



# Network of experts

## SUPPORT FOR STRENGTHENING QUALITY CONTROL SYSTEMS IN ANIMAL FEED ANALYSIS LABORATORY IN DEVELOPING COUNTRIES

### AIM

Establish and improve Quality Control System in feed analysis laboratories in developing countries.

### FOR WHOM?

Technical Analysts and Laboratory Managers in feed industry and R&D institutions.

### HOW DOES IT WORK?

The experts listed on the Network have agreed to provide advice and guidance on quality control and regulatory aspects of feed analysis and on accreditation of laboratories to international standards. Technical Analysts and Laboratory Managers working in R&D institutions and feed industries in developing countries can direct their queries to the following experts.

Please select an expert based on the nature of your query and expertise available with the experts.



NAME, ADDRESS AND E-MAIL OF EXPERTS	EXPERTISE
<b>Jim Balthrop</b> Office of the Texas State Chemist Quality Assurance Manager P.O. Box 3160 College Station, Texas 77841, USA <a href="mailto:jeb@otsc.tamu.edu">jeb@otsc.tamu.edu</a>	Regulatory aspects of feed analysis, mycotoxin and mineral analyses
<b>Leon de Jonge</b> Animal Nutrition Group Wageningen University PO Box 338 6700 AH Wageningen, The Netherlands <a href="mailto:Leon.dejonge@wur.nl">Leon.dejonge@wur.nl</a>	Proximate analysis, mineral analysis, quality systems and accreditation of feed analysis laboratories based on ISO 17025, in vitro and in situ (nylon bag method) methods for feed evaluation
<b>Johan De Boever</b> Institute for Agricultural and Fisheries Research Animal Sciences Unit Scheldeweg 68 9090 Melle, Belgium <a href="mailto:johan.deboever@ilvo.vlaanderen.be">johan.deboever@ilvo.vlaanderen.be</a>	In vivo digestibility trials for ruminants, in situ rumen and intestinal incubations (nylon bag method), proximate analysis, feed evaluation methodologies (in vitro digestibility, Near Infra-Red Spectroscopy, NIRS)
<b>Richard A Cowie</b> Senior Quality Assurance Manager SAC Ferguson Building, Craibstone Estate Aberdeen, AB21 9YA, Scotland <a href="mailto:Richard.Cowie@sac.co.uk">Richard.Cowie@sac.co.uk</a>	Quality assurance implementation, development, accreditation based on ISO 17025:2005, ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007, internal audit, quality assurance training and quality management systems, microbiologic analyses
<b>Chris Piotrowski</b> Director, Aunir Aunir - a division of AB Agri The Byre, Pury Hill Business Park Alderton, Nr Towcester Northants, NN12 7LS, England <a href="mailto:chris.piotrowski@aunir.co.uk">chris.piotrowski@aunir.co.uk</a>	Near Infra-Red Spectroscopy (NIRS), proximate analysis
<b>Felicity Jackson</b> Manager, Nutrition Laboratory Institute of Food, Nutrition & Human Health Private Bag 11222 Riddet Rd Massey University Palmerston North 4474 New Zealand <a href="mailto:F.S.Jackson@massey.ac.nz">F.S.Jackson@massey.ac.nz</a>	Analytical techniques used in animal nutrition laboratories, quality assurances approaches, accreditation (ISO 17025)
<b>Benedikt Brand</b> Staatliches Veterinäruntersuchungsamt Arnsberg Dez. 43: Verbraucherschutz, Futtermittel Zur Taubeneiche 10-12, 59821 Arnsberg, Germany <a href="mailto:Benedikt.Brand@SVUA-Arnsberg.NRW.DE">Benedikt.Brand@SVUA-Arnsberg.NRW.DE</a>	Feed additives (cocciostats, trace elements, vitamins, amino acids), undesirable substances (heavy metals, mycotoxins, nitrite), banned antibiotics (e.g. tylosin, carbadox, chloramphenicol), medicated feeds (sulfonamides, aminoglycosides), analytical and legislation aspects
<b>Jürgen Danier</b> Bioanalytic Weißenstephan Unit Research Center for Nutrition and Food Science Technische Universität München (TUM) Alte Akademie 10, 85354 Freising, Germany <a href="mailto:juergen.danier@tum.de">juergen.danier@tum.de</a>	Nutrients; feed additives (vitamins, trace elements, cholin chloride, methionine hydroxyanalogue), undesirable substances (mycotoxins, heavy metals), laboratory accreditation
<b>Harinder Makkar</b> Animal Production officer Animal Production and Health Division FAO, food and Agriculture Organization of the United Nations Viale delle Terme di Caracalla 00153, Rome, Italy <a href="mailto:Harinder.Makkar@fao.org">Harinder.Makkar@fao.org</a>	In vitro gas method, quantification of tannins and antinutritional factors, quantification of phorbol esters, efficiency of microbial protein synthesis in rumen
<b>X. B. Chen</b> 18 Johns Park Place, Danestone, Aberdeen AB22 8QL, UK. <a href="mailto:xbchen2006@gmail.com">xbchen2006@gmail.com</a>	Estimation of microbial protein supply to ruminants using urinary purine derivatives
<b>Wim Traag</b> RIKILT - Institute of Food Safety Residue & Contaminant Analysis P.O Box 230, 6700 AE Wageningen The Netherlands <a href="mailto:Wim.Traag@wur.nl">Wim.Traag@wur.nl</a>	Polychlorinated biphenyls, dioxins

NAME, ADDRESS AND E-MAIL OF EXPERTS	EXPERTISE
<p><b>Jacob de Jong</b> RIKILT - Institute of Food Safety Residue &amp; Contaminant Analysis P.O. Box 230, 6700 AE Wageningen The Netherlands <a href="mailto:Jacob.dejong@wur.nl">Jacob.dejong@wur.nl</a></p>	<p>Contaminants (mycotoxins, plant toxins, heavy metals), animal proteins, veterinary drugs (antibiotics) and feed additives (coccidiostats, trace elements) analyses</p>
<p><b>Anja Töpfer</b> Head of Animal Feed Analysis and Microbiology Unit, Landwirtschaftliches Technologiezentrum Augustenberg Neßlerstraße 23-31,76227 Karlsruhe, Germany <a href="mailto:anja.toepper@ltz.bwl.de">anja.toepper@ltz.bwl.de</a></p>	<p>Microscopic, microbiological, pesticides, mycotoxins and heavy metal analyses; quality assurances (accreditation ISO 17025)</p>
<p><b>Gudrun Schulz-Schroeder</b> Head of Animal Feed Unit HU 234 Freie und Hansestadt Hamburg Institut für Hygiene und Umwelt Marckmannstraße 129a, 20539 Hamburg, Germany <a href="mailto:gudrun.schulz-schroeder@hu.hamburg.de">gudrun.schulz-schroeder@hu.hamburg.de</a></p>	<p>Nutrients, feed additives (vitamins, trace elements, amino acids), undesirable substances (mycotoxins, heavy metals), banned antibiotics and microscopic analyses; legislation aspects, quality assurances approaches, accreditation (ISO 17025)</p>
<p><b>Pierre Dardenne</b> Head of Department Valorisation of Agricultural Products Department Walloon Agricultural Research Centre, "Henseval" building, Chaussée de Namur, 24 5030 Gembloux (Belgium) <a href="mailto:dardenne@cra.wallonie.be">dardenne@cra.wallonie.be</a></p>	<p>Feed and forage analysis using Near Infra-Red Spectroscopy (NIRS)</p>
<p><b>Carsten Haugsted</b> Deputy Manager Ministry of Food, Agriculture and Fisheries The Danish Plant Directorate, Laboratory for Feed and Fertilizer analysis Skovbrynet 20, DK-2800 Kgs. Lyngby Denmark <a href="mailto:CHA@pdir.dk">CHA@pdir.dk</a></p>	<p>Nutrients, feed additives (vitamins, trace elements), genetically modified organisms, undesirable substances (mycotoxins, pesticides, heavy metals), laboratory accreditation (ISO 17025), Laboratory Information and Management System (LIMS)</p>
<p><b>Henk A. van der Schee</b> Food and Consumer Product Safety Authority (VWA), Catharijnesingel 59 3511 GG Utrecht The Netherlands <a href="mailto:Henk.van.der.Schee@VWA.NL">Henk.van.der.Schee@VWA.NL</a></p>	<p>Pesticide residue monitoring and analysis</p>
<p><b>Stijn Van Quekelberghe</b> Technisch verantwoordelijke voeding chemie - R&amp;D Chemiphar n.v. Lieven Bauwensstraat 4 B-8200 Brugge, Belgium <a href="mailto:stijn.vanquekelberghe@chemiphar.com">stijn.vanquekelberghe@chemiphar.com</a></p>	<p>Proximate analysis, starch, reducing sugar, minerals, contaminants (pesticides, mycotoxins, polyaromatic hydrocarbons, melamine, theobromine), antibiotics, microbiological analyses, accreditation (ISO 17025)</p>
<p><b>Kepher Kuchana Kateu</b> Chemiphar (U) Ltd Acacia Road - Kansanga P.O. Box 25525 – Kampala Uganda <a href="mailto:kepher.kuchana.kateu@chemiphar.com">kepher.kuchana.kateu@chemiphar.com</a></p>	<p>Proximate analysis, starch, reducing sugar, minerals, contaminants (pesticides, mycotoxins, polyaromatic hydrocarbons, theobromine), antibiotics, microbiological analyses, accreditation (ISO 17025)</p>
<p><b>Alicia Najera Molina</b> International Analytical QA Manager MasterLab BV Nijverheidsweg 2, Putten P.O. Box 40, 3880 AA, The Netherlands <a href="mailto:a.najera@nutreco.com">a.najera@nutreco.com</a></p>	<p>Proximate analysis, elements and minerals, vitamins, mycotoxins, antibiotics, microbiological tests, pesticides, polyaromatic hydrocarbons, dioxins, melamine, quality assurance systems, accreditation (ISO 17025), laboratory organisation and Laboratory Information and Management System (LIMS)</p>
<p><b>Inge Van Hauteghem</b> FASFC (Federal Agency for the Safety of the Food Chain) &amp; FLVVG (Federal Laboratory for the Safety of the Food Chain), Ghent Head Inorganic Chemistry Department Braemkasteelstraat 59 9050 Gentbrugge, Belgium <a href="mailto:inge.vanhauteghem@favv.be">inge.vanhauteghem@favv.be</a></p>	<p>Feed additives (trace elements), undesirable substances (heavy metals, fluorine), laboratory accreditation</p>

NAME, ADDRESS AND E-MAIL OF EXPERTS	EXPERTISE
<b>Peter Tillmann</b> VDLUFA Qualitätssicherung NIRS GmbH Am Versuchsfeld 13, D-34128 Kassel, Germany <a href="mailto:Peter.Tillmann@vdlufa.de">Peter.Tillmann@vdlufa.de</a>	Near Infra-Red Spectroscopy (NIRS), proximate analysis
<b>Doris Krieg</b> Staatliche Betriebsgesellschaft für Umwelt und Landwirtschaft (LUFA), Fachbereich 62, Pflanzen, Futtermittel Gustav-Kühn-Straße 8, 04159 Leipzig, Germany <a href="mailto:Doris.Krieg@smul.sachsen.de">Doris.Krieg@smul.sachsen.de</a>	Near Infra-Red Spectroscopy (NIRS), proximate analysis; execution of inter-laboratory studies
<b>Andreas Adler</b> Agentur für Gesundheit und Ernährungssicherheit Zentrum für Analytik und Mikrobiologie Wieningerstr. 8, A-4021 Linz, Austria <a href="mailto:andreas.adler@ages.at">andreas.adler@ages.at</a>	Microbiological analysis
<b>Wolfgang Wagner</b> Stv. Referatsleiter 24 Futtermitteluntersuchung und Mikrobiologie Landwirtschaftliches Technologiezentrum Augustenberg Neßlerstraße 23-31, 76227 Karlsruhe, Germany <a href="mailto:Wolfgang.Wagner@ltz.bwl.de">Wolfgang.Wagner@ltz.bwl.de</a>	Microbiological analysis
<b>Thorsten Bernsmann</b> Chemisches und Veterinäruntersuchungsamt Münsterland-Emscher-Lippe (CVUA-MEL) - AöR Joseph-König-Str. 40, 48147 Münster, Germany <a href="mailto:thorsten.bernsmann@cvua-mel.de">thorsten.bernsmann@cvua-mel.de</a>	Organic residue analysis, e.g. dioxins, by LC/MS/MS and GC/MS/MS and other systems
<b>Richard Öhlinger</b> Agentur für Gesundheit und Ernährungssicherheit Cluster Chemie / NRL Wieningerstr. 8, A-4021 Linz, Austria <a href="mailto:richard.oehlinger@ages.at">richard.oehlinger@ages.at</a>	Mycotoxins
<b>Gerhard-Franz Hofer</b> Agentur für Gesundheit und Ernährungssicherheit Abteilung Chemische Analytik Wieningerstr. 8, A-4021 Linz, Austria <a href="mailto:gerhard-franz.hofer@ages.at">gerhard-franz.hofer@ages.at</a>	Inorganic and elemental analysis
<b>Maximilian Rührlinger</b> Agentur für Gesundheit und Ernährungssicherheit Abteilung Chemische Analytik Wieningerstr. 8, A-4021 Linz, Austria <a href="mailto:maximilian.ruehrlinger@ages.at">maximilian.ruehrlinger@ages.at</a>	Inorganic and elemental analysis
<b>Renate Öschlmüller</b> Agentur für Gesundheit und Ernährungssicherheit Abteilung Zusatzstoffanalytik Spargelfeldstrasse 191, A-1220 Wien, Austria <a href="mailto:renate.oeschlmueeller@ages.at">renate.oeschlmueeller@ages.at</a>	Feed additives; execution of inter-laboratory studies
<b>Henriette Mietke</b> Staatliche Betriebsgesellschaft für Umwelt und Landwirtschaft (LUFA), Fachbereich 63, Gustav-Kühn-Straße 8, 04159 Leipzig, Germany <a href="mailto:Henriette.mietke@smul.sachsen.de">Henriette.mietke@smul.sachsen.de</a>	Microbiological analysis
<b>Brigitte Speck</b> Unit 24: Microbiology and Molecular Biology, Landwirtschaftliches Technologiezentrum Augustenberg, Neßlerstraße 23-31, 76227 Karlsruhe, Germany <a href="mailto:brigitte.speck@ltz.bwl.de">brigitte.speck@ltz.bwl.de</a>	Polymerase chain reaction (PCR) analysis
<b>Irmengard Strnad</b> Agentur für Gesundheit und Ernährungssicherheit Institut für Futtermittel/Futtermittelanalytik Spargelfeldstrasse 191 A-1220 Wien, Austria <a href="mailto:irmengard.strnad@ages.at">irmengard.strnad@ages.at</a>	Enzyme activity analysis (Phytase activity; NSP-enzyme activity)

NAME, ADDRESS AND E-MAIL OF EXPERTS	EXPERTISE
<p><b>Marion Dunker</b>            LUFA Rostock der LMS            Graf-Lippe-Str.1            D-18059 Rostock, Germany  <a href="mailto:mdunker@lms-lufa.de">mdunker@lms-lufa.de</a></p>	Microscopic analysis
<p><b>Armin Trenkle</b>            Head of Organic Analysis, Unit 21, Chemical            Analysis, Analysis of Seeds and Animal Feeds            Landwirtschaftliches Technologiezentrum            Augustenberg            Neßlerstraße 23-31,76227 Karlsruhe, Germany  <a href="mailto:armin.trenkle@ltz.bwl.de">armin.trenkle@ltz.bwl.de</a></p>	Organic contaminants (dioxins, pesticides, perfluoride tensides, mycotoxins)
<p><b>Patricia Leberl</b>            Landesanstalt für landwirtschaftliche Chemie (710)            Universität Hohenheim            Emil-Wolff-Str.12            70599 Stuttgart            Germany  <a href="mailto:leberl@lachimie.uni-hohenheim.de">leberl@lachimie.uni-hohenheim.de</a></p>	In vitro gas production (Hohenheim gas test method), in vitro protein determination (nXPsystem) using modified Hohenheim gas test or protein fractionation, forage analysis, Near Infra-Red Spectroscopy (NIRS), microscopic analyses, quality assurances (accreditation DIN ISO 17025)
<p><b>Doris Klatte</b>            Chemisches und Veterinäruntersuchungsamt            Münsterland-Emscher-Lippe (CVUA-MEL) - AöR            Dr. Doris Klatte            Joseph König Str. 40            D-48147 Münster            Germany  <a href="mailto:doris.klatte@cvua-mel.de">doris.klatte@cvua-mel.de</a></p>	Quality management according to DIN ISO EN/IEC 17025, preparation for internal and external audits, laboratory accreditation, proximate analysis, amino acids
<p><b>Katrien Schaefer</b>            Senior Scientist            DSM Nutritional Products Ltd.            Analytical Research Center            Bldg. 205/205            CH-4002 Basel            Switzerland  <a href="mailto:Katrien.Schaefer@dsm.com">Katrien.Schaefer@dsm.com</a></p>	Vitamin analysis in formulations, premixes, feeds, foods and pharmaceuticals
<p><b>Kurt Vogel</b>            Principal Scientist            DSM Nutritional Products Ltd.            Analytical Research Center            Bldg. 203/20a            P.O. Box 2676            CH-4002 Basel            Switzerland  <a href="mailto:Kurt.Vogel@dsm.com">Kurt.Vogel@dsm.com</a></p>	Enzymes (phytases, proteases, xylanases, glucanases, cellulases, amylases) in complex matrices (e.g. feed, premixes)
<p><b>Liyang Zhang</b>            Ph.D., Professor            Ministry of Agriculture Feed Efficacy and Safety            Evaluation Center            College of Animal Science &amp; Technology,China            Agricultural Univerisity            Yuanmingyuan West Road 2, Haidian District,            Beijing, China, 100193  <a href="mailto:zhangliyang01@sina.com">zhangliyang01@sina.com</a></p>	Proximate analysis, amino acids, minerals, vitamins, enzyme activity (e.g. phytase), fatty acids, undesirable substances (mycotoxin, heavy metals, melamine), antibiotics, quality assurance system and lab accreditation
<p><b>Thorsten Bernsmann</b>            Chemisches und Veterinäruntersuchungsamt            Münsterland-Emscher-Lippe (CVUA-MEL) - AöR            Joseph-König-Str. 40            48147 Münster  <a href="mailto:thorsten.bernsmanncvua-mel.de">thorsten.bernsmanncvua-mel.de</a></p>	Organic residue analysis in feeds by LC/MS/MS and GC/MS/MS
<p><b>Bob Ørskov</b>            International Feed Resources Unit (IFRU)            Macaulay Land Use Research Institute            Craigiebuckler            Aberdeen AB15 8QH            United Kingdom  <a href="mailto:Bob.Orskov@hutton.ac.uk">Bob.Orskov@hutton.ac.uk</a></p>	In sacco nylon bag method

**NAME, ADDRESS AND E-MAIL OF EXPERTS****EXPERTISE****Gustavo Jaurena**

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Implementation of inter-laboratory studies, in vivo and in vitro systems to assess feeds nutritive value, proximate analysis, quality assurance

**Andrew Cannavan**

Head, Food and Environmental Protection Laboratory  
Joint FAO/IAEA Division of Nuclear Applications  
in Food and Agriculture  
Department of Nuclear Sciences and Applications  
International Atomic Energy Agency  
Vienna International Centre, PO Box 100,  
1400 Vienna, Austria  
[A.Cannavan@iaea.org](mailto:A.Cannavan@iaea.org)

Veterinary drugs (antibiotics, anthelmintics, coccidiostats), pesticides, plant toxins analysis and laboratory QA/QC

*Note:* Should you have expertise in any area that could strengthen quality control systems in feed analysis laboratories and are willing to assist developing countries, please contact Harinder Makkar ([Harinder.Makkar@fao.org](mailto:Harinder.Makkar@fao.org))