

## ULTRA HUME

Ultra Hume is an alkaline solution of humates from organic sources. Ultra Hume acts as a soil conditioner by creating binding in sandy soils and giving structure to the sandy soils. Leaching of nutrients is limited with Ultra Hume. Water retention therefore improves as well as the micro organisms.

### BENEFITS

Ultra Hume is used as a soil applicant, through fertigation, in the following:

#### Sandy soils

Ultra Hume can be used in situation where crops are grown in sandy soils to create bonds for the essential nutrients (e.g. Ca, Mg, Zn, B, etc.) and limiting leaching of these nutrients. Soil structure improves with the use of Ultra Hume as well as water retention.

#### Acidic soils

When soils are acidic, Ultra Hume can be used to increase the pH levels of the soils. Buffer capacity increase with regular use of Ultra Hume. Ultra Hume and Amino Stim together can improve soil structure drastically.

#### Urea

Urea can be very volatile and can leach out of the soil profile. When Ultra Hume is applied with urea it creates a bond of organic nitrogen which prevents volatilization. Ultra Hume promotes conversion of urea to nitrate by stimulating the micro organisms responsible for nitrification.

#### Anions carrier/protector

Ultra Hume serves as a carrier/protector for the anions and is therefore applied with borate, molybdate and silicate. These anions are thus protected from unwanted chemical interactions in the ground and therefore enhanced uptake by the plant. The efficiency of Terra Trace (B), Terra Trace (Mo) and Terra K Sil improves when combined with Ultra Hume.

#### High phosphates in soils

Compost, chicken manure or cow manure can be replaced by Ultra Hume in light soils where phosphate levels are high ( $P > 60$  mg/kg, Bray 1).

#### Heavy metal poisoning

Heavy metal poisoning (e.g. Cu, Al, Pb, Cd, Hg, As, etc.) in both the plant and soils can be lifted with the use of Ultra Hume. The Ultra Hume bonds with the heavy metals and forms an insoluble complex with the heavy metals, which becomes unavailable to the plants.

#### Crops

Ultra Hume is suitable for any crop and can be applied at any time during the growth cycle of the plant. Mangoes respond particularly well to Ultra Hume.

### Root growth and development

Root growth and development of plants increase, especially in sandy soils, with the use of Ultra Hume, as well as plant growth above soil surface.

### Micro organisms

Long term use of Ultra Hume provides more nutrition for micro organisms.

### **APPLICATION**

*\*Any application must be verified with a certified Terra Dynamics expert.*

Sandy and acidic soils: 25 liters/ha/week to 400 liters/ha once off.

Urea Ratio: 1 liter Ultra Hume to 5 kg urea.

Anion Ratio: (Terra Spoor (B), Terra Spoor (Mo), Terra K Sil) 1-2 liters anion to 5 liters Ultra Hume.

Heavy metals: 50 liters/ha/month to 200 liters/ha once off.

*\*Ultra Hume cannot be applied with fertilizer.*

