



SAFE CONTROL OF MIRID PESTS ON COCOA IN WEST AFRICA

PHEROMONE COMPONENT

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- Mirid bugs and black pod rated as most important constraints on cocoa in West Africa (*West Africa Regional Cocoa IPM Workshop, Cotonou, 2001*)
- Need for effective control methods for mirids with low non-target effects identified in Farmer Field Schools (*Vos et al. 2003*)

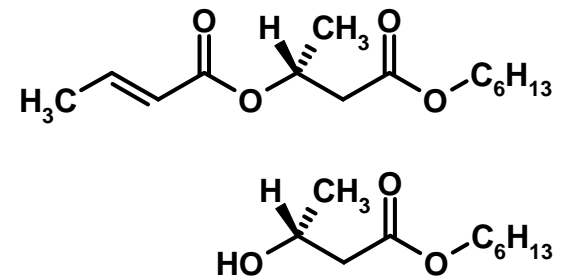
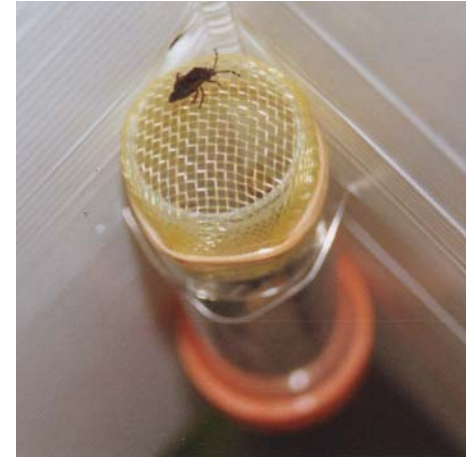
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- Mirid bugs cause lesions on pods
- Destroy growing point
- Destroy trees
- Promote fungal growth (*Calonectria* spp.)



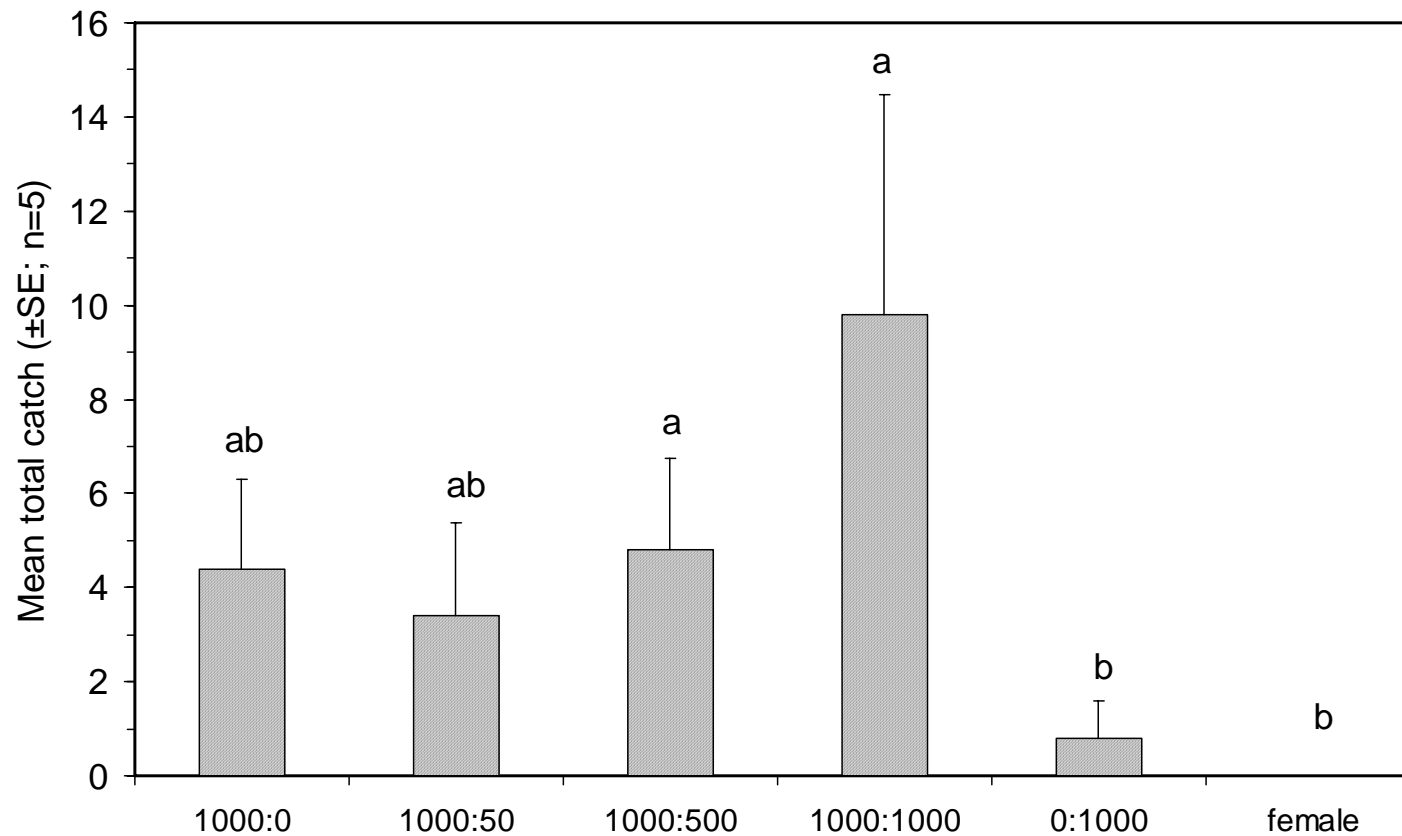
DFID-FUNDED PROJECTS (1998-2005)

- Virgin females of *Distantiella theobroma* and *Sahlbergella singularis* attract conspecific males
- Novel pheromone components identified and synthesised for both species



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- CRIG showed synthetic pheromone blends attract male *S. singularis*



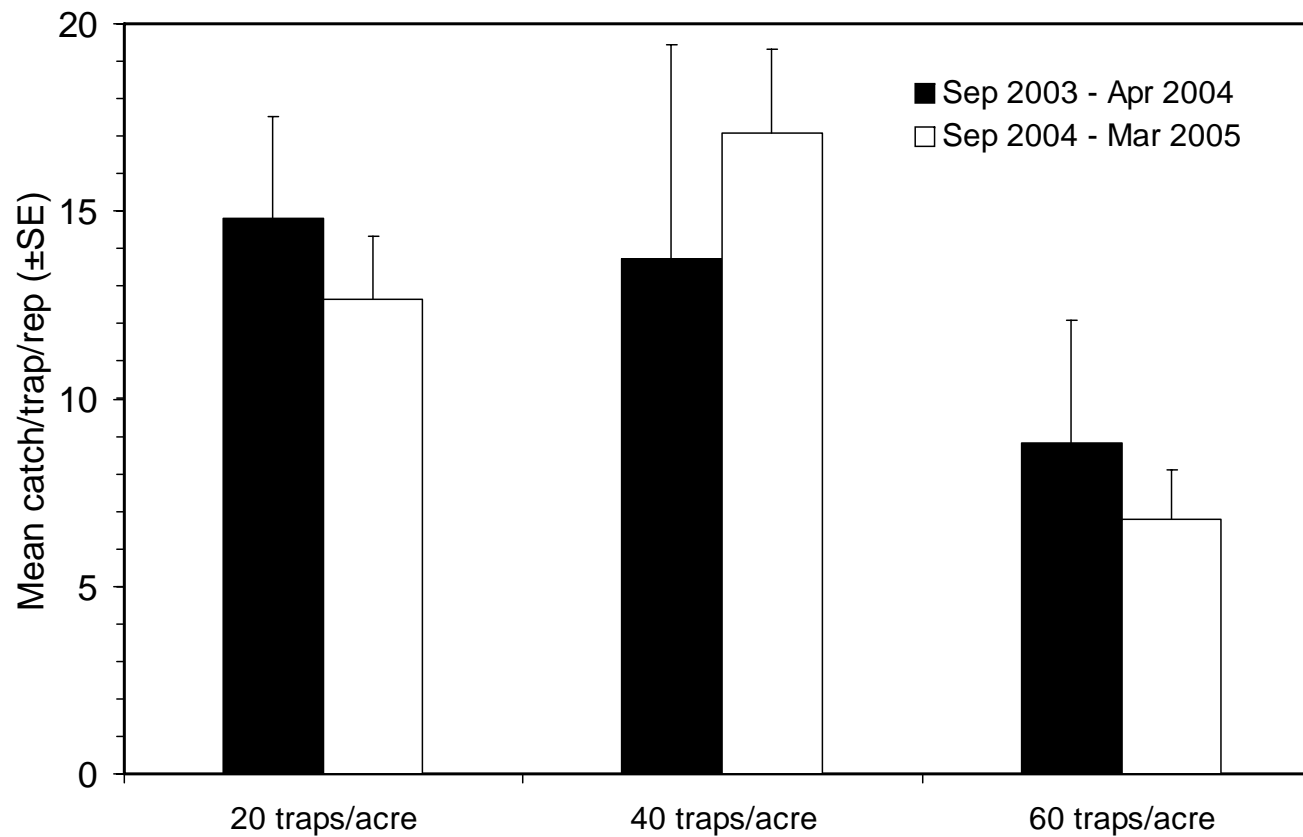
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- Traps and lures developed by CRIG
- Various sticky traps effective
- 1 mg pheromone released from polyethylene vial lasts for 1-2 months



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- Mass trapping effect demonstrated by CRIG



NEW PROJECT - MONITORING

- Ensure commercial production of lures (UK? India?) and traps (Ghana?)
- Continue development of traps for monitoring by growers
- Relate trap catches to infestation, damage and/or yield loss
- Pest monitoring vital for effective Rational Pesticide Use and biopesticides



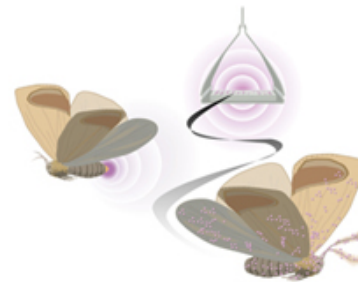
NEW PROJECT - CONTROL

- Mass trapping
- Lure-and-Kill in which mirids are lured to lethal source of pesticide or mycopesticide



NEW PROJECT - CONTROL

- Mass trapping
- Mating disruption
- “Exo-Sex” – lure males, contaminate them with pheromone, release them so cause mating disruption



NEW PROJECT – CAPACITY BUILDING

- CRIG PhD student (pheromones) – UK/Ghana
- IPARC student (RPU and biopesticides) – UK/Ghana
- Inputs from UK experts (IPARC, NRI, EMR)
- Final workshop

