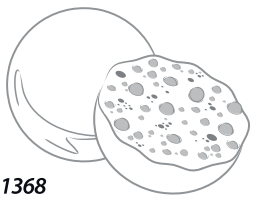

#31368

Rumen-protected methionine product in lactating dairy cows

V. Sáinz de la Maza[1], B. Rossi[2], R. Paratte[2], A. Piva[2,3] and E. Grilli[3,4]

[1]Department of Animal Production, University of Lleida, Lleida, Spain, [2]Vetagro S.p.A, Reggio Emilia, Italy, [3]DIMEVET, University of Bologna, Ozzano dell'Emilia, Bologna, Italy, [4]Vetagro Inc., Chicago, IL.

INTRODUCTION:

Methionine is the first limiting amino acid for milk and protein production in lactating dairy cows (Holstein) fed corn-based diets. It has been observed that the use of rumen-protected methionine (RPMet) products improves the efficiency of the nitrogen (N) metabolism by increasing production performance and decreasing N excretion.

The objective is to evaluate the effect of supplementing a RPMet product (Timet®; VETAGRO S.p.A.; Reggio Emilia, Italy) on lactation performance in high-yielding dairy cows.

MATERIALS & METHODS:

The trial was conducted at La Saireta dairy farm; Vallfogona de Balaguer, Spain. Ninety-nine multiparous Holstein cows with an average number of calving of 2.4 and producing 32.5L of milk per day were used in a 3-period switchback design. The RPMet product was supplemented 25g/d per head during the Timet® (TMT) treatment. Timet® contains 55% of DL-Met microencapsulated in a lipid matrix. Cows were fed a TMR formulated to provide 16.7% CP, 29% Starch, and 32% NDF with 2793 g/d of MP and 2.93 of Lys:Met. Milk yield was recorded individually and daily. A milk tank sample was collected every two days and analyzed for protein, fat and urea. Data were analyzed using MIXED model procedures including cows random effect (JMP pro 13®).

CONCLUSIONS:

Milk protein and milk fat were significantly increased by Timet® supplementation. During TMT treatment it was possible to observe a trend in lowering milk urea (P=0.43).

	CTR1	TMT	CTR2	*P*-value
Protein (% w/w)	3.35 ± 0.021[b]	3.43 ± 0.020[a]	3.38 ± 0.026[ab]	0.026
Fat (% w/w)	3.63 ± 0.027[b]	3.75 ± 0.026[a]	3.71 ± 0.034[ab]	0.013
Urea (mg/L)	193.0 ± 6.89[a]	180.8 ± 6.64[a]	189.9 ± 8.78[a]	0.434

Table 1. Mean values ± SD of protein (A), fat (B) and urea (C). Values within the same row with different superscripts are significantly different (P< 0.05).

SUPPORT:

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REFERENCES:

[1]Burhans, W. S. 2016. Updates to the CNCPS. Implications of Changes in v6.55. [2]Zang, Y. et al. 2017. The Professional Animal Scientist. 33(6): 692-99. [3]NRC 2001. 7th Revised Edition

HEADQUARTERS:
Vetagro S.p.A.
Via Porro 2 42124 Reggio Emilia - Italy
info@vetagro.com
infowesteu@vetagro.com
Tel: +39 0522 186 1500
Fax: +39 0522 927025
www.vetagro.com

OTHER LOCATIONS:
Vetagro Eastern Europe Kft.
Váci utca 81 1056 Budapest - Hungary
infoeasteu@vetagro.com
Tel: +39 0522 186 1500
Fax: +39 0522 92 7025

Vetagro Yem Ticaret A.Ş.
Levent Mahallesi, Cömert Sokak, No: 1
Yapı Kredi Plaza C blok Kat:17 No:40-41
Ofis:16 34330 Beşiktaş - Istanbul
info@vetagro.com
Tel: +90 212 318 9059
Fax: +90 212 317 4701

Vetagro Inc.
116 W Jackson Blvd Suite #320,
Chicago, IL 60604 - USA
infousa@vetagro.com
Tel: +1 773 610 2087
Fax: +1 773 442 0131