

DETECTION OF HOUSES INFESTED WITH TRIATOMINES IN DAMIANÓPOLIS GOIÁS, CENTRAL BRAZIL

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We have previously described the methods of continual vigilance that we have developed to detect residual domiciliated triatomine populations during the vigilance phase of a Chagas' disease control programme (M. T. A. García-Zapata et al., 1988, *Rev. Argent. Microbiol.*, 20 (Supl.): 106-117). The original vigilance unit consisted of a Gómez-Nuñez box attached to the wall over the principal blood meal source, together with plastic bag bearing the owners name and address. Over the parents bed this is not touched by the children and its purpose indicated by an attached notice which is read to the parents on installation (P. D. Marsden & R. Penna, 1982, *Trans. R. Soc. Trop. Med. Hyg.*, 76: 790-792). The Gomez-Nuñez box acting as a wall extension was changed periodically to look for evidence of triatominae but since it requires skilled interpretation and the evidence was mainly faecal streaking we have replaced the box with a paper sheet (M. T. A. García-Zapata et al., 1985, *Trans. R. Soc. Trop. Med. Hyg.*, 79: 558-559), with plastic bag, and developed a key for reading faecal contamination (C. J. Schofield et al., 1986, *Rev. Soc. Brasil. Med. Trop.* 19: 1-5). Such a unit called the *Minimal Vigilance Unit* is more suitable for longitudinal vigilance in mass survey campaigns.

However it has been suggested that our activities in Mambaí, Goiás could not be reproduced elsewhere. Here we tabulate evidence over four years of householders from town rural areas reporting bug presence using the vigilance units in an area previously not subject to Chagas' control. Damianópolis, a neighbouring municipality to Mambaí, entered the attack

phase of Chagas' Disease Control in 1984 using 0.05 gm/m² of Deltamethrin. In the year of attack household infestation with *Triatoma infestans* was similar to that previously reported in Mambaí (P. D. Marsden, 1981, *Infect. Control*, 2: 466-470). Residual spraying of persistently infested houses followed SUCAM regulation (1980, *Manual de Normas Técnicas da Campanha de Controle da Doença de Chagas*, Brasília, DF, Brasil, 167 p.) but in 1986 the insecticide dose was changed to 0.025 gm/m² of Deltamethrin. The efficacy of the pyrethroid is shown by the result in 1987 (Table). Householders inspite of lack of previous instruction in the area before 1984 collaborated well using the *Minimal Vigilance Unit* constituted of a paper sheet and a plastic bag in which they sent any captured bugs to our central collecting post. A positive report initiated a visit by the control team, who investigated the triatomine house infestation by the manual capture and interpretation of faecal streaks. Finally the infested house is sprayed. We believe these techniques can be used in National Programmes with good results in the vigilance phase.

TABLE

Houses infested with triatomines in four farms in
Damianópolis, Goiás, Central Brazil

Year study	Number of domiciliary units				
	Studied	Infested ^a	<i>T. infestans</i>	<i>T. sordida</i>	Others
1984	215	121 ^b	106	5	0
1985	203	11	11	0	0
1986	204	11	9	6 ^c	2 ^d
1987	166	0	0	0	0

a: detected by means *Minimal Vigilance Unit* (paper sheet + householder triatomine notifications) and/or Manual Capture.

b: included 10 houses with nymphal instars.

c: simultaneous infestations with *T. infestans*.

d: *R. neglectus*.

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