



# Tiny Fly Threatens Jamaican Hot Pepper Exports



A tiny pest is reeking havoc with the hot pepper exports from the Caribbean. Export of hot peppers is a major source of income for many smallholder farmers in the Caribbean nations, and in Jamaica alone, pepper production provides employment and income for 3,000 people. The tiny insect, unnoticed by untrained eyes, feeds in the larval form of a fly only in the stem, and causes no damage to the fruit.

close proximity and travel between countries. To minimize gall midge infestations, pesticide has been used. The dangers of pesticide residues on exported peppers are of concern to US consumers and can also result in the rejection of pepper shipments. The gall midge has drastically decreased hot pepper exports from Jamaica from a peak of more than 800 tonnes in 1997 to 300 in 2001.

The Jamaican gall midge issue is complex and economically important and requires a multidisciplinary IPM approach. In response, a task force was formed with financial and technical



Even though this insect has no effect on pepper production, it severely impacts the pocketbook of the small Jamaican hot pepper farmer when the crop is unacceptable to exporters. Due to concern that this gall midge does not occur in the USA and must be kept out to protect US crops, shipments with even small numbers of the midge are rejected. Exports have declined dramatically, which has impeded economic growth in the Caribbean. Also, the threat of a non-US species entering the US is a concern, given the

support from the USAID-funded IPM CRSP, the local USAID mission, and FAO. Major task force activities consisted of (1) port/packing house inspection, (2) collaborative research, (3) insect identification, (4) field monitoring of the gall midge

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IPM CRSP (CRSP Grant No. LAG G-00-93-00053-00)  
Office of International Research, Education, and Development (ME)  
Virginia Tech, 1060 Litton Reaves Hall, Blacksburg, VA 24061  
Phone: (540)231-3513 Fax: (540)231-3519 E-mail: ipm-dir@vt.edu  
Web: [www.ag.vt.edu/ipmcrsp/index.asp](http://www.ag.vt.edu/ipmcrsp/index.asp)



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populations, (5) training, and (6) post harvest management. Research on the development of pest management technologies, conducted by IPM CRSP scientists at CARDI,

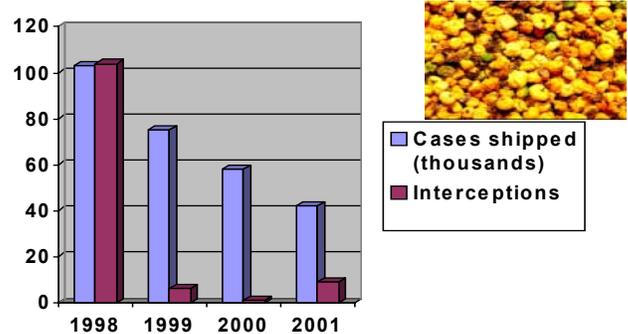


included field sanitation, mulching, trapping and minimal pesticide use. The Rural Agricultural Development Authority (RADA) was responsible for insect surveys, public awareness and technology transfer. Exporters, farmers and rural students were trained in packing house management, recognition of pest infestation and field management of the gall midge. Indeed, the level of cooperation among agencies set a precedent for solving an agricultural production constraint in Jamaica.

Exporters, purchasing agents and farmers were sensitized through meetings, electronic and print media and radio. The pest location and incidence were monitored using Geographical Information Systems (GIS) Technology and a web-based surveillance activity was established in 17 districts to ascertain seasonal distribution of the pest. GIS technology is being used to forecast gall midge outbreaks and to assist in the certification of pest-free areas and seasons. A computerized traceability system was developed, allowing port intercepted hot peppers to be traced back to the farm of origin. This model is now being exported to other Caribbean countries.

As a result of the action plan, interceptions have dramatically decreased – from 104 in 1998, to 0 in 2000,

and 10 in 2001 (see figure ). The USDA/APHIS agreed to review the quarantine requirement and a team visit in Dec. 2001, along with follow-up efforts led to a lifting of the



mandatory fumigation requirement based on the following stipulations:

- ◆ Only pre-cleared shipments are eligible;
- ◆ Participating farmers must be registered in the traceability program and certified in a non-fumigation program;
- ◆ Growers who have shipments in which gall midge is detected will be suspended from the program;
- ◆ Reinstatement to the program is based on field inspections by RADA; and
- ◆ If the port interceptions reach 15%, mandatory fumigation of all lots of hot pepper export shipments will resume.

The lessons learned in saving the Jamaican hot pepper export crop has implications for other nations. For agriculture to maintain a significant role in resource poor countries like Jamaica in today's global context, an efficient national response to pests that affect the economy is critical. Combating problems such as the Jamaica hot pepper gall midge requires a coordinated effort involving all strategic agencies. The future of economically important agricultural exports in the Caribbean is dependent on a high level of collaboration involving all stakeholders from the farmer to port officials, the government, private entities and NGOs. Problems such as the hot pepper gall midge cannot be solved without a multidisciplinary research program to develop sustainable pest management technology and to effectively transfer this technology to producers.

**For further information regarding this article contact:**

- ◆ Dionne Clarke-Harris, Caribbean Site Coordinator, c/o CARDI, P.O. Box 13, University Campus, Mona, Kingston 7, Jamaica, 876-927-1231, dcharris@uwimona.edu.jm
- ◆ Sue Tolin, Site Chair, Virginia Tech, Blacksburg, VA 24061-0330, 540-231-5800, stolin@vt.edu
- ◆ E. A. "Short" Heinrichs, Interim Program Director, IPM CRSP, 540-231-3516, ipm-dir@vt.edu