

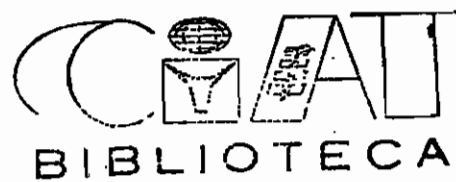


P E S T S O F C A S S A V A

I N T H E

W O R L D

C I A T - E N T O M O L O G Y



C A S S A V A

(Manihot utilissima Pohl)

C L A S S I N S E C T A

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>
	ORD. COLEOPTERA - FAM. ANTHRISIDAE	
<u>Araecerus fasciculatus</u>		Madagascar
	ORD. COLEOPTERA - FAM. BOSTRICHIDAE	
<u>Micrapate brasiliensis</u> <u>Rhizopertha dominica</u>		Brasil, Argentina Madagascar
	ORD. COLEOPTERA - FAM. CURCULIONIDAE	
<u>Alphitobius piceus</u> <u>Calandra oryzae</u> <u>Coelosternus granicollis</u> Pierc.	Larva	Madagascar Madagascar Sur-América, Antillas, Indias Orientales, Brasil
<u>Coelosternus manihotis</u> <u>Coelosternus rugicollis</u>	Larva Larva	Brasil Brasil
<u>Diaprepes abbreviatus</u> <u>Eulechriops manihoti</u> Monte <u>Leiomerus granicollis</u>	Larva	Antillas, América Central Brasil, Argentina Brasil
<u>Eubulus</u> sp. <u>Eulechriops</u> sp.	Larva Larva	Stem borer Stem borer Stem borer Colombia Colombia

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>
<u>Cryptocephalus tristiculos</u> <u>Homophoeta</u> spp. <u>Diabrotica</u> spp.	ORD. COLEOPTERA- FAM. CHRYSOMELIDAE Adulto	FAM. CHRYSOMELIDAE Leaf chewer Antillas Venezuela Colombia
<u>Lagochirus obsoletus</u> Thoms. <u>Ecyrus hirtipes</u> <u>Ecyrus insularis</u> <u>Lagochirus araneiformis</u> <u>Ozineus prolixus</u> <u>Acanthoderes nigricans</u> Lan.	ORD. COLEOPTERA- FAM. CERAMBYCIDAE Larva Larva Larva	FAM. CERAMBYCIDAE Stem borer Stem borer Stem borer West Indies Little Antillas Puerto Rico Antillas Brasil Colombia
<u>Heteronychus plebejus</u>	ORD. COLEOPTERA- FAM. DYTISCIDAE	FAM. DYTISCIDAE Madagascar
<u>Serica castanea</u> <u>Leuconholis rorida</u> F.	ORD. COLEOPTERA- FAM. SCARABEIDAE Larva	FAM. SCARABEIDAE Tuber chewer Madagascar Indonesia
<u>Belonuchus formosus</u>	ORD. COLEOPTERA- FAM. STAPHYLINIDAE	FAM. STAPHYLINIDAE Antillas
<u>Lophocateres pusilles</u> <u>Tenebrioides mauritanicus</u>	ORD. COLEOPTERA- FAM. TEMNOCHILIDAE	FAM. TEMNOCHILIDAE Madagascar Madagascar

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>
ORD. LEPIDOPTERA-FAM. LIMACODIDAE		
<u>Phobetron hipparchia</u>	Larva Leaf chewer	Venezuela
ORD. LEPIDOPTERA-FAM. NOCTUIDAE		
<u>Phoenicoprocta vacillans</u> <u>Phoenicoprocta sanguinea</u> <u>Prodenia litura</u>		Surinam Surinam Africa & Fiji
ORD. LEPIDOPTERA-PYRALIDAE		
<u>Asciodes</u> spp.	Larva Stem borer	Venezuela
<u>Phlyctaenodes bifilialis</u> Hamp	Larva Stem borer	Colombia
ORD. LEPIDOPTERA-FAM. PYRAUSTIDAE		
<u>Loxostege bifilalis</u>	Larva	Surinam
ORD. LEPIDOPTERA-FAM. SATURNIIDAE		
<u>Rothschildia aurota</u>	Larva Leaf chewer	Brasil
ORD. LEPIDOPTERA-FAM. SPHINGIDAE		
<u>Erynnis ello</u> (Lin)	Larva Leaf chewer	Antillas Central & South America

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>	
ORD. LEPIDOPTERA-FAM SPHINGIDAE			
<u>Erynnis alope</u>	Larva	Leaf chewer	Florida, Antillas, Bahamas, South America
<u>Protoparce albiplaga</u>	Larva	Leaf chewer	Brasil
ORD. LEPIDOPTERA-FAM. TINEIDAE			
<u>Setomorpha insectella</u>	Larva		Brasil
ORD. DIPTERA-FAM. ANTHOMYIDAE			
<u>Atherigonia excisa</u>	Larva		Brasil
ORD. DIPTERA- FAM. CECIDOMYIIDAE			
<u>Autodiplosis brasiliensis</u>	Larva	Leaf gall	Brasil
<u>Tatrophobia brasiliensis</u>	Larva	Leaf gall	Brasil, Antillas
ORD. DIPTERA-FAM. CHLOROPIDAE			
<u>Teleocoma crassipes</u>	Larva	Bud & flowers borer	Brasil
ORD. DIPTERA-FAM. LONCHAEIDAE			
<u>Lonchaea chalybea</u> Wiedemann	Larva	Bud borer	Antillas, Central America Brasil, Colombia

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>
ORD. DIPTERA - FAM. LONCHAEIDAE		
<u>Lonchaea pendula</u>	Larva	Bud borer
<u>Carpolonchaea chalibea</u> Wiedemann	Larva	Bud borer
ORD. DIPTERA-FAM. TRYPETIDAE		
<u>Anastrepha manihoti</u>	Larva	Fruit chewer
<u>Anastrepha nonbinpraeoptans</u>	Larva	Fruit chewer
<u>Anastrepha montei</u>	Larva	Fruit chewer
<u>Anastrepha pickeli</u>	Larva	Fruit chewer
ORD. HOMOPTERA-FAM. ALEYRODIDAE		
<u>Alenrothrixus aepim</u>	Adult & nymph	Leaf sucker
<u>Bemisia manihotis</u>	Adult & nymph	Leaf sucker
<u>Bemisia gossypiperda</u>	Adult & nymph	Leaf sucker
<u>Bemisia nigeriensis</u> Corbett	Adult & nymph	Leaf sucker
<u>Bemisia tuberculata</u>	Adult & nymph	Leaf sucker
<u>Trialeurodes tabaci</u>	Adult & nymph	Leaf sucker
ORD. HOMOPTERA-FAM. CICADELLIDAE		
<u>Stirellus spp.</u>		Venezuela
ORD. HOMOPTERA-FAM. COCCIDAE		
<u>Saissetia coffeae</u> Walk	Adult & nymph	Leaf sucker
<u>Saissetia hemisphaericum</u> (Targione)	Adult & nymph	Plant sucker
<u>Saissetia nigra</u>	Adult & nymph	Plant sucker

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>	
ORD. HOMOPTERA-FAM. COCCIDAE			
<u>Saissetia oleae</u>	Adult & nymph	Plant sucker	Argentina, Brasil, Barbados Tropical America
<u>Ceroplastes cirripediformis</u>	Adult & nymph	Plant sucker	
ORD. HOMOPTERA-FAM. DIASPIDIDAE			
<u>Aonidiella aurantii</u>	Adult & nymph	Plant sucker	Argentina, Antillas, Kenia, Mauricio, Fiji
<u>Aonidimytilus albus</u> CKLL.	Adult & nymph	Plant sucker	Central America, West Africa Florida
<u>Aspidiotus hederæ</u>	Adult & nymph	Plant sucker	Madagascar, Central America, Aus
<u>Lepidosaphes alba</u>	Adult & nymph	Plant sucker	Antillas
<u>Mytilaspis dispar</u>	Adult & nymph	Plant sucker	Madagascar
<u>Phenacoccus</u> spp.	Adult & nymph	Plant sucker	Grenada
ORD. HOMOPTERA-FAM. PSEUDOCOCCIDAE			
<u>Planococcus citri</u> Risso	Adult & nymph	Plant sucker	Cosmopolite
<u>Pseudaulacaspis pentagona</u>	Adult & nymph	Plant sucker	Tropical America
<u>Pseudococcus</u> spp.	Adult & nymph	Plant sucker	West Africa
<u>Pseudococcus citri</u>	Adult & nymph	Plant sucker	Tropical America, South Africa
<u>Puto yucae</u> Coquerel	Adult & nymph	Root sucker	Colombia
ORD. HOMOPTERA-FAM. JASSIDAE			
<u>Erythroneura cassavae</u> China	Adult & nymph	Leaf chewer	East Africa
ORD. HOMOPTERA-FAM. MARGARODIDAE			
<u>Monophlebus niveus</u>	Adult & nymph		Brasil
<u>Margarodes</u> sp.	Adult & nymph	Root sucker	Colombia

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>
ORD. HEMIPTERA-FAM. COREIDAE		
<u>Dasynus manihotis</u> Blöte	Adult & nymph Leaf sucker	Indonesia
ORD. HEMIPTERA-FAM. MIRIDAE		
<u>Hyaliodes</u> spp.	Adult & nymph Leaf sucker	Brasil
<u>Pycnoderes quadrimaculatus</u>	Adult & nymph Leaf sucker	Kauai, Ochu, Molokai, Hawaii
ORD. HEMIPTERA-FAM. PENTATOMIDAE		
<u>Nezara viridula</u>	Adult & nymph Leaf sucker	Tropical America
ORD. HEMIPTERA-FAM. TINGIDAE		
<u>Gargaphia lunata</u>	Adult & nymph Leaf sucker	Brasil
<u>Vatiga (Leptopharsa) longula</u>	Adult & nymph Leaf sucker	Brasil
<u>Vatiga (Leptopharsa) illudens</u>	Adult & nymph Leaf sucker	South America & Antillas
<u>Vatiga (Leptopharsa) manihotae</u> (Drake)	Adult & nymph Leaf sucker	Brasil, Venezuela
ORD. HYMENOPTERA-FAM. FORMICIDAE		
<u>Atta sexdens</u> (Fabricius)	Adult Leaf cutter	Surinam, Colombia
<u>Atta cephalotes</u> (Lin.)	Adult Leaf cutter	Colombia
ORD. THYSANOPTERA-FAM. THIRIPIDAE		
<u>Corynothrips stenopterus</u> Will	Adult & nymph Flower & leaf sucker	Tropical America

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>	
ORD. THYSANOPTERA-FAM. THIRIPIDAE			
<u>Euthrips manihoti</u>	Adult & nymph	Flower & leaf sucker	Brasil
<u>Frankliniella melanommata</u>	Adult & nymph	Flower & leaf sucker	Antillas
<u>Scirtothrips manihoti</u> (Bondar)	Adult & nymph	Flower & leaf sucker	Brasil, West Indies
<u>Frankliniella parvula</u> Hood			
ORD. ISOPTERA-FAM. RHINOTERMITIDAE			
<u>Heterotermes</u> sp.	Adult	Plant chewer	Colombia
ORD. ORTHOPTERA-FAM. ACRIDIDAE			
<u>Locusta migratoria migratorioides</u>	Adult & nymph	Leaf chewer	Madagascar & Africa
<u>Nomacridis septemfasciata</u>	Adult & nymph	Leaf chewer	Ecuatorial Africa
<u>Orphulella punctata</u>	Adult & nymph	Leaf chewer	Venezuela
<u>Schistocerca paranensis</u>	Adult & nymph	Leaf chewer	South America
<u>Schistocerca gregaria</u>	Adult & nymph	Leaf chewer	Sudan
<u>Tropidacris La Feillei</u>	Adult & nymph	Leaf chewer	Venezuela
<u>Zonocerus elegans</u> Thune	Adult & nymph	Leaf chewer	Tanganica
<u>Zonocerus variegatus</u>	Adult & nymph	Leaf chewer	East & West Africa
ORD. ORTHOPTERA-FAM. GRILLotalPIDAE			
<u>Phymateus puniceus</u>	Adult & nymph	Root chewer	Madagascar
ORD. ORTHOPTERA-FAM. TETTIGONIIDAE			
<u>Conocephalus cinereus</u>	Adult & nymph	Leaf chewer	Venezuela
<u>Acorypha decusa</u>	Adult & nymph	Leaf chewer	Madagascar

C L A S S C H I L O P O D A

<u>STAGE</u>	<u>TYPE OF DAMAGE</u>	<u>DISTRIBUTION</u>
ORD. POLYDESMIDA-FAM. POLYDESMIDAE		
<u>Oxidus gracilis</u> (Koch)	Adult & young Root chewer	Colombia

C L A S S A R A C H N I D A

ORD. ACARINA-FAM. TETRANYCHIDAE		
<u>Tetranychus bimaculatus</u>	Adult & nymph Leaf sucker	Circunstropical
<u>Mononychus planky</u> (McG)	Adult & nymph Leaf sucker	Colombia
<u>Tetranychus urticae</u> (Koch)	Adult & nymph Leaf sucker	Cosmopolite

C L A S S N E M A T O D A

SPECIES

<u>Cylindrogaster curzii</u>	
<u>Ditylenchus dipsaci</u>	
<u>Helicotylenchus cavenessi</u>	Nigeria
<u>Helicotylenchus dihistera</u>	Nigeria
<u>Helicotylenchus erythrinae</u>	Nigeria
<u>Helicotylenchus multicinctus</u>	Nigeria
<u>Helicotylenchus pseudorobustus</u>	Nigeria
<u>Helicotylenchus sp.</u>	Nigeria
<u>Hemicriconemoides cocophilus</u>	
<u>Hemicycliophora oostenbrinki</u>	
<u>Hemicycliophora sp.</u>	

C L A S S N E M A T O D A

SPECIES

DISTRIBUTION

Heterodera sp.
Hoplolaimus pararobustus
Meloidogyne arenaria
Meloidogyne incognita
Meloidogyne incognita acrita
Meloidogyne javanica

Meloidogyne sp.
Peltamigratus nigeriensis
Pratylenchus brachyuros
Pratylenchus coffae
Pratylenchus sp.
Rotylenchulus reniformis
Rotylenchulus sp.
Scutellonema aberrans
Scutellonema bradys
Scutellonema cavenessi
Scutellonema clathricaudatum
Scutellonema sp.
Tylenchus sp.
Xiphinema ebriense
Xiphinema elongatum
Xiphinema ifacolum
Xiphinema longicaudatum
Xiphinema nigeriense
Xiphinema rotundatum
Xiphinema setariae

Brasil, Rhodesia, Northern
India, Nigeria, Dominican Republ.
Nigeria

Java, Indonesia
Ivory Coast
Ghana
Ghana - Puerto Rico

Nigeria