

The logo features a stylized green leaf icon above the text "COMPO EXPERT" in a bold, black, sans-serif font, with a registered trademark symbol (®) following the word "EXPERT".

**COMPO  
EXPERT®**

A close-up photograph of an apple tree branch heavily laden with ripe, red and yellow apples. The leaves are green and dense, creating a lush background for the fruit.

# Apple Fertilization



**Basacote®**



**DuraTec®**



**NovaTec® Solub**



**Micronutirents**



# Introduction

Pome trees are very demanding in plant nutrients. The soil for cultivation should be fertile with a good water holding capacity and aeration, preferably with a neutral pH. In order to ensure a regular high yield, it is necessary to regulate tree growth through pruning, as this will have a positive impact on the size and colour of the fruits.

## Detailed Description

The fertilization of pome fruits strongly depends on the age and phenological stage of the tree. In order to achieve an effective fertilization strategy, it is important to know the available nutrients of the soil, so a soil analysis can provide the needed information.

Major parts of nitrogen (N), phosphate (P) and potassium (K) are applied in spring, mainly with granular SOP based NPK fertilizers or via fertigation, as it is crucial to supply the correct quantities of nutrients so that they are available during flowering. Calcium is also a very essential nutrient for the stability of the fruit's cell walls, and it must be available for the tree after flowering until harvest. Calcium also has a strong impact on the fruit storage properties; it is also very effective as a foliar application. Zinc, boron, manganese and iron are the most important micronutrients for pome trees (foliar application).

Biostimulation, which is mainly used to alleviate the stress effect, has also a positive impact on the fruit quality and should be applied as a foliar.

For planting we recommend Basacote® Plus 6M/9M. Duratec® as granular fertilizers are used in the stage of sprouting and bud development. For fertigation systems we recommend NovaTec® Solub. Trace elements can be given with foliar application, e.g. with Nutrimix® Complete and Nutribor®.



# Fertilizer Program

## Granular

Growth Stage	Product	Rate (kg/ha)
Bud Burst to Fruit fill	Novatec® Premium	300
	Duratec® Top 14	250
Fruit fill to fruit maturation	Novatec® Premium	300
	Duratec® Top 14	250
Post-harvest	Duratec® Top 14	125



## Granular and Fertigation

Growth Stage	Product	Rate (kg/ha)
Bud burst	Duratec® Top 14	150
Fruit set	Novatec® Solub NK Ca	225
	Novatec® Solub 9-0-43	75
	Novatec® Solub K-Max	100
Fruit fill	Novatec® Solub NK Ca	250
	Novatec® Solub K-Max	150
	Novatec® Solub 9-0-43	125
	Novatec® Solub 21	25
Fruit Maturation	Novatec® Solub 21	25
	Novatec® Solub 9-0-43	25
Post-harvest	Duratec® Top 14	100



## Fertigation

Growth Stage	Product	Rate (kg/ha)
Bud burst	Novatec® Solub 16-30	50
	Novatec® Solub 9-0-43	100
Fruit set	Novatec® Solub NK Ca	225
	Novatec® Solub 9-0-43	75
	Novatec® Solub K-Max	100
Fruit fill	Novatec® Solub NK Ca	250
	Novatec® Solub K-Max	150
	Novatec® Solub 9-0-43	125
	Novatec® Solub 21	25
Fruit Maturation	Novatec® Solub 21	25
	Novatec® Solub 9-0-43	25
Post-harvest	Novatec® Solub NK Ca	50
	Novatec® Solub 9-0-43	25



# Fertilizer Program (Cont.)

## Foliar Micronutrients

Growth Stage	Product	Rate (kg/ha)
Bud burst	Nutribor®	2
Fruit set	Nutrimix® Complete	3
	Nutribor®	2
Fruit fill	Nutrimix® Complete	3
Fruit Maturation	Nutrimix® Complete	3



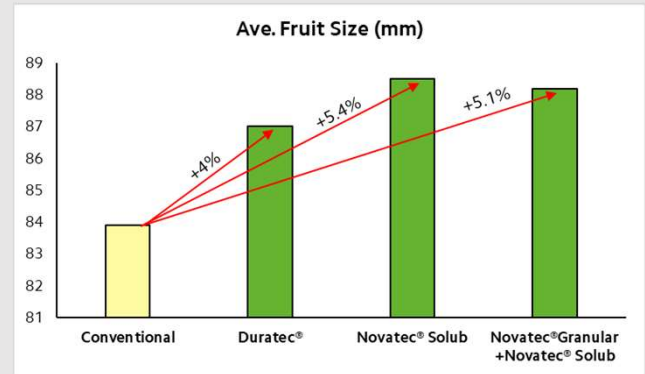
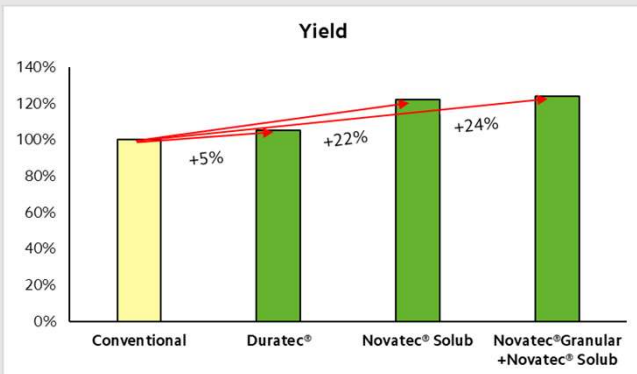
## Plant Hole Application During Planting

	Product	Rate (g/plant)
Plant hole application during planting	Basacote® Plus 6M/9M	40 – 50

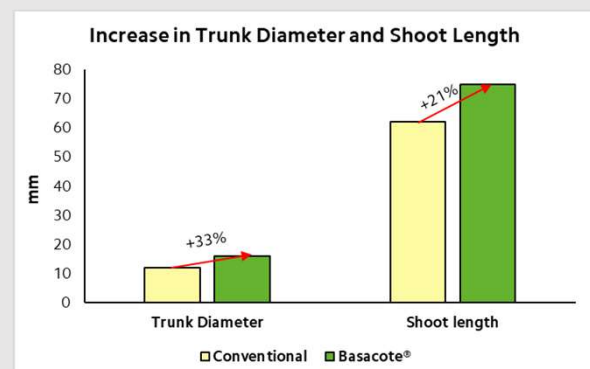
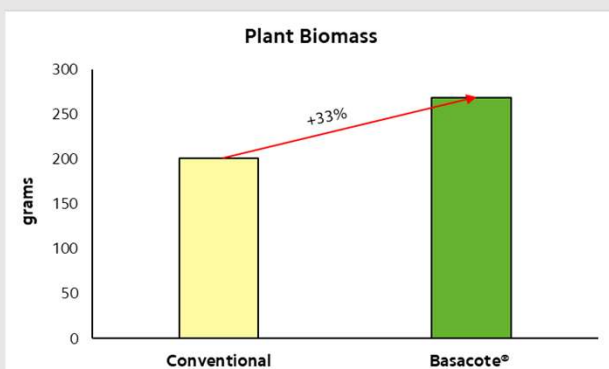


## Young trees (Granular)

Growth Stage	Product	Rate (kg/ha)
Month 1	Duratec® Top 24	100
Month 4	Duratec® Top 24	100
Month 7	Duratec® Top 24	50
Month 10	Duratec® Top 24	50



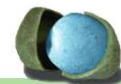
## Basacote® at Planting





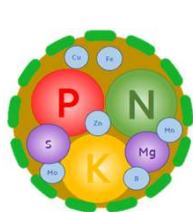
# Basacote®

Advanced controlled release technology fertilizer  
for forestry, nurseries and special crops

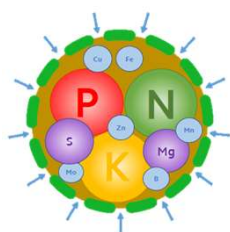


COMPO EXPERT has a unique and sophisticated coating technology where each fertilizer prill is evenly coated with an elastic polymer that controls water penetration and thus the dissolution of nutrients inside the coating. It is designed to ensure a long-term and consistent nutrient supply for up to 16 months. The Climate Adapted Release (C-A-R) Technology is linked to ambient temperature and guarantees nutrient availability according to individual plant requirements. The coating and release rates are not affected by soil properties such as pH, microbial activity, salinity etc.

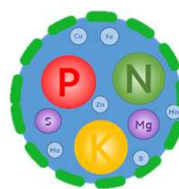
These characteristics prevent nutrient dumping and associated seedling mortality that is often experienced when fertilizers with inferior and brittle coatings are used.



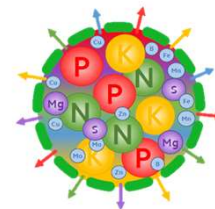
Granules are coated with an elastic polymer



After application, water slowly enters through the pores



The nutrients are dissolved in the water. The result is a concentrated nutrient solution.



Through osmotic pressure, a controlled and long-term nutrient release is ensured



## Basacote® Strategy

- ❑ Use Basacote® in planting mixes in nurseries
  - when transplanting and tunnel grown plants (vegetables, blueberries etc.)
  - when establishing new trees and shrubs in the field.
- ❑ Use Basacote® in areas where it is difficult and impractical for frequent applications such as dense stands and difficult (i.e. steep) areas.
- ❑ Use Basacote® where frequent transport and (or) application of normal fertilizer is too expensive or risky
- ❑ Use Basacote® in high rainfall areas and sandy soils where normal fertilizers will wash out easily
- ❑ Use Basacote® Plus 9M (9 month release) for season long base fertilization and incorporate Novatec® Solub stabilised N fertilizer to top-up and for specific growth stages. This ensures nutrients reach the plant even during unforeseen glitches (such as broken pumps, too much rain etc.)
- ❑ Use Basacote® Plus 9M for season long base fertilization and incorporate with Duratec® (3 month release) for rapid post-harvest nutrient uptake



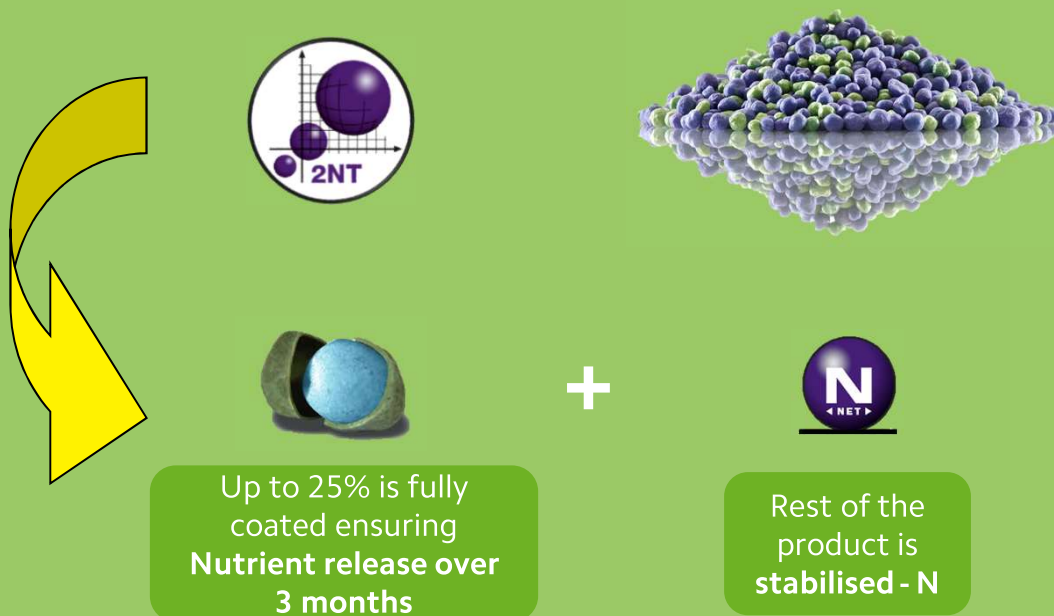


# DuraTec®

## 2NT Inside – The New Standard of NPK

**DuraTec®** is a partly coated and controlled release fertilizer with nitrification inhibitor DMPP (3,4-dimethylpyrazolophosphate). It is SOP-based and excellent for application in vegetables, fruits, nursery, landscape and turf systems. Thanks to the innovative **controlled release technology** derived from Basacote® and **slow-release technology** (Novatec® DMPP), it has numerous environmental benefits, e.g. lower emission of greenhouse gases and a huge reduction of nitrogen leaching losses. On the other hand, the unique 2N-technology (nitrification inhibitor + coating) increases the nutrient efficacy, which leads to better results with less fertilizer.

**DuraTec® double N-technology, double efficiency. The safest and most efficient nutrition for your apple orchard.**



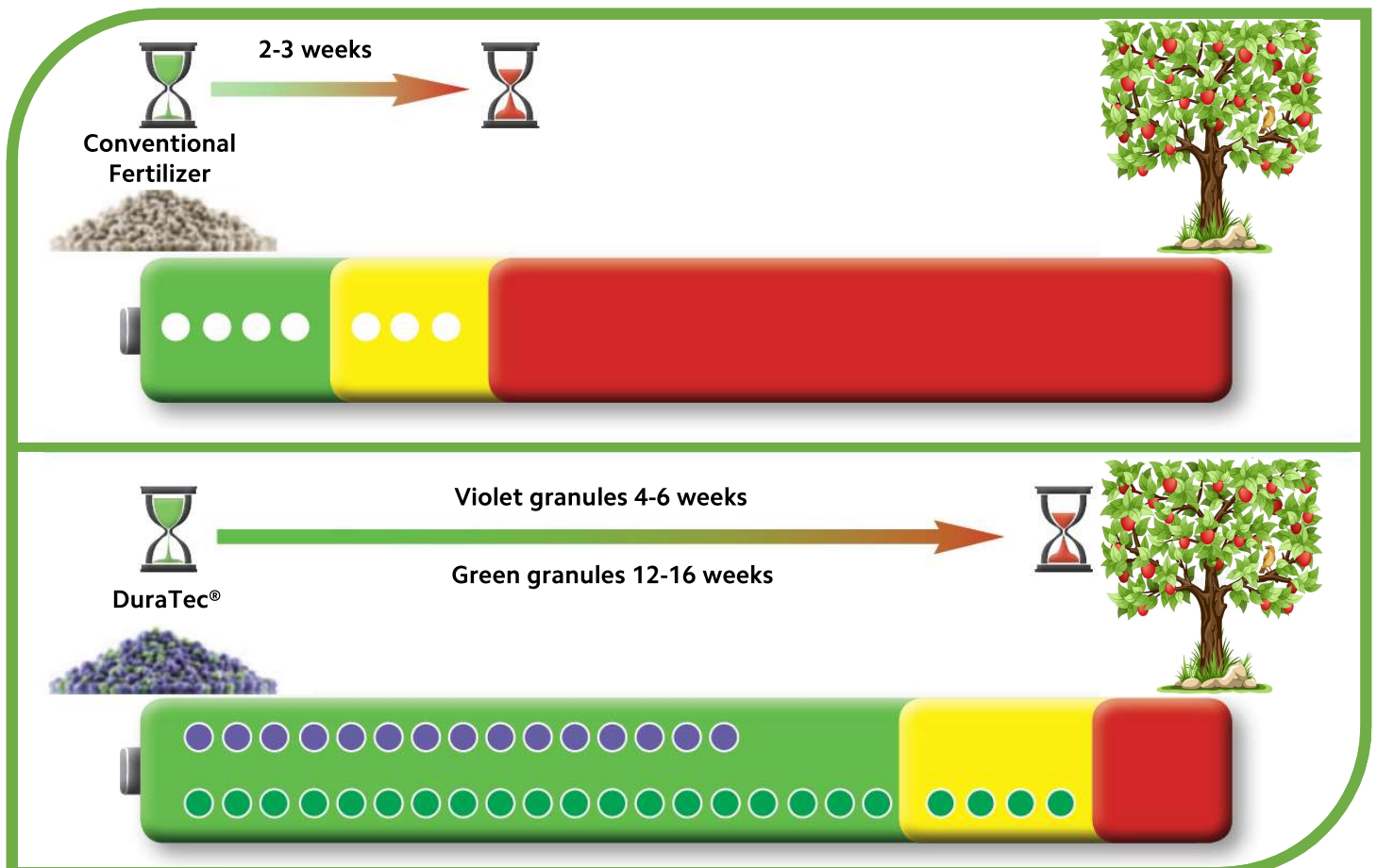
## Advantages:

- ❑ With limited leaching and volatilisation, a higher nutrient use efficiency is achieved.
- ❑ DuraTec® is a soil applied insurance to the crop. If unexpected rain occurs, fertilizer will not be lost. Less frequent application equals less labour.
- ❑ Thanks to the coated granules, and the nitrification inhibition it meets the nutritional needs of the crop at every stage and ensures better ammonia nutrition.
- ❑ A high efficiency at lower doses means less product is used and a reduction in application frequency. Saving labour and fuel.
- ❑ DuraTec® prevents contamination of aquifers: it has a minimal environmental impact.

## DuraTec® in Apple Orchards

**DuraTec®** is like a long lasting battery, releasing nutrients slowly up to 3 to 4 months making it ideal for season long nutrition. Applied as a post harvest application, this ensures nutrient availability into autumn, a time when the apple tree roots are still absorbing nutrients. It is normal to find the coated product (green) on the surface, with violet granules that have released all the nutrients into the soil, ensuring that **DuraTec®** is the safest and most profitable way to feed the apple tree.

The Nutrients in **DuraTec®** is balanced and adapts to the needs of the apple tree. **DuraTec®** is the fertilizer chosen by thousands of apple growers in Spain and Portugal for its great efficiency proven year after year and its excellent results in harvest performance.



The durability of the green granules present in the soil guarantee the effect of prolonged release of nutrients from DuraTec® coated granules.



# NovaTec® Solub

Ammonium stabilised water soluble fertilizer for modern irrigation systems

## Advantages of NET (Nutrient Efficient Technology)

### 1) Better use of the nitrogen provided:

With fewer nutrient losses through leaching.

### 2) Optimal crop yield:

NET technology allows you to ensure availability of nitrogen in the 2 forms absorbable by the plant (nitrate and ammonium):

### 3) Energy savings:

The plant, by directly absorbing ammonium nitrogen, avoids a step in the natural process of the transformation of nitrogen into proteins, ultimately increasing production.

### 4) Improved flowering:

The absorption of ammonium promotes the synthesis of phytohormones (gibberellins and cytokinins) and polyamines, responsible for flowering.

## Features of the Novate® Solub Range

### Quality raw materials

Nitrogen (in nitric and ammonium form only), phosphorus and potassium (free of chlorine and sodium), of maximum quality and highly dissolvable.

### A comprehensive, environmentally-friendly range.

For all types of crops and fertiliser programmes, contributing to more environmentally-friendly agriculture.

### Safety and ease of use

Crystalline fertilisers are homogeneous, free of carbonates and free of impurities. Its high acidifying power prevents obstructions in irrigation emitters and improves the absorption of soil microelements.

### Official certifications

The NovaTec® Solub range has all the certifications required by EuroGAP and GlobalGAP:

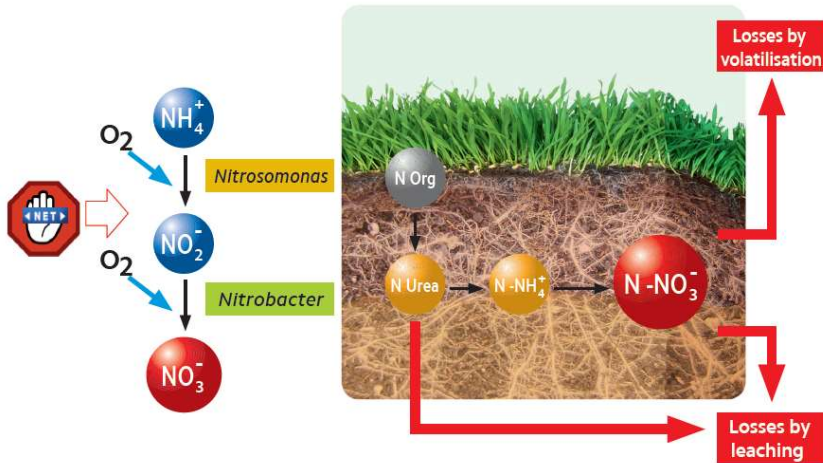
- Technical data sheets
- Safety data sheets
- Certifications of heavy metals







## Novatec® Solub - How Does It Work?

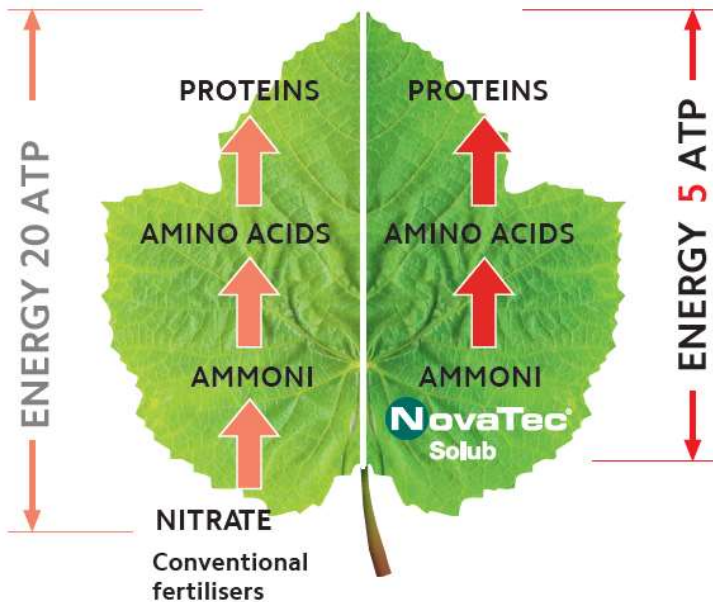


NovaTec® Solub contains the nitrification inhibitor 3,4-dimethylpyrazole phosphate (DMPP). This molecule **inhibits** the nitrosomonas bacteria present in the soil, which are responsible for the transformation of ammonium into nitrite, eventually to nitrate.

- ❑ Ammoniacal nitrogen is retained in the soil by the clay-humic complex, while nitrogen in nitrate form is highly soluble and easily washable, thus achieving greater nitrogen availability for cultivation.
- ❑ In this way, only the formation of nitrates is avoided, ensuring the nitrogen in the soil in the ammonia form for a time, reducing the risk of nitrate leaching.



## Novatec® Solub - Benefits of Ammonia Nutrition



ATP = Adenosine Triphosphate.  
ATP is one of the most important energy transmitters in plants

The above delay in the nitrification of Ammonium ( $\text{NH}_4^+$ ) to Nitrate ( $\text{NO}_3^-$ ) leads to more efficient  $\text{NH}_4^+$  nutrition.

- ❑ Energy savings by Ammonium N-nutrition (no biological reduction required)
- ❑ Enhanced flowering (ammonia promotes synthesis of phytohormones and polyamines)
- ❑ Ammonium nutrition favours root growth





## Novatec® Solub - The pH Effect

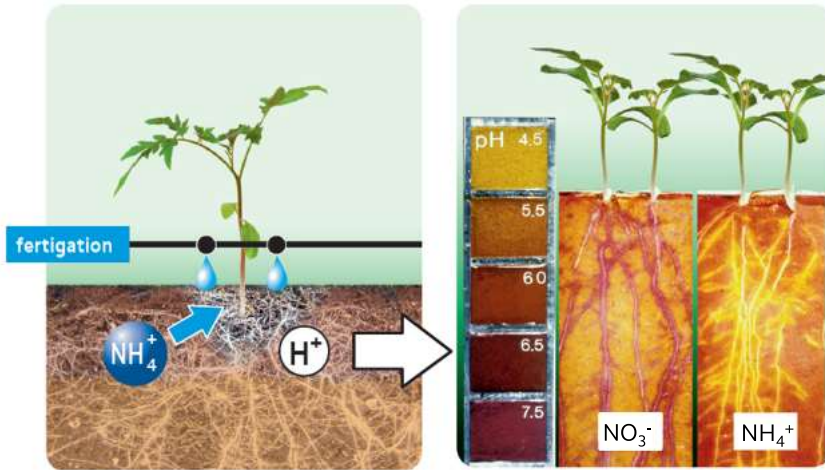


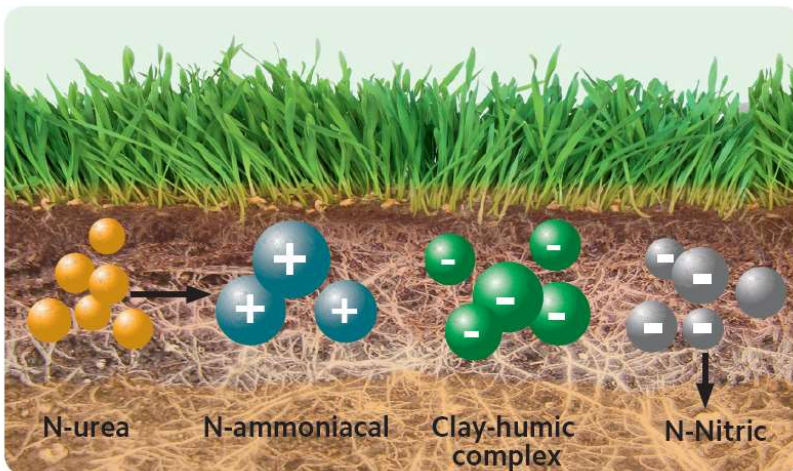
Photo: Römheld, University of Hohenheim

Ammonium nutrition leads to temporary acidification of the rhizosphere

- ❑ Absorption of micro elements and Phosphate is increased by this effect
- ❑ This effect is temporary and localised around the roots, ensuring no negative pH effects on the soil



## Novatec® Solub - Less Nitrogen Loss



Novatec® Solub strongly reduces N-leaching due to a higher ammonium concentration in the soil

- ❑ Ammoniacal nitrogen is retained in the soil by the clay-humic complex, while nitrogen in nitrate form is highly soluble and easily washable, thus achieving greater nitrogen availability for cultivation
- ❑ In this way, only the formation of nitrates is avoided, ensuring the nitrogen in the soil in the ammonia form for a time, reducing the risk of nitrate leaching.
- ❑ Novatec® Solub leads to significant ground water protection





WE ARE YOUR  
**EXPERT FOR GROWTH**



**COMPO EXPERT** South Africa  
Tel: 082 553 5431  
E-mail: [michiel.meets@compo-expert.com](mailto:michiel.meets@compo-expert.com)  
[www.compo-expert.co.za](http://www.compo-expert.co.za)

**Local Agent:**