

# FOOD & AGRICULTURE

Technologies for Better Quality of Life

## PHEROMONE TECHNOLOGY

Sweet potato is an important crop in Indian agriculture. However, its productivity is reduced significantly due to extensive damage caused by the sweet potato weevil rendering the tuber unsuitable for human consumption. In an effort, to control the pest menace efficiently, in collaboration with Central Tuber Crop Research Institute, Thiruvananthapuram, BARC has developed an Integrated Pest Management (IPM) package using indigenously designed cheap dispensers coated with the SPW pheromone synthesized in BARC.



*Encouraging results have been obtained with the pheromones synthesised at Trombay*



*Sweet Potato Weevil Trap for field application*

The Integrated Pest Management package has been used extensively in the all India coordinated on-farm trials for the weevil control which covered the major sweet potato growing areas as well as different cultivation seasons. The IPM package performed significantly better producing larger amount of marketable crops with lesser pest infestation compared to the conventional chemical treatments.

## SERICULTURE

India is the second largest producer of silk in the world making sericulture as an important industry for the country. However, sericulture is a highly time-intensive agro- industry, as silk is produced during the metamorphosis of the silk-worms. Consequently, any time-saving measure would increase silk productivity, reduce the production cost and also prevent total loss of silk due to the uncontrollable and inadvertent destruction of the silk worms.

In collaboration with the Central Sericulture Research & Training Institute, Mysore, BARC has developed a moulting hormone preparation from an indigenous natural source which promotes the silk worm maturation and increases the silk productivity.

The on-firm trials of the new moulting hormone preparation, have been conducted successfully at different parts of India. The hormone preparation is cheap, and on topical application at a very low concentration, prepones the maturity of the silkworm larvae, providing better quality of reelable silk in a short time.

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