

POTASH



Potash contains potassium, a nutrient essential to life in both plants and animals. The potash found in Saskatchewan is potassium chloride (KCl), also known as sylvite or muriate of potash, which in its natural state is a pink and salty rock. More than one-third of the world's potash is mined in Canada (most of it in Saskatchewan) making it our province's "Red Gold."

Where to find a mine!

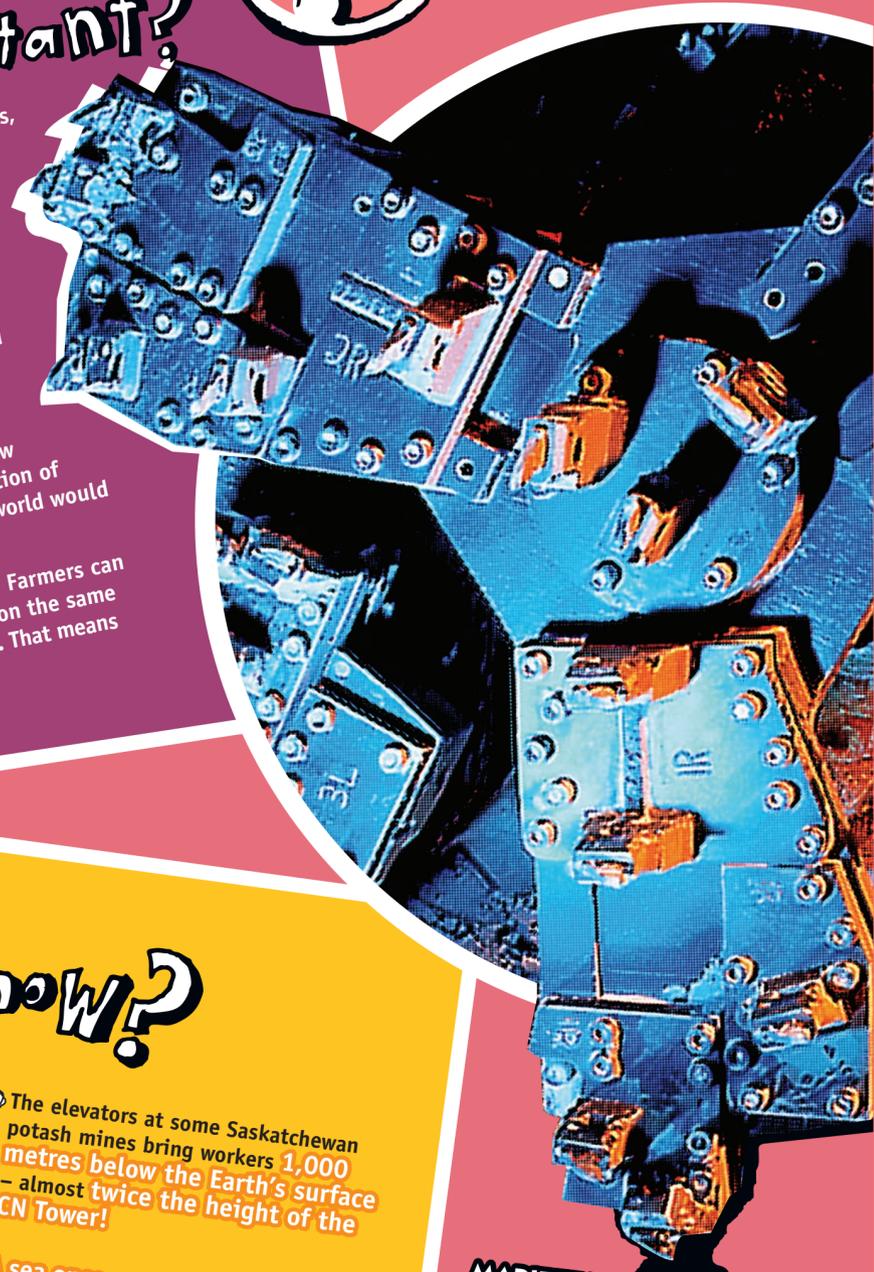
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| AGRIUM INC.:
○ Vanscoy | POTASHCORP:
○ Allan
○ Cory
○ Lanigan
○ Patience Lake
○ Rocanville |
| MOSAIC CANADA:
● Colonsay
○ Esterhazy
○ Belle Plaine | |

Why is Potash important?

Just like humans need vitamins and minerals, plants need nutrients to survive. As plants grow, they absorb these nutrients from the soil to build their roots, stalks and leaves. When plants are harvested, the nutrients are taken, too – unless farmers replace them using fertilizer.

Fertilizer returns potassium, nitrogen and phosphorus to the soil so new plants can grow. Without fertilizer, a farmer's land would be stripped of nutrients within a few growing seasons – they couldn't grow enough food to feed the growing population of our planet, and nearly one-third of the world would go hungry.

Fertilizers also save the environment. Farmers can grow three times the amount of food on the same land that they could just 40 years ago. That means more room for parks and people.



MARIETTA CONTINUOUS-BORER

- USED FOR:** Cutting potash tunnels
- WEIGHT:** 220 tonnes (the weight of 40 elephants!)
- CUTTING AREA DIMENSIONS:** 2.74 metres by 8.23 metres (9' by 27', about the size of a two-car garage)
- CUTTING SPEED:** 30 centimetres per minute
- PRODUCTION RATE:** 580-700 tonnes per hour
- HORSEPOWER:** Four 400 hp motors (each as strong as a race car engine!)

Did You Know?

- Before potash ore was discovered underground, potash was made by evaporating salts out of a pot containing water and the ashes of burned trees (hence the term "potash")!
- The elevators at some Saskatchewan potash mines bring workers 1,000 metres below the Earth's surface – almost twice the height of the CN Tower!
- Because potash mines are closer to the Earth's core, the temperature inside them hovers around 27 degrees Celsius throughout the year – no matter how cold it gets outside!
- A sea once covered Saskatchewan and left behind the potash we mine today. The sea became blocked from its ocean water supply by a reef complex and evaporated, leaving behind potassium chloride (potash) and sodium chloride (halite, or rock salt).
- In addition to drilling from the Earth's surface to find potash deposits, geoscientists use explosives to map rock layers deep underground. A computer analyzes the sound waves created by detonating the explosives to build maps that show where the potash beds are.
- Without potash and other fertilizers, almost one-third of the world would go hungry.
- Potash mines in Saskatchewan are like underground cities. PotashCorp's Lanigan mine, the largest in the province, has more than 850 km of roads, 60 trucks to transport workers and more than 50 km of conveyor belts.

NUTRIENT



Science!

- Potash is necessary for photosynthesis, the process by which green plants produce, transport and accumulate sugars.
- Potash makes plants hardy, helping them to withstand the stresses of drought, cold weather and pests like weeds and insects.
- Potash regulates more than 60 plant enzyme systems, keeping sugars distributed and used properly and making water use efficient.



FUEL FOR THOUGHT

Potash isn't only an ingredient in fertilizer. It's also used to make computer screens, medicine...even rocket fuel!



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