

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: 20.04.2017 to 26.04.2017

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	Idukki, Kozhikode, Wayanad (Kerala), Kodagu (Karnataka), Tamil Nadu	Mealybug (<i>Planococcus</i> sp., <i>Ferrisia</i> <i>virgata</i>) (Nursery) Scale insect (<i>Protopulvinari</i> <i>a longivalvata</i>) (Nursery)	Low Low	Stunt disease (<i>Cucumber</i> <i>mosaic virus</i> , <i>Piper</i> <i>yellow</i> <i>mottle virus</i>) Slow decline (<i>Meloidogyne</i> <i>incognita.</i> , <i>Radopholus</i> <i>similis</i>) Anthracnose (<i>Colletotrichum</i> <i>gloeosporioides</i>) (Nursery) Viral infection (Nursery)	Low to medium Medium Low Low to Medium	Physiological wilting (Field) 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</i> <i>chlamydosporia</i> or <i>Trichoderma</i> <i>harzianum</i> @ 50 g/vine and metalaxyl-mancozeb (0.125%) may also be applied. Physiological wilting: 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.

							<p>Nursery: Anthracnose Spray Bordeaux mixture (1%). Viral infections Regular inspection and removal of infected plants. Regular monitoring for insects and spray with neem oil (0.5%) whenever infestation is noticed. Mealy bug and scale insect Spray neem oil (0.5%), once infestation is noticed. Nematodes Apply <i>Pochonia chlamydosporia</i> @ 1g/bag.</p>
Cardamom	Vegetative	Idukki, Wayanad (Kerala), Kodagu (Karnataka)	Thrips (<i>Sciothrips cardamomi</i>)	Low	Leaf blight (<i>Colletotrichum gloeosporioides</i>) Katte/Mosaic (<i>Cardamom mosaic virus</i>) Chlorotic streak (<i>Banana bract mosaic virus</i>)	Medium Low Low	Leaf blight Maintain optimum shade level by providing 40-60% filtered light. 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. Chlorotic streak 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. Thrips Spray quinalphos (0.075%).
Vanilla	Vegetative	Karnataka			Leaf spot (<i>Colletotrichum vanillae</i>) Stem rot (<i>Fusarium oxysporum</i> f. sp. <i>vanillae</i>) Viral diseases (<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		Leaf spot Provide 50% shade in the plantation. Spray Bordeaux mixture (1%) at 15 – 20 days interval. Stem rot Remove and destroy infected plant parts. Apply <i>Trichoderma harzianum</i> and <i>Pseudomonas fluorescens</i> (cfu 10 ⁸) 50 g per vine. Viral diseases 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%).
Nutmeg	Bearing	Kerala					Physiological wilting (Field)	Physiological wilting (Field) Provide irrigation to the trees. The trees may be adequately shaded to prevent sun scorching.