

Canadian Potash Fertilizer Industry 101



Did you know?



Potash is the second most valuable metal/mineral product in Canada trailing only gold.



There are a total of 11 potash mines in Canada 8 underground (like the one pictured below in Saskatchewan) and 3 solution.

What is potash?

Potash is the common name given to a group of minerals containing potassium (chemical symbol K). Like all fertilizers, potash is food for plants, helping foster plant growth and increase yields. Potash plays a particularly important role in critical plant functions like photosynthesis, protein formation, and water use.

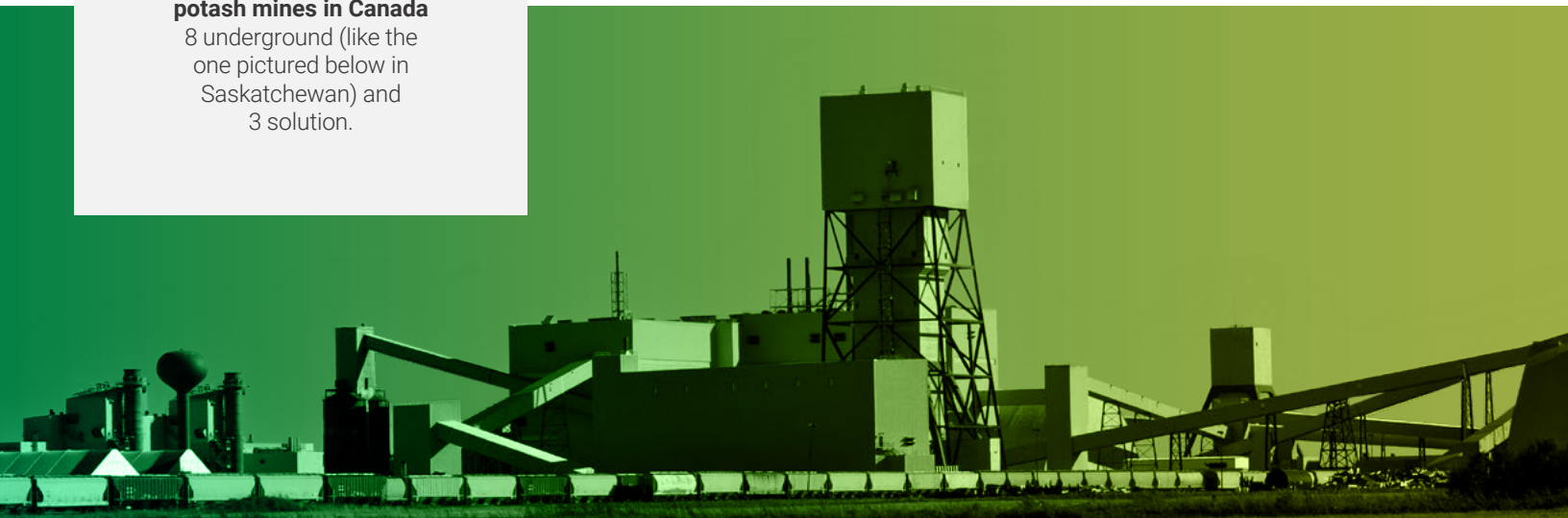
HOW DOES POTASH FERTILIZE PLANTS?

Plants require a balanced supply of nutrients, including potassium. As plants extract these nutrients from the soil during every growing season, they must be replenished through fertilizers, manure, and compost added to fields or gardens annually.

WHAT ARE THE ADVANTAGES OF POTASH FERTILIZER?

Fertilizers like potash can be applied with more control to match crop needs and protect the environment. They can also supplement manure or compost to ensure the soil gets an adequate supply of nutrients.

Fertilizer Canada emphasizes the importance of managing and balancing the supply of nutrients to prevent both over and under fertilization by applying the framework of 4R nutrient management (Right Source @ Right Rate, Right Time, Right Place ®).



Learn more about the Canadian fertilizer industry:

FERTILIZERCANADA.CA |   

WHY DOES POTASH MATTER?

Canada has the largest and richest potash resources on the globe, and could supply the needs of farmers worldwide for several hundred years.



We have the largest supply.

About half of the world's potash reserves reside 1km under the Saskatchewan prairies.



We are the world's most sustainable producers of potash.

Canadian potash is produced with about 50 per cent lower GHG intensity than other parts of the world.



Potash is second only to gold in export value, contributing about \$5.52 billion to GDP annually.



18.3 Million tonnes of Canadian potash were exported to international agriculture markets, transported responsibly by rail or vessel in 2020.

POTASH FERTILIZER HELPS FIGHT FOOD INSECURITY AROUND THE WORLD, SUPPORTING U.N. SUSTAINABLE DEVELOPMENT GOALS.

The world's population is estimated to grow by approximately 2 billion people by 2050 and the general consensus is that global agriculture production will need to increase by about 60-70 per cent in order to feed these people. Food insecurity is on the rise, and to play our part in achieving the United Nations goals of no hunger and improved nutrition, the world needs Canadian fertilizer, like potash, to keep things growing.



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From the mine to the field, Canadian potash is the most sustainable in the world

Canadian potash is made with 50 per cent fewer greenhouse gas emissions than any other major global producer. Eleven mines, eight underground and three solution exist within Canada where potash is mined from deep underground deposits left by ancient inland seas or extracted from saltwater bodies.



1. Ore from mine

Potash is mined using two – and four-rotor continuous boring machines.



2. Underground ore storage

Conveyor belts carry ore to underground bins, where it is stored until transportation to the loading pocket of the shaft hoist.



3. Production hoist

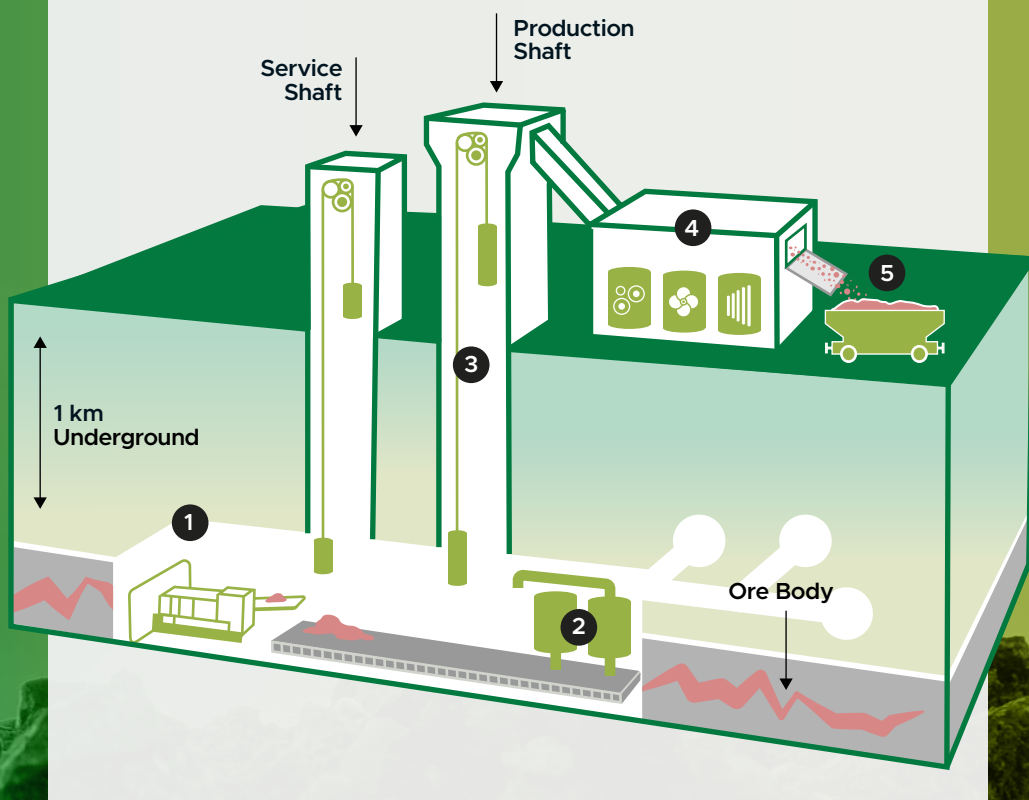
Potash ore is hoisted to the surface through the production shaft.



4. Milling process

Crushing, grinding and desliming
→ flotation → drying and sizing
→ compaction and crystallization.

Anatomy of an Underground Potash Mine



5. Finished products & primary uses

- Standard product - solid fertilizer
- Granular product - solid fertilizer
- Soluble or industrial products (Solid or liquid fertilizer, Industrial)



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