

K-pron[®]

**The most effective
potassium source
for dairy cows**



 **EVONIK**
Leading Beyond Chemistry

CHALLENGE

At the onset of lactation, a cow's need for potassium increases. Various stress factors can drive up the potassium requirement even further. Dairy nutritionists are well aware that maintaining the right amounts of energy or amino acids requires special attention in early lactation. What is often neglected is that the potassium balance can also become negative in that phase. Potassium is the main intracellular cation, and the mineral plays a key role in maintaining the osmotic potential in the cell, among many other metabolic functions. Milk, an intracellular fluid, has a high potassium content. Accordingly, cows excrete substantial quantities of the mineral when producing milk. Even higher amounts are lost into manure. In addition, heat stress can cause potassium loss through sweating. When cows start panting, the increase in exhaled carbon dioxide leads to respiratory alkalosis and reduces the availability of bicarbonate. Feeding large quantities of rapeseed meal or other ingredients with low potassium content can result in a metabolic acidosis due to the negative DCAD.

This condition can be counterbalanced through metabolic buffering using potassium carbonate. If these needs are not met, both milk yield and animal health can decline – taking your profits down with them.

SOLUTION

To enable dairy farmers to easily and cost-effectively fill the potassium gap, Evonik offers K-pron[®], a potassium supplement with a high level of purity. The carbonate hydrate (47% K, feed grade quality) is the ideal compound to ensure that your feed contains the required amount of potassium. K-pron[®] increases the dietary cation-anion difference (DCAD). In addition, the buffering capacity of K-pron[®] can help alleviate the depression of milk fat by optimizing the fermentation in the rumen.

Stepping up the DCAD to a more positive value during lactation has been shown to support feed intake as well as milk production. To determine the required K-pron[®] dosage, an analysis of your feed's mineral contents using wet chemistry is necessary – especially in the case of forages and byproducts. Table values are simply not accurate enough. In early lactation, you should target a potassium content of 1.3 – 1.5%. Under heat stress conditions, the content should be increased to 1.7 – 2.0%. At the same time, it is advisable to look at the DCAD of your ration, which should be in the range of 350 – 450 mEq per kg of feed dry matter.

WHAT'S IN IT FOR YOU

Put the power of Evonik's nutritional science into your dairy cow feed and support your milk yield. With K-pron®, you can simply and cost-effectively adjust the potassium content of your ration and raise DCAD to compensate for stressors. The result: animal welfare, optimal milk yields and healthy profits.



BENEFITS

The highly concentrated supplement K-pron® enables you to ensure that your cows get the optimal amount of potassium.

You get:

- Increased feed intake and higher milk yield thanks to a more positive DCAD in lactation
- Optimal feed intake and milk yield thanks to a more positive DCAD in lactation
- A highly pure potassium source with a defined concentration of K^+
- A positive load of the cation only, as the anion is metabolized
- A powerful buffering compound without the load of sodium
- Targeted high potassium adjustment in heat stress conditions
- A buffer for both the rumen and the metabolism

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