



FORTIVA™

Amulet®

Diminishing the Domino Effect of Stress in Dairy Cows

Amulet® feed additive is a unique feed technology designed to help cows overcome the potential impact of stress. Amulet's bioactive compounds and active microbials support ruminal and intestinal health when metabolic demands are at their greatest. Research observed that Amulet's inclusion was associated with more favorable concentrations of critical stress biomarkers during transition.



Avoid the domino effect: The drivers and impact of stress

STRESS DRIVER

Handling, transition period, negative energy balance, feed hygiene issues, heat and cold stress, poor management, environmental pathogen load, metabolic stress i.e., high BCS in late lactation, high production

STRESS IMPACT ON THE GUT

Digestive upset, reduced intake and diet digestibility, dysbiosis, reduced gut integrity

METABOLIC CONSEQUENCES

Oxidative stress, excessive inflammation, increased opportunity for pathogens



What could you see on farm?

- Health disorders like acidosis, metritis, ketosis or mastitis
- Reduced milk production and components
- Less time in the herd

The impact of Amulet on key biomarkers

Two critical biological markers were used to measure the response of cows fed Amulet: haptoglobin and albumin.^{1,2}

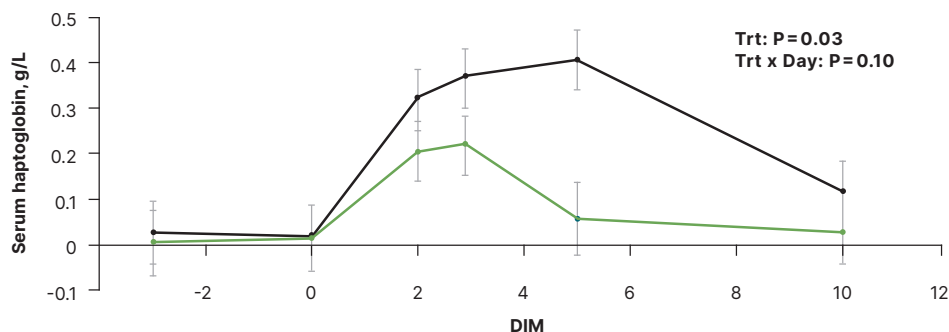
Transition cow research demonstrated that cows fed Amulet beginning 28 days before calving through 21 days in milk (DIM) had lower serum haptoglobin and greater serum albumin than cows not receiving Amulet.^{3,4}

AMULET AND SERUM HAPTOGLOBIN LEVELS¹

Key takeaway:

Serum haptoglobin levels changed in cows fed Amulet.^{3,4}

● Control ● FORTIVA® AMULET®

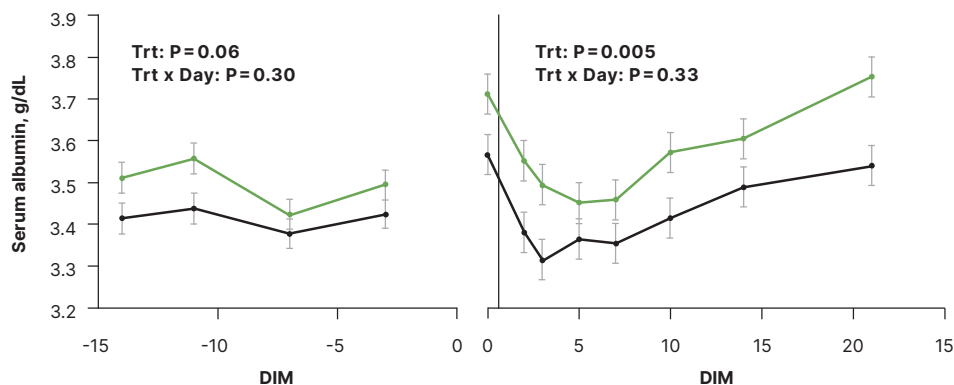


AMULET AND SERUM ALBUMIN LEVELS²

Key takeaway:

Serum albumin levels were impacted in cows fed Amulet.^{3,4}

● Control ● FORTIVA® AMULET®

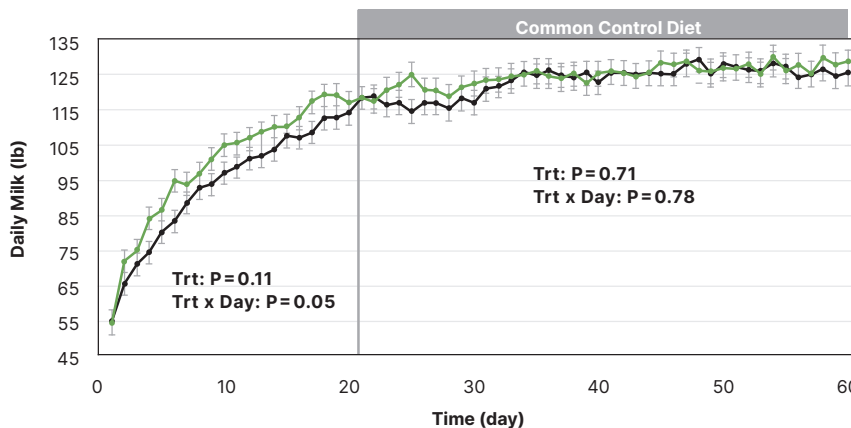


AMULET AND MILK PRODUCTION DURING THE TRANSITION PERIOD³

Key takeaway:

Cows fed Amulet during the first 20 days of lactation demonstrated a tendency for a difference in energy-corrected milk of 9.5 lbs./d.⁴

● Control ● FORTIVA® AMULET®



Using Amulet

Amulet feed technology is recommended to be incorporated into dairy rations (13g per head per day). Including Amulet into a sound nutritional program is an essential part of mitigating the negative consequences of stress on the dairy cow.

For further questions about Amulet, talk to your Fortiva representative.

References

- ¹ Kerwin, AL et al. Transition cow nutrition and management strategies of dairy herds in the northeastern United States: Part II-Associations of metabolic- and inflammation-related analytes with health, milk yield, and reproduction. *Journ. Dairy Sci.* 2022. 105(6):5349-5369. DOI: <https://doi.org/10.3168/jds.2021-20863>
- ² Cattaneo, L et. al. Plasma albumin-to-globulin ratio before dry-off as a possible index of inflammatory status and performance in the subsequent lactation in dairy cows. *Journ. Dairy Sci.* 2021. 104(7), 8228-8242. DOI: <https://doi.org/10.3168/jds.2020-19944>
- ³ Transition Cow Study; DC610, Purina Animal Nutrition Center, 2022.
- ⁴ Daley, VL, Bradley, CMK, Genter-Schroeder, ON. Effects of synbiotic supplementation on postpartum performance and markers of inflammation in transition dairy cows. Conference abstract #91477, 2024 ADSA Annual Meeting, West Palm Beach, Florida.

©2024 PMI Nutrition, LLC. All rights reserved.