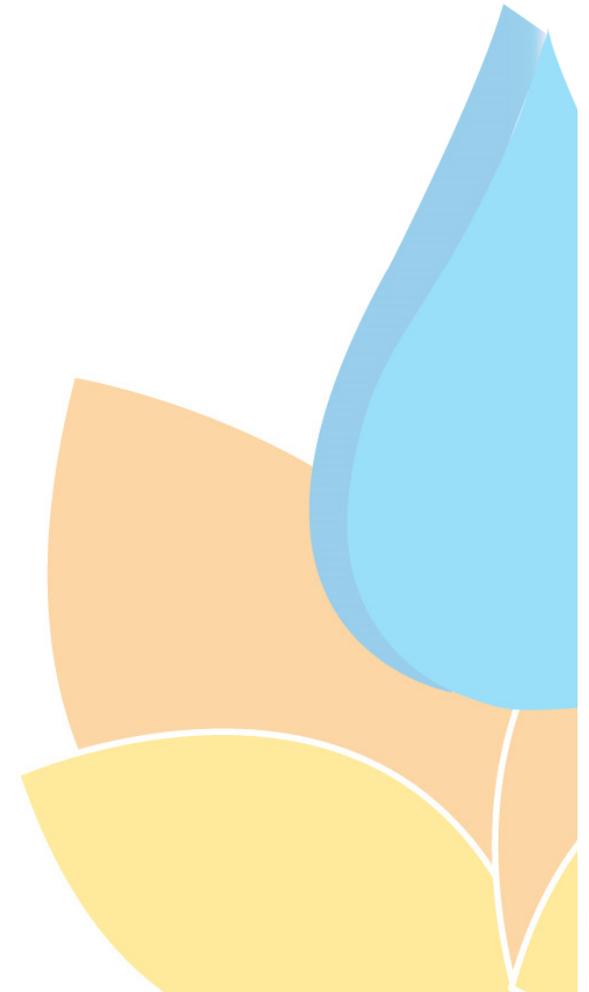




# MENAFERT



***Introducing Our  
Humic Acids***



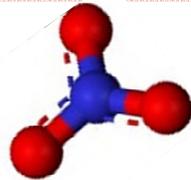
# 1. Why MENAHUMIC?

## The benefits of *Menahumic* product

Reduces leaching specifically nitrate

by increasing root activity

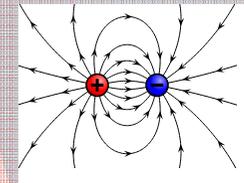
Increases Phosphate availability



formation of humo-phosphate available for uptake

Enhances the soil Cation Exchange Capacity

complexation of ions



# 1. Why MENAHUMIC?

## The benefits of *Menahumic* product

Enhances the plants ability to take in essential nutrients

By converting nutrients into forms adequate for plants

Stimulates beneficial microorganisms

soil carbon for vital microbial activity that frees nutrients

Increases water holding capacity of



Helps resist drought



## 2. Humic acids and their sources

The best source of humic acids are the sedimentation layers of soft brown coal, which are referred to as Leonardite.

The deeper we go the higher humic acid we get



### 3. What are humic acids?

Since humic acids in raw Leonardite are not water soluble and are very slow released, a chemical transformation is needed to be able to release them in water and thus using them in fertigation

In Chemistry:

Acid + Alkaline  $\rightarrow$  Salt + H<sub>2</sub>O

When extracted from Leonardite, a strong alkaline is applied, Potassium Hydroxide.

The chemical reaction changes Humic acids into salts of potassium



These salts are Potassium Humates,  
**Extremely soluble in water!**



## To sum it up:

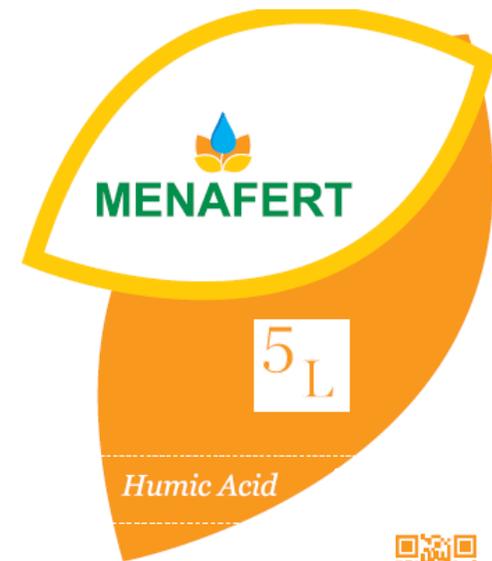
<u>Leonardite</u>	<u>Potassium Humates</u>
Raw material	Extracted from Leonardite with KOH
Humic acids inside are not water soluble <b><i>NB: it is very soluble in Alkaline solutions!</i></b>	Humic acids inside are EXTREMELY water soluble
Very slow process	Fast action/results
Not suitable for fertigation	Ideal for fertigation



## 4. Menahumic importance

### 1. MenaHumic is

- a) a concentrated soluble source of potassium humate, extracted from European Leonardite
- a) a natural humic conditioner
- a) free of sulphates, choride and sodium
- a) Very soluble → no risk of clogging irrigation systems



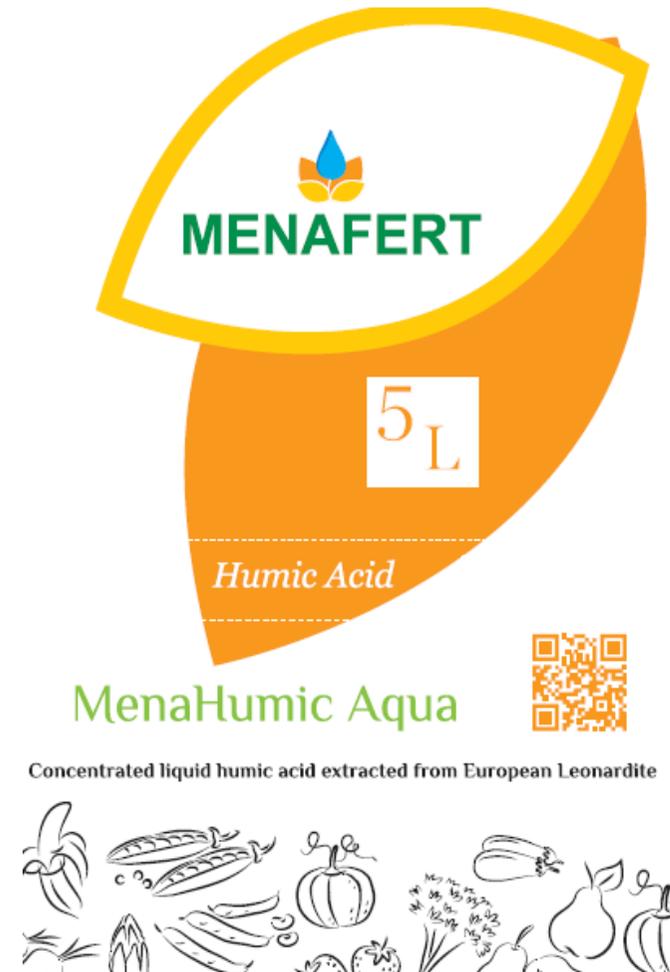
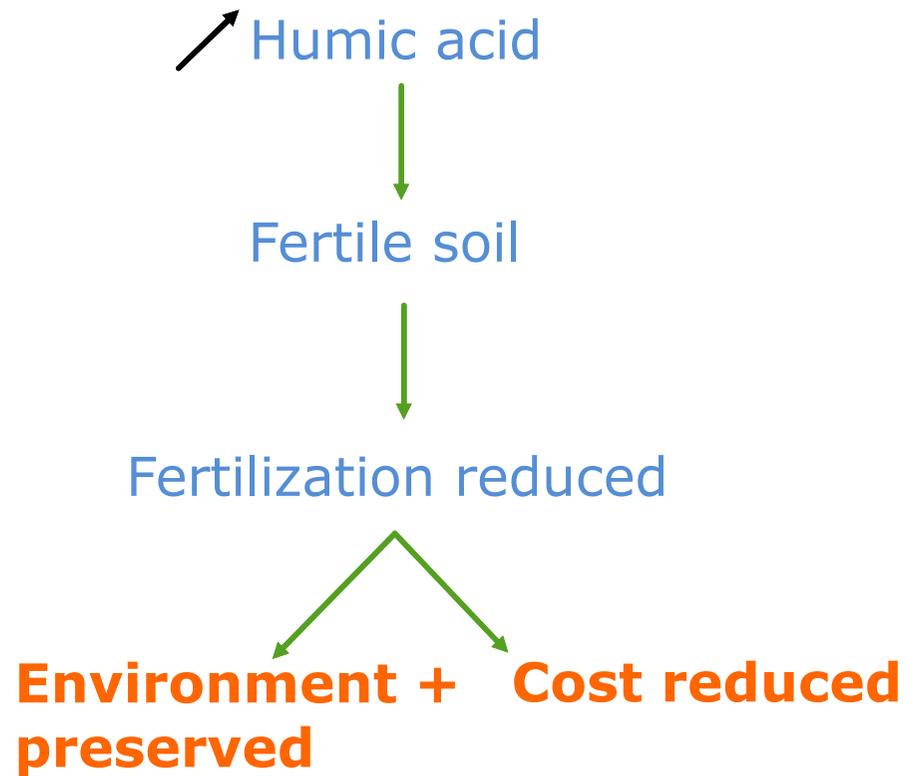
MenaHumic Aqua



Concentrated liquid humic acid extracted from European Leonardite



## 4. Menahumic importance



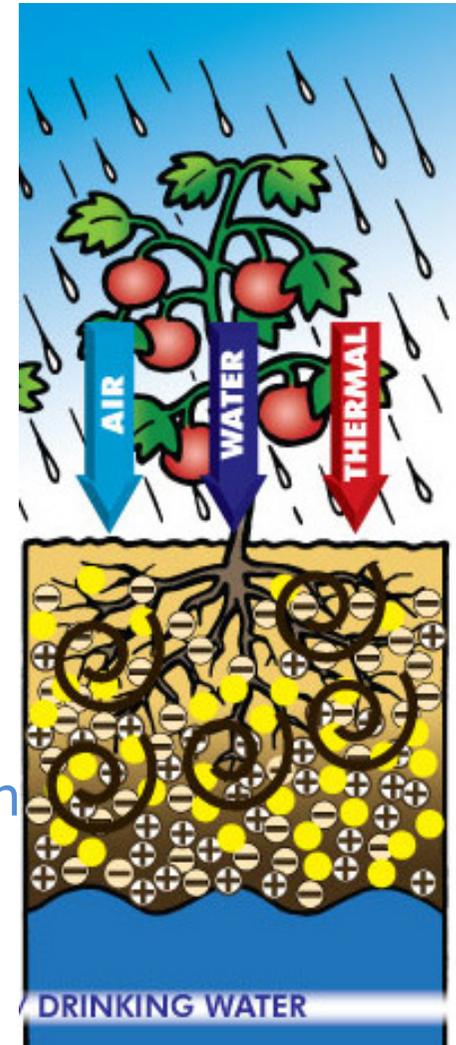
## 4. Menahumic importance

### Menahumic

Improves soil structure: physically and chemically  
Better aeration and water movement

Biologically stimulates the plant and the micro-organisms

Better nutrients uptake + assimilation by the crops



## 5. Menahumic Aqua

In addition of Menahumic powder, we also offer two high quality Liquids with Fulvic acids that penetrate into the plant and carry important nutrients!

- Menahumic Aqua 15%  
(7% HA + 8% FA) + 3.75 K<sub>2</sub>O
- Menahumic Aqua 15%  
(12% HA + 3% FA) + 3.85 K<sub>2</sub>O



## 6. Better results with Menahumic

- ✓ Protects phosphates from precipitation in calcareous soils and makes P available

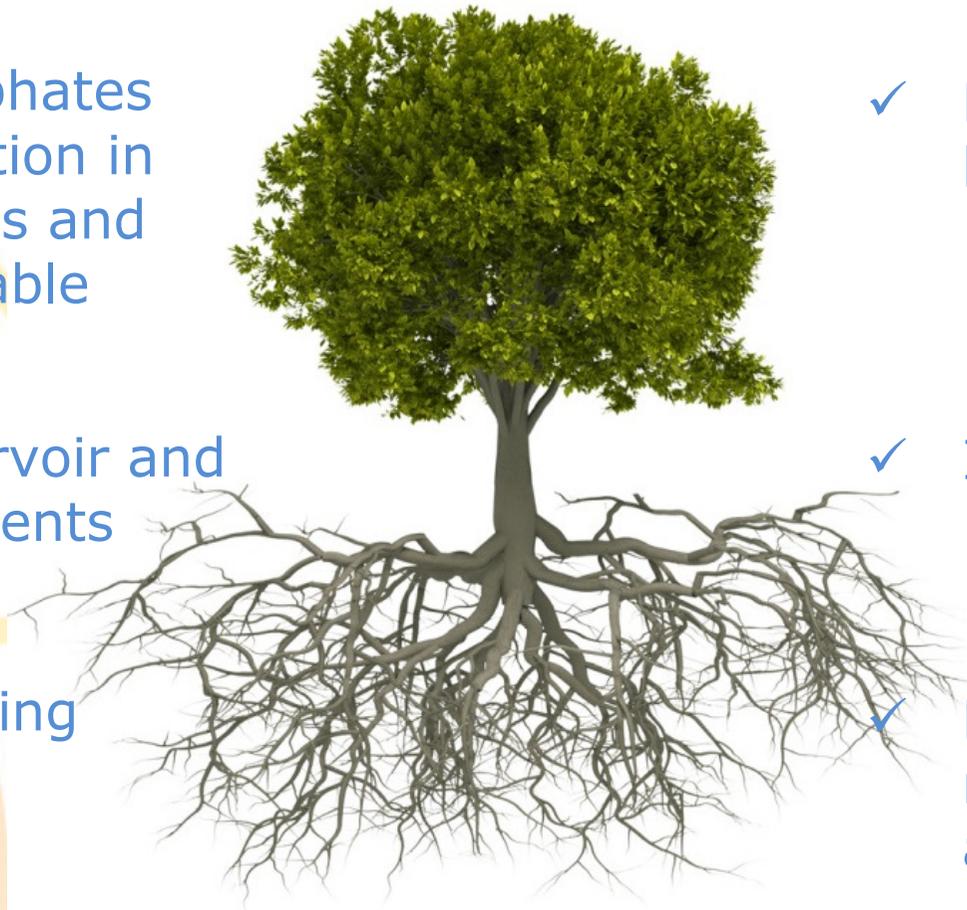
- ✓ Acts as a reservoir and carrier of nutrients

- ✓ Improves rooting conditions

- ✓ Protects the soil balance

- ✓ Improves CEC

- ✓ Enhances microbiological activity





Introducing Our Humic Acids

Thank you for your attention

[www.menafert.com](http://www.menafert.com)

