

Urea of excellent quality!



**PIAGRAN<sup>®</sup> 46**

The Granulated Fertiliser



*The future of fertilisation.*

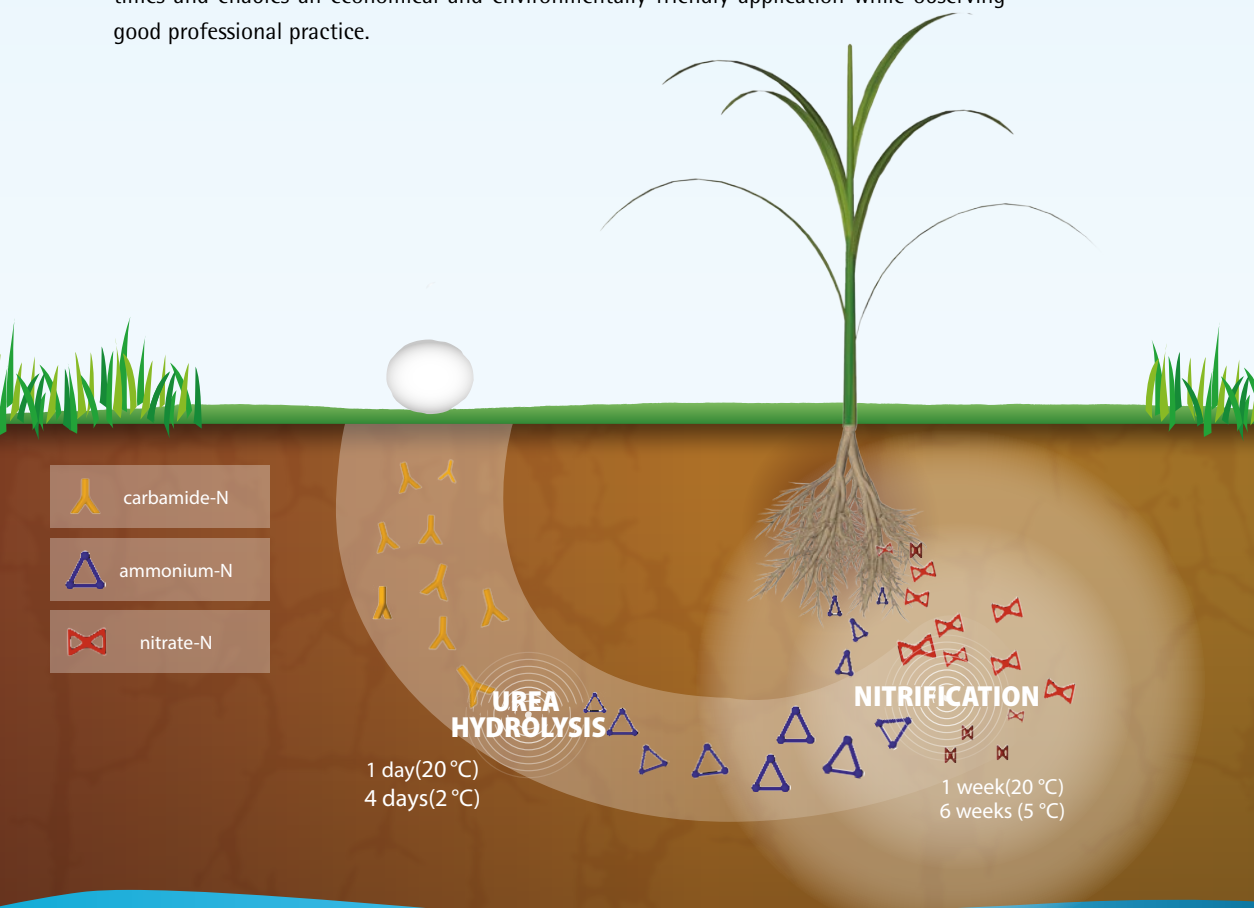
# Urea – world fertiliser no. 1

Currently, more than 40% of all agricultural land is supplied with mineral nitrogen to provide food for the world's population. The importance of mineral fertilisers will increase further in future.

Urea is the most frequently applied nitrogen fertiliser worldwide. With PIAGRAN® 46, the no. 1 world fertiliser urea, gets a name and you get brand quality from SKW Piesteritz.

## PIAGRAN® 46 – the advantages are obvious

The urea in PIAGRAN® 46 is quickly available for plant nutrition. Urea hydrolysis, the conversion of the urea nitrogen into ammonium nitrogen, begins immediately after fertilisation. At a soil temperature of 20 °C that occurs within 24 hours and the process only takes around four days even at 2 °C. The supply of nitrogen is thus quickly guaranteed. The further conversion of the ammonium form to nitrate, the so-called nitrification, also occurs within a short time period. One week at 20 °C and around six weeks at 5 °C are sufficient for this. As the plants can already take up the ammonium nitrogen in line with requirements, the risk of nitrogen losses from the mobile nitrate form is reduced considerably in comparison to fertilisers containing nitrate. PIAGRAN® 46 guarantees an adequate and balanced supply of nitrogen to the plants at all times and enables an economical and environmentally friendly application while observing good professional practice.



## The solid base for success.

PIAGRAN® 46 is a granulated urea in brand quality. With a nitrogen content of 46 %, it should not fear any comparison with calcium ammonium nitrate and it is outstanding in terms of transport, storage and application. That saves time, space and, above all, money.

- ✓ Guaranteed high and reliable brand quality
- ✓ Benefits in terms of work processes due to the high nutrient content
- ✓ Very good spreading properties even for large application widths



# PIAGRAN® 46 – Efficiency in a nutshell.

## Efficient nitrogen utilisation

Good conditions for optimal fertilisation effect with minimal nitrogen losses are for example: moist soils with adequate sorption capacity, a pH value below 7.5, temperature below 25 °C plus rain following fertilisation or incorporation of the granulate into the soil. Therefore conditions which usually apply for typical fertilisation dates in practice.

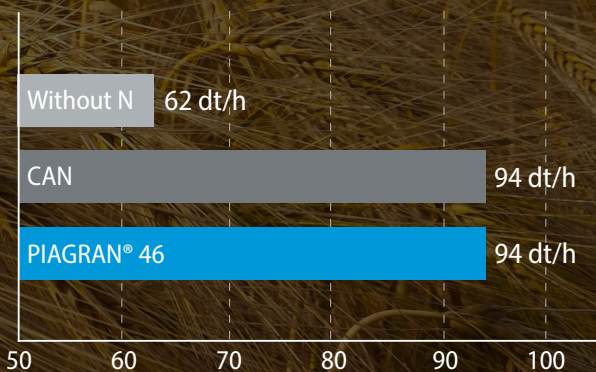
## Efficient application

The special design plus the size and hardness of the grain ensures excellent spreading properties. This makes even application possible with working widths of up to 36 meters with suitable centrifugal spreaders. Airplanes or helicopters can also be used for fertilisation.

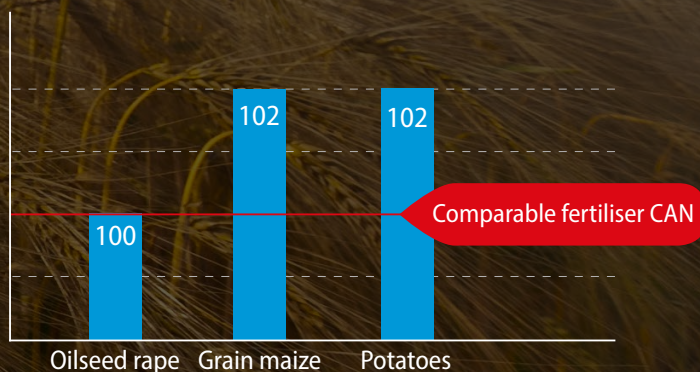
## Efficient working

The stable granules only give off a small amount of dust, even when under heavy use, contributing to good plant compatibility. As a non-electrolyte, PIAGRAN® 46 has a less corrosive effect on handling and spreading equipment. The readily soluble granulate is free of fiber and it does not leave any residue behind in the soil. During application the soil is under comparatively low pressure because the density of PIAGRAN® 46 is low.

Corn yield with PIAGRAN® 46 in cereals (n = 261)



Corn yield with PIAGRAN® 46 in different crops (n = 106)



# Lots of nitrogen in a small area.

The high nitrogen content in PIAGRAN® 46 guarantees optimal use of your logistics and storage areas. Considerably more nitrogen can be moved or stored in the same area when compared to nitrate or ammonium fertilisers.

## Recommendation for transport and storage

To prevent abrasion and hardening, do not convey pneumatically or with sling belts. Change the discharge point more frequently and allow the product to drop five meters at the most.

Urea can lead to metal and cement corrosion. Protect your property with suitable paints or coatings. Also ensure that no fertiliser can make its way through sewage installations, bodies of water or into the ground water.

Heat sources may only be operated at an adequate distance. Keep the farmyard and roadways clean. Spread granulate means a risk of slipping.



**Optimal spreading  
properties**



# PIAGRAN 46 – High nutrient content.

With PIAGRAN® 46 you are taking advantage of all the benefits of urea fertilisation. In contrast to stabilised fertilisers from SKW Piesteritz, it is necessary to divide traditional fertilisers such as PIAGRAN® 46 into several applications in order to guarantee high N-efficiency and low nitrogen losses. The following fertilisation recommendation is based on the results of our applied research and

practical experience. You should adapt these to the local conditions while taking the specifications of the Fertilisation Ordinance into consideration. If you have any questions concerning the appropriate use of PIAGRAN® 46 you can contact our specialist advisers at any time or consult [www.duengerfuchs.de](http://www.duengerfuchs.de).

## Recommendation for application:

Culture	Application date	kg/ha N	PIAGRAN® 46 (dt/ha)
<b>RAPESEED</b>			
1st application	End of February, start of March	80 – 120	1.7 – 2.6
2nd application	Small bud stage (GS 39/51)	60 – 100	1.3 – 2.2
<b>WINTER CROPS</b>			
1st application	Start of spring growth	40 – 80	0.9 – 1.7
2nd application	GS 30 – 32	40 – 80	0.9 – 1.7
3rd application	GS 39 – 51	40 – 60	0.9 – 1.3
4th application (quality wheat)	GS 55 – 59	up to 60	up to 1.3
<b>SUMMER GRAIN</b>			
1st application	at sowing	40 – 100	0.9 – 2.2
2nd application	GS 30 – 32	20 – 60	0.4 – 1.3
<b>BREWING BARLEY</b>			
1st application	at sowing	20 – 100	0.4 – 2.2
<b>MAIZE</b>			
1st application	at sowing	100 – 180	2.2 – 3.9
2nd application	GS 16 – 17	30 – 60	0.6 – 1.3
<b>POTATO</b>			
1st application	at planting	60 – 120	1.3 – 2.6
2nd application	Before row closure or 10 kg/ha N with the spray mixture for combating late blight	40 – 60	0.9 – 1.3
<b>SUGAR BEET</b>			
1st application	approx. 2 weeks before sowing	60 – 120	1.3 – 2.6
2nd application	up to May 20	30 – 40	0.6 – 0.9
<b>GRASSLAND</b>			
1st application	Start of spring growth	80 – 100	1.7 – 2.2
Re-fertilisation	after every cut	40 – 60	0.9 – 1.3
<b>VEGETABLES</b>			
1st application	at sowing/planting	up to 200	2.6 – 4.3
additional applications	Re-fertilisation, several times if necessary	up to 35	up to 0.8

## PIAGRAN® 46 product characteristics

### Fertiliser type

Urea 46

46 % N total nitrogen as amide nitrogen

### Characteristic values

Grain size (95% of the product) 1.6 – 5.0 mm

Average granule diameter approx. 3.5 mm

Bulk density approx. 730 kg/m<sup>3</sup>

Colour white



**PIAGRAN®**  
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Further information is available on the Internet:  
[www.piagran46.de](http://www.piagran46.de)  
[www.skwp.de](http://www.skwp.de)

Any questions?  
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**skw.**  
PIESTERITZ

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