

Insect Pests Common in Cashew and Mango (Anacardiaceae)

Article ID: 32152

K. Vanitha¹

¹ICAR- Directorate of Cashew Research, Puttur – 574 202.

Cashew (*Anacardium occidentale* L.) and mango (*Mangifera indica*) are two important commercial tree species belong to Anacardiaceae family. Several insect species have been recorded by different workers at various locations infesting mango and cashew trees. Information on pests of mango and cashew incidence, damage and new pest reports are available time to time. Cashew and mango share few pest species commonly during their phenological stages. In which, some pests are polyphagous in nature. In the changing pest scenario, the information on those common pest species is important, when host species are grown together or are available in the vicinity. This report attempts to document the common insect pests occurring on mango and cashew based on the available literature. The information will be helpful to keep a watch on occurrence and spread of the insect pests in the locations where both the plants are grown for commercial purpose.

Table1. Details of common insect pests occurring on cashew and mango

Sl. No.	Common name	Species	Family	Plant part infested
Hemiptera				
1	Tea mosquito bug	<i>Helopeltis antonii</i> Signoret	Miridae	Shoots, flowers, fruits, nuts (c)
2	Mirid bug	<i>Campylomma</i> sp.		Flowers
3	Two tailed mealy bugs	<i>Ferrisia virgata</i> Cockerell	Pseudococcidae	Shoots, flowers, fruits
4	Citrus mealy bug	<i>Planococcus citri</i> (Risso)		
5	Mango mealy bug	<i>Rastrococcus iceryoides</i> (Green)		leaf
6	Aphids	<i>Toxoptera odinae</i> van der Goot	Aphididae	Shoots, inflorescences, fruits
7	Coreid bug	<i>Pseudotheraptus wayi</i> Brown	Coreidae	Shoots and inflorescences
8	Pentatomid bug	<i>Nezara viridula</i> (Linnaeus)	Pentatomidae	Leaf, tender nuts (c), fruits
9	Scales	<i>Ceroplastes</i> sp.	Coccidae	Leaf, shoots
10	Black Stink bug	<i>Coptosoma</i> sp.	Plataspidae	Shoots, flowers, tender nuts
11	Lygaeid bug	<i>Graptostethus</i> spp.	Lygaeidae	Shoot, flower (c)
Coleoptera				
12	Leaf weevil	<i>Deporaus marginatus</i> Fst.	Attelabidae	Leaf
13	Chrysomelid beetles	<i>Monolepta</i> spp.	Chrysomelidae	Leaf, shoots
14	Mango tree borer	<i>Batocera rufomaculata</i> DeGeer	Cerambycidae	Stem
15	Cashew stem and root borer	<i>Plocaederus ferrugineus</i> L.		Stem and root (c)
16	Albizia Long horned beetle	<i>Coptops aedificator</i> (Fabricius)		Stem
17	Ash weevil	<i>Myloccerus</i> spp.	Curculionidae	leaf

18	Leaf twisting weevil	<i>Apoderus tranquebaricus</i> Oliver	Attelabidae	Leaf
19	White grubs	<i>Holotrichia</i> sp.	Scarabaeidae	Flowers
Lepidoptera				
20	Leaf miner	<i>Acrocercops syngamma</i> M.	Gracillariidae	Leaf
21	Tussock Hairy caterpillar	<i>Euproctis fraterna</i> Moore	Erebidae	Leaf, flowers
22	Yellow tail tussock moth	<i>Prothesia (Somena) scintillans</i> Walker		Leaf, flowers
23	Common Baron	<i>Euthalia garuda</i> Moore	Nymphalidae	Leaf
24	Slug caterpillar	<i>Parasa lepida</i> (Cramer)	Limacodidae	Leaf
25	Webber	<i>Gatesclarkeana</i> sp.	Tortricidae	Flowers, tender fruit (m)
26	Leaf webber	<i>Dudua aprobola</i> M.		Shoots, flowers, tender apples fruits
27	Webber	<i>Anarsia</i> sp.	Gelechiidae	Flowers
28	Fruit borer	<i>Citripests eutrapphera</i> (Meyrick)	Pylalidae	Nursery pest in cashew, but flower and fruit pest in mango.
29	Webber	<i>Nanaguna</i> sp.	Nolidae	Flowers
30	Tea flush worm	<i>Cricula trifenestrata</i> Helfer	Saturniidae	Leaf
31	Hairy caterpillar	<i>Metanastria hyrtaca</i> Cramer	Lasiocampidae	Leaf
32	Bag worm	<i>Eumeta variegata</i> (Snellen)	Psychidae	Leaf
33	Snout moth	<i>Orthaga exvinacea</i> (Hampson)	Pylalidae	Shoots, inflorescences
34	Webber	<i>Lamida</i> sp.		Inflorescences
35	Mango shoot borer	<i>Penicillaria (Bombotelia) jocosatrix</i> Guenée	Noctuidae	Leaf, flowers
36	Bark eating caterpillar	<i>Inderbella</i> sp.	Cossidae	Bark
37	Fruit borer	<i>Hyalospila leuconeurella</i> (Ragonot)	Pylalidae	Fruits, nuts (c)
38	Hairy caterpillar	<i>Olene mendosa</i> Hubner	Lymantridae	Leaf, flowers
39	Semilooper	<i>Thalassodes</i> spp.	Geometridae	Leaf
40	Semilooper	<i>Perixera illepidaria</i> Guenée		Flowers
Diptera				
41	Oriental Fruit fly	<i>Bactrocera dorsalis</i> Hendel	Tephritidae	Fruits
-	Oriental latrine fly	<i>Chrysomya megacephala</i> F.	Calliphoridae	Flowers (visitor- (c) pollinator -m)
Thysanoptera				
42	Chilli thrips	<i>Scirtothrips dorsalis</i> Hood	Thripidae	Leaf, flowers, fruits, nuts (c)
43	Grape Vine thrips	<i>Rhipiphorothrips cruentatus</i> (Hood)		Leaf (c)

44	Red banded thrips	<i>Selenothrips rubrocinctus</i> (Giard)		Leaf (c)
45	Hawaiian flower thrips	<i>Thrips hawaiiensis</i> (Morgan)		Flowers
46	Common blossom thrips	<i>Frankliniella schultzei</i> Trybom		Flowers (c)
47	Thrips	<i>Haplothrips ganglbaueri</i> (Schmutz)	Phlaeothripidae	Flowers (c)
Orthoptera				
48	Variiegated grasshopper	<i>Zonocerus variegatus</i> L.	Pyrgomorphidae	Leaf
49	Coffer grasshoppers	<i>Aularches miliaris</i> (Linnaeus)	Pyrgomorphidae	Leaf
Isoptera				
50	Fungus-growing termites,	<i>Odontotermes</i> spp.	Termitidae	Collar region, trunk

(c)- cashew, m- mango

Understanding the ecological, biological and dispersal factors of the important common insect pests is critical to evolve innovative management systems. The present list includes 50 insect pest species from 7 insect orders, in which lepidopteran species (20) are more. It is to be noted that this list can be extended, if few more literature survey is done. A few insects are very serious in both crops (eg. tea mosquito bug), some species are serious in either crop (*P. ferrugineus* – cashew, *B. rufomaculata* – mango) while, many are minor pests. Some species share different plant parts in both plants. Eg. *Citripestis* sp. damages seedlings in cashew, but fruits in mango. Hence, information about the nature and extent of pest damage is important to understand its pest status. In general, shift in pest status in crops can be related to changes in climate or anthropogenic activities including cropping systems, pesticide usage etc. Thus, surveillance of pests is essential to understand the changing pest scenario during different crop phonological stages and accordingly pest management efforts need to be planned.

References

1. http://agritech.tnau.ac.in/crop_protection/crop_prot_crop_insectpest%20_Mango_pest&disease.html.
2. http://eagri.org/eagri50/ENTO331/lecture16/minor_pests.html.
3. <http://ikisan.com/tn-cashew-insect-management.html>.
4. https://doi.org/10.1007/978-981-10-8687-8_12.
5. https://dpiir.nt.gov.au/__data/assets/pdf_file/0006/227832/mango_field_guide.pdf.
6. <https://ghana.ipm-info.org/insects-and-mites/#Mango>.
7. https://www.cabi.org/isc/datasheet/17685#to_hosts Or Species Affected.
8. <https://www.cabi.org/isc/datasheet/5064> - *Anacardium occidentale*.
9. Jacob, T. K., Veenakumari, K. and Bhumannavar, B. S. 2004. Insect pests of cashew in the Andaman Islands. *Cashew*, 18 (4): 25-28.
10. Nebie K., Nacro S., Ouédraogo I., Dakouo D., Otoidobiga L.C. 2016. Inventory and Distribution of Mango Mealybugs Species in Western Burkina Faso: Relative Abundance and Population Fluctuation. *Advances in Entomology*, 4 (3). July 2016.
11. Poluru Venkata Rami Reddy, B. Gundappa and A.K. Chakravarthy. 2018. Pests of Mango. Omkar (ed.), *Pests and Their Management*, Springer Nature Singapore Pte Ltd. 2018 415.
12. Soumya, B.R., Abraham Verghese and Kamala Jayanthi P.D. 2017. Diversity and economic status of Lepidopteran insect-pest on two major varieties of mango. *Journal of Entomology and Zoology Studies*, 5(3): 838-843.