

EFFECT OF THE RUMITECH IN A HIGH-FORAGE DIET ON FECES METHANE AND BIOGAS PRODUCTION IN DAIRY COWS

Adam Cieslak¹, Jakub Mazurkiewicz², Jacek Dach², Malgorzata Szumacher-Strabel¹, Mateusz Kalek¹,
Pola Sidoruk¹, Dorota Lechniak³, Paul Galama⁴, and Abele Kuipers⁴,

¹Poznan University of Life Sciences, Department of Animal Nutrition, Poznan, Poland

²Poznan University of Life Sciences, Department of Biosystems Engineering, Poznan, Poland

³Poznan University of Life Sciences, Department of Genetics and Animal Breeding, Poznan, Poland

⁴Wageningen Livestock Research, Wageningen, Netherlands



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Rumitech is an essential oil blend with low molecular weight molecules and a mixture of secondary metabolites extracted from the plant volatile fraction by distillation.

Our hypothesis states that Rumitech supplementation in the TMR ration of the dairy cow would improve dietary digestibility which increases the efficiency of the use of feces' organic matter for biogas production.

20 g per cow per day
of Rumitech



INCREASE THE EFFICIENCY OF THE USE OF
FECES FOR BIOGAS PRODUCTION



CONTROL GROUP

diet rich in BREWER'S GRAIN
and BEET PULP (20 %)

EXPERIMENTAL GROUP

control diet with RUMITECH

4 cannulated dairy cows

replicated 2 (groups) × 2 (periods)
crossover design

The period was conducted for 39 days

RESULTS

An increase in the methane and biogas production was observed

(+15.2 % and 14.4 % for the experimental group),

The **dry organic matter content** in the experimental samples (feces) was more than 1.5 %
lower than in the control (better ruminal fermentation)

CONCLUSION

Rumitech supplementation (20 g/day/cow) in the TMR ration of the dairy cow
improved the ruminal fermentation parameters (**better digestion**),
and **increased the efficiency** of the use of feces' organic matter for biogas production.