



MEPRON® – THE PERFECT SOURCE OF METHIONINE

Mepron® – Creating Generations of Healthy Cows

Methionine is an essential amino acid critical for optimizing health and maximizing performance. Helpful for improving milk production, methionine also positively impacts reproduction and overall health, offering specific benefits to the liver.

Studies show that cows fed Mepron® have a higher Liver Functionality Index, indicating improved liver function and better immunometabolic status. As a result, these animals experience less inflammation and reduced oxidative stress.^{1,2}

Backed by more than 20 years of proven history, Mepron® delivers metabolizable methionine to the dairy cow in a concentrated and consistent time-released format for maximum utilization.

- Gram for gram, Mepron® has the highest bioefficacy of all rumen-protected methionine products on the market.³
- 10 grams of Mepron® delivers 6 grams of metabolizable methionine to the small intestine.⁴
- Mepron's encapsulated technology is 85% DL-Methionine.

Increase milk and milk component production with Mepron®

Mepron® provides methionine in a formula completely usable by the cow to benefit milk



production. In fact, Mepron® is the only rumen-protected methionine source shown to increase yields of milk, protein and fat, and offer improved feed efficiency.⁵ In one study, feeding cows Mepron® during the transition period resulted in a 10.7-pound/day increase in milk production per cow.¹ As a result, Mepron® is generating revenue even in the most challenging economic environments.

Feed Mepron® during late gestation for better-growing, healthier calves

Feeding Mepron® late in pregnancy has been shown to improve nutrient transfer between dam and calf through the placenta, resulting in calves that exhibit greater growth performance.

Calves from dams fed methionine achieved higher weaning and post-weaning weights and greater hip and wither height.⁶ These calves also had better oxidative balance, reduced inflammation, and improved neutrophil function.⁷

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Take your cows to the next level with Mepron®. Backed by sound science, Mepron® is a proven nutritional strategy for increasing efficiency, performance and profitability.

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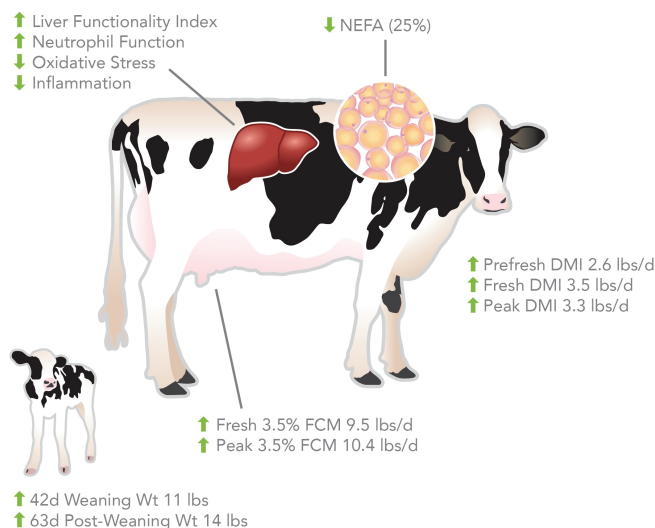
Solid rumen protection. Unmatched stability.

- Mepron® is coated in ethylcellulose – a polymer long used as a coating in controlled release technologies.
- The methionine in Mepron® is protected from harsh rumen bacteria – it won't break down prior to absorption in the small intestine.
- No special handling required – durable and stable during shipping, storage, conveying, mixing and feeding.
- Not pH sensitive – designed for slow release in the small intestine, Mepron® may be mixed with silage or other acidic feeds without damage.
- Stable in total mixed rations.
- Suitable for mixing with a broad range of common feed ingredients including minerals, grains and forages.
- Long shelf life – can be stored safely for 3 years.

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2. Batistel, F., J. M. Arroyo, C. I. M. Garces, E. Trevisi, B. Saremi, C. Parys, M. A. Ballou, J. J. Loor. 2017. Effect of ethyl-cellulose rumen-protected methionine supplementation on inflammation, oxidative stress and neutrophil function during the periparturient period and early lactation in dairy cows. *J. Dairy Sci.* 100 (Suppl 2):404.
3. Broderick, G. A., S. M. Reynal, R. A. Patton, W. Heimbeck, and P. Lodi. 2010. Use of plasma concentrations to estimate bioavailability of methionine in rumen-protected products fed to dairy cows. *J. Dairy Sci.* 93 (Suppl 1):236.
4. Berthiaume, R., P. Dubreuil, M. Stevenson, B. W. McBride, and H. Lapiere. 2001. Intestinal disappearance and mesenteric and portal appearance of amino acids in dairy cows fed ruminally protected methionine. *J. Dairy Sci.* 84:194-203.
5. Zanton, G. I., G. R. Brown, M. Vázquez-Añón, and L. M. Rode. 2014. Meta-analysis of lactation performance in dairy cows receiving supplemental dietary methionine sources or postruminal infusion of methionine. *J. Dairy Sci.* 97:7085.
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7. Alharthi, A. S., F. Batistel, C. Parys, A. Helmbrecht, M. A. Ballou, E. Trevisi, J. J. Loor. 2017. Maternal ethyl-cellulose rumen-protected methionine supplementation alters blood biomarkers and immune function in neonatal Holstein calves. *J. Dairy Sci.* 100 (Suppl 2):333.

University of Illinois Mepron® Research Summary

Feed Mepron® at 0.09% DM Prefresh (30d) & 0.1% DM Postfresh (60d)



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