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

			Major Insec	t Pests	Major Plant Diseases		Other Pests	
Сгор	Crop Stage	Location (with GPS)	Name (Scientific Name)	Status (Low, Medium & Severe)	Name (Scientific Name)	Status (Low, Medium & Severe)	(Nematodes, Rat, etc.) (Scientific Name)	Pest Advisories
Black pepper	(a) Bearing	Idukki,	Leaf gall thrips	Low	Stunt disease	Low	Nematodes	Field:
	stage	Kozhikode,	(Liothrips		(Cucumber		(Radopholus	Stunt disease
		Wayanad	karnyi)		mosaic virus,		similis,	Regular monitoring. Remove infected
	(b) Nursery	(Kerala),	Top shot borer	Low	Piper yellow		Meloidogyne	vines and destroy by burning or
		Kodagu	(Cydia		mottle virus)		incognita)	burying deep in soil. Control the
		(Karnataka),	hemidoxa)		Slow decline	Low	(Nursery)	vector (mealy bugs) by drenching
		Tamil Nadu	Pollu beetle	Low	(Meloidogyne			chlorpyrifos (0.075%).
			(Lanka		incognita., Badarhalua similia)			Slow decline
			ramakrishnai)	-	Radopholus similis) Anthracnose			Remove and destroy severely affected
			Mealybug	Low	(Colletotrichum	Medium		vines. Drench the vines with
			(Planococcus		gloeosporioides)			carbosulfan (0.1%) . Along with
			sp., <i>Ferrisia</i>		Foliar infection	T		nematicide application, the basins may
			virgata)		due to	Low		be drenched with either copper
			(Nursery)		Phytophthora			oxychloride (0.2%) or potassium
					capsici			phosphonate (0.3%) or metalaxyl-
					(Nursery)			mancozeb (0.125%). Alternatively,

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

							 should be drenched with carbendazim (0.2%) or Bordeaux mixture (1%). Viral infections Regular inspection and removal of infected plants. Regular monitoring for insects and spray with dimethoate (0.05%) whenever infestation is noticed. Mealy bug Spray dimethoate (0.05%), once infestation is noticed. Nematodes Apply carbosulfan (0.1%) @ 50 ml/bag.
Cardamom	Capsule maturation and harvesting	Idukki, Wayanad (Kerala), Kodagu (Karnataka)	Shoot borer (Conogethes punctiferalis) Thrips (Sciothrips cardamomi)	Medium	Leaf blight (Colletotrichum gloeosporioides) Katte/Mosaic (Cardamom mosaic virus) Chlorotic streak (Banana bract mosaic virus)	Medium Low Low	Shoot borerSpray quinalphos (0.075%).ThripsUnder Karnataka conditions, sprayFipronil (0.005%) or Spinosad(0.0135%).Leaf blightMaintain optimum shade level byproviding 40-60% filtered light.Spray Bordeaux mixture (1%) @ 0.5-1litre/plant or carbendazim - mancozeb(0.1%) or carbendazim (0.2%).Katte/ MosaicPrompt 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 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.
Vanilla	Bean maturing	Karnataka			Premature yellowing and bean shedding (Colletotrichum vanillae)Viral diseases (Bean common mosaic virus, Bean yellow mosaic virus, Cucumber mosaic virus, Cymbidium mosaic virus)	Medium Low	Premature yellowing and bean sheddingProvide 50% shade in the plantation. Spray carbendazim – mancozeb (0.25%) at 15 – 20 days interval.Viral diseases
Ginger	Rhizome development and bulking	Kerala, Karnataka, Tamil Nadu	Shoot borer (Conogethes punctiferalis)	High	Leaf spot (Phyllosticta zingiberi) Bacterial wilt (Ralstonia solanacearum Biovar-3)	Medium Low	Leaf spotSpray 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.Bacterial wiltAffected clumps may be removed carefully without spilling the soil once the disease appears in field. Dispose the removed plants far from the cultivated area or destroy by burning. The affected area and surrounding

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