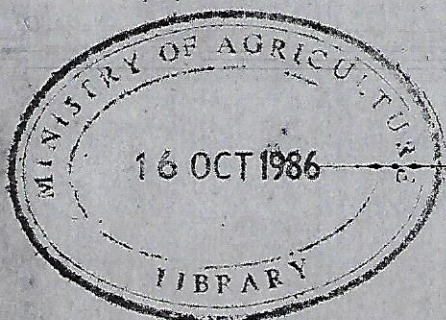


J. J. J.
DEPARTMENT OF AGRICULTURE

JAMAICA

INVESTIGATIONS

1950 — 1951 ✓



BULLETIN No. 49
(New Series)

PRICE 2/-

Coconuts

In the coconut experiment at Orange River there was a severe attack of coconut aphids *Cerataphis lataniae* Boisd., but they were brought under control by Ladybirds.

A localised outbreak of the Rhinoceros beetle (*Strategus titanus*) occurred in St. Ann.

Coffee

Outbreaks of the coffee leaf miner (*Leucoptera coffeella* Staint.) were observed in Manchester, where the crop was growing among bananas and had been sprayed against Leaf Spot.

Cocoa

Aphids in the cocoa nurseries at Orange River were controlled by nicotine spray. Fiddler beetles caused many deaths amongst young plants in the propagating nurseries.

Twelve other pests of minor importance were recorded as attacking cocoa trees and ornamental shrubs.

PESTS OF STORED PRODUCTS

The only additions to the list given in Bulletin No. 47 (p.36) were *Triboleum ferrugineum* F and *Triboleum confusum* Dur. infesting stored ginger. *Laemophloeus pusillus* infesting rice and *Caulophilus latinasus* infesting stored ginger.

Survey of the Host Plants of *Heterodera marioni* Cornu (EE. g. 2)

Observations on host plants of the Eelworm (*Heterodera marioni*) continued and the following should be added to the comprehensive list given in the previous bulletin:

Common Name	Botanical Name	Family
Corn	<i>Zea mays</i>	Gramminae
Sweet pea	<i>Lathyrus odoratus</i>	Leguminosae
Sweet gourd	<i>Lagenaria vulgaris</i>	Curcubitaceae

INSECTICIDES

Testing of New Insecticides (EE. i. 1)

New commercial insecticides containing DDT as the active ingredient and sold under the trade name of Supona 'D' gave very encouraging results against mealy bugs infesting pineapples.

Methyl bromide was tested in different fumigatoria operated by the Plant Protection Service. Applications were carried out at ordinary temperature and pressure and the results obtained were not as encouraging as reports received from the United States of America claimed for this insecticide.

BIOLOGICAL CONTROL

Investigations and Application of Results (EE. h. 1)

Control of the predators was carried out in the parishes of St. Thomas, St. Mary, St. Ann, Trelawny, St. James, Hanover and Manchester.

The predators were found well established in the Freeman's Hall—W. area and were keeping the borer well under control. This area adjacent to the areas in which the predator was liberated during 1940-41.

Ladybird beetles were observed feeding in very large numbers on aphid scale insects in different parts of the Island. *Cycloneda sanguinea* L. was found in very large numbers in all the Irish potato growing areas. In the Christiana area controlling outbreaks of aphids in the potato field a predator was also found feeding on the coconut aphid (*Cerataphis lataniae* Boisd.) and on *Myzus persicae* Sulz. affecting citrus.

Chilocorus cacti L. was observed feeding on the coconut aphid and on the following scale insects:— star scale (*Vinsonia stellifera* Westw.), Florida scale (*Chrysomphalus aonidum* L.) and Boisdual's scale (*Diaspis boisdali* Sign.).

The white entomophagous fungus *Cephalosporium lecanii* assisted in the control of the Green scale (*Coccus viridis* G.) in Manchester.

Dasyneura parvipennis Gahan, the imported Eulophid parasite of the banded thrip (*Selenothrips rubrocinctus* Giard) was distributed in maize fields and gardens in the Liguanea Plain and in the cashew nursery at the Agricultural Station.

The Chief Laboratory Assistant made a thorough check among citrus plantations in Cayman Brac and found that the Eulophid parasite (*Erebia sericus* Silv.) introduced into that Dependency during 1949 was well established.

Local requests for this parasite to control localised infestation of the Black Fly (*Aleurocanthus woglumi* Ashby) were all satisfied.

In Cayman Brac the ladybird beetle (*Chilocorus cacti* L.) was found well established in coconut groves preying on the destructor scale (*Aspidiotus destructor* Sign.). *Cycloneda sanguinea* L. was found preying on the aphis *Myzus maidis* Fitch. attacking maize.

FIELD CROPS

GENERAL

Introduction and Trials of New Varieties of Local Food Crops (FC. g. 1)

Importation of new varieties was on a reduced scale as many varieties imported in the previous year are still undergoing trials.

Rice — 12 varieties from India, 9 from Venezuela.

Sorghum (Grain) — 4 varieties from Guadeloupe, F.W.I.

Sorghum (Fodder) — 2 varieties from St. Lucia and 1 variety from British Guiana.

occurred in St. Ann.

Coffee

Outbreaks of the coffee leaf miner (*Leucoptera coffeella* Staint) observed in Manchester, where the crop was growing among bananas which had been sprayed against Leaf Spot.

Cocoa

Aphids in the cocoa nurseries at Orange River were controlled by nicotine spray. Fiddler beetles caused many deaths amongst young plants in the propagating nurseries.

Twelve other pests of minor importance were recorded as attacking fruit trees and ornamental shrubs.

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The only additions to the list given in Bulletin No. 47 (p.36) were *Triboleum ferrugineum* F and *Triboleum confusum* Dur. infesting flour, *Laemophloeus pusillus* infesting rice and *Caulophilus latinasus* infesting stored ginger.

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BIOLOGICAL CONTROL

Investigations and Application of Results (EE. bc. 1)

The distribution of the Java beetle (*Plaesius javanus* Er.) for the control of *Cosmopolites sordidus* Germar has been vigorously pursued

in the areas in which the predator was liberated during 1949. Ladybird beetles were observed feeding in very large numbers on aphids and scale insects in different parts of the Island. *Cycloneda sanguinea* L. was found in very large numbers in all the Irish potato growing areas in the Christiana area controlling outbreaks of aphids in the potato fields. This predator was also found feeding on the coconut aphid (*Cerataphis antianae* Boisd.) and on *Myzus persicae* Sulz. affecting citrus.

Chilocorus cacti L. was observed feeding on the coconut aphid and on the following scale insects:— star scale (*Vinsonia stellifera* Westw.), Florida red scale (*Chrysomphalus aonidum* L.) and Boisduval's scale (*Diaspis boisduvali* Sign.).

The white entomophagous fungus *Cephalosporium lecanii* assisted in the control of the Green scale (*Coccus viridis* G.) in Manchester.

Dasyscaphus parvipennis Gahan, the imported Eulophid parasite of the red-banded thrip (*Selenothrips rubrocinctus* Giard) was distributed in mango groves and gardens in the Liguanea Plain and in the cashew nursery at Pirbright Agricultural Station.

The Chief Laboratory Assistant made a thorough check among citrus plantations in Cayman Brac and found that the Eulophid parasite (*Eretmocerus serius* Silv.) introduced into that Dependency during 1949 has established itself.

Local requests for this parasite to control localised infestation of the Black Fly (*Aleurocanthus woglumi* Ashby) were all satisfied.

In Cayman Brac the ladybird beetle (*Chilocorus cacti* L.) was found well established in coconut groves preying on the destructor scale (*Aspidiotus destructor* Sign.). *Cycloneda sanguinea* L. was found preying on the aphid *Aphis maidis* Fitch. attacking maize.

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Sorghum (Grain) — 4 varieties from Guadeloupe, F.W.I.

Sorghum (Fodder) — 2 varieties from St. Lucia and 1 variety from British Guiana.

Soya Bean — The variety Palmetto was re-introduced from the United States of America.

Vegetables — Thousand Head Kale from the United Kingdom.