

Coried Bug of Coconut

Coried bug has assumed the status of an important emerging pest of coconut palm in Kerala. The bug scientifically called *Paradasynus rostratus* Dist. belongs to the family coreidae which includes insects that suck sap from plant parts. The pest was first recorded in 1972 from coconut plantations in the coastal areas of Kerala. In recent times the attack by this pest is widely observed in many parts of the State especially in the southern districts viz. Thiruvananthapuram, Kollam and Alappuzha. In cases of severe infestation, majority of the tender buttons fall down. The surviving ones continue to grow resulting in malformed/crinkled nuts and in many cases develop into barren or puny nuts.

Life cycle

The adults are brown to chocolate brown in colour with a body measuring approximately 2 cm length and 0.5 cm width (Fig. 1). The female bug lays eggs in clusters of 4-5 rows closely apposed end to end on leaf petiole, spathe, spadix or young nuts. The freshly laid eggs which are oval shaped with an yellowish tinge turn into reddish colour with golden tinge just before emergence of the nymphs. The nymphs come out of the eggs within 8-10 days. The first and second instar nymphs are ant like, reddish in colour and are seen to congregate on the spadix or buttons. The total nymphal period is completed within 30 days. The newly hatched adults can be seen on the new inflorescence and young bunches. The adults live on an average for 50 days. In addition to coconut, the pest also attacks other crops like cashew, guava, tamarind, cocoa etc grown in the plantations.

Nature of damage

The nymphs as well as adults feed on female flowers and tender nuts. The insects thrust their long needle like proboscis into the tender meristematic region of the buttons through the perianth and suck the sap. Usually buttons up to 3rd month are attacked by the pest. Rarely tender nuts up to 5th month growth are also attacked. While feeding, the saliva is injected into the feeding portion through

the proboscis and the toxins present in the saliva cause damage to the tissues at the feeding site. These feeding punctures develop into necrotic lesions and these lesions can be clearly seen if the perianth of the shed tender buttons of an infested palm is removed (Fig. 2). When female flowers are attacked prior to pollination all of them are shed and the whole inflorescence will be barren. In some cases the female flowers dry up and can

thus malformed. In many cases gummosis can be seen on such nuts. In severe infestation the kernel of infested nuts become thin, malformed and cannot be used for edible purposes. The dehusking of infested nuts become difficult due to the hardening of husk as a result of corky formation of the fibre.

In coconut plantations, the presence of the pest can be noticed just on the onset of the rainy season. But maximum infestation is observed during post monsoon period from September - December. In hot summer period, the pest is very seldom observed on coconut palm. In many cases both coried bug and eriophyid mite

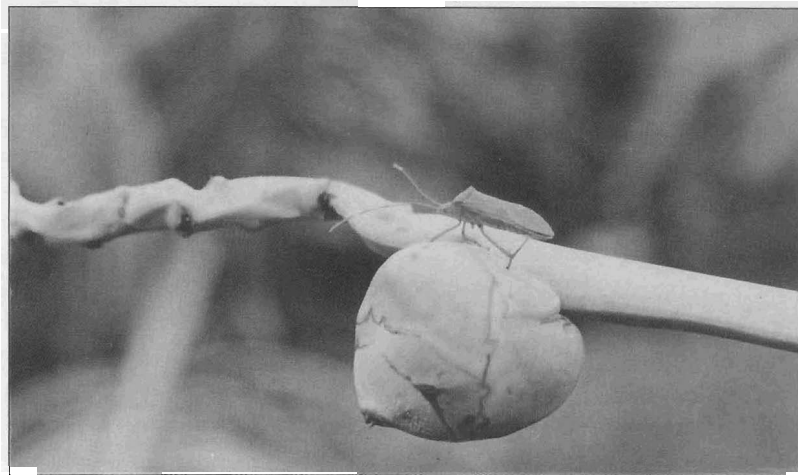


Fig. 1. Poonkulachazhy

be seen attached to the inflorescence on the crown. Most of the infested buttons and tender nuts shed down. Those unfallen infested buttons develop into undersized or crinkled nuts or barren nuts. Shedding or retention of nuts depends on the depth of the entry of stylet and severity of attack. The retained nuts on the bunches develop furrows and crinkles on their husk and are

infestation could be noticed on the same nut and in such instances the crop loss is very high.

Control measures

Based on the studies on the life cycle of the pest and its population dynamics in the field, it has been recommended that insecticidal application has to be done on young bunches 3 times in a year (May, September

and December) for control of the pest. Carbaryl 0.1% (20 g in 10 lit. water) has to be sprayed on young bunches for an effective control of the pest. Care should be taken not to spray on unpollinated bunches. As the activity of pollinating insects like honey bees and other insects are maximum during the morning hours, it is desirable to undertake spraying in the afternoon. Placement of

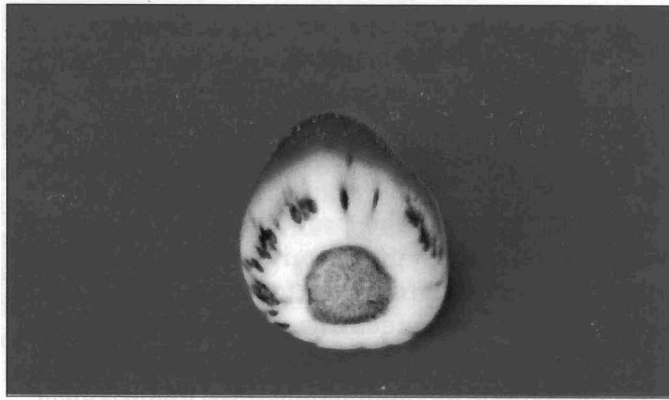


Fig. 2. Damage symptoms in coconut button

two small polythene sachets containing 2.5 g of phorate in the leaf axils of the youngest bunches or fixing them on the stalk of the infested young

bunches was found to give effective control of the pest in the field. However, this has to be done very carefully to avoid probable pollution

of the environment.

Intensified studies are now being carried on the natural enemies of this pest and their utilization in control of the pest. Similarly the efficiency of botanical/organic pesticides in management of the sucking pest complex of coconut viz. corried, eriophyid mite and mealy bug is also a subject of study at Central Plantation

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COCONUT RECIPES



Beef Smoore

Ingredients:

Beef	:	500 g
Red onion (sliced)	:	1 tbsp.
Garlic (chopped)	:	6cloves
Green ginger (chopped)	:	6 slices
Cinnamon	:	5 cm piece
Rampa (flavouring Pandanus)	:	10 cm. Piece
Lemon grass	:	½ stem
Curry leaves	:	a small sprig
Coriander seed	:	1 ½ tbsp
White cumin seed	:	1 ½ tsp
Sweet cumin seed (roasted and ground together)	:	1 tsp
Fenugreek	:	½ tsp
Vinegar	:	1 ½ wineglass
Pickled lime	:	½
Ghee	:	2 tbsp
Thick coconut milk	:	1 cup
Salt	:	to taste
Saffron (turmeric ground)	:	a pinch
Dry chillies (roasted and ground):	:	20

Method of preparation

Wash the meat, prick it over with a steel skewer or fork and put it into a chatty with 3 cups of water and all the ingredients, except the coconut milk and ghee and boil gently until the meat is tender. Then add the coconut milk and boil for 15 minutes longer. Remove the gravy, put in the ghee and fry the meat. Pour back the gravy and stir for a couple of minutes.

Beef Curry

Ingredients:

Beef	:	1 kg
Dry chillies (ground)	:	15
Saffron (turmeric ground)	:	a pinch
Red onion s (sliced)	:	2 tbsp
Garlic (chopped)	:	3
Green ginger (chopped)	:	2 slice
Fenugreek	:	¼ tsp
Rampa (flavouring Pandanus)	:	5 cm piece
Lemon grass	:	½ stem
Curry leaves	:	a small sprig
Cinnamon	:	5 cm piece
Juice	:	half a lime
Ghee or dripping	:	2 tbsp
Salt	:	to taste
Thick coconut milk	:	1 cup
Second extract of coconut milk	:	3 cups

Method of preparation

Wash and cut the meat into small pieces and put into a chatty with the second extract of milk, the chilli, saffron (turmeric), garlic, ginger and salt and half each of the onions, rampa, lemon-grass, curry leaves, cinnamon and fenugreek and boil until the meat is tender. Then add the thick milk and the lime juice, and let it **boil** for 10 minutes. Heat the ghee in a **chatty** and **fry** the remainder of the ingredients, then turn in the meat mixture and let it simmer for 10 minutes longer.

- Coconut Recipes around the World