Increased nitrogen efficiency and performance with **BEWI-LACTO+®** Amino LM

The protection of the environment increasingly became a topic during the last years also in livestock farming. The focus is to decrease the ammonia as well as nitrogen emissions into the soil, as well as a reduction of phosphorus excretion. Nevertheless, maintaining a high performance while keeping a good health status of the dairy cow is of economic importance for the dairy farmer. Maintaining these factors in the past has been realized with high protein contents in the rations. However, high protein levels are not only relevant with regards to the environment, but can also negatively influence the health of the animal. Accomplishing input with output is crucial to avoid excessive loads for liver and kidney, leading to unexploited nitrogen excretion.

Our solution: **BEWI-LACTO+®** Amino LM – **BEWI-FATRIX®** inside!

BEWI-LACTO+® Amino LM is a combined product for optimising nitrogen efficiency, dedicated for the utilization on farm level directly.

- For optimising amino acid supply in rations with reduced protein content
- Rumen-stable methionine ensures optimal supply of the first limiting amino acid
- Rumen-stable lysine provides the cow with milk yield relevant amino acids
- Rumen-stable fat increases the energy situation, without disturbing rumen functionality
- Dextrose increases palatability and delivers fast energy
- Supports metabolism and contributes to fertility
- The combination of fat with dextrose compensates energy deficiencies

BEWI-LACTO+® Amino LM during a field trial:

The dairy farm Langer in Bünde (North Rhine-Westphalia, Germany) keeps 150 dairy cows and their offspring. The cows are kept in free stall barns with deep litter boxes (20 %) and high boxes equipped with Kraiburg rubber mats (80 %). The ratio between animal to feeding space is almost 1:1.

For the practical trial, the supply of the amino acids methionine and lysine has been evaluated in the ration. As both amino acids turned out to be deficient, 170 g of **BEWI-LACTO+®** Amino LM per cow and day was added to the ration. The ration was applied 2-3 weeks prepartum and during lactation.

Ration lactating cows

Gras silage:	17.0 kg (4.59 kg DM)
Corn silage:	24.0 kg (8.26 kg DM)
Corn maize:	3.30 kg (2.91 kg DM)
Draff, wet:	4.50 kg (1.08 kg DM)
Rape seed ex. meal:	4.50 kg (4.06 kg DM)
Mineral:	0.35 kg
Straw:	0.2 kg

➔ Feed intake approx. 21,5 kg DM/cow/day

➔ Protein content: 172 g/ kg DM

Results:

- Since the application of **BEWI-LACTO+®** Amino LM, the owner of the farm recognized an overall good health status of the herd.
- Problems with retained placentas have disappeared.
- Since the application of the product, the animals show a clear heat.
- The farm was successfully able to reduce the rapeseed meal content in the ration with -0.5 kg/cow/day.
- Hence, the crude protein content was decreased from 174 g to 167 g/ kg DM, having positive effects on the nutrient balance of the farm (nitrogen/phosphorus excretion).
- Milk yield increased during the trial period from 34.5 to 35.7 kg per cow and day while milk urea content has been decreased.