

# NATURAL AND ARTIFICIAL FERTILIZERS

PALLABI KAISHYAP BORTHAKUR

# Fertilizers

*Fertilizer refers to any material used to give nutrients to the soil to improve soil fertility and plant development.*

*Unfortunately, while unsustainable farming and gardening methods persist, our soil's health is eroded, and our need for additives grows. As a result, chemical fertilizers have some rather significant side effects.*

# Natural fertilizer

---

- A natural fertilizer is a fertilizer made from organic materials. One of its main purposes is to provide nutrients to the soil. There are many different types of natural fertilizer, made out of for example animal manure, crop wastes, compost, and wood ash.

Natural fertilizer is made of a few nutrients that are vital for the growth of plants, and these nutrients include nitrogen, phosphorus, potassium, sulfur, and magnesium



# Compost

Compost is made from decomposing organic matter such as scraps of food and leaves. Decomposers, such as fungi, bacteria, and worms, help to speed up the decomposing process.

## EXAMPLE

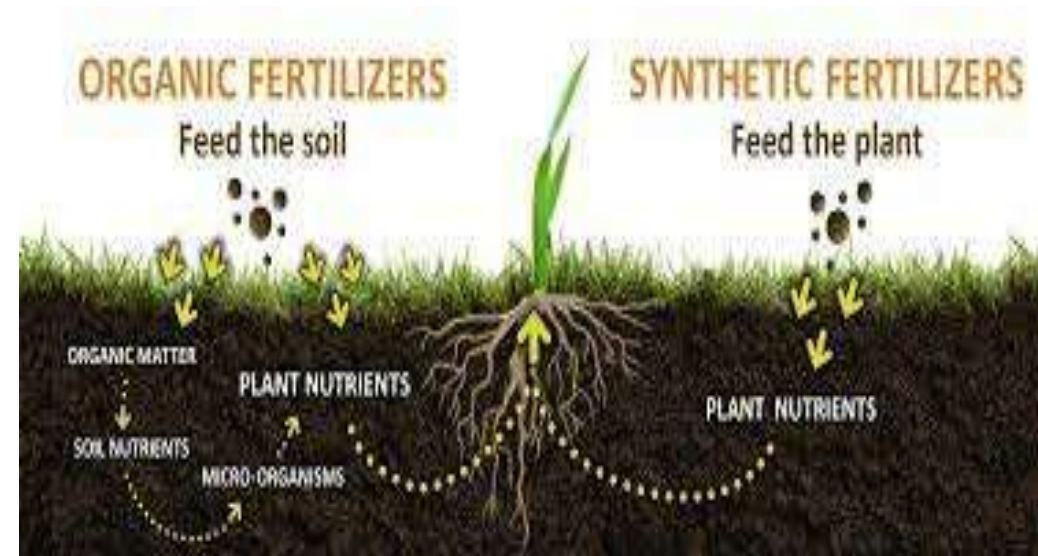
compost, liquid plant manures, humic acid, grain meal, amino acids, and seaweed extracts.

# Artificial fertilizer

- Artificial fertilizers are plant nutrients produced through chemical processes to nurture soil and foster plant growth.
- Artificial fertilizers mainly consist of plant macronutrients such as Nitrogen, Potassium, Phosphorus and Sulphur, but lack other essential substances (micronutrients).



Ammonium Nitrate, Ammonium Phosphate, Superphosphate, and Potassium Sulfate





- **Harmful Effects of Artificial Fertilizers**

- Chemical fertilizers can boost plant nutrients under severe weather conditions or when plants require additional nutrients, but they also have several adverse side effects.

- **Waterway pollution,**
- **Chemical burn to crops,**
- **Increased air pollution,**
- **Soil acidification and**
- **Mineral depletion**

