

EXPERTS FOR GROWTH



**COMPO  
EXPERT®**

**Blaukorn® / NovaTec®**  
Granular NPK Fertilizers

## Blaukorn®/NovaTec® general benefits

- Premium quality granular complex compound fertilizers.
- All granules containing N, P, K, Mg, S and trace elements.
- Low chloride (potassium from SOP).
- Fast acting Nitrogen source with both ammonium and nitrate N.
- Perfect granulometry (90% granules within 2–4 mm) for even application.
- Highly available source of phosphate (>80% water-soluble).
- Low in dust and high in granule strength for best spreading properties.
- Available in common nutrient efficiency (Blaukorn®) or in enhanced nutrient efficiency (NovaTec®).
- German quality packaging.

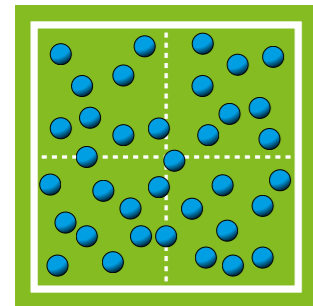
## Blaukorn® physical and chemical properties

### Advantages of complex compounds vs blended compounds

- No differential segregation of granules.
- Superior homogenous nutrient distribution in the field.
- More accurate spreading is possible.
- High nutrient efficiency.
- Easier and labour saving handling.
- Less storage capacity required.

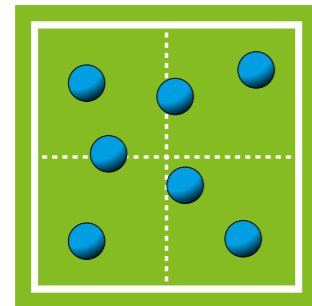
### Homogenous granulometry 2–4 mm for superior distribution

#### special crops



2–4 mm

#### extensive crops

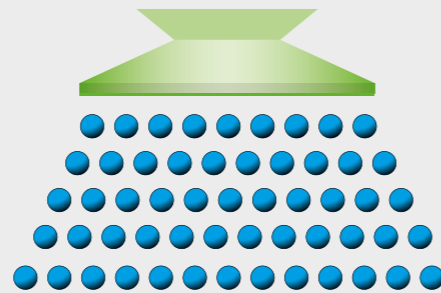


2–5 mm



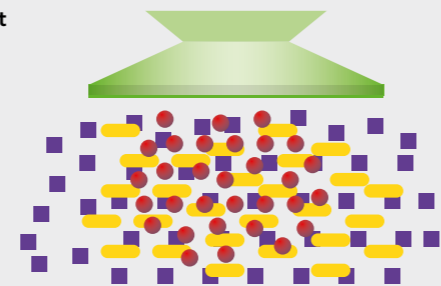
No separation during spreading

Blaukorn®



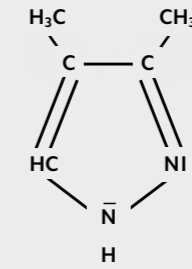
● Complex fertilizer

blend product

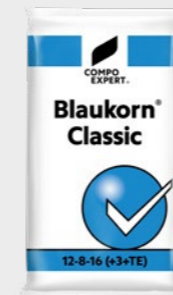
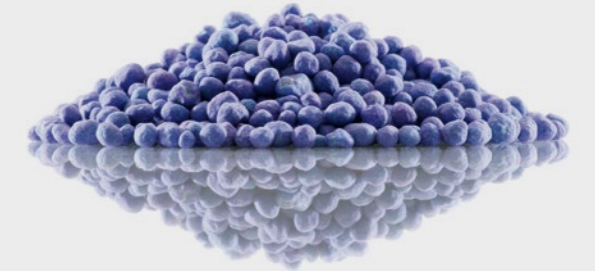
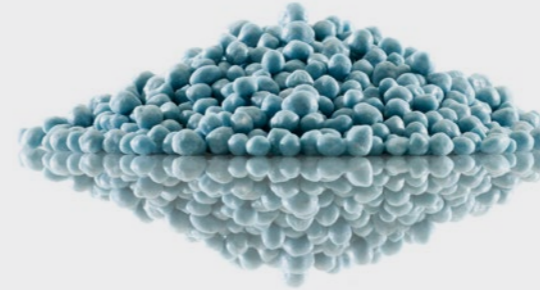


● Ammonium Nitrate  
● DAP  
● MOP

## Blaukorn®/NovaTec® product range

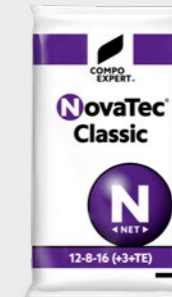


• H<sub>3</sub>PO<sub>4</sub> = Dimethylpyrazolophosphate = DMPP



### Blaukorn® range

- Blaukorn® Classic 12-8-16 (+3+TE)
- Blaukorn® 12-12-17 (+2+TE)
- Blaukorn® Pro 14-7-17 (+2+TE)
- Blaukorn® Premium 15-3-20 (+2+TE)
- Blaukorn® Suprem 21-5-10 (+3+TE)
- Blaukorn® N-Max 24-5-5 (+2+TE)



### NovaTec® range (with DMPP)

- NovaTec® Classic 12-8-16 (+3+TE)
- NovaTec® 12-12-17 (+2+TE)
- NovaTec® Pro 14-7-17 (+2+TE)
- NovaTec® Premium 15-3-20 (+2+TE)
- NovaTec® Suprem 21-5-10 (+3+TE)
- NovaTec® N-Max 24-5-5 (+2+TE)

## Blaukorn®/NovaTec® application guidelines

| Crop                     | Annual demand Blaukorn®/NovaTec® (kg/ha) | Application frequency per year |           |
|--------------------------|--|--------------------------------|-----------|
|                          |  | Blaukorn®                      | NovaTec®* |
| Greenhouse vegetables    | 800–2000                                 | 3–4                            | 2–3       |
| Brassicae                | 1600–2500                                | 3–4                            | 2–3       |
| Lettuce, carrots, onions | 700–1200                                 | 2                              | 1–2       |
| Strawberries             | 700–1000                                 | 2                              | 1         |
| Fruit trees              | 300–800                                  | 2                              | 1         |
| Soft fruits              | 600–1100                                 | 2                              | 1         |
| Grapevines               | 300–600                                  | 2                              | 1         |
| Potatoes                 | 500–1200                                 | 2–3                            | 1–2       |

For detailed recommendation please contact your local Blaukorn®/NovaTec® dealer/agent.

\* For superior performance and results, NovaTec® should be used in place of Blaukorn® particularly under any of the following conditions.

- Free draining soil
- Sparse/shallow rooting system (e.g. potatoes, lettuce)
- Close proximity to water courses or sensitive habitats.
- High soil pH

### What is NovaTec®

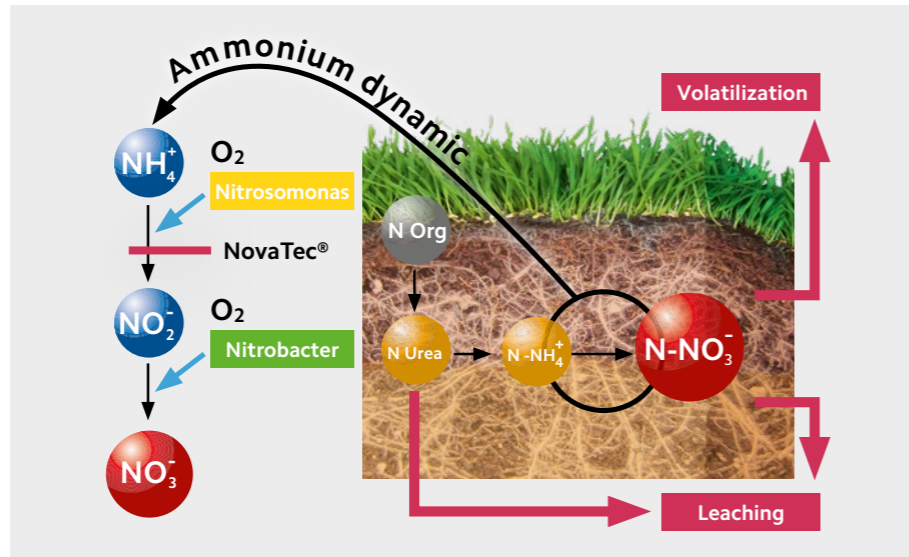
- NovaTec® is the COMPO EXPERT innovation in granular compound NPK-fertilizer stabilized with DMPP (3.4 Dimethylpyrazolophosphate).
- DMPP protects Ammonium-N from quick conversion into Nitrate-N.
- NovaTec® will ensure constant supply of both forms of Nitrogen (ammonium and nitrate).

### Benefits

- Lower N losses from leaching and volatilisation.
- Reduced number of applications required.
- Improved yield and quality due to extended N supply and increased ammonium nutrition.
- Positive pH effect in the root zone (acidification of the rhizosphere gives superior P and micronutrient availability).
- Crops develop and ripen more evenly due to a stabilised N supply.
- Can help to reduce free nitrate levels in fresh mass.

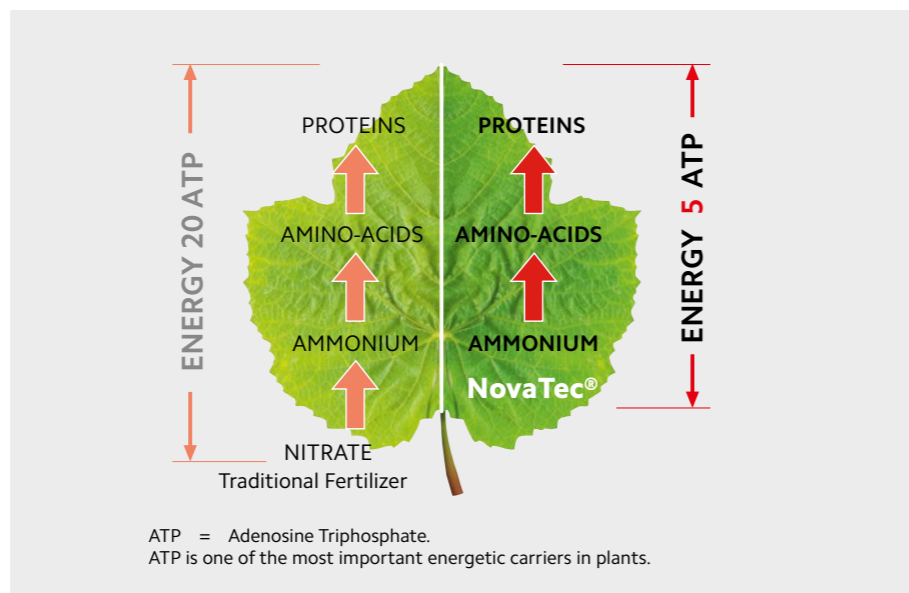
### Ammonium-based fertilization with nitrification inhibitor

- NovaTec® delays the 1<sup>st</sup> step of nitrification – oxidation of ammonium (NH<sub>4</sub><sup>+</sup>) to nitrite (NO<sub>2</sub><sup>-</sup>).
- NovaTec® leads to a more efficient NH<sub>4</sub><sup>+</sup>-based N-nutrition.
- Environmental benefits: 50% reduced emission of greenhouse gases and reduction of nitrate leaching.



### NovaTec® – ammonium nutrition

- Energy savings by Ammonium-N-nutrition (no biological reduction of nitrate required).
- Enhanced flowering (ammonium promotes synthesis of phytohormones and polyamines).
- Ammonium nutrition favours root growth.
- Ammonium based nutrition can help to reduce nitrate levels in fresh produce.
- Use of NovaTec® results in deeper green colouring in leafy salads and vegetables.



### Trial results

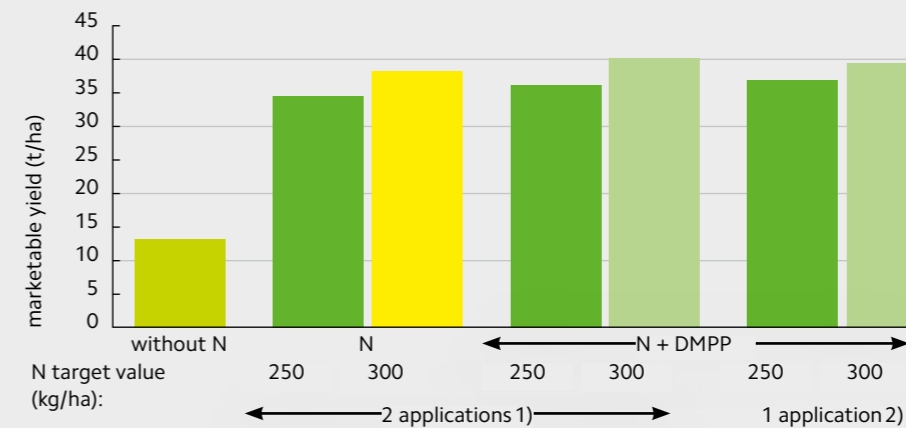
#### Effect of NovaTec® on yield of fruits and vegetables

During the past twenty years many trials have been conducted on agricultural and horticultural crops to evaluate the benefit of NovaTec®. In fruits and vegetable trials with crops like salads, cauliflower, cabbage, onions, apple, peach, citrus, potatoes, grapes, etc. NovaTec® showed an increase of marketable yield, often combined with reduced nitrate level in the biomass.



NovaTec® improves the Nitrogen Use Efficiency (NUE): Use Less and achieve more!

#### Stabilized fertilizers in cauliflower



There is a positive effect of DMPP treatment on yield compared with standard NPK-application (2 applications). And even with only one application containing DMPP the yield is still higher than with standard NPK-application (2 applications). The nitrate concentration in the plants is significantly lower in the DMPP treatment compared to standard treatment.

<sup>1)</sup> 50% at planting + 50% at GS 17/19  
<sup>2)</sup> 100% at planting

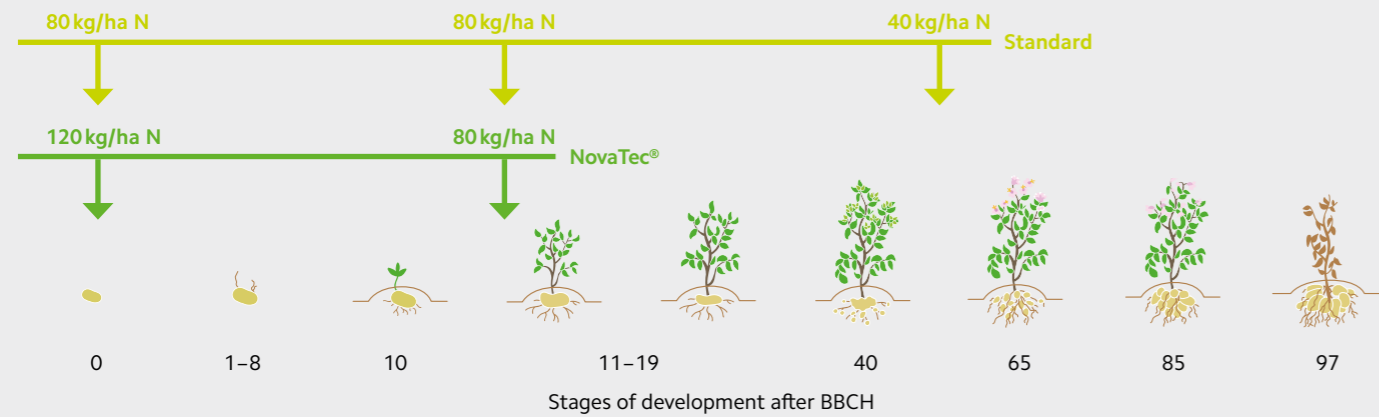


Growth of lettuce when fertilized with NovaTec®



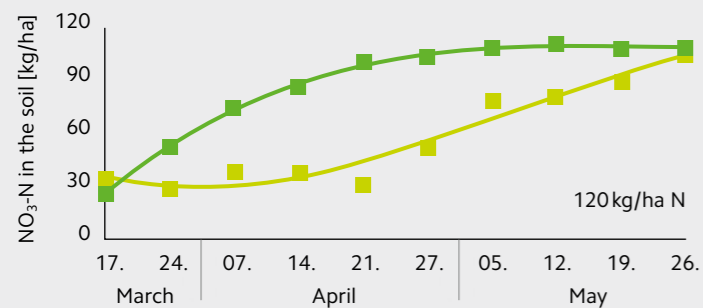
- Compact growth.
- Better storability and shelf life.

Application in potatoes



NovaTec®: ensures the N supply, even when applying in early growth stages.

NovaTec®: nitrate supply on demand

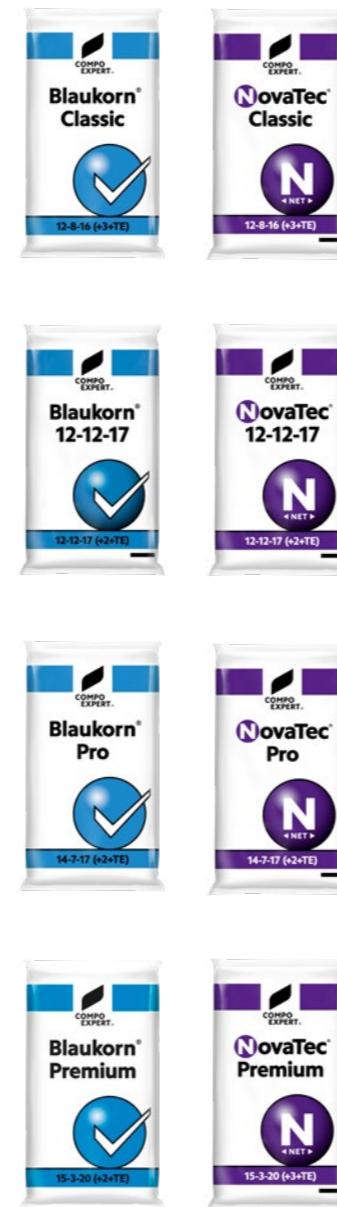


NovaTec® controls the transformation of ammonium to nitrate. The stabilizing effect is diminished under hot weather conditions. Nitrate is supplied in accordance to plant demand.

- NovaTec®
- traditional fertilizer

**Blaukorn®:** Complex NPK-fertilizer with potassium sulfate (SOP), magnesium and micronutrients. For basal and complementary dressing in chloride sensitive crops and on salt-affected soils; in horticulture and special crops outdoor and under glass.

**NovaTec®:** Complex NPK-fertilizer with nitrification inhibitor DMPP (3.4-dimethylpyrazolophosphate). Reduces N-leaching and increases N-efficiency. During the active phase of DMPP (4 to 10 weeks, depending on soil temperature and soil humidity) the transformation of ammonium to nitrate is delayed. As a result N-availability is further adapted to the plants requirements and N-efficiency is increased. Fertilizer based on SOP, for usage in chloride sensitive crops and on salt-affected soils.



| Product   | Composition   | Packaging  |
|---|---|--|
| Blaukorn®/NovaTec® Classic<br>Granules, 90% < 4 mm  | 12-8-16 (+3+23) and trace elements<br>NPK (MgO, SO <sub>3</sub> ) complex fertilizer<br>12-8-16 (+3+23) with micronutrients   |  |
| Blaukorn®/NovaTec® 12-12-17<br>Granules, 90% < 5 mm | 12-12-17 (+2+21) and trace elements<br>NPK (MgO, SO <sub>3</sub> ) complex fertilizer<br>12-12-17 (+2+21) with micronutrients | <b>Bag:</b> 25 kg<br>Pallet: 25 kg x 42 = 1,050 kg<br>Container: 20 x 1,050 kg = 21 t<br><br><b>Bag:</b> 50 kg<br>Pallet: 50 kg x 25 = 1,250 kg<br>Container: 16 x 1,250 kg = 20 t<br>or<br>Pallet: 50 kg x 24 = 1,200 kg<br>Container: 20 x 1,200 kg = 24 t |
| Blaukorn®/NovaTec® Pro<br>Granules, 90% < 5 mm      | 14-7-17 (+2+23) and trace elements<br>NPK (MgO, SO <sub>3</sub> ) complex fertilizer<br>14-7-17 (+2+23) with micronutrients   | <b>Big bag:</b> 600 kg<br>for truck delivery<br><b>1,000 kg or 1,200 kg</b><br>truck or container  |
| Blaukorn®/NovaTec® Premium<br>Granules, 90% < 4 mm  | 15-3-20 (+2+23) and trace elements<br>NPK (MgO, SO <sub>3</sub> ) complex fertilizer<br>15-3-20 (+3+23) with micronutrients   |  |

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



| Product   | Composition   | Packaging  |
|---|---|--|
| <p>Blaukorn®/NovaTec® Suprem</p> <p>Granules, 90% &lt; 4 mm</p> | <p>21-5-10 (+3+15) and trace elements</p> <p>NPK (MgO, SO<sub>3</sub>) complex fertilizer<br/>21-5-10 (+3+15) with micronutrients</p> | <p><b>Bag: 25 kg</b></p> <p>Pallet: 25 kg x 42 = 1,050 kg<br/>Container: 20 x 1,050 kg = 21 t</p> <p><b>Bag: 50 kg</b></p> <p>Pallet: 50 kg x 25 = 1,250 kg<br/>Container: 16 x 1,250 kg = 20 t<br/>or<br/>Pallet: 50 kg x 24 = 1,200 kg<br/>Container: 20 x 1,200 kg = 24 t</p> |
| <p>Blaukorn®/NovaTec® N-Max</p> <p>Granules, 90% &lt; 5 mm</p>  | <p>24-5-5 (+2+11) and trace elements</p> <p>NPK (MgO, SO<sub>3</sub>) complex fertilizer<br/>24-5-5 (+2+11) with micronutrients</p>   | <p><b>Big bag: 600 kg</b><br/>for truck delivery<br/><b>1,000 kg or 1,200 kg</b><br/>truck or container</p>  |

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