## 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: 15.08.2016 - 21.08.2016

		<b>Location</b> (with GPS)	Major Insec	t Pests	Major Plant	Diseases	Other Pests	
Сгор	Crop Stage		<b>Name</b> (Scientific Name)	Status (Low, Medium & Severe)	<b>Name</b> (Scientific Name)	Status (Low, Medium & Severe)	(Nematodes, Rat, etc.) (Scientific Name)	Pest Advisories
Black pepper	(a)Vegetative/	Idukki,	Leaf gall thrips	Medium	Stunt disease	Low	Nematodes	Field:
	Initiation of	Kozhikode,	(Liothrips		(Cucumber		(Radopholus	Stunt disease
	spikes	Wayanad	karnyi)		mosaic virus,		similis,	Regular monitoring. Remove
		(Kerala),	Top shot borer	Medium	Piper yellow		Meloidogyne	infected vines and destroy by
	(b) Nursery	Kodagu	(Cydia		mottle virus)		incognita)	burning or burying deep in soil.
		(Karnataka)	hemidoxa)	Ŧ	Foliar infection	Medium	(Nursery)	Control the vector (mealy bugs) by
			Pollu beetle	Low	(due to			drenching with chlorpyrifos
			(Lanka		<i>Phytophthora</i>			(0.075%).
			ramakrihnai) <b>Mealybug</b>	Low	<i>capsici</i> ) Anthracnose	Low		Foliar infection due to <i>Phytophthora capsici</i>
			(Planococcus	LOW	(Colletotrichum	LOW		After the receipt of few monsoon
			sp., <i>Ferrisia</i>		capsici)			showers, all the vines are to be
			virgata)		Foliar infection	Low to		drenched at a radius of 45-50 cm
			(Nursery)		due to	Medium		with copper oxychloride 0.2% @ 5-
					Phytophthora			10 litres/vine. A foliar spray with
					capsici			Bordeaux mixture 1% is also to be
					(Nursery)			given. Alternatively, drenching and
								spraying with potassium
								phosphonate 0.3% @ 5-10 litres/

Anthracnose	Low	vine (drench) or potassium
(Colletotrichum		phosphonate 0.3% @ 5-10 litres/
gloeosporioides)		vine (drench) also may to be given.
(Nursery)		Anthracnose
Basal wilt	Low	Prophylactic spraying with
(Sclerotium		Bordeaux mixture (1%) or
rolfsii)		carbendazim + mancozeb $(0.1\%)$ .
(Nursery)		Leaf gall thrips
Viral infection	Low to	Spray dimethoate (0.05%) during
(Nursery)	Medium	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:
		C C
		Phytophthora 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 defoliat
	leaves.
	After periodic sanitation, t
	cuttings should be drenched with
	carbendazim (0.2%) or Bordeau
	mixture (1%).
	Viral infections
	Regular inspection and removal of
	infected plants.
	Regular monitoring for insects an
	spray with dimethoate (0.059
	whenever insect attack is noticed.
	Mealy bug
	Spray dimethoate (0.05%), on
	infestation is noticed.
	Nematodes
	Apply carbosulfan (0.1%) @
	ml/bag.

Cardamom	(a) Vegetative/	Idukki,	Panicle/Shoot	Low	Leaf blight	Low	Field:
	Panicle	Wayanad	borer		(Colletotrichum		Panicle/Shoot borer
	initiation/	(Kerala),	(Conogethes		gloeosporioides)		Spray quinalphos (0.075%)
	Capsule	Kodagu	punctiferalis)		Katte/Mosaic	Medium	coinciding with emergence of
	formation	(Karnataka)	Thrips	Medium	(Cardamom		panicles and new shoots.
			(Sciothrips		mosaic virus)		Thrips
			cardamomi)		Chlorotic streak	Low	Under Karnataka conditions, spray
	(b)Primary				(Banana bract		Fipronil (0.005%) or Spinosad
	seedling				mosaic virus)		(0.0135%) after undertaking
	nursery				Azhukal/Capsule	Low	thrashing. Ensure irrigation after
					rot		thrashing.
					(Phytophthora		Leaf blight
					nicotianae var.		Maintain optimum shade level by
					nicotianae and		providing 40-60% filtered light.
					P. meadii)		Katte/ Mosaic
					Damping off or	Low	Prompt inspection of plantation,
					seedling rot		detection and rouging of virus
					(Pythium vexans,		sources (infected plants/ volunteers)
					Rhizoctonia		to reduce re-infection. The removed
					solani, Fusarium		plants may be burnt or buried deep
					oxysporum)		in soil.
					(Primary Seedling		Removal of natural hosts like
					Nursery)		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%).
	Primary seedling nursery:
	Damping off or seedling rot
	Prevent water stagnation by
	providing adequate drainage.
	Remove and destroy infected/dead
	seedlings.
	When initial symptoms are noticed,
	drench nursery beds with 0.2%
	copper oxychloride @ 3-5 litres/m <sup>2</sup> .
	Repeat drenching two to three times
	at an interval of 15 days.

Vanilla	Vegetative/ flowering/ bean	Karnataka			Premature yellowing and	Medium	<b>Premature yellowing and bean</b> <b>shedding</b> Provide 50% shade in the
	formation				<b>bean shedding</b> (Colletotrichum		plantation.
	Tormation				vanillae)		Spray carbendazim – mancozeb
					Bean rot	Medium	(0.25%) at 15 – 20 days interval.
					(Phytophthora		Bean rot
					meadii,		Regulate shade.
					Sclerotium sp.)		Remove and destroy infected plant
					Viral diseases	Medium	parts and mulch.
					(Bean common		Spray Bordeaux mixture (1%) and
					mosaic virus,		drench soil with copper oxychloride
					Bean yellow		(0.25%) 2 – 3 times, In case of
					mosaic virus,		Scelrotium rot, spray carbendazim
					Cucumber mosaic		– mancozeb $(0.25\%)$ twice at 15
					virus, Cymbidium		days interval.
					mosaic virus)		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 dimethoate
		X7 1					(0.05%).
Ginger	Vegetative	Kerala,	Leaf roller	Medium	Soft rot	Low	Soft rot
		Karnataka,	(Udaspes folus)		( <i>P</i> .		Seed rhizomes are to be selected
		Tamil Nadu			aphanidermatum		from disease free gardens.
					and <i>P</i> .		Treat seed rhizomes with mancozeb $(0, 20)$
					myriotylum)	Law to	(0.3%) or metalaxyl mancozeb
					Leaf spot	Low to	(0.125%) for 30 minutes before
					<i>Phyllosticta</i>	Medium	planting.
					zingiberi		Leaf spot Spray Bordeaux mixture (1%) or
							mancozeb (0.2%) or carbendazim
							(0.2%) when the initial symptoms
							(0.2%) when the mittal symptoms

							appear. Care should be taken that the spray solution should reach lower surface of the leaves also. <b>Leaf roller</b> Spraying malathion (0.1%) at 21 days intervals.
Turmeric	Vegetative	Kerala, Tamil Nadu, Andhra Pradesh, Telangana	Leaf roller (Udaspes folus) Leaf feeding beetle (Lema spp.)	Low	Rhizome rot (Pythium aphanidermatum) Leaf spot (Colletotrichum capsici)	Low Low	Rhizome rotTreating the seed rhizomes with mancozeb (0.3%) for 30 minutes prior at the time of planting.Leaf spotSpray carbendazim or mancozeb (0.2%) or copper oxychloride (0.2%).Leaf rollerSpraying malathion (0.1%) at 21 days intervals.Leaf feeding beetle Spray quinalphos (0.05%).