

EXPERTS FOR GROWTH



NovaTec[®] Solub

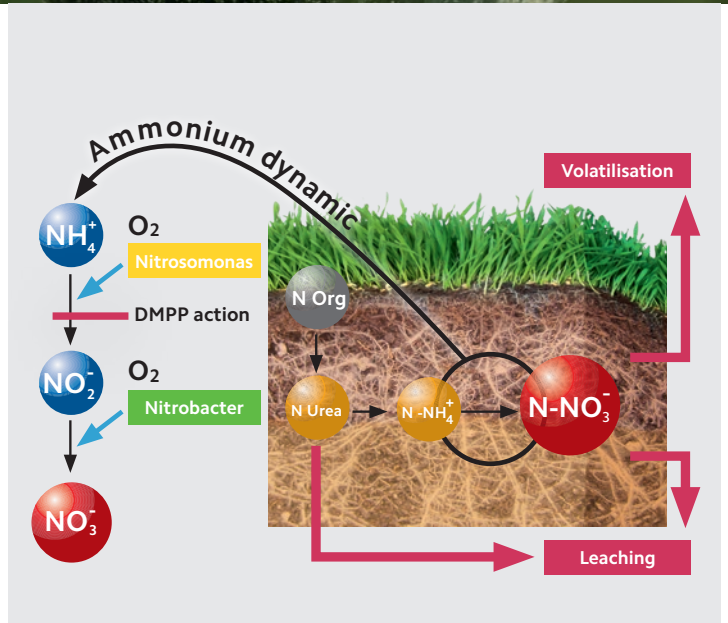
Ammonium stabilized water soluble fertilizer
Nitrogen efficient fertilization for modern
irrigation systems



NovaTec® Solub – how does it work?

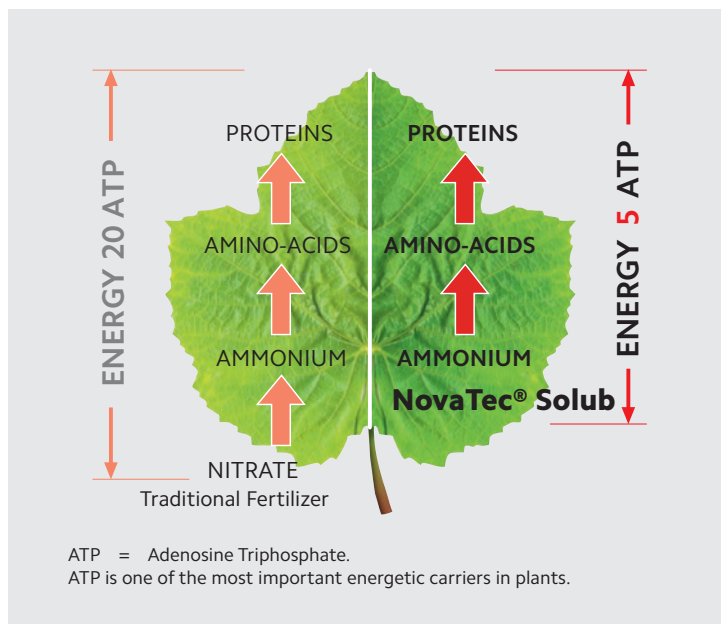
Ammonium-based fertilization with nitrification inhibitor

- NovaTec® Solub delays the nitrification of Ammonium (NH_4^+) to Nitrate (NO_3^-)
- NovaTec® Solub leads to a more efficient NH_4^+ -based N-nutrition



Ammonium Nutrition

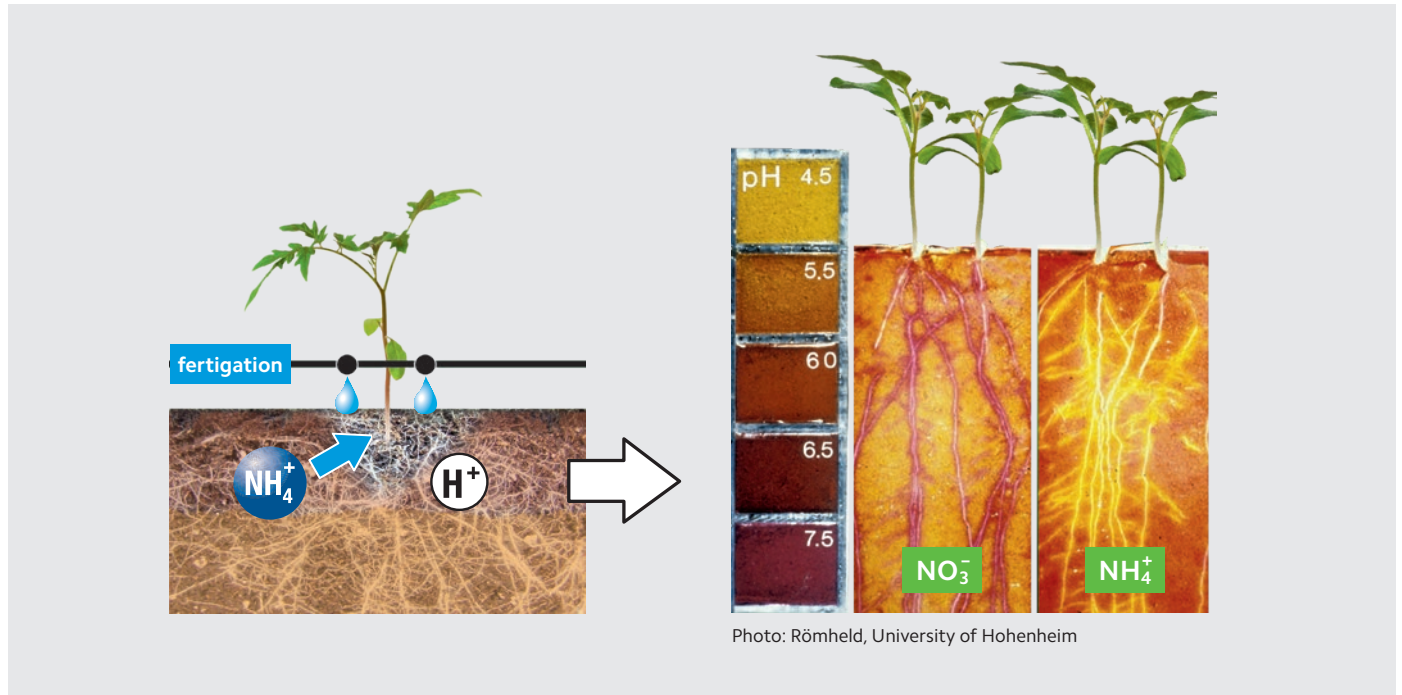
- Energy savings by Ammonium-N-nutrition (no biological reduction required)
- Enhanced flowering (Ammonium promotes synthesis of phytohormones and polyamines)
- Ammonium nutrition favours root growth



ATP = Adenosine Triphosphate.
ATP is one of the most important energetic carriers in plants.

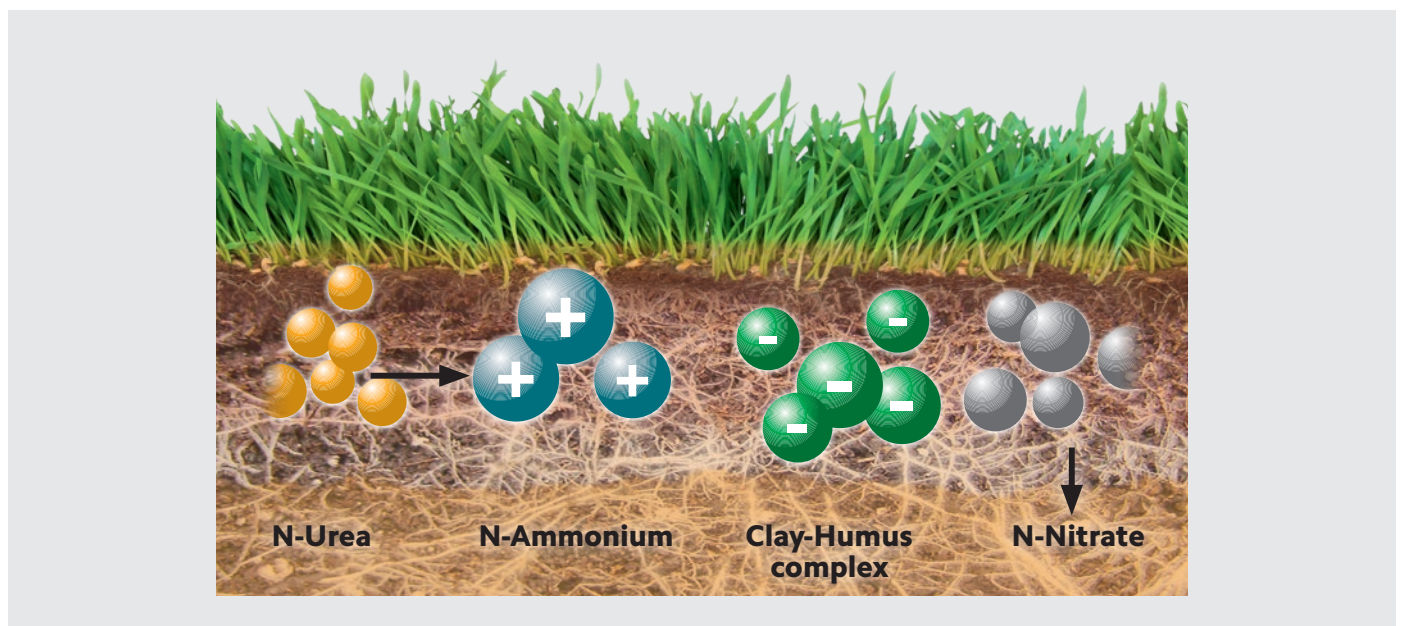
The pH-effect

- Ammonium nutrition leads to acidification of the rhizosphere
- Absorption of micro elements and Phosphate is increased by this effect
- Prevailing NO_3^- -absorption leads to alkalization (standard fertilizer)



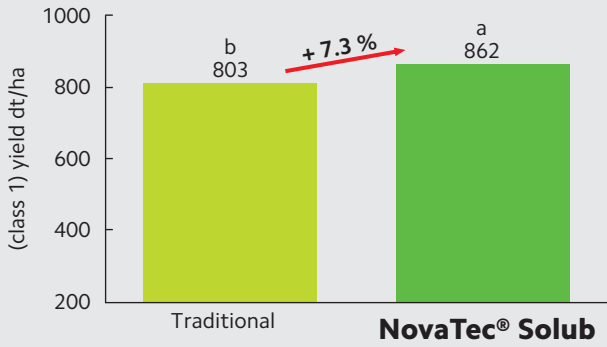
Less N-leaching

- NovaTec® Solub strongly reduces Nitrate leaching due to a higher Ammonium concentration in the soil
- NovaTec® Solub leads to significant ground water protection



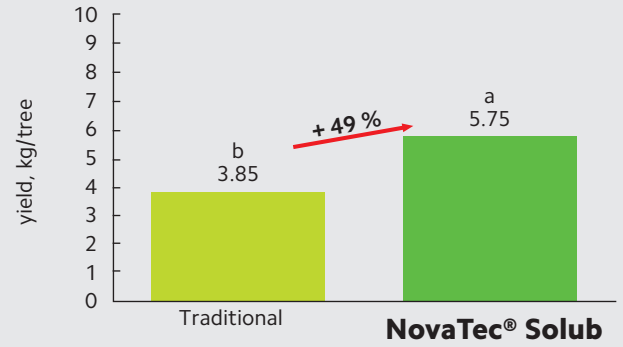
Trial results

NovaTec® Solub in cucumbers (Limburgerhof, Germany)



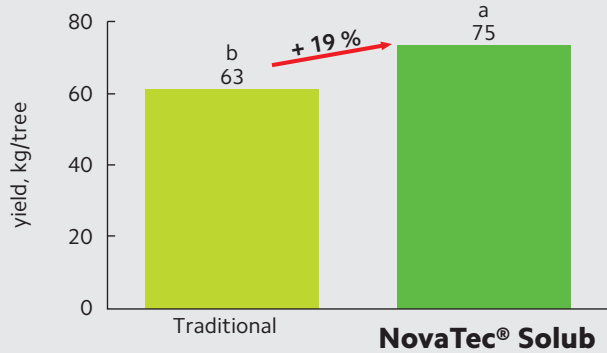
- Same NPK quantities
- NovaTec® Solub: 59 dt/ha more yield (+7.3%)**

NovaTec® Solub in melons (Murcia, Spain)



- Same NPK quantities
- NovaTec® Solub: 1.9 kg/tree more yield (+49%)**

NovaTec® Solub in clementines (Murcia, Spain)



- Same NPK quantities
- NovaTec® Solub: 12 kg/tree more yield (+19%)**



Guaranteed nutrient contents %

Binaries for tank mix applicaation

NovaTec® Solub:	21	10-0-32	14-48	16-30
Nutrients:				
Total nitrogen (N)	21%	10%	14%	16%
Nitrate (NO ₃ -N)	-	4.5%	-	-
Ammonium (NH ₄ -N)*	21%	5.5%	14%	16%
Phosphate (P ₂ O ₅)	-	-	48%	30%
Potassium (K ₂ O)	-	32%	-	-
Magnesium oxide (MgO)	-	2%	-	-
Sulfur trioxide (SO ₃)	60%	35%	12%	30%

* DMPP-content: 0.8% of total ammonium-N

NPKs for convenience

NovaTec® Solub:	19-5-5	13-33-13	10-5-30	16-8-16	18-18-18	20-19-19
Nutrients:						
Total nitrogen (N)	19%	13%	10%	16%	18%	20%
Nitrate (NO ₃ -N)	3%	5%	4%	5%	9.8%	2%
Ammonium (NH ₄ -N)*	16%	8%	6%	11%	8.2%	-
Urea (NH ₂)*	-	-	-	-	-	18%
Phosphate (P ₂ O ₅)	5%	33%	5%	8%	18%	19%
Potassium (K ₂ O)	5%	13%	30%	16%	18%	19%
Magnesium oxide (MgO)	2%	2.5%	2%	2%	-	2.5%
Sulfur trioxide (SO ₃)	40%	5%	30%	27.5%	2%	5%

* DMPP-content: 0.8% of total ammonium-N & ureic-N



NovaTec® Solub product range

Binaries:	Product	Composition	Characteristics	Packaging	Use*
	NovaTec® Solub 21	21 (+60 SO ₃)	Soluble N fertilizer - ammonium stabilized - for fertigation - 21% ammonium-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
	NovaTec® Solub 10-0-32	10-0-32(+2 MgO +35 SO ₃)	Soluble NK fertilizer - ammonium stabilized - for fertigation - 5.5% ammonium-N - 4.5% nitrate-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
	NovaTec® Solub 14-48	14-48 (+12 SO ₃)	Soluble NP fertilizer - ammonium stabilized - high P content - for fertigation - 14% ammonium-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
	NovaTec® Solub 16-30	16-30 (+30 SO ₃)	Soluble NP fertilizer - ammonium stabilized - high P content - for fertigation - 16% ammonium-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
All Nutrients:					
	NovaTec® Solub N-Max 19-5-5	19-5-5 (+2MgO+40 SO ₃)	Soluble NPK fertilizer - ammonium stabilized - high N content - for fertigation - 16% ammonium-N - 3% nitrate-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
	NovaTec® Solub P-Max 13-33-13	13-33-13 (+2.5MgO+5 SO ₃)	Soluble NPK fertilizer - ammonium stabilized - high P content - for fertigation - 8% ammonium-N - 5% nitrate-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
	NovaTec® Solub K-Max 10-5-30	10-5-30 (+2MgO+30 SO ₃)	Soluble NPK fertilizer - ammonium stabilized - high K content - for fertigation - 6% ammonium-N - 4% nitrate-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
	NovaTec® Solub NK-Max 16-8-16	16-8-16 (+2MgO+27.5 SO ₃)	Soluble NPK fertilizer - ammonium stabilized - high NK content - for fertigation - 11% ammonium-N - 5% nitrate-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
	NovaTec® Solub Complete 18-18-18	18-18-18 (+2 SO ₃)	Soluble NPK fertilizer - ammonium stabilized - balanced NPK ratio - for fertigation - 8.2% ammonium-N - 9.8% nitrate-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰
	NovaTec® Solub 20-19-19	20-19-19 (+2.5MgO+5 SO ₃)	Soluble NPK fertilizer - urea stabilized - balanced NPK ratio - for fertigation - 2% nitrate-N - 18% urea-N	Bag: 25 kg Pallet size: 48 x 25 kg Container 20': 24 mt	Fertigation: 1.0 – 3.0‰

For detailed information on application data please get in touch with your local supplier.