



Mosaic ESG Performance Summary

2022

Our Responsibility

We are motivated by a critical and noble mission: to help the world grow the food it needs. From mine to market, we are working to reduce our impacts and maximize the value we deliver to diverse stakeholders around the globe.

We employ an environment, social and governance (ESG) strategy to promote good stewardship of the natural, human and social resources we rely upon; mitigate risks; leverage opportunities; and solidify our position as an industry leader. Our journey is ongoing, and we are continuously evaluating what it means to be a good employer, supplier, neighbor and value creator.

A special note about this summary

Transparency is one of the ways we are driving progress on the issues that are most important to Mosaic and our constituents. This document is meant to serve as a convenient five-year summary of our annual performance in key ESG topics, but its “at-a-glance style” does not lend itself to providing the details required to fully understand year-over-year trends. We encourage you to review our entire 2022 Sustainability Disclosure and 2022 Form 10-K for more context.

Social

VALUE GENERATED AND DISTRIBUTED

	UNITS	2018	2019	2020	2021	2022	SASB CODE	
Revenue	\$ millions	9,587.3	8,906.3	8,681.7	12,357.4	\$19,125.2		
Gross Margin	\$ millions	1,498.4	897.3	1,064.9	3,200.3	5,755.8		
Gross Margin %	% of revenue	15.6	10.1	12.3	25.9	30.1		
Wages and Benefits	\$ millions	1,657.5	1,539.2	1,477.4	1,524.2	1,751.1		
Cash Costs ¹	\$ per tonne	North America Muriate of Potash (MOP) cash costs of production (USD)	61	65	56	67	78	
		North America Phosphate mining cost direct cash cost (USD)	39	39	37	40	46	
		North America Phosphate cash conversion costs (USD)	61	63	62	67	86	
		Mosaic Fertilizantes minerals cash cost (BRL)	346	331	331	422	552	
		Mosaic Fertilizantes phosphate cash conversion costs (BRL)	265	321	297	388	478	
Combined Tax Expenses ²	\$ millions	253.7	347.6	299.8	639.9	\$2,312.8		
Community Investments	\$ millions	12	12	14	15	16		
Returns to Shareholders ³	\$ millions	38.5	217.1	75.8	545.9	1,862.9		

¹ MOP cash costs of production exclude brine. North America Phosphate mining costs represent costs associated with our Florida mining sites.

² Taxes paid represent income taxes; Canadian Resource Taxes and Royalties Expense; and “Other” non-income taxes, including property taxes and a Florida mining tax.

³ Returns to shareholders defined as dividends plus share repurchases.

Social (continued)

COMPANY							
	UNITS	2018	2019	2020	2021	2022	SASB CODE
Finished Products Produced	Million tonnes	21.4	19.3	21.0	19.8	19.2	EM-MM-000.A; RT-CH-000.A
Customer Satisfaction ⁴	Net promoter score %	45	52	38	31	NA	

EMPLOYEE HEALTH AND SAFETY							
	UNITS	2018	2019	2020	2021	2022	SASB CODE
Recordable Injury Frequency Rate	Incidents per 200,000 hours worked	0.50	0.30	0.33	0.29	0.37	
Lost Time Incident Frequency Rate	Incidents per 200,000 hours worked	0.08	0.07	0.06	0.06	0.09	
Fatalities	Count	0	0	0	0	3	

WORKFORCE							
	UNITS	2018	2019	2020	2021	2022	SASB CODE
Employees	Count	12,639	12,271	11,884	11,738	13,570	EM-MM-000.B
Turnover Rate ⁵	Percent	11	12	11	11	13	
Women as Part of our Workforce	Percent	13	14	15	15	16	
Women as Part of our Management Workforce	Percent	17	16	17	18	18	

Age Profile

Under 30	Percent	15	14	13	13	15	
30-50	Percent	62	63	64	65	63	
Over 50	Percent	23	23	23	22	23	
Learning and Development	Average hours training per employee	35	63	37	45	41	
Employees Receiving Performance Reviews ⁶	Percent	96	95	94	94	72	

⁴ In 2021 Mosaic implemented a more substantial customer experience measurement program and expanded the number of customers surveyed. Because of this, 2021 results may not be fully comparable to previous years' results. We did not conduct a satisfaction study with retailers in 2022.

⁵ In In 2020, turnover includes the elimination of approximately 100 roles as a result of the North America integration. 2022 turnover reflects dynamics related to retirement transitions and a competitive labor market.

⁶ Represents percent of reviews conducted for eligible employees.

Governance

BOARD STRUCTURE							
	UNITS	2018	2019	2020	2021	2022	SASB CODE
Size of Board	Count	13	12	13	12	11	
Independent Directors	Count	11	10	11	11	10	
Women Directors	Count	2	3	4	3	3	

ETHICS							
	UNITS	2018	2019	2020	2021	2022	SASB CODE
Code of Business Conduct ⁷	% of employees certified	100	96	100	100	100	

⁷ Includes completion rate by all salaried employees. The certification, which is completed early in the calendar year, relates to compliance with the Mosaic Code of Business Ethics and Conduct in the past year.

Environment

WATER

	UNITS	2018	2019	2020	2021	2022	SASB CODE
Total Water Withdrawals	Thousand cubic meters	385,471	299,038	345,240	287,002	317,921	EM-MM-140a.1; RT-CH-140a.1
Freshwater Intensity ⁸	Cubic meters per tonne of product	6.69	6.66	6.53	6.34	7.16	
Alternative Source Water Used	Cubic meters	9,888	8,642	8,436	8,590	9,290	

ENERGY AND EMISSIONS

	UNITS	2018	2019	2020	2021	2022	SASB CODE
Energy Consumption – Direct ⁹	Million gigajoules	119.3	98.3	112.3	109.4	105.5	EM-MM-120a.1; RT-CH-130a.1
Energy Consumption – Indirect	Million gigajoules	14.0	12.8	13.6	12.7	13.8	EM-MM-120a.1; RT-CH-130a.1
Energy Intensity – Direct and Indirect ¹⁰	Gigajoules per tonne of product	2.8	2.6	2.6	2.8	2.6	
GHG – Scope 1	Million tonnes CO ₂ e	3.6	3.1	3.4	3.2	3.1	EM-MM-110a.1; RT-CH-110a.1
GHG – Scope 2	Tonnes CO ₂ e	1.7	1.5	1.5	1.3	1.2	
GHG Intensity – Scopes 1 and 2	Tonnes CO ₂ e per tonne of product	0.248	0.232	0.234	0.230	0.223	

Other emissions¹¹

	UNITS	2018	2019	2020	2021	2022	SASB CODE
Nitrogen Oxide	Tonnes	3.3	2.8	2.3	4.3	2.9	EM-MM-120a.1; RT-CH-120a.1
Sulphur Dioxide	Tonnes	19.3	16.5	15.6	16.9	15.6	
Carbon Monoxide	Tonnes	1.1	0.8	0.6	0.9	1.0	
VOC	Tonnes	0.3	0.2	0.1	0.2	0.2	
Particulate Matter	Tonnes	6.2	4.7	4.4	5.6	7.7	

WASTE

	UNITS	2018	2019	2020	2021	2022	SASB CODE
Mining Waste Generated ¹²	Million tonnes	40	38	36	35	32	EM-MM-150a.1; EM-MM-150a.2
Mining Waste Intensity	Tonnes per tonne of product	1.9	2.0	1.7	1.8	1.7	
Total Waste Generated ¹³	Thousand tonnes	125	60	42	271	140	
Waste Recycled	Thousand tonnes	53	35	37	28	97	

⁸ “Freshwater” is defined as groundwater and surface water withdrawals and excludes reclaimed water, brine, seawater, and once-through cooling and process water withdrawn from the Mississippi River in Louisiana.

⁹ As of 2019, the direct energy figure excludes cogenerated electricity produced at our Belle Plaine potash facility. Figures are higher in 2020 because of operations returning to normal after idle conditions in 2019.

¹⁰ Excludes steam.

¹¹ Due to regulatory reporting timelines, this information is not available for the reporting year until the third quarter of the year. We will update here, and in our annual sustainability disclosure, when it is available.

¹² Mining waste represents the sum of phosphogypsum and salt tailings as reported in our annual sustainability disclosure. In 2022, our Mosaic Fertilizantes business sold approximately 4 million tonnes of phosphogypsum.

¹³ Total Waste Generated excludes mining wastes. 2014 was the first year we reported an enterprise-wide figure for waste generation. Total volume of waste generated and recycled varies widely year-to-year due to operations needs and special projects.

Other

ESG RATINGS

	RATINGS SCALE	2018	2019	2020	2021	2022
CDP Climate Change	A (Leadership) – D- (Disclosure)	A-	A-	A-	B	A-
CDP Water Security	A (Leadership) – D- (Disclosure)	B	B	A-	A-	A-
FTSE ESG Rating	0 – 5 (Highest)	3.5	3.7	3.5	3.3	NR
MSCI	AAA (Leader) – CCC (Laggard)	A	A	A	A	A
Sustainalytics ESG Risk Rating	0 (Negligible) – 40+ (Severe)	36.7	38.5	35.0	36.9	34.6
ISS ESG Corporate Rating	A (Excellent) – D- (Poor)	C-	C-	C	C	C
Other Noteworthy ESG Recognition ¹⁴	<ul style="list-style-type: none"> - 2019: 100 Best Corporate Citizens (No. 77) - 2020: Newsweek Most Responsible Companies (No. 109); 100 Best Corporate Citizens (No. 94); Bloomberg Gender Equality Index; Robert W. Campbell Award for excellence in environment, health and safety - 2021: Barron's 100 Most Sustainable Companies; Bloomberg's Gender Equality Index - 2022: Bloomberg's Gender Equality Index, Named One of the Best Places to Work for LGBTQIA+ equality by Human Rights Campaign's Corporate Equality Index 					

¹⁴ This is not an exhaustive list of our annual recognition. For more information about awards and leadership, please visit mosaicco.com.

Learn more.

[Mosaic 2022 Sustainability Disclosure and GRI Index](#)



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 We help grow the food the world needs.