

**5th ISSCT ENTOMOLOGY WORKSHOP**  
**JAMAICA, WEST INDIES**  
**23-29 November 2003**

"Pest Management - New Techniques"

**HOST COUNTRY**

Jamaica today might be better known for its Reggae music and as a tourist destination, but only three centuries ago Jamaica topped the world as the leading sugar exporter when, in 1805, just in excess of 100,000 t were shipped! Sugar output peaked at over 500,000 t in 1965 and is currently in the region of 200,000 t/annum, from eight factories.

Like most of its Caribbean neighbours, Cuba, Hispaniola, Puerto Rico etc, Jamaica's economy was built on sugar. Despite being surpassed by the bauxite/alumina and tourism industries in economic value, in recent times, sugar remains by far the main player in Jamaica's Agricultural Sector, is the largest single employer of labour and is still the mainstay of the rural economy. Though the days of Jamaica as a world power in sugar exports are long gone, sugar remains an important part of the economy and both the Industry and Government are determined to ensure its growth and survival.

**HOST INSTITUTIONS**

The **Sugar Industry Research Institute** was formally established in 1973 when it replaced the **Sugar Research Department of the Sugar Manufacturers Association**. Its main function was to research and develop methods leading to more cost-effective cane production. In 1975 the Institute's role was expanded to include a formal Extension Service for cane growers as well as research into factory technology. Among other things, the Institute provides diagnostic services and recommendations, based on its research, for pest problems facing the Industry. The Institute has also assumed the role of provider of biological control services, aimed primarily at the sugarcane stalk borer, *Diatraea saccharalis*.

The University of the West Indies is the premier tertiary learning institution serving the Caribbean with main campuses on three islands, Jamaica, Trinidad and Barbados. The Natural Products Institute could be considered an offshoot of the University and has as its main focus the unearthing and use of naturally existing substances that affect insect development and/or behaviour.

**PROGRAMME**

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Sunday 23 Nov	Arrival and Registration of delegates	
Monday 24 Nov	<b>Morning</b>	Opening ceremony Presentations by Natural Products Institute and Dept. of Life Sciences, University of the West Indies
	<b>Afternoon</b>	New Techniques and Products in pest management Mechanisms of resistance to pests in sugarcane
	<b>Evening</b>	Welcome cocktails
Tuesday 25 Nov	<b>Morning</b>	The role of Variety Selection in sugarcane pest management Advances in transgenics for sugarcane pest management
	<b>Afternoon</b>	General Interest Papers
Wednesday 26 Nov	<b>Morning</b>	General Interest Papers
	<b>Afternoon</b>	Afternoon Summary Closing Ceremonies

	<b>Evening</b>	Evening Closing dinner
Thursday 27 Nov	Tour of Appleton Sugar Estate Black River Safari Overnight in Mandeville	
Friday 28 Nov	Tour of Sugar Industry Research Institute Visit Worthy Park Sugar Estate & Dunns River Falls Overnight, Holiday Inn Sunspree Resort Montego Bay	
Sunday 29 Nov	Departure of delegates	

## REPORT

The world's sugar industries currently face serious challenges. The low world price will force industries to be more efficient - efficiencies that may come about through amalgamations of farms, closure of farms and/or mills, and by eliminating inefficient practices. Many industries will see structural changes - changes that will impact on how research and development is done and how it is delivered. On top of this we see environmental pressures, changing agronomic practices and apparent reluctance in the general community to accept food from genetically modified crops. All of these create tremendous opportunities for sugarcane entomologists.

Entomology can make vital contributions to cane production. Ultimately, its contribution must be targeted to improve profitability and sustainability for all sectors of the industry. Profitability is not a term generally associated with an entomological workshop, but without profits we do not have sugar industries.

The ISSCT Entomology Workshop held 23-29 November 2003 at Montego Bay, Jamaica, was designed to address challenges in sugarcane entomology under the theme 'New Techniques in Pest Management'. Following an official opening, the workshop began with 3 days of presentations and discussion. Then followed a 2-day field tour that introduced delegates to the Jamaican sugar industry from plantation-style farms, to milling, to use of byproducts for rum manufacture. A visit to the Sugar Industry Research Institute allowed the delegates to hear of the many R&D projects being conducted for the industry. The holding of the workshop in Jamaica facilitated attendance by entomologists from the Americas and 31 delegates from 12 countries attended.

The workshop was opened by Mr Karl James, Chairman of the Sugar Association of the Caribbean, Head of Jamaican Cane Products Sales, and Chairman of the Jamaican Association of Sugar Technologists. He emphasised that this is a critical time in the history of the Jamaican industry, with a need to make greater strides to improve both production and productivity to maintain a place among the cane producers of the world. These improvements must be made within a framework of increased concern among customers of the methods used by growers to control pests.

The workshop saw 24 oral presentations and 8 papers represented by abstracts from non-attending authors. The presentations were grouped into six general topic areas: new techniques in pest management; integrated pest management; variety selection for resistance to pests; cultural techniques; biological control; biology of pests.

Sugarcane entomology is influenced by a complex of economic, social and environmental drivers, coming from growers, millers, the general community and the entomologists themselves. These can be different in different countries, reflecting desires to improve the profitability and sustainability of each sugar industry. They do, however, provide opportunities for entomologists - opportunities to provide safe and cheap food whilst having minimal impact on environments. Development of new control strategies, optimising current strategies and integrating different strategies into usable systems that will be adopted will allow industries to move forward through the 21st century.

The workshop concluded that new techniques, such as plant-derived insecticides and biotechnology, will contribute to more effective pest management, but that more conventional techniques will continue to play vital roles in integrated systems. However, all successful management strategies must be underpinned by biological studies and must fit within productive, profitable and sustainable systems.

A full paper that will provide details of the presentation and discussion on each aspect of the workshop will be presented at the Guatemala congress.

## Acknowledgements

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