

# The Insect Free Post

Newsletter of the  
CORESTA Subgroup on Pest and Sanitation Management in Stored Tobacco  
Issue 5 – April 2013



## Subgroup objectives:

- To educate about, and promote best Integrated Pest Management practices for post-harvested tobacco world-wide
- To conduct collaborative studies on pest control and sanitation practices for post-harvested tobacco
- To investigate new technologies and issues related to infestation control in post-harvested tobacco

## MEETING REPORT

This year's **Infestation Control Conference (ICC)** was held in Surabaya, Indonesia on 11-12 March 2013, hosted by British American Tobacco with local support from PT Sadhana, Export Leaf Indonesia, ECO2 and PT Tantular. 218 delegates attended from industries and organisations both within and without the tobacco industry, including tobacco companies, grain companies, fumigators and agronomy authorities.

### The ICC covered:

- Biology of stored product pests
- Sanitation and prevention
- Safe and proper fumigation with phosphine **and a field demonstration by Tantular at ELI**
- Phosphine resistance
- Monitoring and inspections

- Insecticide use
- Temperature (heat & freezing) as a control tool
- Controlled atmospheres **and a field demonstration by ECO2 at Sadhana**
- Other control methods that have been and are being investigated

**The Subgroup** then met for 2 days discussing a range of important topics, such as, phosphine fumigation issues (e.g. insect resistance and 'yellow residue'), controlled atmospheres, and prevention of re-infestation. Guest speakers from Barretine/Agrisense, and Linde Gas were also in attendance to present research on pheromone traps and fumigants. Updates were given by subgroup members about Carifend® (BASF), controlled atmospheres (JTI), vQm (b-Cat), 'yellow residue' (BAT), Eco2Fume (Cytec), and strong and weak phosphine resistant beetles (fera).



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## GUEST SPEAKERS

**Barretine/Agrisense** presented information about anhydroserricornin. Their investigation has shown that this component of the female cigarette beetle's sex pheromone acts as a repellent. Pure serricornin is the most effective pheromone to use for attracting and monitoring cigarette beetle populations. Barretine/Agrisense also shared about improvements they have made to their Mo-Be pheromone trap.

**Linde** gave a presentation on ethyl formate (EF) as a potential alternate fumigant to phosphine. Past investigations revealed that EF did not penetrate well into tobacco but Linde believes that they have overcome this problem with their current delivery system, Vapormate®. Studies have been planned to demonstrate efficacy and penetration.

## HEADLINES

**CORESTA Guide 12** – In May of 2012, CORESTA Guide 12, Controlled Atmosphere Parameters for the Control of Cigarette Beetle, was approved and issued. Based on a study done by The Food and Environment Research Agency (fera) on behalf of the subgroup, the guide will be modified to include the tobacco moth (upon approval by the CORESTA Scientific Commission and Board). The study done at fera confirmed that the parameters effective for the cigarette beetle are also effective for the most tolerant stage of the tobacco moth.

**CORESTA Guide 9** – Freezing Parameters for the Control of Cigarette Beetle and Tobacco Moth. The subgroup asked fera to conduct a study in the coming year to determine the lethal effects of  $-18^{\circ}\text{C}$  ( $-0.4^{\circ}\text{F}$ ) on the most tolerant stage of the tobacco moth. This would allow for a single standard to be applied to the cigarette beetle and tobacco moth. It would benefit those using freezers unable to reach  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ).

**CORESTA Guide 2** – Based on a study done by fera on behalf of the subgroup, the Phosphine Fumigation Parameters for the Control of Cigarette Beetle and Tobacco Moth guide will be modified to include an additional parameter for treating resistant insects (upon approval by CORESTA). The study done at fera investigated the mortality effect of extended exposures at lower concentrations of phosphine. A concentration of 300 ppm for 12 days was lethal to all life stages of cigarette beetle. Adding this parameter would benefit those that are not able to achieve 600 ppm for 6 days. Phosphine Resistance continues to be a major discussion point with new incidents being reported globally. The subgroup is engaging with external experts especially in Australia and in other industries to understand the potential impact.

The next Subgroup meeting, including an ICC, has been proposed for Bangalore, India (hosted by ITC).

For more details on any of the subjects covered in this newsletter please contact your local CORESTA Subgroup representative

<http://www.coresta.org>