

ICAR-National Research Centre for Integrated Pest Management, Pusa, New Delhi
Weekly Status Report on Insects Pests & Diseases of Crops

Name of Institute: ICAR - INDIAN INSTITUTE OF SPICES RESEARCH, KOZHICODE 673 012, KERALA
 Date: 24.05.2018 - 30.05.2018


Crop	Crop Stage	Location (with GPS)	Major Insect Pests		Major Plant Diseases		Other Pests (Nematodes, Rat, etc.) (Scientific Name)	Pest Advisories
			Name (Scientific Name)	Status (Low, Medium & Severe)	Name (Scientific Name)	Status (Low, Medium & Severe)		
Black pepper	Nursery/ Vegetative	Idukki, Kozhikode, Wayanad (Kerala), Kodagu (Karnataka), Tamil Nadu	Scale insects <i>(Protopulvinaria longivalvata,</i> <i>Lepidosaphes piperis)</i> (Field) Root mealybug <i>(Planococcus</i> sp.) (Field) Mealybug <i>(Planococcus</i> sp., <i>Ferrisia</i> <i>virgata)</i> (Nursery) Scale insect <i>(Protopulvinaria longivalvata)</i> (Nursery)	Low Medium Low Low	Stunt disease <i>(Cucumber</i> <i>mosaic virus,</i> <i>Piper yellow</i> <i>mottle virus)</i> Slow decline <i>(Meloidogyne</i> <i>incognita,</i> <i>Radopholus</i> <i>similis)</i> Anthracnose <i>(Colletotrichum</i> spp.) (Nursery) Basal wilt <i>(Sclerotium</i> <i>rolfsii)</i> (Nursery) Viral infection (Nursery)	Medium Medium Low Low Low	Nematodes <i>(Radopholus</i> <i>similis,</i> <i>Meloidogyne</i> <i>incognita)</i> (Nursery)	Field: Stunt disease Regular monitoring. Remove infected vines and destroy by burning or burying deep in soil. Control the vector (mealy bugs) by drenching neem oil (0.5%). Slow decline Remove and destroy severely affected vines. Apply neem cake @ 500g/vine and biocontrol agents like <i>Pochonia chlamydosporia</i> or <i>Trichoderma harzianum</i> @ 50 g/vine and metalaxyl-mancozeb (0.125%) may also be applied. Scale insects Spray neem oil (0.5%), once infestation is noticed. Root mealybug Drench neem oil (0.5%), once infestation is noticed. Nursery: Anthracnose


							<p>Spray Bordeaux mixture (1%).</p> <p>Basal wilt Remove and destroy affected cuttings along with defoliated leaves.</p> <p>After periodic sanitation, the cuttings should be drenched with carbendazim (0.2%) or Bordeaux mixture (1%).</p> <p>Viral infections Regular inspection and removal of infected plants. Regular monitoring for insects and spray with neem oil (0.5%) whenever infestation is noticed.</p> <p>Mealy bug and scale insects Spray neem oil (0.5%), once infestation is noticed.</p> <p>Nematodes Apply <i>Pochonia chlamydosporia</i> @ 1g/bag.</p>
Cardamom	Vegetative	Idukki, Wayanad (Kerala), Kodagu (Karnataka)	<p>Thrips (<i>Sciothrips cardamomi</i>)</p> <p>Shoot borer (<i>Conogethes punctiferalis</i>)</p>	Low Low	<p>Leaf blight (<i>Colletotrichum</i> spp.)</p> <p>Katte/Mosaic (<i>Cardamom mosaic virus</i>)</p> <p>Chlorotic streak (<i>Banana bract mosaic virus</i>)</p>	Medium Low Low	<p>Leaf blight Maintain optimum shade level by providing 40-60% filtered light.</p> <p>Katte/ Mosaic Prompt inspection of plantation, detection and rouging of virus sources (infected plants/ volunteers) to reduce re-infection. The removed plants may be burnt or buried deep in soil. Removal of natural hosts like <i>Colocasia</i> and <i>Caladium</i> to destroy breeding sites and check population build-up of the vector.</p> <p>Chlorotic streak</p>

								<p>Prompt inspection of plantation, detection and rouging of virus sources (infected plants/ volunteers) to reduce re-infection. The removed plants may be burnt or buried deep in soil.</p> <p>Shoot borer Spray quinalphos (0.075%).</p> <p>Thrips Spray quinalphos 25%EC (0.075%) after undertaking thrashing.</p>
Ginger	Planting	Karnataka, Kerala	Rhizome scale (<i>Aspidiella hartii</i>)		Soft rot (<i>Pythium aphanidermatum</i> and <i>P. myriotylum</i>)		<p>Nematodes Root knot (<i>Meloidogyne</i> spp.), Burrowing (<i>Radopholus similis</i>) and Lesion (<i>Pratylenchus</i> spp.)</p>	<p>Soft rot As prophylactic measures: Use disease-free seed rhizomes for planting. Select well drained soil for planting and provide adequate drainage to prevent water stagnation. Treat seed rhizomes with mancozeb (0.3%) or metalaxyl-mancozeb (0.125%) for 30 minutes before planting.</p> <p>Rhizome scale Treat the seed rhizomes with quinalphos (0.075%) (for 20-30 minutes) before planting if the infestation persists.</p> <p>Nematodes As prophylactic measures: Use nematode-free healthy seed rhizomes for planting. In root knot nematode endemic regions, the resistant variety IISR Mahima may be cultivated. The bioagent, <i>Pochonia chlamydosporia</i> may be incorporated in ginger beds (20</p>

								g/bed with 10 ⁶ cfu/g) at the time of planting.
Turmeric	Planting	Andhra Pradesh, Telangana, Tamil Nadu, Odisha	Rhizome scale (<i>Aspidiella hartii</i>)		Rhizome rot (<i>Pythium aphanidermatum</i>)		Nematodes Root knot (<i>Meloidogyne</i> spp.), Burrowing (<i>Radopholus similis</i>) and Lesion (<i>Pratylenchus</i> spp.)	Rhizome rot As prophylactic measures: Use disease-free seed rhizomes for planting. Select well drained soil for planting and provide adequate drainage to prevent water stagnation. Treat seed rhizomes with mancozeb (0.3%) for 30 minutes before planting. Rhizome scale Treat the seed rhizomes with quinalphos (0.075%) (for 20-30 minutes) before planting if the infestation persists. Nematodes As prophylactic measures: Use nematode-free healthy seed rhizomes for planting. In root knot nematode endemic regions, the resistant variety IISR Pragati may be cultivated. The bioagent, <i>Pochonia chlamydosporia</i> may be incorporated in ginger beds (20 g/bed with 10 ⁶ cfu/g) at the time of planting.
Vanilla	Vegetative	Karnataka			Root and stem rot (<i>Fusarium oxysporum</i> f. sp. <i>vanillae</i>) Viral diseases (<i>Bean common mosaic virus</i>).	Low Low		Root and stem rot Soil drenching with copper oxychloride @ 0.25% followed by spray with carbendazim (0.25%) at monthly interval. Viral diseases Regular inspection and removal of infected plants. The removed plants

					<i>Bean yellow mosaic virus,</i> <i>Cucumber mosaic virus,</i> <i>Cymbidium mosaic virus)</i>		may be burnt or buried deep in soil. Control of vector (aphids) may be undertaken by spraying neem oil (0.5%).
Nutmeg	Bearing	Kerala				Physiological wilting (Field)	Physiological wilting (Field) Provide irrigation to the trees. The trees may be adequately shaded to prevent sun scorching.


 (Nodal Officer) 24.5.18
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 Director/Head of Institution

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