

# KetoCare



## Article number

10L 110010  
25L 110011  
200L 110012  
1000L 110013

## Dietetic mineral feed

## Animal species

dairy cows, sheep and goats

## Content

10 L (11,43 kg)  
25 L (28,58 kg)  
200 L (228,60 kg)  
1000 L (1.143 kg)

GMP+ FSA assured  
GMO Controlled  
PDV103322

## Ketosis

This is a common disease in dairy cattle: ketosis. Studies show that in the first two months after calving, some one in ten cows suffer from this lack of energy in the first stages of lactation (Veeteelt, 2 Feb. 2012). The percentage of cows that suffer from sub-clinical ketosis is even higher. Ketosis is the result of a negative energy balance. This occurs as the cow begins to produce large volumes of milk after calving. However, feed intake lags behind, so the cow does not get enough energy. This is also clearly shown in Figure 1 below. The blue line is milk production, the black broken line is dry matter intake and the green dotted line is body weight. It's clear to see that at beginning of lactation, milk production is higher than the dry matter intake, causing the cow's body weight to decline.

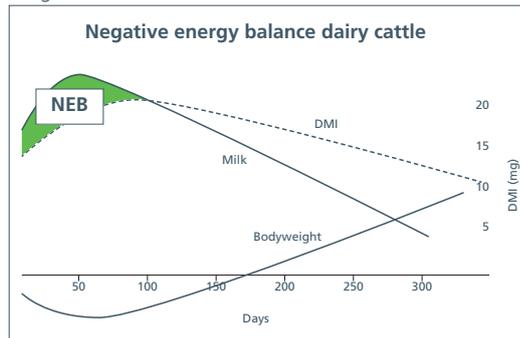


Figure 1. Schematic illustration of negative energy balance of dairy cattle

The effect of a negative energy balance is that the cow burns body fat (fat mobilisation) to meet her energy requirements. Liver function is crucial here, as this organ ensures the conversion of body fat into available energy. The liver often becomes overloaded in this situation, meaning that it functions sub-optimally and that the body fat is only partially broken down. This results in the formation of ketone bodies (β-Hydroxybutyric acid, abbreviated BHBA). When the concentration of ketone bodies exceeds a certain level (BHBA > 1.20 mmol per litre), we refer to ketosis. The result of this is that the cows are sluggish, eat less, produce less milk and are more vulnerable to diseases such as metritis and displaced abomasum. Fertility levels also decline. Ketosis is therefore a considerable cost item for dairy farmers and must be prevented wherever possible.

## Topro KetoCare

Topro KetoCare has been developed to reduce the risk of and aid recovery from ketosis. This product contains a great deal of energy in the form of propylene glycol, glycerol and isomaltose molasses. This compensates the lack of energy in the event of a negative energy balance and is also gradually released in the cow, see also Figure 2 below. Sodium chloride has been added for the flavour and to support the electrolyte balance.

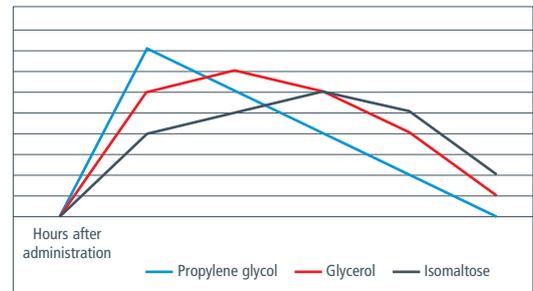


Figure 2. Availability of energy components of Topro KetoCare





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Niacin, vitamin B12, cobalt, vitamin E and phenols have also been added. Niacin is an important building block for the metabolism. Vitamin B12 is important for formation of glucose, the main source of energy for cows. Cobalt is important for the production of vitamin B12 in the rumen. Vitamin E and phenols are both important antioxidants that complement each other perfectly. Antioxidants are necessary in times of stress in order to support the dairy cow's immunity. The main advantage of Topro KetoCare versus pure propylene glycol is that it is much tastier and less irritating in the oesophagus. This makes it much easier to administer using a drenchgun, with less resistance from the cows.

#### Composition

Glycerine, 1,2-Propanediol, isomaltose molasses, sodium chloride.

#### Additives per kg

##### Vitamins:

Vitamin E.....	2,000 mg
Vitamin B12.....	1,000 mcg
Niacinamide.....	12,500 mg

##### Trace element compounds:

Cobalt.....	24.00 mg
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#### Storage advice:

Keep product cool, dry and out of reach of children. Protect against frost. Keep packaging closed after use. Product safety is only guaranteed when stored correctly.

#### Instructions for use and dosage

Dairy cows: top-dressing, individual oral treatment, by Propydos system or by mixing into the feed ration (TMR). Dosage: 250 ml per animal per day for 5-7 consecutive days in the first three weeks before to six weeks after calving.

Dosage Ewes/Goats: 50 ml per animal per day for a maximum of 4 consecutive days in the first six weeks before and three weeks after lambing.

#### Product characteristics

Glycerine	Direct energy. Tasty.
1,2-Propanediol	Direct energy. Provides the most energy.
Isomaltose molasses	Rich in energy, very tasty, gradual release.
Sodium chloride	Improves the flavour. Supports the electrolyte balance.
Niacin	Necessary for effective metabolism, conversion of proteins, fats and carbohydrates. Important antioxidant.
Cobalt	Building block for vitamin B12
Vitamin E	Important antioxidant. Important for the cow's immunity.
Vitamin B12	Necessary for gluconeogenesis, formation of glucose. Necessary for liver functioning.
Phenols	Natural antioxidants