

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: 03.11.2016 – 09.11.2016

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	(a) Bearing stage	Idukki, Kozhikode, Wayanad (Kerala), Kodagu (Karnataka), Tamil Nadu	Leaf gall thrips (<i>Liothrips karnyi</i>)	Low	Stunt disease (<i>Cucumber mosaic virus</i> , <i>Piper yellow mottle virus</i>)	Low	Nematodes (<i>Radopholus similis</i> , <i>Meloidogyne 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 chlorpyrifos (0.075%). Slow decline Remove and destroy severely affected vines. Drench the vines with carbosulfan (0.1%). Along with nematicide application, the basins may be drenched with either copper oxychloride (0.2%) or potassium phosphonate (0.3%) or metalaxyl-mancozeb (0.125%). Alternatively,
	(b) Nursery		Top shot borer (<i>Cydia hemidoxa</i>)	Low	Slow decline (<i>Meloidogyne incognita</i> , <i>Radopholus similis</i>)	Low		
			Pollu beetle (<i>Lanka ramakrishnai</i>)	Low	Anthracnose (<i>Colletotrichum gloeosporioides</i>)	Medium		
			Mealybug (<i>Planococcus</i> sp., <i>Ferrisia virgata</i>) (Nursery)	Low	Foliar infection due to <i>Phytophthora capsici</i> (Nursery)	Low		

					<p>Anthracnose (<i>Colletotrichum gloeosporioides</i>) (Nursery)</p> <p>Basal wilt (<i>Sclerotium rolfsii</i>) (Nursery)</p> <p>Viral infection (Nursery)</p>	<p>Low</p> <p>Low</p> <p>Low to Medium</p>	<p>biocontrol agents like <i>Pochonia chlamydosporia</i> or <i>Trichoderma harzianum</i> @ 50 g/vine may also be applied. Ensure sufficient soil moisture at the time of nematicide application.</p> <p>Anthracnose Spray Bordeaux mixture (1%) or carbendazim - mancozeb (0.1%).</p> <p>Leaf gall thrips Spray dimethoate (0.05%) during emergence of new flushes on young vines.</p> <p>Top shot borer Spray quinalphos (0.05%) on tender terminal shoots; repeat spraying at monthly intervals to protect emerging new shoots.</p> <p>Pollu beetle Spray quinalphos (0.05%).</p> <p>Nursery:</p> <p>Foliar infection due to <i>Phytophthora capsici</i> If foliar infection is noticed, spray Bordeaux mixture (1%) and drench with copper oxychloride (0.2 %). Alternatively, metalaxyl (0.01% - 1.25 g/litre) or potassium phosphonate (0.3% - 3 ml/litre) could also be used.</p> <p>Anthracnose Spray Bordeaux mixture (1%) alternating with carbendazim (0.1%).</p> <p>Basal wilt Remove and destroy affected cuttings along with defoliated leaves. After periodic sanitation, the cuttings</p>
--	--	--	--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

							<p>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 dimethoate (0.05%) whenever infestation is noticed.</p> <p>Mealy bug Spray dimethoate (0.05%), once infestation is noticed.</p> <p>Nematodes Apply carbosulfan (0.1%) @ 50 ml/bag.</p>
Cardamom	Capsule maturation and harvesting	Idukki, Wayanad (Kerala), Kodagu (Karnataka)	<p>Shoot borer (<i>Conogethes punctiferalis</i>)</p> <p>Thrips (<i>Sciothrips cardamomi</i>)</p>	<p>Medium</p> <p>Low</p>	<p>Leaf blight (<i>Colletotrichum gloeosporioides</i>)</p> <p>Katte/Mosaic (<i>Cardamom mosaic virus</i>)</p> <p>Chlorotic streak (<i>Banana bract mosaic virus</i>)</p>	<p>Medium</p> <p>Low</p> <p>Low</p>	<p>Shoot borer Spray quinalphos (0.075%).</p> <p>Thrips Under Karnataka conditions, spray Fipronil (0.005%) or Spinosad (0.0135%).</p> <p>Leaf blight Maintain optimum shade level by providing 40-60% filtered light. Spray Bordeaux mixture (1%) @ 0.5-1 litre/plant or carbendazim - mancozeb (0.1%) or carbendazim (0.2%).</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</p>

								<p>areas should be drenched with copper oxychloride (0.2%).</p> <p>Shoot borer Prune and destroy freshly infested pseudostems and spray malathion (0.1%).</p>
Turmeric	Rhizome development and bulking	Kerala, Tamil Nadu, Andhra Pradesh, Telangana	Shoot borer (<i>Conogethes punctiferalis</i>)	High	Leaf spot (<i>Colletotrichum capsici</i>)	Medium		<p>Leaf spot Spray carbendazim or mancozeb (0.2%) or copper oxychloride (0.2%).</p> <p>Shoot borer Spray malathion (0.1%) or lambda-cyhalothrin (0.0125%).</p>