عنوان مقاله:

The Comparison of the Amount of Methionine Supply by Different Rumen-Protected Methionine Sources

محل انتشار:

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خلاصه مقاله:

Bioavailability of three rumen protected Methionine (Met) sources with different protection methods (Mepron® M۸۵, Evonik Industries, Germany; Methioplus®, Soda Nutrition, Italy and Methilock®, Tehrandaneh Co. Iran) were evaluated in ۲ experiments with ۶ canulated non-lactating Holstein cows. In experiment ۱, the ruminal in situ and mobile bag techniques were used for assessing ruminal degradability and intestinal digestibility of Met from the protected Met sources. The rate of disappearance of Met from Mepron® M۸۵ was lower than Methioplus® (۲.۹۴ vs. ۵.۷۳ % h-۱). Mepron® M۸۵ had more resistance to ruminal degradation than Methioplus® (۸۲.۷۸ vs. ۶۸.۵۱%), but the higher intestinal digestibility of Methioplus® resulted in similar amounts of available Met for two products. Because of high washing out loss from in situ bags, ruminal degradation was not estimated for Methilock®. In the second experiment, Met availability was assayed by the blood Met response after ۵ days feeding each product in comparison to pretreatment levels utilizing a ۳×۳ Latin square design. Three Met sources increased blood Met concentration significantly after ۵ days feeding (۳۷.۵, ۵۲.۲۳ and ۴۴.۳۹% for Methilock®, Mepron® and Methioplus® respectively). Results of the present study showed that the three RPM sources increased blood Met concentration. This study also suggests that the in situ method may not adequately characterize the availability of rumen protected amino acids, especially those of small particle size.

کلمات کلیدی:

Blood Response, Holstein cow, Intestinal Disappearance, Methionine, Ruminal degradability