Perlka®

# Perlka® – a boost for better soil life

## ADVANTAGES FOR SOIL HEALTH AND BIOLOGICAL ACTIVITY

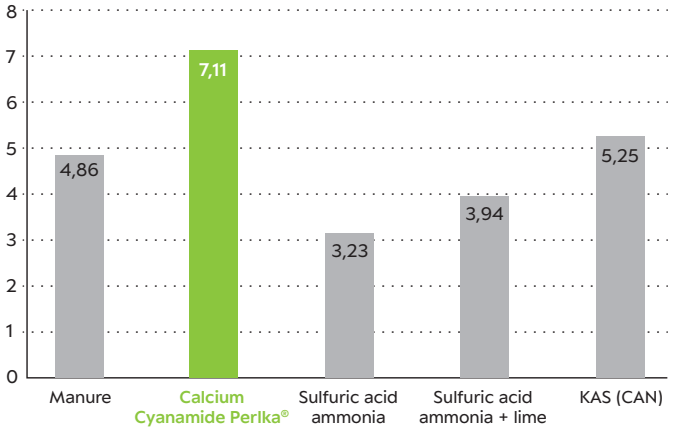
alzchem group

# Perlka® – for a healthy soil and healthy plants

Calcium cyanamide is a dynamic and flexible fertilizer. It not only supplies the soil with nitrogen and lime but also offers a wide range of other unique effects. Many farmers insist on calcium cyanamide or Perlka® in order to prevent yield and quality losses during increasingly tight crop rotations, or to be able to manage them properly once again. Why? – because soil health is more important than ever to ensure a sustainable production.

## A BOOST FOR BETTER SOIL LIFE

Average biological activity of soil enzymes (in activity units 0-10)




The activity of 7 soil enzymes (including dehydrogenase, catalase, protease etc.) was tested per fertilizer - impact analysis on soil biological activity after a 53-year study - calcium cyanamide has the highest soil enzyme activity compared to other fertilizers!

*Source: Bosch, M.; Amberger, A. (1983). Einfluss langjähriger Düngung mit verschiedenen N-Formen auf pH-Wert, Humusfraktion, biologische Aktivität und Stickstoffdynamik einer Acker-Braunerde. In: Z. f. Pflanzenernährung und Bodenkunde 146, S. 714-724.

**PRO soil health**

A Perlka®-fertilized environment supports the living conditions of saprophytic fungi*, e.g. fungi that are responsible to degrade straw and other infectious plant residues on the soil surface. Many parasitic fungi cannot benefit from this nitrogen source.

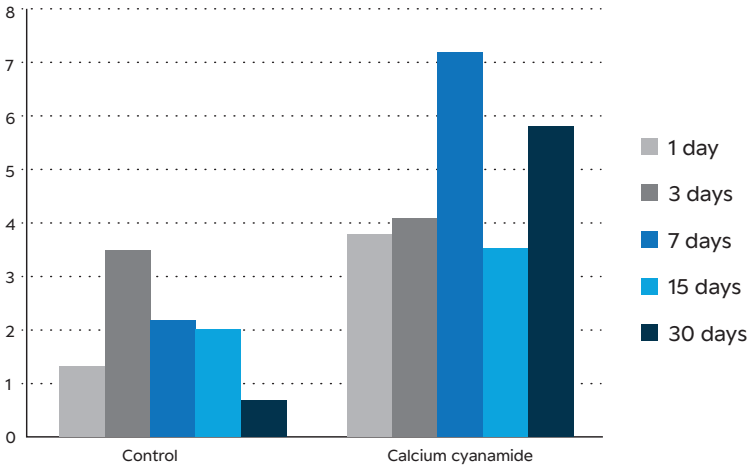
* Source: Müller, H. (1955). Untersuchungen über die Wirkung des Cyanamids im Kalkstickstoff auf pathogene und nichtpathogene Mikroorganismen des Bodens. In: Arch. Microbiol. 22 (3), S. 285-306.

## NUMBER OF BACTERIA IN THE SOIL

x $10^7$ CFU (colony forming units) / gram soil

Bacteria have better living conditions due to Perlka®'s lime effect on soil (stabilizes pH).

The test shows a significant increase in bacteria after using calcium cyanamide.



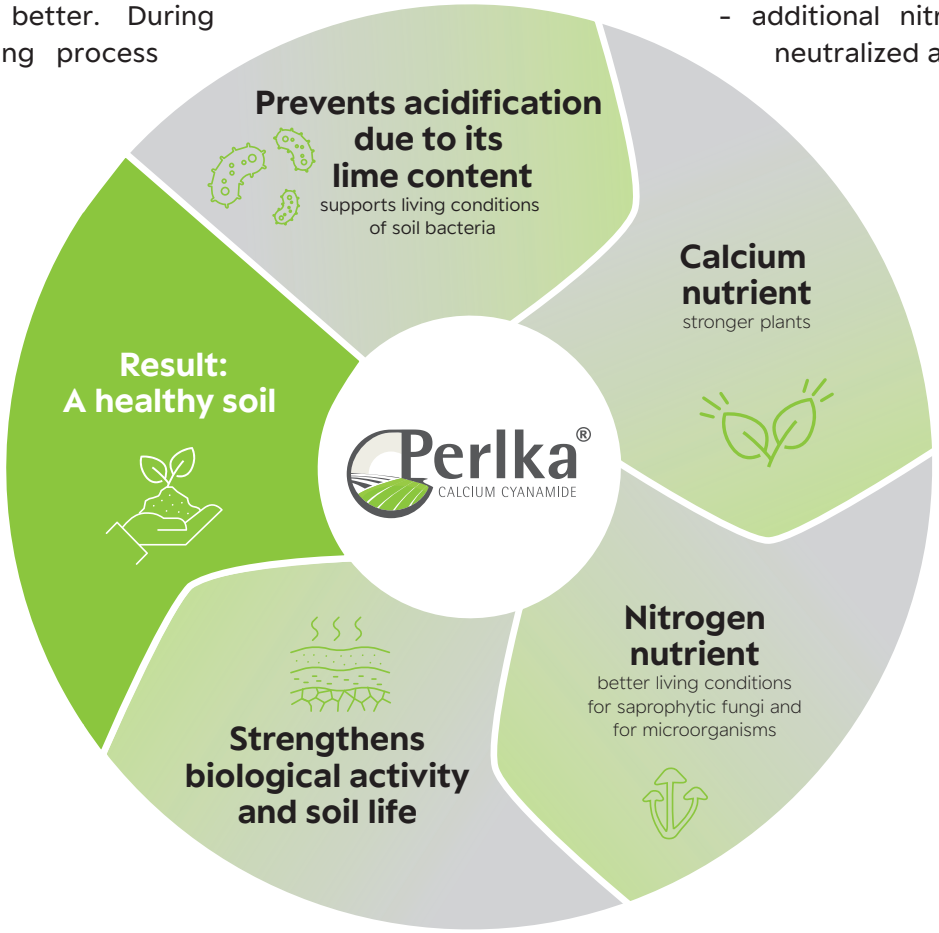

Source: Ma, Junwei; Sun, Wanchun; et al. 2013. Effects of cyanamide fertilizer in microbial community structure of continuous cropping soil. Journal of Zhejiang University (Agriculture and Life Sciences) 39 (3), S. 281-290.

## THE ADVANTAGES OF PERLKA®

- No risk of leaching due to a stable ammonium phase
- Reduced soil acidity due to its lime content
- Rapidly water soluble (CaO): 22%, delays pectin degradation, strengthens cell tissue

# Perlka® for better rotting

Organic materials often have a wide C/N ratio, approx. 80:1. However, microorganisms responsible for rotting require a narrower C/N ratio of about 20:1. Thus, nitrogen has to be added to the rotting material so that the bacterial flora can develop better. During the rotting process organic acids are generated as intermediate products. These need to be neutralized before they can be used to build valuable humic substances. Perlka® fulfills both requirements to accelerate the rotting process of organic substances - additional nitrogen and neutralized acids.




**Please comply with local fertilizer regulations. For an application recommendation tailored to your cultivation system, please feel free to contact us. The QR code will lead you to your responsible contact person.**



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