OPERATIONAL PERFORMANCE

In 2024, PhosAgro Group set a new record in annual agrochemical production, with the output rising by 4.3% to 11.8 mt.

This was driven by the implementation of investment projects under the Company's long-term development strategy designed to upgrade the existing facilities and develop new capacities. The main growth driver during the reporting year was the production of phosphate-based fertilizers (the output of DAP/MAP increased by 1.0%, NPK by 23.3%, and MCP by 10.0%). These results came on the back of the Volkhov production site reaching its design capacity, as well as the increased production of key inputs such as phosphoric (up 5.1%) and sulphuric (up 5.3%) acids.

In 2024, sales of the Group's agrochemicals rose by 4.1% supported by higher production volumes, strong efficiency of the Company's distribution network in Russia and PhosAgro's solid position in global markets. The highest growth rates in 2024 were recorded in Russia, Latin America, and Africa.

Growth was primarily driven by a 6.1% y-o-y hike in the sales of phosphate-based fertilizers, while an accelerated rise in the sales of triple fertilizers was attributable to increased shipments of agrochemicals to the priority domestic market. Throughout the year, the demand for PhosAgro's products remained stable across key agricultural regions of Russia. The Black Earth and Southern regions with their strong agricultural industry traditionally accounted for the largest share of shipments, but the Far East and North-Western regions also continued to show growing interest in our products. PhosAgro Group's leadership in the Russian market in 2024 helped increase the domestic sales of fertilizers over the year, with total agrochemical sales to Russian farmers rising to 3.34 mt.

Alexander Gilgenberg
General Director of Apatit

PRODUCT PORTFOLIO

PhosAgro Group is the largest producer of liquid nitrogen-phosphorus fertilizers in Russia.

Mineral fertilizers

APAVIVA®
Nitrogen-phosphorus and complex fertilizers

APAVIVA®+
Nitrogen-phosphorus and complex fertilizers with micronutrients

NITRIVA®
Nitrogen-based fertilizers

APALIQUA®
Water-soluble and liquid complex fertilizers

Feed additives

NITRIVA® Feed
Feed grade urea

APAFEED®
Feed grade monocalcium phosphate

Concentrates

- High-grade phosphate rock
- Syenite alkali aluminium concentrate
- Nepheline concentrate

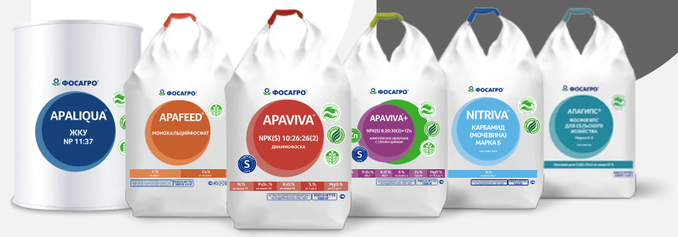
Industrial phosphates

- Sodium tripolyphosphate

Our customers

are at the heart of our business.

In 2024, our product mix included 58 grades, covering varied fertilizers, feeds, and other products enjoying robust market demand.



Industrial products

ApaSil®

Apagips/ Technogip

Concentrate production, kt

2024	12,524.0	5.9%
2023	11,829.3	
2022	12,031.5	

☐ Change 2024 to 2023

Nitrogen-based fertilizers production, kt

2024	2,593.2	-0.5%
2023	2,605.3	
2022	2,546.6	

☐ Change 2024 to 2023

Concentrate sale, kt

2024	2,811.3	10.3%
2023	2,548.1	
2022	3,217.6	

☐ Change 2024 to 2023

Feedstock production, kt

2024	14,261.4	4.0%
2023	13,708.3	
2022	13,427.5	

☐ Change 2024 to 2023

Phosphate-based fertilizer production, kt

2024	8,874.2	5.8%
2023	8,388.7	
2022	8,224.4	

☐ Change 2024 to 2023

Sales of phosphate-based and nitrogen-based fertilizers, kt

2024	11,604.3	4.2%
2023	11,138.7	
2022	10,953.6	

☐ Change 2024 to 2023

UPSTREAM AND DOWNSTREAM

Upstream

Kirovsk Branch of Apatit mines apatite-nepheline ore at six fields of the Khibiny deposits in Russia's Murmansk region using both underground and open-pit mining methods. PhosAgro Group's feedstock reserves are of igneous origin, which means that they do not have concentrations of toxic heavy metals. The Company's phosphate rock is extremely rich in P_2O_5.

PhosAgro Group's ore reserves as at 1 January 2025

Deposit	Balance reserves, kt (categories A + B + C_1 + C_2)	Average P_2O_5 content, %
Kukisvumchorr	322,935	14.09
Yukspor	436,928	13.72
Apatitovy Cirque	74,265	13.51
Rasvumchorr Plateau	350,015	12.06
Koashva	245,099	17.32
Njorkpahk	49,697	14.42
Total	**1,478,939**	**14.02**

Currently, the Company is shifting its resource base development profile from open-pit mining to a higher share of underground mining.

In the reporting year, the share of open-pit mining came in at

77.8%

The total apatite-nepheline ore production in 2024 increased by

3.8%

y-o-y to 40.7 mt from 39.2 mt in 2023

In March 2024, we successfully commissioned the +10 m level at the Kirovsky mine. The development of this underground level began back in 2015 to compensate for the depletion of existing horizons as the scope of mining operations expanded and thus to maintain and ramp up production of apatite-nepheline ore. This new level is expected to yield approximately 94 mt of ore by 2035.

The Company proceeded with its Vostochny mine development project seeking to intensify open-pit mining. In 2024, total ore production as part of the project came in at 8.3 mt.

In 2024, the Company continued with the investment project to construct a new mine for the Rasvumchorr Plateau deposit. The commissioning of (start of ore mining at) the +430 m and +310 m levels is scheduled for 2025 and 2031, respectively. In 2024, significant progress was made on the construction of a ventilation system as part of the VWVD[1] and RSRS[2] projects, the main water drainage system and communication networks.

Efforts are underway to complete preparations for the mining of a block pillar under the Saami pit: in 2024, we developed engineering documentation, and finalised the construction of hydraulic structures and an auxiliary access road to the near-entrance excavation site. Mining and capital construction works continue on the Gakman–Loparskaya water diversion tunnel, with the excavation of the Yuksporiok–Gakman tunnel completed. Completion of the works and start of ore mining are scheduled for 2028.

In December 2024, construction works were completed at the Gakman block, setting the stage for the start of mining. Ore extraction and capital mining operations in strategically important areas are set to begin in 2025.

In 2024, Apatit used 300 mln kWh of carbon-free electricity at its production sites. This means that mineral fertilizers supplied by the Volkhov and Balakovo production sites in 2024 were manufactured using exclusively green power purchased from the hydroelectric power plants of TGC-1.

Ore processing

In 2024, the production of phosphate rock and nepheline concentrate increased by 5.9% y-o-y to

12.5 mt

Concentrate production, kt

Item	2022	2023	2024	Change 2024 to 2023, %
Phosphate rock	10,855.7	10,667.3	**11,391.0**	6.8
Nepheline concentrate (incl. syenite concentrate)	1,175.8	1,162.0	**1,133.0**	–2.5
Total	**12,031.5**	**11,829.3**	**12,524.0**	**5.9**

CHEMICAL PRODUCTION

Feedstock

Feedstock production, kt

Item	2022	2023	2024	Change 2024 to 2023, %
Ammonia	1,985.3	1,982.8	**1,982.5**	–0.02
Phosphoric acid	3,199.4	3,345.3	**3,515.4**	5.1
Sulphuric acid	7,920.2	8,120.0	**8,546.5**	5.3
Ammonium sulphate	322.6	260.2	**217.0**	–16.6
Total	**13,427.5**	**13,708.3**	**14,261.4**	**4.0**

In 2024, the production of phosphoric acid, the key feedstock used in phosphate-based fertilizers, reached

3.5 mt,

increasing by 5.1% y-o-y on the back of earlier production unit upgrades and increased equipment utilisation efficiency

In 2024, sulphuric acid production was up by 5.3% y-o-y to

8.5 mt

due to the upgrade and greater efficiency of sulphuric acid production in Cherepovets, as well as the modernisation of equipment at the Balakovo site in 2024

Ammonia output was virtually flat y-o-y at nearly

2 mt

The decline in **ammonium sulphate output** in 2024 can be attributed to the scaled-down production of NPS grades in line with the market environment

[1] Versatile wind vibration damper.
[2] Reception, storage and regasification systems.

PHOSPHATE-BASED FERTILIZERS

Phosphate-based fertilizer production, kt

Item	2022	2023	2024	Change 2024 to 2023, %
DAP/MAP	4,191.9	4,545.0	**4,592.0**	1.0
NPK	2,553.8	2,463.8	**3,038.5**	23.3
NPS	1,003.1	806.9	**640.1**	–20.7
APP	114.0	199.7	**193.0**	–3.4
MCP	361.6	373.3	**410.6**	10.0
Total	**8,224.4**	**8,388.7**	**8,874.2**	**5.8**

In 2024, the production of phosphate-based fertilizers grew by 5.8% y-o-y to almost

8.9 mt

driven by a surge in demand and sales

Notably, the MAP output surge of 8.9% y-o-y came, among other things, from the new production facility in Volkhov, erected as part of the Company's long-term development programme.

As part of phase 3 in the Balakovo branch development project, this production site started manufacturing diammonium phosphate, while also increasing the output of feed grade monocalcium phosphate by 10.0% after the implementation of a special project to that end.

In response to market demands, interchangeable NPS, NPK, and APP phosphate fertilizers varied as follows in 2024: a 20.7% decline in NPS production and a 23.3% increase in NPK output, with APP production down by 3.4%.

Production of primary DAP/MAP fertilizer grades rose by 1.0% y-o-y to

4.6 mt

NITROGEN-BASED FERTILIZERS

Nitrogen-based fertilizers production, kt

Item	2022	2023	2024	Change 2024 to 2023, %
Ammonium nitrate	693.0	723.4	**728.6**	0.7
Urea	1,688.2	1,714.4	**1,722.9**	0.5
Ammonium sulphate	165.4	167.5	**141.7**	–15.4
Total	**2,546.6**	**2,605.3**	**2,593.2**	**–0.5**

In 2024, production in the nitrogen segment remained practically flat y-o-y at

2.6 mt

Production of granulated ammonium sulphate declined by 15.4% while the output of urea and ammonium nitrate barely changed compared to 2023.

OTHER PRODUCTS

Output of other marketable products, which primarily include sodium tripolyphosphate and sodium silicofluoride and others, amounted to

301.7 kt

up 5.5% y-o-y

SALES

Sales of phosphate-based fertilizers amounted to 9.1 mt, up 6.1% y-o-y. Accelerated rise in the sales of triple fertilizers was attributable to increased shipments of agrochemicals to the priority domestic market.

In the nitrogen segment, sales were down by 2.4% y-o-y mainly due to reduced exports.

In 2024, PhosAgro Group increased total sales of phosphate-based fertilizers and feed phosphates by 4.2% y-o-y to hit an all-time high of

11.6 mt

Within the Russian market, a focal point for PhosAgro Group, deliveries saw a 9.6% increase, equivalent to an additional 0.2 mt. This uptick was instrumental in boosting the total fertilizer and feed phosphate sales figures for 2024 by

4.2%

Sales by key product, kt

Item	2022	2023	2024	Change 2024 to 2023, %
Phosphate rock	2,041.2	1,393.3	**1,676.6**	20.3
Nepheline concentrate	1,176.4	1,154.8	**1,134.7**	–1.7
Total	**3,217.6**	**2,548.1**	**2,811.3**	**10.3**
Phosphate-based fertilizers				
DAP/MAP	4,272.2	4,503.6	**4,659.6**	3.5
NPK	2,660.7	2,696.0	**3,181.4**	18.0
NPS	1,008.8	803.9	**677.2**	–15.8
APP	111.6	198.1	**187.4**	–5.4
MCP	349.5	376.6	**399.1**	6.0
Total	**8,402.8**	**8,578.2**	**9,104.7**	**6.1**
Nitrogen-based fertilizers				
Ammonium nitrate	661.6	688.3	**679.5**	–1.3
Urea	1,741.8	1,698.5	**1,681.2**	–1.0
Ammonium sulphate	147.4	173.7	**138.9**	–20.0
Total	**2,550.8**	**2,560.5**	**2,499.6**	**–2.4**
Total fertilizers	**10,953.6**	**11,138.7**	**11,604.3**	**4.2**
Other products				
STPP	48.6	61.7	**65.2**	5.7
Other[1]	221.5	225.3	**229.2**	1.7
Total other products	**270.1**	**287.0**	**294.4**	**2.6**

[1] The portfolio of other products expanded in 2024 to incorporate phosphogypsum, aluminium fluoride, sulphuric acid, phosphoric acid, sodium silicofluoride, and aluminium sulphate. Sales of these new products for both 2022 and 2023 have been retrospectively adjusted to reflect this change.