

**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, KOZHIKODE 673 012, KERALA

Date: 18.05.2017 to 24.05.2017

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	<b>Mealybug</b> ( <i>Planococcus</i> sp., <i>Ferrisia</i> <i>virgata</i> ) (Nursery) <b>Scale insect</b> ( <i>Protopulvinari</i> <i>a longivalvata</i> ) (Nursery)	Low	<b>Stunt disease</b> ( <i>Cucumber</i> <i>mosaic virus</i> , <i>Piper</i> <i>yellow</i> <i>mottle virus</i> ) <b>Slow decline</b> ( <i>Meloidogyne</i> <i>incognita.</i> , <i>Radopholus</i> <i>similis</i> ) <b>Anthracnose</b> ( <i>Colletotrichum</i> <i>gloeosporioides</i> ) (Nursery) <b>Viral infection</b> (Nursery)	Low to medium	<b>Physiological wilting</b> (Field) <b>Nematodes</b> ( <i>Radopholus</i> <i>similis</i> , <i>Meloidogyne</i> <i>incognita</i> ) (Nursery)	<b>Field: Stunt disease</b> 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%). <b>Slow decline</b> Remove and destroy severely affected vines. Apply neem cake @ 500g/vine and biocontrol agents like <i>Pochonia</i> <i>chlamydosporia</i> or <i>Trichoderma</i> <i>harzianum</i> @ 50 g/vine and metalaxyl-mancozeb (0.125%) may also be applied. <b>Physiological wilting:</b> Basin irrigation to the vines may be given @ 40 litres per vine for 11-15 years age group and 30 litres for vines aged between 5 - 10 years.
				Low		Medium		
				Low		Low		

							<p><b>Nursery:</b></p> <p><b>Anthracnose</b> Spray Bordeaux mixture (1%).</p> <p><b>Viral infections</b> Regular inspection and removal of infected plants. Regular monitoring for insects and spray with neem oil (0.5%) whenever infestation is noticed.</p> <p><b>Mealy bug and scale insect</b> Spray neem oil (0.5%), once infestation is noticed.</p> <p><b>Nematodes</b> Apply <i>Pochonia chlamydosporia</i> @ 1g/bag.</p>
<b>Cardamom</b>	<b>Vegetative</b>	Idukki, Wayanad (Kerala), Kodagu (Karnataka)	<b>Thrips</b> ( <i>Sciothrips cardamomi</i> )	Low	<p><b>Leaf blight</b> (<i>Colletotrichum gloeosporioides</i>)</p> <p><b>Katte/Mosaic</b> (<i>Cardamom mosaic virus</i>)</p> <p><b>Chlorotic streak</b> (<i>Banana bract mosaic virus</i>)</p>	<p>Medium</p> <p>Low</p> <p>Low</p>	<p><b>Leaf blight</b> Maintain optimum shade level by providing 40-60% filtered light.</p> <p><b>Katte/ Mosaic</b> 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><b>Chlorotic streak</b> Prompt inspection of plantation, detection and rouging of virus sources (infected plants/volunteers) to reduce re-infection. The removed plants may be burnt</p>

								or buried deep in soil. <b>Thrips</b> Spray quinalphos (0.075%).
<b>Vanilla</b>	<b>Vegetative</b>	Karnataka			<b>Leaf spot</b> ( <i>Colletotrichum vanillae</i> ) <b>Stem rot</b> ( <i>Fusarium oxysporum</i> f. sp. <i>vanillae</i> ) <b>Viral diseases</b> ( <i>Bean common mosaic virus</i> , <i>Bean yellow mosaic virus</i> , <i>Cucumber mosaic virus</i> , <i>Cymbidium mosaic virus</i> )	Low  Low  Low		<b>Leaf spot</b> Provide 50% shade in the plantation. Spray Bordeaux mixture (1%) at 15 – 20 days interval. <b>Stem rot</b> Remove and destroy infected plant parts. Apply <i>Trichoderma harzianum</i> and <i>Pseudomonas fluorescens</i> (cfu 10 <sup>8</sup> ) 50 g per vine. <b>Viral diseases</b> Regular inspection and removal of infected plants. The removed plants may be burnt or buried deep in soil. Control of vector (aphids) may be undertaken by spraying neem oil (0.5%).
<b>Ginger</b>	<b>Planting</b>	Karnataka, Kerala	<b>Rhizome scale</b> ( <i>Aspidiella hartii</i> )		<b>Soft rot</b> ( <i>Pythium aphanidermatum</i> and <i>P. myriotylum</i> )		<b>Nematodes</b> Root knot ( <i>Meloidogyne</i> spp.), Burrowing ( <i>Radopholus similis</i> ) and Lesion ( <i>Pratylenchus</i> spp.)	<b>Soft rot</b> 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 and drench at 30 and 60 days after planting. <b>Rhizome scale</b> Treat the seed rhizomes with

							<p>quinalphos (0.075%) (for 20-30 minutes) before planting if the infestation persists.</p> <p><b>Nematodes</b> 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 g/bed with 10<sup>6</sup> cfu/g) at the time of planting.</p>
<b>Turmeric</b>	<b>Planting</b>	Andhra Pradesh, Telangana, Tamil Nadu, Odisha	<b>Rhizome scale</b> ( <i>Aspidiella hartii</i> )		<b>Rhizome rot</b> ( <i>Pythium aphanidermatum</i> )	<p><b>Nematodes</b> Root knot (<i>Meloidogyne</i> spp.), Burrowing (<i>Radopholus similis</i>) and Lesion (<i>Pratylenchus</i> spp.)</p>	<p><b>Soft rot</b> 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 and drench at 30 and 60 days after planting.</p> <p><b>Rhizome scale</b> Treat the seed rhizomes with quinalphos (0.075%) (for 20-30 minutes) before planting if the infestation persists.</p> <p><b>Nematodes</b> As prophylactic measures: Use nematode-free healthy seed rhizomes for planting. In root knot nematode endemic regions, the</p>

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<b>Nutmeg</b>	<b>Bearing</b>	Kerala					<b>Physiological wilting</b> (Field)	<b>Physiological wilting</b> (Field) Provide irrigation to the trees. The trees may be adequately shaded to prevent sun scorching.