Phosphate 101

Nutrien
Feeding the Future™

Phosphorus is present in every living cell, both plant and animal. **Phosphate (P)** is crucial to key energy reactions in plants, including photosynthesis, speeding maturity and reproduction, and increasing yield. In animals, phosphate is a critical component in biochemical reactions essential to muscle contraction and normal body growth, maintenance and repair.

Phosphate rock is mined from underground ore deposits and dissolved in a mixture of phosphoric and sulfuric acids. This produces additional phosphoric acid, which is the feedstock for most fertilizer, industrial and feed phosphate products.

Phosphate is used in a wide variety of applications and everyday products including soft drinks, food products and metal treatment.

Nutrien's Role

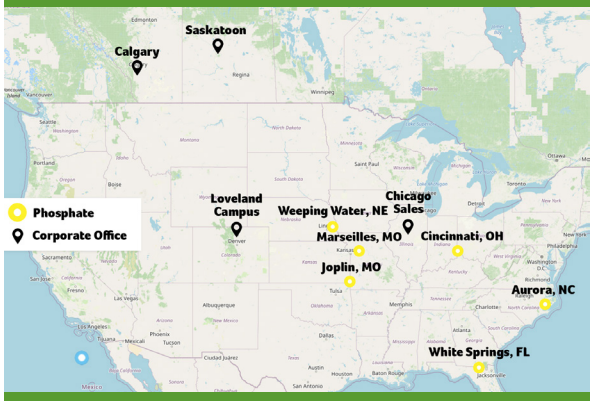
- **Fertilizer sales historically represent approximately 75% of our phosphate sales.**
- Nutrien is **self-sufficient in phosphate rock**, with access to high-quality, integrated phosphate rock reserves that allows for the production of a diverse and premium portfolio of phosphate products, including solid and liquid fertilizers, feed and industrial acids.

Where We Operate

- Nutrien operates **two large integrated phosphate mining and processing facilities** and **four regional upgrading plants** in the US with an installation capacity of **1.7 million metric tonnes**.
- We have approximately **145 owned or leased phosphate distribution points and a fleet of approximately 5,100 owned and leased railcars**. We have long-term leases on shipping terminals in Morehead City and Beaufort, North Carolina through which we ship finished product offshore. Barges and tugboats transport solid products, phosphoric acid and sulfur between the Aurora facility and shipping terminals. Raw materials and products, including sulfur, are also transported to and from the Aurora facility by rail and truck.

Nutrien is the second largest phosphate producer in North America.

- Nutrien sells approximately 3 million tonnes of fertilizer, feed and industrial phosphate products annually and earned $594 million adjusted EBITDA in 2022.
- Phosphate is used for:
  - Fertilizer for energy storage and transfer and speeding crop maturity
  - Feed to assist in muscle repair and skeletal development of animals
  - Industrial uses such as soft drinks, food additives and metal treatments



Our two large integrated operations in the US are in White Springs, FL and Aurora, NC.

Where We Operate (cont.)

- Sulfur is delivered to the White Springs facility by rail and truck from Canada and the US. Most of the phosphoric acid and chemical fertilizers produced at the White Springs facility are shipped to North American destinations by rail.
- Ammonia for the Aurora and White Springs facilities is supplied by rail and truck from our production facilities in Lima, Ohio and Augusta, Georgia.

Environmentally Smart Results

- Nutrien's phosphate operations mine at a combined rate of approximately **895 acres per year**, and we reclaim land continuously as our mining operations progress. In the past three years, **we have successfully returned more than 3,500 acres of land back to productive use** after phosphate rock mining.
  - > Our Aurora, North Carolina, phosphate operation has pioneered a land reclamation process that has earned state and national awards over the years. We **reclaimed about 1,400 acres** in the last three years. During this time, we planted approximately **470,000 trees**. The most recent area being reclaimed is **1,165 acres** in size, which includes a **645-acre lake** that will be up to **50 feet deep**, surrounded by vegetated uplands for public recreational use.
  - > At our White Springs, Florida, phosphate mine, we strive to reclaim more land than we mine on an annual basis. In 2022, **we reclaimed 850 acres**, adding to the nearly 1,290 acres reclaimed in 2021 and 2020. Over the three-year period, we planted more than **800,000 trees alone**.
  - > Nutrien successfully **creates, restores and enhances wetlands** at our Aurora and White Springs Phosphate mine sites. For every wetland acre involved, we restore or create up to two wetland acres that are often more diverse and productive than prior to mining.

PHOSPHATE BY THE NUMBERS

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Nameplate P_2O_5 Capacity	Large Integrateed Phosphate Mines	Upgrade Facilities

Top: White Springs, FL Facility
Middle & Bottom: Aurora, NC Facility