food rule and exceeds regulatory requirements associated with manufacturing of animal food. Our Alto ICP, Alto Pekin Wet Mill, and Alto Pekin Dry Mill facilities have successfully obtained this certification in Fall 2023 for animal food products. This certification has resulted in positive feedback from our customers as we show commitment to animal food safety.



ISO 9001:2015 We maintain a corporate ISO 9001:2015 certification with multi-site certifications at our Alto ICP, Alto Pekin, and Eagle Alcohol Company facilities. Our ISO 9001:2015 quality management system provides the framework for maintaining the highest quality standards for our stakeholders.



HACCP Our food-grade facilities, Alto ICP and Alto Pekin Wet Mill and Yeast Plant, have been Hazard Analysis and Critical Control Point (HACCP) certified since 2020. HACCP is based upon Codex Alimentarius General Principle of Food Hygiene provides the framework for completing risk assessments and hazard analyses regarding the food safety of the products produced at the facility.



EXCiPACT and ICH Q7 Alto ICP has been ICH Q7 Good Manufacturing Practice and EXCiPACT certified since 2021. The ICH Q7 and EXCiPACT certifications provide the framework for good manufacturing practices and requirements for all active pharmaceutical ingredient (API) and excipient products.



ISCC The International Sustainability and Carbon Certification (ISCC) is an independent multi-stakeholder initiative and leading certification system supporting sustainable, fully traceable, deforestation-free and climate-friendly supply chains. With our certification, we contribute to environmentally, socially, and economically sustainable production. Alto Pekin Wet Mill, Yeast Plant, and Alto ICP facilities have waste streams that are ISCC EU and ISCC+ certified.



SOCIAL RESPONSIBILITY

LABOR & HUMAN RIGHTS

We prioritize the well being, health, and safety of our employees and strive to be the employer of choice in the communities where we operate. Through our Gallup employee engagement surveys conducted annually, we monitor engagement, training quality, alignment on our company mission, and other factors to ensure employees have the resources they need to be successful every day. Our engagement score increased by 0.21 from 3.51 in 2022 to 3.72 in 2023 (5-point scale), and all 12 engagement metrics went up year-over-year. We will work on our participation rate,

which decreased from 64% in 2022 to 49% in 2023.

73% of responding employees say they have someone at work who cares about them as a person.

Employee growth and retention are important, and we attract and retain top talent within our sector by offering comprehensive and competitive benefits. We offer robust medical, dental, and vision plans, employer-paid short and long-term disability insurance, employer-paid basic life and AD&D insurance, and a generous

401k plan with 6% match – we focus on competitive compensation and benefits for our employees. We have paid leave and holidays, two floating holidays per year, reimbursement toward fitness memberships, and a third-party Employee Assistance Program (EAP) with financial resources and tools, counseling services and guidance for life planning, and other wrap-around support. All employees have one paid community service holiday per year to use engaging in community service or other charitable activities on the scheduled day off.

LABOR & HUMAN RIGHTS - CONTINUED

75% of promotions to management level in 2023 were internal candidates.

We are also dedicated to protecting the rights of people across our business. We maintain a strong Code of Ethics, which outlines our commitment to respect the human rights and dignity of people and conduct our business in line with the International Labor Organization (ILO) core conventions. We are committed to:

- **Freedom of association and recognition of the right to collective bargaining**

In April 2024, we had a total of approximately 455 employees, with 390 on-site and 65 remote/hybrid. Unionized employees make up 43% of our total employment with 50 employees in the United Food & Commercial Workers Union (UFCW Union) and 145 employees in the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers

International Union (USW Union). The average tenure of our USW Union employees is 12 years, and the average tenure of our UFCW Union employees is 13 years compared to an average tenure of seven years for non-union employees company wide. The percentage of female employees in our union workforce more than doubled from year-end 2022 to year-end 2023.

- **Elimination of all forms of forced or compulsory labor**
- **Abolition of child labor**

Our California Transparency in Supply Chains Act Disclosure outlines our commitment to operating and conducting all business activities in accordance with high ethical standards and prevent abuses of human rights across our supply chain. Vendors undergo a qualification process and there are both annual scorecards and on-site audits conducted for key vendors. Forced or child labor concerns are against Alto policies and core values and will result in disqualification of a

vendor. We maintain third-party social responsibility certifications, including on-site audits. Employee interviews are conducted without management present to provide transparency on ethical practices within the company. We conduct background checks and verification to ensure all employees meet age guidelines for tasks they are assigned, as of April 2024 we had no employees under the age of 18.

- **Elimination of discrimination in respect of employment and occupation**

Anti-discrimination and harassment training is conducted annually, and all managers have additional training to ensure there is both awareness and communication of our core value of respect. A 7% increase in Gallup culture of inclusion index questions year over year from 2022 to 2023 indicates an increasing trust in leadership on key items such as integrity and supporting strengths and respect of employees as individuals. We monitor the needs of our employees through employee

LABOR & HUMAN RIGHTS - CONTINUED

engagement, having multiple forms of feedback available, including company-wide town halls once per quarter and Trakstar performance reviews to provide objective framework for rating employee performance on their goals and competencies, and annually strategic planning at the corporate, site, and departmental levels.

We have a 24/7 whistleblower hotline for employees, contractors, customers, and other stakeholders to communicate any discrimination or other human rights concerns. The Executive Committee and Board are briefed in a timely manner on ethics hotline reports as they arise. In response to third-party materiality assessments, we have updated and clarified our key policies and standards on anti-discrimination and harassment, human rights, anti-

corruption, Code of Ethics, Supplier Code of Conduct, Whistleblower Policy, Product Safety and Quality, and documentation is accessible at <https://ir.altoingredients.com/sustainability>.

- **A safe and healthy working environment**

Health and Safety metrics are tracked and communicated across the organization regularly through monthly safety committee meetings at each site, within safety bulletins and corporate updates, and through Dashboard reporting to the Board. KPIs include OSHA incident rates with a goal of 50% reduction year-over-year, near misses and incident summaries, and safety work orders open and closed. Sites engage in Safety Week activities to highlight key topics, introduce personal protective equipment (PPE) options available

to employees, provide free health screenings, and coordinate team building activities. Working conditions are assessed regularly with job hazard analysis activities, and we utilize PROtect as an external resource to conduct on-site evaluations for occupational health and safety as well as infrastructure safety assessments. Guidance Resources® Program is available 24/7 to assist with issues such as mental health, addiction, domestic abuse, and other support needs.

EEO-1 DISCLOSURE

At Alto, our mission is to produce the highest quality, sustainable ingredients from renewable resources that make everyday products better. We consider our well-qualified and highly skilled employees along with long-standing customer and supplier relationships and to be a competitive strength and integral to the success of our company. We value the people we serve and the communities in which we operate and are committed to providing an inclusive environment.

Alto Ingredients' policy is to provide equal employment opportunity for all applicants and employees. The company does not discriminate in employment opportunities, compensation, or other practices on the basis of race, color, religion, sex, pregnancy, age, national origin or ancestry, physical or mental disability, veteran status, marital status, legally protected medical condition, sexual orientation, gender identity as well as any other characteristic protected by federal, state, or

local law. All such discrimination is prohibited and all persons involved in the operation of the company are prohibited from engaging in this type of conduct.

To provide further transparency, we have chosen to publicly disclose our annual submission to the U.S. Equal Employment Opportunity Commission (EEOC) with the table below indicating our workforce snapshot period of October 1-14, 2023.

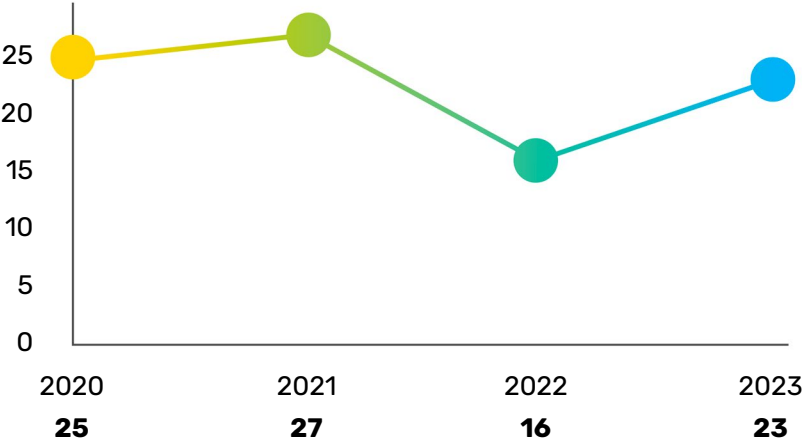
Job Categories	Hispanic or Latino		Not Hispanic or Latino												Total
	Male	Female	Male						Female						
	Hispanic or Latino	Hispanic or Latino	White	Black or African American	Asian	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	Two or More Races	White	Black or African American	Asian	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	Two or More Races	
Executive/Senior Level Officials and Managers	0	0	10	0	0	0	0	0	2	0	0	0	0	0	12
First/Mid- Level Officials and Managers	0	0	62	2	1	1	0	1	17	0	2	0	0	0	86
Professionals	1	0	24	1	1	0	0	0	11	1	0	0	0	0	39
Technicians	1	2	7	0	0	0	0	1	5	0	0	0	0	0	16
Sales Workers	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Administrative Support Workers	0	4	4	1	0	0	0	0	10	0	0	0	0	0	19
Craft Workers	5	0	62	2	0	0	0	2	3	0	0	0	0	0	74
Operatives	18	1	155	3	1	2	0	0	9	0	0	0	0	0	189
Laborers and Helpers	0	0	6	1	0	0	0	0	0	0	0	0	0	0	7
Service Workers	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Current 2023 Report Year Total	25	7	334	10	3	3	0	4	57	1	2	0	0	0	446
Prior 2022 Reporting Year Total	18	7	335	10	3	2	1	5	55	0	2	0	0	0	438

Note: The U.S. EEOC sets job categories as above, and as such they may not reflect categories utilized in Alto's organizational structure.

HEALTH & SAFETY

We are dedicated to upholding the highest standards of health and safety throughout our operations. Our Environmental, Health, Safety (EHS) Policy outlines our standards and objectives for providing a safe and healthy work environment for employees, contractors, and visitors to our facilities. Our EHS programs and safety committees enable us to monitor and improve our health and safety performance. In the case of safety incidents, we have implemented processes to identify the cause and ensure remedies are in place to prevent future occurrences. Contractors are covered in our occupational health & safety training and policies, and safety records review of vendors is part of our vendor qualification process as well as on-going performance evaluation.

OSHA RECORDABLES



Health & Safety Metrics ¹	2022	2023
Rate of High-Consequence Work-Related Injuries based on 200,000 hours worked	0.23	0
Rate of Recordable Work-Related Injuries (excluding Covid) based on 200,000 hours worked	2.29	5.13
OSHA Recordables ²	16	23
High-Consequence Injuries ³	1	0
Employee and Contractor Fatalities ⁴	0	0

¹ Metrics cover 100% of ALTO's operations, including production, warehousing, distribution, and offices.

² Six OSHA Recordables related to COVID exposure in 2022

³ As defined by GRI 403 Occupational Health and Safety Standards 2018

⁴ There have been none in the last 6 years.



PRODUCTS

PRODUCT SAFETY & QUALITY

Alto Ingredients consistently provides products and services that meet or exceed the requirements and expectations of our customers. Our Quality Policy drives that “Quality Is Essential” and is supported by our quality management system enabling us to pursue ever improving quality through programs that enable each employee to do their job right the first time and every time. We have processes to identify and mitigate material risks, deliver training to employees to ensure their understanding of responsibilities and standards, and we continuously engage internal and external stakeholders to learn and improve.

We maintain multiple certifications throughout the organization with a

focus on quality management and product quality and safety. In 2023, we focused on strengthening our food safety programs with an increase in food safety and quality certifications, such as Safe Feed/Safe Food and FSSC 22000. Due to this increase in certifications, the company spent approximately 11% of the working hours of the year in an audit as compared to the approximately 4.5% in 2022.

As a leading specialty alcohol manufacturer in the United States, we strive to provide alcohol products which meet the needs of all our customers. This includes a best-in-class beverage quality product, offering at a variety of proofs, including 200 proof low-moisture

grain neutral spirits (GNS), as well as 190 proof pharmaceutical grade product.

To ensure product quality and safety is at the forefront of our business, we conduct annual management reviews, internal audits, and Annual Product Quality Reviews. We review our product data sheets, safety data sheets (SDS), and customer statements, such as animal testing, on a regular basis. Alto Ingredients has had zero product recalls in the last five years, but we conduct annual traceability exercises for our alcohol and essential ingredient products to ensure our product recall processes remain strong.

SUSTAINABLE SOURCING AND SUPPLY CHAIN MANAGEMENT



Alto Ingredients is committed to having a positive impact on our employees, investors, partners, consumers, and the planet we share. We require all vendors who do not have their own Code of Ethics which meets our standards to acknowledge our Supplier Code of Conduct to establish and communicate principles and expectations for our supplier partners. This Code is overseen by both the Quality and Purchasing departments to ensure suppliers are selected and monitored based on the highest standards.

We have been a SEDEX member since 2021. Starting in 2022, we have been working with our critical suppliers to assist them in obtaining their SEDEX membership to allow risk assessments of our suppliers which provides visibility into sourcing of goods and services and ensures our partners have responsible and ethical business practices in place. For the 2023 calendar year, we approached approximately 40 suppliers to participate in the SEDEX program. Approximately 40% of those suppliers became members of the program and completed the questionnaire for risk assessment. Our goal is to increase the number of our suppliers who both obtain their SEDEX membership and complete the questionnaire for risk assessment each year. As more data is entered into this system, we will be able to analyze these risk assessments and create science-based targets and requirements of our suppliers.

We conduct on-site assessments of critical suppliers and provide annual scorecards to our key vendors to provide metrics on their performance for the calendar year. This scorecard includes analysis for quality, safety, service, and sustainability. Our baseline target for our supplier is a score of 80%. For the 2023 calendar year, the average score was 88% which is a decrease in overall score from 98% in 2022. As we both add more suppliers to this program and add more detailed requirements and continuous improvement expectations for our suppliers, we anticipate these scores being lower than our initial scoring program. For 2024, we are adding more suppliers and critical service contractors to the program.

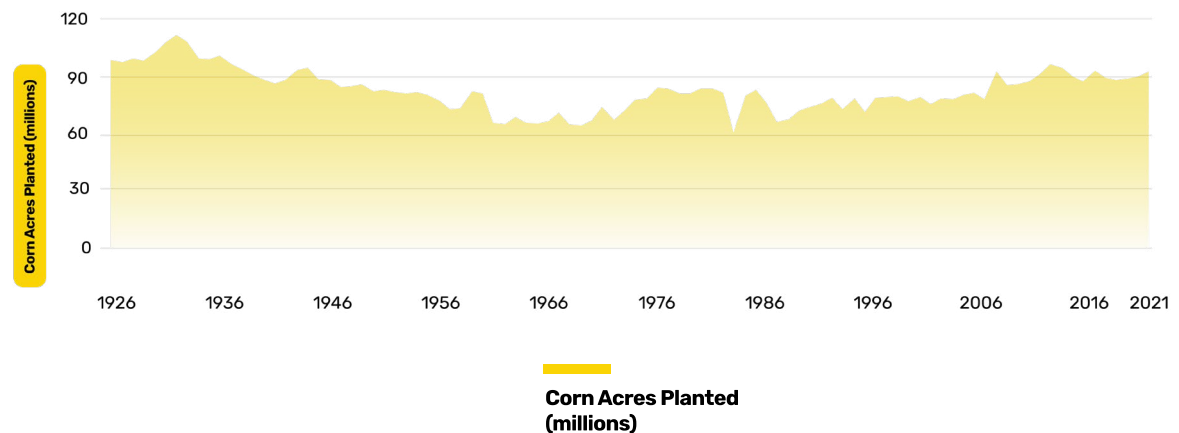
SCORECARD METRICS	2021	2022	2023
Scorecard Score	90%	98%	88%
Number of Suppliers in Program	30	32	36

FOOD VS. FUEL

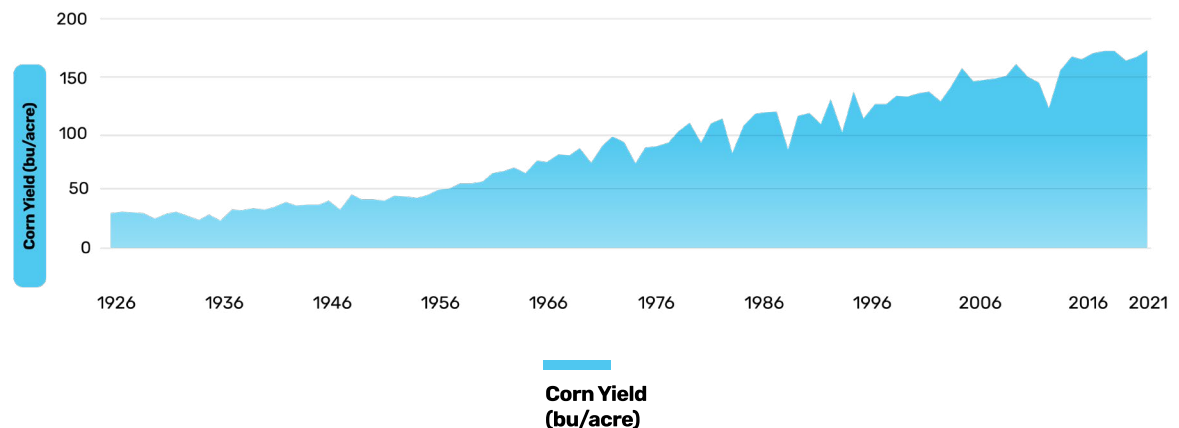
According to Growth Energy, "Compared to the 1930s, farmers today grow five times as much corn using 20% less acreage. Corn acres have not grown since 2007 when Renewable Fuel Standard was implemented, yet yields continue to increase. A corn kernel's starch is fermented to make ethanol and the kernel's valuable protein, minerals, vitamins, and fiber are all preserved in co-products such as animal feeds and oils. As a result, producing ethanol fuel from corn has no effect on the supply of food nutrients from corn. Ethanol production uses animal feed corn – not sweet corn that people eat – as its feedstock. The equivalent of nearly 30 percent of the bushels going into ethanol production are returned to the market in the form of dried distillers grains (DDG) for animal feed. Notably, U.S. DDG production represents the fourth largest source of grain-based livestock feed in the world."¹

¹Source: https://growthenergy.org/wp-content/uploads/2022/05/7_22040_May-Fly-in_Food-vs-Fuel.pdf and pages 29-32 of https://www.nass.usda.gov/Publications/Todays_Reports/reports/croptr21.pdf

CORN ACRES PLANTED (1926-2021)



GRAIN YIELD (1926-2021)



GOVERNANCE

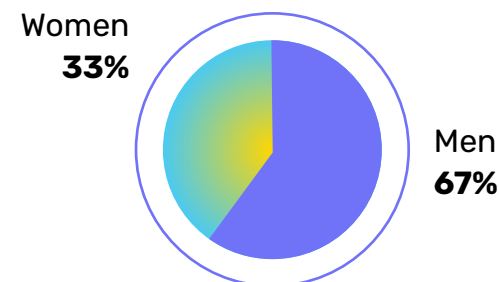
OUR LEADERSHIP

In the last two years, refreshment of our Board of Directors has been key for bringing new ideas and skill sets to further our strategic goals, including sustainability. As of 2023, 60% of our directors have knowledge or experience around environmental, health, and safety (EHS) and sustainability, which enables our Board to effectively oversee and guide our continuous progress in these areas. There are now two financial experts on the Board, and all Board members have required Information Security training assigned on a monthly basis.

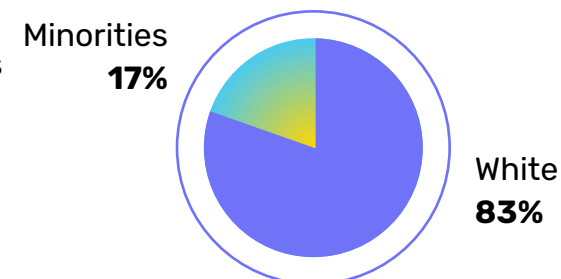
BOARD DIVERSITY

As part of our Board refreshment, we have sought out highly qualified women and minority candidates as well as candidates with diverse backgrounds, skills and experience. We integrate these considerations as part of each Board member candidate search the committee undertakes and have outlined these responsibilities in the charter of our Nominating and Corporate Governance Committee. When searching for director nominees, the committee will include highly qualified diverse candidates (including gender, race and ethnicity) in the pool from which nominees are chosen. From 2021 to 2024, we doubled the number of women on our Board of Directors and increased the representation of minorities on our Board to 17%.⁵

Gender Diversity on the Board



Racial / Ethnic Diversity on the Board



⁵ Data is as of June 2024

SKILLS AND EXPERIENCE

Skills and Experience	MARIA G. GRAY	MICHAEL D. KANDRIS	DOUGLAS L. KIETA	BRYON T. MCGREGOR	GILBERT E. NATHAN	DIANNE S. NURY
Operations	•	•	•	•		•
Audit/Risk/Cybersecurity		•		•	•	•
Mergers & Acquisitions		•	•	•	•	•
Regulatory		•		•		•
Government Affairs		•		•		•
Agriculture/Commodities		•		•		•
Leadership	•	•	•	•	•	•
Finance & Investments		•		•	•	•
Industry Experience	•	•	•	•		•
HR & Talent Development	•	•	•	•		•
EHS/Climate Skills/Sustainability	•	•		•		•
Years on Alto Board as of June 20, 2024	2	16	18	0; newly elected in 2024	5	5

BOARD DIVERSITY MATRIX DISCLOSURE

As of June 20, 2024	FEMALE	MALE	NON-BINARY	DID NOT DISCLOSE
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Total Number of Directors: 6

Part I: Gender Identity

Directors	2	4	-	-
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Part II: Demographic Background

African American or Black	-	-	-	-
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Alaskan Native or American Indian	-	-	-	-
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Asian	-	-	-	-
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Hispanic or Latinx	1	-	-	-
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Native Hawaiian or Pacific Islander	-	-	-	-
-------------------------------------	---	---	---	---

White	2	4	-	-
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Two or More Races or Ethnicities	1	-	-	-
----------------------------------	---	---	---	---

LGBTQ+	-	-	-	-
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Did Not Disclose Demographic Background	-	-	-	-
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Additional information:

1 member of the Board identifies as 100% Persian

To see our Board Diversity Matrix as of June 22, 2023, please see the proxy statement filed with the SEC on April 26, 2024.

BUSINESS ETHICS

Integrity, honesty, and fairness are fundamental to our business and our long-term company success. We are dedicated to fostering a culture of ethics and responsibility to ensure that all our decisions and actions are informed by this commitment to business ethics.

We expect all of Alto's directors, officers, employees, and partners to act in accordance with the standards outlined in our Code of Ethics. All employees receive training for the Code of Ethics and are required to read and acknowledge the requirements on an annual basis. In 2023, we refreshed our Code of Ethics to include more details on anti-corruption, anti-bribery, human rights, and whistleblower protections. We also maintain a separate Code of Ethics for Alto Ingredients' Chief Executive Officer, Chief Financial Officer, and other senior financial officials to outline additional standards and responsibilities based on their roles.

We are governed by our Whistleblower Policy that sets the expectation for

employees, consultants, officers, or directors to promptly report any suspected misconduct in accordance with our Code of Ethics. Our 24/7 anonymous hotline is open to employees, vendors, customers, and any other interested parties who want to submit a good faith complaint without fear of discrimination or retaliation. In 2023, we clarified our Whistleblower Policy on issues, including accounting, ethics, environmental, health and safety, harassment and other concerns. The Supplier Code of Conduct outlines business ethics expectations for our suppliers and other business partners, and is mentioned in further detail on page 24 of this report. As a publicly traded company, we are committed to meeting or exceeding all compliance with Sarbanes-Oxley Act (SOX) reporting and data standards. The independent registered public accounting firm RSM US LLP has issued an unqualified opinion for the most recently concluded fiscal year, and the company has not restated or disclosed late financial statements in the last six years.



TRAINING

Alto Ingredients provides both initial and recurring training for all our employees. Our training program includes in-person and computer-based training that covers a range of topics, not limited to the following:

- ✓ Harassment
- ✓ Ethics
- ✓ Bloodborne pathogens
- ✓ Ergonomics (Industrial and Office)
- ✓ Hazard Communication
- ✓ Lockout Tagout
- ✓ Personal Protective Equipment (PPE)
- ✓ Workplace Safety Basics
- ✓ Incidental Spill Response
- ✓ Stormwater Treatment
- ✓ Fire Prevention and Response
- ✓ Grain Handling
- ✓ Cybersecurity (discussed in further detail on page 31)

Our employees must complete approximately six hours of computer-based training annually. In-person and on-the-job training is completed at all facilities; however, that metric is not included in this total number. At all facilities, we do require our contractors to acknowledge our safety and quality policies prior to beginning any work on site. For our production facilities, all contractors must watch an approximately 25-minute video on an annual basis.

Our minimum requirement of annual computer-based training, which is typically for our office and remote workers is approximately three hours of training with our operations and reliability-oriented employees must completing approximately six and one half hours of training. The weighted

average of annual computer-based training is approximately six hours as the majority of our workforce is comprised of our operations and reliability departments.

CYBERSECURITY

At Alto Ingredients, our commitment to sustainability encompasses not only environmental stewardship but also robust digital security practices essential for protecting our customers and supporting our community. We implement rigorous cybersecurity measures based on top information security standards, such as the National Institute of Standards and Technology Cybersecurity Framework. We continuously update our strategies to counteract emerging cyber threats, ensuring the integrity, availability, and confidentiality of our data, and fostering a sustainable future where technology and security converge. Under the vigilant oversight of our Board of Directors, including

our Audit Committee, we adopt a comprehensive and forward-looking approach to managing cybersecurity risks. Our management team, spearheaded by the Chief Financial Officer and the Director of Information Technology, provides at least quarterly updates to the Audit Committee to ensure a strategic, unified response to cybersecurity challenges. Committed to transparency and regulatory compliance, both our Board and IT team ensure timely disclosures of material cybersecurity breaches as mandated by the Securities and Exchange Commission (SEC).

We mandate comprehensive cybersecurity training for all

employees and Board members on a regular schedule, including monthly, annual, and event-driven sessions, to keep pace with the evolving threat landscape. Additionally, we partner with multiple third-party firms for routine assessments to maintain a strong defense posture. We also uphold comprehensive information security risk insurance, reinforcing our commitment to resilience and trust. In 2024, we have successfully maintained zero identified leaks, thefts, or losses of customer data, underscoring our commitment to safeguarding sensitive information.



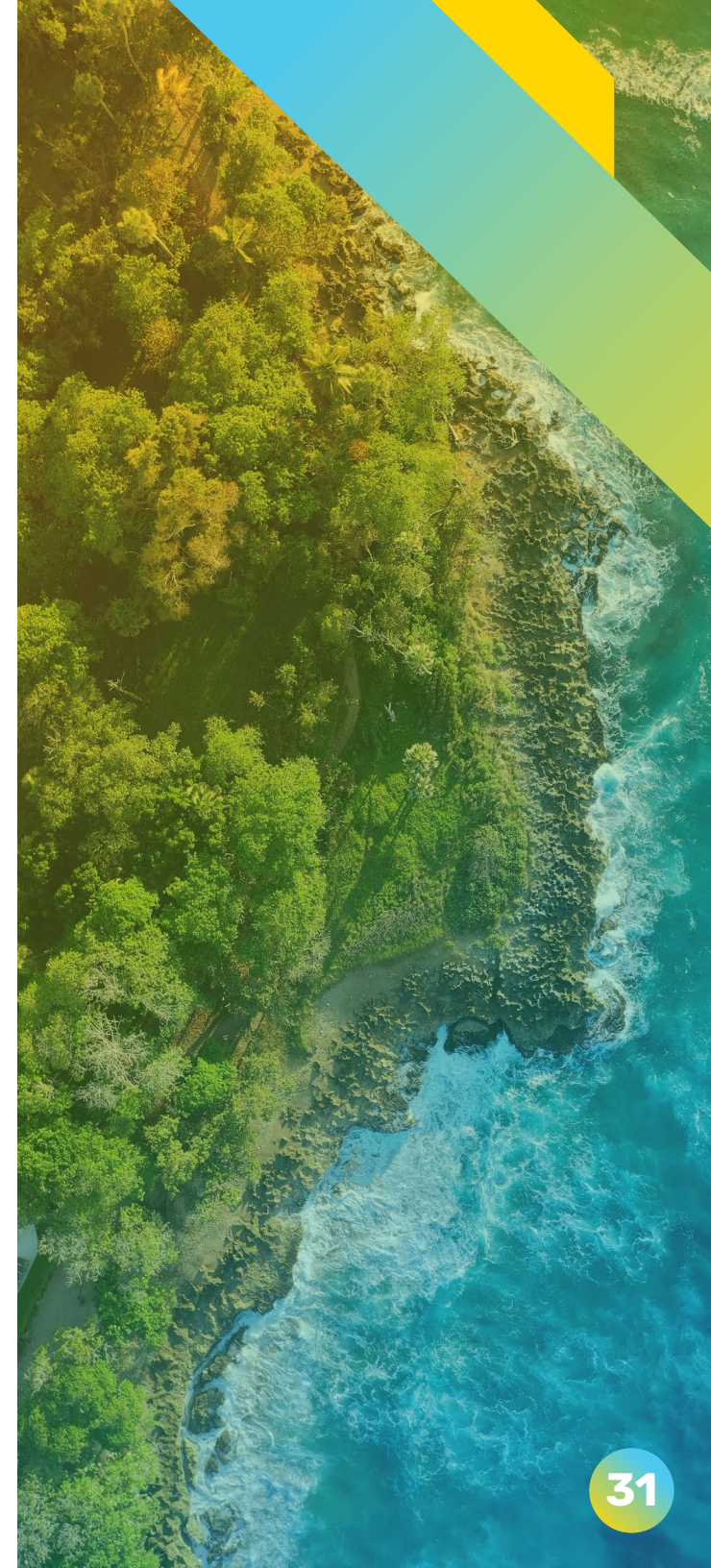
BIODIVERSITY

At Alto Ingredients, we take into consideration the communities in which we operate and our impact on those locations as well as through our supply chain. Our feedstock is corn that is sourced domestically, and 100% of our employees and our facilities are based in the United States.

Biodiversity-sensitive areas summary:

- Natura 2000 for E.U. land areas are not in proximity of our U.S. facilities
- Cahokia Mounds is the closest UNESCO World Heritage site which is approximately 10 miles from our St. Louis distribution facility, with none of the others being nearby.
- None of our operations or offices are located in or within 10 miles of Key Biodiversity Areas (KBAs) as outlined in the KBA Programme.

Environmental considerations, including biodiversity-sensitive areas, are evaluated as part of potential merger and acquisition activities as well as developing projects. As discussed in our food vs. fuel information on page 25, the acreage used domestically for corn crops has not increased over the last 100 years, so we do not anticipate any deterioration of natural habitats due to feedstock. We aim to meet or exceed all permitting requirements for air and water at our facilities and seek to continuously improve on our emissions and efficiencies.



ALTO

INGREDIENTS





APPENDIX

INDEPENDENT REASONABLE ASSURANCE STATEMENT

To: The Management of Alto Ingredients, Inc.

Ashworth Leininger Group (ALG) has been commissioned by Alto Ingredients, Inc. (Alto) to perform a reasonable assurance review of Alto's 2023 Greenhouse Gas (GHG) emissions reported to the United States Environmental Protection Agency (US EPA) for Reporting Year (RY) 2023. This assurance statement applies to the subject matter included within the scope of work described below. The information reviewed by ALG and the presentation of reported data are Alto's sole responsibility. ALG's sole responsibility is to provide independent assurance of the accuracy of reported emissions.

Alto's Responsibility

Alto prepared GHG emissions calculations and reported these data to the EPA in adherence to the requirements of 40 CFR Part 98. Alto provided all supporting data used to calculate reported emissions. Alto provided access to ALG to conduct site inspections of the subject facilities during the reasonable assurance review of the 2022 emissions; no site visit was conducted as part of 2023's data review.

ALG's Responsibility

ALG's responsibility was to perform an independent verification of Scope 1 and Scope 2 emissions used as part of Alto's sustainability disclosures, including the greenhouse gas emissions reported to EPA for RY2023.

Assurance Type and Scope

Verification has been performed in accordance with the procedures and standards given in the California Air Resources Board (CARB) AB-32 Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (17 CCR 95130-95133). The purpose of this verification service was to determine with reasonable assurance whether the facility has collected data and prepared emissions calculations to accurately support Alto's Scope 1 and Scope 2 sustainability disclosures. For those emissions reported to EPA, ALG evaluated conformance with 40 CFR Part 98.

The CARB verification standard was chosen because it promotes robust and rigorous audit practices to support California's Cap and Trade program. Adherence to the CARB verification standard provides reasonable assurance that reported emissions are accurate to within $\pm 5\%$.

Summary of Work Performed

ALG reviewed Alto's Scope 1 and Scope 2 GHG emissions as part of the verification process, including the GHG emissions reports submitted to EPA for RY2023. ALG also identified additional Scope 1 emission sources not subject to EPA GHG reporting, and emissions

from these sources were evaluated for reference and comparison purposes when data were available to do so. Scope 2 emissions are not subject to EPA GHG reporting, but were reviewed by ALG. Scope 3 emissions were not evaluated in this verification cycle. Any discrepancies or omissions identified by ALG during the verification process are discussed in the verification report.

Conclusion

Based on ALG's analysis of Alto's data and calculations and in our professional judgement, ALG provides the following verification summary for the RY2023 Scope 1 and Scope 2 emissions:

1. Scope 1 Part 98 emissions: ALG finds with reasonable assurance that reported emissions are accurate to within $\pm 5\%$ at all facilities. Discrepancies, omissions, and non-conformances with 40 CFR Part 98 are identified in the verification report.
2. Scope 2: ALG finds with reasonable assurance that Scope 2 emissions calculations (purchased electricity) are accurate to within $\pm 5\%$ at all facilities.
3. Scope 1 non-Part 98 emissions: ALG identified emission sources at all facilities that were not reported to EPA, but are considered Scope 1 emissions as defined in the Greenhouse Gas Protocol¹. Where possible, these additional Scope 1 emissions were calculated by ALG for comparison and discussion purposes only; reasonable assurance of these emission sources was not requested by Alto, but these sources are discussed within the verification report.

Statement of Competence and Independence

Ashworth Leininger Group is an accredited CARB Mandatory Reporting Regulation (MRR) verification body (EO #: H-22-014) with over ten (10) years of experience in providing third party verification services in adherence to Sections 95130 to 95133 of the MRR. ALG has not provided any environmental consulting services or any other categories of consulting services to Alto that would constitute a conflict of interest under CARB's verification standards.



Elliott Ripley
Lead Verifier
Ashworth Leininger Group
Camarillo, CA



Lara Gertler, Ph.D.
Independent Reviewer
Ashworth Leininger Group
Camarillo, CA

April 16, 2024

¹ Greenhouse Gas Protocol Corporate Standard, accessed 4/16/24:
<https://ghgprotocol.org/corporate-standard>

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Alto Ingredients, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Alto Ingredients, Inc. and its subsidiaries (the Company) as of December 31, 2023 and 2022, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2023, and the related notes to the consolidated financial statements (collectively, the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013, and our report dated March 13, 2024, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of indicators of long-lived asset impairment

As described in Note 1 to the financial statements, the Company assesses the impairment of long-lived assets, including property and equipment, when events or changes in circumstances indicate that the fair value of assets could be less than their net book value. The Company's assessment did not result in an impairment for the year ended December 31, 2023.

We identified the evaluation of impairment indicators for long-lived assets as a critical audit matter because of the significant assumptions management makes when determining whether events or changes in circumstances have occurred indicating that the carrying amounts of property and equipment may not be recoverable. This required a high degree of auditor judgment when performing audit procedures to evaluate whether management appropriately identified and evaluated impairment indicators.

Our audit procedures related to the assessment of long-lived assets for possible indications of impairment included the following, among others:

- We obtained an understanding of management's process and internal controls over management's evaluation of potential indicators of impairment and tested the operating effectiveness of the controls
- We obtained management's analysis of potential indicators of impairment and evaluated management's analysis by:
 - Agreeing current period operating profits or losses for all identifiable asset groups to respective trial balances
 - For asset groups in a current period loss, compared the current period operating loss to historical operating profits or losses
 - Prepared an independent expectation of the underlying fair value for one identified asset group that had both current period and historical operating losses by:

- Evaluating publicly available information related to sales of comparable production facilities
- Comparing the sales price per nameplate production gallons to the carrying value of the asset group
- Reading board of directors meeting minutes, press releases, and publicly available information for indications of significant changes in the manner of or the use of the asset group

/s/ RSM US LLP

We have served as the Company's auditor since 2015.

Rochester, Minnesota
March 13, 2024

To the Stockholders and the Board of Directors of Alto Ingredients, Inc.

Opinion on the Internal Control Over Financial Reporting

We have audited Alto Ingredients, Inc.'s (the Company) internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets as of December 31, 2023 and 2022, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2023, and the related notes to the consolidated financial statements of the Company and our report dated March 13, 2024 expressed an unqualified opinion.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ RSM US LLP

Rochester, Minnesota
March 13, 2024