

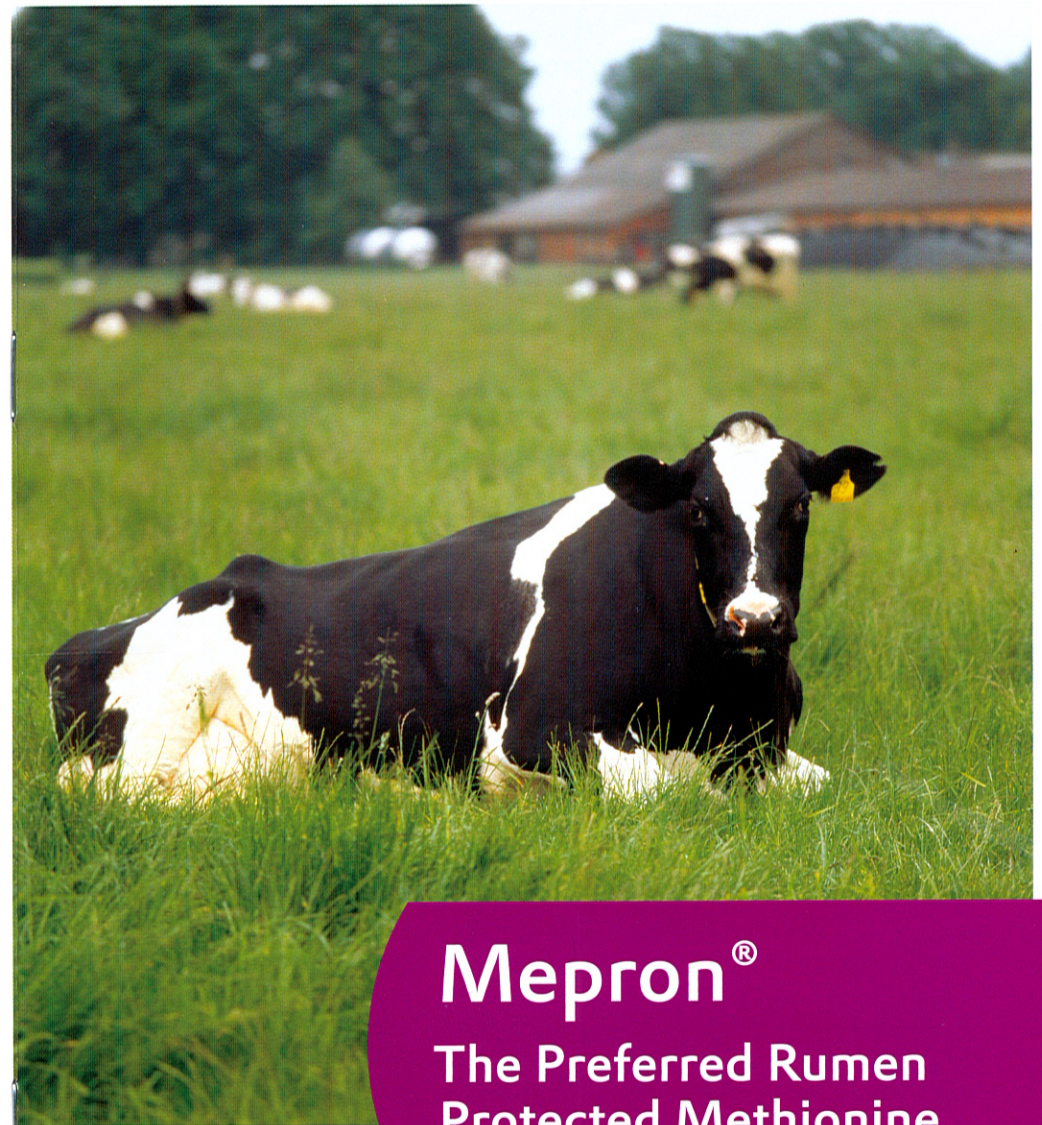
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Evonik Industries AG
Health & Nutrition
feed additives
Rodenbacher Chaussee 4
63457 Hanau-Wolfgang
Germany
PHONE +49 6181 59-6765
FAX +49 6181 59-76765
feed-additives@evonik.com
www.mepron.com

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Mepron[®]
**The Preferred Rumen
Protected Methionine**

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The Product

Mepron® is a concentrated, time-based release mini-pellet that features a solid core of DL-methionine.



Due to its coating technology by using ethylcellulose, Mepron® creates a continuous flow of methionine to the small intestine which mimics the natural digestive process. It allows for a steady, consistent uptake of methionine by the liver.

Mepron® contains 85 % DL-methionine, of which at least 80 % bypass the rumen. Of that fraction, more than 90 % are digestible and absorbed along the intestine.

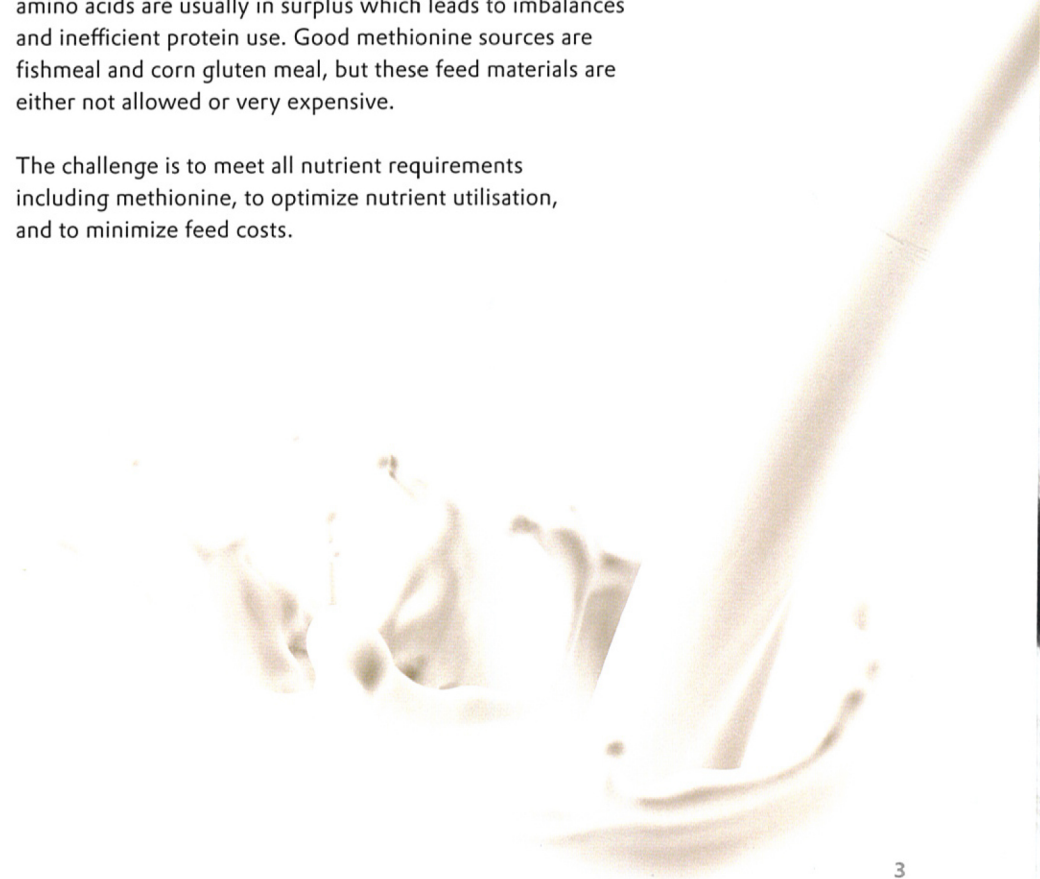
Mepron® delivers the highest amount of metabolizable methionine (60%) among all commercially available methionine sources for dairy cows.

The Challenge

Amino Acids are the building blocks of protein and essential nutrients in the overall metabolism, therefore critical for producing milk. If rations are deficient in only one amino acid, production will be less than optimal. In most dairy cow rations, the first limiting amino acid is methionine.

Most protein sources are low in methionine. Therefore, rations for high yielding dairy cows meeting the methionine requirement are typically high in protein. Then all other amino acids are usually in surplus which leads to imbalances and inefficient protein use. Good methionine sources are fishmeal and corn gluten meal, but these feed materials are either not allowed or very expensive.

The challenge is to meet all nutrient requirements including methionine, to optimize nutrient utilisation, and to minimize feed costs.



The Solution

Mepron® delivers the nutrient methionine in a highly concentrated form. One gram of metabolizable methionine from Mepron® is cheaper than from any feed protein.



AMINOCow®

Balance your rations with the easy-to-use ration evaluation software AMINOCow® and increase your bottom line!

The Approach

Calculate your existing ration with AMINOCow® which considers all 10 essential amino acids. First assure the optimal supply of all major nutrients such as forage NDF, glucose precursors (NFC), rumen degradable protein, and energy.

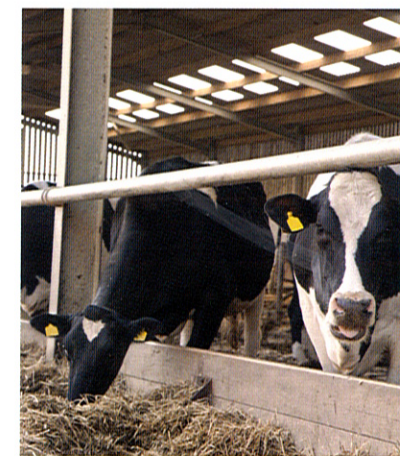
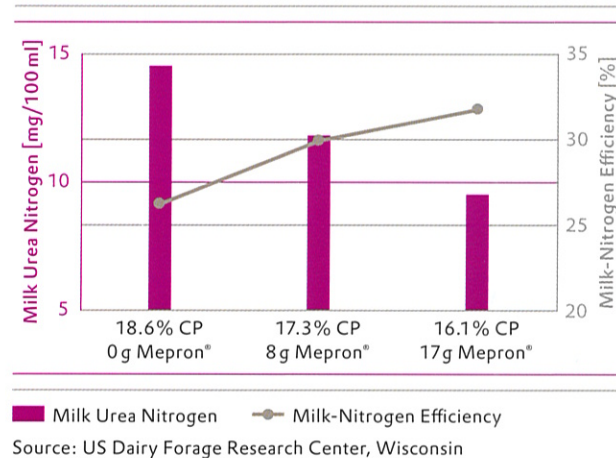
Then look into the amino acids. If all amino acids except methionine are in surplus, take out some of the expensive protein and use the created space for energy or forage, depending on what compound improves the ration.

Meet the metabolizable methionine requirement by using Mepron®. Typical inclusion rates are 8–12 g per cow per day. Achieving optimal production efficiency results in more money in the pocket.

Results

Depending on the actual feed material prices, your ration costs will be reduced in most cases by USD 0.05–0.20 per cow per day. Mepron® is the most cost-effective methionine source for dairy rations.

Due to the balanced amino acid supply, less surplus nitrogen has to be detoxified as ammonia relieving liver metabolism and sparing additional energy needs.

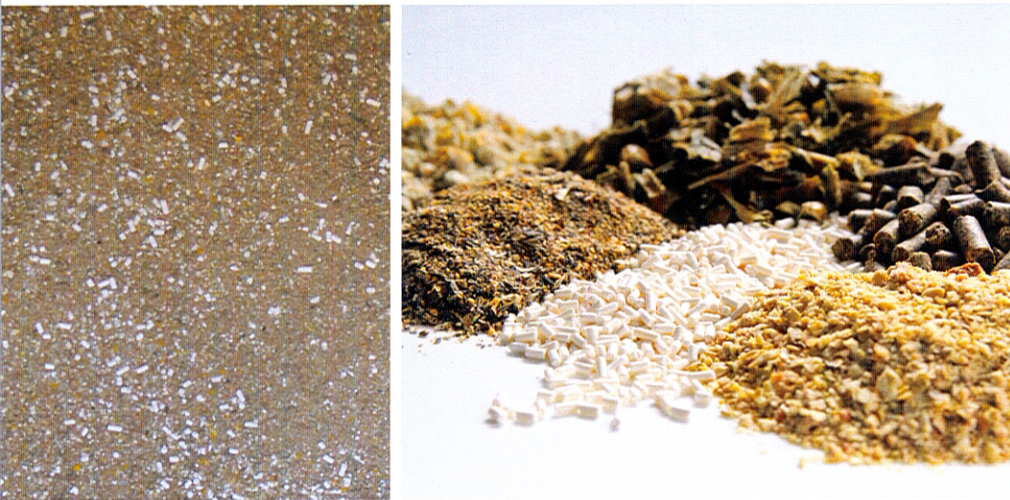


With an optimized nutrient supply, performance improvements such as higher milk yield or milk protein, stabilized milk fat content, improved fertility and general health of the herd have often been observed.

A meta-analysis of 18 studies published in peer-reviewed journals has proven that cows on Mepron® rations performed better than control groups in milk yield, milk protein percentage and yield as well as milk fat yield (Patton 2010, Journal of Dairy Science, Vol 93, p. 2105–2118).

Handling & Mixing

With its particle size of 1.8 x 3–4 mm, Mepron® can be mixed homogeneously into feed. The rate of rumen protection is not affected when mixed with potentially abrasive components (mineral mixes), handled at extremely high ambient temperature or subjected to low pH (silage).



The mechanical stress during transport with common conveyors (screw, elevator, pneumatic transport) has no effect on the rumen protection rate of Mepron®.

Pelletizing of mixtures containing Mepron® is not recommended because the high pressure destroys the coating.

Benefits of Amino Acid Balancing with Mepron®

- Reduced feed costs
- Optimized rations by using our ration evaluation software AMINOCow®
- Lower dietary protein content when using Mepron®
- Improved protein utilization
- Increased flexibility in formulating rations
- Reduced environmental pollution by less nitrogen excretion
- Improved herd health, fertility and performance due to optimized nutrient supply
- Sustainable farming at increased profitability