

N, P, K Facts!

N

Nitrogen

1. According to Vaclav Smil, scientist and policy analyst, 40% of the world's population is sustained by synthetic nitrogen fertilizers.
2. The Haber-Bosch Process for converting nitrogen into ammonia for fertilizer production began industrial use 101 years ago!
3. Lightning bolts fix nitrogen! The energy from the bolt causes nitrogen (N_2) and water (H_2O) to combine to form ammonia (NH_3) and nitrates (NO_3). Precipitation carries the ammonia and nitrates to the ground where they can be used by plants!
4. 78% of the air we breathe is nitrogen.
5. The first form of fertilizer applied to agricultural fields was bird guano. Wars were fought in the 19th century over this resource because of its high nitrogen capacity!

P

Phosphorus

1. When a plant is deficient in phosphorus, oftentimes the leaves will have a purple coloration!
2. Phosphate is mined from ore deposits that are rich in fossilized sea remains; it's common to find ancient shark's teeth in the deposits.
3. Phosphate is mined completely different in the Northwest region of the US than in the Florida/North Carolina region. In the Northwest region, mines depend on mountain deposits.
4. 80% of the phosphate in the US and 25% used in the world comes from Florida mines in the Bone Valley region of central Florida.
5. Phosphorus is the backbone of DNA, the genetic blueprint contained in every living cell.

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Potassium

1. Due to geographical limitation, potash is only produced in 11 countries worldwide.
2. Eating a banana or taking a potassium supplement before exercising helps to prevent cramps and also means you are consuming one of the three most important soil nutrients: potassium!
3. Reserves of potassium were deposited in prehistoric inland oceans.
4. Most potash mines today are deep shaft mines as much as 4,400 feet underground. That's roughly the height of three Empire State Buildings stacked one atop the other!
5. Sir Humphrey Davy discovered potassium in 1807 and gave it the name Kalium, which didn't stick. People stuck with potassium which is derived from the term potash – a common name for salts that contain potassium.

General

1. On March 25, 2014, Norman Borlaug, referred to as the grandfather of the Green Revolution, would have celebrated his 100th birthday!
2. 70% of the world's currently used fertilizer technology originated in Muscle Shoals, Alabama!
3. Sulfur is a secondary macronutrient, and deposits can be found in volcanic regions.
4. Replacing nutrients in the soil is really important because by 2050 the world's population will likely reach 9.6 billion people. That's why farmers turn to fertilizers!
5. By helping conserve land, fertilizers safeguard recreational land and wildlife habitats.