The data from this research point out a number of interesting problems related to interpreting pheromone trap catches once a spray program has begun.

1. Trap catches increased after the applications of the two organophosphate insecticides and decreased after the applications of the permethrin.

2. Although the trap catches were very different in the two insecticide type comparisons, larval infestation in susceptible bolls in both program fields were maintained at similar low levels. This indicates that pheromone trap catches of male moths do not reflect spray efficacy against female moths and/or larvae.

3. Variability in border trap catches is such that catches can be higher, lower or about equal to middle traps when compared on a pre-spray vs past-spray basis.

Conclusions

These data indicate that extreme caution should be exercised when pheromone trap catches alone are used to evaluate the efficacy of various insecticides in suppressing pink bollworm infestations in cotton. In addition, the application of insecticides in a cotton field to suppress Heliothis spp. or lygus bugs, may have drastic effects on pink bollworm pheromone trap catches. In either case, the use of pheromone trap data in pink bollworm management and prediction programs is complicated by the effect of insecticide applications in cotton.

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PHEROMONE STUDIES

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The Z,Z-isomer of gossyplure in microencapsulated and laminated flake dispensers depressed trap catches and mating of laboratory females in mating stations eqivalent to gossyplure at the same rate. A comparison of large drop (point source) and spray applications of microencapsulated pheromone materials indicated that more active ingredients must be applied by spray to achieve communication disruption.

PHEREMONE

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In laboratory tests using a wind tunnel 8′ x 2′ x 2′ high, male moths were killed when the pheromone release formulation, applied to potted plants, contained both pheromone and an