

# 2020 Environment Metrics Supplement

The Mosaic Company's 2020 Sustainability Disclosure has been prepared in accordance with the GRI Standards: core option. This supplement provides additional environmental metrics, not covered under the GRI framework, that some stakeholders request as part of their review of our performance. We encourage stakeholders to read this supplement in conjunction with our [2020 Sustainability Disclosure & GRI Index](#) and [2020 Annual Performance Summary](#).

2020 Global Water Withdrawals by Segment Total Water Use by Business Segment (,000 m <sup>3</sup> )						
Business Segment	Municipal	Reclaimed Water	Groundwater	Surface Water	Total	Total Withdrawal Intensity
Phosphate	911	1,855	62,856	196,599	262,221	0.0323
Potash	0	279	6,744	9,233	16,256	0.0019
Mosaic Fertilizantes	90	0	6,298	50,888	57,276	0.0128
Distribution	47	6,302	1,206	1,932	9,487	N/A
<b>Mosaic Total</b>	<b>1,048</b>	<b>8,436</b>	<b>77,104</b>	<b>258,652</b>	<b>345,240</b>	<b>0.0164</b>

Note: Phosphate surface water withdrawals include once through cooling water totals. Total water intensity value measured in megaliters per tonne of finished product. Values include all water withdrawals and differ from Mosaic's freshwater intensity reduction target, as reported in Mosaic's State of the Business Report. Phosphate surface water includes seawater withdrawn at our Peru site. Legacy Brazil facilities previously reported under International Distribution segment are now reported under Mosaic Fertilizantes segment. Distribution, as reported here, represents Streamsong Resort and Mosaic-owned facilities involved in warehousing, blending and/or shipping Mosaic's products. Though Distribution is not its own reporting segment, our distribution facilities do consume water in their operations, hence our including the volumes here. Intensity for Distribution facilities is not available using our methodology for calculating intensity since they do not produce finished product tonnes.



# Energy and Emissions

2020 Purchased Energy Intensity by Segment (GJ/Finished Product Tonnes)	
Business Segment	
Phosphate	0.72
Potash	0.48
Mosaic Fertilizantes	0.82
<b>Mosaic Total</b>	<b>0.65</b>
<p>Note: Energy totals in this table include purchased electricity only. Intensity for Distribution facilities is not available using our methodology for calculating intensity since they do not produce finished product tonnes.</p>	

2020 Total Energy Intensity by Segment (GJ/Finished Product Tonnes)	
Business Segment	
Phosphate	2.70
Potash	2.53
Mosaic Fertilizantes	2.36
<b>Mosaic Total</b>	<b>2.57</b>
<p>Note: Energy values in this table are inclusive of energy generated through cogeneration. Companywide values include total energy and differ from Mosaic's energy intensity reduction target, as reported in Mosaic's State of the Business Report. Intensity for Distribution facilities is not available using our methodology for calculating intensity since they do not produce finished product tonnes.</p>	

## GHG Intensity Metrics

2020 GHG Intensity by Segment (Tonnes CO <sub>2</sub> e/Finished Product Tonnes)								
Business Segment	Total GHG <sup>1</sup>	Direct GHG <sup>1</sup>	Indirect GHG <sup>1</sup>	Total CO <sub>2</sub>	Direct CO <sub>2</sub>	Indirect CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Phosphate	0.315	0.232	0.083	0.315	0.232	0.083	0.00	0.00
Potash	0.190	0.104	0.086	0.190	0.104	0.086	0.00	0.00
Mosaic Fertilizantes	0.167	0.151	0.017	0.165	0.149	0.017	0.00	0.00
<b>Mosaic Total</b>	<b>0.234</b>	<b>0.164</b>	<b>0.071</b>	<b>0.233</b>	<b>0.163</b>	<b>0.071</b>	<b>0.00</b>	<b>0.00</b>

Note: <sup>1</sup>Total, Direct and Indirect GHG values are measured in tonnes CO<sub>2</sub>e per tonne of finished product. Summation of parts may be different from total due to rounding. Companywide values differ from Mosaic's GHG reduction target, as reported in Mosaic's State of the Business Report. Intensity for Distribution facilities is not available using our methodology for calculating intensity since they do not produce finished product tonnes.

## Absolute GHG Metrics

2020 Absolute GHGs by Segment (Million Tonnes CO <sub>2</sub> e, Except CH <sub>4</sub> and N <sub>2</sub> O)								
Business Segment	Total GHG <sup>1</sup>	Direct GHG <sup>1</sup>	Indirect GHG <sup>1</sup>	Total CO <sub>2</sub>	Direct CO <sub>2</sub>	Indirect CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Phosphate	2.56	1.88	0.67	2.55	1.88	0.67	5,156	1,885
Potash	1.60	0.88	0.73	1.60	0.87	0.73	2,540	1,575
Mosaic Fertilizantes	0.75	0.67	0.07	0.74	0.66	0.07	6,680	3,178
<b>Mosaic Total</b>	<b>4.92</b>	<b>3.44</b>	<b>1.48</b>	<b>4.90</b>	<b>3.42</b>	<b>1.48</b>	<b>14,459</b>	<b>6,651</b>

Note: <sup>1</sup>Total, Direct and Indirect GHG values are measured in million tonnes CO<sub>2</sub>e; CH<sub>4</sub> and N<sub>2</sub>O are presented in tonnes. Summation of parts may be different from total due to rounding. CO<sub>2</sub> emissions from Biofuels is 0.16 million tonnes CO<sub>2</sub> from our Mosaic Fertilizantes facilities.



## Other Emissions

2019 Other Emissions by Segment (Tonnes)										
Business Segment	NOx	CO	PM	SO2	VOC	NH3	FL	H2S	SAM	HF
Phosphate	1,047	349	416	12,325	119	294	138	13	234	425
Potash	1,596	496	3,634	2	85	0	0	0	0	0
Mosaic Fertilizantes	198	0	647	4,144	0	7	75	0	35	0
<b>Mosaic Total</b>	<b>3,251</b>	<b>1,057</b>	<b>6,244</b>	<b>19,306</b>	<b>280</b>	<b>1,007</b>	<b>280</b>	<b>12</b>	<b>341</b>	<b>137</b>

Note: Values are presented in tonnes. 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.

2020 Water Discharges– Mosaic Fertilizantes (Tonnes)	
<b>Fluoride</b>	232
<b>Biochemical Oxygen Demand</b>	96
<b>Chemical Oxygen Demand</b>	574
<b>Dissolved Solids</b>	11

Note: Per location-specific permit conditions, our Brazil operations monitor for various parameters in operational water discharges. We report those values here. See 306-1 for the remainder of our [disclosure](#) on this topic.

2020 Mining Wastes– Mosaic Fertilizantes (Tonnes)	
<b>Limestone</b>	2,808,765
<b>Magnetite</b>	4,610,391
<b>Sulfur Sludge (m<sup>3</sup>)</b>	20,653
<b>Titanium</b>	4,717,179

Note: Due to the composition of mineral deposits in Brazil, our newly acquired Brazil operations handle various mining wastes we have not historically reported for North America operations in MM3 of our [disclosure](#).



