

**EXPERTS
FOR GROWTH**

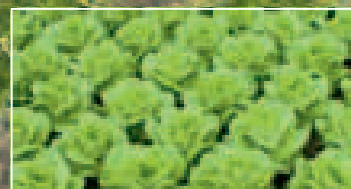
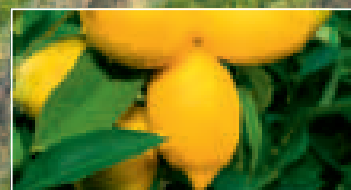


Partly coated Fertilizer



DuraTec®

- The new standard in NPK fertilization
- 2NT: Unique Double Nitrogen Technology
- Immediate and long-term effect
- Fine and even Granules easy to apply
- Higher marketable yield and improved Crop Quality
- Improved efficiency and environmentally friendly





DuraTec®

What is 2NT?

2NT inside – Unique Nitrogen Technology



=



25% of N coated with supply of all nutrients over 3 months

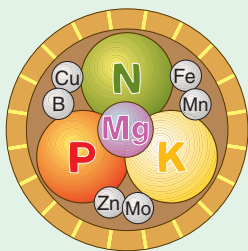
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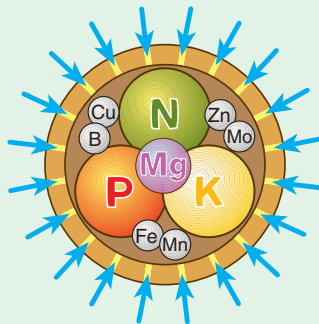
Rest of Ammonium N stabilized with DMPP

DuraTec®

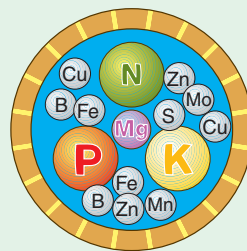
How does it work?



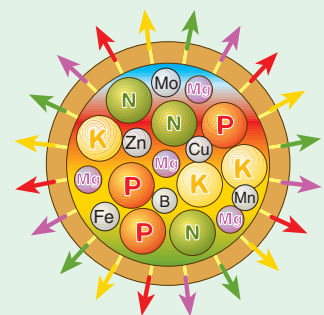
NPK-granules are partly coated with an elastic polymer.



After application, water enters through the pores.



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



A controlled nutrient release over 3 months.

3 months longevity

■ Partly coated Fertilizer:

Coated NPK plus non-coated NPK



Controlled Release

+



Immediate Release





DuraTec®

The perfect coating

■ Even thickness

Ensuring high crop safety through controlled nutrient release

■ High elasticity

High safety; mechanical damage is reduced to a minimum

■ Frost resistance

- High frost resistance of the new coating, even under high temperature fluctuations
- Coating consists of elastic polymer and is slowly broken down in the soil

■ Release linked (CAR-Technology) to temperature

Ensures nutrient availability according to the plant requirements

■ Trace element supply

Micronutrients (B, Fe, Zn) are supplied in every granule



High Elasticity of Coating



High Application security

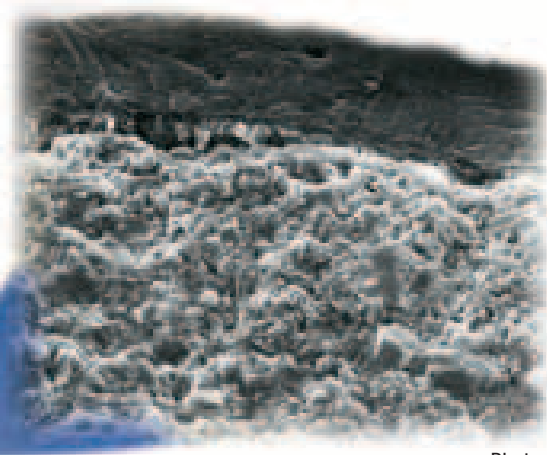
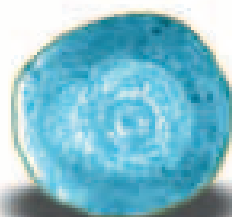


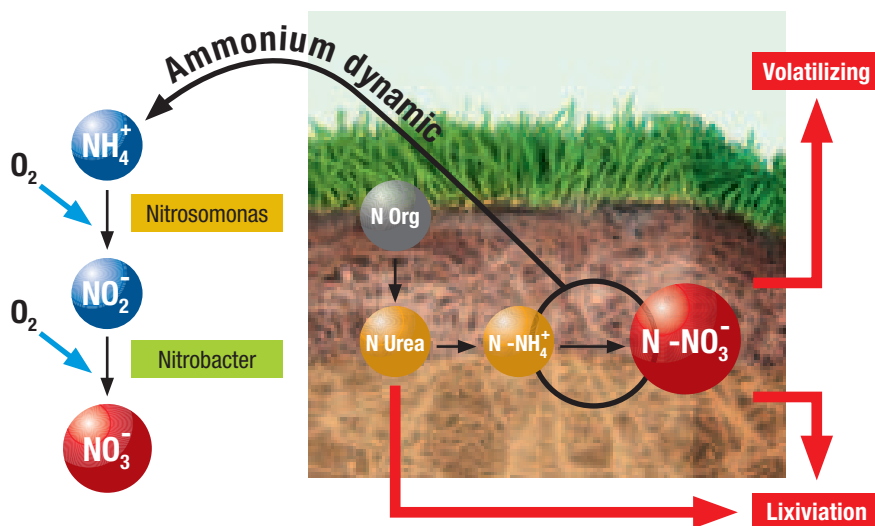
Photo:
Microscopic view (2000x) of
a DuraTec® granule





DuraTec® – How does it work?

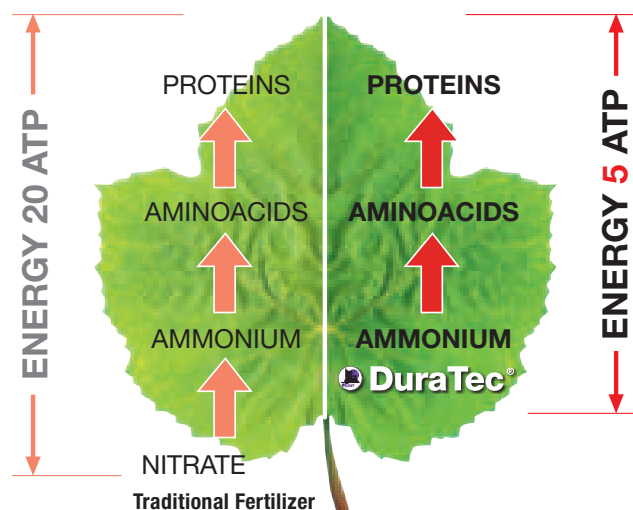
Ammonium-based fertilization with nitrification inhibitor



- DuraTec® delays the nitrification of Ammonium (NH_4^+) to Nitrate (NO_3^-)
- DuraTec® leads to a more efficient NH_4^+ -based N-nutrition
- Environmental benefits: Lower emission of Greenhouse Gases and reduction of Nitrogen leaching



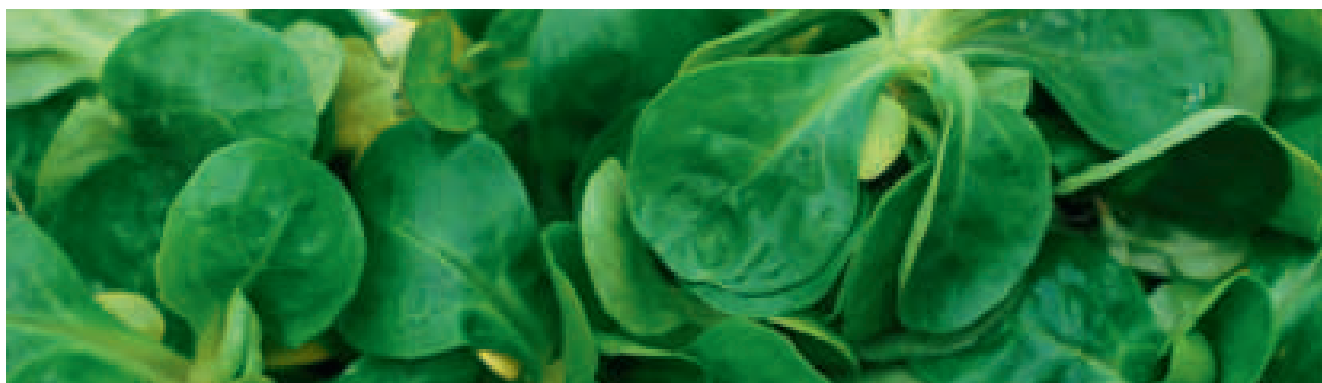
DuraTec® – Ammonium Nutrition



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

ATP = Adenosine Triphosphate.

Is one of the most important energetic carriers in organism.



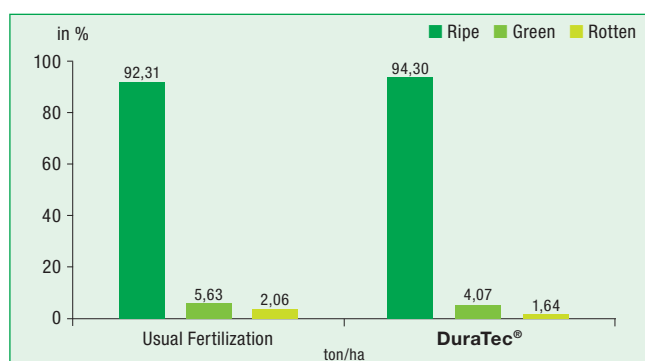


DuraTec®

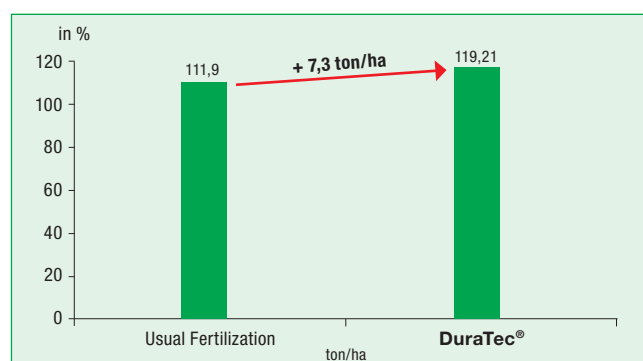
Trial results

Agricultural yield: DuraTec® in comparison to conventional fertilization (Industry tomatoes, Brasil, 2010)

Qualitative comparison of productivity



Quantitative comparison of productivity



Yield after 119 days



Usual Fertilization



DuraTec®





DuraTec®

Product Portfolio

Product	Composition	Characteristics	Presentation	Use
DuraTec® Top 14	14-7-14 (+3MgO+9S+TE)	Partly coated NPK-Fertilizer - 25% of total N is coated - Nitrogen Split: 6.0% NO ₃ , 8.0% NH ₄ - incl. 0.02% B, 0.06% Fe, 0.01% Zn - granule size 2–4 mm - for vegetables, fruits and other horticultural and agricultural crops	Bag: 25 kg Pallet size: 42 bags à 25 kg Container: 20': 21 mt	Application rate: 200–1.000 kg/ha
DuraTec® Top 21	21-5-9 (+3MgO+6S+TE)	Partly coated NPK-Fertilizer - 25% of total N is coated - Nitrogen Split: 10.0% NO ₃ , 11.0% NH ₄ - incl. 0.02% B, 0.25% Fe, 0.015% Zn - granule size 2–4 mm - for vegetables, fruits and other horticultural and agricultural crops	Bag: 25 kg Pallet size: 42 bags à 25 kg Container: 20': 21 mt	Application rate: 200–1.000 kg/ha
DuraTec® Top 24	24-5-5 (+3MgO+5S+TE)	Partly coated NPK-Fertilizer - 25% of total N is coated - Nitrogen Split: 11.0% NO ₃ , 13.0% NH ₄ - incl. 0.02% B, 0.06% Fe, 0.01% Zn - granule size 2–4 mm - for vegetables, fruits and other horticultural and agricultural crops	Bag: 25 kg Pallet size: 42 bags à 25 kg Container: 40': 21 mt	Application rate: 200–750 kg/ha



Folder partly coated fertilizer