



# **NovaTec<sup>®</sup> Solub**

**Next generation water soluble fertiliser.**

# NovaTec® Solub

Contents.



Overview. 3

Benefits for plant growth. 4

Effect of DMPP on N<sub>2</sub>O emissions. 5

DMPP mode of action. 6

Weather based release nutrition. 7

Products. 8

Summary. 14

# NovaTec® Solub



NovaTec® Solub water-soluble fertilisers deliver optimum nutrition made possible by NET (Nitrogen Efficient Technology). NovaTec® Solub water-soluble fertiliser is uniquely different compared to the next best competitor as it utilises DMPP (3,4-dimethyl-1H-pyrazole phosphate) nitrification inhibitor with up to 10 weeks longevity.

100% solubility provides consistent and reliable performance delivering precise nutrients for your turf growth needs.

Easy and safe to apply with many tank mix options and flexible application rates to enable turf managers to achieve best possible results.

# NovaTec® Solub

Benefits for plant growth.

NovaTec® Solub increases plant availability of phosphate & micro nutrients due to acidification of the rhizosphere by ammonium uptake instead of nitrate uptake.

Less energy consumption in N-metabolism of the plant is achieved due to partial  $\text{NH}_4^-$  nutrition. Energy usually required for nitrate reduction are then used for other processes of plant metabolism.

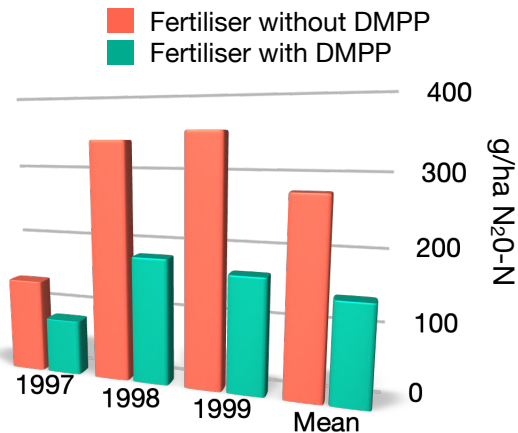


# NovaTec® Solub

## Effects of DMPP on N<sub>2</sub>O emissions.



### N<sub>2</sub>O emissions



As a result, N availability is further adapted to the plants' requirements and N efficiency is increased with lower emissions achieved.

NovaTec® Solub nitrification inhibitor reduces N leaching and increases N efficiency.

During the active phase of DMPP (4-10 weeks, depending on soil temperature, soil type and soil humidity), the transformation of ammonium to nitrate is delayed.

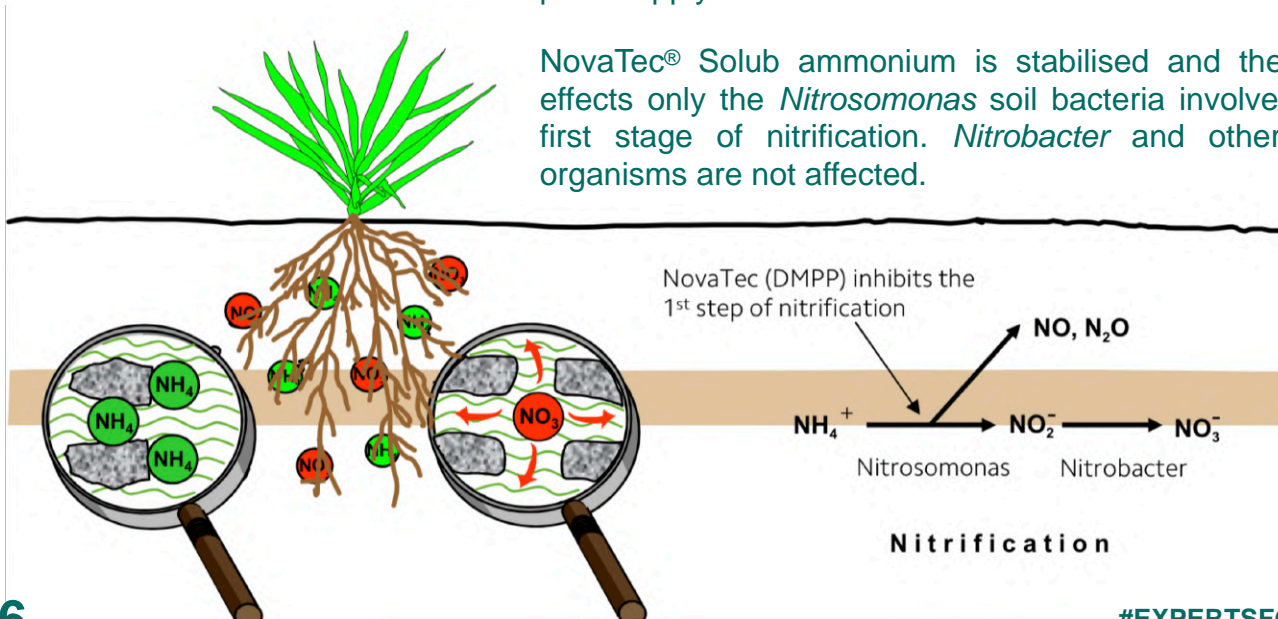


# NovaTec<sup>®</sup> Solub

DMPP - mode of action.

NovaTec<sup>®</sup> Solub results in a more efficient nitrogen use compared to conventional fertilisers. Nitrogen losses through nitrate leaching are minimised and a better adapted plant supply is achieved.

NovaTec<sup>®</sup> Solub ammonium is stabilised and the DMPP effects only the *Nitrosomonas* soil bacteria involved in the first stage of nitrification. *Nitrobacter* and other micro-organisms are not affected.



The chart below shows the influence of soil temperature on NH<sub>4</sub> nitrification after applications of ammonium sulphate nitrate and both ammonium sulphate nitrate & DMPP together.

ASN is rapidly used up by the plant within week 4 at 15°C whereas as ASN+DMPP has only used up 81% after 8 Weeks at 20°C. This means less leaching, less volatilisation and more environmentally friendly nutrition.

| Soil temperature | Ammonium Sulphate Nitrate |        |        | Ammonium Sulphate Nitrate + DMPP |        |        |
|------------------|---------------------------|--------|--------|----------------------------------|--------|--------|
|                  | Week 2                    | Week 4 | Week 8 | Week 2                           | Week 4 | Week 8 |
| 5°C              | 6%                        | 12%    | 25%    | 0%                               | 0%     | 0.5%   |
| 10°C             | 14%                       | 27%    | 55%    | 7%                               | 14%    | 28%    |
| 15°C             | 51%                       | 100%   | 100%   | 14%                              | 27%    | 54%    |
| 20°C             | 100%                      | 100%   | 100%   | 20%                              | 40%    | 81%    |

# NovaTec<sup>®</sup> Solub

## Products.

All products in the NovaTec<sup>®</sup> Solub range contain DMPP nitrification inhibitor (NET) that ensures greater nitrogen use efficiency as well as agronomic advantages & higher productivity, solubilisation of micro-elements and lateral branching of roots.

The extra contribution of trace elements & biological support provide optimal nutrition & biology, helping the plant to reach its maximum potential.





# NovaTec® Solub

## NovaTec® Solub 21.



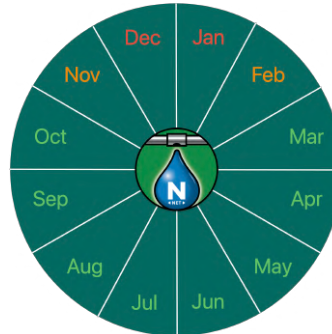
NovaTec® Solub 21 is a high nitrogen (N) fertiliser with DMPP nitrification inhibitor (NET). 21N - 21% ammonium + S + nitrification inhibitor 3,4-dimethyl-1H-pyrazole phosphate (DMPP).

| Analysis | 21   | 0 | 0 | 24   |
|----------|------|---|---|------|
| kg/ha    | N    | P | K | S    |
| 20       | 4.2  | 0 | 0 | 4.8  |
| 40       | 8.4  | 0 | 0 | 9.6  |
| 60       | 12.6 | 0 | 0 | 14.4 |
| 80       | 16.8 | 0 | 0 | 19.2 |
| 100      | 21   | 0 | 0 | 24   |

### Application

Pack size - **25kg**  
 Pack coverage - **1666-10000m<sup>2</sup>**  
 Application rate - **20-120 kg/ha**  
 Water volume - **400-600 L**  
 Frequency - **Every 4-10 weeks\***  
 \* depending on environmental factors

### Application timing



### Areas of use

- Greens
- Tees
- Fairways
- Stadia
- Outfields
- Lawns

# NovaTec® Solub

## NovaTec® Solub 21 BS.



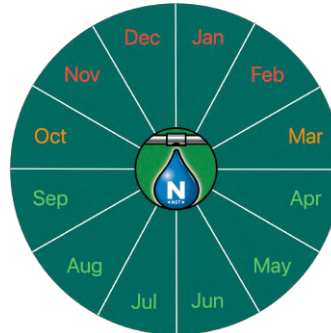
NovaTec® Solub 21 BS is a high nitrogen (N) fertiliser containing DMPP nitrification inhibitor (NET) with added Bacillus Subtilis E4-CDX®. 21N - 21% ammonium + S + nitrification inhibitor 3,4-dimethyl-1H-pyrazole phosphate (DMPP).

| Analysis | 21   | 0 | 0 | 60 |
|----------|------|---|---|----|
| kg/ha    | N    | P | K | S  |
| 20       | 4.2  | 0 | 0 | 12 |
| 40       | 8.4  | 0 | 0 | 24 |
| 60       | 12.6 | 0 | 0 | 36 |
| 80       | 16.8 | 0 | 0 | 48 |
| 100      | 21   | 0 | 0 | 60 |

### Application

Pack size - **25kg**  
 Pack coverage - **1666-10000m<sup>2</sup>**  
 Application rate - **20-120 kg/ha**  
 Water volume - **400-600 L**  
 Frequency - **Every 4-10 weeks\***  
 \* depending on environmental factors

### Application timing



### Areas of use

- Greens
- Tees
- Fairways
- Stadia
- Outfields
- Lawns

# NovaTec® Solub

## NovaTec® Solub 45.



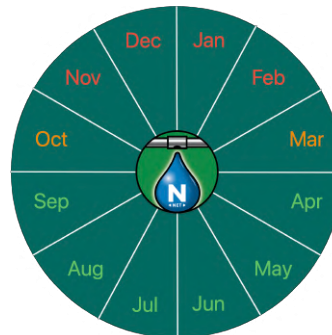
NovaTec® Solub 45 provide a high nitrogen (N) form of urea that ensures greater efficiency as well as agronomic advantages with DMPP nitrification inhibitor (NET). 45N - 45% urea + nitrification inhibitor 3,4-dimethyl-1H-pyrazole phosphate (DMPP).

| Analysis | 45 | 0 | 0 |
|----------|----|---|---|
| kg/ha    | N  | P | K |
| 20       | 9  | 0 | 0 |
| 40       | 18 | 0 | 0 |
| 60       | 27 | 0 | 0 |
| 80       | 36 | 0 | 0 |
| 100      | 45 | 0 | 0 |

### Application

Pack size - **25kg**  
 Pack coverage - **1666-10000m<sup>2</sup>**  
 Application rate - **20-120 kg/ha**  
 Water volume - **400-600 L**  
 Frequency - **Every 4-10 weeks\***  
 \* depending on environmental factors

### Application timing



### Areas of use

- Greens
- Tees
- Fairways
- Stadia
- Outfields
- Lawns

# NovaTec® Solub

## NovaTec® Solub N-Max.



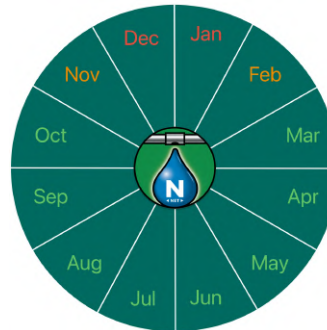
NovaTec® Solub N-Max 19-5-5 is a water soluble NPK compound fertiliser with magnesium, sulphur & a complete trace element package. High N content. 19N - 16 % ammonium, 3 % nitrate - 5P - 5K + 2MgO + S, B, Cu, Fe, Mn, Mo, Zn + nitrification inhibitor 3,4-dimethyl-1H-pyrazole phosphate (DMPP).

| Analysis | 19   | 5 | 5 | 2   | 40 |
|----------|------|---|---|-----|----|
| kg/ha    | N    | P | K | MgO | S  |
| 20       | 4.2  | 1 | 1 | 0.4 | 8  |
| 40       | 8.4  | 2 | 2 | 0.8 | 16 |
| 60       | 12.6 | 3 | 3 | 1.2 | 24 |
| 80       | 16.8 | 4 | 4 | 1.6 | 32 |
| 100      | 21   | 5 | 5 | 2   | 40 |

### Application

Pack size - **25kg**  
 Pack coverage - **1666-10000m<sup>2</sup>**  
 Application rate - **20-120 kg/ha**  
 Water volume - **400-600 L**  
 Frequency - **Every 4-10 weeks\***  
 \* depending on environmental factors

### Application timing



### Areas of use

- Greens
- Tees
- Fairways
- Stadia
- Outfields
- Lawns

# NovaTec® Solub

## NovaTec® Solub K-Max.



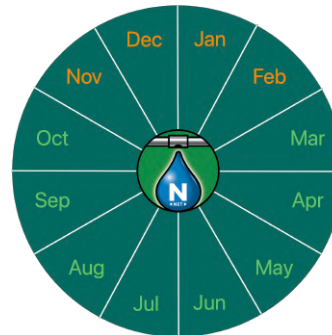
NovaTec® Solub K-Max 10-5-30 is a water soluble NPK compound fertiliser with magnesium and sulphur. High N content. 10N - 6 % ammonium, 4 % nitrate - 5P - 30K + 2MgO + S, B, Cu, Fe, Mn, Mo, Zn + nitrification inhibitor 3,4-dimethyl-1H-pyrazole phosphate (DMPP). NovaTec® Solub K-Max 10-5-30 is the ideal N:K ratio of 1:3, perfect for managing heat & drought stress.

| Analysis | 10 | 5 | 30 | 2   | 12  |
|----------|----|---|----|-----|-----|
| kg/ha    | N  | P | K  | MgO | S   |
| 20       | 2  | 1 | 6  | 0.4 | 2.4 |
| 40       | 4  | 2 | 12 | 0.8 | 4.8 |
| 60       | 6  | 3 | 18 | 1.2 | 7.2 |
| 80       | 8  | 4 | 24 | 1.6 | 9.6 |
| 100      | 10 | 5 | 30 | 2   | 12  |

### Application

Pack size - **25kg**  
 Pack coverage - **1666-10000m<sup>2</sup>**  
 Application rate - **20-120 kg/ha**  
 Water volume - **400-600 L**  
 Frequency - **Every 4-10 weeks\***  
 \* depending on environmental factors

### Application timing



### Areas of use

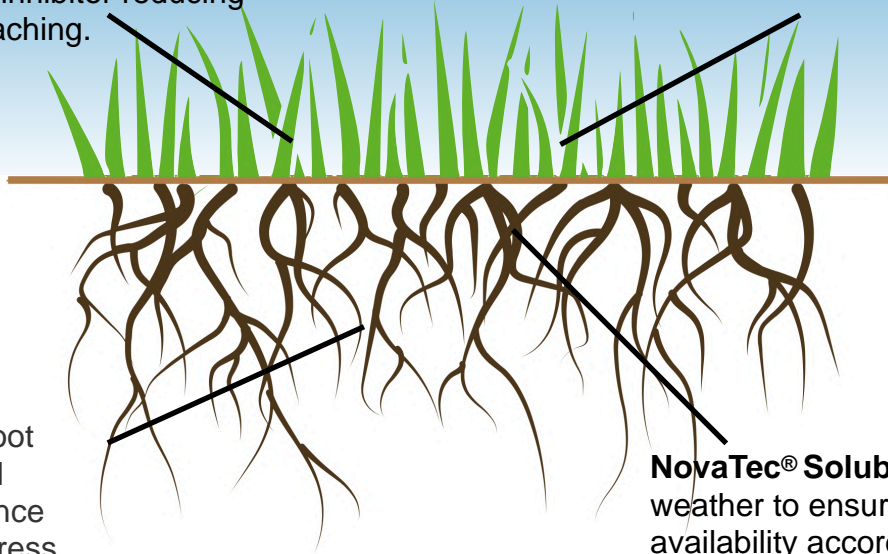
- Greens
- Tees
- Fairways
- Stadia
- Outfields
- Lawns

# NovaTec® Solub

Summary.

**NovaTec® Solub** has a DMMP nitrification inhibitor reducing nitrogen leaching.

**NovaTec® Solub** is fast acting and completely soluble lasting between 4-10 weeks.



**NovaTec® Solub** provides better root development and improved resistance against abiotic stress.

**NovaTec® Solub** works with the weather to ensure correct nutrient availability according to the **plants requirements**.



**@compoexpertturf**

**Phone - 0333 772 1904**

**Email - [agronomy@compo-expert.com](mailto:agronomy@compo-expert.com)**