

# **CORESTA Strategy, Cooperation, Achievements and Perspectives**

51st TOBACCO WORKERS' CONFERENCE

**Knoxville, Tennessee USA** 

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Presented by Stéphane Colard Secretary General of CORESTA

## **Mission**

- CORESTA is a non-profit association whose purpose is to promote and facilitate international cooperation and best practices in scientific research relative to tobacco and its derived products.
- Founded in 1956 and governed by French law
- 171 organisations from 43 countries



## Content

- Context and Consequences
- Strategy and Plans
- Governance and Cooperation
- Achievements and Perspectives
- Conclusion

## Context

- COVID-19 pandemic
  - Online events and meetings
- Need to consolidate and energize our process of cooperation in a world increasingly made of "virtual" interactions
  - Top-down / bottom-up approach no longer practical
  - Move from a vertical to a circular dynamic
- A changing and complex environment
  - Members from 171 organisations and 43 countries
  - New regulations
  - New products
  - New priorities



## 4 Strategic Areas 8 Strategic Subjects

#### **Regulatory Landscape**

Support responsible regulation by developing methods and best practices to support regulator's objectives

#### **Conventional Products**

Maintain test methods and good production practices for traditional tobacco products



#### **Emerging Products**

Lead the Future by scientific knowledge & method development

#### Sustainability

Conduct research that promotes good health & wellbeing, economic growth, responsible production (See UN SDGs)



## 8 Strategic Subjects 16 Workstreams

Product Testing

> Analytical Testing Methods

CORESTA Reference Products Product knowledge

> Product Variability Assessment

Safety and Quality Guidance Biological Assessment

In Vitro Toxicity Assay

Biomarkers

21<sup>st</sup> Century Toxicology (TT21C)

Perception and Behaviour

> Consumer Product Perception

Consumer Product Behaviour Nicotine

Very Low Nicotine Tobacco Production Pest and Disease

Pest Resistance

Integrated Pest Management (IPM) Plant Breeding

Breeding

Molecular Markers and Genetics Good Agricultural Practices

> Agricultural Practices

Sustainability in leaf production



## 5-year plans and 2-year deliverables

2023 5-year plans 2028

#### **Deliverables by 2025**

#### **Product testing**

Product knowledge

- Keep and develop standardized methods for conventional and emerging products
- Understand laboratory testing variability (r & R)
- Develop CORESTA reference products (e.g., HTP, OND)
  - Quality and safety guidance for emerging products

- Maintenance of existing CRMs for conventional and emerging products
- · New CRMs for conventional and emerging products
- · CORESTA reference products for cigarette and oral nicotine products
- Quality and safety guidance for Nicotine Pouches

#### **Biological** Assessment

- · Establish toxicological assessment models
- · Finalize tobacco data standards for clinical studies and expand to other disciplines
- Develop guidelines and best practices for utilizing fit-for-purpose COPD biomarkers for assessing PRRPs
- Develop robust understanding of mechanistic pathways and identify clinically relevant biomarkers for Cardiovascular Disease

- in vitro proficiency studies using current toxicological in vitro methods.
- 21st century toxicology programme in place
- Best practices & guidelines on data standards for sections on Product Description; Nonclinical; Individual & Population Health
- Specific biomarkers of exposure fit-for-purpose as compliance measures in long-
- Robust understanding of mechanistic pathways and clinical identification of relevant biomarkers for COPD and CVDs

#### Perception & Behaviour

- Populate Consumer Reported Outcome Measures knowledge repository
- · Investigate product use behaviour for emerging products
- · Provide guidance to develop fit for purpose population modeling

- Use of validated methodologies to generate human studies data from the CROM
- Tools for evaluation of consumer exposure, perception and behaviour

#### Nicotine

#### Pest & Disease

- Plant Breeding
- · Conduct field trials and collaborative studies related to low nicotine, crop protection agent (CPA) residues, and pest/disease management.
- · Monitor plant breeding, growing and labour practices
- Develop raw material production tools and guidelines for emerging products

- · Field trials and collaborative studies related to low nicotine, crop protection agent (CPA) residues, and pest/disease management.
- · Agro/phyto initiatives on supply chain, and tobacco germplasm collection
- · Sustainable solution for public germplasm collection

#### **Good Agricultural Practices**

- · Develop guidelines and best practices for new and existing CPAs
- Develop a roadmap to support UN SDG and regulatory initiatives across the world
- Provide practical guidance to better understand and avoid green tobacco sickness.
- Agro/phyto initiatives to protect human rights
- · Roadmap of the TF on green tobacco sickness
- Comprehensive review of the Guide No. 17

· Identify key areas, objectives, and infrastructure where CORESTA can advance the science related to tobacco harm reduction



## Focus on leaf tobacco production

5-year plans and 2-year deliverables

2023

5-year plans

2028

**Deliverables by 2025** 

Product testing

 Keep and develop standardized methods for conventional and emerging products

- · Maintenance of existing CRMs for conventional and emerging products
- New CRMs for conventional and emerging products

**Nicotine** 

Pest & Disease

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## **CORESTA Working Groups**

Agronomy & Leaf Integrity Phytopathology& Genetics





### **Achievements**

- New working groups
  - Nicotiana Germplasm Collection
  - Green Tobacco Sickness
  - Nicotine Pouch Safety and Quality Guidance
  - Tobacco Harm Reduction Committee
- New leadership
  - Collaborative Study Black Shank led by Yuan Zeng from Virginia Tech
  - Proficiency Testing for Detection of Transgenic Tobacco led by Sitakanta Pattanaik from the University of Kentucky

## **Achievements**

#### Reports

 Sampling Method for Testing TSNAs in Farmer Bales, and Sample Preparation for TSNA Analysis.

#### Methods

Nitrate in tobacco by Ion Chromatography

#### Guides

- No. 1 The Concept and Implementation of CPA Guidance Residue Levels revised
- No. 3 Good Agricultural Practices (GAP) Guidelines revised
- No. 16 Molecular Markers in Tobacco revised
- No. 27 Identification and elimination of highly hazardous pesticides in leaf tobacco production – revised and fourth revision almost complete
- No. 21 Cigar Tobacco: Best Practices, Crop Protection and CPA Guidance Residue Levels



## **Achievements**

- Publication in peer-reviewed journals
  - Molecular regulation and genetic manipulation of alkaloid accumulation in tobacco plants
- Publication of articles and presentations on CORESTA website
  - Tobacco Workers Conference (TWC) 2010-2022: 609 references uploaded
  - Tobacco Science 1957-1999: 1636 references uploaded
  - Tobacco Science Research Conference (TSRC) 2001-2023: 1328 references uploaded
  - + abstracts and presentations from CORESTA events

#### Events

- Online and in-person Conferences
- Science Day in Paris, Workshop in Antibes, France
- Webinar Low Nicotine Tobacco Current Insight & Perspectives for the Agricultural Production of Raw Materials

#### Apps

Di@gnoplant - Now available in Portuguese in addition to English and French



## **Perspectives**

- Publication of a revised version of the Guide No. 17 "Sustainability in Leaf Tobacco Production"
- Webinar on proficiency testing for pesticide residue analysis in tobacco
- Educational webinars open to all
- Low nicotine tobacco production field trials
- Long term maintenance of public germplasm collection
- Tobacco harm reduction and supply chain integrity



## Conclusion

- Difficult times provide the opportunity to assess organisations
- Cooperation is an important factor of resilience and sustainability
- Strategic framework of CORESTA is better defined now
- Processes of interaction are consolidated, energized and flexible
- Projects successfully accomplished over the last three years
- Important perspectives and new deliverables are anticipated



## Thank you for your attention