

Nitrophoska[®] *Special*

Nitrophoska[®] Special is a compound NPK fertiliser providing targeted, balanced nutrition and more uniform delivery of nutrients, to help maximise crop yields.

**Insist on Nitrophoska Special,
purely and simply one of the best.**



Incitec Pivot Fertilisers is Australia's reliable leader in soil and plant nutrition, investing locally in agronomic solutions to help Australian farmers remain globally competitive. www.incitecpivot.com.au



Nitrophoska Special

Nitrophoska® Special is a compound NPK fertiliser providing targeted, balanced nutrition and more uniform delivery of nutrients, to help maximise crop yields.

The nutrients in Nitrophoska Special are contained in every granule, ensuring there are no problems with nutrient segregation during transport or application.

The nitrate nitrogen and water soluble form of the key nutrients allow quick plant uptake for optimal plant establishment.

The potassium in Nitrophoska Special is free from harsh chlorides, making it ideal for use on salt affected soils and chloride sensitive crops such as lettuce, beans, carrots, peas, onions and celery.

Nitrophoska Special also contains calcium (Ca), as well as traces of copper (Cu), iron (Fe), manganese (Mn), and molybdenum (Mo).



Nitrophoska Special

ANALYSIS						
Nitrogen	Phosphorus	Potassium	Sulphur	Magnesium	Boron	Zinc
12%	5.2%	14.1%	8%	1.2%	0.02%	0.01%
5% nitrate nitrogen 7% ammonium nitrogen	3.4% water soluble	As water soluble potassium sulphate	6.4% water soluble	0.8% water soluble		



Why choose Nitrophoska Special?

- Balanced nutrition.
- Nutrients in every granule for even nutrient distribution to help maximise crop yields.
- Uniform granule size for even spreader application, promoting even crop growth and produce quality.
- Rapid release of nutrients in the soil following night dew or as little as 3 mm of rain.
- Minimal nitrogen losses to the atmosphere when surface applied.
- Chloride free for crop safety.
- A high quality resin treated granular fertiliser for free-flowing, precise application and ease of storage.
- A near neutral pH for better availability of nutrients to plants.

Application guidelines

Nitrophoska Special is suitable in the following situations:

- As a planting fertiliser for vegetables where soil phosphorus levels are moderate to high, or pre-plant phosphorus has been applied.
- Base or side dressing intensively grown crops.
- The fertilisation of chloride sensitive crops.
- The fertilisation of crops grown in salt affected soils.
- Soils with a moderate supply of phosphorus.



NITROPHOSKA SPECIAL APPLICATION GUIDELINES BY CROP

Crop	Rate of application			No. of applications	Timing
	kg/ha	g/m ²	g/m of row		
Vegetables					
Tomatoes	500 kg/ha	50g/m ²	50 (1.5m row)	1	Preplant or planting
Potatoes	500 kg/ha	50g/m ²	40 (0.75m row)	1	Preplant or planting
Cucurbits (Pumpkins, Watermelons, Cucumber, Zucchini)	350 kg/ha	35g/m ²	70 (2m row)	1	Preplant or planting
Beans	350 kg/ha	35g/m ²	25 (0.75m row)	1	Preplant or planting
Leafy crops (Cabbage, Broccoli, Lettuce Cauliflower, Silverbeet)	450 kg/ha	45g/m ²	30 (0.75m row)	1	Preplant or planting
Carrots	300 kg/ha	30g/m ²	22 (0.75m row)	1	Preplant or planting
Beetroot, Turnips	500 kg/ha	50g/m ²	35 (0.75m row)	1	Preplant or planting

Crop	Rate of application	No. of applications	Timing
Fruit Crops			
Stone fruit (High chill) Bearing trees (1,000 trees/ha)	400 – 650 g/tree	1	Early spring
Stone fruit (Low chill) Bearing trees (500 trees/ha)	500 g/tree	1	July/August (bud break)
	110 g/tree	1	December (post harvest)
	500 g/tree	1	February (hardening of summer flush)
Apples Bearing trees (1,000 trees/ha)	350 g/tree/application	2	Bud burst and late spring
Grapes	250 – 400 g/vine	1	Late winter before bud burst
Sugar Cane			
Sugar cane	375 – 450 kg/ha	1	At planting
Flowers and Ornamentals			
Turf/Lawns	250 kg/ha or 25 g/m ²	2	September and January
Palms Large, established and bearing	300 g/tree/application	4	October, December, February, April
Flowers (Annuals)	2 level tablespoons/metre of row	1	Before planting
Flowers (Roses)	4 level tablespoons/m ² of bed	1	At planting
	2 level tablespoons/m ² of bed	1	August
	1 level tablespoon/m ² of bed	1	When buds are forming
Flowers (Camellias, Azaleas)	2 level tablespoons/m ² /application	2	Late August, February
Flowers (Bulbs, Corms)	4 level tablespoons/m ²	1	3 weeks before planting

Other fertilisers may also be needed to support healthy crop growth. Nutrient Advantage® soil testing will assist in monitoring soil nutrient levels and crop requirements.

Note: Planting fertilisers should be banded 5 cm to the side and 5 cm below the seed or transplants and not placed in direct contact with the planting material.

Crop	Rate of application	No. of applications	Timing
Tree and Vine Crops			
Citrus	400 g/tree x age in years (up to 3.2 kg/tree at 8 years and older)	1	July
Paw Paw	30 g/tree/month	4-5	From planting to flowering
	60 g/tree/month	5-6	From flowering to first harvest
	175 g/tree	2	In the first month following harvest and again six months later for the second and subsequent years
Macadamia	100 g/tree/application	5 in year 1	February, April, June, October, December
	150 g/tree/application	5 in year 2	February, April, June, October, December
	350 g/tree/application	5 in year 3	February, April, June, October, December
	425 g/tree/application	5 in year 4	February, April, June, October, December
	500 g/tree/application	5 in year 5	February, April, June, October, December
	1040 g/tree/application	3 in year 6	March, June, August
	1300 g/tree/application	3 in year 7	March, June, August
	Up to a maximum of 6.5 kg/tree/year at 12 years and older		
Avocado Trees 3 years & older			
For a canopy diameter of 2 metres	140 g/tree/application	2	After fruit drops and 6 weeks later
For a canopy diameter of 4 metres	75 g/tree	1	Early April
	625 g/tree/application	2	After fruit drops and 6 weeks later
For a canopy diameter of 6 metres	285 g/tree	1	Early April
	1250 g/tree/application	2	After fruit drops and 6 weeks later
For a canopy diameter of 8 metres	625 g/tree	1	Early April
	2250 g/tree/application	2	After fruit drops and 6 weeks later
	1070 g/tree	1	Early April
Banana North Queensland			
Planting (single row 1000 trees/ha)	400 g/tree	1	Preplant incorporated
	Or 200 g/tree	1	In drill at planting (avoid direct contact with planting material)
Ratoons	200 g/tree/application	4	Strategic applications in conjunction with regular fertiliser program
Post Planting	100 – 250 g/tree/application	4	Every 4 weeks post planting

Other fertilisers may also be needed to support healthy crop growth. Nutrient Advantage® soil testing will assist in monitoring soil nutrient levels and crop requirements.

Note: Planting fertilisers should be banded 5 cm to the side and 5 cm below the seed or transplants and not placed in direct contact with the planting material.

While the fertiliser rates and programs detailed in this brochure are a practical guide to good agronomic practice under most situations, they offer indicative rates only and are not complete fertiliser programs. Local soil, climatic and other conditions should be taken into account. Higher or lower rates may be required or different fertilisers altogether. Talk to your local Incitec Pivot Fertilisers Distributor about soil testing and arranging a specific fertiliser recommendation that best suits your needs. This brochure covers use recommendations for some agricultural segments and is not necessarily a complete guide.

Nitrophoska Special now enhanced with ENTEC

ENTE[®] is an ammonium stabiliser treatment for nitrogen fertilisers.

ENTE stabilises ammonium nitrogen in the soil by delaying the activity of the bacteria which oxidise ammonium nitrogen to nitrate nitrogen.

Once in the nitrate form, nitrogen is prone to leaching, particularly in light soils. However, ammonium nitrogen is not susceptible to leaching.

Nitrogen in the nitrate form is also subject to loss as gaseous nitrogen due to denitrification. Denitrification occurs where soil oxygen levels become limited. Typically, this is when soil moisture levels rise, excluding oxygen.

Although denitrification is generally associated with extended periods of waterlogging, normal irrigation and typical rainfall events can result in denitrification losses.

The active ingredient in ENTE is 3,4-Dimethyl pyrazole phosphate (DMPP).

ENTE does not reduce bacteria populations in the soil or leave harmful residues in soils or harvested crops.

www.entecfertilisers.com.au



ENTE Nitrophoska Special



Why use ENTEC Nitrophoska?

ENTEC Nitrophoska Special helps limit expensive nitrogen losses and allows your crops to use nitrogen more efficiently.

- **Reduced leaching of nitrogen from the root zone**

By slowing the conversion of ammonium to nitrate in the soil, ENTEC can reduce nitrogen losses from leaching when large amounts of irrigation or rainfall occur, particularly on light sandy soils.

- **Reduced gaseous nitrogen losses**

The risks of nitrogen gaseous losses due to denitrification are minimised.

- **Improved marketable yields**

The increased concentration of stabilised ammonium has the potential to promote plant uptake, which means that crops may reach their quality grades earlier.

- **Reduced nitrate content in produce**

European trials have shown that ENTEC assists in reducing the nitrate levels in harvested fruits and vegetables, which can be of concern to growers.

Nitrate content of harvested vegetables

Crop	Number of trials	ppm of nitrate in harvested vegetables		
		Control	Fertiliser without ENTEC	Fertiliser with ENTEC
Lettuce	18	336	784	672
Cauliflower	9	118	145	83
Leek	8	46	101	106
Cabbage	4	201	258	176
Lambs Lettuce	10	50	913	877
Radish	3	693	1480	1353
Carrot	6	15	52	27
Spinach*	5	49	1438	963

* Mean of spinach harvested in autumn and winter. Source: European BASF trials conducted between 1999 and 2000.

- **Improved plant quality**

European experience has shown that plants receiving ENTEC Nitrophoska Special have the potential to be more compact, have a darker leaf colour and be more homogenous.

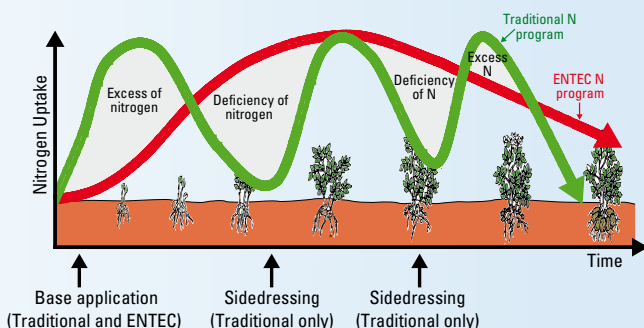
- **Improved crop utilisation of applied nitrogen**

Using ENTEC can reduce the effect of nitrogen pulsing. This means that nitrate supplied is more in line with plant growth, reducing the deficiencies and excesses in nitrogen often associated with traditional fertiliser programs.

- **Reduced labour costs**

ENTEC Nitrophoska Special offers flexibility in fertiliser application. European experience has shown that crops using ENTEC Nitrophoska Special can achieve similar yields with the application interval extended, often eliminating an application round.

Comparing traditional and ENTEC fertiliser programs



A base application of ENTEC helps to provide a more continuous supply of nitrogen to the crop and may reduce the need for fertiliser topdressing or sidedressing. (Graph for illustrative purposes only)

Nitrophoska[®] Special

"Lester Rainbow at Incitec Pivot Fertilisers recommended we try using Nitrophoska Special, as we would receive all our major nutrients and trace elements in one fertiliser.

Every 10-12 weeks Nitrophoska Special is broadcasted on the turf.

The combination of EASY N[®] and Nitrophoska Special works in with our nutrition and watering program and we're really impressed with the growth and vigour of the turf.

Recent soil testing after using Nitrophoska Special has also shown our nutrient levels remaining stable, which is exactly what we're after.

We are also trialling the use of ENTEC Nitrophoska Special to reduce nitrogen losses through leaching."

Phil Hill, Course Superintendent,
Barnboughe Lost Farm, Tasmania



For more information on Nitrophoska Special and ENTEC Nitrophoska Special*, contact your local Incitec Pivot Fertilisers Distributor.

www.incitecpivot.com.au

* ENTEC fertilisers are available from select distribution sites.

Incitec Pivot Fertilisers continues to evaluate ENTEC treated products under a range of scenarios. The duration of inhibition of nitrification (ammonium stabilisation) by DMPP (ENTECC) is likely to be significantly reduced under warm soil conditions (>18°C). ENTECC is not recommended where soil temperatures at the point of fertiliser placement are likely to exceed 30°C. Under cold soil conditions (<12°C), inhibition of nitrification may be prolonged - under these situations ENTECC treated products are not recommended where a rapid nitrogen response is desirable. Refer to the table for more detail. ENTECC is also unlikely to be effective on soil pH (1:5 water) range outside of 4.5 - 10.

Average soil temperature (°C) where fertiliser is placed	Expected duration of inhibition of nitrification (time for 50% of ENTECC stabilised nitrogen to be nitrified)
<12	10 weeks +
12 - 18	4 - 10 weeks
19 - 30	4 weeks or less

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