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NEW RECORDS OF INSECT PESTS OF SWEET POTATO IN KERALA

Sweet potato is attacked by a large number of insect pests, mites and a few nematodes (Subramoniam, 1954; Ayyar, 1963; Pillai *et al.* 1973; Nair, 1975; Butani and Varma, 1976; Subramoniam *et al*. 1977; Anonymous, 1978; Pillai and Lal 1973; Visalakshi *sf al*. 1980). Observations made for 2 years during 1979-81 in the farm of this Institute and in cultivator's fields in Trivandrum, Quilon and Alleppey districts led to the identification of some new pests on the crop which are reported in this contribution.

Homoptera
Pseudococcidae

Dysmicoccus brevipes (ckll.)

The mealy bug was occasionally found in large numbers infesting the collar region of the crop. Nymphs and adults suck sap from the basal portion of the plant below soil and the affected region turns blackish. Crop of 1 to 2 months growth is usually susceptible, the damage being 4—6%. The same species had been reported to cause wilting and death of young arecanut seedlings in Mysore (Nair and Menon 1963) and as the most destructive pest of pineapple in the south and east of India (Butani, 1975).

Sp. *Pseudococcus**

A new species of *Pseudococcus* was occasionally found feeding inside the collar stem. All the life stages of the bug namely, egg, larva and adult were seen inside the stem. Nymphs and adults suck sap from the stem and the affected region dries off. Foliage in affected plants turns yellowish in severe cases of attack. Damage was recorded in all stages of the crop. In severe cases the damage was of the order of 8-10%.

Sp. *Planococcus*

This is another mealy bug found to attack the foliage and tender shoot of sweet potato crop. Adult bug is white in colour, hairy, and oval in shape and in 15mm long and 1.5 mm wide. Body is waxy and segmentation clearly visible. The anal region has two long tails. Although the bug occurs frequently it causes only minor injury to the crop.

Otinotus lignicola B.

Nymphs and adults of the bug was observed to suck sap from the tender shoot. It was found in all seasons and appeared to be of minor importance. *Otinotus oneratus* Walk. had earlier been reported on tamarind and cotton and *O. elongatus* on jute in India (Nair, 1975).

* Dr. 0. J. Williams, Commonwealth Institute of Entomology has identified it as a new and interesting species.

Coleoptera

Curculionidae

Alcidodes fabricii F,

Adult weevil was observed to feed on the tender shoot, foliage and flower petals in all the seasons. Adult weevil is brown in colour with longitudinal white bands over the elytra (Fig. 1) Male is 5.5 mm long and female 6.5 mm long. Subramoniam (1954) recorded the larva of the insect as boring into the fruit and feeding on the seeds of sweet potato in Coimbatore. This is the first report of *A. fabricii* on foliage, tender stem and flower petals of sweet potato,

Myllocerus viridanus F.

This green weevil was found feeding on the foliage of sweet potato crop in large numbers throughout the year. Adult is 4.5 mm long *M. viridanus* had been reported as a foliage feeder of various crops like castor, groundnut, bhindi, moringa, cashew and guava in India (Ayyar, 1963; Nair, 1975).

Chrysomelidae

Galerucinae

Aulacophora sp near *foveicollis* (Lucas)

It is a reddish brown beetle found occasionally feeding on the foliage of the crop. Adult beetle measures 6 mm x 3 mm. It closely resembles *A. foveicollis* Lucas which is one of the most destructive pests of cucurbitaceous vegetables (Nair, 1975).

Cassidinae

Chriridopsis ornata (F)

Adult beetle is greenish yellow in colour with a brown ornamentald design over the elytra and measures 6 mm x 4 mm (Fig. 2). Adults and nymphs feed on the green matter of the leaves and make small holes. Grubs usually feed on the under surface of leaf. The insect was found to breed and multiply on alternate hosts like *Ipomoea obscura* and *Ipomoea trichocarpa*. The pest was noted throughout the year.

Cassida sp near *indicola* Duv

This is another tortoise beetle, green in colour found to feed on the green matter of the leaves, leaving large number of holes. Grubs feed on the lower surface of the leaf while adults mostly feed on the upper surface. Adult beetle measures 4.5 mm x 4 mm (Fig. 3). *Cassida indicola* Duv. had been reported on sweet potato in Kanpur (Varma, 1954).

Halticinae

Luperomorpha bombayensis (Jacoby)

Adult beetles in large numbers feed on the foliage and fiowers. They are found to feed on the foliage in all the stages of the crop. During flowering, preferential attack on flowers could be noticed. The whole flower is eaten by a group

of beetles and thus seed setting is adversely affected. They occur in all the seasons. The same species was reported to cause damage to brinjal flowers (Santhakumari *et al.* 1979). Adult beetle is yellowish brown in colour. The female measures 3.25 mm x 1.5 mm and male 2.5mm x 1.25 mm. *L. bombayensis* is also found to feed on the leaves and flowers of *Ipomoea trichocarpa* and *I. palmata*.

Scarebaeidae

Cetoniinae

Oxycetonia versicolor F.

These brightly coloured beetles were found to feed on the flowers of sweet potato and thus preventing seed setting. Adult beetls measures 1.3 cm x 0.8 cm. The same species had been reported to feed on the flowers of crops like groundnut, bhindi and rose (Nair, 1975).

Meloidae

Mylabris thunbergi Billberg

These beetles were seen feeding on the flowers of sweet potato. Adult beetle measures 1.4 cm x 0.5 cm. Elytra is red with black spots. Other parts are black in colour.

Nitidulidae

Macroura orientalis Niet.

These beetles were found feeding in groups of 10-15 on the flowers. They occur in all the seasons and attack only the pollen and stamen of the flower leaving behind the petals. Adult beetle is 3.5 mm x 1.5 mm in size (Fig. 4).

Tenebrionidae

Gonocephalum depressum F.

These medium sized dark brown ground beetles were found for the first time damaging the tubers of sweet potato crop. Adult beetles make small round notches on tuber surface as a result of feeding. Adult measures 1.2 cm x 0.6 cm. They were found in the soil in large numbers when the crop was mature. Damage to the extent of 10 to 15% was recorded. Another species *Gonocephalum civicum* Kas had been reported to feed on mature tubers of sweet potato in Kerala (Pillai and Lal, 1978),

Orthoptera

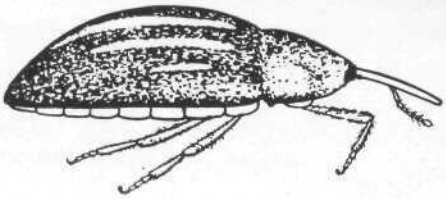
Tettigonidae

Copiphorinae

Euconocephalus sp.

This green coloured grass hopper was found in large numbers throughout the year on sweet potato crop (Fig. 5). Both nymphs and adults eat away foliage and cause damage to the crop. Adult is 5.5 cm long and 0.5 cm wide. Egg is laid in the soil.

Pests of sweet potato



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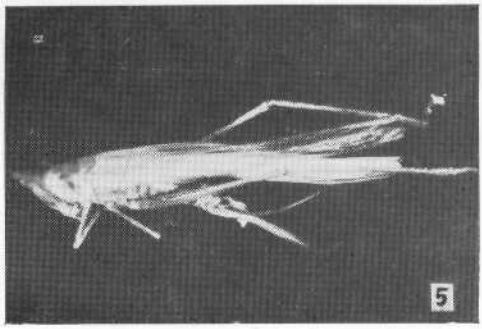

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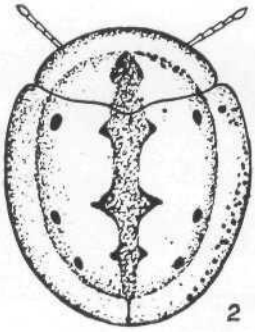

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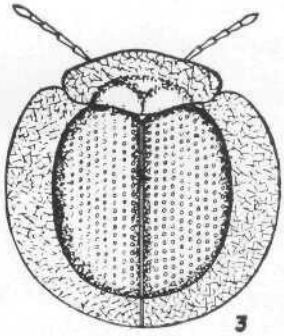

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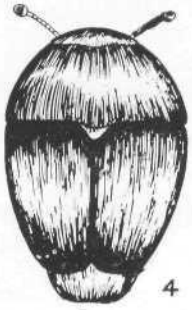

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1. *Aulachophora* sp. near *foveicollis* (Lucas)
2. *Chiridopsis ornata* F,
3. *Cassida* sp. near *indicola* Duv
4. *Macroura orientalis* Niet
5. *Euconocephalus* sp.

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മധുരക്കിഴങ്ങുചെടിയെ ബാധിക്കുന്ന ചില ഷഡ്പദ ജീവികളെ കേരളത്തിൽ നിന്നും ഇദംപ്രഥമമായി റിപ്പോർട്ടു ചെയ്തിരിക്കുന്നു.

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