

Naturfruit:

Naturfruit: 25%
w/w K_2O ,
complexed by
organic acids.



Gama NATURFRUIT

Includes Potassic and NK liquid fertilizer solutions
with high Potassium concentrations.

The importance of Potassium in plant production

- Potassium: is the predominant cation in phloematic flow (transport from the leaves to the rest of the plant of synthesized substances)
- Acts as:
 - Photosynthesis improver.
 - Essential in the solute transport process.
 - Neutralizing action of organic reactions.
 - Maintains cell turgescence and osmoregulator.
 - Vital role in sugar synthesis.

Potassium is an essential element, but...

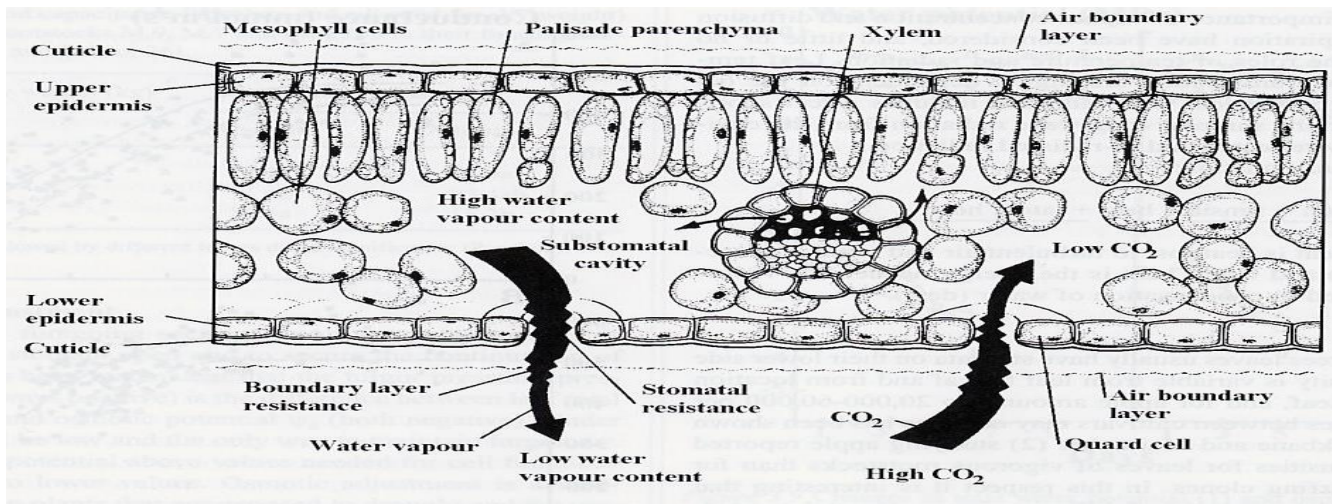
- ❑ Potassium available to plants is the result of the dynamic balance between:
 - Absorbent complex – Soil solution (dissolved + adsorbed in the exchange complex)
 - Available potassium = 1-2% of total Potassium

Potassium is an essential element, but...

- High crop demands:
 - 560 g per olive tree and year to produce 30 kg fruit.
 - 3 kg per day and ha during ripening on high yield vines.
- Low assimilation:
 - Soils poor in K (sandy).
 - Dry soils, with low solubilization.
 - Interactions with Ca and Mg.
 - High soil pH.

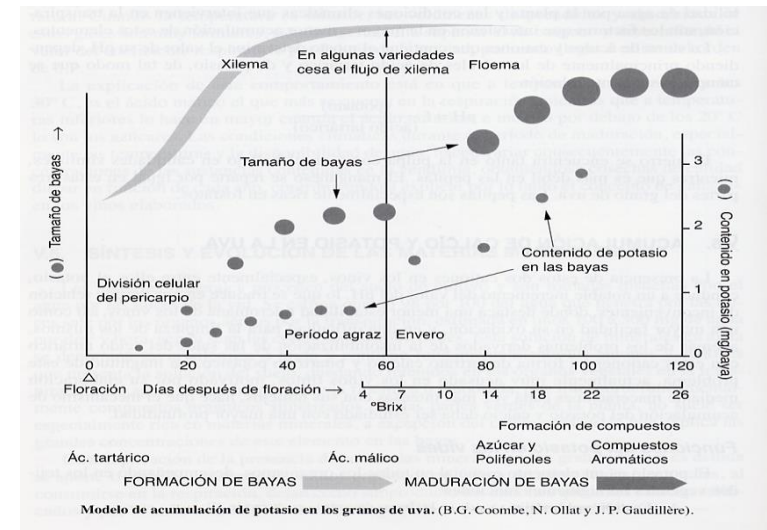
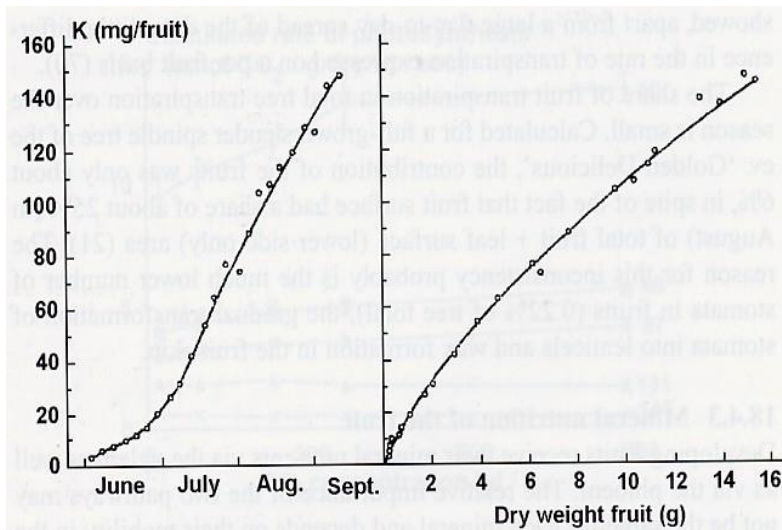
Foliar application of Potassium

- Absorption through the cuticle; the presence of air hinders entry through the stomata.
- Use of adjuvants to ensure a larger wetted surface (a lot of small drops).
- Transport through the Phloem (active until ripening) to the fruits.



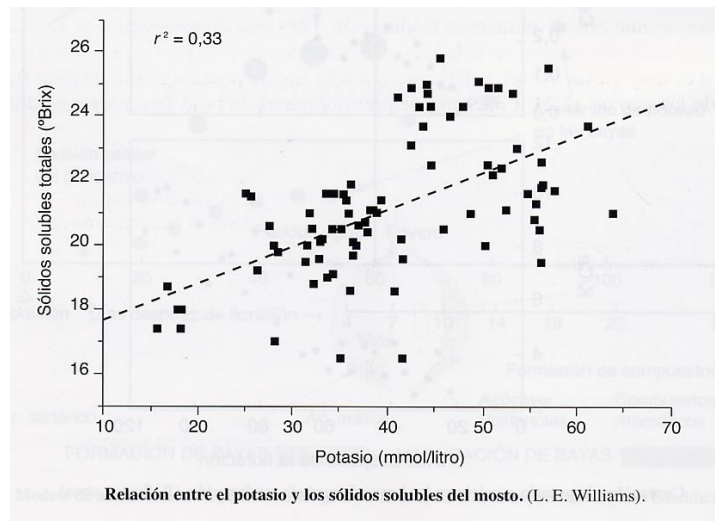
Potassium accumulation in the fruit.

- High assimilation capacity in the fruit:
 - Linear increase in the apple tree (up to 40% ash weight at ripening).
 - Exponential increase in grapes following veraison (up to 50% ash weight at ripening).



Optimising potassic nutrition implies...

- ❑ Obtaining a greater proportion of high calibre fruit.
- ❑ Obtaining better crop yields.
- ❑ Earlier harvest dates.
- ❑ Improving fruit quality (colour, skin firmness in post-harvest).
- ❑ Obtaining fruits richer in sugars.



Naturfruit is composed of...

- ❑ Naturfruit: 25% w/w K_2O , complexed by organic acids.



Distinguishing features of Naturfruit.

- ❑ Great absorbability, with high yield of the application.
- ❑ Contains no Nitrogen, controlling nutrition.
- ❑ Does not soften fruits.
- ❑ Does not raise the pH of the mixture, preventing phytotoxicities and alkaline hydrolysis of plant protectors, allowing for blends in the mixture.

What is achieved with the use of Naturfruit?

- ❑ Increase bud size and number of petals (roses).
- ❑ Bring forward harvest (roses).
- ❑ Significant increase in degrees Brix (fruits and vegetables).
- ❑ Bringing forward harvests (fruits and vegetables); higher percentage of fruits in first passes.
- ❑ Increased weight per unit of fruit (fruits and vegetables).
- ❑ Significant increase in fruit calibres (fruits and vegetables).

COMPARISON Naturfruit - Other Potassium-based liquid fertilizers

Naturfruit

Clear and colourless product. Does not spot

pH = 7,5

Contains no Nitrogen
Does not soften
Longer post-harvest life

Chlorine-free

Formulated with organic acids that achieve:
Fast absorption
Prevents problems of transport competition in the plant with the Magnesium and Calcium, fast and efficient translocation of Potassium to the fruits and other required areas

Not hazardous to the user

High stability

In root applications, does not block micronutrients such as Iron and Magnesium

Other Potassium-based liquid fertilizers

Some formulations should not be used in late periods, because they spot leaves and fruits

pH = 13 or higher
Low assimilation
Cause hydrolysis in a number of plant protectors
Problems of compatibility in mixtures
Hazards of phytotoxicities at high concentrations

Contains Nitrogen
Counter-productive in application period

Some formulations include raw materials that contain chlorine

Formulated with EDTA:
Phytotoxicity problems in several varieties due to the aggressiveness of EDTA

Products classified hazardous due to their corrosiveness

Low stability. Tendency to crystallise

In root applications, makes soil alkaline, blockin Iron and Magnesium