

**PRELIMINARY STUDIES ON THE RELEASE
OF LABORATORY REARED *EVANIA APPENDIGASTER* FEMALES FOR
THE CONTROL OF *PERIPLANETA AMERICANA***

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Evania appendigaster (Hymenoptera : Evanidae) and *Tetrastichus hagenowi* (Hymenoptera : Eulophidae) are two oothecal parasites of *Periplaneta americana*. Each parasite exercises a natural parasitism level of about 33%. With the intention of further increasing the percentage of natural parasitism of *E. appendigaster*, the parasites were bred in the laboratory and were released into seven experimental sites. The number of females to be released was based on the number of oothecae found at each of the release sites.

The releases were made in the following ratios (oothecae : females) : 10 : 1, 1 : 1, 1 : 2, 1 : 3, 1 : 5 and 1 : 10 at the different sites, during the period January to December 1982. The maximum level of parasitism obtained using each of the release ratios are : 10 : 1 - 30.00%, 1 : 1 - 32.85%, 1 : 2 - 37.29%, 1 : 3 - 57.50%, 1 : 5 - 61.90%, 1 : 10 - 59.09%. The average level of natural parasitism at the control sites (where no parasites were released) were $24.72 \pm 5.21\%$. The release ratio 1 : 5 gave the maximum level of parasitism with the minimum number of *E. appendigaster* females. Hence this release ratio was repeated at 4 sites over a period of 5 months. The highest parasitism levels at each of these sites are : I - 64.70%, II - 57.14%, III - 66.66% IV - 65.00%. Further release of both parasites are to be made to attain the maximum possible level of parasitism for the control of *P. americana*.