Friendly Facts

About Fertilizer
Use it right & Use it safe
All plants, just like us, need the same thing to live

The Sun

Water

But plants also need nutrients/food from their soil to grow

Nitrogen: Boosts growth & green colour

Potassium: Builds vigor & health while strengthening resistance to disease and stress

Phosphorus: Feeds seedlings & stimulates root growth

Even if you start with the ideal soil, plants will consume nutrients in the soil and these nutrients should be replenished to keep plants healthy. Fertilizing is an important practice for ensuring the soil can continue to deliver what plants need.
Lawn and garden fertilizers contain 3 main ingredients: **Nitrogen** (N), **Phosphorus** (P) and **Potassium** (K).

Where do the nutrients in fertilizer come from?

All nutrients in lawn and garden fertilizer are sourced from naturally occurring materials and are not man-made. Fertilizer companies simply refine them into a form plants can consume easily and completely.

**Nitrogen**
The air all around us contains nitrogen. In fact, nitrogen makes up about 78% of our atmosphere. Fertilizer producers combine nitrogen with natural gas to change it into a form that plants can use.

**Phosphorus**
Phosphorus comes from the fossilized remains of ancient marine life found in rock deposits. This raw ore is processed to make the phosphorus available to plants as a nutrient.
Potassium
Potassium is the seventh most abundant element in the earth’s crust. Through natural processes, it is filtered into the planet’s seas and oceans. As these bodies of water evaporate over time, they leave behind mineral deposits. Potassium is mined from these deposits.

Organic or Synthetic Fertilizer?
To a plant, it’s all food.

Although plants can’t tell the difference, commercially created fertilizer has some real world benefits:

Fertilizer producers create different nutrient blends specifically to balance the nutrient needs of different soils and plants. Making sure your soil has the right nutrients for the plants in your garden will help to ensure plants receive just the nutrition they need and help prevent excess nutrients from being washed away.

Organic fertilizer, in contrast, uses livestock manure or vegetable matter to provide the nutrients. Nutrient proportions cannot be controlled in the same way as synthetic fertilizers. Care needs to be taken with organic fertilizers to ensure that sufficient nutrition is supplied and that nutrients do not get washed into water sources and other undesirable places.
Use the right fertilizer product for your plants and soil

The three numbers (like 10-0-5) on the package indicate the ratio of the 3 key nutrients of all fertilizers. The product label provides important information about the fertilizer product and how it is meant to be used. Following label instructions ensures positive results.

Use the right amount of fertilizer for your soil

Putting the correct amount of fertilizer in your soil will give you the best results. Always use a good quality fertilizer spreader and follow the application directions on the packaging to prevent over-fertilization and runoff into our sewers and waterways.
Add fertilizer only where it’s needed & away from water sources

Keep fertilizer away from streams, ponds, lakes, and rivers. Low or phosphorus-free fertilizers are a good choice for these sensitive locations. Sweep excess fertilizer from hard surfaces like sidewalks and driveways and help prevent runoff into our sewers and waterways.

Apply fertilizer at the correct time

Different fertilizers are designed to be applied during different seasons. Don’t apply on frozen ground or before a heavy rainfall to help prevent runoff into our sewers and waterways.
Air Quality

A 15m by 15m home lawn creates enough oxygen ($O_2$) for a family of four every day.

$15_m \times 15_m = O_2$/

1 hectare of grass can absorb 100's of kg of sulfur dioxide created by automobile exhaust.

A dense cover of grass also reduces dust because the soil particles are not able to move with the wind. This ground cover provides a place for airborne dust to settle.

Grasses can trap as much as $+10$ BILLION KG/ YEAR of dust & dirt
Reducing Noise Pollution

Plants absorb sound, while hard surfaces like streets reflect sound. Grasses & other plants reduce noise levels by 20%–30% compared to hard surfaces.

Water

A Healthy 900m² Lawn:

- **1 plant / cm²**
- **CONTAINS 8.5 million TURF GRASS PLANTS**

Lawn root systems act as a natural filtering system for our water, absorbing chemicals before they reach the groundwater that is the source of our drinking water.

Healthy sod is the best natural surface we have for trapping and storing rainwater and at the same time reducing soil erosion.

A healthy 900m² lawn can absorb more than 22,000 litres of rainwater without noticeable runoff.
A well maintained lawn and landscape keeps your home significantly cooler by reducing surface temperatures by 17–22°C compared to bare soil and 27–38°C cooler than streets and sidewalks.

A healthy 900m² home lawn provides the cooling effect equivalent to 10 tons of air conditioning, compared to 3–4 ton capacity of many air conditioning units.