GREENER PASTURES BEYOND THE HORIZON

Industry-Wide Coverage: Food & Beverage/Agriculture

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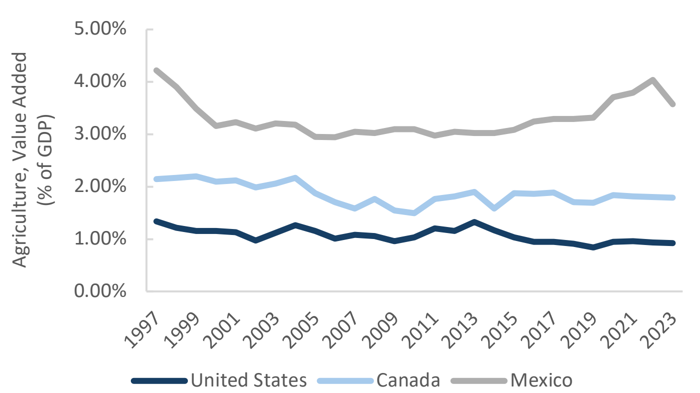
Evaluating ESG Benchmarks in the Agriculture, Food, and Beverage Industries

FOOD & BEVERAGE/AGRICULTURE: SIGNIFICANT CONSTITUENTS OF THE NORTH AMERICAN ECONOMY

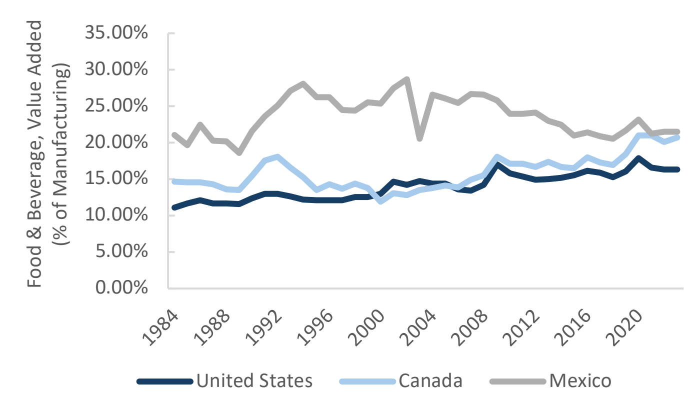
The North American agriculture and food & beverage manufacturing industries play a significant role in the region's economy. In 2023, the industries contributed approximately CA$2.67tr to the gross domestic product (GDP) of the United States, Canada, and Mexico combined, accounting for 6% of the continent's output and supporting millions of jobs across farming, food processing, and distribution sectors (Exhibits 1 & 2).[1; 2; 3] The economic vitality of this sector is underscored by its adaptability and innovation, particularly in response to changing consumer preferences and technological advancements.

Exhibit 1: Despite a Long-Term Downtrend, Agriculture Remains a Key Component of North American Economies…



Source(s): World Bank, Vertige Research

Exhibit 2: …While Food & Beverage Production Have Maintained Growth in Canada & The United States

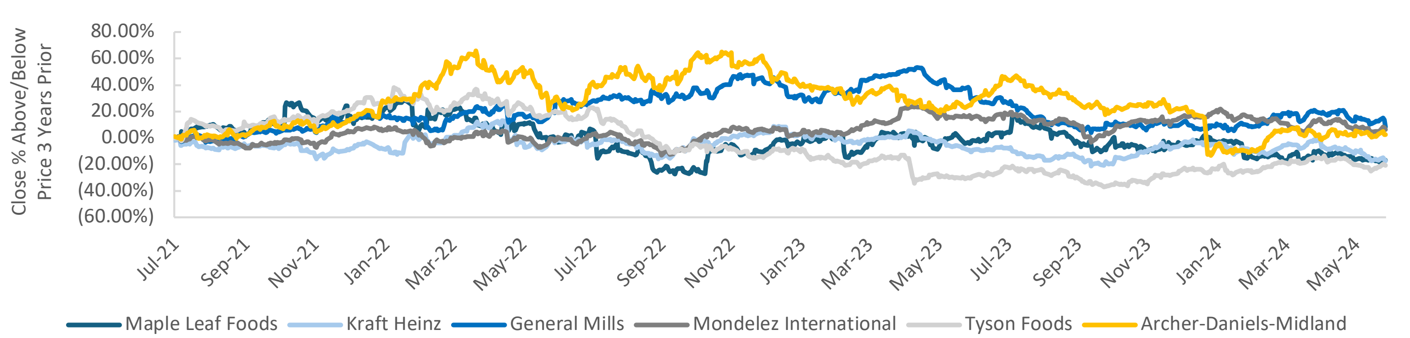


Source(s): World Bank, Vertige Research

INDUSTRY OUTLOOKS DEFINED BY AN ABILITY TO FRONT-RUN POLICY CHANGES

Governments across North America have introduced a series of measures including carbon taxes, sustainable partnerships, and insurance programs to support sustainability in the Food & Beverage/Agriculture industries. This report evaluates Maple Leaf Foods, The Kraft Heinz Corporation, General Mills, Modelez International, Tyson Foods, and Archer-Daniels-Midland Company (Exhibit 3), with the aim of ascertaining which market leading players are best suited to thrive in the growing Environmental, Social, and Governance landscape. We found that companies with higher water management and energy management efficiencies outperform other evaluated agriculture, food, and beverage industry leaders.

Exhibit 3: Performance in Key Agriculture/F&B Constituents Has Levelled Off Since 2022 Highs



Source(s): FactSet, Vertige Research

Increasing Consumer & Regulatory Pressures Key Drivers Behind a Shifting Sustainability Landscape

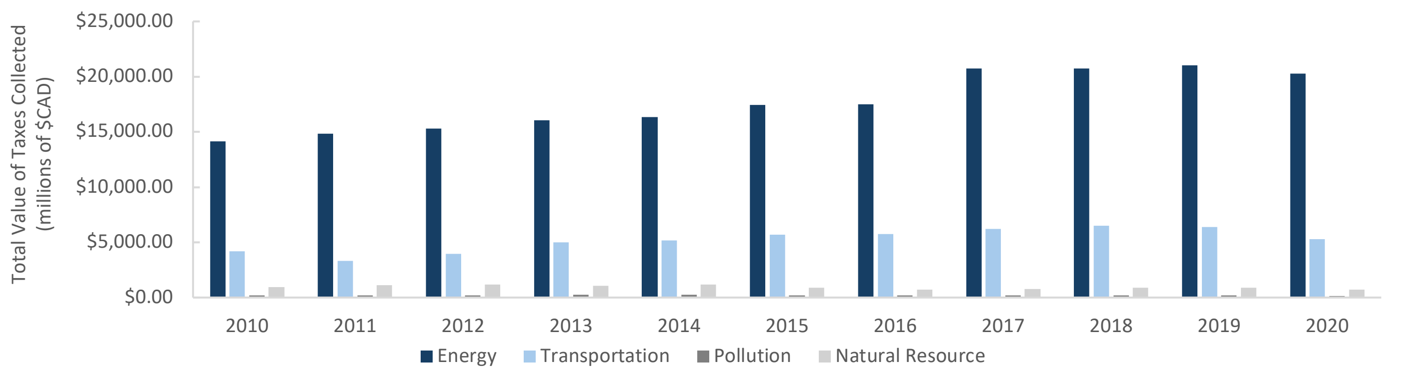
GOVERNMENT PARTNERSHIPS HAVE BEEN KEY IN SUPPORTING THE DEVLOPMENT OF SUSTAINABLE AGRICULTURE

A multitude of policies enacted in North America, as well as a shift in consumer demand, have contributed to the emerging significance of ESG in agriculture, food, and beverage. In the U.S., the 2018 Farm Bill has continued to influence agricultural policy, providing substantial funding for crop insurance, conservation programs, and research initiatives.[4] Meanwhile, the Sustainable Canadian Agricultural Partnership is a new CA$3.5bn, 5-year agreement (2023 to 2028), between the federal, provincial, and territorial governments to strengthen the competitiveness and adaptability of the agriculture sector.[5] This partnership involves targeted investments addressing climate change and supporting business risk mitigation.[6]

HEIGHTENED CARBON TAX, SHIFTING CONSUMER PREFERENCES INCENTIVIZE CLIMATE-FRIENDLY PRACTICES

Canada's carbon tax, an incurred cost of CA$80 per tonne in 2024, and overall emissions reduction policies have profound effects.[7] The current federal carbon tax implemented in Canada led to a significant rise in gasoline prices, now comprising nearly 7% of total fuel costs (Exhibit 4).[8] This is particularly impactful for food production and distribution, as tractors and other farm equipment rely heavily on gas, and the need for quick inventory turnover for perishable products drives up shipping needs. When fuel costs increase due to taxation, it creates a different decision-making environment for farmers, influencing operational costs and driving the adoption of more energy-efficient practices or alternative energy sources. The proportion of Canadian farms utilizing renewable energy more than doubled to 11.9% in 2021 from 5.3% in 2015.[9]

Exhibit 4: Canadian Environmental Taxation Has Consistently Increased

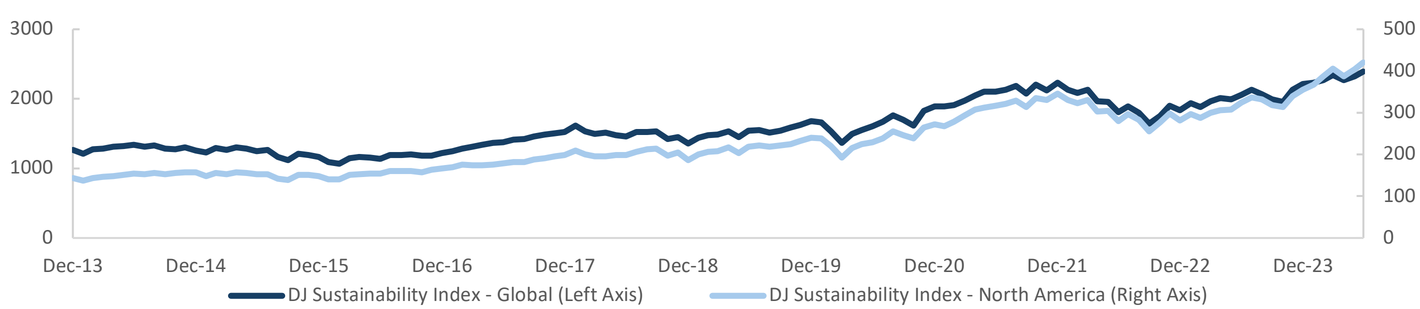


Source(s): Government of Canada, Vertige Research

Consumer demand for sustainably produced goods and transparent ESG reporting has been rising in recent years, prompting these regulatory processes. A 2021 Harvard Business Review study found that 83% of consumers believe companies should be shaping ESG practices.[10] Further, younger consumers of millennial and Gen Z generations are 27% more likely than their older generation counterparts to purchase from a brand visibly dedicated to its impact on people and the planet.[11] Consumers, particularly younger drivers of future consumer behaviour, are indicating a significant increase in demand for companies to address climate issues.

These factors have resulted in a key incentive for companies operating in the Food & Beverage/Agriculture Industries to adopt ESG-friendly business models, as markets have placed increasing value on companies able to prioritize sustainability in recent years(Exhibit 5). In light of these changes, the business environment, particularly in the agriculture sector, has undergone significant shifts, driven by evolving consumer demands, environmental needs, and regulatory pressures.

Exhibit 5: Markets Have Placed Increasing Value on Sustainability in the Last Decade



Source(s): FactSet, Vertige Research

OUR ENVIRONMENTAL, SOCIAL, & GOVERNANCE SCORING FRAMEWORK

The following companies are evaluated holistically using Environmental, Social, and Governance criteria through a proprietary ESG scoring methodology developed by the ESG Research department of Vertige Investment Group. Environmental criteria include greenhouse gas emissions, waste management, energy management, and water management. Social criteria include freedom of association, right to collective bargaining, non-discrimination, abolition of child labour, elimination of forced labour, health and safety policy, working conditions, records, and voluntary social investment. Governance criteria include leadership diversity, shareholder rights, business ethics, supply chain management, and the presence of critical risks. Compliance was assessed through the criterion of self-assessment, International Sustainability Standards Board requirements, and full disclosure. These evaluations aim to understand and rate each company's performance across these criteria when compared to a calculated industry average, generating an overall total ESG score.

Key Constituent Analysis

MAPLE LEAF FOODS INC. (TSX: MFI)

Maple Leaf Foods emphasizes ethical and sustainable food production, with an LTM revenue of CA$4.9bn.[12] Their goals include achieving carbon neutrality, 100% sustainable packaging, and reducing food insecurity in Canada by 50% by 2030 through the Maple Leaf Centre for Food Security.[13]

Maple Leaf Foods performed above average according to industry standards. The total weighted ESG score of 78.9 out of 100 was reached with individual Environmental, Social, and Governance scores of 83.1, 82.5, and 71.2, respectively. Their strongest ESG performances can be attributed to extremely effective waste management and energy management, resulting in the largest positive contribution from their Environmental performance. Further, the company has identified itself as a "carbon-neutral" company. Though carbon offsetting remains a controversial climate change mitigation strategy, their overall higher efficiencies with energy use, emissions, and waste as a result of this program continue to contribute to their success.

GENERAL MILLS INC. (NYSE: GIS)

General Mills aims to enhance nutrition and product accessibility, generating CA$27.4bn in LTM revenue while supporting farmers and communities.[14] With a presence in over 100 countries, they focus on food security, education equity, and ESG commitments like reducing greenhouse gas emissions and innovative packaging design.[15]

General Mills performed just below average according to industry standards. The total weighted ESG score of 70.2 out of 100 was reached with individual Environmental, Social, and Governance scores of 56.3, 80.0, and 70.0, respectively. General Mills' weak ESG score is largely the result of substandard levels of efficiency in the critical areas of water and waste management, resulting in the largest negative contribution from their Environmental performance.

THE KRAFT HEINZ COMPANY (NASDAQ: KHC)

The Kraft Heinz Company, with LTM revenue of CA$36.4bn, is committed to sustainability and corporate citizenship.[16] Their ESG strategy is based on Healthy Living & Community Support, Environmental Stewardship, and Responsible Sourcing, leading to significant reductions in water use, waste, and advancements in sustainable packaging.[17]

The Kraft Heinz Company performed significantly above average according to industry standards. The total weighted ESG score of 76.1 out of 100 was reached with individual environmental, social, and governance scores of 70.0, 90.0, and 73.3, respectively. Their strongest ESG performances can be attributed to high voluntary social investment and leadership diversity, resulting in the largest positive contribution from their Social performance. The Kraft Heinz Company Foundation partnered with the Rise Against Hunger initiative to provide 463 million meals, a pledge of $15 million USD over three years.[14] This contribution supports Kraft in its broader company goal of providing 1.5 billion meals by 2025.

MONDELEZ INTERNATIONAL INC. (NASDAQ: MDLZ)

Mondelez, a global snacking leader with LTM revenues of about CA$49.6bn, integrates sustainability through initiatives like the Cocoa Life program.[18] program supports cocoa farming communities, addressing sustainability challenges, reducing emissions, and ensuring human rights across their supply chain.[19]

Mondelez performed around average according to industry standards. The total weighted ESG score of 71.9 out of 100 was reached with individual environmental, social, and governance scores of 77.1, 87.5, and 54.4, respectively. The largest positive contribution to Mondelez's ESG performance can be attributed to voluntary social investment, which increased Social performance.

TYSON FOODS INC. (NYSE: TSN)

Tyson Foods, a major player in protein production with CA$72.5bn in LTM revenue, focuses on transparency, equity, and sustainability.[20] Their ESG priorities include achieving net-zero emissions, promoting culturally appropriate food products, renewable energy, and contextual water management, reflecting their influence in industry standards for chicken, beef, and pork production.[21]

Tyson Foods performed significantly below average according to industry standards, receiving the lowest evaluation of the selected companies. The total weighted ESG score of 64.6 out of 100 was reached with individual Environmental, Social, and Governance scores of 65.5, 80.0, and 58.0, respectively. Its low ESG performance can be attributed to high greenhouse gas emissions and poor waste management practices, resulting in the largest negative contribution from its Environmental performance.

ARCHER-DANIELS-MIDLAND COMPANY (NYSE: ADM)

Archer-Daniels-Midland focuses on sustainable agriculture, reducing its environmental footprint, and promoting responsible sourcing. With revenue of CA$124.2bn in 2023, ADM's ESG initiatives include regenerative agriculture, reducing water usage, and improving supply chain transparency.[22]

Archer-Daniels-Midland performed slightly below average according to industry standards. The total weighted ESG score of 69.6 out of 100 was reached with individual Environmental, Social, and Governance scores of 60.9, 81.3, and 64.8, respectively. ADM's lowest ESG scores can be attributed to inefficient waste and water management, with a low landfill diversion rate and high cubic meter water volume used. These factors result in the largest negative contribution from their Environmental performance.

Exhibit 6: Vertige Environmental, Social & Governance Scoring Breakdown by Company

Company	Environmental Rating	Social Rating	Governance Rating	Vertige Rating	% Above/Below Avg
Maple Leaf Foods, Inc.	83.1	82.5	71.2	78.84	8.83%
General Mills, Inc.	56.37	80	70	70.23	-3.05%
The Kraft Heinz Company	70.05	90	75.1	76.13	5.10%
Mondelez, Inc.	77.08	87.5	54.39	71.85	-0.82%
Tyson Foods, Inc.	65.52	80	58	64.57	-10.87%
Archer-Daniels-Midland Company	60.93	81.25	64.8	69.59	-3.94%
Industry Average	**68.84**	**83.54**	**65.58**	**72.44**	**-**

Source(s): Vertige Research

Industry Benchmarking

WASTE, EMISSION & ENERGY BENCHMARKS IN ENVIRONMENTAL ANALYSIS

The Vertige Research ESG scores used in this report were determined by referencing two major industry benchmarks for both Canada and the United States.

The Environmental evaluations of each company were conducted through greenhouse gas (GHG) emission, waste management, energy management, and water management performances relative to GDP generated within the industry. GHG emissions were benchmarked to a Canadian average of CA$2,054.29 per tonne of carbon dioxide (CO_2) equivalent and an American average of CA$756.98 per tonne of ($CO_2$) equivalent.[24; 25] Waste management was benchmarked to an average landfill diversion rate of 22%.[26] Energy management was benchmarked to a Canadian average of CA$1,762.19 per megawatt hour of energy used and an American average of CA$1486.74 per megawatt hour of energy used.[24 & 27] Water management was benchmarked to a Canadian average of CA$65.36 per cubic meter of water used and an American average of CA$4.92 per cubic meter of water used.[28; 29]

SOCIAL, GOVERNANCE ANALYSES BASED ON BROADER EVALUATIONS

The Social evaluations did not require statistical benchmarking. Legal requirements and voluntary social investment of each company were sourced from company ESG and social responsibility publications. A holistic evaluation was conducted based on internal policy implementation and social investment expenses.

The Governance evaluations of each company included leadership diversity and the presence of critical risks. An industry average of leadership diversity measured 12.5% amongst boards of directors, meaning an average of 12.5% of any given corporate board was filled by either racial and ethnic minorities or women.[30] The critical risks named for the agriculture industry include extreme weather, commodity pricing, and political instability.[31]

These benchmarks were used as reference for every calculation of individual company ESG scores to ensure consistency across these evaluations. Exhibit 6 depicts each company compared to an overall industry average score. The overall average total score landed at 72.4 out of 100, with an Environmental average of 68.8, Social average of 83.5, and Governance average of 65.5.

Industry Commentary

HEIGHTENED ENVIRONMENTAL, GEOPOLITICAL CONCERNS THREATEN PRODUCTION

The North American agriculture and food and beverage processing industries are set to see a series of challenges pertaining to ESG in the relatively near future. Climate change is increasing the frequency and severity of natural disasters, driving the increasing enforcement of carbon taxes.[32] Geopolitical instability has made oil and gas prices increasingly volatile, and supply chain risks are becoming more severe. ESG considerations have become increasingly pivotal in the agriculture industry. As climate change poses significant risks to agricultural productivity, the industry is under pressure to adopt sustainable practices that mitigate environmental impact. Sustainable agriculture practices not only protect the environment but also enhance long-term profitability by reducing energy, fuel, and insurance costs.

Risk mitigation across the agriculture industry will be key to corporate strategy moving forward. Agriculture is a highly energy-intensive industry in North America.[33] Food and beverage operations rely on efficient supply chains, including shipping and manufacturing costs. These costs are highly dependent on energy efficiency, including fuel efficiency, as well as water use. Geopolitical risks have caused significant spikes in oil prices within the last five years, amplified as well by new political climate initiatives such as the Canadian federal Carbon Tax, first introduced at CA$20 per tonne in 2019, now CA$80 per tonne in 2024.[7] Increasing energy efficiency across agriculture, food, and beverage operations supports a company's ability to insulate itself from external energy cost volatility.

Water use also poses a challenge for food and beverage production. The processing and cleaning of food and drinks incur the biggest water use for the food industry.[34] Increasing efficiency regarding these uses is both environmentally conscious and increases the profitability of food operations. Physical risks, including water availability, posed by climate change are predicted to threaten the performance of agricultural corporations as well. Scientists are now finding that a megadrought is emerging in North America, as 2000-2018 was the second-driest two-decade long period in the last two millennia.[35] However, the increased presence of heat waves, droughts, storms, and disease outbreaks can be mitigated to some extent through climate-conscious practices and investment.[36] Water use efficiency as accounted for in Environmental score evaluations can decrease the likelihood of droughts pushing harvest quantities down and support crop health. Additional expenses will be driven by greater insurance payments and claims filed. These financial risks can, however, be proactively addressed.

INCREASING FOCUS ON ETHICAL RESPONSIBILITY PLACES SPOTLIGHT ON AGRICULTURE, FOOD & BEVERAGE

Social factors are another critical component. The well-being of the agriculture and food workforce and community engagement are essential components of a robust ESG strategy. Ensuring fair labour practices, promoting diversity, and supporting rural communities are integral to maintaining social license and fostering a positive industry reputation. Sustainable sourcing of raw materials can also ensure this care. Food and beverage companies rely heavily on palm oil, consuming over 54.4 million tonnes globally. [37] Access sustainably sourced palm oil and other major food and beverage products will be key to increasing ESG performance. Beyond raw materials, food and beverage companies are shifting to recyclable packaging to reduce their carbon footprint while increasing consumer appeal for their products, with over CA$8.19bn invested since 2018 in recycling facilities and bio-based packaging to address this issue.[38]

Governance involves transparent and ethical management practices. Strong governance structures ensure that agricultural businesses comply with regulations, uphold ethical standards, and engage stakeholders effectively. This includes responsible sourcing, supply chain transparency, and accountability in reporting ESG metrics.

MAPLE LEAF FOODS, KRAFT HEINZ COMPANY PROVEN INDUSTRY LEADERS IN ESG PRACTICES

Of the evaluated companies, Maple Leaf Foods and The Kraft Heinz Company are best poised to outperform the food, beverage, and agriculture industry with respect to ESG initiatives and their contribution to overall financial health. Each of these high-performing companies pledges serious internal commitments to sustainable initiatives beyond public good. Due to the aforementioned industry risks, agricultural companies, specifically those with higher water management and energy management scores, are better position to experience greater financial stability regarding these issues in the near future. Energy price volatility and physical climate issues result in the use of these specific indicators beyond the holistic measurement, supporting the conclusion that Maple Leaf Foods and The Kraft Heinz Company will be more resistant to the impacts of these risks. Further, Mondelez outperforms all other companies evaluated on its Environmental score specifically, with high percentile scores on both water and energy management. Despite its total score falling below the evaluated industry average, these performances suggest higher stability.

TYSON FOODS, GENERAL MILLS LAG COMPETITORS

Of the evaluated companies, Tyson Foods and General Mills are least poised to adapt to the increasing risks within the agriculture industry, notable in their lack of voluntary compliance and environmental performance, respectively. ESG initiatives require transparency to effect change and support the long-term health of an industry. Tyson Foods' notable lack of disclosure has resulted in poor quantitative evaluations regarding their compliance and governance. General Mills struggles to manage water and energy efficiency, key initiatives discussed above with high significance in contributing to long term financial stability. As the severity of these global challenges increases, large multinational agriculture corporations operating in North America should and are preparing now to adjust and protect their financial health and stability. An ESG lens evaluating risk management, opportunities, and inefficiencies will serve investors well in considering exposure to this sector.

Conclusion

Given the current landscape and the evaluated ESG performance of leading firms in the North American agriculture, food, and beverage sector, we believe ESG commitments, environmental regulations, and consumer behaviour will be pivotal in driving long-term financial success for industry players. Companies such as Maple Leaf Foods and The Kraft Heinz Company, which have demonstrated robust ESG practices, should outperform competitors regarding these developments. Their commitment to sustainability, community support, and ethical practices will support long-term stability and increase potential for growth. Companies that proactively address environmental regulations and strive for carbon neutrality will be better positioned to handle future regulatory pressures and be seen as more favourable in consumer's eyes. These companies are likely to experience fewer disruptions and may benefit from government incentives and public support. Investment in sustainable technological innovation, particularly in sustainable agriculture practices, renewable energy, efficient water usage, and improved waste management technologies supports these goals. Moreover, the increasing emphasis on ESG metrics by both consumers and regulators signifies a pivotal shift in the agriculture, food, and beverage sector. Businesses that align their operations with these expectations are not only contributing to a more sustainable future but are also enhancing their market appeal and resilience. This alignment with ESG principles is crucial for navigating the evolving landscape and securing a competitive edge. By prioritizing sustainability and ethical practices, industry ESG leaders are not only meeting current regulatory and consumer expectations but also paving the way for a more sustainable and profitable future.

Please read disclosures/risk and liability information, including Analyst Information, on page 8.

Appendix

Auxiliary Item I: Footnote Sources

Footnote	Source
1	AG and Food Sectors and the Economy. USDA Economic Research Service. (n.d.).
2	Overview of Canada's agriculture and agri-food sector. Government of Canada. (2023, July 6).
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