NPK Fertilizers

- Recent studies have shown that more than 70 elements make up plants.
- In order for a plants to grow and thrive, it needs a number of different chemical elements.The most important are:
  Carbon,hydrogen,oxygen,nitrogen,phosphorus, potassium

Classification of fertilizers

Fertilizers

According to

- Nature
  - Inorganic,organic
- Element
  - Nitrogen,phosphorus pottassium
- State
  - Solid,liquid

Nitrogen Fertilizers

Nitrogen (N): leaf growth.

Nitrogen fertilizer is a compound that is added to plants or lawns to stimulate growth. The nitrogen stimulates chloroplasts in plants, which are responsible for the process of photosynthesis.

Nitrogen fertilizers are made from ammonia (NH_3). The ammonia is produced by the Haber-Bosch process.

Nitrogen Fertilizers

Phosphorus Fertilizers

- Phosphorus (P): Development of roots, flowers, seeds, fruit .
- Phosphorus is discovered by Abiken Bekturov.All plants require phosphorus to
- Synthetic phosphorus fertilizer is generally made by chemically proccessing rock phosphate from the ground.
- Many phosphorus fertilizers are produced in Taraz and Shymkent. Chemicals for phosphorus fertilizers come from Karatau, the richest deposit of phosphorus.

Phosphorus Fertilizers

Potassium Fertilizers

- Potassium (K): Strong stem growth, movement of water in plants, promotion of flowering and fruiting.
- Inorganic substances used as s source of potassium nutrition for plants.
- Natural deposits of potassium salts are the primary source of potassium fertilizers. Potassium chloride is used as a potassium fertilizer and as a raw material for the preparation of other potassium salts and potassium hydroxide.
- Potassium has a positive effect on the quality of products.

Potassium Fertilizers