

PROJECT INFORMATION

Monitoring, bioecology and management of key insect pests in important coastal crops

PROJECT OVERVIEW

Funding Agency	Institute plan
Total Outlay	43.5 lakh
Duration	3 years
Single / Multi-Institutional	Single
Principal Investigator	Sanjay M. Bandi
Co-Investigators	Akula Chinapolaiah, Bommayasamy N.

RATIONALE

With the introduction of new crop varieties, expansion of cultivation into non-traditional areas, changes in cropping systems, and increasing climatic variability, the incidence, intensity and distribution of insect pests may undergo significant changes. Changes in cropping practices and crop diversification can further modify pest abundance and damage patterns. Therefore, a reassessment of the seasonal incidence, species composition, infestation patterns and associated damage of major insect pests is warranted in important coastal crops, particularly in the West Coast region of India, to facilitate the management of these pests.

RESEARCH GAPS

Pest diversity, infestation patterns and crop losses caused by major insect pests in important coastal crops is limited, particularly along the West Coast of India. Seasonal incidence and environmental factors influencing key insect pests are necessary to understand their changing pest status. Limited information is available on the potential of locally available bio-agents and other bio-intensive options for pest management.

OBJECTIVES

1. To assess pest diversity, seasonality, and crop-pest interactions for key pests of coastal crops.
2. To evaluate bio-intensive approaches for management of key insect pests of coastal crops.

ACTIVITIES

- Baseline study to assess the insect pest complex associated with major coastal crops.
- Regular monitoring of pest incidence and seasonal occurrence, and weather-based analysis of pest population dynamics.
- To evaluate bioactive botanicals, bio-agents, traps, attractants against key pests.

EXPERIMENTAL DETAILS

Treatment:	NA
Fertilizer Doses	NA
Variety	NA
Replications:	3
Observations:	NA
GPS Coordinates:	15.491945, 73.920553

EXPECTED OUTPUT

Baseline data of major insect pests associated with important coastal crops, including their diversity and seasonal incidence. Evaluation and identification of effective bio-agents, botanicals and other bio-intensive approaches against key insect pests. Development of extension advisories, technical bulletins and extension leaflets for management key insect pests in important coastal crops.

EXPECTED OUTCOME

The findings are expected to contribute to timely management of insect pests, reduction in crop losses and pesticide dependence in important coastal crops. Adoption of bio-intensive and environmentally safer pest-management practices will further promote sustainable and climate-resilient coastal agriculture.

FIELD INFORMATION

When the field was developed:	NA
What are crops being cultivated season-wise:	NA
Soil type:	NA
Soil pH, EC, OC:	NA
Soil depth:	NA
Soil NPK and Micronutrient status:	NA

Common pests and diseases:

Sucking pest complex (aphids, hoppers, thrips),
tea mosquito bug, fruit flies, cowpea aphids,
pulse beetles, red palm weevil.