

Nitrophoska[®]

Cereals, fodder beet,
horticulture, maize
and vegetables

Precise nutrition for superior
plant performance





**Nitrophoska® -
The same composition of
high-grade plant available
nutrients in every granule.**

Nitrophoska is a registered trademark of EuroChem Agro GmbH

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Precise nutrition

Nitrophoska® compound fertiliser delivers precise nutrition for superior plant performance.

Why Nitrophoska®?

The same composition of high-grade plant available nutrients are delivered in every granule.

Nitrophoska is a compound fertiliser. This means, that unlike a bulk blend, there is no segregation of particles, ensuring a balanced and even spread of all essential nutrients.

Near neutral soil acidification - all Nitrophoska products are near neutral in their effect on soil pH. This special feature is particularly important when banding fertilisers.

Superior handling and spreading properties - Nitrophoska has unique physical properties so application is hassle free:

- Excellent flowability
- No dust or caking
- High abrasion resistance
- Accurate application
- No loss of nitrogen to the atmosphere

Balanced nutrient ratios - the balance between competing cations (K, Ca, Mg) in soil solution is critical to ensure one-sided nutrition is avoided. The unique chemistry of Nitrophoska very closely matches the required nutrient ratio for a wide variety of crops.

With a forty year proven track record in New Zealand, Nitrophoska® has a well-deserved reputation built on trust, reliability and product integrity.

Certain crops have very specific needs - the Nitrophoska range caters for the growing area of speciality crops in New Zealand. All formulations have been extensively tried and proven for their intended use.

Storage All fertilisers absorb moisture if exposed to the atmosphere. Store in a dry place ensuring bags are tightly sealed. Cover bulk product with a tarpaulin.

AMOUNT OF LIME THEORETICALLY REQUIRED TO OFFSET THE ACIDIFYING ACTION OF DIFFERENT FERTILISERS	Kg CaCO ₃ (LIME) PER 100kg FERTILISER
Ammonium sulphate	112
Urea	82
MAP	65
DAP	64
CAN	27
Nitrophoska® Select	20
Nitrophoska® Extra	18

Correcting soil nutrient status

Timing

- Apply corrective fertiliser/lime well prior to sowing.
- On continuously cropped paddocks incorporate corrective fertiliser prior to planting - ensures a more even spread.
- Paddocks going back into pasture, apply corrective fertiliser just prior to the second pass and lightly incorporate into the root zone.



Which ingredients make Nitrophoska® special?

Nitrogen (N)

All Nitrophoska fertilisers contain quick acting nitrate N and longer lasting ammonium N. This provides immediately available nitrate N to young plants or established crops, even under cool conditions. The longer lasting ammonium N allows for a more continuous flow of nitrogen. The presence of both forms supports superior plant performance.

Phosphate (P)

All P in Nitrophoska is plant-available - not less than 65% water soluble for immediate uptake, with remainder in citric soluble form ensuring longer term phosphate supply.

Potassium (K)

Nitrophoska contains either potassium chloride or potassium sulphate. This allows for a greater diversity of applications. The Nitrophoska range caters for all crop types and soil conditions throughout New Zealand.

Sulphur (S)

All sulphur is in the immediately plant-available sulphate form. The higher values of sulphur in Nitrophoska enhance their suitability under New Zealand's high rainfall environment.

Magnesium (Mg)

The magnesium in Nitrophoska is in the readily available form of magnesium sulphate (Kieserite).

Calcium (Ca)

All Nitrophoska fertilisers contain calcium for plant supply, reduced acidification, and enhanced absorption of associated nutrients eg K

Micronutrients

Most Nitrophoska products contain essential trace elements, boron and zinc.

Nitrophoska® range

Nitrophoska® Select

The ideal compound starter fertiliser for cereals, fodder beet, maize and vegetables.

- 75% water soluble phosphate encourages early root growth - remainder in citric soluble form for longer term phosphate supply
- Contains nitrate nitrogen for immediate needs - ideal for crops grown in cool soil temperatures, and ammonium nitrogen for sustained supply of N to plants
- High granule integrity/strength, no dust - hassle free fertiliser for precision fertiliser/seed drill operators
- No nutrient segregation, every granule contains every nutrient - even crops, better yields
- Potash is mainly in the chloride form
 - Potassium as chloride 10%
 - Potassium as sulphate 2.5%

ANALYSIS:

- 15% Nitrogen (N)
 - 6% Nitrate N
 - 9% Ammonium N
- 6.6% Phosphorus (P)
- 12.5% Potassium (K)
- 2.5% Sulphur (S)
- 3.3% Calcium (Ca)
- Trace elements: Iron (Fe) 0.4%
Also contains Molybdenum (Mo) 0.008% and Selenium (Se) 0.002%
- Particle diameter: Mean: 3.0-3.6mm
Min 90%: 2.0-5.0mm
- Bulk density 1120kg/m³

Nitrophoska® Extra

Used extensively for fresh market vegetables, avocado, grapes, lettuces, melons, cucumbers, peppers and all crops under glass and home gardens.

- 65% water soluble phosphate for immediate uptake, with remainder in citric soluble form for longer term phosphate supply
- Chloride free - all potash in the premium potassium sulphate form
- As well as NPK - contains trace elements plus calcium and magnesium to provide a complete feed in every granule
- High granule integrity/strength, no dust, hassle-free fertiliser
- No nutrient segregation, every granule contains every nutrient - even crops, better yields
- Contains nitrate nitrogen for immediate needs - ideal for crops grown in cool soil temperatures, and ammonium nitrogen for sustained supply of N to plants

ANALYSIS:

- 12% Nitrogen (N)
 - 4.8% Nitrate N
 - 7.2% Ammonium N
- 5.2% Phosphorus (P)
- 14.1% Potassium (K) as Potassium Sulphate
- 8.0% Sulphur (S)
- 1.2% Magnesium (Mg) as Kieserite
- 3.8% Calcium (Ca)
- Trace elements: Iron (Fe) 0.4%
Boron (B) 0.02%, Zinc (Zn) 0.01%
- Particle diameter: Mean: 3.0-3.6mm
Min 90%: 2.0-5.0mm
- Bulk density 1150kg/m³

Nitrophoska® Perfect

Used extensively for intensive vegetable production on high P soils, turf industry, bulb flower crops, all crops under glass and home gardens.

- Chloride free - safe for all salt and chloride sensitive crops
- Highest analysis Nitrophoska. Balanced mix of nutrients for optimal plant health
- All potash is in the premium potassium sulphate form
- Contains nitrate nitrogen for immediate needs - ideal for crops grown in cool soil temperatures, and ammonium nitrogen for sustained supply of N to plants
- High granule integrity/ strength, no dust - hassle free fertiliser

ANALYSIS:

- 15% Nitrogen (N)
 - 7% Nitrate N
 - 8% Ammonium N
- 2.2% Phosphorus (P)
- 16.6% Potassium (K) as Potassium Sulphate
- 8% Sulphur (S)
- 1.2% Magnesium (Mg) as Kieserite
- 1.5% Calcium (Ca)
- Trace elements: Iron (Fe) 0.4%
Boron (B) 0.02%, Zinc (Zn) 0.01%
- Particle diameter: Mean: 3.0-3.6mm
Min 90%: 2.0-5.0mm
- Bulk density 1140kg/m³

Entec® Special

Entec®, the stabilised mineral fertiliser for optimum nitrogen efficiency. Used extensively on onions, kiwifruit, avocados, fruit trees and fresh market vegetables.

- Contains Mg in the Kieserite form - this matches nutrient solubilities and thus avoids one-sided nutrition
- Contains trace elements plus calcium and magnesium - providing a complete feed in each granule
- Protects the ammonium nitrogen from rapid nitrification and nitrate N being washed away. Ammonium nitrogen can remain in the soil for longer and the plants can better utilise the nitrogen, whatever the weather
- Improves root efficiency
- All potash in the premium potassium sulphate form

ANALYSIS:

- 12% Nitrogen (N)
 - 4.8% Nitrate N
 - 7.2% Ammonium N
- 5.2% Phosphorus (P)
- 14.1% Potassium (K)
- 8% Sulphur (S)
- 1.2% Magnesium (Mg) as Kieserite
- 3.8% Calcium (Ca)
- Trace elements: Iron (Fe) 0.1%
Boron (B) 0.02%, Zinc (Zn) 0.01%
- Particle diameter: Mean: 3.0-3.6mm
Min 90%: 2.0-5.0mm
- Bulk density 1150kg/m³



NITROPHOSKA® EXTRA
- 65% WATER SOLUBLE
FOR IMMEDIATE UPTAKE



NITROPHOSKA® SELECT
- 75% WATER SOLUBLE
PHOSPHATE FOR EARLY
ROOT GROWTH



**ENTEC® SPECIAL - ALL
POTASH IS IN THE PREMIUM
POTASSIUM SULPHATE
FORM**

Nutrients for maize

Nitrophoska® Select contains the essential nutrients to get your maize crop off to a great start.

Nitrogen

- A mobile nutrient. Split applications recommended
- 'Starter' N required to ensure successful establishment
- Peak daily demand occurs between weeks 7-9 after sowing – during rapid vegetative growth phase
- Side-dressing required at 5-6 weeks after sowing (knee height) – just prior to the peak demand
- If crop residues/trash is high at sowing plus a low available N test (<75kg/ha) then it is recommended to apply some N (50kg/ha) prior to sowing

Phosphorus

- P needed early for root development and cob set
- Root growth increases 325% between weeks two and three after germination. Phosphorus is needed early to satisfy this demand
- P has low mobility in soil. It needs to be placed close to germinating seed to ensure plant availability
- Use 'starter' fertiliser with high water soluble phosphate eg Nitrophoska® Select

Potassium

- Maximum demand occurs during vegetative growth state
- Ensure sufficient K in soil to supply at a fast enough rate
- It is recommended to apply 40% of K requirement prior to sowing, 20% in the 'starter' fertiliser and 40% post-harvest
- Large amounts of K are removed with silage. Replenishment is recommended to ensure future crops/pasture are sustained

Nitrogen guide for maize silage crops

YIELD POTENTIAL (T DM/Ha)	<18	18-22	>22
SOIL FERTILITY STATUS	NITROGEN REQUIREMENTS (Kg/Ha/Yr)		
High	0-30	0-40	20-40
Medium	50-100	100-150	130-180
Low	100-150	150-200	170-240



NITROPHOSKA® SELECT - STARTER FERTILISER FOR MAIZE, CEREALS AND FODDER CROPS

Reference: "Managing Soil Fertility on Cropping Farms" (2000) NZFMRA and NZPARI.
 High: >4 previous years in pasture or Avail N >180kg/Ha.
 Med: 1-3 previous years in pasture or Avail N 75-180kg/Ha.
 Low: >4 previous years in depletive crop or Avail N <75kg/Ha

Amount of P and K (kg/Ha) to raise Olsen P and MAF soil test K by 1 unit to a sampling depth of 15cm.

SOIL	PHOSPHORUS		POTASSIUM	
	AVERAGE	RANGE	AVERAGE	RANGE
Sedimentary	7 (80)*	4-9	125	100-250
Peats	13 (145)*	10-16	60	45-80
Volcanic ash	26 (290)*	20-33	45	35-60

*Superphosphate equivalent

Reference: Adapted from "Fertiliser Recommendations for Horticultural Crops (1985), Pg 58".

NOTE: Sedimentary soils are unlikely to require capital K applications since these soils retain large amounts of K. Check K reserves using the TBK test. Grain crops grown on soils with TBK levels >1 are unlikely to respond to potassium unless QTK values fall below 7. Silage crops remove large amounts of K which should be replaced.

Functions of key nutrients in Nitrophoska®

Nitrogen

- Key nutrient in yield formation. Required in large quantities
- Needed to satisfy large dry matter production over relatively short period of time

Phosphorus

- Stimulates root development. Important in crop establishment
- Deficiency in the early stages results in poor plant development and thus reduced yields

Potassium

- Required in large quantities and vital in many plant processes
- Important role in water relations and efficient water use
- Aids in drought tolerance and frost resistance
- Improves nitrogen utilisation

Calcium

- Integral part of the cell wall
- Without calcium, cells become leaky and collapse which leads to secondary infections

Magnesium

- The central molecule in chlorophyll. Without it photosynthesis would not occur
- Essential also in moving carbohydrates around the plant from leaves to roots
- Important in root function which improves uptake of other nutrients

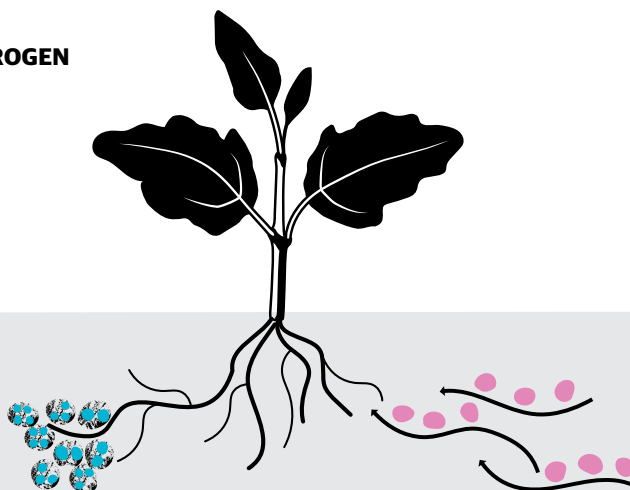
Trace elements

- Needed in minute amounts but without them growth would not occur.
- Essential for many functions including energy transfer and cell elasticity

ABSORPTION OF AMMONIUM NITROGEN AND NITRATE NITROGEN

Ammonium nitrogen is nearly immobile in the soil. The roots have to grow into the nutrient. Absorption is even and constant.

Nitrate nitrogen is always dissolved in the soil water and is carried to the roots passively. Nitrate therefore takes effect quickly.



● Ammonium NH_4^+

● Nitrate NO_3^-



Here to help

Call your local agri manager or
phone the Customer Centre on
0800 100 123

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