Lord of the Flies

Fruit and vegetables are key sources of nutrition and marketable produce to millions of poor people in South Asia. Both the quantity and quality of yield is greatly reduced by the damage caused by fruit flies. Traditional methods of control have been labour intensive, required significant amounts of pesticide and were relatively ineffective. CPP-funded research has shown effective methods of controlling the fruit fly through using food baits, mixed with insecticide or by 'Parapheromone' (chemical sexual lure), soaked into wooden blocks with a small amount of insecticide, which even more powerfully attract and kill male flies.

Insect cages were built to the same design, by local carpenters, in the nine research centres in India

Labour is an important constraint and farmers are very appreciative of the reduction in labour requirements in the improved pest management strategies. In the pilot sites, the project has shown that farmers have benefited through reducing pest damage and pesticide use – has also shown that the amount of fruit that children eat has increased.

The research/study assessed the ability of different food baits to attract and kill flies in specially designed cages. This showed differences in the relative attraction between areas, among the same species, in consistent ways – an unwelcome but important finding which is leading to preliminary mapping of which baits work best where. The research has also shown the greater effectiveness of village-level control and is now working with the Mother Dairy co-operative which currently oversees co-operative activities within the community. Project R8440 is in discussion with organisations interested in supplying lures to the farmers. Project R8089 has studied how to make the best use of these controls at the farm level in the diverse systems across India, from the semi-desert of the Gujarat/Rajasthan border, with 20 farms per square kilometre, to the humid jungle hills of Kerala, with over 600.

South Asia Fruit Fly Network meeting, January 2005, New Delhi

This project has established fruit fly research centres with principal investigators and junior researchers at Gujurat Agricultural University (3 campuses), Kerela Agricultural University (2 campuses), Indian Institute of Vegetable Research, Central Institute for Subtropical Horticulture and the Indian Institute of Horticultural Research with overall co-ordination from the Indian Agricultural Research Institute. It also helped to establish the South Asia Fruit Fly Network (www.southasiafruit fly.net) through the provision of support and technical expertise. This network is already communicating and sharing experiences within the region and the outside world.

R8089: Management of fruit flies (Diptera: Tephritidae) in India
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