

PHYNUTRIC - Refined Potassium humate

Due to the varying levels of inefficiency of applied mineral fertilisers. We seldom achieve the crop yield or quality that we want

- **Nitrogen** losses due to volatilisation, denitrification, leaching and reorganisation
- **Phosphorous** losses due to lock up and blocking within different soil conditions
- **Potassium** and **Magnesium** blocking and immobilisation due to soil type and pH

TYPICAL % UTILISATION OF APPLIED MINERAL FERTILISERS

Soil Texture	Sandy Soil		Medium Loam		Clay Soil	
	Acid Soil	Calcareous	Acid Soil	Calcareous	Acid Soil	Calcareous
pH						
Organic Matter (%)	>2	1 – 1.5	>1	<1	>2	<1.5
Nitrogen	50 - 70	45 - 75	45 - 70	45 - 65	50 - 65	60 - 75
Phosphorous	35 - 50	30 - 45	35 - 60	30 - 50	40 - 55	30 - 55
Potassium	55 - 75	S.D.	50 - 70	50 - 65	40 - 55	35 - 50
Magnesium	50 - 65	S.D.	45 - 65	45 - 70	40 - 50	35 - 45

Source: Soltner (1988), ITG Agrícola (ensayos Navarra) y U.B.-I.R.T.A. (ensayos Cataluña)

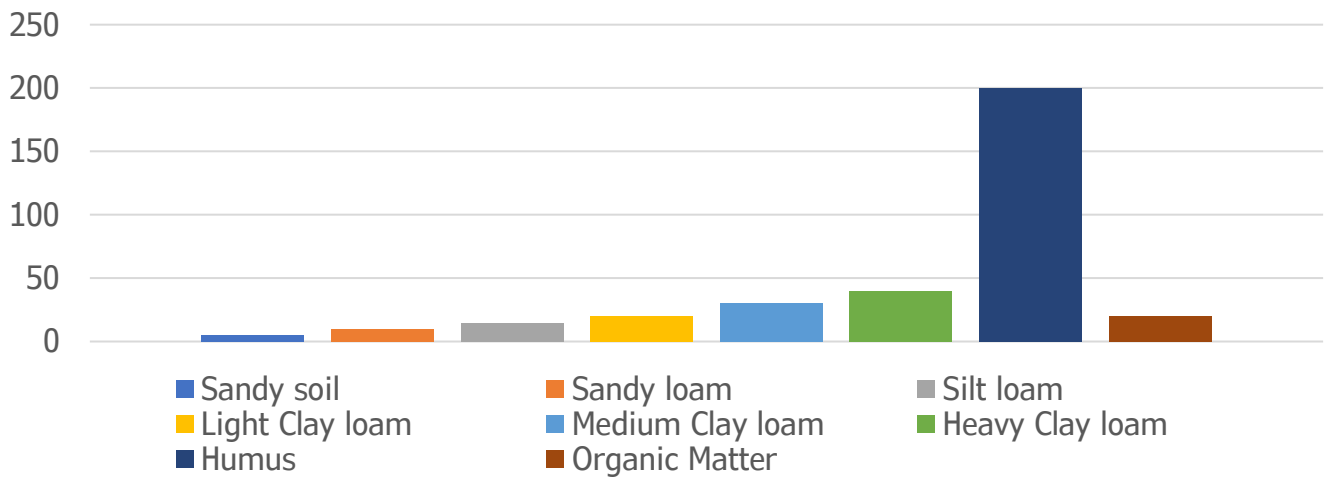
Soils have varying levels of static charge which hold on to nutrients until they are absorbed by plant roots, fungi and soil microbes.

The measure of this static charge is called the Cation Exchange Capacity or CEC. Soils with a higher CEC will hold on to more nutrients for assimilation by plants.

While soils with a lower CEC will require greater amounts of applied fertilisers to achieve the same level of crop yield.

PHYNUTRIC - Refined Potassium humate forms colloidal complexes within the soil, which increase the CEC through the formation of stable complexes with the macro and micro elements that are essential for soil and plant health.

Typical measure of CEC in various soils
CEC meq/100g



Soil application - Use directly in solution for spray irrigation, drip irrigation and liquid organic fertilisers, or as a multifunctional blended fertiliser combined with nitrogen, phosphorus and other nutrients

- **Foliar application** – 1 kg – 3 kg diluted in 150 – 300 litres / hectare
- **Fertigation** – 7kg – 15 kg per hectare subject to soil analysis
- **Soaking seeds** – 10 – 24 hours in 1/2000 dilution with water

Appearance	Black shiny crystal
Water solubility (dry basis)	95% min
Humic acid (dry basis)	70% min
K ₂ O (dry basis)	12% min
Moisture	15% max
pH	8 - 10
0.5 mm sieve residue	n/a
Size rate (0.2 – 1.0 mm)	90% min
Caution! Do not blend with acid fertilisers.	High polymer heterogeneous aromatic potassium salt material containing; polyhydroxy, carboxylic acid and other active groups. It's alkaline and 95% soluble in water.
Packing information	25 kg bag. Keep sealed within a cool dry place