

Preventing milk fever successfully

What you need to know when choosing products for calcium supplementation

Everybody knows this situation. The cow is lying down and not able to get up any more. This is a clear sign of acute milk fever. With the onset of lactation, the cow has to produce great amounts of milk and therefore needs a lot of calcium. But often she cannot mobilize it from her own reserves. Lack of calcium impairs muscle activity and the cow cannot stand on her feet any longer. But this is only the top of the iceberg. In the critical time around parturition most cows lack calcium and suffer from subclinical milk fever which is not visible to the blanket eye. For every clinical case in the herd there are another 3-6 subclinical cases without any visible signs. This has significant consequences: The cow misses a good start into the lactation period, produces less milk and is more susceptible to udder infections and metabolic disorders.

Milk fever is one of the most important mineral disorders in cattle and the need for an effective prevention is undisputable. In addition to an adapted feed ratio during the dry period, it makes sense to provide the cow with calcium supplements at the first signs of parturition. There are a lot of products available on the market. What is important to know?



Boluses, pastes or liquids?

In general, you have the choice between various liquids, pastes and boluses. All these products may differ significantly in safety and usability, though. In case of pastes and liquids, calcium salts may irritate the mucous. If calcium liquids get into the lung by mistake, this usually leads to the death of the cow. There are, however, some boluses with a special coating that protects the mucous. Administration of boluses is generally a safe and effective form of supplementing calcium. With a special applicator, boluses can be easily administered in one glimpse. This does not only save a lot of time but it also guarantees that no contents of the bolus are lost. The animal does not have to salivate or spit, hands and clothes stay clean.

Which one is the right bolus?

It is not only important how much calcium is given but also which kind of calcium the bolus contains. For effective milk fever prophylaxis the cow should receive at least 40g of calcium per dose. The different calcium compounds on the market contain very different amounts of calcium. When comparing different compounds, one should not compare the weight of the compounds but the actual content of available calcium. Calcium chloride, calcium phosphate and calcium carbonate contain an especially high amount of calcium.

The bolus should dissolve very quickly in the rumen so that calcium can be released fast and be made available for the cow's



metabolism as fast as possible. Please pay attention that the bolus contains a high amount of easily soluble calcium chloride. Calcium chloride dissolves within 30 minutes and is therefore rapidly available. Calcium should be also provided over a prolonged period of time. Calcium sulfate provides for sustained calcium support because it must first be broken by microorganisms until it is available for the cow's metabolism.

The right calcium is the key for success

To be successful in the prevention of hypocalcemia, it is essential to choose the right source of calcium. Although some boluses also contain additional ingredients such as phosphor or magnesium, this is often not relevant because these boluses usually do not contain these minerals in sufficient amounts to be active. Vitamin D3 in the bolus does not increase calcium absorption because it takes a few days until it becomes biologically active. This is usually too late for the cow's needs.

