



Pest and Sanitation Management in Stored Tobacco (PSMST) Sub-Group Report

CORESTA Congress Online

12 October – 12 November 2020

Presented by Elliot Bartholomew (Alliance One International) on behalf of PSMST



❖ History

❖ Infestation Control Conference

❖ Sub-Group Meeting

❖ Sub-Group Activities



❖ **Sub-Group on Pest & Sanitation Management in Stored Tobacco**

- **Formed in 1991 to investigate growing concerns over rumored failed phosphine fumigations**
- **Established new worldwide tobacco fumigation standard**
- **Currently comprised of members from 21 organizations (Manufacturers of tobacco products, Leaf processors, Leaf companies, Pest control services, Entities focusing on education and research)**

❖ Purpose

- Assist the tobacco industry in combating post-harvest tobacco pests: cigarette beetle and tobacco moth





❖ Sub-Group Objectives

- Educate and promote best Integrated Pest Management practices for post-harvested tobacco world-wide
- Conduct collaborative studies on pest control and sanitation practices for post-harvested tobacco
- Investigate new technologies and issues related to infestation control in post-harvested tobacco



- ❖ **Manila, PHILIPPINES**
- ❖ **7-8 October 2019**
- ❖ **100 attendees**
(29 % Tobacco Industry,
47 % Pest Control Industry,
3 % Scientific / Regulatory)





❖ Day 1

- General Pest Control in Tobacco Facilities
- Post-Harvest Tobacco Pest Control – Biology, Sanitation, Monitoring, Fumigation, Temperature, Controlled Atmosphere, Prevention







❖ Day 2

- Demonstrations at JTI: Fumigation (tarp/stack & container), Controlled Atmosphere & Freezing
- Application Exercise
- Q&A







Infestation Control Conference

- 2001 – Richmond, USA
- 2002 – Izmir, TURKEY
- 2002 – Puerto Vallarta, MEXICO
- 2002 – Santa Cruz do Sul, BRAZIL
- 2003 – Antwerp, BELGIUM
- 2004 – Stellenbosch, SOUTH AFRICA
- 2005 – Chennai, INDIA
- 2006 – Izmir, TURKEY
- 2007 – Antwerp, BELGIUM
- 2008 – Chiang Mai, THAILAND
- 2009 – Porto Alegre, BRAZIL
- 2010 – Kunming, CHINA
- 2011 – Cape Town, SOUTH AFRICA
- 2012 – San Juan, PUERTO RICO
- 2013 – Surabaya, INDONESIA
- 2014 – Bangalore, INDIA
- 2015 – Lilongwe, MALAWI
- 2017 – Santa Cruz do Sul, BRAZIL
- 2018 – Winston-Salem, USA
- 2019 – Manila, PHILIPPINES
- 2021 – Izmir, Turkey?



Sub-Group Meeting

❖ Day 1

➤ ICC Evaluation

➤ Phosphine

- EU and US regulatory updates
- Cigarette Beetle mortality curve (Dr. Spencer Walse – Agricultural Research Service USDA)
- Use of different phosphine formulations
- Fumigation parameters for resistance bred cigarette beetle strain

❖ Day 2

- Phosphine resistance test kit using genetic marker
- Profume – Sulfuryl fluoride fumigant
- Controlled atmosphere
 - Parameters at an additional temperature
 - Oxy-Low packed tobacco
- Budget
- Schedule





Sub-Group Activities

❖ Guides

- **Guide 2 (Fumigation) updated with references, explanation of resistance, and calibration recommendations – August 2019**
- **Guide 9 (Freezing) updated with references and tempering details – August 2019**
- **Guide No. 12 (Controlled Atmosphere) updated to include parameters 33 °C – April 2020**



Sub-Group Activities

❖ Research

- Resistance – Identify genetic markers for phosphine resistance detection (Fera)
- Phosphine alternative – Profume fumigation evaluation (RJRT, Douglas Products)



Sub-Group Activities



Thank you!