

Food

Today, fertilizers help produce up to 60% of all crop yields. Macronutrient and micronutrient fertilizers play a vital role in soil fertility and sustainable crop production.

The United Nations estimates that world population will climb from 7 billion to 9 billion by 2050, and increasing global prosperity means more demand for meat—and for the grain to feed cattle, pigs and chickens raised for food. For that many human beings to thrive on our planet, the world's farmers must produce more food, fuel and fiber. And they will need fertilizers to do it. By striving to produce and deliver the highest quality, most innovative crop nutrition products, we help farmers rise to the challenge.



Food Security

Nourishing a Growing World

The Mosaic Company is the world's leading producer and marketer of concentrated phosphates and potash crop nutrients for the global agriculture industry. Farmers around the globe depend on our potash and phosphate products to help nourish their crops—and to maximize the food they can grow on every acre of farmland.

Our Products and Brands

(G4-4) Mosaic's potash and phosphate nutrients play an important role in nourishing farmers' soil, growing healthy plants, and increasing global food security. Our continual focus on product quality and new product development helps to ensure we can meet the unique needs of growers around the world. Through our broad product offering, we are a single-source supplier of phosphate- and potash-based crop nutrients and animal feed ingredients to customers in approximately 40 countries.

We mine phosphate rock in Florida and process rock into finished phosphate products at facilities in Florida and Louisiana. We mine potash in Saskatchewan and New Mexico. We have other production, blending or distribution operations in Brazil, China, India and Paraguay, as well as strategic equity investments in a phosphate rock mine in the Bayovar region in Peru, and a joint venture to develop a phosphate rock mine and chemical complexes in the Kingdom of Saudi Arabia. Our distribution operations serve the top four nutrient-consuming countries in the world.

Phosphate and potash are 2 of 17 essential nutrients plants need for growth and reproduction



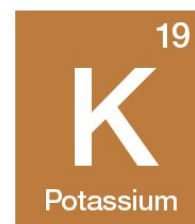
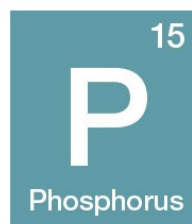
Phosphates

We are the largest integrated phosphate producer in the world and one of the largest producers and marketers of phosphate-based animal feed ingredients in the United States. We sell phosphate-based crop nutrients and animal feed ingredients throughout North America and internationally.

Throughout 2014, our Phosphates segment also included our North American and international distribution activities. Our distribution activities include sales offices, port terminals and warehouses in the United States, Canada and several other key international countries. In addition, the international distribution activities include blending, bagging and production facilities in Brazil, China, India, and Paraguay. We account for approximately 14% of estimated global annual production and 71% of estimated North American annual production of concentrated phosphate nutrients.

Potash

We are one of the four largest potash producers in the world. We sell potash throughout North America and internationally, principally as fertilizer, but also for use in industrial applications and, to a lesser degree, as animal feed ingredients. We account for approximately 14% of estimated annual potash production and 44% of estimated North American annual potash production.



The Mosaic Villages Project

Helping Smallholder Farmers Produce More Food and Break the Poverty Cycle



Since 2008, The Mosaic Company and The Mosaic Company Foundation have invested in programs in Guatemala, India, Mali, Ghana, Nigeria, Malawi, Kenya, Uganda, Tanzania and Ethiopia along with our partners. Average yield across The Mosaic Villages Project increased three to five times over traditional farming practices. [Learn more.](#)

Examples of Mosaic's products include:



- **Diammonium Phosphate (DAP):** DAP is the most widely used high-analysis phosphate crop nutrient worldwide. DAP is produced by combining phosphoric acid with anhydrous ammonia. DAP is a solid granular product.
- **Monoammonium Phosphate (MAP):** MAP is the second most widely used high-analysis phosphate crop nutrient and the fastest growing phosphate product worldwide. MAP is also produced by first combining phosphoric acid with anhydrous ammonia. MAP is a solid granular product.
- **Muriate of Potash (MOP):** MOP is the primary source of potassium for the crop nutrient industry. Red MOP has traces of iron oxide. The granular and standard grade Red MOP products are well suited for direct fertilizer application and bulk blending. White MOP has a higher percent potassium oxide. White MOP, besides being well suited for the agricultural market, is used in many industrial applications.
- **MicroEssentials®:** MicroEssentials fertilizers are a line of value-added
- **K-Mag®:** K-Mag delivers potassium (K), magnesium (Mg) and sulfur (S) in a single granule, reducing the need for fertilizer blends.
- **Nexfos®:** In 2011, Mosaic unveiled Nexfos, a new animal feed-grade phosphate product that increases efficiency, enhances bioavailability and contains a higher sustainable concentration of phosphate over traditional livestock feed products. Nexfos represents the first innovation in feed-grade phosphate in more than 40 years. Nexfos also reduces purchasing, storing and handling costs for consumers, and offers significant reductions in requirements during production. Production design changes have resulted in increased water and energy efficiencies.
- **Aspire®:** Aspire is the first-of-its-kind micronutrient-enhanced potash-based fertilizer. Aspire with Boron premium potash combines potassium and boron in each granule to achieve uniform distribution, increased yields and to meet the growing need for micronutrients in

ammoniated phosphate products that are enhanced through a patented process to include micronutrients such as sulfur or zinc. These products provide for uniform nutrient distribution, resulting in improved nutrient uptake, which allows plants to maximize their yield potential.

crops like corn, soybeans, alfalfa and cotton.



Materials Stewardship Programs

DMA: In December 2013, Mosaic's Belle Plaine facility received the Product Stewardship Excellence Certification from the International Fertilizer Association's (IFA) Protect & Sustain Product Stewardship program. This certification covers the product life cycle including: management systems, product development and planning, sourcing and contracting, manufacturing techniques, and supply chain to the customer.

Communications are directed up and down the value chain, such as supplier certification requirements as part of sourcing and procurement of inputs, (material) safety data sheets (M/SDS), labels, registrations, quality/traceability information, training and

Finally, process improvements include an Environmental Health and Safety Management System that is aligned to ISO 14001/OHSAS 18001 and ANSI-10, enterprise mechanical integrity programs and contractor accountability programs.

educational materials.

Mosaic's research and development processes include internal and external research and science-based data generation to advance product advocacy and customer results.

Mosaic's products are among the most responsibly sourced in the world, and we're committed to the sustainable production and use of our products. Crop nutrients must be applied sustainably to mitigate potentially negative environmental impacts stemming from improper use. Among industry organizations to which we belong and the farmers who use our products, we encourage the adoption of the 4Rs of nutrient stewardship: Right source, Right rate, Right time and Right place.

Received the “Product Steward Excellence” rating



Product Responsibility

Responsibly Labeling Our Products

(G4-PR3) Mosaic complies with safety, environmental, labeling and registration required by country and local governments where we sell and distribute fertilizer, animal feed and industrial products. Where U.S. standards are more stringent, we follow those more rigorous standards on the products that we produce both in the United States and for export.

Mosaic provides the required country, state and local product documentation for all shipments. This includes detailed labels, data specification sheets and a safety data sheet (SDS) for all products. These

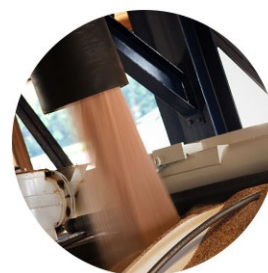
Though not addressed in typical labeling, Mosaic promotes customer education following the 4R Nutrient Stewardship framework of the Right product/source, applied at the Right rate, at the Right time and at the Right place. Our agronomists share this message worldwide.

(G4-PR4) Mosaic has automated systems to manage, track and monitor incidents related to noncompliance with regulations and voluntary codes concerning product and service information and labeling. Mosaic had no incidents of noncompliance with regulations or voluntary codes concerning labeling of our products and material

documents provide information about proper product handling, safety precautions and guaranteed analysis. Situations requiring disposal are also addressed in the SDS. For product undergoing vessel transport, the SDS includes certification that the discharge of cargo hold rinsate is not harmful to the marine environment.

services.

We encourage the use of the bulk blending and delivery system in farming operations



Using Bulk Transport for Added Efficiency and Sustainability

(G4-EN28) Mosaic products, predominantly fertilizer and animal feed ingredients, are used in various stages of agricultural operations with multiple steps and biological processes. To the extent possible, bulk transport is used to minimize the need for extensive packaging throughout the supply chain. Agricultural operation processes are not within Mosaic's purview to control; however, the nutrient elements of our products often are recycled into these or other agricultural systems. Examples of these systems include:

- Fertilizer is applied to the soil and then taken up by plants; the plants can be used for human or animal food. This food is processed and excreted by humans and animals as manure or biosolids, which may be recycled and used as nutrients similar to fertilizers, depending

- To further encourage stewardship of our products, Mosaic has formed a product stewardship team from various disciplines and is pursuing opportunities to cooperate with supply chain and logistical partners to identify and implement stewardship enhancements on a global basis.

An example of our use of reclaimed products is with sulfur, which is a co-product of the petroleum industry and is reclaimed from the crude oil desulfurization process. Our use of this product prevents an excess of sulfur that otherwise could be disposed of in landfills.

Finally, Mosaic supports and helps promote The Fertilizer Institute's (TFI) Bulk Blend Workshops and Manual, which eliminates the need for packaging of major raw materials or the final product. This process completely eliminates the need for bags, as the product is transferred from dealer to

on infrastructure (e.g., publicly owned treatment works reuse water distribution systems).

- Animal feed materials are taken up by animals as food and excreted as manure. These materials may be recycled and used as nutrients similar to fertilizers, depending on infrastructure (e.g., feed lot versus free-range grazing).

farmer. Because of the sizing and blending capabilities of our bulk materials, we encourage the use of the bulk blending and delivery system in farming operations.



More than 500 plots of research were established in 2014

Reducing the Environmental Impacts of Our Products and Services

(G4-EN27) Mosaic has a dedicated agronomy team that conducts field trials to evaluate the performance of our products and develop recommendations to mitigate any potential environmental impact. In 2014, we conducted 350 small-plot trials in Argentina, Brazil, Chile, China, Canada, India, Northern Latin America (Mexico to Peru) and the United States. These trials were conducted by highly regarded private researchers and universities that follow rigorous scientific standards. In addition, more than 200 demonstration plots were conducted in the same countries via collaborations with customers and growers.

Mosaic continues its collaboration with a highly regarded crop sciences professor and researcher at the University of Illinois to develop advanced agronomic systems aimed at sustainably increasing corn and soybean productivity by combining fertilizer best management practices with other agronomic technologies. This research evaluates nutrient requirements of modern corn hybrids and soybean varieties under different field conditions. A complete understanding of field conditions is a precondition of a balanced crop nutrition program.

In total, more than 500 plots of research were established in 2014.

CropNutrition.com is a digital hub of soil fertility and balanced crop nutrition information



Educational Tools

Mosaic supports an educational initiative to help the industry understand fertilizer best management practices as a way of reducing environmental impact.

[CropNutrition.com](https://www.cropnutrition.com) is a resource for retailers, growers and media members seeking to better understand soil science, grow crops that are stronger, and increase productivity and yield in a sustainable manner. By simplifying highly technical and agronomic information, [CropNutrition.com](https://www.cropnutrition.com) is an approachable and digestible digital hub of soil fertility and balanced crop nutrition information. Retailers and growers will benefit from Mosaic sharing information that will allow them to think progressively about crop fertility.

Resources on the Website include:

- [The Agronomy Resource Center](#) – features expertise from members of the Mosaic agronomy team and timely regional updates
- [The Mosaic Company Agronomy Blog](#) – timely and topical blog posts
- [The Periodic Table of Crop Nutrients](#) – an interactive tool with descriptions of each nutrient's role in plant health and photos of nutrient deficiencies
- [AgriSight®](#) – quarterly fact sheets highlighting the latest research and industry trends
- [AgriFacts®](#) – a series of fact sheets that summarizes the results of trials conducted by The Mosaic Company agronomy team and research partners
- [Fertility Facts](#) – new videos shared monthly
- [UnfencedSM](#) Magazine – our quarterly publication on the latest crop nutrition trends, products and research (four issues/year)



Properly managed nutrients support cropping systems that provide economic, environmental and social benefits

Industry Initiatives

The Nutrient Use Geographic Information System (NuGIS) is a Web-based application developed by International Plant Nutrition Institute (IPNI) that integrates multiple tabular and spatial datasets to create county-level estimates of nutrients applied in fertilizer and livestock manure, nutrients removed by harvested agricultural crops, and the resulting balance. Mosaic's membership in IPNI helps fund this North American database. We have leveraged this information by providing reports specifically for our customers to help them assess nutrient use efficiency and balance.

4R Nutrient Stewardship (4Rs) is about doing everything "right" in regard to fertilizer application and effectively reducing agriculture's potential for negative externalities. The 4Rs is an innovative and science-based approach that, when applied, offers enhanced environmental protection, increased production, increased farmer profitability and improved sustainability. The concept is to use the Right fertilizer source, at the Right rate, at the Right time, in the Right place. Because the 4Rs is critical for sustainability, Mosaic's goal is to partner with

To help address this challenge, TFI has been working collaboratively with the IFA, IPNI and the Canadian Fertilizer Institute to advance the 4R Nutrient Stewardship initiative. Two goals of the initiative include establishing 4Rs as a recognizable strategy for economic, social and environmental sustainability, and expanding the adoption of 4R Nutrient Stewardship globally.

Read more about our commitment to nutrient stewardship in "Reducing the Loss of Crop Nutrients to Waterways"

View the Case Study 

the fertilizer industry to enhance understanding, adoption and promotion of 4R Nutrient Stewardship among stakeholders.

The 4Rs of Nutrient Stewardship



Right Source

**Matches
fertilizer type to
crop needs**



Right Rate

**Matches
amount of
fertilizer to crop
needs**



Right Time

**Makes
nutrients
available when
crops need
them**



Right Place

**Keeps nutrients
where crops
can use them**

Partnerships

Mosaic established and continues to fund the Mosaic Fertilizer Technology and Research Centre initiative at the University of Adelaide, Australia. The centre focuses on soil chemistry and fertilizer technology, and uses the latest technology to develop innovative fertilizer formulations to improve nutrient use efficiency.

Mosaic also has a long-term partnership with a globally recognized plant nutrition expert at Sabanci University in Turkey, whose research focus is balanced crop nutrition and nutrient interactions conducted through greenhouse experiments.

The Mosaic Company partners with The Nature Conservancy as it conducts a three-year conservation pilot in three watersheds in the Upper Mississippi River basin, including the Root River in southeastern Minnesota, the Boone River in northern Iowa and the Mackinaw River in central Illinois. The Conservancy works with local partners, including farmers, in those watersheds to implement and study conservation techniques that best lower nutrient and sediment concentrations by reducing runoff from agricultural landscapes. Through this project, the Conservancy seeks to determine which tools work best in a larger, sub-watershed system, and will then communicate findings to crop producers to guide their farm stewardship decisions.

A photograph of two men in a field. One man, wearing a light blue shirt and a white cap, is leaning over and looking at a small plant held by the other man. The second man, wearing a dark polo shirt, is looking up at the first man. They are surrounded by green foliage and trees in the background under a clear sky.

Product Innovation & Customer Satisfaction

Driven by our mission to help the world grow the food it needs, Mosaic helps improve crop yields through the science-based and efficient use of crop nutrients.

Our continual focus on developing and testing new products, such as our premium product line, ensures we can help meet the unique needs of growers in every part of the world. In 2014, we announced plans to further expand MicroEssentials® capacity, bringing total capacity to 3.5 million tonnes by 2017. We currently have over 20 potential products or product variations in various stages of development.

Using more than 500 research plots around the world, we evaluate agronomic practices, test crop nutrition performance, and develop recommendations to mitigate potentially negative environmental impact stemming from improper use. Please see [G4-EN27](#) for more information.

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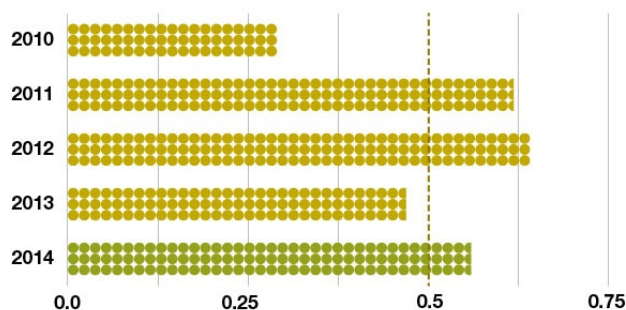
(DMA, G4-PR5) At Mosaic, customer satisfaction and loyalty are paramount to sustaining and growing our world-class organization. On an annual basis, we adhere to a trusted feedback methodology to measure satisfaction levels of our crop nutrition, animal feed and industrial businesses. This global feedback system also allows us to monitor recent performance and to identify which performance factors likely have the biggest impact on customer loyalty, either positively or negatively.

We use the same methodology to better understand customer satisfaction throughout Mosaic's global operations. The survey results are shared with our customer service team, as well as with our key customers around the world. In 2014, Mosaic earned a score of 7.8 on a scale of 0 to 10. This score is described as "Quite Satisfied."

Our key customer loyalty metric—Net Promoter Score (NPS)—is a standard index

Mosaic Global Net Promoter Scores

Weighted Average



--- Threshold for a Score of Excellence

Net Promoter, NPS and Net Promoter Score are trademarks of Satmetrix Systems, Inc., Bain & Company and Fred Reichheld.

Note: Net Promoter Score indicates customer loyalty and 0.50 is considered the threshold for excellent companies. In 2014, Mosaic achieved a score of excellent from our fertilizer importers, animal feed customers and industrial products customers.

Additionally, we conduct an annual brand awareness tracking study for MicroEssentials® which includes a product satisfaction measurement. Compared to eight other premium fertilizer products, MicroEssentials received the highest satisfaction rating with 77% of respondents reporting that they are highly to extremely satisfied with the product.

across a variety of industries around the world. We use this metric to benchmark our results against others', allowing us to identify and target areas that are opportunities for improvement. Year over year, we work to improve our performance by providing quality products and ensuring on-time delivery and logistical support. In 2014, Mosaic earned an NPS score of 56%. A 50% score is widely considered to be the threshold NPS for high performing companies.



GRI Index

More Information

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