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
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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/ Spike formation**	Idukki, Kozhikode, Wayanad (Kerala), Kodagu (Karnataka), Tamil Nadu	**Mealybug** (*Planococcus* sp., *Ferrisia virgata*) (Nursery) **Scale insect** (*Protopulvinaria longivalvata*) (Nursery)	Low Low	**Stunt disease** (*Cucumber mosaic virus, Piper yellow mottle virus*) **Slow decline** (*Meloidogyne incognita., Radopholus similis*) **Foliar infection/Foot rot** (*Phytophthora* spp.) **Anthracnose (***Colletotrichum gloeosporioides***)** **Anthracnose (***Colletotrichum gloeosporioides***)**	Low Low Low Low Low	**Nematodes** (*Radopholus similis, Meloidogyne incognita*) (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 *Pochonia chlamydosporia* or *Trichoderma harzianum* @ 50 g/vine and metalaxyl-mancozeb (0.125%) may also be applied. **Foliar infection/Foot rot** Follow strict phytosanitation. After the receipt of few monsoon showers, all the vines are to be drenched at a radius of 45-50 cm with copper oxychloride 0.2% @ 5-10

					(Nursery) **Viral infection** (Nursery)	Low		litres/vine. A foliar spray with Bordeaux mixture 1% is also to be given. Alternatively, drenching and spraying with potassium phosphonate 0.3% @ 5-10 litres/ vine (drench) or potassium phosphonate 0.3% @ 5-10 litres/ vine (drench) also may to be given. **Anthracnose** Prophylactic spraying with Bordeaux mixture (1%) or carbendazim - mancozeb (0.1%). **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 *Pochonia chlamydosporia* @ 1g/bag.
Cardamom	**Vegetative/ Panicle initiation/ Capsule formation**	Idukki, Wayanad (Kerala), Kodagu (Karnataka)	**Thrips** (*Sciothrips cardamomi*)	Medium	**Leaf blight** (*Colletotrichum gloeosporioides*) **Azhukal/Capsule rot** (*Phytophthora nicotianae* var. *nicotianae* and	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

					P. meadii) **Katte/Mosaic** (*Cardamom mosaic virus*) **Chlorotic streak** (*Banana bract mosaic virus*)	Low Low		plants may be burnt or buried deep in soil. Removal of natural hosts like *Colocasia* and *Caladium* 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. **Azhukal/Capsule rot** Trashing and cleaning of the plant basin need to be carried out. Regulate thick shade. Prevent water logging by providing adequate drainage. Destroy disease affected portions and plant debris. Prophylactic sprays with Bordeaux mixture (1%). Alternatively, fosetyl-aluminium (0.2%) or potassium phosphonate (0.3%) can be used. Drench plant basin with copper oxychloride (0.2%). **Thrips** Spray quinalphos (0.075%) after undertaking thrashing.
Vanilla	**Vegetative**	Karnataka			**Leaf spot** (*Colletotrichum vanillae*) **Stem rot** (*Fusarium oxysporum* f. sp. *vanillae*)	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 *Trichoderma*

					Viral diseases (*Bean common mosaic virus*, *Bean yellow mosaic virus*, *Cucumber mosaic virus*, *Cymbidium mosaic virus*)	Low		*harzianum* and *Pseudomonas fluorescens* (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%).
Ginger	**Vegetative**	Karnataka, Kerala	**Leaf roller** (*Udaspes folus*) **Shoot borer** (*Conogethes punctiferalis*)	Low Low	**Soft rot** (*Pythium aphanidermatum* and *P. myriotylum*) **Bacterial wilt** (*Ralstonia solanaceraum*) **Leaf spot** (*Phyllosticta zingiberi*)	Low Low Medium		**Soft rot** Once disease is observed in field, remove affected clumps and drench affected and surrounding beds with mancozeb (0.3%) or metalaxyl mancozeb (0.125%) or copper oxychloride (0.2%). **Bacterial wilt** Confirm identity of the disease by "ooze test". After confirming as bacterial wilt, affected clumps shall be removed carefully without spilling the soil in the field and drench surrounding beds of infested areas with copper oxychloride (0.2%). Care should be taken to dispose the removed plants far from the cultivated area or destroyed by burning. **Leaf spot** Spray Bordeaux mixture (1%) or mancozeb (0.2%) or carbendazim (0.2%) when the initial symptoms appear. Care should be taken that the spray solution should reach lower surface of the leaves also.

								Leaf roller Spray malathion (0.1%) at 21 days intervals. **Shoot borer** Prune and destroy freshly infested pseudostems and spray malathion (0.1%).
Turmeric	**Vegetative**	Andhra Pradesh, Telangana, Tamil Nadu, Odisha	**Leaf roller** (*Udaspes folus*)	Low	**Rhizome rot** (*Pythium aphanidermatum)*	Low		**Rhizome rot** Once noticed in the field, the beds should be drenched with copper oxychloride (0.2%) or metalaxyl - mancozeb (0.125%). **Leaf roller** Spray malathion (0.1%) at 21 days intervals.
Nutmeg	**Bearing**	Kerala			**Leaf fall and fruit rot** (*Diplodia natalensis* and *Phytophthora* sp.)	Low		**Leaf fall and fruit rot** In endemic regions, spray Bordeaux mixture (1%) covering both foliage and fruits as a prophylactic measure.