



# Food for plants. Food for thought.

Fertilizer is food for plants and helps grow the crops needed to feed our world's growing population.

Today, approximately half of our global food supply would not be possible without the use of commercial fertilizers.

PotashCorp is the world's largest fertilizer company by capacity. We produce potash, nitrogen and phosphate – three critical crop nutrients that help keep soils healthy.

## Factors Affecting Crop Yields



## Feeding more than crops . . .

Animals need to eat too! Potash, nitrogen and phosphate are used in feed to aid overall animal growth. Potash also helps milk production, while phosphate assists in muscle repair and skeletal development.



## Know Your K, N and P

Essential crop nutrients come from natural sources. We provide them in a form that can be applied to crops and digested by plants – and eventually, people, as part of a healthy diet.



### The Quality Nutrient

#### Where It Comes From

Potassium (K) is found in mineral beds of evaporated oceans. Saskatchewan, covered by inland seas hundreds of millions of years ago, now has some of the world's best potash deposits.

#### What It Does

Fights insect damage and disease

Enhances the taste, colour and texture of many crops

Promotes strong roots and stalks

Helps plants retain water

#### Also Used In

- Food seasoning
- Water softeners, de-icers, detergents, dyes and soaps



### The Building Block

#### Where It Comes From

The air we breathe is about 80 percent nitrogen (N), but it must be converted to ammonium or nitrate for plant use.

#### What It Does

Builds proteins and enzymes

Speeds plant growth

Helps plants produce chlorophyll that keeps leaves dark green

#### Also Used In

- Pharmaceuticals
- Plastics, resins and adhesives



### The Energy Nutrient

#### Where It Comes From

Phosphate is mined from ore bodies that contain fossilized sea life. Phosphorous (P) is present in every living cell – plant or animal – and cannot be substituted, so farmers rely on it in either solid or liquid form.

#### What It Does

Provides energy to plant cells

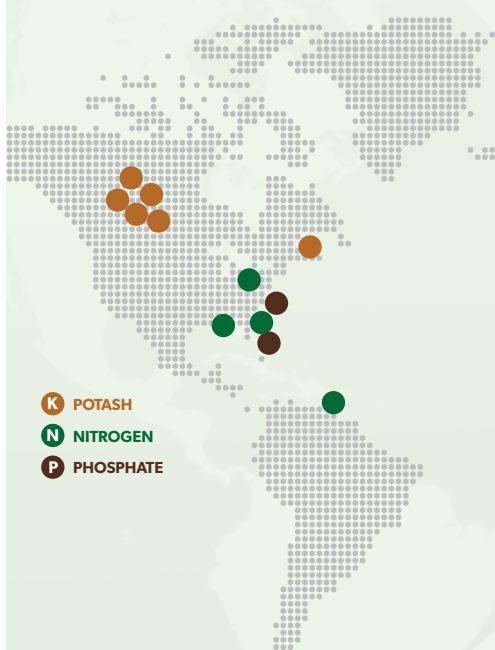
Speeds crop maturity

Promotes shoot growth

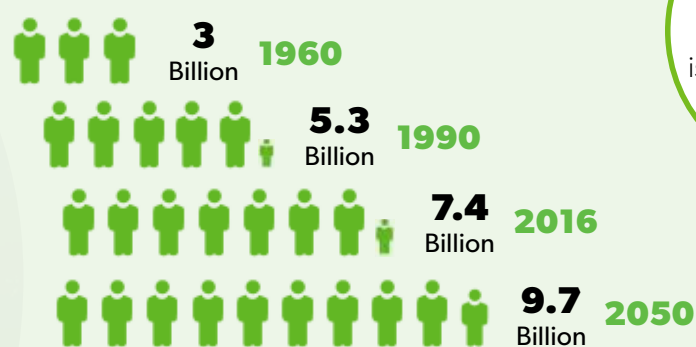
#### Also Used In

- Soft drinks
- Food additives

## Our Operations



## Adding it up



In 1990, every hectare of agricultural land fed three or four people. By 2050, that same hectare will likely feed five or six.

With the proper use of crop nutrients, farmers can produce more abundant crops and protect the fertility of their soils for future generations.

**95%**  
of our food

is directly or indirectly produced from soils

#### What soil is made of:

- 45% minerals
- 25% water
- 25% air
- 5% organic matter



# CEO's message to the community



PotashCorp CEO Jochen Tilk and Agrium CEO Chuck Magro are working to create a global leader in the crop nutrient industry

Dear Friends,

I want to tell you that I am very excited about the proposed merger of PotashCorp and Agrium. It will create an integrated crop inputs company that is even better positioned to grow and thrive.

Together, we will be the largest crop nutrient company in the world and the third-largest natural resource company in Canada. We will have close to 20,000 employees, with operations and investments in 18 countries.

The combination will align PotashCorp's potash, nitrogen and phosphate assets with Agrium's nutrient base and world-class retailing system, allowing us to serve farmers around the world more efficiently.

Our operations and workforce in Saskatchewan will remain a core part of the combined company. As the centre of our global potash operations, Saskatchewan will play a key role in the future of the new company.

When the transaction closes (estimated by mid-2017), the new company's registered head office will be in Saskatoon, with Canadian corporate offices in both Saskatoon and Calgary.

In the past, both companies have put great emphasis on helping our communities and being active and supportive corporate citizens. The merged company will maintain that commitment to community involvement and investment. Each company's best practices in corporate social responsibility will be carried into the new company.

We see this merger as a great opportunity for PotashCorp, for Saskatchewan, and for our customers and farmers. The two companies will achieve more together than either could alone, creating a unique Canadian success story. I look forward to the great things we can do together, both in business and in our communities.

A handwritten signature in black ink that reads "Jochen Tilk".

Jochen Tilk

*"We see this merger as a great opportunity for PotashCorp, for Saskatchewan, and for our customers and farmers."*

## In their own words

PotashCorp employees recently learned first-hand how their company's partnership with WE (formerly Free The Children) is making a difference to Kenyan farmers.



*"I can see that Free The Children is having a very positive impact here, especially through the Agriculture and Food pillar. I think that's the thing that has struck me the most. That it's a hand up, not a handout."*

**Angela Giroux**, lawyer, Saskatoon corporate office



*"It's amazing to see the variety of food that they grow and how they use the farm as a teaching program for local farmers. They use it to show people in this community what they're able to grow on the land that they have."*

**Abby Engle**, raw materials and hedging group, Northbrook, Illinois, after seeing Oleleshwa Farm



# A signal for safety

Radio frequency technology helps keep track of miners and machinery



RFID technology tracks an employee's location underground

A potash mine is a big, big world that can stretch for many kilometres underground, and it's not always easy to pinpoint where miners and machines are at any given moment.

For safety, it's critical that all staff can be accounted for immediately in the event they have to enter an underground refuge station.

It's also important for workers to know where they can find the vehicles and equipment left by workers on the prior shift.

Enter RFID technology, or Radio Frequency Identification. Electronic chips installed on a miner's cap lamp or on underground machinery allows supervisors to know exactly where employees or materials can be found, saving time and money.

Chief Maintenance Engineer Clayton Lawless is bringing the RFID system online at PotashCorp's Rocanville mine now. He says the system is particularly useful for underground personnel.

*Electronic chips installed on a miner's cap lamp or on underground machinery allows supervisors to know exactly where employees or materials can be found, saving time and money.*

"We'll know their last known whereabouts and, when they reach a safe zone or refuge station we'll get an alert that lets us know they have made it there safely," says Lawless.

The sensors will also indicate who has entered the mine and who has left, and it will be visible on a video monitor at the entrance to the people and materials shaft.

This is just one example of how technology is changing the face of mining at PotashCorp and across the continent. Underground cameras focused on critical pieces of infrastructure such as conveyors are also increasingly common, giving operators the chance to detect problems before they become serious.

One advance here is in wireless connections to iPads. Now, supervisors can check on what the cameras see, from anywhere they can use an iPad, rather than only from the control room. It means more eyes are on important functions, improving both reliability and safety.



Recharging station for cap lamps

# Investing in the future

Cultivating the next crop of engineers in Saskatchewan



PotashCorp's Leanne Bellegarde with IPIPP recipients Rowan Spetz and Cole Unruh and program coordinator Matt Dunn

*"I feel honoured to be given the opportunity to be part of IPIPP. It will help me with the funding and with the experience I need to be able to finish schooling and attain a job after school. I couldn't be any happier to be one of the first students in this program."*

**Josh Thomas**

*PotashCorp and the University of Saskatchewan's College of Engineering know there are talented would-be engineers in our province's growing Aboriginal population – so they have joined forces to help these young people attain their degrees.*

PotashCorp is the first corporate partner in a program to support Indigenous engineering students with summer work placements and tuition assistance. It's called the Indigenous Peoples Industry Partnership Program (IPIPP).

"This is a long-term investment in the labour force of the future for us at PotashCorp," said Leanne Bellegarde, PotashCorp's Director of Diversity and Inclusion. "We get great summer talent and have a stronger talent pool in the future for us to draw from."

So far, four students have participated in the program at PotashCorp. "I feel honoured to be given the opportunity to be part of IPIPP," says Josh Thomas. "It will help me with the funding and with the experience I need to be able to finish schooling and attain a job after school."