PERLKA

CALCIUM CYANAMIDE FERTILISER

The Key to Fertile Soils and Healthy Crops

PERLKA©

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PERLKA®

PERLKA

the unique Nitrogenous Fertiliser ideally suited for the production of HIGH QUALITY VEGETABLES AND FRUIT

WHAT IS PERLKA?

Perlka is manufactured from natural raw materials - Coal, Limestone and Atmospheric Nitrogen. When combined by Electricity they form a well-proven nitrogen fertiliser. Perlka is composed of:

- 19.8% Nitrogen (N)
- 50% Lime (CaO)
- 1.5% MgO
- Contains Dicyandiamide a known Nitrification inhibitor.

Manufactured since 1908, Perlka continues to find exciting new uses in the horticultural industry worldwide, with Growers consistently striving to produce uniform, healthy, high yielding crops.

WHY USE PERLKA?

- **Slow release Nitrogen fertiliser.**
  Perlka treated crops contain less unwanted Nitrate, without a reduction in quality.

- **Non-leaching form of Nitrogen.**
  Perlka is the ideal fertiliser for all crops especially those that are irrigated, or grown in high rainfall areas.

- **Ready source of Calcium for the plant.**
  Perlka contains calcium in a form that is readily available to the plant (via the soil water) which ensures healthy, strong cell walls, and ultimately more robust plants.

- **Stabilises soil pH.**
  Perlka has a lime content of 50% (CaO). This is highly reactive and long-term use has shown that the pH of the soil will remain constant without further additions of lime.

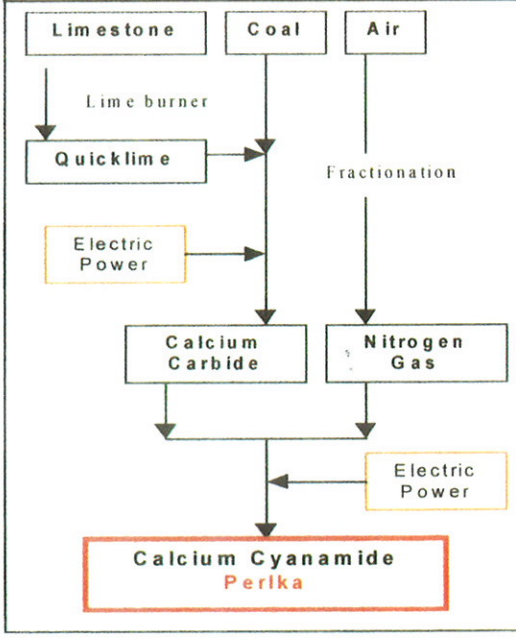
- **Improves soil structure.**
  Perlka conditions the soil structure with repeated use.

- **Cyanamide is a known soil feedstock for the Microbes and Microflora.**
  Perlka increases the microbial activity in soils and thus encourages the bio-control of soil-borne crop pathogens such as Clubroot and Sclerotinia.

- **Increased fertility of soils.**
  Perlka activates beneficial soil organisms which increases the fertility of soils.

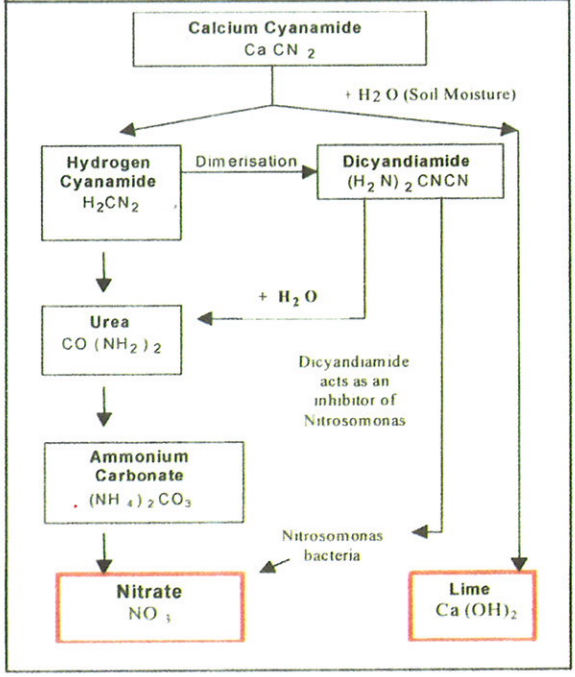
- **Compost accelerator.**
  Perlka helps to accelerate the activity of composting bacteria improving the C / N ratio.

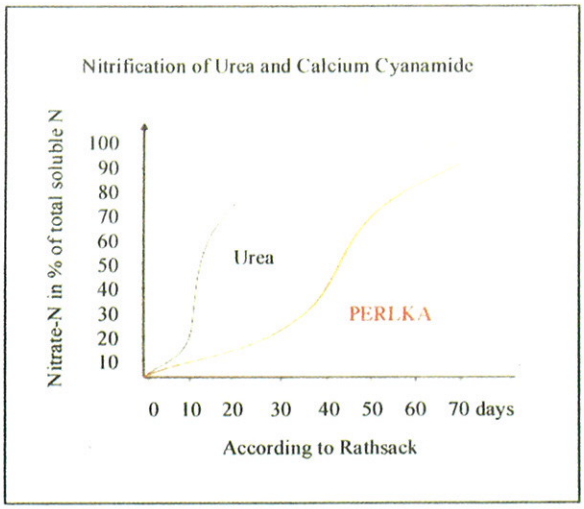
MADE FROM NATURAL SOURCES!



PERLKA .....the key to
FERTILE SOILS
INCREASED PLANT HEALTH
IMPROVED CROP YIELDS

TOTAL BREAKDOWN IN THE SOIL WITH NO HARMFUL RESIDUES

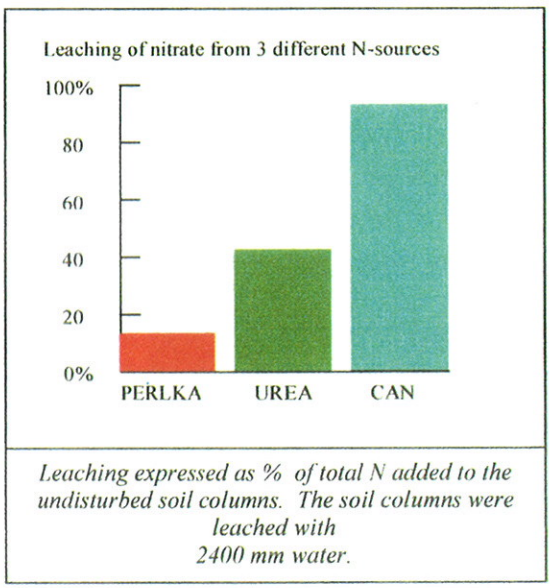




NITROGEN EFFECT... Perlka is a long-term nitrogen source that has to go through several transformation processes in the soil to become fully available to the plants. The Nitrogen supply corresponds to the natural growth demands of young plants, becoming increasingly available after application. Furthermore, numerous experiments with leafy vegetables, fertilised with Perlka, have shown they contain less unwanted nitrate – ultimately improving quality.

Since ammonium nitrogen remains in the soil for a long time, loss of nitrogen through leaching is minimal making Perlka the ideal fertiliser for

- irrigated crops in general
- crops which usually receive nitrogen in the form of split applications
- crops grown in areas of high rainfall.



Leaching expressed as % of total N added to the undisturbed soil columns. The soil columns were leached with 2400 mm water.

LIME EFFECT... Perlka has a liming value equivalent to 50% Calcium Oxide (CaO). In contact with water, this calcium very quickly turns into the strongly alkalised lime hydrate $Ca(OH)_2$. Therefore the lime content of Perlka is extremely active. The physical, chemical and biological properties of the soils are influenced positively and fertility improved.

During past years, an increasing number of physiological disorders caused by insufficient calcium nutrition have been reported. These include tip-burn in lettuce and cabbage, black-heart of celery, blossom end rot in tomato and bitter pit in apples. Regular applications of Perlka can help to reduce these problems.

SOIL CONDITIONING EFFECT... The soil conditioning effect of Perlka can vary but generally lasts for up to two weeks after application due to the brief Cyanamide phase (H_2CN_2). It is essential to leave a 'waiting period' of between 1 to 2 days for each 100 kgs per hectare applied prior to planting. This guarantees that the decomposition of the Cyanamide has taken place which leads to the unique nitrogen availability. These conditioning effects, when combined with the high level of lime and long-term nitrogen, can lead to increased crop and soil health and fertility, thus increasing yields.

These effects are most noted where repeated applications of Perlka have been made in successive crop rotations. In relation to some diseases *(such as Clubroot in brassicas – Plasmodiophora brassicae and Sclerotina in lettuces)* the use of Perlka as a fertiliser has become the standard in many countries where these pathogens are a problem.

SOIL FERTILITY EFFECT ... Perlka is known to improve the fertility of soil. This has been proven by a 53 year field study which clearly demonstrates that periodical application of Perlka causes considerable increase in the activity of microbial enzymes which are regarded to be an indicator of soil fertility.

In conclusion it can be said that in comparison with other nitrogen sources, soil fertility and plant health is improved best by the use of Perlka.

'PERLKA'

RECOMMENDATIONS FOR USE

CROP	kg / ha	kg / acre	APPLICATION
Peas	200 – 300	80 – 120	1-2 weeks before sowing or after sowing until plants have reached a height of 10 cm.**
Beans, Sweetcorn	300 – 400	120 – 160	between sowing and emergence.
Lettuce	300 – 500	120 – 200	2 – 3 weeks before planting (Spring) 1 week before planting (Summer).
Lamb's lettuce, Radish	300 – 500	120 – 200	2 – 3 weeks before sowing.
Carrots, Spinach	300 – 400	120 – 160	2 – 3 weeks before sowing.
Courgettes	400 – 600	160 – 240	2 – 3 weeks before sowing or planting.
Leeks	300 – 600 300 – 500	120 – 240 120 – 200	2 weeks before planting, OR 2 – 3 weeks after planting **
Onions	300 – 600 300 – 500	120 – 240 120 – 200	2 – 3 weeks before sowing / planting OR when the plants have a height of about 10 cm **
Cabbage, Cauliflower, Brussels Sprouts	400 – 1.500 300 - 500	160 – 600 120 – 200	2 – 3 weeks before planting and / or 2 – 3 weeks after planting **
Celery, Tomatoes, Peppers	400 – 800	160 – 325	2 – 3 weeks before planting.
Strawberries	400 – 600 300 – 400 400 – 500	160 – 240 120 – 160 160 – 200	3 weeks before planting AND / OR in early Spring before new leaves occur AND / OR after harvest (on dry plants only).
Raspberries, Currants, Gooseberries	300 – 500	120 – 200	in early Spring shortly before sprouting.
Rhubarb	400 – 800	160 – 325	in early Spring before sprouting.
Top Fruit	300 – 400	120 – 160	shortly before sprouting.

** ***Caution: Top dressings only on crops where recommended and on dry plants and humid soils!***

PERLKA is supplied in 50 kg bags or 600 kg mini-bulk bags

APPLICATION OF 'PERLKA' FERTILISER

Perlka must be used *carefully* with full attention being paid to the rates and methods of use.

- The amount of **Perlka** used must NOT EXCEED the crop's Nitrogen requirement.
- It can replace the Nitrogen found in compound fertilisers – therefore only apply Potassium (P) and Potash (K) plus trace elements if required. If the soil pH is above 7.0, no extra lime is required.
- There must always be a 'waiting period' of 1-2 days for each 100 kgs of **Perlka** applied.
- The fertiliser spreader should be carefully calibrated to achieve even distribution over the soil surface since **Perlka** granules are slightly heavier and finer than other fertilisers.
- The granules of **Perlka** must be in contact with moisture to activate the breakdown of the fertiliser into its various compounds.
- If the soil surface is dry, shallow incorporation is recommended to a depth of about 10cm (4 inches).
- For **Brassica** crops (excluding Swede and Turnip) there are two methods of application:

  1. **Split Dressing** of 500 kgs per hectare 10 days prior to planting with a second application of 500 kgs per hectare 14 days plus, when the plants are well established. Note:
     - Only apply **Perlka** when plants are dry, or they will be scorched.
     - Soil must be moist, if not, light incorporation is necessary.
     - *Do not apply if rain or irrigation is imminent.* Excess moisture in the soil may lead to plants absorbing too much Hydrogen Cyanamide. They could turn temporarily white and weak plants may die.

  2. **One Dressing** of 1000 - 1500 kgs per hectare at least 14 - 21 days before planting. No further applications of **Perlka** will be required.

- Sensitive crops, such as lettuce, should not be top-dressed with **Perlka**.