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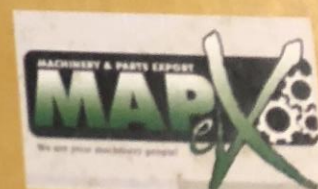
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The Jamaica Association
of Sugar Technologists

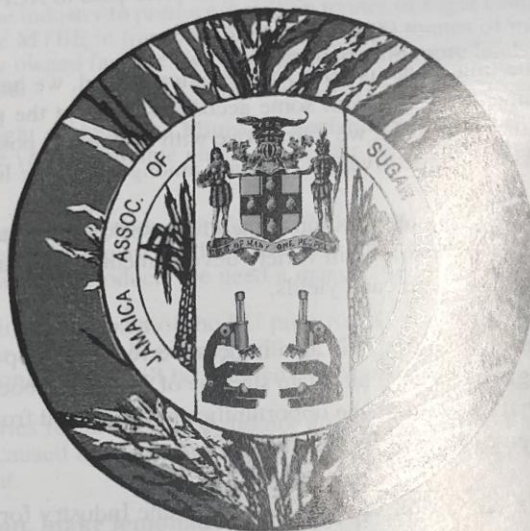
68th Annual Conference

November 10th & 11th 2005
Sunset Jamaica Grande Resort
Ochio Rios, St. Ann, Jamaica

"A Sugar Cane Industry for Jamaica"



The Jamaica Association of Sugar Technologists



68th Annual Conference

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THE JAMAICA ASSOCIATION OF SUGAR TECHNOLOGISTS

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PROGRAMME OF EVENTS

Friday, November 11, 2005

Joint Agricultural and Factory Sectional Meeting

8:00 am – 8:30 am	Registration Session Chairman	Dr. Earle Roberts
8:30 am – 9:00 am	An Environmental Code of Practice for Jamaica's Sugar Cane Industry	Mrs. Elaine Manning - SIRI
9:00 am – 9:40 am	Report on the XXV International Society Of Sugar Cane Technologist Conference and Enhance Sugar Recoveries at Appleton	Ms. P. Wright - SIRI Mr. T. Falloon - SIRI Mr. N. Grimes - Appleton
9:40 am - 10:10 am	Impact of the EU's Proposed Price Reduction on Cane Profitability	Mr. C. F. Woolery - SIRI
10:10 am – 10:45 am	COFFEE BREAK Session Chairman	Mr. R. Karl James
10:30 am – 12:00 am	69th Annual General Meeting of Members of the Association	

Agricultural Sectional Meeting

12:00 pm -12:30 pm	Soil Test Assessment for Local Sugar Cane Soils: Standard Adequacies Employed at Sugar Industry Research Institute	Mr. J. Watson - SIRI
12:30 pm - 2:00 pm	LUNCHEON BREAK	
	Session Chairman	Mr. Ian Maxwell
2:00 pm - 2:30 pm	Tillage Practice to Reduce Fuel Consumption	Mr. K. Chandon Mr. L. Agra - SIRI
2:30 pm - 3:00 pm	Reflections on Different Aspects of Sugar Cane Variety Development in Jamaica	Mr. M. Bennett-Easy - SIRI
3:00 pm - 3:30 pm	Biological Control of the Sugar Cane Stalk Borer <i>Diatraea saccharalis</i> Fabricius (Lepid:Pyralidae) in the Caribbean	Mr. T. Falloon - SIRI

Awards Banquet 6:30pm

Reflections on Different Aspects of Sugar Cane Variety Development in Jamaica

By
M. Bennett-Easy
Sugar Industry Research Institute

Abstract

Sugar Cane yields have fluctuated in some sections of the industry, at a critical time when various approaches are being contemplated to widen the range of by-products that can economically be exploited from sugarcane. These initiatives including ethanol production are predicated on the industry increasing sugar cane production above present levels. However, despite marked improvements in the inventory of new commercial varieties and introduction of a high-technology overhead irrigation infrastructure in sections of the arid St. Catherine and Clarendon plains, productivity continues to fluctuate. Productivity indices; tc/ha and ts/ha have shown stability in the St. Thomas Ye-Vale area during the period 1995-2004, but in the Wet West, Wet East and Irrigated areas sugar cane yields have shown wide variations, and present trends are pointing to yield decline.

In order to achieve high and sustainable levels of production and productivity an integrated approach involving better utilization of varieties to optimize yields, improve cultivation and management techniques should be given pride of place.

This paper examines and discusses three aspects of variety development programme and suggest ways of optimizing crop yields by using production data as a guide to adjust variety policies and exploit the potential of varieties to meet the industry's production goals.

Key words: Sugar cane varieties, productivity, production, crop yield, production goals

Biological control of the sugar cane stalk borer *Diatraea saccharalis* Fabricius (Lepid: Pyralidae) in the Caribbean

By
Trevor Falloon
Sugar Industry Research Institute

Abstract

Some 18 species of *Diatraea*, the stalk boring pyralid moth, formerly subsisting on corn and other grasses, shifted to attacking sugar cane following its introduction to the Caribbean region by Spanish explorers towards the end of the 15th Century. Other stalk borer species, such as *Castniomera licus* and *Eoreumea loftini* add to the complex that attack sugar cane in varying numbers and intensities but *D. saccharalis* is generally regarded as the most important pest of the region. The biological approach to control began in 1915 when *Lixophaga diatraeae* was taken from Cuba to Louisiana. Since then stalk borer control in the Caribbean has been almost exclusively by biological methods. Initial approaches placed heavy emphasis on egg parasitoids of the *Trichogramma* spp. This later gave way to the larval parasitoids, such as *L. diatraeae*, *Lidella minense* and *Paratheresia claripalpis*, endemic to different zones within the region, and exchanged between industries. In due course biological control grew to become big industry with countries such as Cuba establishing scores of laboratories for generating natural enemies. The braconid, *Cotesia flavipes*, imported from India in the 1960's has since become the most successful parasitoid and is established in most of the industries. There are signs of negative interaction between *C. flavipes* and native tachinid parasitoids. Most industries record noteworthy declines in levels of internode damage, with several such as Barbados, Venezuela Guyana and St Kitts now reporting levels below the economic damage threshold of 5%.

Keywords: Biological control, *Lixophaga diatraeae*, *Cotesia flavipes*, antagonism