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Preliminary conference program

72nd Conference

of the Society of Nutrition Physiology

13th – 15th March 2018 in Göttingen

Gesellschaft für Ernährungsphysiologie (GfE) e. V.

Eschborner Landstraße 122

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Agenda

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Lecture Hall 008

Tuesday, 13th March 2018

13:00 – 13:30 h	Opening and welcom Prof. Dr. Wilhelm Windisch, Chairman of the Society of Nutrition Physiology Prof. Dr. Elke Pawelzik, Dean of Faculty of Agricultural Sciences, Georg-August-Universität Göttingen
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Section 1 Digestion

13:30 h	Oral presentations
136 1	Effects of pancreatic exocrine insufficiency (with or without pancreatic enzyme therapy) on ileal and faecal microbiota of ileo-caecal fistulated minipigs <i>*Mößeler A., Vital M., Rath S., Handl S., Schulden L., Kamphues J. - Hanover/Braunschweig/Vienna</i>
115 2	Influences of different feather meal in diets for dogs on praecaecal and total tract digestibility of nutrients – a study using dogs and ileo-caecal fistulated Göttingen mini-pigs <i>*Schulden L., Mößeler A., Kölln M., Kamphues J. - Hanover</i>
77 3	Influence of formula-feeding and Clostridium difficile-infection on intestinal microbiota composition and the abundance of antibiotic resistance genes in neonatal piglets <i>*Pieper R., Dadi T., Grzeskowiak L., Schwarz S., Martínez-Vallespín B., Pieper L., Vahjen W., Franke A., Reinert K., Zentek J. - Berlin/Kiel</i>

Section 1 Digestion

14:15 h	Poster
13 4	Effect of the gradual replacement of grains with bakery products on ruminal fermentation, nutrient degradation and microbiome <i>in vitro</i> <i>Kaltenegger A., Zebeli Q., Aditya S., Klevenhusen F., Petri R., *Humer E. - Vienna</i>
18 5	Validation of the RumiWatchSystem for measuring chewing activity in dairy cows <i>*Steinmetz M., Hummel J., Meyer U., von Soosten D., Dänicke S. - Braunschweig/Göttingen</i>
37 6	Microbial protein formation of different carbohydrates <i>in vitro</i> <i>*Pfau F., Hummel J. - Göttingen</i>
108 7	Wheat bran in diets for laying hens: Effect on nutrient digestibility/retention and adaption time <i>*Wanzenböck E., Schedle K., Kneifel W. - Vienna</i>
113 8	Studies on occurrence of gastro- and enteroliths in the alimentary tract of adult domesticated ostriches <i>*Schuchmann F., Kamphues J., Pfarrer C. - Hanover</i>
116 9	The digestibility of two extruded complete diets for dogs based on either chicken as a conventional protein source or insect meal from <i>Hermetia illucens</i> <i>*Meyer L., Kölln M., Kamphues J. - Hanover</i>
119 10	Experimental and laboratory studies on effects of the grinding intensity of feed grain (wheat/barley/rye) on "extract viscosity" <i>*Grone R., Kamphues J., Ratert C., Kölln M., von Felde A., Grone R. - Hanover/Bergen</i>
121 11	Effect of dietary lignocellulose on the animal performance and intestinal microbiota in slow growing male chickens <i>*Metzger F., Röhe I., Zentek J. - Berlin</i>
159 12	Effect of low feed intake levels on digesta passage and nutrient digestibility in Boran steers <i>*Schlecht E., Ali A. I. M., Wassie S. E., Korir D., Goopy J., Merbold L., Butterbach-Bahl K., Dickhoefer U. - Witzenhausen/Stuttgart-Hohenheim/Nairobi</i>
92 13	Effect of rearing environment and diet on microbial colonization patterns in neonatal piglets <i>*Pieper R., Martínez-Vallespín B., Grzeskowiak L., Vahjen W., Zentek J. - Berlin</i>

Agenda

Lecture Hall 009

Tuesday, 13th March 2018

Section 2 AMINO ACIDS AND NITROGEN

13:30 h	Oral presentations
68 15	Influence of lowering the level of specific amino acids in the diet on the course of an experimental <i>Campylobacter jejuni</i> infection in broilers <i>Klingenberg L., Hankel J., Brehm R., Langeheine M., Helmbrecht A., *Visscher C. - Hanover/Hanau-Wolfgang</i>
128 16	Protease and phytase supplementation effects on microbiota composition in the ileum and amino acid digestibility in broiler chickens <i>*Borda-Molina D., Zuber T., Camarinha-Silva A., Feuerstein D., Rodehutsord M. - Stuttgart/Lampertheim</i>

Section 2 AMINO ACIDS AND NITROGEN

14:00 h	Poster
34 17	Growth, plasma metabolites and free amino acid concentrations in low and normal birth weight piglets in the neonatal period <i>*Li Z., Sciascia Q. L., Görs S., Rayatdoost F., Chen W., Tuchscherer A., Metges C. C. - Dummerstorf/Guangzhou City</i>
44 18	First investigations on the optimal methionine:cysteine ratio in diets for growing chickens with a <i>Tenebrio molitor</i> press cake as an alternative protein source <i>*Brede A., Sünder A., Wecke C., Liebert F. - Göttingen</i>
47 19	L-Valine requirements of broilers in starter period, 0-12 days <i>*Khan D. R., Siebert D., Agostini P. - Schwalbach am Taunus/Lelystad</i>
72 20	Effect of low crude protein concentrations and varying glycine and serine concentrations on growth and nitrogen efficiency in broilers <i>*Hofmann P., Siegert W., Naranjo V., *Rodehutsord M. - Stuttgart/Hanau</i>
82 21	Effect of a surplus dietary L-arginine supply on the nitrogen metabolism of restrictively fed growing cockerels <i>*Lieboldt M.- A., Halle I., Frahm J., Dänicke S. - Rostock/Braunschweig</i>
14 22	Effect of partial dietary replacement of L-methionine by DL-2-hydroxy-4-methylthiobutyrate or DL-methionine on glutathione metabolism and oxidative stress in weaned pigs <i>Rasch I., Görs S., Tuchscherer A., Saremi B., Htoo J. K., *Kuhla B., Metges C. C. - Dummerstorf/Hanau</i>
32 23	Different levels of L-Glutamine affect the integrity and viability of the porcine intestinal cell line IPEC-J2, <i>in vitro</i> <i>*Grzeskowiak L., Collignon L., Vahjen W., Zentek J. - Berlin</i>
43 24	Effects of grain species, genotype and starch quantity on the postprandial plasma amino acid response in horses <i>Bachmann M., Czetö A., Romanowski K., Vernunft A., Wensch-Dorendorf M., Wolf P., Metges C. C., *Zeyner A. - Halle (Saale)/Rostock/Dummerstorf</i>
58 25	Amino acid ratios in feather, feather-free and whole body protein of meat-type chickens as related to the recommended ideal dietary amino acid ratio <i>*Wecke C., Sünder A., Liebert F. - Göttingen</i>
59 26	Investigations on the amounts of crude protein and amino acids of organically cultivated winter cereals (wheat, rye, and triticale) <i>*Witten S., Aulrich K. - Westerau</i>

Agenda

Lecture Hall 008

Tuesday, 13th March 2018

Continuation Section 1 Digestion

14:45 h	
152 14	Effect of nitrogen supply, nitrogen source and buffer medium on <i>in vitro</i> rumen gas production and <i>in vitro</i> degradability of different carbohydrates <i>*Camborda S., Kand D., Selje-Aßmann N., Dickhoefer U. - Stuttgart</i>

14:48 – 15:15 h	Poster session (4-14; 39-42)
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15:15 – 15:45 h	Coffee break
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Section 3 ENVIRONMENT

15:45 h	Oral presentations
91 36	Antioxidative and metabolic responses in the jejunum of heat-stressed dairy cows <i>*Koch F., Dirk A., Kuhla B. - Dummerstorf/Greifswald</i>
109 37	Effect of hazel (<i>Corylus avellana</i>) leaves on methane and urinary nitrogen emissions by sheep <i>Wang S., Terranova M., Kreuzer M., Marquardt S., Eggerschwiler L., *Schwarm A. - Zürich/Posieux</i>
140 38	Grazing biodiverse mountainous pastures with different slopes throughout summer season affects feeding behaviour and diet selection of dairy cows <i>*Koczura M., Verdel V., Bouchon M., Turille G., Berard J., Kreuzer M., Martin B., Farruggia A. - Zürich/Saint Genès Champanelle/Marcenat/Aosta</i>

16:30 h	Poster
3 39	Measuring methane emissions of cows fed with different concentrate proportions making use of the GreenFeed system <i>*Schäfers S., von Soosten D., Meyer U., Dänicke S. - Braunschweig</i>
29 40	Comparison of the quality of methane prediction equations containing a different selection and number of individual or groups of milk fatty acids as explanatory variables <i>*Engelke S. W., Daş G., Derno M., Tuchscherer A., Berg W., Kuhla B., Metges C. C. - Dummerstorf/Potsdam</i>
70 41	Investigations on the additivity of the effects of polyphenol rich plant extracts in methane mitigation <i>in vitro</i> <i>*Sinz S., Marquardt S., Liesegang A., Kreuzer M. - Zürich</i>
76 42	Effect of flooring design (with/without litter/floor heating) in poultry (broiler/turkey) on development of body weight, feed conversion ratio and water to feed ratio <i>*Chuppava B., Visscher C., Kamphues J. - Hanover</i>

Agenda

Lecture Hall 009

Dienstag, 13. März 2018

Continuation Section 2 AMINO ACIDS AND NITROGEN

14:30 h	Poster
62 27	Investigations on the role of pancreas in degradation of branched chain amino acids in the pig <i>*Wessels A. G., Solà Oriol D., Franco i Rosselló R., Pérez Hernández F. - Barcelona</i>
75 28	Experimental study to test choice preference of diets with different protein levels depending on diet colour and water temperature in <i>Nile tilapia</i> <i>Abd El-Wahab A., *Visscher C., Teitge F., Steinhagen D. - Mansoura/Hanover</i>
89 29	Influence of a constant lysine arginine ratio in gradually crude protein reduced diets on performance and foot pad health in broilers <i>Ullrich C., Siebert D., *Visscher C. - Hanover/Schwalbach</i>
95 30	Response of piglets and fattening pigs to amino acid optimization of mixed diets with 50% replacement of soybean-meal by partly defatted insect meal (<i>Hermetia illucens</i>) or meal from micro algae (<i>Spirulina platensis</i>) <i>*Velten S., Neumann C., Liebert F. - Göttingen</i>
118 31	Effects of different dietary cysteine levels on performance and parameters of skin health in growing turkeys <i>*Kabuß V.-L., Kölln M., Helmbrecht A., Meißner J., Beyerbach M., Kamphues J. - Hanover/Hanau</i>
41 32	Protein quality of piglet diets with a high inclusion level of algae meal (<i>Spirulina platensis</i>) or insect meal (<i>Hermetia illucens</i>) by graded fortification of dietary amino acid supply <i>*Neumann C., Velten S., Liebert F. - Göttingen</i>
45 33	Effect of differently conserved herbage on nitrogen efficiency in dairy cows <i>Böttger C., Dohme-Meier F., Südekum K.-H., *Wyss U. - Bonn/Posieux</i>

14:51 – 15:15 h	Poster session (17-33)
15:15 – 15:45 h	Coffee break

Continuation Section 2 AMINO ACIDS AND NITROGEN

15:45 h	Oral presentations
12 34	Do reduced IGF-1 levels modulate Vitamin D metabolism in young goats? <i>*Firmenich C., Breves G., Muscher-Banse A. - Hanover</i>
139 35	Effects of insect meal from <i>Tenebrio Molitor L.</i> on the phospholipid composition and desaturation of fatty acids in the liver of obese rats <i>*Gessner D. K., Meyer S., Most E., Berezina N., Hubert A., Liebisch G., Eder K. - Giessen/Évry/Regensburg</i>

Agenda

Lecture Hall 008

Tuesday, 13th March 2018

Section 4 UNDESIRABLE SUBSTANCES

16:45 h	Oral presentations
23 43	Detoxification of deoxynivalenol (DON)-contaminated maize with sodium sulfite (Na ₂ SO ₃) and its impact on performance and mycotoxin plasma concentration in fattening pigs <i>*Bahrenthien L., Kluess J., Berk A., Kersten S., Winkler J., Schatzmayr D., Schwartz-Zimmermann H., Zeyner A., Dänicke S. - Braunschweig/Tulln/Halle</i>
145 44	Effects of oral endotoxin administration in heat stressed broilers <i>*Reisinger N., Emsenhuber C., Schatzmayr G., Grenier B. - Tulln</i>

18:00 h Awards of the Henneberg-Lehmann- Foundation
at Old Assembly Hall of the University at Wilhelmsplatz
followed by dinner

Agenda

Lecture Hall 009

Tuesday, 13th March 2018

Section 5 ENERGY

16:15 h	Oral presentations
53 45	Effects of lactational stage and conjugated linoleic acid supplementation on glucose metabolism during hyperglycemic clamps in dairy cows <i>Grossen-Rösti L., Kessler E., Tröscher A., Bruckmaier R., *Gross J. - Bern/Lampertheim</i>
36 46	Effects of body condition score and concentrate proportion on fat depot masses in dairy cows during the periparturient period and early lactation <i>*Bünemann K., von Soosten D., Meyer U., Zeyner A., Dänicke S. - Braunschweig/Halle</i>

16:45 h	Poster
54 47	Effects of CLA supplementation on inflammatory and metabolic responses during an intramammary LPS challenge in early lactating dairy cows <i>*Gross J., Grossen-Rösti L., Héritier R., Tröscher A., Bruckmaier R. - Bern/Lampertheim</i>
85 48	Effect of feeding regime on serum metabolites in neonatal Holstein calves reared with milk replacer from day 3 to 14 <i>post natum</i> <i>*Lieboldt M.- A., Hölterhinken M., Wolf P. - Rostock/Hanover</i>
122 49	Effects of varying energy concentration of roughage and concentrate levels on feed intake and performance of Simmental cows over two years <i>*Hertel-Böhnke P., Ettle T., Spiekers H. - Poing/Grub</i>
150 50	Digestive plasticity of roe deer in response to changes in diet energy and diet quality <i>*Dahl S.- A., Scheingraber M., Windisch W., König A. - Freising</i>
25 51	New data on renal energy excretion in ponies eating various types of feed <i>Kuchler M., *Kienzle E. - Oberschleißheim</i>
31 52	Impact of dietary lignocellulose on animal performance and body composition of dual-purpose laying hens during the laying period <i>*Röhe I., Urban J., Zentek J. - Berlin</i>

18:00 h Awards of the Henneberg-Lehmann- Foundation
at Old Assembly Hall of the University at Wilhelmsplatz
followed by dinner

Agenda

Lecture Hall 008

Wednesday, 14th March 2018

09:00 – 10:00 h	Invited Review: Linking post-absorptive metabolism of amino acids and ration formulation in dairy cows Dr. Hélène Lapierre, Sherbrooke Research and Development Centre, Agriculture and Agri-Food Canada
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10:00 – 10:30 h	Coffee break
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Section 6 TRANSPORT- AND EPITHELIAL PHYSIOLOGY

10:30 h	Oral presentations
93 56	Effect of diet and rearing on jejunal mucosal development, microbiota colonization and immune reactions in neonatal piglets <i>*Pieper R., Martínez-Vallespín B., Schlosser J., Ebner F., Kühl A., Hartmann S., Zentek J. - Berlin</i>
96 57	Effects of cinnamaldehyde on electrophysiological parameters of the porcine colon <i>in vitro</i> <i>*Manneck D., Schrapers K. T., Stumpff F. - Berlin</i>
126 58	Characterization of an inducible amino acid transporter in the porcine gastrointestinal tract <i>*Romanet S., Mastrototaro L., Pieper R., Zentek J., Htoo J. K., Saremi B., Aschenbach J. - Berlin/Hanau-Wolfgang</i>
38 59	Characterization of the bovine TRPV3 channel in <i>Xenopus</i> oocytes <i>*Liebe F., Liebe H., Vitzthum C., Käßmeyer S., Sponder G., Stumpff F. - Berlin</i>
66 60	Adaptation mechanisms to hypoxia in glucose transport across lagomorph jejunum epithelium <i>*Dengler F., Rackwitz R., Pfannkuche H., Gäbel G. - Leipzig</i>
135 61	Effect of rearing environment and diet on colon bacterial fermentation and barrier function in neonatal piglets <i>*Martínez-Vallespín B., Grzeskowiak L., Zentek J., Pieper R. - Berlin</i>

12:00 h	Poster
55 62	Exploring the allergenic potential of the absorption enhancer caprate <i>Radloff J., Cornelius V., Falchuk E., Markov A. G., *Amasheh S. - Berlin/Saint Petersburg</i>
125 63	Does butyrate have a protective effect on porcine colon epithelium under hypoxia? <i>*Kraetzig A., Gäbel G., Dengler F. - Leipzig</i>
134 64	Effects of cholera toxin on the epithelial barrier in rat small intestine <i>Markov A. G., Vishnevskaya O. N., Falchuk E. L., Okorokova L. S., Kruglova N. M., Rybalchenko O. V., *Amasheh S. - St. Petersburg/Berlin</i>

12:09 – 12:30 h	Poster session (62-64)
12:30 – 13:30 h	LUNCH

Agenda

Lecture Hall 009

Wednesday, 14th March 2018

09:00 – 10:00 h Invited Review at Lecture Hall 008

10:00 – 10:30 h	Coffee break
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Continuation Section 5 ENERGY

10:30 h	Oral presentations
8 53	Effects of different energy supply from roughage and concentrates on signs of subclinical ketosis and subacute ruminal acidosis in early lactating cows <i>*Schmitz R., Schnabel K., von Soosten D., Meyer U., Spiekens H., Rehage J., Dänicke S. - Braunschweig/Poing-Grub/Hanover</i>
67 54	Varying the energy density of the diet by roughage composition and the amount of concentrates: effects on the circulating concentrations of adiponectin in Holstein and in Simmental cows <i>*Urh C., Denißen J., Ettle T., Meyer U., Schmitz R., Stamer E., Spiekens H., Sauerwein H. - Bonn/Kleve/Poing/Braunschweig/Westensee/Brux</i>
19 55	Effects of intensive milk feeding and butyrate supplementation on sucking behaviour, health and immune status in German Holstein calves <i>Gerbert C., Frieten D., Koch C., Dusel G., Eder K., Stefaniak T., Jawor P., Bajzert J., Tuchscherer A., *Hammon H. M. - Münchweiler a. d. Alsenz/Bingen/Gießeln/Breslau/Dummerstorf</i>

Section 8 FEED ADDITIVES

11:15 h	Oral presentations
26 75	Effects of algae β -glucan supplementation on the performance and the intestinal immune system of weaned piglets <i>*Zeitl J. O., Gutöhrlein F., Block T., Henrich M., Most E., Whelan R., Htoo J. K., Eder K. - Gießen/Hanau-Wolfgang</i>
78 76	Effect of high or low dietary zinc oxide or Zn-Lysinate on the colon microbiome in weaned piglets <i>*Pieper R., Dadi T., Pieper L., Vahjen W., Franke A., Reinert K., Zentek J. - Berlin/Kiel</i>

11:45 h	Poster
7 77	Effects of <i>Scrophularia striata</i> extract supplementation on the rumen microbiome and fermentation <i>in vitro</i> <i>*Petri R., Bagheri-Varzaneh M., Klevenhusen F., Zebeli Q. - Vienna/Tehran</i>
64 78	Circadian eating behaviour of sheep fed diets supplemented with menthol-based bioactive lipid compounds <i>*Patra A. K., Geiger S., Braun H.-S., Aschenbach J. R. - Berlin/Kolkata</i>
79 79	Case report: Impaired locomotion in fattening turkeys due to vitamin A deficiency? <i>Abd El-Wahab A., Visscher C., Kölln M., Ratert C., Diephaus D., Beineke A., *Kamphues J. - Mansoura/Hanover/Cloppenburg</i>
149 80	Effects of a probiotic on B-cells from German Landrace sows <i>*Larsberg F., Korkuc P., Wöltje N., Hildebrandt K., Brockmann G. A., Kreuzer-Redmer S. - Berlin</i>
39 81	Supplementation of chestnut extract reduces severity of post-weaning diarrhoea in artificially infected piglets <i>*Girard M., Pradervand N., Silacci P., Bee G. - Posieux</i>

Agenda

Lecture Hall 008

Wednesday, 15th March 2017

Section 7 MINERALS

13:30 h	Oral presentations
4 65	A comparison of faecal and renal phosphorus excretion after excessive intake of monophosphate from calcium and potassium monophosphate in adult cats <i>*Dobenecker B., Schaschl C., Weibel A., *Kienzle E. - Oberschleißheim</i>
81 66	Genetic selection on high daily egg mass production improved the utilization of dietary calcium for egg synthesis in laying hens <i>*Lieboldt M.- A., Sievers H., Halle I., Hüther L., Dänicke S. - Rostock/ Braunschweig</i>
86 67	Cluster analyses on the adaption of zinc reservoirs in weaned piglets challenged with short-term finely-graded reduction in dietary zinc supply <i>*Brugger D., Windisch W. - Freising</i>

14:15 h	Poster
24 68	Investigations on solubility of dietary phosphorus in water and acid medium from foods and mineral sources in companion and food producing animal nutrition <i>*Lineva A., Kienzle E., Dobenecker B., Kirchner R., Kamphues J. - Oberschleißheim</i>
51 69	A simple indicator for phosphorus availability in growing pigs <i>*Böswald L., Kienzle E. - Oberschleißheim</i>
71 70	Correlations between different criteria of bone ash and phosphorus utilization in Japanese quail <i>*Künzel S., Beck P., Bennewitz J., *Rodehutschord M. - Stuttgart</i>
90 71	Short-term kinetics of tissue zinc exchange in 65Zn-labelled adult rats receiving sufficient dietary Zn supply <i>*Brugger D., Schlattl M., Buffler M., Windisch W. - Freising</i>
107 72	Composition of different types of bones in weaned piglets supplied with graded dietary phosphorus levels <i>*Miesorski M., Borgelt L., Lieboldt M.- A., Vollmar B., Gerlinger C., Oster M., Wimmers K., Wolf P. - Rostock/Dummerstorf</i>
130 73	Case report: Evaluation of the zinc status in a horse <i>*Kölln M., Künneke A., Kamphues J. - Hanover/Bispingen</i>
146 74	Influence of different iron supplementation strategies on oxidative stress parameters in the liver tissue of suckling piglets <i>*Buffler M., Becker C., Windisch W. - Freising</i>

Section 9 FEEDSTUFFEVALUATION AND FEEDING

14:40 h	Oral presentations
17 97	Gradual replacement of dietary maize grain with molassed sugar beet pulp modulates ruminal and hindgut fermentation profile in high yielding dairy cows <i>*Münnich M., Klevenhusen F., Zebeli Q. - Vienna</i>
11 98	Does fishmeal substitution by partly defatted insect meal (<i>Hermetia illucens</i>) or microalgae powder (<i>Arthrospira platensis</i>) impact on feed acceptance and growth of rainbow trout? <i>*Dietz C., Liebert F. - Göttingen</i>

Agenda

Lecture Hall 009

Wednesday, 14th March 2018

Continuation Section 8 FEED ADDITIVES

12:00 h	Poster
84 82	Effect of one-time postnatal administration of immunoglobulin and trace mineral providing feed supplements on corresponding serum levels in Holstein calves during the first 14 days <i>post natum</i> <i>*Lieboldt M.- A., Bekkering J., Wolf P. - Rostock/Loiching</i>
88 83	<i>Ex vivo</i> -studies on survival of <i>Salmonella Derby</i> in gastric contents of pigs fed a diet without/with Benzoic acid <i>*Sieverding J., Ratert C., Keller B., Kamphues J. - Hanover</i>
94 84	Methylmalonic acid concentrations in serum as an indicator of the vitamin B12 status in pigs <i>*Grützner N., Mößler A., Oppriesnig T., Heilmann R., Kamphues J., Steiner J., Nathues H. - Halle (Saale)/Hanover/Edinburgh/Leipzig/College Station/Bern</i>

12:09 – 12:30 h	Poster session (47-52; 77-84; 87-96)
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12:30 – 13:30 h	LUNCH
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Continuation Section 8 FEED ADDITIVES

13:30 h	Oral presentations
60 85	Effects of lactic acid treated by-products in a diet supplemented or not with inorganic P on ruminal fermentation and nutrient degradation <i>in vitro</i> <i>*Haselmann A., Klevenhusen F., Metzler-Zebeli B., Knaus W., Zebeli Q. - Vienna</i>
80 86	Increasing concentrations of a grape extract in broiler diets: Impact on histology and antioxidative status in the ileum <i>*Schwarz C., Schinwald K., Ringhofer I. L., Leitgeb R., Gierus M. - Vienna</i>

14:00 h	Poster
97 87	Effects of lignocellulose supplementation on performance, intestinal inflammation and the gut microbiome in broilers <i>*Zeitl J. O., Neufeld K., Potthast C., Kroismayr A., Most E., Eder K. - Giessen/Heiligenkreuz/Kremsmünster</i>
98 88	Effects of lignocellulose product containing lignans on performance and gut morphology in broilers <i>*Potthast C., Araújo L., Neufeld N., Kroismayr A. - Kremsmünster/Sao Paulo/Heiligenkreuz/Regau</i>
102 89	Modulation of the plasma metabolomic profile in cows challenged with concentrate-rich diets supplemented with phytogenic compounds or autolyzed yeast <i>*Humer E., Kröger I., Neubauer V., Reisinger N., Zebeli Q. - Vienna/Tulln</i>
124 90	Effects of Masson Pine pollen (<i>Pinus massoniana</i>) on cytokine gene expression in HD11 chicken macrophages <i>in vitro</i> <i>*Brugger D., Schusser B., Schmidt E., Voss L., Shi L., Zhao L., Windisch W. - Freising/Yantai</i>
131 91	Phytase and phosphorus effects on the microbial ecology in the ileum of broiler chickens <i>*Borda-Molina D., Zuber T., Rodehutschord M., Camarinha-Silva A. - Stuttgart</i>

Agenda

Lecture Hall 008

Wednesday, 14th March 2018

Continuation Section 9 FEEDSTUFF EVALUATION AND FEEDING

15:10 h	Poster
110 99	Effect of soaking and steaming hay on the consumption rate and chewing activity in horses <i>*Bochnia M., Vogel L., Hillegeist D., Greef M., Zeyner A. - Halle (Saale)/ Braunschweig-Völkenrode</i>
83 100	Relationship between particle size distribution (PSD) and nutrient composition in samples of mash diets for laying hens and its potential diagnostic value for feed consulting <i>*Lieboldt M.- A., Borgelt L., Wolf P. - Rostock</i>
117 101	Influence of "controlled fermentation" on D- and L-lactic acid and volatile fatty acid contents in a cereal- and rapeseed meal-based liquid diet for pigs <i>*Bunte S., Ratert C., Kölln M., Kamphues J. - Hanover</i>

15:19 – 15:45 h	Coffee break
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Continuation Section 9 FEEDSTUFF EVALUATION AND FEEDING

15:45 h	Oral presentations
10 102	Does the substitution of soy protein by novel protein from microalgae <i>Arthrospira platensis</i> impair the dietary protein quality of Tilapia feed? <i>*Dietz C., Liebert F. – Göttingen</i>

16:00 h	Poster
147 103	The use of condensed tannins as silage additive for rehydrated corn grain: effects on silage fermentation pattern and losses <i>*Iank Bueno A., Cabreira Jobim C., Pratti Daniel J., Gierus M. - Maringá/Vienna</i>
6 104	Influence of different sources and length of fibers in the diet on the growth of broiler chickens <i>*Halle I., Sievers H., Hüther L., Dänicke S. - Braunschweig</i>
20 105	Comparison of the fermentation traits of the barley mutant rob1 and the wildtype barley cv. Optic in an <i>in vitro</i> incubation study using the Rusitec system <i>*Klevenhusen F., Emsenhuber C., Grausgruber H., Zebeli Q. - Vienna/Tulln</i>
33 106	Effects of a ration change from a Total Mixed Ration to Pasture combined with concentrate supplementation on metabolism of Dairy cows <i>*Hartwiger J., Schären M., Meyer U., von Soosten D., Kluess J., Breves G., Dänicke S. - Braunschweig/Hanover</i>
42 107	Comparison of two <i>in vitro</i> systems for the estimation of total gas production and utilisable crude protein at the duodenum from native or ensiled field peas and field beans in ruminants <i>*Bachmann M., Kuhnitzsch C., Martens S. D., Steinhöfel O., Zeyner A. - Halle (Saale)/Köllitsch</i>
57 108	Investigations on thiamine contents of organically produced cereals and grain legumes for poultry diets <i>*Witten S., Aulrich K. - Westerau</i>
69 109	Comparative evaluation of dietary energy concentration and breed on feed intake and growth performance of fattening bulls <i>*Ettle T., Obermaier A. - Poing/Grub</i>
74 110	<i>In vitro</i> investigations on the protein value of untreated and cell-disrupted microalgae for ruminants <i>*Wild K., Steingaß H., Rodehutscord M. - Stuttgart</i>

Agenda

Lecture Hall 009

Wednesday, 14th March 2018

Continuation Section 8 FEED ADDITIVES

14:15 h	Poster
154 92	Effect of phytogetic compounds or autolyzed yeast on the concentration of biogenic amines in the rumen fluid of cows challenged with concentrate-rich diets <i>*Kröger I., Humer E., Neubauer V., Schedle K., Reisinger N., Zebeli Q. - Vienna/Tulln</i>
16 93	Inflammasome signaling in porcine monocyte-derived dendritic cells after stimulation with probiotic <i>E. faecium</i> and enterotoxigenic <i>E. coli</i> <i>*Loss H., Aschenbach J., Tedin K., Lodemann U. - Berlin</i>
46 94	The effect of dietary carnitine supplementation and carnitine deficiency on the contractile and metabolic phenotype of skeletal muscle in growing pigs <i>*Ringseis R., Kaup D., Most E., Geyer J., Keller J., Eder K. - Gießen</i>
105 95	A feeding study on the potential impact of essential oils supplementation on calcium absorption in dairy cows <i>*Braun H.- S., Schrapers K. T., Mahlkow-Nerge K., Stumpff F., Rosendahl J. - Berlin/Osterröfelfeld</i>
157 96	Effects of the probiotic <i>Enterococcus faecium</i> NCIMB 10415 on primary cultured porcine adaptive immune cells <i>*Kreuzer-Redmer S., Larsberg F., Korkuc P., Wöltje N., Hildebrandt K., Brockmann G. A. - Berlin</i>

Section 10 OTHER TOPICS

14:30 h	Oral presentations
9 134	Effects of glyphosate residues in feedingstuffs; and different concentrate feed proportions on immunological, hematological and oxidative stress parameters of dairy cows in established lactation <i>*Schnabel K., Schmitz R., Frahm J., Meyer U., Breves G., Dänicke S. - Braunschweig/Hanover</i>
123 135	Impact of acute supplementary stress at slaughter on physiology and meat quality of fattening bulls <i>*Reiche A., Oberson J.- L., Silacci P., Dufey P.- A., Dohme-Meier F., Hess H.- D., Terlouw E. M. C. - Posieux/St-Genès-Champanelle</i>
114 136	Study on course of plasma levels of gastrointestinal hormones (glucose-dependent insulinotropic peptide [GIP], glucagon-like peptide 1 and 2 [GLP-1, GLP-2]) that are supposed to be involved in small intestinal elongation in juvenile pigs after experimentally induction of exocrine pancreatic insufficiency <i>*Mößeler A., Ahlfänger B., Hartmann B., Holst J. J., Brehm R., Kamphues J. - Hanover/Kopenhagen</i>

15:15 – 15:45 h	Coffee break
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Continuation Section 10 OTHER TOPICS

15:45 h	Oral presentations
127 137	Comparative histology of esophageal submucosal glands in pigs exposed to different diets and housing systems with regard to the incidence of gastric ulcers <i>*Rinke F., Brehm R., Langeheine M., Kamphues J. - Hanover</i>

Agenda

Lecture Hall 008

Wednesday, 14th March 2018

Continuation Section 9 FEEDSTUFFEVALUATION AND FEEDING

16:24 h	Poster
101 111	<i>In vitro</i> starch degradation and effective undegraded starch of different feedstuffs for ruminants *Ocasio-Vega C., Westreicher-Kristen E., Pferdmenges F., Rupp C., Susenbeth A., Wolffram S., Blank R. - Kiel
106 112	Methodological studies on the comparison of wet sieve analyses of pelleted compound feed *Borgelt L., Neuhauser H., Wolf P. - Rostock
63 113	Impact of increasing amount of Sainfoin in diets of entire male pigs on growth performance, carcass characteristics, meat quality traits and boar taint levels in the backfat *Seoni E., Battacone G., Silacci P., Ampuero-Kragten S., Dohme-Meier F., Bee G. - Posieux/Sassari
112 114	Colostrum supply in suckling piglets in herds with different serological <i>Salmonella</i> prevalence in piglet rearing *Schulte zu Sundern A., Holling C., Rohn K., Schulte-Wülwer J., Deermann A., Visscher C. - Hanover/Oldenburg/Meppen
132 115	Influences of higher dietary crude fibre levels on gains, behavioural disorders as well as on weight of organs (gizzard/liver) in fattening turkeys *Becker N., Kamphues J. - Hanover
133 116	Contents of precaecally digestible crude protein and amino acids and the amino acid profile of the total and insoluble crude protein fraction of compound feeds for horses *Zeyner A., Grünewald K.- H., Esser S., Südekum K.- H. - Halle (Saale)/Bonn
138 117	Comparison of the particle size distribution between offered pelleted compound feed and gastric chyme after intake by fattening pigs using different wet sieving methods *Borgelt L., Neuhauser H., Wolf P. - Rostock
141 118	Effect of rumen nitrogen balance on <i>in vitro</i> gas production and microbial protein synthesis from different nitrogen sources *Kand D., Castro-Montoya J., Dickhoefer U. - Stuttgart
142 119	Comparison of packing density and fermentation quality between shredlage and conventional corn silage *Frahmann G., Hünerberg M., Hummel J. - Göttingen
144 120	Roughage based diets for pregnant sows – apparent digestibility and nutritive value of whole plant silages of wheat and maize Schulz S., Visscher C., *Kamphues J. - Hanover
151 121	Forage and protein use efficiency in dairy cows grazing a mixed grass-legume pasture and supplemented with concentrates differing in protein and starch content *Dickhoefer U., Glowacki S., Gómez C., Castro-Montoya J. - Stuttgart/Lima
153 122	Growth performance and nutrient contents of several insect species fed with grass, silage and cobs *Paulicks B., Gassner M., Wohlschläger A., Windisch W. - Freising
158 123	Feeding the Edible Mediterranean Field Cricket <i>Gryllus bymaculatus</i> and the Desert Locust <i>Schistocerca gregaria</i> Forskål on base of storable feed substrates derived from maize, soybean, cowpea and carrots Straub P., Osuga I., Tanga C. M., *Windisch W., Subramanian S. - Freising/Nairobi

Agenda

Lecture Hall 009

Wednesday, 14th March 2018

Continuation Section 10 OTHER TOPICS

16:00 h	Oral presentations
120 138	Conjugation frequencies of ESBL-producing <i>Escherichia coli</i> donors and various <i>Enterobacteriaceae</i> recipients from poultry <i>*Saliu E.- M., Vahjen W., Zentek J. - Berlin</i>
56 139	Detection of toxic MCPG metabolites after ingestion of Sycamore Maple seeds in horses with Atypical Myopathy <i>*Bochnia M., Barnewitz D., Sander J., Weigang R., Klein C., Genzel A., Ziegler J., Terhardt M., Sander S., Janzen N., Zeyner A. - Halle (Saale)/Bad Langensalza/Hanover/Soest</i>

16:30 h	Poster
52 140	Changes of free and bound cortisol in plasma and saliva during an ACTH challenge in dairy cows and horses <i>Schwinn A.- C., Sauer F., Gerber V., Bruckmaier R., *Gross J. - Bern</i>
87 141	Investigations on the influence of different farrowing systems on colostrum supply and performance of piglets <i>Schnier S., Middendorf L., *Visscher C. - Hanover</i>
104 142	Effects of dose of pancreatic enzymes and extracorporeal predigestion of the diet on prececal digestibility of nutrients – study using ileo-cecal fistulated minipigs with exocrine pancreatic insufficiency as a model for canine patients <i>*Mößeler A., Schulten L., Kamphues J. - Hanover</i>
111 143	Feed intake patterns of fattening pigs exposed to short term disturbances in stable routine <i>*Loibl P., Spiekers H., Preißinger W., Windisch W. - Freising/Grub</i>
30 144	Trade-off between parasite resistance and tolerance in a high and a lower performing layer chicken genotype: short-term response to experimental nematode infections <i>*Stehr M., Dannenberger D., Grashorn M., Metges C. C., *Daş G. - Dummerstorf/Stuttgart</i>
129 145	Intake potential by cows of different woody and herbaceous plants rich in phenols <i>*Terranova M., Wang S., Kreuzer M., Eggerschwiler L., Schwarm A. - Zurich/Posieux</i>

Section 11 FATTY ACIDS

16:48 h	Oral presentations
15 146	Enhancing health-beneficial fatty acids in milk fat of early lactating cows by high-quality hay <i>*Khiaosa-ard R., Kleefisch M.- T., Zebeli Q., Klevenhusen F. - Vienna</i>

17:03 h	Poster
28 147	Effects of abomasal infusion of essential fatty acids and conjugated linoleic acid on hepatic energy metabolism including the somatotrophic axis of dairy cows fed a ration with reduced n-3 fatty acid content <i>Haubold S., Kröger-Koch C., Tuchscherer A., Tröscher A., Starke A., Hoeflich A., *Hammon H. M. - Dummerstorf/Lampertheim/Leipzig</i>
48 148	T and B cell subsets in neonatal calves depending on maternal conjugated linoleic acid and essential fatty acid supply <i>*Liermann W., Uken K. L., Viergutz T., Tröscher A., Hammon H. M. - Dummerstorf/Lampertheim</i>

Agenda

Lecture Hall 008

Wednesday, 14th March 2018

Continuation Section 9 FEEDSTUFF EVALUATION AND FEEDING

17:03 h	Poster
5 124	Influence of different energy, protein and NDF contents in the diet on the growth of broiler chickens <i>*Halle I., Sievers H., Hüther L., Dänicke S. - Braunschweig</i>
61 125	Effects of a partly defatted insect meal (<i>Hermetia illucens</i>) or micro algae (<i>Spirulina platensis</i>) in mixed diets on intestinal mucosal surface and mucin secretion of meat type chicken <i>*Gruber-Dujardin E., Velten S., Neumann C., Liebert F. - Göttingen</i>
99 126	Effects of soaking wheat and corn in lactic acid on the phytate-phosphorus and resistant starch content <i>*Vötterl J. C., Zebeli Q., Metzler-Zebeli B. U. - Vienna</i>
156 127	Effects of feed intake level on efficiency of microbial protein synthesis and nitrogen balance in Boran steers <i>*Wassie S., Dickhoefer U., Schlecht E., Ali A. I. M., Butterbach-Bahl K., Merbold L., Goopy J., Korir D. - Stuttgart/Göttingen/Nairobi</i>

17:15 – 17:45 h	Poster session (68-74; 103-127)
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18:00 h GfE Member meeting

Agenda

Lecture Hall 009

Wednesday, 14th March 2018

Continuation Section 11 FATTY ACIDS

17:09 h	Poster
49 149	Studies on chemokine receptor CXCR4 expression by bovine leukocytes and the effects of essential fatty acid supplementation in dairy cows fed a maize based ration <i>*Mielenz M., Haubold S., Kröger-Koch C., Viergutz T., Tuchscherer A., Tröscher A., Günther J., Schuberth H.-J., Hammon H. M., Revskij D. - Dummerstorf/ Limburgerhof/Hanover</i>

17:12 – 17:45 h	Poster session (87-96; 140-145; 147-149)
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18:00 h GfE Member meeting at Lecture Hall 008

Agenda

Lecture Hall 008

Thursday, 15th March 2018

Continuation Section 9 FEEDSTUFF EVALUATION AND FEEDING

09:00 h	Oral presentations
35 128	Impact of a ration change from a Total Mixed Ration to Pasture combined with concentrate supplementation on immune cell parameters of Dairy Cows <i>*Hartwiger J., Schären M., Frahm J., Kersten S., Meyer U., Breves G., Dänicke S. - Braunschweig/Hanover</i>
73 129	Ruminal crude protein degradation of hydrothermally processed full fat soybeans <i>*Krieg J., Titze N., Dell'Oro B., Steingäß H., *Rodehutschord M. - Stuttgart</i>
137 130	Yeasts in liquid swine diets – identification, growth at different temperatures and gas formation potential <i>*Keller B., Kuder H., Visscher C., Kamphues J. - Hanover</i>
65 131	How does the dietary inclusion of <i>Hermetia illucens</i> larvae meal affect the porcine intestinal microbiota? <i>*Seifert J., Burbach K., Camarinha-Silva A., Berk A., Daenicke S., Kluess J. - Stuttgart/Braunschweig</i>
100 132	Effect of feeding level and fecal microbiota transplant on serum parameters in chickens of diverging feed efficiency <i>*Metzler-Zebeli B., Siegerstetter S.- C., Zebeli Q. - Vienna</i>
148 133	Response to a diet composed of food industry by-products of late laying dual-purpose hens in comparison to layer hybrids <i>*Mueller S., Messikommer R. E., Kreuzer M., Gangnat I. D. M. - Zürich</i>

10:30 – 11:00 h	Coffee break & Snack
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Workshop: Dietary fiber in the nutrition of monogastric farm animals

11:00 h	Oral presentations
11:00	Development and implementation of fiber analysis in foods, feeds and digesta materials <i>Prof. Dr K.E. Bach-Knudsen, Aarhus University</i>
11:30	Modulatory abilities of dietary fiber on gut function – beneficial or physiologically costly? <i>PD Dr. Barbara Metzler-Zebeli, VetMed Uni Vienna</i>
12:00	Dietary fiber – its diverse effects on pig's health <i>Prof. Dr. Josef Kamphues, Stiftung Tierärztliche Hochschule Hanover</i>
12:30 – 13:00	Coffee break
13:00	The role of fibre with respect to feeding behaviour <i>Dr. Irena Czycholl, Institut für Tierzucht und Tierhaltung, CAU Kiel</i>
13:30	Dietary fiber displaces no concentrated feed and makes pigs less aggressive <i>Dr. W. Preißinger, LfL Bayern - Schwarzenau</i>

14:00 h Closing remarks

Agenda

Lecture Hall 009

Thursday, 15th March 2018

Continuation Section 11 FATTY ACIDS

09:00 h	Oral presentations
27 150	Milk fatty acid composition of cows fed varying red clover to maize silage ratios in the diet <i>*Schulz F., Westreicher-Kristen E., Molkentin J., Knappstein K., Susenbeth A. - Kiel</i>
21 151	Effects of essential fatty acids and conjugated linoleic acid on performance and energy metabolism in dairy cows fed a diet with reduced n-3 fatty acid content during the transition period <i>Vogel L., Gnott M., Kröger-Koch C., Weitzel J., Tröscher A., Starke A., *Hammon H. M. - Dummerstorf/Lampertheim/Leipzig</i>
22 152	Influence of essential fatty acids and conjugated linoleic acid on acute phase response, antioxidative status, retinol and α -tocopherol concentration in blood plasma of dairy cows fed a diet with reduced n-3 fatty acid content during the transition period <i>Gnott M., Vogel L., Kröger-Koch C., Starke A., Tröscher A., Trevisi E., *Hammon H. M. - Dummerstorf/Leipzig/Lampertheim/Piacenza</i>
50 153	Impact of the maternal supplementation with essential fatty acids and conjugated linoleic acid on the metabolism of neonatal calves: First results <i>Uken K. L., Vogel L., Gnott M., Weitzel J., Tuchscherer A., Tröscher A., Dannenberger D., *Hammon H. M. - Dummerstorf/Lampertheim</i>
103 154	Are rumen-protected n-3 and n-6 fatty acids differently incorporated into different bovine adipose tissues? <i>*Wolf C., Gredig N., Berard J., Ulbrich S. E., Kreuzer M., Giller K. - Zürich</i>
40 155	Increasing sainfoin proportion in dairy cows diets modifies fatty acid profile in milk <i>*Girard M., Grosse Brinkhaus A., Bee G., Battacone G., Nudda A., Dohme-Meier F. - Posieux/Sassari</i>

10:30 – 11:00 h	Coffee break & Snack
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Workshop at Lecture Hall 008 starts at 11:00 h

Agenda

General Information

1. Venue

Central lecture building (ZHG), lecture halls 008 and 009, University of Göttingen, Platz der Göttinger Sieben 5 (Weender Straße – Kreuzberggring), Göttingen.

2. Oral presentations

All speakers are restricted to 10 minutes, followed by 5 minutes of discussion. For poster presentations all speakers are restricted to 3 minutes (at most 2 charts). Speakers are asked to present briefly setting, methods and results. Presentations and posters should be prepared in English – also, if the lecture is delivered in German language. Posters have to be fixed on the respective poster wall at the beginning of the conference. During the poster sessions, which are scheduled in the programme, the authors will be present at their posters.

3. Accommodation

For accommodation please contact:

Göttingen Tourismus e.V., Markt 9/Altes Rathaus, 37073 Göttingen, Tel.:+49 (0)551/4 99 80-20, zimmerreservierung@goettingen.de, <http://www.goettingen-tourismus.de/ueber-nacht/hotels-und-gasthaeuser.html> .

4. Registration

Please register not later than **March 09th 2018** at: <http://www.gfe-frankfurt.de/jahrestagung.html> ; in short-term exceptional cases you may reach us at +49 (0)69/24788-322.

5. Conference fee

Non-members: **EUR 150,-** (discount for members of public authorities 50 %)

Members and their co-workers: **EUR 70,-**

Students: **EUR 25,-**

One-Day ticket: **EUR 100,-**

Please transfer the conference fee to bank account which will be posted at registration confirmation.

6. Meetings of the executive board

According to special invitation on March, 13th 2018.

7. Meeting of members

According to special invitation on March, 14th 2018, Lecture hall 008.

8. Conference office

Phone number: +49 (0)551/39 95 95