Book of Abstracts of the 69th Annual Meeting of the European Federation of Animal Science

Book of Abstracts of the 69th Annual Meeting of the European Federation of Animal Science

Dubrovnik, Croatia, 27th – 31st August, 2018

EAAP Scientific Committee:

E. Strandberg
G. Savoini
H.A.M. Spoolder
H. Sauerwein
M. Tichit
M. Klopčič
J. Conington
E.F. Knol
A.S. Santos
T. Veldkamp
I. Halachmi
G.E. Pollott

EAN: 9789086863235
e-EAN: 9789086868711
ISBN: 978-90-8686-323-5
e-ISBN: 978-90-8686-871-1
DOI: 10.3920/978-90-8686-871-1

ISSN 1382-6077

First published, 2018

© Wageningen Academic Publishers
The Netherlands, 2018

Wageningen Academic
P u b l i s h e r s

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned. Nothing from this publication may be translated, reproduced, stored in a computerised system or published in any form or in any manner, including electronic, mechanical, reprographic or photographic, without prior written permission from the publisher:
Wageningen Academic Publishers
P.O. Box 220
6700 AE Wageningen
The Netherlands
www.WageningenAcademic.com
copyright@WageningenAcademic.com

The individual contributions in this publication and any liabilities arising from them remain the responsibility of the authors.

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the European Federation of Animal Science concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The publisher is not responsible for possible damages, which could be a result of content derived from this publication.

Welcom

On behalf of t
69th Annual M
held in the Val
Mediterranean

For decades, th
not only from E
insights into th
for industry an
Carried out thr
in the Europea
ideas in practi
knowledge exc
animal science
than 50 countr

The main topi
new challenge
The programm
as genetics, nu
horses, poultry

We are delega
on translating

Assist. Prof. Zdr
Chairman of th
Croatian Agric

Sainfoin pellets for preventive parasite control and improved protein efficiency in dairy goats

S. Werne[1], N. Arnold[2], E. Perler[1] and F. Leiber[1]
[1]Research Institute of Organic Agriculture, Department of Livestock Sciences, Ackerstrasse 113, 5070 Frick, Switzerland, [2]ZHAW Life Sciences und Facility Management, Gruentalstrasse 14, 8820 Waedenswil, Switzerland; steffen.werne@fibl.org

The legume sainfoin (*Onobrychis viciifolia*) containing condensed tannins is often associated with beneficial effects when used in animal husbandry. We tested two potentially beneficial effects by feeding 700 g sainfoin or 700 g alfalfa pellets to 10 dairy goats each. Target parameters were nematode egg excretion per gram faeces (EPG) and daily milk protein and urea yields. Our hypothesis was that the diet with sainfoin pellets would reduce the EPG of the goats in order to reduce pasture infectivity and subsequently the severity of the infection level of the goats. Beyond that, we hypothesised that the condensed tannins will improve ruminal protein-efficiency indicated by lower urea and higher protein yields with the goat milk. During a trial period of 7 weeks, EPG, milk protein and urea yield per animal and day was measured regularly. Except for milking and pellet feeding, all animals were kept in one group and had access to pasture for approx. 5 hours daily. Beyond the experimental feeds and pasture, all goats had *ad libitum* access to non-tanniferous hay when stabled. Intake from pasture or hay was not determined. Concentration of condensed tannins in sainfoin and alfalfa was 4 and 0.3%, respectively. Crude protein content corrected for 100% dry matter was 18.2% for sainfoin and 20.1% for alfalfa. Even though arithmetic average of EPG in the sainfoin group was 18% lower compared to the control group, a repeated measurement analysis could not reveal significant differences (P=0.148). Likewise, total daily milk protein (P=0.700) and total daily urea (P=0.410) per animal did not differ between groups. In many cases, other studies making use *ad libitum* sainfoin diets, resulted in reduced EPG. As a dose dependent effect for condensed tannins is assumed, and the 700 g sainfoin roughly corresponds to one third of the total daily dry matter intake, the total amount of condensed tannins in our trial might have been too low to provoke an effect. There were no indications of a sainfoin-effect on protein efficiency at all.

More methionine in sows and piglets diets for better growth and immune response of weaned piglets

B.Y. Xu[1], L. Zhao[1], D.I. Batonon-Alavo[2], Y. Mercier[2], D.S. Qi[1] and L.H. Sun[1]
[1]Huazhong Agricultural University, Department of Animal nutrition and Feed Science, Wuhan, Hubei, 430070, China, P.R., [2]ADISSEO France SAS, CERN, 6 Route Noire, 03630, Malicorne, France; dolores.batonon-alavo@adisseo.com

The objective of this study was to determine the effects of an increased consumption of methionine either as DL-Met (DLM) or HMTBA (OH-Met) by sows and piglets on the ability of piglets to cope with an inflammatory challenge during the post-weaning period. Sows received during the last month of gestation and the lactating period three treatments: a control diet at the requirement in TSAA and two treatments supplemented with either DLM or OH-Met at 25% above the requirement. During the lactating period, protein and lactose contents in the milk were significantly increased with OH-Met in comparison to DLM and the Control. At postnatal d14, piglets fed OH-Met or DLM had higher body weights than control-fed piglets. Piglets were weaned at 21d and received three diets consistently with sows' diets: a control diet at the requirement in TSAA (CON-P) and two treatments DLM (DLM-P) or OH-Met (OH-Met -P) supplemented 25% above TSAA requirement. After 2 weeks of feeding, 20 male piglets from each treatment were submitted to a 2×3 factorial design that included the dietary treatments and immunological challenge (saline and LPS) at d35. Growth performance of piglets were measured at d35, d49 and d63 respectively. At d35, piglets were significantly heavier in OH-Met-P group (8.47±0.38 kg) than in CON-P group (7.66±0.24 kg), DLM-P group (8.25±0.27 kg) was intermediate. The LPS significantly affected piglet performance in all groups. However, OH-Met-P and DLM-P fed piglets showed the highest body weights following the LPS challenge at d49 and d63, compared to the CON-P. Moreover, body weight gain and feed to gain ratio were improved in the OH-Met-P treatment during and after LPS stress. OH-Met is known to be better trans-sulfurated than DLM, thus leading to more glutathione in comparison to DLM. This improved antioxidant status might explain the better growth performance observed with OH-Met under LPS stress.