NEWSLETTER

Issue 47 – April 2017

FOREWORD

The first trimester of 2017 has seen CORESTA publish 20 documents and launch 16 new projects - a record number in such a short amount of time - clearly indicating the increasing impetus actively driving the tobacco scientific community to address the challenges brought about in a rapidly changing world environment. Publications and the full list of active projects are all available on the CORESTA website.

The new Scientific Commission and Board, elected at the 2016 Congress in Berlin, have enthusiastically embraced the task of guiding and restructuring the association in accordance with the CORESTA vision to be "recognised by our members and relevant external bodies as an authoritative source of publically available, credible science and best practices related to tobacco and its derived products." Their first meetings were held in January and February respectively and a short report on the deliberations has been included in this Newsletter.

2017 being an "odd" year, the CORESTA Study Groups will be hosted separately in October in Austria and Brazil. Every effort is being made to ensure that these meetings maintain the high standards of scientific and organisational prowess for which CORESTA and its Member Organisations has become well known. Abstract submission is open, quality presentations are expected, and the meeting hosts look forward to welcoming large numbers of participants.

Joint Study Group Meetings 2017

SSPT2017 - The **Smoke Science and Product Technology Joint Study Groups Meeting** will be held at the K3 KitzKongress Conference Centre in **Kitzbühel, Austria**, from **8–12 October 2017**.

The meeting will be kindly hosted by delfort.

Website: **www.sspt2017.org**

Kitzbühel means "hill of the chamois" and the heraldic goat-antelope has been part of the town's coat of arms since the 14th century. Located in the Tyrol region in the west of Austria, Kitzbühel is renowned for its skiing facilities and hiking trails. But the town is also a prime meeting venue whose excellent meeting and hotel infrastructure, combined with stunning scenery, every year attracts numerous international congresses.

Kitzbühel - Austria 2017
CORESTA SSPT

AP2017 - The Joint Meeting of the Agronomy & Leaf Integrity and Phyto-pathology & Genetics Study Groups will be held at the University of Santa Cruz (UNISC), in **Santa Cruz do Sul, Brazil**, from **22–26 October 2017**.

This meeting is being organised by SindiTabaco in cooperation with the local Brazilian tobacco industry.

Website: **www.corestabrazil.org** *(online mid-May)*

Santa Cruz do Sul is located in south Brazil, in the Rio Grande do Sul region recognised internationally for its tobacco production. With its interesting blend of German and local gaucho culture, the city is also a tourism reference with a handsome architectural heritage, beautiful parks and traditional festivals, notably its annual Oktoberfest. The university meeting facilities and tobacco environment make it an ideal venue for this year's Agro-Phyto meeting.

CORESTA AP 2017
Santa Cruz do Sul - Brazil

GENERAL INFORMATION

Call for Papers and Abstract Submission: Available online via Meeting and CORESTA websites
Abstract Submission Deadline: Friday, 19 May 2017
Abstract selection by Reading Committee: Wednesday, 7 June 2017
Author notifications and programme publication: End of June 2017
Meeting Registration: Available via Meeting websites in May

CORESTA Scientific Commission and Board Meetings

The **SCIENTIFIC COMMISSION** met in Geneva, Switzerland, on 11-12 January, hosted by JTI.

- It was the first meeting of the newly elected or re-elected Study Group executives and all showed strong commitment in continuing the momentum of the former Commission.
- **ISO/CEN:** ISO 19290/CRM75 (TSNA in smoke) published. ** CRM70 and 74 (Volatiles and Carbonyls in smoke) and CRM79 (Ammonia in tobacco) accepted in work programme. ** ISO 2965 (Air permeability) and ISO 9512 (Ventilation) to be revised based on work on CRM40 and CRM06. ** ISO 15152 update awaiting CORESTA studies on safer chemistry alternative (see CRM85). ** Good progress in CORESTA-led vaping machine parameters group with ISO 20768 now at DIS stage. ** Intense smoking regime standard reported as a good opportunity to discuss with WHO. ** CEN/TC 437 Working Groups meeting in March.
- **ACAC:** CARD has grown tremendously (8.2 M results) and an upgrade is planned. ** RFT SG trial results evaluated to set new GRLs.
- **Agronomy & Leaf Integrity:** Study launched on Maleic Hydrazide to support revision of ISO 4876. ** 2nd 3-year round of trials launched by RFT SG. ** Breeding techniques discussed.
- **Phytopathology & Genetics:** Di@gnoplant fed with data from Poland. ** Task Forces on biotechnologies and alkaloid genetics proposed. ** Nicotiana seed keepers to be listed on the website.
- **Product Technology:** Smokeless Tobacco SG name and objectives changed. ** Intergroup work launched on cigars. ** Posters to be submitted to GFN2017 in Warsaw by EVAP SG.
- **Smoke Science:** Special Analytes and Smoking Behaviour SG names and objectives changed. ** IVT SG specific workshop on potential additional recommended *in vitro* endpoints and assays discussed.
- **SSPT:** Discussion on improving efficiency led to a project management concept to be refined.
- **CORESTA Standards TF:** New guidelines posted on the Member section of the website.
- **Website:** Phase 2 fully operational. Phase 3 (SGTF section) on track.

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The **BOARD** met on 13-15 February in Santa Cruz do Sul, Brazil, invited by BAT/Souza Cruz.

- One day dedicated to a tobacco farm and threshing plant visit, with demos, followed by a presentation on the activities of SindiTabaco, emphasing their sustainable production programmes and social commitments.

- Small Board committee set up to look into mid-term road mapping to establish next steps and provide guidance for the future of CORESTA.
- Regulatory issues largely discussed, e.g. flavoured tobacco and a proposed FDA standard on NNN for smokeless tobacco. Decision that CORESTA should comment on this latter issue (see page 5).
- CRMs to be brought to ISO confirmed as more and more relevant.
- **Visibility:** participation in GFN and GTNF confirmed as opportunities to present CORESTA.

CORESTA and Water pipes

Until the end of the 20th century, water pipe smoking was a part of the Asian and Northern African culture. Since then, this type of smoking has spread in Europe and Northern America, becoming more and more trendy worldwide. Whatever the name given to the device – hookah, shisha, nargile – the general perception of such smoking is that since tobacco is not burnt, but heated, and the smoke filtered through water, it is less harmful. This lead the WHO to put this topic on priority two for their activities in regards to tobacco control. However, to date, very little scientific work has been conducted on either the tobacco mixture itself or the emissions. Work started at ISO on a preliminary level in 2010. The work of the ad hoc group was stopped in 2016 with the outcome of four drafted documents for proposed further projects, but with no scientific bases due to the lack of scientific and analytical resources. The CORESTA Board considered that water pipe users deserve robust scientific facts about their products and is launching a member survey to evaluate interest in such research. The survey will be circulated to CORESTA contacts via e-mail, and made available on the CORESTA website.

CORESTA SUB-GROUPS & TASK FORCES

PHYTOPATHOLOGY & GENETICS Study Group

New Task Force: Tobacco Alkaloid Genetics (TAG)

NEW

Objectives:

1. To understand the genetics that control alkaloid formation in tobacco plants.
2. To understand the feasibility of conventional and non-conventional breeding techniques to modify alkaloid formation in tobacco plants.
3. To understand the impact of tobacco alkaloid levels on leaf production and quality.

For more information please contact Liuying Wen – CNTC Tobacco Research Institute, Academy of Agricultural Sciences, P.R. China (wenliuying@caas.cn)

SMOKE SCIENCE Study Group

Change of Name: Sub-Group Product Use Behaviour (PUB)

UPDATE

In January 2017, the **Sub-Group Smoking Behaviour (TSB)** changed its name to "Product Use Behaviour (PUB)" to better reflect the extension of its work on vapour products and its developing role in validating behavioural instruments and questionnaires to support reduced risk substantiation.

Change of Name and amendment to Objectives: Sub-Group Smoke Analytes (SMA)

UPDATE

Updated Objectives:

1. To propose practical and robust recommended methods for smoke analytes for all combustible tobacco products.
2. To organise and conduct periodically proficiency testing of smoke analytes other than TNCO.

In January 2017, the **Sub-Group Special Analytes (SPA)** changed its name to "Smoke Analytes (SMA)" in order to more clearly indicate that its work is related to combustible products. In line with this change, reference to "combustible tobacco products" was added to its first objective.

Amendment to Objectives: Sub-Group Biomarkers (BMK)

UPDATE

Updated Objectives:

1. To review present knowledge of tobacco and smoking-related biomarkers of exposure and effect.
2. To organise and conduct periodically inter-laboratory comparisons for selected biomarkers.
3. To source and develop reference materials to support biomarker analysis for those biomarkers selected for inter-laboratory comparisons.

The second objective was reworded to include reference to "inter-laboratory comparisons" and this same term replaced the terms "ring trials" and "proficiency tests" in the third objective.

PRODUCT TECHNOLOGY Study Group

Change of Name and amendment to Objectives:
Sub-Group Tobacco and Tobacco Products Analytes (TTPA)

UPDATE

Updated Objectives:

1. To propose and evaluate practical and robust Recommended Methods for the determination of analytes related to tobacco and tobacco products.
2. To periodically organise collaborative and/or proficiency testing
3. To organise the manufacture and maintain smokeless tobacco reference products.

In January 2017, the **Sub-Group Smokeless Tobacco (STS)** changed its name to "Tobacco and Tobacco Products Analytes (TTPA)" in order to work on analytes from a wider range of tobacco products in close cooperation with the Sub-Group Smoke Analytes (formerly "Special Analytes"). In line with this change, "smokeless tobacco" was removed from the first objective and "tobacco and tobacco products" clearly indicated.

For more information on these and other Sub-Groups and Task Forces please contact the CORESTA Secretariat.

CORESTA PROJECTS

The following projects were approved by the Scientific Commission:

- **Project 129: 2017 Benzo[a]Pyrene Collaborative Study**
  (Sub-Group Tobacco and Tobacco Products Analytes) - Approved December 2016
- **Project 130: Joint Experiment Technical Study (JETS) on Maleic Hydrazide #2**
  (Sub-Group Agrochemical Analysis) - Approved January 2017
- **Project 131:** 13th FAPAS CPA Analysis Proficiency Test - 2017
  (Sub-Group Agrochemical Analysis) - Approved January 2017
- **Project 132:** Guide on Responsible Use of CPAS in Tobacco Leaf Production
  (Agrochemical Advisory Committee) - Approved January 2017
- **Project 134: 2017 Collaborative Study of CORESTA Monitor 8 (CM8)**
  (Sub-Group Routine Analytical Chemistry) - Approved January 2017
- **Project 135: Poster Presentations by EVAP SG at Global Forum on Nicotine (GFN) in Warsaw, Poland, 15-17 June 2017**
  (Sub-Group E-Vapour) - Approved January 2017
- **Project 136: Field Residue Trials - Second 3-year cycle**
  (Sub-Group Agrochemical Residue Field Trials) - Approved January 2017
- **Project 137: 4th Proficiency Test for Detection of Transgenic Tobacco**
  (Sub-Group Proficiency Testing for Detection of Transgenic Tobacco) - Approved February 2017
- **Project 138: Poster Presentation by AA SG at Latin American Pesticide Residue Workshop (LAPRW) in Costa Rica, 14-17 May 2017**
  (Sub-Group Agrochemical Analysis) - Approved March 2017
- **Project 140: Tobacco Alkaloid Genetics Scientific Literature Review**
  (Task Force Tobacco Alkaloid Genetics) - Approved March 2017
- **Project 142: Presentation by EVAP SG at Electronic Nicotine Delivery Systems (ENDS) Conference in London, UK, 14-15 June 2017**
  (Sub-Group E-Vapour) - Approved March 2017
- **Project 143: Guide on Sulfuryl Fluoride – An Alternate Fumigant**
  (Sub-Group Pest and Sanitation Management in Stored Tobacco) - Approved March 2017
- **Project 144: Narcosis Position Paper**
  (Sub-Group Pest and Sanitation Management in Stored Tobacco) - Approved March 2017
- **Project 145: Yellow Residue Position Paper**
  (Sub-Group Pest and Sanitation Management in Stored Tobacco) - Approved March 2017
- **Project 147: CORESTA comments on FDA standard for NNN in Smokeless Tobacco Products**
  (Sub-Group Tobacco and Tobacco Products Analytes / CORESTA Board) - Approved March 2017
- **Project 148: Guide on Smoke Collection of Handmade Long Filler Cigars**
  (Sub-Group Cigar Smoking Methods) - Approved April 2017

The full list of active CORESTA projects can be viewed on the "Active Projects" webpage on the CORESTA website at **www.coresta.org**.

CORESTA GUIDES

New - CORESTA Guide No. 19
Responsible Use of Crop Protection Agents (CPAs) in Tobacco Leaf Production *(April 2017)*
[ACAC-132-CTG]

These guidelines are aimed at all stakeholders in the tobacco leaf production and supply sectors, including decision-makers, managers, agronomists, pest control, extension and training specialists, field supervisors and growers. They aim to provide a set of practical guidelines on how to manage and use crop protection agents effectively and safely, while simultaneously minimising their environmental footprint, the risks they pose to those associated with their use, and their residues. The guidelines are based on current international and national codes of practice, protocols and regulations, relevant CORESTA Guides and the tobacco industry's social responsibility and sustainability programmes.

CORESTA RECOMMENDED METHODS

New

- **CRM No. 84** – Determination of Glycerin, Propylene Glycol, Water, and Nicotine in the Aerosol of E-Cigarettes by Gas Chromatographic Analysis *(March 2017)* [EVAP-086-2-CRM-84]

This Recommended Method is applicable to analysis of glycerin, propylene glycol, nicotine, and water in trapped e-cigarette aerosol. It is supported by the Technical Report *2015 Collaborative Study for Determination of Glycerin, Propylene Glycol, Water and Nicotine in Collected Aerosol of E-Cigarettes*.

- **CRM No. 85** – Tobacco - Determination of the Content of Total alkaloids as Nicotine - Continuous-Flow Analysis Method using KSCN/DCIC *(April 2017)* [RAC-052-2-CRM-85]

This CRM specifies a method for the determination of the content of total alkaloids as nicotine in tobacco by continuous-flow analysis. It is applicable to leaf samples, stems, reconstituted tobacco sheet materials and tobacco blends. It is supported by the Technical Report *2014 Collaborative Study Comparing CRM35 for the Determination of Total Alkaloids (as Nicotine) in Tobacco by Continuous Flow Analysis to a New Method with Safer Chemistry* and replaces CRM35 - *Determination of Total Alkaloids (as Nicotine) in Tobacco by Continuous Flow Analysis*.

Obsolete

- **CRM No. 35** – Determination of Total Alkaloids (as Nicotine) in Tobacco by Continuous Flow Analysis *(June 1991)*

This CRM has been superseded and replaced by CRM85.

All CORESTA Recommended Methods can be downloaded in PDF format at www.coresta.org

JOURNAL PUBLICATIONS

Further to the publication of the Biomarkers Sub-Group Technical Report on the 2012 3-HPMA Interlaboratory Comparison Study, an external publication was published as follows:

- **An Inter-Laboratory Comparison for the Urinary Acrolein Biomarker 3-Hydroxypropyl-Mercapturic Acid (3-HPMA)**

G. Scherer[1], W-D. Heller[2], M. McEwan[3], T. Göen[4], P. Joza[5], N. Liu[6], K. Newland[7], T. Schettgen[8], S. Wang[9], H.O. Sohn[10], V. Troude[11], D. Yuki[12], S. Zheng[13], G. Zhou[14]

(1) ABF Analytisch-Biologisches Forschungslabor GmbH, Germany; (2) IFT Institut für Tabakforschung GmbH, Germany; (3) British American Tobacco, UK; (4) Institute and Outpatient Clinic of Occupational, Social and Environmental Medicine, Germany; (5) Labstat International ULC, Canada; (6) China National Tobacco Supervision and Test Centre (CNTQSC), P.R. China; (7) Celerion Inc., USA; (8) Institut für Arbeits- und Sozialmedizin, Germany; (9) Zhengzhou Tobacco Research Institute (ZTRI), P.R. China; (10) KT&G Research Institute, South Korea; (11) SEITA-Imperial Tobacco Limited, France; (12) Japan Tobacco Inc., Japan; (13) Shanghai Tobacco Group Co., Ltd., P.R. China; (14) China Tobacco Zhejiang Industrial Co. Ltd., P.R. China

Beiträge zur Tabakforschung International / Contributions to Tobacco Research, Volume 27 • No. 5 • Jan 2017
https://www.degruyter.com/view/j/cttr.2017.27.issue-5/cttr-2016-0006/cttr-2016-0006.xml
DOI: 10.1515/cttr-2016-0006

CORESTA Comments on FDA's proposed NNN Standard

On 23 January 2017, the FDA proposed a tobacco product standard for N-Nitrosonornicotine (NNN) in smokeless tobacco products. All measurements of NNN would need to be performed with a new standard test method validated by the FDA.

CORESTA took advantage of the public comment period to state that this method has not been evaluated in a robust collaborative study involving stakeholders. It therefore lacks repeatability and reproducibility values, unlike CORESTA Recommended Method 72, which is used on an annual basis in large international collaborative studies since 2011. The CORESTA letter[‡] further lists 16 arguments that highlight the weaknesses and disadvantages of the proposed FDA method (LIB 4620) compared to CRM 72.

[‡] *Letter available on the CORESTA website: Information > CORESTA Communication > Regulatory Affairs*

CORESTA REPORTS

The following reports have been released and published on the CORESTA website at **www.coresta.org:**

- **3rd Round Robin Test for Air Permeability Calibration Standards (2014/2015)**
  Technical Report [PTM-018-CTR] – December 2016 (Sub-Group Physical Test Methods)

  The Sub-Group Physical Test Methods (PTM) organises a nominally annual series of round robin tests that is open to the member laboratories that have a calibration laboratory to compare th eir capability to calibrate standards used in physical test instrumentation. This testing provides a baseline of air permeability instrument performance across the industry and each laboratory is also able to use the result set in internal and external audit assessments.

- **7th Proficiency Test (2014) for Physical Parameters of Cigarettes and Filters**
  Technical Report [PTM-062-CTR] – February 2017 (Sub-Group Physical Test Methods)
- **8th Proficiency Test (2015) for Physical Parameters of Cigarettes and Filters**
  Technical Report [PTM-063-CTR] – February 2017 (Sub-Group Physical Test Methods)
- **9th Proficiency Test (2015) for Physical Parameters of Cigarettes and Filters**
  Technical Report [PTM-108-CTR] – April 2017 (Sub-Group Physical Test Methods)

  The above three reports are part of proficiency tests on physical parameters to measure weight, diameter, pressure drop and filter ventilation of filters and cigarettes. The proficiency tests serve as an assessment of the capability of the participating laboratories to properly measure physical parameters on cigarettes and filters. The test results allow each laboratory to evaluate its performance in comparison to other laboratories and to derive actions for improvement.

- **4th Round Robin Test for Multi-Capillary Ventilation Calibration Standards (2015/2016)**
  Technical Report [PTM-021-CTR] – April 2017 (Sub-Group Physical Test Methods)
- **11th Round Robin Test for Multi-Capillary Pressure Drop Calibration Standards (2016)**
  Technical Report [PTM-059-CTR] – April 2017 (Sub-Group Physical Test Methods)

  The above two reports are part of a nominally annual cross-check for calibration laboratories to compare their capability to calibrate standards used in physical test instrumentation. The testing provides a baseline of ventilation instrument performance across the industry, since this standard type is used in the pressure drop / ventilation instrumentation of each supplier. Each laboratory is also able to use the result set in internal and external audit assessments.

- **Puffing Topography Inter-lab Study**
  Technical Report [TSB-047-CTR] – January 2017 (Sub-Group Smoking Behaviour)

  Although smoking topography instruments have been used for many years, there is limited information regarding validation of instruments. This report covers a study to determine if various human puffing topography devices deliver comparable results for puff volume and puff duration. The data collected was used to determine the accuracy of each device.

- **CORESTA Reference Products - 2016 Analysis**
  Technical Report [STS-105-CTR] – January 2017 (Sub-Group Smokeless Tobacco)

  This report presents the results of the sixth collaborative study designed to assess the stability of the four smokeless CORESTA Reference Products (CRPs) and to provide an assessment of inter-laboratory variability.

- **2016 Collaborative Study on Minor Alkaloids in Tobacco Products**
  Technical Report [RAC-STS-055-CTR] – February 2017 (Sub-Groups Routine Analytical Chemistry / Smokeless Tobacco)

  From 2013 to 2016, a series of collaborative studies were conducted for the determination of nornicotine and anabasine in tobacco and tobacco products. A GC-MS method using methanol as the extract solvent and 6-methylquinoline and d4-nornicotine as the internal standards was eventually selected. This report covers the collaborative study undertaken in 2016 to calculate r&R values and it was concluded that the methodology was suitable for guidance but not for a CORESTA Recommended Method (CRM) at this time.

- **2016 Collaborative Study on Nicotine in Tobacco Products**
  Technical Report [RAC-STS-056-1-CTR] – February 2017 (Sub-Groups Routine Analytical Chemistry / Smokeless Tobacco)

  From 2013 to 2016, a series of collaborative studies were conducted for the determination of nicotine in tobacco and tobacco products including cigarette and cigar filler, and smokeless tobacco products. A GC-MS method using methanol as the extract solvent and quinoline as the internal standard was selected. The purpose of this study was to evaluate r&R values of the methodology and draft a new CORESTA Recommended Method (CRM).

CORESTA REPORTS (continued)

- **Cigar Smoke Analysis - 11th Collaborative Study**
  Technical Report [CSM-090-CTR] – December 2016 (Sub-Group Cigar Smoking Methods)
  Since 2006, the Sub-Group Cigar Smoking Methods (CSM) conducts periodic collaborative studies in order to improve repeatability and reproducibility measurement methods of different cigar sizes and types. The purpose of this study was to re-establish mean values for NFDPM, nicotine and carbon monoxide for different sizes and types of cigar products and test pieces and to provide a tool for participating laboratories to prove competence in cigar smoke analysis.

- **2016 Collaborative Study of CORESTA Monitor 8 (CM8) for the Determination of Test Piece Weight, TPM, Water, Nicotine, NFDPM, Carbon Monoxide and Puff Count Obtained under Mainstream 'ISO' and 'Intense' Smoking Regimes**
  Technical Report [RAC-103-CTR] – February 2017 (Sub-Group Routine Analytical Chemistry)
  The Sub-Group Routine Analytical Chemistry (RAC) is responsible for organising the annual testing of the CORESTA Monitor test piece. The 2016 study was designed to measure mainstream ISO and Intense smoke yields of nicotine-free dry particulate matter (NFDPM), nicotine and carbon monoxide (CO) to verify the current monitor test piece CM8; to determine intra- and inter-laboratory variability for the measured ISO and Intense smoke yields for the CM8; to verify the conditioned weight for the CM8.

- **2014 Collaborative Study Comparing CRM35 for the Determination of Total Alkaloids (as Nicotine) in Tobacco by Continuous Flow Analysis to a New Method with Safer Chemistry**
  Technical Report [RAC-052-1-CTR] – March 2017 (Sub-Group Routine Analytical Chemistry)
  To produce a safer method to test total alkaloids in tobacco (as nicotine) a collaborative study was carried out in 2014 of two methods for the determination of total alkaloids in tobacco by segmented continuous-flow analysis. This led to the publication of the new CRM85, which supersedes and replaces CRM35.

- **2016 Collaborative Study of CORESTA Ignition Propensity Monitor Test Piece CM IP 2 for the Determination of Ignition Propensity**
  Technical Report [RAC-113-CTR] – March 2017 (Sub-Group Routine Analytical Chemistry)
  The Sub-Group Routine Analytical Chemistry (RAC) is responsible for providing a monitor test piece specific for ignition propensity testing, according to ISO 12863:2010. The stability of the CM IP 2 monitor test piece continues to be checked and the results used to support laboratory proficiency and maintain accreditation on the basis of a collaborative study of CM IP 2 and of NIST standard reference material 1082 for comparison. After the 2014 and 2015 collaborative studies, this report provides the statistical assessment of the results of the 2016 study.

- **2015 Collaborative Study for Determination of Glycerin, Propylene Glycol, Water and Nicotine in Collected Aerosol of E-Cigarettes**
  Technical Report [EVAP-086-1-CTR] – March 2017 (Sub-Group E-Vapour)
  A study was conducted in 2015 on commercial electronic cigarette products. The goal was to compare results from multiple laboratories applying CRM81 for aerosol collection and to provide a draft analytical method for the determination of nicotine, propylene glycol (PG), glycerin, and water in collected aerosol. This report documents the results of the study, based on which the CRM84 was approved and published in March 2017.

- **Joint Experiment Technical Study (JETS) Report 16/2 Maleic Hydrazide in Tobacco**
  Technical Report [AA-111-CTR] – March 2017 (Sub-Group Agrochemical Analysis)
  Due to the complexity of the distribution of Maleic Hydrazide (MH) throughout the tobacco plant, a Joint Experiment Technical Study (JETS) was conducted to assess both MH fate and how to analyse it correctly. This JETS report describes a proficiency test to evaluate the capacity of different methods to properly measure MH content in both artificially spiked samples and naturally incurred tobacco. A second study is being carried out in 2017 (Project 130).

- **Joint Experiment Technical Study (JETS) Report 16/1 Dithiocarbamates in Tobacco**
  Technical Report [AA-075-CTR] – April 2017 (Sub-Group Agrochemical Analysis)
  Annual proficiency tests on tobacco containing CPA residues have been conducted by CORESTA-FAPAS since 2005. To further evaluate the various results on several agrochemicals in the proficiency tests Joint Experiments Technical Studies (JETS) are performed. This report describes a mini-proficiency test to evaluate Dithiocarbamates on tobacco using both an incurred sample and an artificially spiked sample.

UPCOMING CORESTA MEETINGS (2016)

Meeting	Date	Location
TF Cigarette Variability (CVAR)	1 May	Charlottesville, VA, USA
SG E-Vapour (EVAP)	2 May	Charlottesville, VA, USA
SG Tobacco and Tobacco Products Analytes (TTPA) (ex STS)	3 May	Charlottesville, VA, USA
SG Routine Analytical Chemistry (RAC)	4 May	Charlottesville, VA, USA
INFESTATION CONTROL CONFERENCE (ICC)	8-9 May	Santa Cruz do Sul, Brazil
SG Pest and Sanitation Management in Stored Tobacco (PSMST)	10-11 May	Santa Cruz do Sul, Brazil
Agrochemical Advisory Committee (ACAC)	5-6 June	Yokohama, Japan
Reading Committee	7 June	Yokohama, Japan
Scientific Commission	8-9 June	Yokohama, Japan
Board	20-21 June	Bristol, UK
SG Routine Analytical Chemistry (RAC)	7 October	Kitzbühel, Austria
SG Tobacco and Tobacco Products Analytes (TTPA) (ex STS)	7 October	Kitzbühel, Austria
SG Physical Test Methods (PTM)	8 October	Kitzbühel, Austria
SG E-Vapour (EVAP)	8 October	Kitzbühel, Austria
SG Smoke Analytes (SMA) (ex SPA)	8 October	Kitzbühel, Austria
TF Cigarette Variability (CVAR)	8 October	Kitzbühel, Austria
SG Product Use Behaviour (PUB) (ex TSB)	8 October	Kitzbühel, Austria
SG Biomarkers (BMK)	8 October	Kitzbühel, Austria
SG In Vitro Toxicity Testing (IVT)	8 October	Kitzbühel, Austria
SMOKE SCIENCE and PRODUCT TECHNOLOGY	**8-12 October**	**Kitzbühel, Austria**
SG Agrochemical Residue Field Trials (RFT)	21 October	Santa Cruz do Sul, Brazil
Agrochemical Advisory Committee (ACAC)	22 October	Santa Cruz do Sul, Brazil
AGRONOMY & LEAF INTEGRITY and PHYTOPATHOLOGY & GENETICS	**22-26 October**	**Santa Cruz do Sul, Brazil**

Acronyms / Abbreviations used in the Newsletter

ACAC . . . . . CORESTA Agrochemical Advisory Committee
AP2017 . . . . . 2015 Agronomy & Leaf Integrity and Phytopathology & Genetics Joint Study Groups Meeting
BAT . . . . . British American Tobacco
CARD . . . . . CORESTA Agrochemical Residue Database
CEN. . . . . Comité Européen de Normalisation
CNTC . . . . . China National Tobacco Corporation
CNTQSC . . . . China National Tobacco Supervision and Test Centre
CO . . . . . Carbon Monoxide
CPA. . . . . Crop Protection Agent
CRM . . . . . CORESTA Recommended Method
CRP. . . . . CORESTA Reference Product
CTG. . . . . CORESTA Technical Guide
CTR. . . . . CORESTA Technical Report
DCIC . . . . . Dichloroisocoumarin
DIS . . . . . Draft International Standard
ENDS. . . . . Electronic Nicotine Delivery Systems
EVAP. . . . . E-Vapour
FDA. . . . . Food and Drug Administration (USA)
GC-MS . . . . . Gas Chromatography - Mass Spectrometry
GFN. . . . . Global Forum on Nicotine
GRL. . . . . Guidance Residue Level
GTNF. . . . . Global Tobacco & Nicotine Forum
HPMA . . . . . Hydroxypropyl Mercapturic Acid
IFT . . . . . Institut für Tabakforschung (Germany)
ISO . . . . . International Organization for Standardization
JETS. . . . . Joint Experiment Technical Study
IVT. . . . . In Vitro Toxicity Testing
JTI . . . . . Japan Tobacco Inc.
KSCN. . . . . Potassium Thiocyanate
LAPRW . . . . . Latin American Pesticide Residue Workshop
LIB. . . . . Laboratory Information Bulletin
MH . . . . . Maleic Hydrazide
NFDPM . . . . . Nicotine-Free Dry Particulate Matter (tar)
NNN . . . . . N'-nitrosonornicotine
PG. . . . . Propylene Glycol
r&R . . . . . repeatability & Reproducibility
RFT . . . . . Agrochemical Residue Field Trials
SG. . . . . Sub-Group
SGTF . . . . . Sub-Group and Task Force
TC . . . . . Technical Committee
TF . . . . . Task Force
SSPT2017 . . . 2017 Smoke Science and Product Technology Joint Study Groups Meeting
TNCO . . . . . Tar, Nicotine, Carbon Monoxide
TSNA. . . . . Tobacco Specific Nitrosamines
WHO. . . . . World Health Organization
UK. . . . . United Kingdom
USA. . . . . United States of America