



GOVERNMENT OF ODISHA

# EXPERT COMMITTEE RECOMMENDATIONS 2021-22

DEPARTMENT OF AGRICULTURE  
AND FARMERS' EMPOWERMENT



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# EXPERT COMMITTEE RECOMMENDATION

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## 2021-22

DEPARTMENT OF AGRICULTURE  
AND FARMERS' EMPOWERMENT



DR. ARUN KUMAR SAHU

**MINISTER**

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## MESSAGE

One of the main challenges of the agriculture is to provide increasing supplies of food for an increasing population. Despite many natural calamities and pest attack food production in the State has increased significantly in the last two decades. The remarkable growth in agriculture was achieved through use of modern technologies in the form of high yielding crop varieties, organic /inorganic fertilizer, micronutrients, pesticides and IPM devices.

Insects, pests, diseases and weeds inflict enormous losses to the crop. So there has always been a need to keep crops free from pests and diseases. Pest control practice is as old as agriculture. Pest can be controlled by monitoring the crops, only applying insecticides when necessary and by growing varieties of crops and crops which are resistant to pest. Plant Protection Research has invented many technologies using flora and fauna. The strategy is often used as Integrated Pest Management.

The expert committee comprising of senior scientists and researchers from Odisha University of Agriculture and Technology, NRRI, CHES, CIPMC has contributed its recommendations of different need based inputs for use in crop production and protection.

I hope, this will help a lot to the extension functionaries for proper recommendation to the farmers.

(ARUN KUMAR SAHU)



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## MESSAGE

Agricultural production is constrained by a number of biotic and abiotic factors viz insects-pests, diseases, weeds etc causing considerable damage to potential agricultural production. Evidence indicate that pests cause 25% loss in rice, 30% in Pulses, 35% loss in oilseeds, 50% in Cotton, 20% in Sugarcane and these losses cannot be eliminated but losses can be reduced.

It is sometime a challenge for the extension functionaries to recommended effective management option. In the past, the State has experienced the outbreak of devastating pests like Swarming caterpillar and BPH in paddy, occurrence of Fall Army Worm in maize, Spodoptera in Groundnut and the issues regarding its management. Arrival of Locust, the most devastating pest for all crops was a cause of great concern among the agri scientists. Effective recommendations are required to manage the pests and avoid crop loss for the extension functionaries as well as the farmers. Further, use of proper agricultural inputs will boost up crop production.

The expert committees lead by Scientists of OUAT ,NRRI ,CHES,CIPMC have come out with crop wise recommendations of pesticides, micronutrients and organic fertilizer, bio fertilizers, plant growth regulators, pheromone traps, lures and IPM kits. I hope these will enlighten and guide our extension functionaries in recommending appropriate remedial methods to the farmers.

  
(RAJ KUMAR SHARMA)



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## MESSAGE

The crucial role played by Micronutrients in enhancing crop production is a well recognized fact .Micronutrient deficiencies in crop have resulted in yield loss and lower nutritional quality. Insect pests, diseases and weeds inflict enormous losses to the potential agriculture production .Plant Protection research has generated many technologies using flora and fauna which are used as Integrated Pest Management "IPM" techniques . These are more holistic and make use of natural and non-chemical based methods but need more awareness.

Presently, most farmers are depending solely on the use of the pesticides to mitigate the pest problems. Often lack of awareness causes wrong selection of the chemicals, inadequate use, overdosing or improper timing which leads to resistance or resurgence problems. The recommended Plant Protection chemicals used at the correct dose and the correct time can manage the pests timely and save the crops.

Scientists of the Odisha University of Agriculture & Technology (OUAT), National Rice Research Institute (NRRI) , Central Horticultural Experiment Station (CHES) ,Central Integrated Pest Management Centre (CIPMC) & officials of Directorate of Agriculture and Horticulture ,Odisha have come out with a crop wise and pest wise recommendation of pest and soil nutrient management for different crops which has been adapted to the local condition. I believe this will help the extension functionaries in informing the farmers ,more scientifically.

I congratulate the team of experts for preparing this document.

(SAURABH GARG)





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## MESSAGE

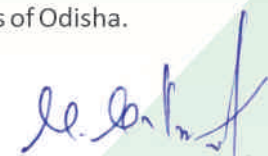
Chemical crop protection products, commonly referred to as pesticides or agrochemical products, play a vital role in controlling the pests and diseases that infect, consume or damage crops thereby significantly reducing the quantity and quality of food production, while the benefits of agricultural innovation goes to farmers and consumers. The crop protection products help to control insects, diseases, weeds, fungi and other undesirable pests. Wrong and indiscriminate use of pesticides results in poor pest management and sometimes minor pests attaining major status. Our extension functionaries need to update their technical knowledge to properly advise the farmers on effective management of pest with recommended pesticides.

Ministry of Agriculture & Farmers Welfare, Government of India has published the Major Uses of Pesticides (Insecticides, Fungicides, Bio-pesticides, Herbicides etc) based on certificate issued by Central Insecticides Board and Registration Committee (CIB & RC) on 01.01.2021 in the website of ppqs.gov.in.

This volume is compilation of the crop specific recommendation of CIB & RC for pest management and recommendation of Experts for both nutrient and pest management.

Soil Test Based nutrient management has emerged as a key issue in efforts to increase agricultural productivity and production.

We are thankful to the Experts, Prof. & HOD of different faculty of OUAT researchers, Sr. Scientist of NRRI, CHES, CIPMC for their valuable suggestions and recommendation. Practical recommendation on pest and nutrient management for specific crop provided by Sr. Scientist and Researchers in extension services is logical and necessary for the farmers of Odisha.

  
(M.MUTHUKUMAR)

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## CROP & PEST WISE RECOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
ARHAR	<b>Jassids</b>	IMIDACLOPRID 17.8 % SL	25	140	500	Foliar Spray
		THIAMETHOXAM 25 % WG	25	100	500	Foliar Spray
		CLOTHIANIDIN 50 % WDG	50	100	500	Foliar Spray
	<b>Pod borer , Plume Moth &amp; Pod Fly</b>	BENFURACARB 40% EC	1000	2500	500	Foliar Spray
		CHLORANTRANILIPROLE 18.5% SC	30	150	500	Foliar Spray
		CHLORANTRANILIPROLE 9.3 % + LAMBDA-CYHALOTHRIN 4.6 % ZC	30	200	500	Foliar Spray
		DELTAMETHRIN 2.8 % EC	12.5	500	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	11	220	500	Foliar Spray
		ETHION 50 %EC	500-750	1000-1500	500-1000	Foliar Spray
		FLUBENDIAMIDE 20 % WG	50	250	500	Foliar Spray
		FLUBENDIAMIDE 39.35% M/M SC	48	100	500	Foliar Spray
		INDOXACARB 14.5% SC	50-60	353-400	500	Foliar Spray
		INDOXACARB 15.8% EC	50	333	500	Foliar Spray
		LAMBDA-CYHALOTHRIN 5 %EC	20-25	400-500	500	Foliar Spray
		LUFENURON 5.4 % EC	300	600	500-1000	Foliar Spray
		METHOMYL 40 % SP	300-450	750-1125	500-1000	Foliar Spray
		MONOCROTOPHOS 36 % SL	500	1250	500-1000	Foliar Spray
		NOVALURON 5.25 % + INDOXACARB 4.5 %SC	43.31 +37.13	825-875	500	Foliar Spray
		QUINALPHOS 20 % AF	500	2500	750 - 1000	Foliar Spray
		QUINALPHOS 25 % EC	350	1400	500-1000	Foliar Spray
	SPINOSAD 45.0% SC	56-73	125-162	500	Foliar Spray	
	<b>Pod borer</b>	QUINALPHOS 1.50 % DP	350	23300		Foliar Spray
	<b>Plume Moth &amp; Pod Fly</b>	MONOCROTOPHOS 36 % SL	250	625	500-1000	Foliar Spray
	<b>Pod Sucking Bug ,Cow Bug &amp; Aphid</b>	IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		ACETAMIPRID 20% SP	25	125	500	Foliar Spray
		CLOTHIANIDIN 50 % WDG	50	100	500	Foliar Spray
	<b>Leaf Webber</b>	CHLORPYRIPHOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000- 1250	500	Foliar Spray
PROFENOPHOS 50% EC		500	1000	500	Foliar Spray	



Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
BENGAL GRAM	Pod Borer ( <i>Helicoverpa armigera</i> )	CHLORANTRANILIPROLE 18.5% SC	25	125	500	Foliar Spray
		CHLORPYRIFOS 1.5 % DP	375	25000	-	Dusting
		EMAMECTIN BENZOATE 5% SG	11	220	500	Foliar Spray
		ETHION 50 % EC	500-750	1000-1500	500-1000	Foliar Spray
		FLUBENDIAMIDE 20 % WG	50	250	500	Foliar Spray
		FLUBENDIAMIDE 8.33 % + DELTAMETHRIN 5.56% w/w SC	22.50 + 15	250	500	Foliar Spray
		LAMBDA-CYHALOTHRIN 5% EC	25	500	500	Foliar Spray
		NOVALURON 10% EC	75	750	500	Foliar Spray
		NOVALURON 5.25 % + INDOXACARB 4.5 % SC	43.31+ 37.13	825-875	500	Foliar Spray
		QUINALPHOS 1.50 % DP	350	23300	-	Dusting at pod formation
		QUINALPHOS 25 % EC	250	1000	500-1000	Foliar Spray
	Cut worm	CHLORPYRIFOS 20% EC	500	2500	500	Foliar Spray
		CHLORPYRIFOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
	Termite	CHLORPYRIFOS 20% EC	500	2500	500	Soil Drench
FIPRONIL 5% SC		75	1500	500	Soil Drench	
BIFENTHRIN 10% EC		100	1000	500	Soil Drench	
Semilooper	FLUBENDIAMIDE 20 % WG	100	500	500	Foliar Spray	
	INDOXACARB 14.5% SC	72.5	500	500	Foliar Spray	
BLACK & GREEN GRAM	Bihar hairy Caterpillar	QUINALPHOS 25% EC	375	1500	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	400 + 40	1000	500	Foliar Spray
	Jassids, Aphid & Thrips	ACETAMIPRID 20% SP	25	125	500	Foliar Spray
		CHLORPYRIFOS 20% EC	250	1250	500-1000	Foliar Spray
		CLOTHIANIDIN 50% WDG	125	250	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
	Pod borer , Plume moth & Pod fly ( <i>Etiella zinckenella</i> , <i>Spodoptera litura</i> and <i>Maruca vitrata</i> )	FLUBENDIAMIDE 39.35% M/M SC	48	100	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	11	220	500	Foliar Spray
		THIODICARB 75% WP	468-562	625-750	500	Foliar Spray
PROFENOPHOS 50% EC		500	1000	500	Foliar Spray	
CHLORANTRANILIPROLE 18.5% SC		20	100	500	Foliar Spray	

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
BLACK & GREEN GRAM	Pod borer , Plume moth & Pod fly ( <i>Etiella zinckenella</i> , <i>Spodoptera litura</i> and <i>Maruca vitrata</i> )	LUFELURON 5.4 % EC	30	600	500	Foliar Spray
		MONOCROTOPHOS 36 % SL	250	625	500-1000	Foliar Spray
		NOVALURON 5.25 % + INDOXACARB 4.5 % SC	43.31+ 37.13- 45.94+ 39.38	825-875	500	Foliar Spray
	Green Gram Pod Borer	FLUBENDIAMIDE 20 % WG	175	437	500-1000	Foliar Spray
	White fly	ACETAMIPRID 20% SP	25	125	500	Foliar Spray
		BUPROFEZIN 25%SC	125	500	500	Foliar Spray
		PYRIPROXYFEN 10%EC	50	500	500	Foliar Spray
	Tobacco Caterpillar & Hawk Moth	QUINALPHOS 20% + CYPERMETHRIN 3% EC	200 + 30	1000	500	Foliar Spray
		CHLORPYRIPHOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	400 + 40	1000	500	Foliar Spray
		FLUBENDIAMIDE 20 % WG	60	300	500	Foliar Spray
	Flee Beetle	FIPRONIL 5% SC	50	1000	500	Foliar Spray
		CHLORPYRIFOS 1.5%DP	375-450	25-30 KG	--	Dusting
	Mites	PROPARGITE 57% EC	570	1000	500	Foliar Spray
		FENAZAQUIN 10% EC	100	1000	500	Foliar Spray
FENPYROXYMATE 5% EC		50	1000	500	Foliar Spray	
COTTON	Boll Worms complex	ACCPHATE 75% SP	584	780	500-1000	Foliar Spray
		ACEPHATE 25% + FENVALERATE 03% W/W EC	500.0 +60.0	2000	500	Foliar Spray
		ACEPHATE 50% + BIFENTHRIN 10% WDG	400.0 +80.0	800	500-750	Foliar Spray
		ACEPHATE 50% + IMIDACLOPRID 01.80% SP	518.0	1000	500	Foliar Spray
		ACETAMIPRID 01.10% + CYPERMETHRIN 05.50% EC	10.0 +50.0	1000	400-1000	Foliar Spray
		ALPHA-CYPERMETHRIN 10% EC	15-25	165-280	600-1000	Foliar Spray
		ALPHA-CYPERMETHRIN 10% SC	25-30	250-300	500-1000	Foliar Spray
		CHLORANTRANILIPROLE 09.30%+ LAMBDA-CYHALOTHRIN 04.60% ZC	37.50	250	500	Foliar Spray
		CHLORANTRANILIPROLE 18.5% SC	30	150	500	Foliar Spray
		CHLORFLUAZURON 5.4 % EC	75-100	1500-2000	500	Foliar Spray
		CHLORPYRIFOS 20 % EC	250	1250	500-1000	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
COTTON	Boll Worms complex	CHLORPYRIFOS 50 % EC	500-600	1000-1200	500-1000	Foliar Spray
		CHLORPYRIFOS 50% + CYPERMETHRIN 05% EC	500.0 + 50.0	1000	500-1000	Foliar Spray
		CHLORPYRIFOS 16% + ALPHACYPERMETHRIN 01% EC	425.0	2500	500-750	Foliar Spray
		CYPERMETHRIN 10 % EC	50-70	550-760	500-1000	Foliar Spray
		CYPERMETHRIN 10% + INDOXACARB 10% SC	50.0 + 50.0	500	400-1000	Foliar Spray
		CYPERMETHRIN 25 % EC	40-70	160-280	400-800	Foliar Spray
		CYPERMETHRIN 3.0% + QUINALPHOS 20.0% EC	-	1000-1250	500-600	Foliar Spray
		DELTAMETHRIN 1.8 % EC	12.5	781	400-600	Foliar Spray
		DELTAMETHRIN 11 % EC	12.5	125	400-600	Foliar Spray
		DELTAMETHRIN 2.8 % EC	12.5	500	400-600	Foliar Spray
		DIFLUBENZURON 25 % WP	75	300	500-1000	Foliar Spray
		EMAMECTIN BENZOATE 1.9 % EC	11	580	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	11	190-220	500	Foliar Spray
		ETHION 40% + CYPERMETHRIN 05% W/W EC	400.0 + 50.0	1000	500	Foliar Spray
		ETHION 50 % EC	1000	2000	500-1000	Foliar Spray
		FENPROPATHRIN 10 % EC	75-100	750-1000	750-1000	Foliar Spray
		FENPROPATHRIN 30 % EC	75-100	250-340	750-1000	Foliar Spray
		FENVALERATE 20 % EC	75-100	375-500	700-900	Foliar Spray
		FIPRONIL 5 % SC	100	2000	500	Foliar Spray
		FLUBENDIAMIDE 20% WG	50	250	500	Foliar Spray
		FLUBENDIAMIDE 39.35% M/M SC	48-60	100-125	500	Foliar Spray
		FLUVALINATE 25 % EC	50-100	200-400	500-1000	Foliar Spray
		INDOXACARB 14.50% + ACETAMIPRID 07.70% W/W SC	88.8-111.0	400-500	500	Foliar Spray
		INDOXACARB 15.8% EC	75	500	500	Foliar Spray
		LAMBDA – CYHALOTHRIN 2.5 % EC	15-25	600-1000	400-600	Foliar Spray
		LAMBDA – CYHALOTHRIN 4.9 %CS	25	500	500	Foliar Spray
		LAMBDA – CYHALOTHRIN 5 % EC	15-25	300-500	400-600	Foliar Spray
		LUFENURON 5.4 % EC	30	600	500-750	Foliar Spray
		METHOMYL 40 % SP	300-450	750-1125	500-1000	Foliar Spray
		MONOCROTOPHOS 36 % SL	450-800	1125-2250	500-1000	Foliar Spray
NOVALURON 10% EC	100	1000	500	Foliar Spray		
NOVALURON 8.8 % SC	100	1000	500- 1000	Foliar Spray		

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
COTTON	Boll Worms complex	PERMETHRIN 25 %EC	100-125	400-500	500-1000	Foliar Spray
		PROFENOFOS 40% + CYPERMETHRIN 04% EC	440.0-660.0	1000-1500	500-1000	Foliar Spray
		PROFENOFOS 50 % EC	750-1000	1500-2000	500-1000	Foliar Spray
		PYRIPROXYFEN 05% + FENPROPATHRIN 15% EC	25+75-37.5+112.5	500-750	500-750	Foliar Spray
		QUINALPHOS 1.5 % DP	450	30000		From Square formation onward
		QUINALPHOS 20 %AF	350-500	1750-2500	750-1000	Foliar Spray
		SPINOSAD 45.0% SC	75-100	165-220	500	Foliar Spray
		THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 09.50% ZC	44.0	200	500	Foliar Spray
		THIODICARB 75 % WP	750	1000	500	Foliar Spray
	Spotted Bollworm	FENVALERATE 0.40% DP	80-100	20000-25000		Foliar dusting
	Aphid, Jassids,Thrips, Red & Dusky Cotton Bug	ACCPHATE 75% SP	292	390	500-1000	Foliar Spray
		ACEPAMIPRID 20 % SP	10	50	500-600	Foliar Spray
		ACEPHATE 25% + FENVALERATE 03% W/W EC	500+60	2000	500	Foliar Spray
		ACEPHATE 50% + BIFENTHRIN 10% WDG	400+80	800	500-750	Foliar Spray
		ACEPHATE 50% + IMIDACLOPRID 01.80% SP	518.0	1000	500	Foliar Spray
		ACEPHATE 95% SG	562.5	592	500	Foliar Spray
		ACETAMIPRID 01.10% + CYPERMETHRIN 05.50% EC	10+50	1000	400-1000	Foliar Spray
		BUPROFEZIN 15% + ACEPHATE 35% W/W WP	187.5 + 437.5	1250	500	Foliar Spray
		BUPROFEZIN 20% + ACEPHATE 50% W/W WP	250+625	1250	500	Foliar Spray
		CARBOSULFAN 25 % DS	15 G/KG	60 G/KG	-	Soil application
		CHLORPYRIFOS 50 % + CYPERMETHRIN 5 % EC	500+50	1000	500-1000	Foliar Spray
		CLOTHIANIDIN 50% WDG	50	100	500	Foliar Spray
		CYPERMETHRIN 10% + INDOXACARB 10% SC	50.0+50.0	500	400-1000	Foliar Spray
		CYPERMETHRIN 25 %EC	20-30	80-120	200-300	Foliar Spray
		DELTAMETHRIN 1.8 % EC	10	625	400-600	Foliar Spray
		DELTAMETHRIN 2.8 % EC	10	400	400-600	Foliar Spray
		DINOTEFURAN 20% SG	25-30	125-150	500	Foliar Spray
		DINOTEFURAN 47.8 % SC	239	500	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
COTTON	<b>Aphid, Jassids, Thrips, Red &amp; Dusky Cotton Bug</b>	DIAFENTHIURON 50 % WP	300	600	500-1000	Foliar Spray
		DIAFENTHIURON 47% + BIFENTHRIN 9.4 % w/W SC	293.75 + 58.7	625	500	Foliar Spray
		FENVALERATE 20 % EC	25-40	125-200	250-400	Foliar Spray
		FIPRONIL 04% + ACETAMIPRID 04% W/W SC	40 + 40	1000	500	Foliar Spray
		FIPRONIL 5 % SC	75-100	1500-2000	500	Foliar Spray
		FLONICAMID 50% WG	75	150	500	Foliar Spray
		FLUVALINATE 25 % EC	50-100	200-400	500-1000	Foliar Spray
		IMIDACLOPRID 17.8% SL	20 – 25	100 – 125	500	Foliar Spray
		IMIDACLOPRID 30.5% M/M SC	21-26.25	60-75	500	Foliar Spray
		IMIDACLOPRID 70% WG	21 – 24.5	30-55	375-500	Foliar Spray
		INDOXACARB 14.5 % + ACETAMIPRID 7.7 %(SC)	88.8+111	400-500	500	Foliar Spray
		LAMBDA – CYHALOTHRIN 5 % EC	15-25	300-500	400-600	Foliar Spray
		MONOCROTOPHOS 15 % SG	200	1333	500-1000	Foliar Spray
		MONOCROTOPHOS 36 %SL	175	437	500-1000	Foliar Spray
		OXYDEMETON- METHYL 25 %EC	300	1200	500-1000	Foliar Spray
		PROFENOFOS 50 %EC	500	1000	500-1000	Foliar Spray
		PYRIPROXYFEN 5 % + DYAFENTHIURON 25 %(SE)	250+50	1000-1250	500	Foliar Spray
		QUINALPHOS 1.5 % DP	450	30000		From Square formation onward
		THIACLOPRID 21.7 SC	24-30	100-125	500	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
	THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 9.5% ZC	44.0	200	500	Foliar Spray	
	THIAMETHOXAM 75% SG	94	125	500	Foliar Spray	
	<b>Cut worm / Green Semilooper/ Hairy Caterpillar</b>	CHLORPYRIFOS 20% EC	500-750	2500-3750	500-1000	Foliar Spray
		QUINALPHOS 20% + CYPERMETHRIN 3% EC	200 + 300	1000	500	Foliar Spray
		CHLORPYRIFOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	400 + 40	1000	500	Foliar Spray
	<b>Leaf Eating Caterpillar/ Leaf Roller</b>	CHLORPYRIFOS 20% EC	500	2500	500	Foliar Spray
		QUINALPHOS 25 % EC	375	1500	500	Foliar Spray
	<b>Mite</b>	SPIROMESIFEN 22.9% SC	144	600	500	Foliar Spray
		PROPARGITE 57% EC	570	1000	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
COTTON	Mite	FENAZAQUIN 10% EC	100	1000	500	Foliar Spray
		FENPYROXIMATE 5 % EC	37.5	750	500	Foliar Spray
	Stem weevil	CHLORPYRIFOS 20% EC	200	1000	500	Foliar Spray
	Tobacco caterpillar	CHLORANTRANILIPROLE 18.5% SC	30	150	500	Foliar Spray
		NOVALURON 8.8 % SC	100	1000	500- 1000	Foliar Spray
		SPINETORAM 11.7 % SC	50-56	420-470	500	Foliar Spray
		DIFLUBENZURON 25% WP	75-87.5	300-350	500	Foliar Spray
	White flies	ACEPHATE 50% + IMIDACLOPRID 01.80% SP	518.0	1000	500	Foliar Spray
		ACETAMIPRID 20% SP	20	100	500	Foliar Spray
		AFIDOPYROPEN 50 G/L DC	50	1000	500-750	Foliar Spray
		BUPROFEZIN 25% SC	250	1000	500	Foliar Spray
		BUPROFEZIN 70% DF	250-300	357 - 429	500	Foliar Spray
		CHLORPYRIFOS 20 % EC	250	1250	500-1000	Foliar Spray
		CHLORPYRIFOS 50% + CYPERMETHRIN 05% EC	500 + 50	1000	500-1000	Foliar Spray
		DINOTEFURAN 20% SG	25-30	125-150	500	Foliar Spray
		ETHION 50 % EC	750-1000	1500-2000	500-1000	Foliar Spray
		FENPROPATHRIN 30 %EC	75-100	250-340	750-1000	Foliar Spray
		FLONICAMID 50% WG	75	150	500	Foliar Spray
		MONOCROTOPHOS 36 % SL	150	375	500-1000	Foliar Spray
		PYRIDABEN 20 % WP	100	500	500	Foliar Spray
		PYRIPROXYFEN 10% EC	100	1000	500	Foliar Spray
		PYRIPROXYFEN 5% + DYAFENTHIURON 25 % SE	250+50	1000-1250	500	Foliar Spray
		PYRIPROXYFEN 5% + FENPROPATHRIN 15 % EC	25+75	500-750	500-750	Foliar Spray
		SPIROMESIFEN 22.9% SC	144	600	500	Foliar Spray
		THIACLOPRID 21.7 %SC	120-144	500-600	500	Foliar Spray
	Leaf Miner	SPINOSAD 45% SC	90	200	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	20-25	100-125	500	Foliar Spray
		FIPRONIL 5% SC	75-100	1500-2000	500	Foliar Spray
	Mealy Bug	ACEPHATE 75 %SP	292	390	500	Foliar Spray
		BUPROFEZIN 25%SC	250	1000	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
	GROUND NUT	Aphid / Jassids/ Thrips	THIAMETHOXAM 25% WG	25	100	500
OXYDEMETON – METHYL 25% EC			250	1000	500	Foliar Spray
IMIDACLOPRID 17.8% SL			20-25	100-125	500	Foliar Spray



Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
GROUND NUT	<b>Aphid /Jassids/ Thrips</b>	LAMBDA- CYHALOTHRIN 5 % EC	10 - 15	200-300	400-500	Foliar Spray
		CHLORPYRIFOS 20% EC	200	1000	500	Foliar Spray
		QUINALPHOS 25 % EC	350	1400	500-1000	Foliar Spray
		QUINALPHOS 01.50% DP	350	23300	-	Foliar Spray
		THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 9.50% ZC	27.5	150	500	Foliar Spray
	<b>Pod Borer (<i>Helicoverpa armigera</i>)</b>	CARBOFURAN 3% CG	1500	50000		Dusting
		NOVALURON 5.25% + INDOXACARB 4.5% SC	45.94+ 39.38	875	500	Foliar Spray
	<b>Tobacco Leaf eating caterpillar (<i>Spodoptera litura</i>)</b>	CHLORPYRIFOS 20% EC	200	1000	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		DIFLUBENZURON 25% WP	75-87.5	300-350	500	Foliar Spray
		QUINALPHOS 20% AF	250-375	1250-1775	750-1000	Foliar Spray
		METHOMYL 40 % SP	300-350	750-850	500	Foliar Spray
		NOVALURON 5.25% + INDOXACARB 4.5% SC	45.94+ 39.38	875	500	Foliar Spray
		THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 09.50% ZC	27.5	150	500	Foliar Spray
		FLUBENDIAMIDE 20% WG	60	300	500	Foliar Spray
	<b>Leaf miner</b>	PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		DELTAMETHRIN 2.8 % EC	12.5	500	400-600	Foliar Spray
		LAMBDA-CYHALOTHRIN 5 % EC	10-15	200 -300	400-600	Foliar Spray
		QUINALPHOS 25% EC	250	1000	500	Foliar Spray
		SPINOSAD 45% SC	90	200	500	Foliar Spray
	<b>Leaf Webber</b>	CHLORPYRIFOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray
		QUINALPHOS 25% EC	250	1000	500	Foliar Spray
		PHENTHOATE 50 % EC	500	1000	500-1000	Foliar Spray
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	400 + 40	1000	500	Foliar Spray
	<b>Mites</b>	PROPARGITE 57% EC	570	1000	500	Foliar Spray
		FENPYROXIMATE 5% EC	50	1000	500	Foliar Spray
		FENAZAQUIN 10% EC	100	1000	500	Foliar Spray
	<b>Red hairy Caterpillar</b>	CHLORPYRIFOS 1.5%D	375-450	25-30Kg/ha	--	Dusting
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	400 + 40	1000	500	Foliar Spray
		QUINALPHOS 1.5 % DP	375	25000		Foliar Dusting
		CHLORPYRIFOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
GROUNDNUT	Termites	THIAMETHOXAM 75% w/w SG	94	125	500	Soil Drench
		CHLORPYRIPHOS 20% EC	400	2000	500	Soil Drench
		IMIDACLOPRID 18.5 % + HEXACONAZOLE 1.5 % (FS)	37 + 3	200	-	Seed Dress
		FIPRONIL 5% SC	75	1500	500	Soil Drench
		BIFENTHRIN 10% EC	100	1000	500	Soil Drench
	White grub	CHLORPYRIFOS 1.5%D	375-450	25-30 Kg/ha	500	Foliar Spray
		CARBOFURAN 3% CG	1000	33.3 kg	-	Soil application
		CHLORPYRIPHOS 20% EC	400	2000	500	Foliar Spray
Root grub	CARBOFURAN 3% CG	225	11.25	-	Soil application	
SUNFLOWER	Bihar hairy caterpillar, Cabbage Semilooper, Green Semilooper, Tobacco Caterpillar, Cut Worm & Army Worm	QUINALPHOS 25 %EC	250	1000	500	Foliar Spray
		CYPERMETHRIN 10% EC	60 -70	600-700	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		CHLORPYRIFOS 20% EC	400	2000	500	Foliar Spray
	Jassid/ Leaf Hopper/Thrips	IMIDACLOPRID 17.8% SL	20-25	100-140	500	Foliar Spray
	White fly	ACETAMIPRID 20% SP	25	125	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	20-25	100-140	500	Foliar Spray
		MALATHION 50% EC	500	1000	500-1000	Foliar Spray
	Termite/ White ants	CHLORPYRIFOS 20% EC	400	2000	500	Soil Drench
		FIPRONIL 5% SC	75	1500	500	Soil Drench
		BIFENTHRIN 10% EC	100	1000	500	Soil Drench
	Capitulum Borer ( <i>Helicoverpa armigera</i> )	FLUBENDIAMIDE 39.35 %M/MSC	48-60	100-125	500	Foliar Spray
SAFFLOWER	Aphids & Jassids	ACEPHATE 75% SP	584	780	500	Foliar Spray
		DIMETHOATE 30% EC	200	600	500	Foliar Spray
		PHENTHOATE 2 %DP	400	20000	-	Dusting at 90% emergence of ear head
		QUINALPHOS 1.5% DP	300	20000	-	Dusting at 90% emergence of ear head

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
SEASAMUM	Gall Fly	PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		ACEPHATE 75% SP	375	500	500	Foliar Spray
		ETHOFENPROX 10% EC	50	500	500	Foliar Spray
	White fly	ACETAMIPRID 20 %SP	25	125	500	Foliar Spray
		BUPROFEZIN 25%SC	125	500	500	Foliar Spray
	Jassids	THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		DIMETHOATE 30% EC	300	1000	500	Foliar Spray
		QUINALPHOS 25% EC	500	2000	500	Foliar Spray
		OXYDEMETON – METHYL 25% EC	300	1200	500	Foliar Spray
	Leaf webber & Hawk Moth	QUINALPHOS 25% EC	500	2000	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	11	220	500	Foliar Spray
MUSTARD	Aphid/ Painted Bug	IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
		OXYDEMETON – METHYL 25% EC	250	1000	500	Foliar Spray
		THIAMETHOXAM 25% WG	12.5-25.0	50-100	500	Foliar Spray
		CHLORPYRIFOS 20% EC	100	500	500	Foliar Spray
		DIMETHOATE 30% EC	200	660	500	Foliar Spray
		CLOTHIANIDIN 50% WDG	50	100	500	Foliar Spray
	Leaf Miner	DIMETHOATE 30% EC	200	660	500	Foliar Spray
		CARBOFURAN 3% CG	2000	66600	-	Soil application
	Leaf Webber/ Diamond Back Moth	ETHOFENPROX 10% EC	50	500	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	11	220	500	Foliar Spray
		INDOXACARB 14.5% SC	72.5	500	500	Foliar Spray
		FIPRONIL 5% SC	50	1000	500	Foliar Spray
	Sawfly	IMIDACLOPRID 70 % WS	490	7000	-	dusting
		DIMETHOATE 30% EC	200	660	500	Foliar Spray
	Sawfly / Cabbage Butterfly/ Bihar hairy caterpillar	QUINALPHOS 25% EC	300	1200	500	Foliar Spray
		ETHOFENPROX 10% EC	50	500	500	Foliar Spray
		ACEPHATE 75% SP	375	500	500	Foliar Spray
		CHLORPYRIFOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray
	White fly	ACETAMIPRID 20% SP	25	125	500	Foliar Spray
		BUPROFEZIN 25%SC	125	500	500	Foliar Spray
		CARBOFURAN 3% CG	1000	33300	-	Soil application
PYRIPROXYFEN 10%EC		50	500	500	Foliar Spray	
Flea Beetle	CHLORPYRIFOS 20% EC	200	1000	500	Foliar Spray	
	FIPRONIL 5% SC	50	1000	500	Foliar Spray	

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks	
MUSTARD	Flea Beetle	CHLORPYRIFOS 1.5%D	375 - 450	25-30 Kg/ha		Dusting	
	Termite/ White ant	CHLORPYRIFOS 20% EC	400	2000	500	Soil Drench	
		FIPRONIL 5% SC	75	1500	500	Soil Drench	
		BIFENTHRIN 10% EC	100	1000	500	Soil Drench	
SOYBEAN	Green Semi Looper, Stem Fly, Girdle Beetle	CHLORANTRANILIPROLE 18.5% SC	30	150	500-750	Foliar Spray	
		EMAMECTIN BENZOATE 1.9 % EC	8.08	425	500	Foliar Spray	
		INDOXACARB 14.5 %SC	30	333	500	Foliar Spray	
		LAMBDA- CYHALOTHRIN 4.9 %CS	15	300	500	Foliar Spray	
		THIAMETHOXHAM 12.6 % + LAMBDA- CYHALOTHRIN9.5 % ZC	27.5	125	500	Foliar Spray	
	Girdle beetle	THIACLOPRID 21.7 % SC	180	750	500	Foliar Spray	
		THIAMETHOXHAM 12.6 % + LAMBDA- CYHALOTHRIN9.5 % ZC	27.5	125	500	Foliar Spray	
		ETHION 50 %EC	500-750	1000-1500	500-1000	Foliar Spray	
	Leaf Weevil	MALATHION 50 % EC	750	1500	500-1000	Foliar Spray	
		QUINALPHOS 25 % EC	250	1000	500-1000	Foliar Spray	
		QUINALPHOS 1.50% DP	250	16600	..	Foliar Dusting	
	Defoliators ( <i>H.armigera</i> & <i>S. litura</i> )	FLUBENDIAMIDE 39.35 %SC	72	150	500	Foliar Spray	
		NOVALURON 5.25% + INDOXACARB 4.5% SC	43.31+ 37.13	825 -875	500	Foliar Spray	
		FLUBENDIAMIDE 20 % WG	50-60	250-300	500	Foliar Spray	
	Tobacco Caterpillar	EMAMECTIN BENZOATE 1.9 % EC	8.08	425	500	Foliar Spray	
		INDOXACARB 14.5 %SC	30	333	500	Foliar Spray	
		SPINETORAM 11.7 %SC	54	450	500-625	Foliar Spray	
	Jassids	IMIDACLOPRID 48 % FS	75	125	-	-	
	PADDY	Army worm / Cut Worm/ Swarming Caterpillar	CHLORPYRIPHOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray
			PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
Brown Plant Hopper (BPH)/ White Backed Plant Hopper (WBPH)/Green Leaf Hopper (GLH)		ACEPHATE 50% + IMIDACLOPRID 01.80% SP	518	1000	500	Foliar Spray	
		ACEPHATE 75% SP	500-750	666-1000	300-500	Foliar Spray	
		ACEPHATE 95% SG	562.5	592	500	Foliar Spray	
		ACEPHATE 97% DF	727.5	750	500	Foliar Spray	
		ACETAMIPRID 0.40% + CHLORPYRIPHOS 20% EC	10+500	2.50	500-800	Foliar Spray	

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
PADDY	Brown Plant Hopper (BPH)/ White Backed Plant Hopper (WBPH)/Green Leaf Hopper (GLH)	ACETAMIPRID 20 %SP	Oct-20	50-100	500-600	Foliar Spray
		BENFURACARB 3 % G	1000	33KG	-	Soil application
		BIFENTHRIN 10 % EC	50	500	500	Foliar Spray
		BUPROFEZIN 09% + ACEPHATE 24% W/W WP	54 +144	600	500	Foliar Spray
		BUPROFEZIN 15% + ACEPHATE 35% W/W WP	187.5 + 437.5	1250	500	Foliar Spray
		BUPROFEZIN 20 % + ACEPHATE 50 % (WP)	200 + 500	1000	500	Foliar Spray
		BUPROFEZIN 22 % + FIPRONIL 3 %(SC)	110 +15	500	400 – 500	Foliar Spray
		BUPROFEZIN 23.10% + FIPRONIL 03.85% W/W SC	173.25 +28.88	750	500	Foliar Spray
		BUPROFEZIN 25% SC	200	800	400-500	Foliar Spray
		BUPROFEZIN 70% DF	175	250	500	Foliar Spray
		BUPROFEZIN 9 % + ACEPHATE 24 % (WP)	54+144	600	500	Foliar Spray
		CARBOFURAN 3% CG	750	25 KG	--	Soil application
		CARBOSULFAN 25 % EC	200-250	800-1000	500-1000	Foliar Spray
		CARTAP HYDROCHLORIDE 50 % + BUPROFEZIN 10 %(WP)	480	800	500	Foliar Spray
		CARTAP HYDROCHLORIDE 50%+BUPROFEZIN 10% W/W WP	480.0	800	500	Foliar Spray
		CHLORANTRANILIPROLE 0.5 % + THIAMETHOXAM 1 % (GR)	30+60	6 KG	-	Soil application
		CHLORANTRANILIPROLE 00.50% + THIAMETHOXAM 01% W/W GR	30+60	6 kg/ha	-	Soil application
		CHLORPYRIFOS 1.5 % DP	375	25 KG	-	Soil application
		CLOTHIANIDIN 50% WDG	10-12	20-24	500	Foliar Spray
		DELTAMETHRIN 0.72 % + BUPROFEZIN 5.65 % (EC)	0.78 +62.5	1250	500	Foliar Spray
		DELTAMETHRIN 11 % EC	15	150	500	Foliar Spray
		DINOTEFURAN 20% SG	30-40	150-200	500	Foliar Spray
		ETHIPROLE 40 + IMIDACLOPRID 40%WG	37.5+37.5	93.75	500	Foliar Spray
		ETHIPROLE 40 + IMIDACLOPRID 40% WG	37.5 + 37.5	93.75	375	Foliar Spray
		ETHOFENPROX 10% EC	50	500	500	Foliar Spray
		FENOBUCARB 20% + BUPROFEZIN 05.% W/W SE	400 +100	2000	500	Foliar Spray
		FENOBUCARB 50 % EC	250-750	500-1500	500	Foliar Spray
		FIPRONIL 04% + THIAMETHOXAM 04% W/W SC	44+44	1100	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
PADDY	Brown Plant Hopper (BPH)/ White Backed Plant Hopper (WBPH)/Green Leaf Hopper (GLH)	FLONICAMID 50% WG	75	150	500	Foliar Spray
		FLUBENDIAMIDE 04% + BUPROFEZIN 20% W/W SC	35 + 175	175+700	500	Foliar Spray
		IMIDACLOPRID 06% + LAMBDA-CYHALOTHRIN 04% SL	18 +12	300		Foliar Spray
		IMIDACLOPRID 17.8% SL	20 – 25	100 – 140	500	Foliar Spray
		IMIDACLOPRID 30.5 % m/m SC	21 - 26.25	60 - 75	500	Foliar Spray
		IMIDACLOPRID 70% WG	21-24.5	30-35	300-375	Foliar Spray
		MONOCROTOPHOS 36 % SL	500	1250	500-1000	Foliar Spray
		PYMETROZINE 50% WG	150	300	500	Foliar Spray
		QUINALPHOS 20 % AF	250-300	1250-1500	750-1000	Foliar Spray
		QUINALPHOS 25 % GEL	250	1000	500-1000	Foliar Spray
		QUINALPHOS 25 %EC	375	1500	500-1000	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		THIAMETHOXAM 75% w/w SG	113	150	Dissolve in 500 ml water and mix with 20 Kg sand / ha	
	TRIFLUMEZOPYRIN 10% SC	25	250	500	Foliar Spray	
	Case worm	FIPRONIL 5% SC	50	1000	500	Foliar Spray
		PHENTHOATE 50 % EC	500	1000	500	Foliar Spray
		INDOXACARB 14.5 % SC	72.5	500	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
	Ear head bug/ Caterpillar & Gundhi Bug	CHLORPYRIFOS 1.5%D	375 - 450	25-30 Kg	--	Dusting
		MALATHION 50 % EC	500	1000	500	Foliar Spray
	Gundhi Bug	IMIDACLOPRID 6% + LAMBDA - CYHALOTHRIN 4% SL	18 + 12	300	500	Foliar Spray
	Gall midge	CARBOFURAN 3% CG	750	25 Kg	--	Soil Treatment
		CARBOSULFAN 25% EC	200-253	800-1000	500	Foliar Spray
		CHLORPYRIFOS 1.5% DP	375	25000	--	Soil Treatment
		CHLORPYRIFOS 10% G	1000	10000	--	Soil Treatment
		CHLORPYRIFOS 20% EC	250	1250	500	Foliar Spray
		FIPRONIL 0.3% GR	60 - 75	20- 25 Kg	--	Soil Treatment
		FIPRONIL 5% SC	50-75	1000-1500	500	Foliar Spray
		LAMBDA - CYHALOTHRIN 2.5% EC	12.5	500	500	Foliar Spray
		LAMBDA - CYHALOTHRIN 5 % EC	12.5	250	500	Foliar Spray
		QUINALPHOS 5 % G	250	5000	-	Soil Treatment



Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks	
PADDY	Gall midge	THIAMETHOXAM 25% WG	25	100	500	Foliar Spray	
	Green Horn Caterpillar / Rice Skipper	INDOXACARB 15.8% EC	30	200	500	Foliar Spray	
		CHLORPYRIPHOS 20% EC	200	1000	500	Foliar Spray	
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray	
	Hispa	CHLORPYRIPHOS 20% EC	200	1000	500	Foliar Spray	
		EMAMECTIN BENZOATE 1.9 %EC	8.08	425	500	Foliar Spray	
		IMIDACLOPRID 6% + LAMBDA - CYHALOTHRIN 4% SL	18 + 12	300	500	Foliar Spray	
		INDOXACARB 15.8% EC	30	200	500	Foliar Spray	
		LAMBDA - CYHALOTHRIN 5 % EC	12.5	250	500	Foliar Spray	
		MALATHION 5 % DP	1250	25000	--	Dusting	
		MALATHION 50 % EC	275	1150	500	Foliar Spray	
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray	
		QUINALPHOS 25 % GEL	250	1000	500	Foliar Dusting	
		QUINALPHOS 25 % EC	500	2000	500	Foliar Spray	
		Mealy Bug	PROFENPHOS 50 % EC	500	1000	500	Foliar Spray
			THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
	IMIDACLOPRID 17.8% SL		25	140	500	Foliar Spray	
	leaf folder	ACEPHATE 75% SP	500-750	666-1000	300-500	Foliar Spray	
		ACEPHATE 97% DF	727.5	750	500	Foliar Spray	
		ACETAMIPRID 00.40%+CHLORPYRIPHOS 20% EC	10 + 500	2.50	500-800	Foliar Spray	
		BENFURACARD 3 G	1000	33KG	-	Soil Treatment	
		BIFENTHRIN 03% + CHLORPYRIPHOS 30% W/W EC	24 + 240-30 +300	800 -1000	500	Foliar Spray	
		BIFENTHRIN 10 % EC	50	500	500	Foliar Spray	
		BUPROFEZIN 20% + ACEPHATE 50% W/W WP	200+ 500	1000	500	Foliar Spray	
		CARTAP HYDROCHLORIDE 04%+FIPRONIL 00.50% CG	675-900	15-20	-	Soil Treatment	
		CARTAP HYDROCHLORIDE 4% G	750	18.75 Kg	--	Soil Treatment	
		CARTAP HYDROCHLORIDE 50% SP	500	1000	500	Foliar Spray	
		CARTAP HYDROCHLORIDE 50%+BUPROFEZIN 10% W/W WP	480	800	500	Foliar Spray	
		CARTAP HYDROCHLORIDE 75 % SG	318.75 - 375	425 - 500	500	Foliar Spray	
		CHLORANTRANILIPROLE 0.4% GR	41	11 Kg	---	Soil Treatment	
		CHLORANTRANILIPROLE 00.50%+THIAMETHOXAM 01% GR	30 + 60	6 kg/ha	-	Foliar Spray	

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
PADDY	leaf folder	CHLORANTRANILIPROLE 18.5% SC	40	200	500	Foliar Spray
		CHLORPYRIFOS 1.5% DP	375	25 Kg	--	Dusting
		CHLORPYRIFOS 10% G	1000	10 Kg		Soil Treatment
		CHLORPYRIFOS 20% EC	375	1875	500	Foliar Spray
		CHLORPYRIFOS 50 %EC	375-400	750-800	500-1000	Foliar Spray
		CHROMAFENOZIDE 80% WP	75-100	94-125	500	Foliar Spray
		DELTAMETHRIN 00.72% + BUPROFEZIN 05.65% EC	0.78 + 62.5 - 0.94 + 75	1250 + 1500	500	Foliar Spray
		DELTAMETHRIN 1.8 %EC	10-12.5	625-780	500	Foliar Spray
		DELTAMETHRIN 11 % EC	15	150	500	Foliar Spray
		EMAMECTIN BENZOATE 1.9 %EC	8.08	425	500	Foliar Spray
		FENPROPATHRIN 30% EC	100	333	500	Foliar Spray
		FIPRONIL 0.3% GR	50-75	16.67-25kg	--	Soil Treatment
		FIPRONIL 5 % SC	50 - 75	1000 - 1500	500	Foliar Spray
		FIPRONIL 80% WG	40 -50	50 - 62.5	500	Foliar Spray
		FLUBENDIAMIDE 20% SG	25	125	500	Foliar Spray
		FLUBENDIAMIDE 39.35 % M/M SC	24	50	500	Foliar Spray
		FLUBENDIAMIDE 4 % + HEXACONAZOLE 5% WG	35 + 50	1000	500	Foliar Spray
		FLUBENDIAMIDE 7.5 % + KRESOXIM METHYL 37.5 % w/w SC	50 + 250	667	500	Foliar Spray
		FLUBENDIAMIDE 4 % + BUPROFEZIN 20 % (SC)	35 + 175	175	500	Foliar Spray
		INDOXACARB 15.8% EC	30	200	500	Foliar Spray
	LAMBDA - CYHALOTHRIN 2.5% EC	12.5	500	500	Foliar Spray	
	LAMBDA - CYHALOTHRIN 4.9% CS	12.5	250	500	Foliar Spray	
	leaf folder	LAMBDA - CYHALOTHRIN 5% EC	125	250	500	Foliar Spray
		MONOCROTOPHOS 36% SL	500	1250	500	Foliar Spray
		NOVALURON 5.25% + INDOXACARB 4.5% SC	22.97 + 19.69	437.5	500	Foliar Spray
		QUINALPHOS 20 % AF	250- 300	1250 - 1500	500	Foliar Spray
		QUINALPHOS 25% EC	250	1000	500	Foliar Spray
		QUINALPHOS 25% GEL	250	1000	500	Foliar Spray
		THIOCYCLAM HYDROGEN OXALATE	500	1000	500	Foliar Spray
		THIOCYCLAM HYDROGEN OXALATE 4% GR	500	12.5 Kg		Broadcast 15-25 DAT
	Grass hopper	CHLORPYRIFOS 1.5% DP	375	25 Kg	--	Dusting

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
PADDY	Stem borer	ACEPHATE 75% SP	500-750	666-1000	300-500	Foliar Spray
		ACEPHATE 97% DF	727.5	750	500	Foliar Spray
		ACETAMIPRID 0.4 % + CHLORPYRIPHOS 20 %(EC)	10+ 500	2.5	500-800	Foliar Spray
		BENFURACARB 3 %G	1000	33 kg	-	Soil Treatment
		BIFENTHRIN 10 % EC	50	500	500	Foliar Spray
		BIFENTHRIN 3 % + CHLORPYRIPHOS 30 %( EC)	24+240	800-1000	500	Foliar Spray
		BUPROFEZIN 20 % + ACEPHATE 50 %(WP)	200+ 500	1000	500	Foliar Spray
		CARBOFURAN 3% CG	750	25 kg	--	Soil Treatment
		CARBOSULFAN 25 %EC	200-250	800-1000	500-1000	Foliar Spray
		CARTAP HYDROCHLORIDE 4 % + FIPRONIL 0.5 %(CG)	675-900	15-20 kg	-	Soil Treatment
		CARTAP HYDROCHLORIDE 4% G	750	18.75 Kg	--	Soil Treatment
		CARTAP HYDROCHLORIDE 50 % + BUPROFEZIN 10 %(WP)	480	800	500	Foliar Spray
		CARTAP HYDROCHLORIDE 50 % SP	500	1000	500-1000	Foliar Spray
		CARTAP HYDROCHLORIDE 75 % SG	318.75-375	425-500	250-500	Foliar Spray
		CHLORANTRANILIPROLE 0.4% GR	41	10 Kg	---	Soil Treatment
		CHLORANTRANILIPROLE 0.5 + THIAMETHOXAM 1 (GR)	30+60	6 kg	-	Soil Treatment
		CHLORANTRANILIPROLE 18.5% SC	30	150	500	Foliar Spray
		CHLORPYRIFOS 1.5 %DP	375	25 kg	-	Soil Treatment
		CHLORPYRIFOS 10 %G	1000	10 kg	-	Soil Treatment
		CHLORPYRIFOS 20 %EC	375	1875	500-1000	Foliar Spray
		CHLORPYRIFOS 50 %EC	375-400	750-800	500-1000	Foliar Spray
		CHROMAFENOZIDE 80 %WP	75-100	94-125	500	Foliar Spray
		DELTAMETHRIN 1.8 %EC	10-12.5	625-780	500	Foliar Spray
		DELTAMETHRIN 11 %EC	15	150	500	Foliar Spray
		FENPROPATHRIN 30 %EC	100	333	500	Foliar Spray
		FIPRONIL 0.3% GR	50-75	16.67-25kg	--	Soil Treatment
		FIPRONIL 5% SC	50-75	1000-1500	500	Foliar Spray
		FIPRONIL 80% WG	40-50	50-62.5	375-500	Foliar Spray
		FLUBENDIAMIDE 20% SG	25	125	500	Foliar Spray
		FLUBENDIAMIDE 3.5 %+ HEXACONAZOLE 5% (WG)	35+50	1000	500	Foliar Spray
FLUBENDIAMIDE 7.5 %+ KRESOXIM METHYL 37.5 % w/w SC	50 + 250	667	500	Foliar Spray		

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
PADDY	Stem borer	FLUBENDIAMIDE 39.35% M/M SC	24	50	500	Foliar Spray
		FLUBENDIAMIDE 4 % + BUPROFEZIN 20 % (SC)	35+175	175	500	Foliar Spray
		IMIDACLOPRID 0.3%G	50	15 KG	--	Soil Treatment
		IMIDACLOPRID 06% + LAMBDA-CYHALOTHRIN 04% SL	18.0+12.0	300	500	Foliar Spray
		LAMBDA-CYHALOTHRIN 2.5% EC	12.5	500	500	Foliar Spray
		LAMBDA-CYHALOTHRIN 4.9% CS	12.5	250	500	Foliar Spray
		LAMBDA-CYHALOTHRIN 5% EC	12.5	250	400-600	Foliar Spray
		MONOCROTOPHOX 36 % SL	500	1250	500-1000	Foliar Spray
		PROFENPHOS 50 % EC	500	1000	500	Foliar Spray
		QUINALPHOS 20 % AF	250-300	1250-1500	750-1000	Foliar Spray
		QUINALPHOS 25 %EC	325	1300	500-1000	Foliar Spray
		QUINALPHOS 25 %GEL	250	1000	500-1000	Foliar Spray
		QUINALPHOS 5 % G	250	5000	-	Soil Treatment
		THIACLOPRID 21.7 %SC	120	500	500	Foliar Spray
		THIOCYCLAM HYDROGEN OXALATE	500	1000	500	Foliar Spray
	Panicle Mite	FENPYROXIMATE 5% EC	50	1000	500	Foliar Spray
		PROPARGITE 57% EC	570	1000	500	Foliar Spray
		DIAFENTHIURON 50%WP	500	1000	500	Foliar Spray
	Thrips	THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		LAMBDA-CYHALOTHRIN 5% EC	12.5	250	400-600	Foliar Spray
		IMIDACLOPRID 48% FS	0.15	0.25	-	
	Whorl maggot	CHLORPYRIFOS 20% EC	250	1250	500	Seedling Root Dip
		CARTAP HYDROCHLORIDE 4% G	750 - 1000	18.75 - 25 Kg	--	Soil Treatment
		FIPRONIL 0.3% GR	50-75	16.67- 25kg	--	Soil Treatment
		FIPRONIL 5% SC	50-75	1000- 1500	500	Foliar Spray
		DELTAMETHRIN 11 %EC	15	150	500	Foliar Spray
	Termite (Upland Condition)	BIFENTHRIN 10 % EC	50	500	500	Soil Drench
		CHLORPYRIFOS 20% EC	400	2000	500	Soil Drench
		FIPRONIL 5% SC	75	1500	500	Soil Drench
		THIAMETHOXAM 75% w/w SG	94	125	500	Soil Drench
MAIZE	Aphid/Thrips	THIAMETHOXAM 25 %WG	25	100	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
		CLOTHIANIDIN 50% WDG	125	250	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks	
MAIZE	<b>Aphid/Thrips</b>	THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 09.50% ZC	27.5	125	500	Foliar Spray	
	<b>Shoot fly</b>	CARBOFURAN 3% CG	1000	33.300 Kg	--	Soil Treatment	
		DIMETHOATE 30% EC	200	660	500-1000	Foliar Spray	
		IMIDACLOPRID 48% FS	0.6	1.0	-	-	
		MONOCROTOPHOS 36 % SL	250	625	500-1000	Foliar Spray	
		OXYDEMETON-METHYL 25% EC	250	1000	500	Foliar Spray	
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray	
		THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 09.50% ZC	27.5	125	500	Foliar Spray	
	<b>Stem Borer</b>	CARBOFURAN 3% CG	1000	33.300 Kg	--	Soil Treatment	
		DIMETHOATE 30% EC	200	660	500	Foliar Spray	
		FIPRONIL 5% SC	50	1000	500	Foliar Spray	
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray	
		THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 09.50% ZC	27.5	125	500	Foliar Spray	
	<b>Fall Army Worm (<i>Spodoptera frugiperda</i>)</b>	CARBOFURAN 3% CG	1000	33.300 Kg	--	Soil Treatment	
		CHLORANTRANILIPROLE 0.4 % G	400	10.0 KG		Soil Treatment	
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray	
		EMAMECTIN BENZOATE 5% SG	11	200	500	Foliar Spray at second Window stage ( Mid whorl to Late Whorl)	
		CHLORANTRANILIPROLE 18.5% SC	38	200	500	-do-	
		THIAMETHOXAM 12.6% + LAMBDA-CYHALOTHRIN 9.5% EC	50	250	500	-do-	
		CHLORANTRANILIPROLE 9.3% + LAMBDA-CYHALOTHRIN 4.6% ZC	35 (23.42 + 11.58)	250	500	Adhoc approval	
		SPINETORAM 11.7% W/W SC	30	250	500		
		POISON BAITING ( OCRAT BAITING)	For Late instar larvae of second instar, keep the mixture of 10 kg Rice bran + 2 kg Jaggery with 2-3 litre of water for 24 hours to ferment. Add 100 gm Thiodicarb just half an hour before application in the field. The bait should be applied into the whorl of the plants.				
	<b>Hairy Caterpillar</b>	CHLORPYRIFOS 1.5% DP	375-450	25 -30 Kg	--	Dusting	
		CHLORPYRIFOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray	
		QUINALPHOS 25% EC	250	1000	500	Foliar Spray	
	MAIZE	<b>Grass Hopper</b>	CHLORPYRIFOS 1.5% DP	375-450	25 -30 Kg	--	Dusting
		<b>Mite</b>	PROPARGITE 57% EC	570	1000	500	Foliar Spray
FENPYROXIMATE 5% EC			50	1000	500	Foliar Spray	
FENAZAQUIN 10% EC			100	1000	500	Foliar Spray	

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
MAIZE	Termite/White ants	CHLORPYRIFOS 20% EC	400	2000	500	Soil Drench
		FIPRONIL 5% SC	75	1500	500	Soil Drench
		BIFENTHRIN 10% EC	100	1000	500	Soil Drench
	American Cob borer	FLUBENDIAMIDE 39.35 % M/M SC	80	200	500	Foliar Spray
RAGI	Stem Borer	CHLORPYRIFOS 20% EC	200	1000	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		FIPRONIL 5% SC	50	1000	500	Foliar Spray
	Cut worm	CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
	Hairy Caterpillar	PROFENOPHOS 40% + CYPERMETHRIN 4% EC	400 + 40	1000	500	Foliar Spray
		CHLORPYRIPHOS 50% + CYPERMETHRIN 5% EC	500 + 50	1000	500	Foliar Spray
	Grass Hopper	CHLORPYRIFOS 1.5% DP	375	25 Kg	--	Dusting
	Aphids & Jassids	IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
		THIAMETHOXAM 25 % WG	25	100	500	Foliar Spray
		CLOTHIANIDIN 50% WDG	50	100	500	Foliar Spray
	Termites	CHLORPYRIPHOS 20% EC	400	2000	500	Soil Drench
		FIPRONIL 5% SC	75	1500	500	Soil Drench
		BIFENTHRIN 10% EC	100	1000	500	Soil Drench
	SUGARCANE	Termites	CHLORANTRANILIPROLE 18.5% SC	100-125	500-625	500 -1000
IMIDACLOPRID 17.8% SL			150	750	-	Soil Treatment @ 1.5ml/ ltr of water & Soil Drench
CLOTHIANIDIN 50% WDG			125	250	1000	Soil Drench
IMIDACLOPRID 70 % WS			70 -105	100-150	-	
THIAMETHOXAM 75% w/w SG			120	160	500	Soil Drench
Top Shoot Borer		CHLORANTRANILIPROLE 0.4% GR	75	18.75	500	Soil application
		CHLORANTRANILIPROLE 18.5% SC	75	375	500	Foliar Spray
		CARBOFURAN 3% CG	1000	33.30 kg	--	Soil Treatment
Early shoot borer		CHLORANTRANILIPROLE 18.5% SC	75	375	500	Foliar Spray
		CHLORANTRANILIPROLE 0.4% GR	75	18.75 Kg	-	Soil Treatment
		FIPRONIL 0.3% GR	75-100	25- 33.3kg	--	Soil Treatment
		CHLORPYRIFOS 20% EC	250-300	1250-1500	500	Foliar Spray
		FIPRONIL 5% SC	75-100	1500-2000	500	Foliar Spray
	FLUBENDIAMIDE 20% WG	75	357	500	Foliar Spray	



Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
SUGARCANE	Early shoot borer	MONOCROTOPHOS 36 % SL	600-800	1500-2250	500-1000	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
	Stalk/ Internode borer	CHLORPYRIFOS 20% EC	250-300	1250-1500	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		FIPRONIL 5% SC	50	1000	500	Foliar Spray
		MONOCROTOPHOS 36 % SL	750	1875	500-1000	Foliar Spray
	Mealy bug	PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		MONOCROTOPHOS 36 % SL	600	1500	500-1000	Foliar Spray
	Pyrilla	THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		CHLORPYRIFOS 20% EC	300	1500	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
		MONOCROTOPHOS 36 % SL	200	500	500-1000	Foliar Spray
	Root borer	FIPRONIL 5% SC	75-100	1500-2000	500	Foliar Spray
		FIPRONIL 0.3% GR	75-100	25000-33300	--	Soil Treatment
	Root borer	CHLORANTRANILIPROLE 0.4% GR	75	18.75 kg	--	Soil Treatment
	Scale Insect/ Black Bug	THIAMETHOXAM 25 %WG	25	100	500	Foliar Spray
		ACETAMIPRID 20 % SP	25	125	500	Foliar Spray
		CHLORPYRIFOS 20% EC	150	750	500	Foliar Spray
		MONOCROTOPHOS 36 % SL	600	1500	500-1000	Foliar Spray
	White grub	CHLORPYRIFOS 20% EC	400	2000	500	Foliar Spray
		FIPRONIL 40% + IMIDACLOPRID 40% WG	175+175-200+200	437.5-500 (Soil Drench)		
		CARTAP HYDROCHLORIDE 4% G	800	20 kg	--	Soil Treatment
	Red Mite & Yellow Mite	PROPARGITE 57% EC	570	1000	500	Foliar Spray
		FENPYROXIMATE 5% EC	50	1000	500	Foliar Spray
		FENAZAQUIN 10% EC	100	1000	500	Foliar Spray
	Whitefly	ACETAMIPRID 20% SP	25	125	500	Foliar Spray
		BUPROFEZIN 25% SC	125	500	500	Foliar Spray
		PYRIPROXYFEN 10% EC	50	500	500	Foliar Spray
	Woolly aphid	IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		CLOTHIANIDIN 50% WDG	50	100	500	Foliar Spray
Grass Hopper	CHLORPYRIFOS 1.5% DP	375	25 kg	--	Dusting on foliage	
JUTE & MESTA	Bihar Hairy caterpillar	CHLORPYRIFOS 1.5% DP	375-450	25 - 30 kg	--	-do-
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	400 + 40	1000	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
JUTE & MESTA	Leaf roller	QUINALPHOS 25% EC	375	1500	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		ACEPHATE 75% SP	375	500	500	Foliar Spray
	Red spider mite, Yellow mite	SPIROMESIFEN 22.9% SC	144	600	500	Foliar Spray
		PROPARGITE 57% EC	570	1000	500	Foliar Spray
		FENPYROXIMATE 5% EC	50	1000	500	Foliar Spray
		FENAZAQUIN 10% EC	100	1000	500	Foliar Spray
	Semi Looper	PHOSALONE 35 % EC	350	1000	500-1000	Foliar Spray
		QUINALPHOS 25% EC	375	1500	500	Foliar Spray
	Stem Weevil & Stem Girdler	PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		FIPRONIL 5% SC	50	1000	500	Foliar Spray
		ACEPHATE 75% SP	375	500	500	Foliar Spray
	Leaf Eating Caterpillar	CHLORPYRIFOS 20% EC	200	1000	500	Foliar Spray
QUINALPHOS 25% EC		250	1000	500	Foliar Spray	
PROFENOPHOS 50% EC		500	1000	500	Foliar Spray	
JUTE & MESTA	Cow Bug	IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		ACETAMIPRID 20% SP	25	125	500	Foliar Spray
	Mealybug	THIAMETHOXAM 25 % WG	25	100	500	Foliar Spray
		PROFENOPHOS 50% EC	500	1000	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	25	140	500	Foliar Spray
BAJRA	Shoot fly	CARBOFURAN 3% CG	1500	50000	-	Soil application
	Milky weed bug	DIMETHOATE 30% EC	180-200	594-660	500	Foliar Spray
BARLEY	Aphid	CARBOFURAN 03% CG	1000	33300	-	Soil application
	Jassids	CARBOFURAN 03% CG	1250	41600	-	Soil application
	Aphid	PHOSALONE 35% EC	500	1428	500-1000	Foliar Spray
SORGHUM	Shoot fly	CARBOFURAN 3% CG	1500	50000	-	Soil application
		IMIDACLOPRID 48 % FS	720	1200	-	
		IMIDACLOPRID 70% WS	700	1000	-	
		QUINALPHOS 25% EC	375	1500	500	Foliar Spray
		OXYDEMETON-METHYL 25% EC	250	1000	500	Foliar Spray
	Earhead bug	QUINALPHOS 1.5% WP	375	25000	-	Dusting at milk stage
	Stem Borer	CARBOFURAN 3% CG	250	8300	-	Soil application
		QUINALPHOS 5% G	750	15000	-	Soil application

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
SORGHUM	Red Spider mite, Pink mite, Purple mite, Scarlet mite	PHENTHOATE 2% DP	400	20000	-	Dusting at 90% emergence of ear head
	Midge	DIMETHOATE 30% EC	500	1650	500	Foliar Spray
	Mite	QUINALPHOS 25% EC	375	1500	500	Foliar Spray
	Earhead midge	MALATHION 5 % DP	1000	20000	-	Dusting at 90% emergence of ear head
		MALATHION 50% EC	500	1000	500	Foliar Spray
		PHOSALONE 35 % EC	400	1142	500	Foliar Spray
		PHOSALONE 4 % DP	1000	25000	-	Dusting
		QUINALPHOS 1.5 % DP	400	26600	-	Dusting at milk stage
PEARL MILLET	Shoot fly and termites	IMIDACLOPRID 48 % FS	720	1200	-	
		IMIDACLOPRID 70% WS	700	1000	-	
WHEAT	Aphid	QUINALPHOS 25 EC	250	1000	500-1000	Foliar Spray
	Shoot Fly	CYPERMETHRIN 10 % EC	500	550	500-800	Foliar Spray
	Termites	FIPRONIL 00.30% GR	0.06	20 KG		Soil Treatment
		IMIDACLOPRID 18.5 %+ HEXACONAZOLE 1.5 % (FS)	37+3	200	-	Seed Dresser
	Mite	QUINALPHOS 25 %EC	400	1600	500-1000	Foliar Spray
BEANS	Pod borer, Black bug	CHLORPYRIFOS 20 % EC	600	3000	500-1000	Foliar Spray
BITTER GOURD	Fruit borers & Caterpillars	CHLORANTRANILIPROLE 18.5% SC	20-25	100-125	500	Foliar Spray
BOTTLE & BITTER GOURD	Red Spider mite	DICOFOL 18.5% EC	250-500	1350-2700	500	Foliar Spray
BRINJAL	Two spotted spider mite	PROPARGITE 57% EC	570	1000	500	Foliar Spray
		MILBEMECTIN 1% EC	5	500	500	Foliar Spray
		HEXYTHIAZOX 5.45% W/W EC	21.8 - 27.25	400-500	500	Foliar Spray
		SPIROMESIFEN 22.9% SC	96	400	500	Foliar Spray
	Epilachna grub	CHLORPYRIFOS 1.5%D	375 - 450	25 - 30 kg		Dusting
		CYPERMETHRIN 25 % EC	37-50	150-200	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
BRINJAL	Fruit and Shoot borer ( <i>Leucinodes orbonalis</i> )	BETA- CYFLUTHRIN 8.49 %+ IMIDACLOPRID 19.81 % (EC)	15.75+ 36.75	175-200	500	Foliar Spray
		CHLORANTRANILIPROLE 18.5% SC	40	200	500	Foliar Spray
		CHLORPYRIFOS 20 %EC	200	1000	500-1000	Foliar Spray
		CYPERMETHRIN 10 % EC	50-70	550-760	150-400	Foliar Spray
		CYPERMETHRIN 0.25 % DP	5-60.0	20000-24000	-	Dusting
		CYPERMETHRIN 25 % EC	37-50	150-200	500	Foliar Spray
		CYPERMETHRIN 3 % + QUINALPHOS 20 % (EC)	-	350-400	500-600	Foliar Spray
		DELTAMETHRIN 1 % + TRIAZOTHOS 35 % (EC)	10+350	1000-1250	500	Foliar Spray
		DELTAMETHRIN 2.8 % EC	10-12.5	400-500	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	10	200	500	Foliar Spray
		FENPROPATHRIN 30% EC	75-100	250-340	500	Foliar Spray
		FENVALERATE 20 % EC	75-100	375-500	600-800	Foliar Spray
		FLUBENDIAMIDE 39.35% M/M SC	78.7	200	500	Foliar Spray
		Fruit and Shoot borer ( <i>Leucinodes orbonalis</i> )	LAMBDA-CYHALOTHRIN 4.9 % CS	15	300	500
	LAMBDA-CYHALOTHRIN 5 % EC		15	300	400-600	Foliar Spray
	NOVALURON 10% EC		50	500	500	Foliar Spray
	PHOSALONE 35 % EC		500	1428	500-1000	Foliar Spray
	PYRIPROXYFEN5% EC + FENPROPATHRIN 15% EC		37.5 +112.5	500-750	500-750	Foliar Spray
	SPINETORAM 11.7%SC		58.5	500	500	Foliar Spray
	SPINOSAD 45% SC		84.5	187.5	500	Foliar Spray
	THIACLOPRID 21.7 % SC		180	750	500	Foliar Spray
	THIODICARB 75 % WP		470-750	625-1000	500	Foliar Spray
	THIOMETON 25 % EC		250	1000	750-1000	Foliar Spray
	Shoot Borer	DIMETHOATE 30% EC	200	660	500	Foliar Spray
	Mites	FENPROPATHRIN 30% EC	75-100	250-340	500	Foliar Spray
		FLUMITE 20% SC	80-100	400-500	500	Foliar Spray
		FLUFENZINE 20%SC	80-100	400-500	500	Foliar Spray
		MALATHION 50% EC	750	1500	500	Foliar Spray
	Red Spider Mite	ETOXAZOLE 10% SC	40	400	500	Foliar Spray
		FENAZAQUIN 10% EC	125	1250	500	Foliar Spray
		SPIROMESIFEN 22.9% SC	96	400	500	Foliar Spray
		SPIROTETRAMAT 11.01 % + IMIDACLOPRID 11.01 % SC	60 + 60	500	500	Foliar Spray
	Yellow mite	DICOFOL 18.5% EC	500-1000	2700-5400	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
BRINJAL	White flies	AFIDOPYROPEN 50 % G/L DC	50	1000	500	Foliar Spray
		DIAFENTHIURON 50%WP	300	600	500	Foliar Spray
		FENPROPATHRIN 30% EC	75 - 100	250 - 340	500	Foliar Spray
		PYRIPROXYFEN 10% EC	50	500	500	Foliar Spray
		PYRIPROXYFEN5% EC + FENPROPATHRIN 15% EC	25+75 to 37.5 + 112.5	500-750	500	Foliar Spray
		SPIROTETRAMAT 11.01% + IMIDACLOPRID 11.01% W/W SC	60.0+60.0	500	500	Foliar Spray
		THIAMETHOXAM 25 % WG	50	200	500	Foliar Spray
	Jassids	AFIDOPYROPEN 50 % G/L DC	50	1000	500	Foliar Spray
		BETA-CYFLUTHRIN 08.49% + IMIDACLOPRID 19.81% OD	15.75 + 36.75 - 18 + 42	175-200	500	Foliar Spray
		DIMETHOATE 30% EC	200	660	500	Foliar Spray
THIOMETON 25 EC		250	1000	500	Foliar Spray	
CABBAGE & CAULIFLOWER	Cabbage Aphid ( <i>Brevicoryne brassicae</i> ), Painted Bug, Mustard Aphid	ACETAMIPRID 20% SP	15	75	500	Foliar Spray
		CYANTRANILIPROLE 10.26% OD	60	600	500	Foliar Spray
		DIMETHOATE 30% EC	200	660	500	Foliar Spray
		MALATHION 50% EC	750	1500	500	Foliar Spray
		PHOSALONE 35 % EC	500	1428	500	Foliar Spray
		THIAMETHOXAM 25% WG	50	200	500	Foliar Spray
		TOLFENPYRAD 15% EC	150	1000	500	Foliar Spray
	Diamond back moth ( <i>Plutella xylostella</i> )	CHLORANTRANILIPROLE 18.5% SC	10	50	500	Foliar Spray
		CHLORPYRIFOS 20 %EC	400	2000	500	Foliar Spray
		DIAFENTHIURON 50 % WP	300	600	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	7.5-10	150-200	500	Foliar Spray
		FIPRONIL 5% SC	40-50	800-1000	500	Foliar Spray
		FIPRONIL 80%WG	75	93.75	500	Foliar Spray
		FLUBENDIAMIDE 20% WG	18.24	37.5-50	500	Foliar Spray
		INDOXACARB 14.5% SC	30-40	200-266	500	Foliar Spray
		INDOXACARB 15.8% EC	40	266	500	Foliar Spray
		METAFLUMIZONE 22% SC	165-220	750-1000	500	Foliar Spray
		MONOCROTOPHUS 36% SL	75	750	500	Foliar Spray
		NOVALURON 10% EC	75	750	500	Foliar Spray
		PHOSALONE 35 % EC	500	1428	500	Foliar Spray
PYRIDALYL 10% EC	50-75	500-750	500	Foliar Spray		
THIODICARB 75% WP	750 to 1000	1000 to 1330	500	Foliar Spray		

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
CABBAGE & CAULIFLOWER	Diamond back moth ( <i>Plutella xylostella</i> ) & Head Borer	CHLORFENAPYR 10% SC	75-100	750-1000	500	Foliar Spray
		CYPERMETHRIN 10% EC	60-70	650-760	500	Foliar Spray
		FLUBENDIAMIDE 39.35% M/M SC	18.24	37.5-50	500	Foliar Spray
		LUFENURON 5.4% EC	30	600	500	Foliar Spray
		SPINOSAD 2.5% SC	15.0-17.5	600-700	500	Foliar Spray
		TOLFENPYRAD 15% EC	150	1000	500	Foliar Spray
	Tobacco leaf eating caterpillar	CHLORFLUAZURON 5.4% EC (w/w)	75	1500	500	Foliar Spray
		CYANTRANILIPROLE 10.26% OD	60	600	500	Foliar Spray
CHILLY	Aphid ( <i>Aphis gossypii</i> )	ACETAMIPRID 20% SP	25	125	500	Foliar Spray
		ABAMECTIN 1.8%(w/w) EC	5.4	300	500	Foliar Spray
		ACEPHATE 95 % SG	750	790	500	Foliar Spray
		CARBOFURAN 3 % CG	100	33.3 Kg	-	-
		CARBSULFAN 25 % EC	200-250	800-100	500-1000	Foliar Spray
		DIAFENTHIURON 47% + BIFENTHRIN 09.40% W/W SC	293.75 + 58.7	625	500	Foliar Spray
		IMIDACLOPRID 17.8 %SL	25-50	125-250	500-700	Foliar Spray
		IMIDACLOPRID 70 % WS	700-1050	10-15 Kg	-	-
		OXYDEMETON –METHYL 25 % EC	400	1600	500-1000	Foliar Spray
		PROFENOPHOS 40% + PYRAXIMATE 2.5% EC	425	1000	500	Foliar Spray
		QUINALPHOS 01.50% DP	300	20000	-	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
	Thrips ( <i>Scirtothrips dorsalis</i> )	ACETAMIPRID 25 %SP	10-20	50-100	500-600	Foliar Spray
		CYANTRANILIPROLE 10.26% OD	60	600	500	Foliar Spray
		DIAFENTHIURON 47% + BIFENTHRIN 09.40% W/W SC	293.75 + 58.7	625	500	Foliar Spray
		DIMETHOATE 30 % EC	200	660	500-1000	Foliar Spray
		EMAMECTIN BENZOATE 01.50% + FIPRONIL 03.50% SC	07.5 + 17.5-11.25+ 26.25	500-750	500	Foliar Spray
		EMAMECTIN BENZOATE 5 % +LUFENURON 40 % (WG)	3+24	60	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	10	200	500	Foliar Spray
		ETHION 50% EC	750- 1000	1500 - 2000	500	Foliar Spray
FENPROTATHRION 30 % EC	75- 100	250-340	750-1000	Foliar Spray		
FIPRONIL 07% + HEXYTHIAZOX 02% W/W SC	70.0+20.0	1000	500	Foliar Spray		



Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
CHILLY	<b>Thrips</b> ( <i>Scirtothrips dorsalis</i> )	FIPRONIL 5% SC	40-50	800- 1000	500	Foliar Spray
		FLUBENDIAMIDE 19.92% + THIAACLOPRID 19.92% W/W	48 + 48 - 60 + 60	200-250	500	Foliar Spray
		INDOXACARB 14.50% + ACETAMIPRID 07.70% W/W SC	88.8-111	400-500	500	Foliar Spray
		LAMBDA CYHALOTHRIN 4.9 % CS	25	500	500	Foliar Spray
		LAMBDA CYHALOTHRIN 5 % EC	15	300	400-600	Foliar Spray
		OXYDEMETON –METHYL 25 % EC	500	2000	500-1000	Foliar Spray
		PROFENOFOS 40% + FENPYROXIMATE 2.50% W/W EC	0.4+ 0.025	1000	500	Foliar Spray
		SPINETORAM 11.7 %SC	56-60	470-500	500	Foliar Spray
		SPIROTRAMATE 15.31 % OD	60	400	500	Foliar Spray
		THIAACLOPRID 15.31 %OD	54-72	225-300	500	Foliar Spray
		THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 9.50% ZC	33.0	150	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	25-50	125-250	500-700	Foliar Spray
		IMIDACLOPRID 70% WS	700 - 1050	1000 - 1500	-	-
		<b>Fruit borer</b> ( <i>Helicoverpa armigera</i> )	CHLORANTRANILIPROLE 18.5 % SC	30	150	500
	CYANTRANILIPROLE 10.26% OD		60	600	500	Foliar Spray
	EMAMECTIN BENZOATE 01.50% + FIPRONIL 03.50% SC		07.5+ 17.5 - 11.25 + 26.25	500-750	500	Foliar Spray
	<b>Fruit borer</b> ( <i>Helicoverpa armigera</i> )	EMAMECTIN BENZOATE 5 % W/W + LUFENURON 40 % W/W WG	27	60	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	10	200	500	Foliar Spray
		FIPRONIL 5% SC	40-50	800-1000	500	Foliar Spray
		FLUBENDIAMIDE 19.92% + THIAACLOPRID 19.92% W/W	48 +48 - 60 + 60	200-250	500	Foliar Spray
		FLUBENDIAMIDE 20 % WG	50-60	250-300	500	Foliar Spray
		INDOXACARB 14.5 % SC	50-60	333-400	300-600	Foliar Spray
		INDOXACARB 14.50% + ACETAMIPRID 07.70% W/W SC	88.8- 111	400-500	500	Foliar Spray
		LAMBDA CYHALOTHRIN 4.9 % CS	25	500	500	Foliar Spray
		LAMBDA CYHALOTHRIN 5 % EC	15	300	400-600	Foliar Spray
		LUFENURON 5.4 % EC	30	600	500	Foliar Spray
		MEOTHOMYL 40 % SP	300-400	750-1125	500-1000	Foliar Spray
		MONOCROTOPHOS 36 % SL	33.5	375	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
CHILLY	Fruit borer ( <i>Helicoverpa armigera</i> )	NOVALURON 05.25% + INDOXACARB 04.50% SC	43.31 + 37.13-45.94 + 39.38	825-875	500	Foliar Spray
		NOVALURON 10% EC	33.5	375	500	Foliar Spray
		PROFENOFOS 40% + FENPYROXIMATE 02.50% W/W EC	0.4 + 0.025	1000	500	Foliar Spray
		PYRIPROXYFEN 05% + FENPROPATHRIN 15% EC	25 +75 - 37.5 + 112.5	500-750	500-750	Foliar Spray
		SPINETORAM 11.7 % SC	56-60	470-500	400-500	Foliar Spray
		SPINOSAD 45.0% SC	73	160	500	Foliar Spray
		THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 09.50% ZC	33.0	150	500	Foliar Spray
		THIODICARB 75 % WP	470-750	626-1000	500	Foliar Spray
	Mites ( <i>Polyphagotarsonemus latus</i> )	ABAMECTIN 1.8%(w/w) EC	5.4	300	500	Foliar Spray
		BUPROFEZIN 25 % SC	250-375	1000-1500	500	Foliar Spray
		CHLORFENAPYR 10% SC	75-100	750-1000	500	Foliar Spray
		CYENOPYRAFEN 30 % SC	60-90	200-300	500	Foliar Spray
		DIAFENTHIURON 50%WP	300	600	500	Foliar Spray
		DIMETHOATE 30 % EC	300	990	500-1000	Foliar Spray
		EMAMECTIN BENZOATE 5 % W/W + LUFENURON 40 % W/W WG	27	60	500	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	10	200	500	Foliar Spray
		ETHION 50% EC	750-1000	1500-2000	500	Foliar Spray
		FENPROTATHRION 30 % EC	75- 100	250-340	750-1000	Foliar Spray
		FENPYROXIMATE 5% EC	15-30	300-600	500-750	Foliar Spray
		FIPRONIL 07% + HEXYTHIAZOX 02% W/W SC	70.0+20.0	1000	500	Foliar Spray
		HEXYTHIAZOX 5.4 %EC	15-25	300-500	625	Foliar Spray
		LAMBDA-CYHALOTHRIN 5 % EC	15	300	500	Foliar Spray
		MILBEMECTIN 1% EC	3.25	325	500	Foliar Spray
		OXYDEMETON –METHYL 25 %EC	500	2000	500-1000	Foliar Spray
		PROFENOFOS 40% + FENPYROXIMATE 02.50% W/W EC	0.4+0.025	1000	500	Foliar Spray
		PROPARGITE 57% EC	850	1500	500	Foliar Spray
		QUINALPHOS 25 % EC	375	1500	500	Foliar Spray
		SPIROMESIFEN 22.9% SC	96	400	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
CHILLY	Fruit borer ( <i>Spodoptera litura</i> )	CHLORANTRANILIPROLE 18.5% SC	30	150	500	Foliar Spray
		CYANTRANILIPROLE 10.26% OD	60	600	500	Foliar Spray
		DELTAMETHRIN 2.8 %EC	10-12.5	400-500	400-600	Foliar Spray
		FLUBENDIAMIDE 20% WG	50-60	250-300	500	Foliar Spray
		FLUBENDIAMIDE 39.35% M/M SC	48-60	100-125	500	Foliar Spray
		INDOXACARB 14.5% SC	50-60	333-400	500	Foliar Spray
		LUFENURON 5.4% EC	30	600	500	Foliar Spray
		NOVALURON 10% EC	33.5	375	500	Foliar Spray
		PYRIDALYL 10% EC	50 -75	500- 750	500	Foliar Spray
		SPINETORAM 11.7 % SC	56-60	470-500	500	Foliar Spray
	THIODICARB 75% WP	470 to 750	626 to 1000	500	Foliar Spray	
	Jassid, Aphid, Thrips	ACEPHATE 95% SG	562.5	592	500	Foliar Spray
		ACETAMIPRID 20% SP	10-20	50-100	500	Foliar Spray
		CARBOSULFAN 25% EC	200-250	800-1000	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	25 – 50	125-250	500	Foliar Spray
	Jassid, Aphid, Thrips	IMIDACLOPRID 70% WG	700 – 1050	1000 – 1500	500	Foliar Spray
PYRIPRXYFEN 10 %EC		50	500	500	Foliar Spray	
QUINALPHOS 25 %EC		250	1000	500	Foliar Spray	
Leaffolder	CARBOSULFAN 25% EC	200-250	800-1000	500	Foliar Spray	
Whitefly	FENPROTATHRION 30 %EC	75-100	250-340	500	Foliar Spray	
	PYRIPROXYFEN 5 % + FENPROPATHRIN 15 % EC	25+75	500-750	500	Foliar Spray	
CUCUMBER	Aphids & Jassids	IMIDACLOPRID 70% WG	24.5	35	500	Foliar Spray
	Cucumber Beetle Fruit Fly	FLUBENDIAMIDE 8.33 % + DELTAMETHRIN 5.56% w/w SC	22.50 + 15	250	500	Foliar Spray
	Whitefly	AFIDOPYROPEN 50 %G/L DC	35-50	700-1000	500	Foliar Spray
CUCURBIT	Red pumpkin beetle/Tobacco caterpillar	CYANTRANILIPROLE 10.26% OD	90	900	500	Foliar Spray
FRENCH BEAN	Stem fly	QUINALPHOS 25% EC	250	1000	500	Foliar Spray
		QUINALPHOS 1.5% DP	350	23300	--	Dusting
	Pod borer, Black bug	FLUBENDIAMIDE 19.92% W/W + THIAACLOPRID 19.92% W/W	48 + 48 - 60 +60	200-250	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
FRENCH BEAN	White grub , Grey & Stem Weevil	CARBOFURAN 3% CG	1000	33300		Soil application
	Leaf miner / Red pumpkin beetle/ Aphid/Thrips/ Whitefly/ Pumpkin Caterpillar/ Fruit fly	CYANTRANILIPROLE 10.26% OD	90	900	500	Foliar Spray
GHERKINS	Leaf miner / Red pumpkin beetle/ Aphid/Thrips/ Whitefly/ Pumpkin Caterpillar/ Fruit fly	CYANTRANILIPROLE 10.26% OD	90	900	500	Foliar Spray
OKRA	Aphids, Jassids, Thrips and white fly	ACETAMIPRID 20% SP	15	75	500	Foliar Spray
		BUPROFEZIN 15% + ACEPHATE 35% W/W WP	112.5 + 262.5	750	500	Foliar Spray
		BUPROFEZIN 70% DF	200	286	500	Foliar Spray
	Aphids, Jassids, Thrips and white fly	CYPERMETHRIN 25 % EC	37-50	150-200	500	Foliar Spray
		DELTA METHRIN 2.8 % EC	10	400	400-600	Foliar Spray
		DIMETHOATE 30% EC	700	2310	500	Foliar Spray
		FENPYROXIMATE 5 %SC	60-75	300-375	500	Foliar Spray
		FLUPYRADIFURONE 17.9 %SL	250	1250	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	20	100	500	Foliar Spray
		IMIDACLOPRID 48% FS	300 – 540	500– 900	for 100 kg Seeds	Seed Treatment
		IMIDACLOPRID 70% WG	21 - 24.5	30-35	300-375	Foliar Spray
		LAMBDA- CYHALOTHRIN 5 %EC	15	300	500	Foliar Spray
		MALATHION 50 % EC	500	1000	500-1000	Foliar Spray
		PROPARGITE 50% + BIFENTHRIN 5% W/W SE	594 +59.4 – 621 +62.1	1100 – 1150	500	Foliar Spray
		PYRIPROXYFEN 05% + FENPROPATHRIN 15% EC	25 +75 - 37.5 +112.5	500-750	500	Foliar Spray
		QUINALPHOS 25 %EC	250	1000	500	Foliar Spray
THIAMETHOXAM 25% WG	25	100	500	Foliar Spray		
TOLFENPYRAD 15% EC	150	1000	500	Foliar Spray		

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
OKRA	White Flies	THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
		PYRIPROXYFEN 05% + FENPROPATHRIN 15% EC	25 +75 - 37.5 +112.5	500-750	500	Foliar Spray
		PYRIPROXYFEN 10% EC	50	500	500	Foliar Spray
		OXYDEMETON –METHYL 25 %EC	250	1000	500-1000	Foliar Spray
	Fruit borer ( <i>Earias spp.</i> )/ Spotted Bollworm	CHLORANTRANILIPROLE 18.5% SC	25	125	500	Foliar Spray
		CYPERMETHRIN 10 % EC	50-70	550-760	100-400	Foliar Spray
		CYPERMETHRIN 25 % EC	37-50	150-200	500	Foliar Spray
		DELTAMETHRIN 2.8 % EC	Oct-15	400-600	400-600	Foliar Spray
		EMAMECTIN BENZOATE 5% SG	6.75-8.5	135-170	500	Foliar Spray
		FENPROPATHRIN 30% EC	75-100	250-340	500	Foliar Spray
		LAMBDA- CYHALOTHRIN 4.9 % CS	15	300	500	Foliar Spray
		LAMBDA- CYHALOTHRIN 5 % EC	15	300	300-400	Foliar Spray
		MALATHION 50 % EC	500	1000	500-1000	Foliar Spray
		PYRIDALYL 10% EC	50-75	500-750	500	Foliar Spray
		PYRIPROXYFEN 05% + FENPROPATHRIN 15% EC	25+75 - 37.5+ 112.5	500-750	500	Foliar Spray
		QUINALPHOS 20 % AF	250 -300	1250-1500	750-1000	Foliar Spray
		QUINALPHOS 25 % EC	200	800	500-1000	Foliar Spray
	Mites	FENPROPATHRIN 30% EC	75-100	250-340	500	Foliar Spray
	Mites	PROPARGITE 50% + BIFENTHRIN 5% W/W SE	594+59.4 - 621+62.1	1100 - 1150	500	Foliar Spray
		DICOFOL 18.5 %EC	250-500	1350-2700	500	Foliar Spray
		FENAZAQUIN 10 %EC	125	1250	500	Foliar Spray
		QUINALPHOS 25 %EC	250	1000	500	Foliar Spray
		SPIROMESIFEN 22.9 %SC	96-120	400-500	500	Foliar Spray
Red spider mite	FENAZAQUIN 10% EC	125	1250	500	Foliar Spray	
	SPIROMESIFEN 22.9% SC	96-120	400-500	500	Foliar Spray	
	DICOFOL 18.5% EC	250-500	1350-2700	500	Foliar Spray	
	SPIROTETRAMAT 11.01% + IMIDACLOPRID 11.01% W/W SC	60.0+60.0	500	500	Foliar Spray	
ONION	Root grub	CHLORPYRIPHOS 20% EC	1000	5000	500	Foliar Spray
	Thrips	ACETAMIPRID 20% SP	25	125	500	Foliar Spray
		DIMETHOATE 30% EC	200	660	500	Foliar Spray
		FIPRONIL 80 % WG	60	75	500	Foliar Spray
		LAMBDA-CYHALOTHRIN 5% EC	15	300	300-400	Foliar Spray
		OXYDEMETON-METHYL 25% EC	300	1200	500	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
PEA	Pod borer	FLUBENDIAMIDE 39.35% M/M SC	48	100	500	Foliar Spray
		MALATHION 50% EC	750	1500	500	Foliar Spray
	Leaf miner	CYROMAZINE 75% WP	500	1000	500	Foliar Spray
	Shoot fly & Aphid	CARBOFURAN 3% CG	1000	33300		Soil application
POTATO	Aphid	CARBOFURAN 3% CG	500	16600		Soil application
		CLOTHIANIDIN 50% WDG	50	100	500	Foliar Spray
		DIMETHOATE 30% EC	200	660	500	Foliar Spray
		IMIDACLOPRID 48% FS	0.0105	0.0175		
		OXYDEMETON – METHYL 25% EC	250	1000	500	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	500	Foliar Spray
	Jassid	CARBOFURAN 3% CG	1000	33300		Soil application
		IMIDACLOPRID 48% FS	0.0105	0.0175		
Thrips	DIMETHOATE 30% EC	200	660	500	Foliar Spray	
RADISH	Stem borer	MALATHION 50% EC	750	1500	500	Foliar Spray
TOMATO	Leaf miner ( <i>Liriomyza trifolii</i> )	CHLORANTRANILIPROLE 8.8% W/W + THIAMETHOXAM 17.5 % W/W SC:	150	500	50-100 ml/plant(8-10 days after transplanting )	Soil drench as Single application
		CYROMAZINE 75% WP	150	200	500	Foliar Spray
		CYANTRANILIPROLE 10.26% OD	90	900	500	Foliar Spray
	Aphids.White fly & Thrips	DIMETHOATE 30% EC	200	660	500	Foliar Spray
		CYANTRANILIPROLE 10.26% OD	90	900	500	Foliar Spray
		THIAMETHOXAM 70% WS	420	600		Use as seed dresser at the time of sowing
		CARBOFURAN 3% CG	1200	40000		Soil application
PROPARGITE 50% + BIFENTHRIN 5% W/W SE	594 +59.4 – 621+62.1	1100 – 1150	500	Foliar Spray		
THIAMETHOXAM 12.60% + LAMBDA-CYHALOTHRIN 09.50% ZC	27.5	125	500	Foliar Spray		

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
TOMATO	Aphids.White fly & Thrips	CHLORANTRANILIPROLE 08.80% + THIAMETHOXAM 17.50% W/W SC	150.0	500	50-100 ml/plant	Application method-Soil drench (Single application), Application time-8-10 days after transplanting
		IMIDACLOPRID 70% WG	35	50	500	Foliar Spray
	Fruit borer ( <i>Helicoverpa armigera</i> )	CYANTRANILIPROLE 10.26% OD	90	900	500	Foliar Spray
		CHLORANTRANILIPROLE 8.8% w/w + THIAMETHOXAM 17.5 % w/w SC:	150	500	50-100 ml/plant	( Soil drench (Single application) (8-10 days after transplanting )
		CHLORANTRANILIPROLE 18.5% SC	30	150	500	Foliar Spray
		FLUBENDIAMIDE 07.5% + KRESOXIM METHYL 37.5 W/W SC	50 + 250	667	500	Foliar Spray
		FLUBENDIAMIDE 20% WG	48	100	500	Foliar Spray
		FLUBENDIAMIDE 39.35% M/M SC	48	100	500	Foliar Spray
		INDOXACARB 14.5% SC	60-75	400-500	500	Foliar Spray
		LAMBDA -CYHALOTHRIN 4.9 % CS	15	300	500	Foliar spray
		METHOMYL 40 % SP	300-450	750-1125	500-1000	Foliar Spray
		NOVALURON 10% EC	75	750	500	Foliar Spray
	Fruit borer ( <i>Helicoverpa armigera</i> )	NOVALURON 5.25% + INDOXACARB 4.5% SC	43.31 + 37.13 to 45.94 +39.38	825-875	500	Foliar Spray
		PHOSALONE 35 % EC	500	1428	500	Foliar Spray
		QUINALPHOS 20 % AF	300-350	1500-1750	750-1000	Foliar Spray
		QUINALPHOS 25 %EC	250	1000	500	Foliar Spray
		THIAMETHOXAM 12.6 % + LAMBDA CYHALOTHRIN 9.5 % (ZC)	27.5	125	500	Foliar Spray
	leaf eating caterpillar	NOVALURON 5.25% + INDOXACARB 4.5% SC	43.31 + 37.13 to 45.94 + 39.38	825-875	500	Foliar Spray
	Two spotted spider mite	FENAZAQUIN 10% EC	125	1250	500	Foliar Spray
	Mites	SPIROMESIFEN 22.9% SC	150	625	500	Foliar Spray
PROPARGITE 50% + BIFENTHRIN 5% W/W SE		594 +59.4 - 621+62.1	1100 - 1150	500	Foliar Spray	



Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
TOMATO	White fly ( <i>Bemisia tabaci</i> )	THIAMETHOXAM 25% WG	50	200	500	Foliar Spray
		PYRIPROXYFEN 10% EC	50	500	500	Foliar Spray
		CHLORANTRANILIPROLE 8.8% w/w + THIAMETHOXAM 17.5 % w/w SC:	150	500	50-100 ml/plant	(8-10 days after transplanting )
		SPIROMESIFEN 22.9% SC	150	625	500	Foliar Spray
		MALATHION 50% EC	750	1500	500-1000	Foliar Spray
		PROPARGITE 50% + BIFENTHRIN 5% W/W SE	594 +59.4 621+ 62.1	1100 – 1150	500	Foliar Spray
		OXYDEMETON-METHYL 25% EC	300	1200	500	Foliar Spray
		IMIDACLOPRID 17.8% SL	30-35	150-175	500	Foliar Spray
BANANA	Aphid, Lace wing bug	DIMETHOATE 30% EC	0.03%	1485-1980	1500-2000	Foliar Spray
	Aphid	OXYDEMETON – METHYL 25% EC	0.05%	3000-4000	1500-2000	Foliar Spray
		CARBOFURAN 3% CG	0.50g/suckers	16.6 g/sucker		Soil application
	Tingid bug	QUINALPHOS 25% EC	0.05%	3000-4000	500-1000	Foliar Spray
		OXYDEMETON – METHYL 25% EC	0.03%	1500-2000	1500-2000	Foliar Spray
	Rhizome weevil	CARBOFURAN 3% CG	1.0g/sucker	33 g/sucker		Soil application
BER	Leaf hopper	CLOTHIANIDIN 50% WDG	50%	100	500	Foliar Spray
		CHLORPYRIFOS 20% EC	0.03%	2250-3000	1500-2000	Foliar Spray
CITRUS	Black citrus, Aphid	IMIDACLOPRID 17.8% SL	30-35 gm	150-175	1500-2000	Foliar Spray
		DIMETHOATE 30% EC	0.03%	1485-1980	1500-2000	Foliar Spray
		MONOCROTOPHOS 36% SL	0.04%	1500-2000	500-2000	Foliar Spray
		CHLORPYRIFOS 20% EC	0.02%	1500-2000	1500-2000	Foliar Spray
	Citrus butterfly	QUINALPHOS 25% EC	0.025%	1500-2000	1500-2000	Foliar Spray
	Leaf miner	CYROMAZINE 75% WP	150	200	1500-2000	Foliar Spray
		IMIDACLOPRID 17.8% SL	10	50	1500-2000	Foliar Spray
		CARBOFURAN 3% CG	1500	50000		Soil application
	Mite	SPIROMESIFEN 22.9% SC	150 gm	625	1500-2000	Foliar Spray
		MONOCROTOPHOS 36% SL	0.025%	937-1250	500-2000	Foliar Spray
		DIFENTHIURON 50% WP	1 G/L	2 G/L	1500-2000	Foliar Spray
	Psylla	IMIDACLOPRID 17.8% SL	10	50	1500-2000	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	1500-2000	Foliar Spray
	Red Spider mite	DICOFOL 18.5% EC	0.05%	2700-4050	1500-2000	Foliar Spray
	Scale	THIAMETHOXAM 25% WG	25	100	1500-2000	Foliar Spray
QUINALPHOS 25% EC		0.07%	4200-5600	1500-2000	Foliar Spray	

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
LITCHI	Red Spider mite	DICOFOL 18.5% EC	0.05%	2700-4050	1000-5000	Foliar Spray
COCONUT	Eriophyde mite	FENPYROXIMATE 5% EC	0.5gm/. tree	10ml/lit.	1500-2000	(Root feeding)
		FENPYROXIMATE 5% EC	0.056 – 0.075 gm/tree	0.75 – 1ml/lit	1500-2000	Foliar Spray
	Black headed Caterpillar	MONOCROTOPHOS 36% SL	3.5 -7 gm per tree	8.75-17.5ml per tree		Lower dose to be applied on plants below 9 years & higher Or more than 9 years of age
	Rugose Spiralling White fly ( <i>Aleurodicus rugioperculatus</i> Martin)	IMIDACLOPRID 17.8% SC		1 ml / litre of water		<i>Aleurodicus rugioperculatus</i> Martin
MANGO	Bud mite	PROPARGITE 57% EC	570	1000	500	Foliar Spray
	Gall maker	PROFENOPHOS 50% EC	500 gm	1000	500	Foliar Spray
		MONOCROTOPHOS 36% SL	0.04%	1500-2000	500-2000	Foliar Spray
	Hopper	DIMETHOATE 30% EC	0.05%	2475-3300	1500-2000	Foliar Spray
		IMIDACLOPRID 17.8% SL	0.4 – 0.8	2-4 ml/ tree	10 litre	Foliar Spray
		BUPROFEZIN 25% SC	0.025% to 0.05%	1-2 ml/ liter of water	5-15 liter per tree	Foliar Spray
		OXYDEMETON – METHYL 25% EC	0.03%	1500-2000	1500-2000	Foliar Spray
		THIAMETHOXAM 25% WG	25	100	1000	Foliar Spray
		DELTAMETHRIN 2.8% EC	0.03-0.05 %	0.33-0.5 ml per Ltr		
		LAMBDA-CYHALOTHRIN 5% EC	0.025-0.05	0.5-1.0 ml per ltr	1000	Foliar Spray
		MALATHION 50% EC	0.075	2250-3000	1500-2000	Foliar Spray
	Mealy bug	PROFENOPHOS 50% EC	500 gm	1000	500	Foliar Spray
		MONOCROTOPHOS 36% SL	0.04%	1500-2000	500-2000	Foliar Spray
		DIMETHOATE 30% EC	0.05%	2475-3300	1500-2000	Foliar Spray
	Mealy scale	THIAMETHOXAM 25% WG	25	100	1000	Foliar Spray
Shoot borer	PROFENOPHOS 50% EC	500 gm	1000	500	Foliar Spray	
	MONOCROTOPHOS 36% SL	0.04%	1500-2000	500-2000	Foliar Spray	

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
POMEGRANATE	<b>Thrips</b> ( <i>Scirtothrips dorsalis</i> )	CYANTRANILIPROLE 10.26% OD	75 (075%)	750 (0.075%)	1000	Foliar Spray
	<b>Pomegranate butterfly</b> ( <i>Deudorix isocrates</i> )	CYANTRANILIPROLE 10.26% OD	75 (075%)	750 (0.075%)	1000	Foliar Spray
	<b>Whitefly</b> ( <i>Siphoninus phillyreae</i> )	CYANTRANILIPROLE 10.26% OD	90 (09%)	900 (0.09%)	1000	Foliar Spray
	<b>Aphids</b> ( <i>Aphis punicae</i> )	CYANTRANILIPROLE 10.26% OD	90 (09%)	900 (0.09%)	1000	Foliar Spray
	<b>Scales</b>	THIAMETHOXAM 25% WG	25	100	1000	Foliar Spray
		QUINALPHOS 25% EC	0.08%	4800-6400	1500-2000	Foliar Spray
CASHEW	<b>Apple &amp; Nut borer</b>	LAMBDA-CYHALOTHRIN 5% EC	025- 05%	0.5-1.0 ml/l of water	1000	Foliar Spray
	<b>Tea Mosquito Bug</b>	LAMBDA-CYHALOTHRIN 5% EC	03%	0.5-1.0 ml/l of water	1000	1st spray during New flushing stage ( Nov-Dec), if necessary repeat at initial fruiting stage (Feb-March)
		PROFENOPHOS 50% EC	500	1000	1000	Foliar Spray
CASHEW	Mealy Bug	DIMETHOATE 30% EC	0.05%	1.75ml/l	1000	Spray in combination with fish oil resin soap @ 20g/litre of water to reduce bug incidence effectively.
	<b>Thrips ( Flower &amp; Foliage)</b>	CYANTRANILIPROLE 10.26% OD	90 ml	900	1000	Foliar Spray
	<b>Leaf &amp; blossom Webber</b>	CHLORPYRIPHOS 20% EC	0.05%	2ml/l	1000	Foliar Spray
COFFEE	<b>Green Bug</b>	MONOCROTOPHOS 36% SL	625ml	1562	500-1000	Foliar Spray
		OXYDEMETON – METHYL 25% EC	625 ml	2500	500-1000	Foliar Spray
	<b>Leaf minor</b>	OXYDEMETON – METHYL 25% EC	1000 ml	4000	500-1000	Foliar Spray
ROSE	<b>Two Spotted Mite</b> ( <i>Tetranychus urticae</i> )	BIFENAZATE 50% WP	375	750	500	Foliar Spray
		BIFENAZATE 22.6% SC	120	500	500	Foliar Spray
		ABAMECTIN 01.90% EC	0048-0096 %	0.025-0.050%	500	Foliar Spray
		MILBEMECTIN 1% EC	4.5	450	500	Foliar Spray

Crop	Common name of the pest	Recommended Insecticides by CIBRC/OUAT	Dosage / ha a.i (gm)	Formulation (gm/ml) /ha	Dilution in Water (Litre/ha)	Remarks
ROSE	Scale	DIMETHOATE 30% EC	750	2475	500	Foliar Spray
	Thrips	DIMETHOATE 30% EC	750	2475	500	Foliar Spray
	Mites	FLUFENOXURON 10% DC	50	500	500	Foliar Spray
	Red Spider Mites	ABAMECTIN 01.90% EC	0048-0096 %	0.025-0.050%	500	Foliar Spray
CITRUS, PADDY, VEGETABLE	Snail, Slug, giant African snail	METALDEHYDE 2.5% D	-	-	-	Available in ready to use 2.5% Dust
AGRICULTURE PURPOSE	Locust control	CHLORPYRIPHOS 20% EC	240	1200	500	for both Hoppers & Adult
		CHLORPYRIPHOS 50% EC	240	480	500	-do-
		DELTAMETHRIN 2.8% EC	12.5	450	500	-do-
		DELTAMETHRIN 1.25% ULV	12.5	1000	500	-do-
		DIFLUBENZURON 25% WP	60	250	500	for Hoppers
		FIPRONIL 5% SC	6.25	1250	500	for both Hoppers & Adult
		FIPRONIL 2.92% EC	6.25	2140	500	-do-
		LAMBDAHALOTHHRIN 5% EC	20	400	500	for both Hoppers & Adult
		LAMBDAHALOTHHRIN 10% WP	20	200	500	-do-
		MALATHION 50% EC	925	1850	500	-do-
		MALATHION 25% WP	925	3700	500	-do-
		MALATHION 96%ULV	925	965	500	-do-

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## CROP & PEST WISE RECOMMENDATION OF BIO-INSECTICIDES & BIO-AGENTS

Name of Crop	Name of Insect	Recommended Bio-Insecticides by CIBRC/OUAT	Dose / ha (Formulation)	Dilution in water (Litre)/ha	Remarks
ARHAR	Pod borer, Plume Moth & Pod Fly	Azadirachtin 0.03% WSP (300 ppm) Neem Oil Based	2500-5000 ml	500-1000	
		<i>Bacillus thuriengiensis</i> var <i>kurstaki</i> 0.5% WP	750 g	500-750	
		NPV of <i>Helicoverpa armigera</i> 2.0% AS	250-500 ml	500-750	
BENGAL GRAM	Pod Borer (Heliiothis)	Azadirachtin 0.03% WSP (300 ppm) Neem Oil Based	2500-5000	500-1000	
		<i>Bacillus thuriengiensis</i> var <i>kurstaki</i> 0.5% WP	2000 g	500-750	
	Grampod borer ( <i>Helicoverpa armigera</i> )	<i>Bacillus thuriengiensis</i> var <i>kurstaki</i> 2.5% AS.	1000-1500g	500	
		<i>Beauveria bassiana</i> 1% WP	3 kg.	500	
		NPV of <i>Helicoverpa armigera</i> 2.0% AS	250-500 ml	500-750	
SUN-FLOWER	Capitulum Borer ( <i>Helicoverpa armigera</i> )	NPV of <i>Helicoverpa armigera</i> 2.0% AS	500 ml	500	
		<i>Bacillus thuriengiensis</i> var <i>kurstaki</i> 5% WP	500-750g	500	
COTTON	White fly & Boll worm	Azadirachtin 0.15% W/W Min. Neem seed Kernel Based	2500-5000 ml	500-1000	
	Bollworm ( <i>Helicoverpa Armigera</i> ), Aphids	Azadirachtin 0.3% (3000 PPM) Min. Neem Seed Kernel Based	4000 ml	1000	
		Azadirachtin 0.03% (300 ppm) Neem Oil Based	2500-5000 ml	500	
	Aphids, Jassids, White Flies, Bollworms,	Azadirachtin 0.03% (300 ppm) Neem Oil Based	2500-5000 ml	500	
	White Fly, Leaf hoppers, Heliiothis, Aphids, Leaf roller	Azadirachtin 5% w/w Min. Neem extract Concentrate	375 ml	750	
	White flies	<i>Verticillium lecanii</i> 1.15% WP (1x10 <sup>8</sup> CFU/gm min)	2.5 kg	500 litres of water	
	Boll worm Complex	<i>Bacillus thuriengiensis</i> var <i>kurstaki</i> 0.5% WP	750 -1000	750 - 1000	

Name of Crop	Name of Insect	Recommended Bio-Insecticides by CIBRC/OUAT	Dose / ha (Formulation)	Dilution in water (Litre)/ha	Remarks
COTTON	Boll worm Complex	<i>Bacillus thuringiensis</i> var. galleriae 1.3% flowable concentrate potency 1500 IU/mg	2.0 -2.5 litre	1000	
		<i>Beauveria bassiana</i> 1.15% W.P.	400 gm	750-1000	
		Nuclear Polyhedrosis Virus of <i>Helicoverpa Armigera</i> 0.43% AS	2700 ml	400-600 L/Ha	
		Trichogramma Sp	1.5 lakh / ha		
JUTE	Semi looper, Bihar Hairy caterpillar	Azadirachtin 0.03% WSP (300 ppm) Neem Oil Based	2500-5000 ml	500-1000	
MAIZE	American Cob borer	NPV of <i>Helicoverpa armigera</i> 2.0% AS	500 g	500-1000	
	Fall Army Worm	<i>Beauveria bassiana</i> 1.15% W.P.	1000 gm	500	Foliar spray
		Azadirachtin 0.15% W/W Min.(1500ppm)	2500 ml	500	Foliar spray at First Window stage (seedling to early whorl stage)
		<i>Bacillus thuriengiensis</i> var kurstaki 0.5% WP	1000 gm	500	Foliar spray
		Nomuraea rileyi rice grain formulation( 1x 10 <sup>8</sup> cfu /g)	1500 gm	500	Whorl application at 15-25 days after sowing. 1-2 sprays may also be given at an interval of 10 days depending on pest damage
		<i>Metarhizium anisopliae</i> 1.15% WP	2500 gm	500	-do-
		<i>Beauveria bassiana</i> 1.15 % WP ( 1x 10 <sup>8</sup> CFU)	2500 gm	500	-do-
		<i>Verticillium lecanii</i> 1.15 % WP ( 1x 10 <sup>8</sup> CFU)	2500 gm	500	-do-
		Trichogramma pretiosum or Telenomus remus	Augmentative release @ 50,000/ acre at weekly interval or based on trap catch of 3 moths/trap.		

Name of Crop	Name of Insect	Recommended Bio-Insecticides by CIBRC/OUAT	Dose / ha (Formulation)	Dilution in water (Litre)/ha	Remarks
RAGI	Stem Borer	Azadirachtin 0.15% W/W Min	1500 – 2500 ml	500	
PADDY	Thrips, Stem borer, Brown Plant hopper, Leaf folder	Azadirachtin 0.15% W/W Min. Neem seed Kernel Based	1500 to 2500 ml	500	
	BPH, Leaf Folder, Stem Borer	Azadirachtin 5% w/w Min. Neem extract Concentrate	200	400	
	Leaf Roller, Stem Borer, BPH	Azadirachtin 0.03% (300 ppm) Neem Oil Based	2000	1000	
	Stem Borer	<i>Trichogramma japonicum</i> (Ttricho card)	Release of 1.5 lakh / ha when egg masses or moths are observed.		
	Leaf folder	<i>Trichogramma chilonis</i> (Ttricho card)	-do-		
		<i>Bacillus thuringiensis</i> var. galleriae 1.3% flowable concentrate potency 1500 IU/mg	1.0- 3.0 litre	1000	
	Stem borer & Leaf folder	<i>Bacillus thuringiensis</i> var. Kurstaki	1.50 kg.	500-750	
	Rice leaf folder ( <i>Cnaphalocrosis medinalis</i> )	<i>Beauveria bassiana</i> 1.15% W.P. (1x10 <sup>8</sup> /gm min)	2.5 kg/ha	750-850 L/ Ha	
	Brown plant hopper (BPH) ( <i>Nilaparvata lugens</i> )	<i>Metarhizium Anisopliae</i> 1.15% WP	2.5 kg	500	
White Baked plant hopper ( <i>Sogatella furcifera</i> )	<i>Verticillium lecanii</i> 5.0 % SC	3.125 Kg	600		
SUGAR-CANE	Pyrilla	<i>Metarhizium anisopliae</i> 1.15% WP	2500 gm	500	Foliar spray
		<i>Epiricania melanoleuca</i>	4000 - 5000 Cacoons / ha		Release during July-August
	Early shoot borer	<i>Trichogramma chilonis</i> (Egg parasoid)	50,000 Eggs/ ha		Release at 10 days interval from July to October
	Stalk/ Internode borer	<i>Trichogramma chilonis</i> (Egg parasoid)	50,000 Eggs/ ha		Release at 7 days interval



Name of Crop	Name of Insect	Recommended Bio-Insecticides by CIBRC/OUAT	Dose / ha (Formulation)	Dilution in water (Litre)/ha	Remarks
SUGAR-CANE	Wooly aphid	<i>Micromus igorotus</i>	2000 larvae / ha		Release at 15 days interval from August to October
		<i>Dipha aphidivora</i>	1000 larvae / ha		-do-
TOMATO	Aphids, Whitefly, Fruit borer	Azadirachtin 5% w/w Min. Neem Extract Concentrate Containing	200	400	
	White flies	<i>Verticillium lecanii</i> 1.50% liquid formulation (1x10 <sup>8</sup> CFU/gm min)	2000	500	
	Fruit borer ( <i>Helicoverpa armigera</i> )	Azadirachtin 1.00% EC (10000 PPM) Min. Neem Based	1000 - 1500	500	
		<i>Beauveria bassiana</i> 5.0 % SC. (1x10 <sup>8</sup> /gm min)	500	500	
		<i>Bacillus thuringiensis</i> var. galleriae 1.3% flowable concentrate potency 1500 IU/mg	1.0 - 1.5 litre	500	
		Nuclear Polyhedrosis Virus of <i>Helicoverpa armigera</i> 0.43% AS (1x10 <sup>9</sup> POB/ml)	1500 ml	400-600	
		NPV of <i>Helicoverpa armigera</i> 2.0% AS	250-500 ml	500	HV - (1 x 10 <sup>9</sup> POB/ml)
BRINJAL	Shoot & Fruit borer, Epilachna beetles	Azadirachtin 0.03% WSP (300 ppm) Neem Oil Based	2500-5000	500-1000	
	Shoot & Fruit borer ( <i>Leucinodes orbonalis</i> )	<i>Metarhizium anisopliae</i> 1.0% WP (1x10 <sup>8</sup> CFU/gm min)	2.5-5.0	500-750	
		Azadirachtin 1.00% EC (10000 PPM) Min. Neem Based	1000 - 1500	500	
CHILLY	Pod Borer	Azadirachtin 5% w/w Min. Neem Extract Concentrate Containing	200	500	Foliar Spray
	Fruit Borer ( <i>Spodoptera litura</i> )	<i>Bacillus thuringiensis</i> var. galleriae 1.3% flowable concentrate potency 1500 IU/mg	1.5 - 2.0 litre	500	Foliar Spray
CABBAGE & CAULIFLOWER	Aphids, DBM, Cabbage - worm, Cabbage - looper	Azadirachtin 0.03% WSP (300 ppm) Neem Oil Based	2500-5000	500-1000	Foliar Spray
	Diamond back moth ( <i>Plutella xylostella</i> )	<i>Bacillus thuringiensis</i> Serovar Kurstaki 5% WP	25.00-50.00	500-1000	Foliar Spray

Name of Crop	Name of Insect	Recommended Bio-Insecticides by CIBRC/OUAT	Dose / ha (Formulation)	Dilution in water (Litre)/ha	Remarks
CABBAGE & CAULI-FLOWER	Diamond back moth ( <i>Plutella xylostella</i> )	<i>Bacillus thuringiensis</i> var. galleriae 1.3% flowable concentrate potency 1500 IU/mg	0.6 1.0 litre	500	Foliar Spray
		<i>Beauveria bassiana</i> 1.15% W.P.	1.1.5 Kg	500-750	Foliar Spray
		<i>Beauveria bassiana</i> 5.0 % W.P.	2.0 kg	500	Foliar Spray
		<i>Verticillium lecanii</i> 5.0 % SC	500	500	Foliar Spray
CAULI-FLOWER	Spodoptera, Diamond back moth, Aphids	Azadirachtin 5% w/w Min. Neem extract Concentrate	200 ml	400	
ONION	Thrips ( <i>Thrips tabaci</i> )	<i>Verticillium lecanii</i> 3.0 % AS	2000-2500	500	
CITRUS	Mealybugs ( <i>Planococcus citri</i> )	<i>Verticillium lecanii</i> 1.15%WP (1x10 <sup>8</sup> CFU/gm min)	2.5 kg	550 litres of water	
OKRA	Fruit borer, White flies, Leaf Hopper	Azadirachtin 0.03% WSP (300 ppm) Neem Oil Based	2500-5000	500-1000	
	Leaf hoppers, Whitefly. Aphid, Pod Borer	Azadirachtin 5% w/w Min. Neem extract Concentrate	200	400	
	Fruit Borer ( <i>Helicoverpa armigera</i> )	<i>Bacillus thuringiensis</i> var. galleriae 1.3% flowable concentrate potency 1500 IU/mg	1.0 - 1.5 litre	500	
	Fruit Borer, Spotted bollworm	<i>Beauveria bassiana</i> 1.0 % W.P.	3.75 - 5.0 kg	500	
	Leafhopper, whitefly, Aphid, Pod Borer	Azadirachtin 5% w/w Min.	200 ml	400	
COCONUT	Rugose Spiralling White fly ( <i>Aleurodicus rugioperculatus</i> Martin)	Neem Oil	0.50%		Foliar spray
		Starch Solution	1%		Foliar spray

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## CROP & PEST WISE RECOMMENDATION OF INSECTICIDES FOR STORE GRAIN PEST

Crop	Common name of the Pest	Recommendation of Insecticide by CIBRC/OUAT	Condition	Weight of volume	Exposure period	Conc. In air (ppm)	Aeration / Waiting
<b>Godown Fumigation</b>	Rice weevil, Lesser grain Borer, Khapra beetle, Rust red flour beetle, Pulse beetle, Dried fruit beetle	ETHYLENE DICHLORIDE + CARBON TETRACHLORIDE (3:1)	Air Tight for 7 days	150 gm / cubic m	07 days	10 ppm	Partial aeration for at least 1 hr. followed by 24 hr. complete aeration waiting period of 24 hr.
<b>Stored whole cereals Millets Pulses</b>	Rice weevil, Lesser grain Borer, Khapra beetle, Rust red flour beetle, Pulse beetle, Dried fruit beetle	ETHYLENE DICHLORIDE + CARBON TETRACHLORIDE (3:1)	Air tight cover	300-400 gm/cubic m(230-307ml)	( 48-72 Hr. for cover fumigation )	10 ppm	Partial aeration for at least 1 hr. followed by 24 hr. complete aeration waiting period of 24 hr.
<b>Walls, ceilings floors of Godowns</b>	Rice weevil, Lesser grain Borer, Khapra beetle, Rust red flour beetle, Pulse beetle, Dried fruit beetle	DELTAMETHRIN 2.50% WP		30	1200	1.5-2.5 ltr /50 sq m	Spray
<b>Wheat &amp; Rice (Grain &amp; seed in stacks)</b>	Rice weevil, Lesser grain Borer, Khapra beetle, Rust red flour beetle, Pulse beetle, Dried fruit beetle	DELTAMETHRIN 2.50% WP		30	1200	1.0 ltr /30 sq m	Spray

Crop	Common name of the Pest	Recommendation of Insecticide by CIBRC/OUAT	Condition	Weight of volume	Exposure period	Conc. In air (ppm)	Aeration / Waiting
<b>Rodent control in field &amp; Residential premises</b>	Rattus rattus, Bandicota bengalensis, Rattus meliade, Tatera indica, Meriones hurrianae, Mus platythrix, Mus musculus, Rattus norvegicus, Mus booduga, Suncus caeruleus	ZINC PHOSPHIDE 80% Power	1.5-2.5% active ingredient in bait				Mix 10g of Zinc phosphide with 10g of edible oil and then mix with 380g of food material. Keep 10 g of poisoned bait at each point.
<b>Rodent control Indoor &amp; Out door</b>	Rats (Rattus rattus, Rattus norvegicus, Bandicota bengalensis, Bandicota indica, Tetra indica, Meriones hurrianae)	COUMATETRALYL 0.75% w/w	01 mg per spot		2.50 per spot		
<b>Indoor</b>	Mice	COUMATETRALYL 0.75% w/w	01 mg per spot		2.50 per spot		
<b>Rodent control Indoor &amp; Out door</b>	Rats (Rattus rattus, Rattus norvegicus, Bandicota bengalensis, Bandicota indica, Tetra indica, Meriones hurrianae)	COUMATETRALYL 0.0375% Bait	01 mg per spot		2.50 per spot		
<b>Indoor</b>	Mice	COUMATETRALYL 0.0375% Bait	01 mg per spot		2.50 per spot		

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## CROP & DISEASE WISE RECOMMENDATION FOR NEMATODE DISEASE

Crop	Common name of the Nematode Disease	Nematicides recd by CIBRC/OUAT	Dosage per ha a.i. (g)	Formulation (g/ml)	Dilution in water (L)	Remarks
BENGAL GRAM	Root knot nematode	CARBOFURAN 03.00% CG	1500	50000		Soil application
BARLEY	Cyst nematode	CARBOFURAN 03.00% CG	1000	33300	-	Soil application
PADDY	White Tip Nematode ( <i>Aphelenchoidis besseyi</i> )	QUINALPHOS 25% EC	300	1500 ml	500	Spray
		MONOCROTOPHOS 36%SL	540	1500 ml	500	Spray
		CARBOSULFAN 25% EC		20ml in 1 litre of water		Seedling Root deep
		CARBOFURAN 3G	1000	33.300 kg		Soil application after 120 days of sowing
	Root Knot Nematode ( <i>Meloidogyne graminicola</i> )	CARBOSULFAN 25% EC	25	2.5 ml/Litre	500	Spray
		CARBOSULFAN 25% EC		20ml in 1 litre of water		Seedling Root deep
		CARBOFURAN 3% G	1000	33.300 kg		Soil application after 10 days of sowing
		CARBOFURAN 3% G	16.5g /sq. mt			Nursery Treatment
		CARTAP HYDROCHLORIDE 4% G	1000	25 kg		Soil application
		PSEUDOMONAS FLUORESCENS 1% WP		20gm /sq mt		Nursery treatment
JUTE	Root Knot Nematode ( <i>Meloidogyne incognita</i> )	CARBOFURAN 03.00% CG	1000	33300		Soil application
WHEAT	Cereal Cyst Nematode	CARBOFURAN 03.00% CG	2000	66600	-	Soil application
	Ear cockle nematode	CARBOFURAN 03.00% CG	3000	10000	-	Soil application
		QUINALPHOS 25 %EC	400	1600	500-1000	Foliar Spray

Crop	Common name of the Nematode Disease	Nematicides recd by CIBRC/ OUAT	Dosage per ha a.i. (g)	Formulation (g/ml)	Dilution in water (L)	Remarks
TOMATO, BRINJAL & CHILLY	Root Knot Nematode ( <i>Meloidogyne incognita</i> )	CARBOFURAN 03.00% CG	0.3g/sq. mt	10 g/sqm		Nursery Treatment
		CARTAP HYDROCHLORIDE 4% G	0.3g/sq. mt	7.5 g / sqm		Nursery Treatment
		CARBOSULFAN 25% EC	0.05% (500PPM)	2ml/ltr	500	Seedling Root deep
TOMATO, BRINJAL & CHILLY	Root Knot Nematode ( <i>Meloidogyne incognita</i> )	<i>Pseudomonas fluorescens</i> 1.0% WP	50 gm/sq.m			Nursery Bed Treatment
			5 Kg/Ha with enriched FYM 5 tn/Ha			Soil Treatment
		<i>Trichoderma harzianum</i> 1.0% WP/ 1.5 % WP	50 gm/sq.m			Nursery Bed Treatment
			5 Kg/Ha with enriched FYM 5 tn/Ha			Soil Treatment
BRINJAL	Root Knot nematodes ( <i>Meloidogyne incongita</i> )	PAECILOMYCES LILACINUS 1.15% WP	3kg/Ha with 500 kg organic manure			Soil Treatment
CARROT	Root Knot nematodes ( <i>Meloidogyne incongita</i> )	<i>Pseudomonas fluorescens</i> 1.0% WP	50 gm/sq.m			Nursery Bed Treatment
			5 Kg/Ha with enriched FYM 5 tn/Ha			Soil Treatment
		<i>Trichoderma harzianum</i> 1.0% WP/ 1.5 % WP	50 gm/sq.m			Nursery Bed Treatment
			5 Kg/Ha with enriched FYM 5 tn/Ha			Soil Treatment
CABBAGE	Root Knot Nematode ( <i>Meloidogyne incognita</i> )	CARBOFURAN 3% CG	1500	50000		Soil application
POINTED GOURD	Root Knot Nematode & Root galling ( <i>Meloidogyne incognita</i> )	CARBOSULFAN 25% EC	0.05% ( 500 ppm)	2ml/ltr		Bare root dip of 10days old rooted seedling for 8 hrs.
BANANA	Root Knot Nematode ( <i>Meloidogyne incognita</i> )	CARBOFURAN 3 % G	0.5g ai/pit	16.5g/pit		Pit application
		PRESSMUD		15 ton/ha ( 5 kg/pit)		apply 2,4 & 6 months after planting through drip irrigation system
		NEEM OIL CAKE		500 gm / pit		
		PSEUDOMONAS FLUORESCENS 1% WP		4 liter / ha		
		<i>Trichoderma harzianum</i> 1.0% WP	2 Kg / plant		Apply 2 kg enriched FYM at the time of planting and at an interval of 3 months after planting for a period of one year.	

Crop	Common name of the Nematode Disease	Nematicides recd by CIBRC/OUAT	Dosage per ha a.i. (g)	Formulation (g/ml)	Dilution in water (L)	Remarks
LIME	Citrus nematodes ( <i>Tylenchulus semipenetrans</i> )	Trichoderma harzianum 1.0% WP	2 Kg / plant		Apply 2 kg enriched FYM at the time of planting and at an interval of 3 months after planting for a period of one year.	
PAPAYA	Meloidogyne spp. Reniform Nematodes ( <i>Rotelenchulus reniformis</i> )	Trichoderma harzianum 1.0% WP	2 Kg / plant		Apply 2 kg enriched FYM at the time of planting and at an interval of 3 months after planting for a period of one year.	
CITRUS	Root Knot Nematode & Root galling ( <i>Meloidogyne incognita</i> )	CARBOSULFAN 25% EC	360	12000		Soil application
CARNATION & GERBERA	Root-knot nematode ( <i>Meloidogyne incognita</i> )	DAZOMET TECHNICAL	30-40	30-40	500	

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## CROP WISE RECOMMENDATION OF HERBICIDES

Name of the Crops	Recommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
ARHAR	PENDIMETHALIN 30% EC	750g	2500 ml	500	Pre emergence (0-2 DAS)
	IMAZETHAPYR 10% SL	75 g	750 ml	500	use with MSO adjuvant @ 2ml/L of water
	IMAZETHAPYR 35% + IMAZAMOX 35% WG	70 g a.i./ha+ MSO Adjuvant @ 2 ml/l ofwater	100 g MSO Adjuvant @ 2 ml/l ofwater	375-500	
BLACK& GREEN GRAM	QUIZALOFOP-ETHYL 5% EC	37.5-50.0 g	750-1000 ml	500	Post emergence 20 DAS
	IMAZETHAPYR 10% SL	75 g	750 ml	500	Post emergence 20-25 DAS
	PENDIMETHALIN 30% EC	1 kg	3000 ml	500	Pre emergence (0-2 DAS)
	FENOXAPROP-P-ETHYL 9.3% W/W EC (9% W/V)	56.25 - 67.5 gm	675-750 ml	375-500	post-emergence (15 - 20 DAS)
	PROPAQUIZAFOP 2.5% + IMAZETHAPYR 3.75% W/W ME	50+75	2000	500	
	PROPAQUIZAFOP 10% EC	75-100 g	750-1000 ml	500	Post emergence 20-25 DAS
COTTON	FLUCLORALIN 45% EC	0.9 - 1.2 kg	2.0-2.68 Ltrs	500	
	FENOXAPROP-P-ETHYL 9.3% W/W EC (9% W/V)	67.5 gm	750 ml	500	post-emergence (20-25 DAS)
	PENDIMETHALIN 30% EC	0.75-1.0kg	2.5-3.3 ltr	500	Pre emergence (0-3 DAS)
	PENDIMETHALIN 38.7% CS	580.5 - 677.25 g	1500 - 1750	500	
	PYRITHIOPAC SODIUM 10% EC	62.5-75 g	625-750 ml	500	Post emergence 21-25 DAS
	QUIZALOFOP-ETHYL 5% EC	50 g	1000 ml	500	Post emergence 15 DAS
	GLUFOSINATE AMMONIUM 13.5% SL ( 15% w/w)	375 - 450 gm	2.5 - 3.0	500	
	PYRITHIOPAC SODIUM 6% EC W/W+ QUIZALOFOP-ETHYL 4% EC W/W MEC	(60+40)to (75+50) g	1.0-1.25 ltr	500	

Name of the Crops	Reccommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
GROUND NUT	IMAZETHAPYR 10% SL	100-150 g	1.0 - 1.5 Ltrs	500	Early-Post emergence within 2 Week
	DIICLSULAM 84% WDG	22-26	26.2 - 30.9		
	OXYFLOURFEN 23.5% EC	50 g	200 ml	500	Pre emergence 0 - 3 DAS
	QUIZALOFOP-ETHYL 5% EC	50 g	1000 ml	500	Post emergence 15 DAS
	FENOXAPROP-P-ETHYL 9.3% W/W EC (9% W/V)	78.75 g	875 ml	375	post-emergence (15-20 DAS)
	FLUAZIFOP-P-BUTYL 11.1% W/W + FOMESAFEN 11.1% W/W SL	250	1000	500	
	PENDIMETHALIN 38.7% CS	580.5 - 677.25gm	1500 - 1750	500	
	PROPAQUIZAFOP 2.5% + IMAZETHAPYER 3.75% W/W ME	50+75	2000	500	
	IMAZETHAPYR 35% + IMAZAMOX 35% WG	70 g a.i./ha+ MSO Adjuvant @ 2 ml/l of water	100 g MSO Adjuvant @ 2 ml/l of water	375-500	
MUSTARD	ISOPROTURON 50% WP	800 g	1600 g	500	Pre emergence 0 - 3 DAS
	OXADIARGYL 6% EC	90	1500	500	
	PENDIMETHALIN 38.7% CS	338.625 gm	875	400	
	QUIZALOFOP-ETHYL 5% EC	50 g	1000 ml	500	Post emergence 15 DAS
SUN-FLOWER	QUIZALOFOP-ETHYL 5% EC	50 g	1000 ml	500	Post emergence 15 DAS
	OXADIARGYL 80% WP	240 gm	300 gm	500	
	PENDIMETHALIN 30% EC	750 g	2250 ml	500	Pre emergence 0 - 3 DAS
SESAMUM	QUIZALOFOP-ETHYL 5% EC	50 g	1000 ml	500	Post emergence 15 DAS
	PENDIMETHALIN 30% EC	750 g	2250 ml	500	Pre emergence 0 - 3 DAS
MAIZE	2,4-D SODIUM SALT TECHNICAL (HAVING 2,4-D ACID 80 % W/W)	1.00 Kg.	1.25 kg	500	Post emergence 25 DAS
	2,4-D DIMETHYL AMINE SALT 58% SL	0.5 kg	0.86	500	
	2,4-D ETHYL ESTER 38 % EC (HAVING 2,4-D ACID 34 % W/W)	0.6 kg	1.58 ltr	500	Post emergence 25 DAS
	ATRAZINE 50% WP	0.5-1.0 kg	1-2 kg	500	Pre emergence 0 - 3 DAS

Name of the Crops	Recommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
MAIZE	DIURON 80% WP	0.8 kg	1.0 kg	600	
	HALOSULFURON METHYL 75% WG	67.5	90	375	
	PARAQUAT DICHLORIDE 24% SL	0.2-0.5 kg	0.8-2.0 ltrs	500	[pre-plant (minimum tillage) before sowing]
	PYROXASULFONE 85% w/w WG	127.5	150	500	
	TEMBOTRIONE 34.4% SC	120g	286ml	500L	Post emergence 20-25 DAS
	TOPRAMEZONE 336 g/l SC (33.6% SC)	25 g	75 g	500	Post emergence 20-25 DAS
	MESOTRIONE 2.27% W/W + ATRAZINE 22.7% W/W SC	875 gm	3500 ml	500	
SUGAR-CANE	2,4-D ETHYL ESTER 38 % EC (HAVING 2,4-D ACID 34 % W/W)	1.2- 1.8 kg	3.53 - 5.29 kg	500	Post emergence 25-30 DAS
	2,4-D SODIUM SALT TECHNICAL (HAVING 2,4-D ACID 80 % W/W)	1.0 kg	1.25 kg	500	Post emergence 25-30 DAS
	2,4-D DIMETHYL AMINE SALT 58% SL	3.5	6.3	500	
	AMETRYNE 80% WDG	2.0kg	2.50kg	500	
	ATRAZINE 50% WP	0.5-2.0 kg	1-4 kg	500	Pre emergence 0 - 3 DAS
	CLOMAZONE 50% EC	0.75 - 1.0 kg	1.5 - 2.0 ltrs	500	
	DIURON 80% WP	1.6 - 3.2 kg	2.0 - 4.0 kg	600	
	GLYPHOSATE 41% SL	1 Kg	2500 ml	500	Spray using Hood (Directed spray)
	HEXAZINONE 13.2% + DIURON 46.8% WP	1200gm	2 kg	500	
	HALOSULFURON METHYL 75% WG	60-67.5g	80-90 g	375	Post emergence 20-25 DAS
	PARAQUAT DICHLORIDE 24% SL	500g	2 ltr	500	Spray using Hood (Directed spray)
	METSULFURON METHYL 20% WP	6 gm	30 gm.	500	apply with surfactant
	MESOTRIONE 2.27% W/W + ATRAZINE 22.7% W/W SC	875 gm	3500	500	
	SULFENTRAZONE 39.6% w/w SC	360	750	500	
SULFENTRAZONE 28% + CLOMAZONE 30% WP	700+750	2500	500		
SOYBEAN	FLUAZIFOP-P-BUTYL 11.1% W/W + FOMESAFEN 11.1% W/W SL	250	1000	500	
	BENTAZONE 480g/l SL	960	2000	500	post-emergence (20-25 DAS)

Name of the Crops	Reccommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
SOYBEAN	CHLORIMURON ETHYL 25%WP	9 gm	36 gm	300	3 -15 DAS
	CLETHODIM 25% EC	120-180	500-700 ml	500	
	CLOMAZONE 50% EC	0.75 - 1.0 kg	1.5 - 2.0 ltrs	500	
	DICLOSULAM 84% WDG	22-26 gm	26.2 - 30.9 gm	500	0-3 DAS
	HALOXYFOP R METHYL 10.5% w/w EC	108-135 ml	1000-1250 ml	500	
	IMAZETHAPYR 10% SL	100 gm	1.0ltr	500	
	IMAZETHAPYR 70% WG	70 g	100 g	500	post-emergence (20-25 DAS) & apply with Surfactant (Cyspread) @ 1.5 ml/Litre + Ammonium Sulphate @ 2 g/Lit of water
	IMAZETHAPYR 35% + IMAZAMOX 35% WG	70 g a.i./ha+ MSO Adjuvant @ 2 ml/l ofwater	100 g MSO Adjuvant @ 2 ml/l of water	375-500	
	FENOXAPROP-P-ETHYL 9.3% W/W EC (9% W/V)	100 gm	1111 ml.	250-300	post-emergence (15-20 DAS)
	FLUAZIFOP-P-BUTYL 13.4% EC	125-250 g	1000-2000 ml	500	
	FLUAZIFOP-P-BUTYL 11.1% W/W + FOMESAFEN 11.1% W/W SL	250 ml	1000 ml	500	
	FLUCLORALIN 45% EC	0.9 - 1.2 kg	2.0-2.68 Ltrs	500	
	FLUMIOXAZIN 50% SC	125 gm	250 gm	500	
	FLUTHIACET METHYL 10.3% EC	13.6 ml	125 ml	500	
	FOMESAFEN 12% + QUIZALOFOP ETHYL 3% w/w SC	180 + 45 gm	1500 gm	500	
	METRIBUZIN 70% WP	0.35 kg - 0.525 kg	0.50- 0.75 kg	750	
	PENDIMETHALIN 30% EC	0.75 - 1.0 kg	2.5 - 3.3 ltrs	500	
	PENDIMETHALIN 38.7% CS	580.5 - 677.25 ml	1500 - 1750 ml	500	
	PENDIMETHALIN 30%+ IMAZETHAPYR 2% EC	(750+50) to (900+60) gm	2.5-3.0 ltrs	500-600	
	PROPAQUIZAFOP 10 % EC	50-75 ml	500-750 ml	500	
PYROXASULFONE 85% w/w WG	127.5 gm	150 gm	500		
PROPAQUIZAFOP 2.5% + IMAZETHAPYR 3.75% W/W ME	50 + 75 ml	2000 ml	500		
IMAZETHAPYR 35% + IMAZAMOX 35% WG	70 g a.i./ha+ MSO Adjuvant @ 2 ml/l of water	100 g MSO Adjuvant @ 2 ml/l ofwater	375-500		
QUIZALOFOP-ETHYL 5% EC	37.5 - 50 g	0.75 - 1.0 Ltre	500	Post emergence 15 DAS	

Name of the Crops	Recommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
SOYBEAN	QUIZALOFOP-ETHYL 10% EC	37.5 - 45 ml	375 - 450 ml	500	
	QUIZALOFOP-P-TEFURYL 4.41 % EC	30-40 gm	750-1000 ml	400	
	SULFENTRAZONE 39.6% w/w SC	360 gm	750 gm	500	
	SODIUM ACEFLOUROFEN 16.5% + CLODINAFOF PROPARGYL 8% EC	80 + 165 ml	1000 ml	500	
	SULFENTRAZONE 28% + CLOMAZONE 30% WP	350 + 375 gm	1250 gm	500	
JUTE & MESTA	PENDIMETHALIN 30% EC	750g	2250 ml	500	Pre emergence 0 - 3 DAS
	QUIZALOFOP-ETHYL 5% EC	50g	1000 ml	500	Post emergence ( 15 DAS) (proper precaution to be taken as drift hazardous to near by Rice field )
PADDY (NURSERY)	BISPYRIBAC SODIUM 10% SC	20- 25 gm	200 ml	300	10-12 DAS
PADDY (Trans-Planted)	ANILOFOS 30% EC	0.30 - 0.45 kg	1 - 1.5 Ltr	500	
	ANILOFOS 18 % EC	0.30 - 0.45 kg	1.66 - 2.5 kg	500	
	ANILOFOS 2 % G	0.4 - 0.5 kg	20 - 25 kg		
	2,4-D ETHYL ESTER 38 % EC (HAVING 2,4-D ACID 34 % W/W)	0.85 kg	2.5 ltrs.	400	post-emergence (30 DAT)
	2,4-D ETHYL ESTER 4.5 % EC (HAVING 2,4-D ACID 4 % W/W)	1.0 kg	25 kg		
	ANILOFOS 24% + 2,4-D ETHYL ESTER 32% EC	(0.24+0.32) to (0.36 +0.48) kg	1-1.5 ltrs.	300	
	AZIMSULFURON 50% DF	35 g	70 g	500	post-emergence (20-25 DAT)
	BENSULFURON METHYL 60% DF	60 g	100 g	300	pre-emergence (3-5 DAT) & post-emergence 20DAT
	BENTAZONE 480g/l SL	960 ml	2000 ml	500	post-emergence (20-25 DAT)
	BENSULFURON METHYL 0.6%+PRETILACHLOR 6% GR	60 + 600 g	10 kg	Sand mix 50 Kg	pre-emergence ( 3-5 DAT)
	BISPYRIBAC SODIUM 10% SC	20 - 25gm	200 - 250 ml	300	post-emergence (10-14 DAT)
	BISPYRIBAC SODIUM 20% + PYRAZOSULFURON ETHYL 15% WDG	20 + 15 gm	100 gm	500	

Name of the Crops	Reccommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
PADDY ( <i>Trans-planted</i> )	BUTACHLOR 50% EC	1.0 -1.5 kg	2.0 - 3.0 ltr	500/ sand mix 50 kg	pre-emergence (3-5 DAT)
	BUTACHLOR 5 % G	1.25 -1.87	25 - 37.50 Kg		
	BUTACHLOR 50% EW	1.25 - 1.5 ltr	2.5 - 3.0 ltr	300	
	CHLORIMURON ETHYL 25%WP	6gm	24 gm	500	5 -10 DAT
	CINMETHYLIN 10% EC	75-100 gm	0.75 - 1.0 Litre	500	
	CLOMAZONE 20% + 2,4-D EE 30% EC	0.250-0.375 Kg	1.25 ltr	500	post-emergence (21-25 DAT)
	CLOMAZONE 20% + 2,4-D EE 30% EC	0.250-0.375 Kg	1.25 ltrs.	500	
	CLOMAZONE 50%EC	0.4 - 0.5kg	0.8-1.0 ltr	500	post-emergence (21-25 DAT)
	ETHOXSULFURON 15% WDG	12.5-15gm	83.3-100gm	500	post-emergence (21-25 DAT)
	FENOXAPROP-P-ETHYL 9.3% W/W EC (9% W/V)	56.25 gm	625 ml. (10-15 DAT)	300-375	post-emergence (21-25 DAT)
	FLUCETOSULFURON 10% WG	25 gm	250 gm	500	
	FLUFENACET 60% DF	120gm	200 gm	500	
	MCPA, AMINE SALT 40% WSC	0.8 - 2.0 kg	2-5 kg	500	
	METSULFURON METHYL 20% WP	4 gm	20 gm.	500	apply with surfactant
	METSULFURON METHYL 20% WG	4 gm	20 gm.	500	apply with surfactant
	METSULFURON METHYL 10% + CHLORIMURON ETHYL 10% WP	4g	20 g.	500	Early Post emergence application-15 DAT
	METSULFURON METHYL 10% + CHLORIMURON ETHYL 10% WP	4gm	20 gm.	300	(Pre-emergence application-3 DAT)
	ORTHOSULFAMURON 50% WG	60 - 75 gm	150 gm	500	(Pre-emergence application-3 DAT)
	OXADIARGYL 80% WP	80 g	100 g	500/ sand mix 50 kg	pre-emergence ( 3-5 DAT)
	OXADIARGYL 6% EC	100	1.66 Ltr	500	
	OXADIAZON 25% EC	0.5 kg	2.0 Ltr	500	
	PENOXULAM 2.67% OD	22.5 - 25 g	900-1000 ml	500	
	PENDIMETHALIN 38.4% + PYRAZOSULFURON ETHYL 0.85% ZC	900 + 20 ml	2000 ml	375	
PENOXULAM 0.97% W/W + BUTACHLOR 38.8% W/W SE	820 g.a.i/ha	2000 ml	750		

Name of the Crops	Recommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
<b>PADDY (Trans-planted)</b>	PENOX SULAM 1.02% + CYHALOFOP-BUTYL 5.1% OD	135 gm	2.2 Kg	500	post-emergence (21-25 DAT)
	PENOX SULAM 21.7 % SC	22.5 to 25 g	93.7 to 104.2 ml	500	pre-emergence (0-5 DAT)
	PRETILACHLOR 37%EW	0.60-0.75 kg	1.5-1.875 ltrs.	500	pre-emergence (3-5 DAT)
	PRETILACHLOR 50% EC	0.50-0.75 kg.	1.0-1.5 ltr	500-700	pre-emergence (3-5 DAT)
	PRETILACHLOR 6.0% + PYRAZOSULFURON ETHYL 0.15% GR	600 gm	10 kg	-	
	PYRAZOSULFURON ETHYL 10% WP	10-15 g	200 g	500 / sand mix	post-emergence (10-15 DAT) or Pre-emergence 0-3 DAT
	PYRAZOSULFURON ETHYL 70% WDG	21g	30g	500	post-emergence (10-15 DAT) or Pre-emergence 0-3 DAT
<b>PADDY (Trans-planted &amp; Direct Seeded)</b>	FENOXAPROP-P-ETHYL 6.7% W/W EC	56.6-60.38g	812.5 - 875 ml	500	post-emergence (21-25 DAT)
<b>PADDY (Trans-planted &amp; Direct Seeded)</b>	PARAQUAT DICHLORIDE 24% SL	0.3-0.8 kg	1.25-3.5 ltr	500	[pre-plant (minimum/Zero tillage) before sowing/transplanting for controlling standing weeds]
	TRIAFAMONE 20% + ETHOXYSULFURON L0% WG	44 + 22.5 gm	225 gm	300	
	OXYFLOURFEN 0.35 % GR	100-150 gm	30 - 40 kg		
	PENOX SULAM 1.02% + CYHALOFOP-BUTYL 5.1% OD	120 - 135 ml	2000 - 2250 ml	300-500	
<b>PADDY (Direct Seeded)</b>	AZIMSULFURON 50% DF	35 g	70 g	500	post-emergence (20-25 DAS)
	BISPYRIBAC SODIUM 10% SC	20 g	200 ml	500	post-emergence (20-30 DAS)
	CYHALOFOP BUTYL 10% EC	75-80 g	0.75-0.80ltr	500	post-emergence (21-25 DAT)
	CARFENTRAZONE ETHYL 40% DF	25 gm	62.5 gm	300	post-emergence (10-15 DAS)
	METAMIFOP 10% EC	100 gm	1000 ml	350	



Name of the Crops	Reccommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
PADDY ( <i>Direct Seeded</i> )	PRETILACHLOR 30.0% +PYRAZOSULFURON ETHYL 0.75% WG	15 + 600 gm	2000 gm	375	
	OXYFLOURFEN 23.5% EC	100-150 g	425 - 650 ml	500	Pre emergence 3-5 DAT/ 24-48 hr after cessation of rain for direct sown Paddy
PADDY ( <i>Trans-planted &amp; Direct sown puddled</i> )	PRETILACHLOR 30.7% EC	0.45-0.60kg.	1.5-2.0 ltr.	500	Pre emergence 3-5 DAT/ 24-48 hr after cessation of rain for direct sown Paddy
	PENDIMETHALIN 30% EC	Light to Heavy soil 0.75 - 1.0 kg	2.5 - 3.3 Ltr	500	Pre emergence 3-5 DAT/ 24-48 hr after cessation of rain for direct sown Paddy
	PENDIMETHALIN 5 % G	1.0 - 1.5 kg	20-30 kg		
	OXYFLOURFEN 0.35% GR	100-150 g	30-40 kg.	Sand mix 50 Kg	Pre emergence 3-5 DAT/ 24-48 hr after cessation of rain for direct sown Paddy
WHEAT	CARFENTRAZONE ETHYL 40% DF	20 gm	50 gm	400	post-emergence (25 -35 DAS)
	CARFENTRAZONE ETHYL 20% + SULFOSULFURON 25% WG	20 + 25 gm	100 gm	300 + surfactant	
	CLODINAFOP-PROPARGYL 15% + METSULFURON METHYL 1% WP	60 + 4 gm	400 gm	375 + surfactant	
	CLODINAFOP-PROPARGYL 9% + METRIBUZIN 20% WP	54 +120 gm	600 gm	300	
	CLODINAFOP-PROPARGYL 15% WP	60gm	400gm	400	
	CLODINAFOP-PROPARGYL 15% w/w DF	60gm	400gm	500	
	DICLOFOP METHYL 28% EC	0.7-1.0 kg	2.5-3.5 Ltr	500	
	FENOXAPROP-P-ETHYL 10% EC	100-120 gm	1.0 - 1.20 kg	250-300	
	FENOXAPROP-P-ETHYL 7.77% w/w + METRIBUZIN 13.6% w/w EC	100 + 175 ml	1250 ml	375	
	FLUMIOXAZIN 50% SC	125 gm	250 ml	500	
	ISOPROTURON 50% WP	1.0 kg	2 kg	750	
	ISOPROTURON 75% WP	1.0kg	2 kg	750	
	MCPA, AMINE SALT 40% WSC	1.0 kg	2.5 kg	500	

Name of the Crops	Recommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
WHEAT	METRIBUZIN 70% WP	0.175 kg - 0.21 kg	0.25 - 0.30 kg	500	Medium soil- 0.175 kg/ai and in Heavy soil- 0.21 kg/ai
	METSULFURON METHYL 20%WP	4 gm	20 gm.	500	apply with surfactant
	METSULFURON METHYL 20%WG	4 gm	20 gm.	500	apply with surfactant
	PENDIMETHALIN 30% EC	Light to Heavy soil 1.0 - 1.5 kg	3.3 - 5.0 Ltr	500	Pre emergence 3-5 DAS
	PENDIMETHALIN 35% + METRIBUZIN 3.5% w/w SE	875+87.5 to 1050+105	2.5 -3.0 Ltr	500	
	PINOXADEN 5.1% EC	40-45 gm	800-900 ml	300	30-35 DAS
	PYROXASULFONE 85% w/w WG	127.5 gm	150 gm	500	
	SULFOSULFURON 75% WG	25 gm	33.3 gm	200-250 ltr + Cationic surfactant 1250 ml	
	SULFOSULFURON 75% + METSSULFURON METHYL 5% WG	30 + 2 gm	40 gm	500 + surfactant 1250 ml/ha	
	TRIALATE 50% EC	1.25 kg	2.5 kg	500	
	TRIASULFURON 20% WG	20 gm	100 gm	500	
	MESOSULFURON METHYL 3% + IODOSULFURON METHYL SODIUM 0.6%WG	12 + 2.4 gm	400 gm	500 + Surfactant (Genopol LRO fluid @ 500 ml/ha)	
	METSULFURON METHYL 10% + CARFENTRAZONE ETHYL 40% DF	25 gm	50 gm	300	
	2,4-D SODIUM SALT TECHNICAL (HAVING 2,4-D ACID 80 % W/W)	0.5-0.84 kg	0.625-1.0 kg	500	
	2,4-D ETHYL ESTER 38 % EC (HAVING 2,4-D ACID 34 % W/W)	0.45-0.75 kg	1.32-2.2 kg	500	
2,4-D DIMETHYL AMINE SALT 58% SL	0.5 - 0.75 kg	0.86-1.29 kg	500		
BOTTLE GOURD	HALOSULFURON METHYL 75% WG	67.5 gm	90 gm	375	
CLUSTER BEAN	IMAZETHAPYR 35% + IMAZAMOX 35% WG	70 g a.i./ha+ MSO Adjuvant @ 2 ml/l of water	100 g MSO Adjuvant @ 2 ml/l of water	375-500	

Name of the Crops	Reccommendation of Herbicide by CIBRC/OUAT	Dosage /ha a.i. (gm/Kg)/ha	Formulation /ha	Dilution In Water (Litre/ha)	Remarks
CLUSTER BEAN	PROPAQUIZAFOP 2.5% + IMAZETHAPYER 3.75% W/W ME	50 + 75 ml	2000 ml	500	
CHILLY	PENDIMETHALIN 38.7% CS	580.5 - 677.25 gm	1500 - 1750 gm	500	
POTATO	2,4-D DIMETHYL AMINE SALT 58% SL	2.0 kg	3.44 ltr	400	
	OXYFLOURFEN 23.5% EC	100-200 gm	425-850 ml	500-750	Pre emergence 0 - 3 DAS
ONION	FENOXAPROP-P-ETHYL 9.3% W/W EC (9% W/V)	78.75 g	875 ml	375	post-emergence (15-20 DAS)
	OXYFLOURFEN 23.5% EC	100 g	425 ml	500	Pre emergence 0 - 3 DAS
	PENDIMETHALIN 38.7% CS	580.5 - 677.25 gm	1500 - 1750 gm	500	
	PROPAQUIZAFOP 10 % EC	62.5 gm	625 gm	500	
	PROPAQUIZAFOP 5 % + OXYFLUORFEN 12% w/w EC	43.75 + 105 ml	875 ml	500	
	QUIZALOFOP-ETHYL 5% EC	37.5 - 50 g	0.75 - 1.0 Ltre	500	Post emergence 15 DAS
SUGAR-BEET	METAMITRON 70% SC	0.7-1.4 kg	1 - 2 kg	500	
CITRUS	2,4-D SODIUM SALT TECHNICAL (HAVING 2,4-D ACID 80 % W/W)	1.00-2.5 kg	1.25-3.2 kg	600	>6 months
	DIURON 80% WP	0.75 - 1.5 kg	1- 2.2 kg	625	
BANANA	DIURON 80% WP	1.60 kg	2 kg.	625	

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## CROP & DISEASE WISE RECOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
ARHAR/ PIGEON PEA	<b>Alternaria Leaf Blight</b>	COPPER OXYCHLORIDE 50% WP	3 g/ ltr	500	Foliar Spray
		MANCOZEB75% WP	2.5g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 75%WP	2g/ ltr	500	Foliar Spray
		CARBENDAZIM 12%+MANCOZEB 63% WP	2g/ ltr	500	Foliar Spray
	<b>Bacterial Leaf Spot</b>	(STREPTOMYCIN SULPHATE 90% + TETRACYLIN HYDROCHLORIDE 10%) SP + COPPER OXYCHLORIDE 50% WP	0.15g + 2.5 g / ltr	500	Foliar Spray
		(STREPTOMYCIN SULPHATE 9% + TETRACYCLINE HYDROCHLORIDE 1%) + COPPER OXYCHLORIDE 50%WP	1g + 2.5 g / ltr	500	Foliar Spray
	<b>Botrytis Gray mold</b>	CARBOXIN 75%WP	4g/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	1g/ ltr	500	Foliar Spray
	<b>Cercospora Leaf Spot</b>	CHLOROTHALONIL 75%WP	2g/ ltr	500	Foliar Spray
		DIFENOCONAZOLE 25%EC	1ml/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2 g / ltr	500	Foliar Spray
	<b>Collar Rot</b>	METALAXYL-M 4% + MANCOZEB 64%WP	2 g / ltr		Basal drenching
		CARBENDAZIM 50%WP	2 g / ltr		Basal drenching
		VALIDAMYCIN 3%L	2ml/ ltr		Basal drenching
	<b>Wilt</b>	TEBUCONAZOLE 2% DS	2 g/1kg seed		Seed Tretment
		METIRAM 70%WG	1.5g/ ltr		Soil drenching
	<b>Phytophthora Blight</b>	METALAXYL 35%WS	1.0 g/ ltr		Soil drenching
		METALAXYL M 4% + MANCOZEB 64% WP	2.5 g/ ltr	500	Foliar Spray
		FOSETYL -AL 80%WP	2g/ ltr		Soil drenching
	<b>Powdery Mildew</b>	SULPHUR 80% WP	2 g / ltr	500	Foliar Spray
		PROPICONAZOLE 25% EC	1 ml / ltr	500	Foliar Spray
		PENCONAZOLE 10% EC	0.5ml/ ltr	500	Foliar Spray
	<b>Rust</b>	TRIADIMEFON 25%WP	1 g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 75%WP	2g/ ltr	500	Foliar Spray
		DIFENOCONAZOLE25%EC	1ml/ ltr	500	Foliar Spray
	<b>Yellow Mosaic Virus</b>	IMIDACLOPRID 17.8%SL	1ml/3 ltr	500	Foliar Spray
		THIAMETHOXAM 25%WG	1g/ 5 ltr	500	Foliar Spray
<b>Dry Root Rot</b>	VALIDAMYCIN 3%L	2ml/ ltr		Basal drenching	
	PENCYCURON22.9%SC	1.5ml/ ltr		Basal drenching	
	CARBENDAZIM 50%WP	2g/ ltr		Basal drenching	

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
BLACK GRAM & GREEN GRAM	Powdery mildew (Erysiphe polygoni)	PENCONAZOLE 10% EC	1 ml/2 ltr	500	Foliar Spray
		SULPHUR 80% WP	4 g/ ltr	500	Foliar Spray
		CAPTAN 70% + HEXACONAZOLE 5% WP	1.5 gm/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	1 g/ ltr	500	Foliar Spray
	Root rot (Macrophomina Phaseolina)	MANCOZEB 63% + CARBENDAZIM 12%WP	2g/ ltr		Basal drenching
		VALIDAMYCIN 3%L	2ml/ ltr		Basal drenching
	Rust	SULPHUR 85% DP	15-20 kg		Dusting
		CAPTAN 70% + HEXACONAZOLE 5% WP	1.5 gm/ ltr	500	Foliar Spray
		DIFENOCONAZOLE 25%EC	0.5 ml/ ltr	500	Foliar Spray
	Bacterial Leaf Blight	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP + COPPER OXYCHLORIDE 50% WP	0.15g + 2.5g / 1 ltr	500	Foliar Spray
		(STREPTOMYCIN SULPHATE 9% + TETRACYCLINE HYDROCHLORIDE 1%) + COPPER OXYCHLORIDE 50%WP	1.5 g + 2.5g / ltr	500	Foliar Spray
	Yellow Mosaic Virus	IMIDACLOPRID 17.8%SL	1ml/3 ltr	500	Foliar Spray
		THIAMETHOXAM 25%WG	1g/5 ltr	500	Foliar Spray
	Anthracnose	CARBENDAZIM 12% + MANCOZEB 63%WP	2.0 g/ ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50%WG	3.0 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 25.9 % EC	1.5 ml/ ltr	500	Foliar Spray
		KASUGAMYCIN 3%SL	1.5 ml/ ltr	500	Foliar Spray
	Leaf Spot (Cercospora) & Drechslera Leaf spot	CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		DIFENOCONAZOLE 25%EC	0.5 ml/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63%WP	2.0 g/ ltr	500	Foliar Spray
		METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g/ ltr	500	Foliar Spray
	Leaf Spot (Macrophomina)	CARBENDAZIM 50% WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63%WP	2.0 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 25.9 % EC	1.5 ml/ ltr	500	Foliar Spray
	Wilt	METIRAM 75%WG	1.5g/ ltr		Soil drenching
	Ascochyta Blight	CARBENDAZIM 50%WP	1.5 g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63%WP	2.0 g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
BENGAL GRAM/ CHICK PEA	Botrytis Grey Mould	COPPER OXYCHLORIDE 50%WP	3.0g/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	2 g/ ltr	500	Foliar Spray
		CARBOXIN 75%WP	2.0 g/ ltr	500	Foliar Spray
	Dry Root Rot / wilt	VALIDAMYCIN 3%L	2ml/ ltr	500	Basal drenching
		PENCYCURON22.9%SC	1.5ml/ ltr	500	Basal drenching
		CARBENDAZIM 50%WP	1.5 g/ ltr	500	Basal drenching
	Collar Rot	METALAXYL 8% + MANCOZEB 64%WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	2 g/ ltr	500	Foliar Spray
		VALIDAMYCIN 3%L	2ml/ ltr	500	Foliar Spray
	Rust	TRIADIMEFON 25%WP	1 g/4 ltr	500	Foliar Spray
		CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		DIFENOCONAZOLE25%EC	1ml/ ltr	500	Foliar Spray
	Powdery Mildew	SULPHUR 80% WP	4.0 g/ ltr	500	Foliar Spray
		PROPICONAZOLE 25% EC	1ml/ ltr	500	Foliar Spray
		PENCONAZOLE 10% EC	0.5ml/ ltr	500	Foliar Spray
COTTON	Leaf spot (Myrothecium)	CARBENDAZIM 50% WP	1.5g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 75% WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63%WP	2.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% W/W SC	1 ml / ltr water	500	Foliar Spray
		KRESOXIM-METHYL 44.3% SC	1.0 ml/ ltr	500	Foliar Spray
	Grey mildew	COPPER OXYCHLORIDE 50% WG	2.5 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% W/W SC	1 ml / ltr water	500	Foliar Spray
		KRESOXIM-METHYL 44.3% SC	1.0 ml/ ltr	500	Foliar Spray
	Bacterial Leaf Blight	(STREPTOMYCIN SULPHATE 9% + TETRACYCLINE HYDROCHLORIDE 1%) + COPPER OXYCHLORIDE 50%WP	1.5 g +2.5g/ ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	500	Foliar Spray
	Alternaria Leaf blight	PYRACLOSTROBIN 20% WG	1g/ ltr	500	Foliar Spray
		DIFENOCONAZOLE 25%EC	1ml/ ltr	500	Foliar Spray
		PROPINEB 70% WP	2.5 - 3.0 ml/ ltr	500	Foliar Spray
		FLUXAPYROXAD 167 G/L + PYRACLOSTROBIN 333 G/L SC	0.6 ml/ ltr	500	Foliar Spray
		METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
COTTON	Root Rot	CARBENDAZIM 50% WP	1.5 g/ltr	500	Foliar Spray
		VALIDAMYCIN 3%L	2ml/ltr	500	Foliar Spray
		PENCYCURON22.9%SC	1.5ml/ltr	500	Foliar Spray
	Wilting ( <i>Fusarium</i> )	METIRAM 70%WG	1.5 g/ltr		Soil drenching
	Leaf Curl Virus	IMIDACLOPRID 17.8%SL	1.0 ml/3ltr	500	Foliar Spray
		THIAMETHOXAM 25%WG	1.0 g/5 ltr	500	Foliar Spray
ACETAMIPRID 20% SP		1.0 g/3ltr	500	Foliar Spray	
GROUND NUT	Early leaf spot ( <i>Cercospora arachidicola</i> )	PROPICONAZOLE 25% EC	0.5-1.0 ml/ltr	500	Foliar Spray
		DIFENOCONAZOLE 25%EC	1.0 ml/ltr	500	Foliar Spray
		CARBENDAZIM 25% + FLUSILAZOLE 12.5% SE	1.5 ml/ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	1.0 g/ltr	500	Foliar Spray
	Late leaf spot ( <i>C. personata</i> )	PROPICONAZOLE 25% EC	1.0 ml/ltr	500	Foliar Spray
		CARBENDAZIM 25% + FLUSILAZOLE 12.5% SE	1.5 ml/ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ltr	500	Foliar Spray
	Root rot	PENCYCURON22.9%SC	1.5ml/ltr	500	Basal drenching
		CARBENDAZIM 50%WP	1.5 g/ltr	500	Basal drenching
	Rust	MANCOZEB 75% WP	2.5 g/ltr	500	Foliar Spray
		BITERTANOL 25%WP	2.0 g/ltr	500	Foliar Spray
		CHLOROTHALONIL 75% WP	2.0 g/ltr	500	Foliar Spray
		TEBUCONAZOLE 25.9% EC	1.0 ml/ltr	500	Foliar Spray
		PROPICONAZOLE 25% EC	1.5ml/ 2 ltr	500	Foliar Spray
	Tikka	BITERTANOL 25%WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 50% WP	2 g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 75% WP	2.0 g/ ltr	500	Foliar Spray
		FLUXAPYROXAD 167 G/L + PYRACLOSTROBIN 333 G/L SC	3 ml/ 5 ltr	500	Foliar Spray
		HEXACONAZOLE 5% EC	1.5 ml/ ltr	500	Foliar Spray
		MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
		METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g / ltr	500	Foliar Spray
		METIRAM 70% WG	4.0 g/ ltr	500	Foliar Spray
		PYRACLOSTROBIN 133 G/L + EPOXICONAZOLE 50G/L SE	1.5 ml/ ltr	500	Foliar Spray
PYRACLOSTROBIN 20% WG		1.0 g/ ltr	500	Foliar Spray	
SULPHUR 40% SC		7.5 g/ ltr	500	Foliar Spray	
SULPHUR 80% WP		4.0 g/ ltr	500	Foliar Spray	
TEBUCONAZOLE 25 % WG		1.0 g / ltr	500	Foliar Spray	
TEBUCONAZOLE 25.9% EC	1.0 ml/ltr	500	Foliar Spray		



Crop	Common name of the disease	Reccommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
GROUND NUT	Stem rot	METALAXYL 8% + MANCOZEB 64% WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	1.5 g/ ltr	500	Foliar Spray
		VALIDAMYCIN 3%L	2.0 ml/ ltr	500	Foliar Spray
		CARBENDAZIM 25 % + FLUSILAZOLE 12.5% SE	1.5 ml/ ltr	500	Foliar Spray
	Bud Necrosis	IMIDACLOPRID 17.8%SL	1.0 ml/3ltr	500	Foliar Spray
		DIMETHOATE 30% EC	2.0 ml/ ltr	500	Foliar Spray at 25-30 DAS
		THIAMETHOXAM 25%WG	1.0 g/5 ltr	500	Foliar Spray
		ACETAMAPRID 20% SP	1.0 g/ 3 ltr	500	Foliar Spray
MUSTARD	Alternaria blight	IPRODIONE 50% WP	3.0 g / ltr	500	Foliar Spray
		MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
		METALAXYL 8% + MANCOZEB 64% WP	2.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
	Downey Mildew	METALAXYL-M 31.8% ES	3.5ml/ltr	500	Foliar Spray
		METALAXYL 8% + MANCOZEB 64%WP	2.0 g/ltr	500	Foliar Spray
		METALAXYL M 4 % + MANCOZEB 64 % WP	2.5 g/ltr	500	Foliar Spray
		FOSETYL-AL 80%WP	3.0 g/ltr	500	Foliar Spray
	White rust	METALAXYL-M 31.8% ES	3.5ml/ltr	500	Foliar Spray
		METALAXYL M 4 % + MANCOZEB 64 % WP	2.5 g/ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50%WP	3.0 g/ltr	500	Foliar Spray
	Powdery Mildew	SULPHUR 80% WP	4.0 g/ltr	500	Foliar Spray
		PROPICONAZOLE 25% EC	1.0 ml / ltr	500	Foliar Spray
		PENCONAZOLE 10% EC	1.0 ml/ 2 ltr	500	Foliar Spray
	Sclerotinia Stem Rot	VALIDAMYCIN 3%L	2ml/ltr	500	Foliar Spray
		PENCYCURON22.9%SC	1.5ml/ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	1.5 g/ltr	500	Foliar Spray
	Bacterial Rot	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP + COPPER OXYCHLORIDE 50% WP	0.15g + 2.5g / ltr	500	Foliar Spray
		(STREPTOMYCIN SULPHATE 9% + TETRACYCLINE HYDROCHLORIDE 1%) + COPPER OXYCHLORIDE 50%WP	1.5 g + 2.5 g/ ltr	500	Foliar Spray
	SUN-FLOWER	Downy mildew	FOSETYL-AL 80%WP	3.0 g/ltr	500
Alternaria Leaf Spot		PROPICONAZOLE 25% EC	1 ml / ltr	500	Foliar Spray at 30 & 45 DAS
		COPPER OXYCHLORIDE 50%WP	3.0 g/ltr	500	Foliar Spray
		CHLOROTHALONIL 75% WP	2.0 g/ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
SUNFLOWER	Alternaria Leaf Spot	MANCOZEB 75% WP	3.0 g/ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63%WP	2.0 g/ltr	500	Foliar Spray
	Rust	TRIADIMEFON 25%WP	1.0 g/4ltr	500	Foliar Spray
		CHLOROTHALONIL 75%WP	2.0 g/ltr	500	Foliar Spray
		DIFENOCONAZOLE 25%EC	1.0 ml/ltr	500	Foliar Spray
	Powdery Mildew	PROPICONAZOLE 25% EC	1 ml / ltr	500	Foliar Spray at 30 & 45 DAS
		DIFENOCONAZOLE 25% EC	1 ml / 2 ltr	500	
		TRIADEMEFON 25% WP	1 g / ltr	500	
	Head Rot	COPPER OXYCHLORIDE 50%WP	3.0 g/ltr	500	Foliar Spray
		MANCOZEB 75% WP	3.0 g/ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ltr	500	Foliar Spray
Sclerotium Wilt	METIRAM 70%WG	1.5g/ltr		Soil drenching	
SEASAMUM	Phyllody	IMIDACLOPRID 17.8%SL	1.0 ml/3ltr	500	Foliar Spray
		THIAMETHOXAM 25%WG	1.0 g/5 ltr	500	Foliar Spray
		ACETAMAPRID 20% SP	1.0 g/3ltr	500	Foliar Spray
	Bacterial Leaf blight	(STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP + COPPER OXYCHLORIDE 50% WP	15g + 25 g /10 ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	2.5 g/ ltr	500	Foliar Spray
	Cercospora Leaf Spot	CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		DIFENCONAZOLE 25%EC	1.0 ml/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
	Powdery Mildew	SULPHUR 80% WP	4.0 g/ltr	500	Foliar Spray
		PROPICONAZOLE 25% EC	1.0 ml/ ltr	500	Foliar Spray
		PENCONAZOLE 10% EC	1.0 ml/ 2 ltr	500	Foliar Spray
	Wilt	METIRAM 70%WG	1.5g/ ltr	500	Soil drenching
	Charcoal Rot	CARBENDAZIM 50%WP	1.5g/ ltr	500	Foliar Spray
		CARBENDAZIM 46.27 %SC	1.5 ml/ ltr	500	Foliar Spray
CARBENDAZIM 12% + MANCOZEB 63% WP		2.0 g/ ltr	500	Foliar Spray	
JUTE & MESTA	Seedling Blight	CARBENDAZIM 50%WP	1.5g/ ltr	500	Foliar Spray
		VALIDAMYCIN 3%L	2.0 ml/ ltr	500	Foliar Spray
	Stem Rot	VALIDAMYCIN 3%L	2.0 ml/ ltr	500	Foliar Spray
		PENCYCURON 22.9% SC	1.5ml/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	1.5g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
JUTE & MESTA	Root Rot	VALIDAMYCIN 3%L	2.0 ml/ ltr	500	Foliar Spray
		PENCYCURON 22.9% SC	1.5ml/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	1.5g/ ltr	500	Foliar Spray
	Collar Rot	METALAXYL 8% + MANCOZEB 64% WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	1.5g/ ltr	500	Foliar Spray
		VALIDAMYCIN 3%L	2.0 ml/ ltr	500	Foliar Spray
	Soft Rot	VALIDAMYCIN 3% L	2.0 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 5%EC	1.0 ml /ltr	500	Foliar Spray
		HEXACONAZOLE 5%SC	2.0 ml/ ltr	500	Foliar Spray
		CARBENDAZIM 50% WP	1.5g/ ltr	500	Foliar Spray
	Anthracnose	CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50%WG	3.0 g/ ltr	500	Foliar Spray
		KASUGAMYCIN 3%SL	1.5 ml /ltr	500	Foliar Spray
	Die Back	CARBENDAZIM 12% + MANCOZEB 63%WP	2.0 g/ ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50%WP	3.0 g/ ltr	500	Foliar Spray
KASUGAMYCIN 3%SL		1.5 ml / ltr	500	Foliar Spray	
MAIZE	Downy mildew	MANCOZEB 75% WP	2.0 g/ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% W/W SC	1.0 ml/ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + CYROCONAZOLE 7.3 % W/W SC	2.0 ml/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
	Leaf blight	MANCOZEB 75% WP	2.0 g/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.0 g/ ltr	500	Foliar Spray
		PYRACLOSTROBIN 133 G/L + EPOXICONAZOLE 50G/L SE	1.5 ml / ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% W/W SC	1.0 ml/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
	Turcicum Leaf Blight	KRESOXIM-METHYL 44.3% SC	1.0 ml/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + CYROCONAZOLE 7.3 % W/W SC	2.0 ml/ ltr	500	Foliar Spray
		PYRACLOSTROBIN 20% WG	1.0 g/ ltr	500	Foliar Spray
	Rust	KRESOXIM-METHYL 44.3% SC	1.0 ml/ ltr	500	Foliar Spray
	Bacterial Stalk Rot	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP + COPPER OXYCHLORIDE 50% WP	0.15 g + 2.5 g /1 ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50%WP	2.5 g/ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
MAIZE	Brown Spot	CAPTAN 75% WP	2.0 g/ ltr	500	Foliar Spray
		EDIPHENPHOS 50% EC	1.0 ml/ ltr	500	Foliar Spray
	Head Smut	COPPER HYDROXIDE 77% WP	2.5g/ ltr	500	Foliar Spray
		COPPER HYDROXIDE 53.8% DF	2.0 g/ ltr	500	Foliar Spray
	Common Rust	TRIADIMEFORN 25%WP	1.0 g /4 ltr	500	Foliar Spray
		CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + CYROCONAZOLE 7.3 % W/W SC	2.0 ml/ ltr	500	Foliar Spray
		DIFENOCONAZOLE25%EC	1ml/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 44.3% SC	1.0 ml/ ltr	500	Foliar Spray
	Root & Stalk Rot	VALIDAMYCIN 3%L	2ml/ ltr	500	Foliar Spray
		PENCYCURON22.9%SC	1.5ml/ ltr	500	Foliar Spray
		CARBENDAZIM 50%WP	1.5g/ ltr	500	Foliar Spray
PADDY	Bacterial leaf blight	COPPER HYDROXIDE 53.8% DF	3g/ ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50%WP	3.0 g/ ltr	500	Foliar Spray
		STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% +TETRACYCLINE HYDROCHLORIDE 10% )SP	1.5 g / 10 ltr water	Seedling Root treatment: Dip the root portion of seeding in to the bactericides solution.	
			1 g / ltr of water	500	Foliar spray at early root stage and before grain set.
	Brown leaf spot	CAPTAN 75% WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 5% GR	12.5 kg / ha		Soil Treatment
		AUREOFUNGIN 46.15% w/v SP	5 g/10 ltr	500	Foliar Spray
		AZOXYSTROBIN 16.7 % + TRICYLAZOLE 33.3% SC	1.0 ml / ltr	500	Foliar Spray
		HEXACONAZOLE4 % WP + ZINEB 68% WP	2 g / ltr	500	Foliar Spray
	Brown leaf spot	TRICYLAZOLE 18% + MANCOZEB 62% WP	2 g / ltr	500	Foliar Spray
		PROPINEB 70% WP	3 g/ ltr	500	Foliar Spray
	False smut	COPPER HYDROXIDE 77% WP	2.5 g / ltr	500	Foliar Spray
		COPPER HYDROXIDE 53.8% DF	3.0 g/ ltr	500	Foliar Spray
		PICOXYSTROBIN 7.05% + PROPICONAZOLE 11.7% SC	2.0 ml/ ltr	500	Foliar Spray
		TRICYLAZOLE 20.4% W/W + AZOXYSTROBIN 6.8% W/W SC	2.0 ml/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
PADDY	False smut	TRICYCLAZOLE 18 % + TEBOCONAZOLE 14.4% SC	2.0 ml/ ltr	500	Foliar Spray
		FLUOPYRAM 17.7% W/W + TEBUCONAZOLE 17.7% W/W SC	1.0 ml/ ltr	500	Foliar Spray
	Blast	CARBENDAZIM 50% WP	1.5 g / ltr	500	Foliar Spray
		AUREOFUNGIN 46.15% w/v SP	5 g / 10 ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% W/W + DIFENOCONAZOLE 11.4% W/W SC	1.0 ml / ltr	500	Foliar Spray
		AZOXYSTROBIN 16.7 % + TRICYCLAZOLE 33.3% SC	1.0 ml / ltr	500	Foliar Spray
		CARBENDAZIM 1.92% + MANCOZEB 10.08% GR	12.500 kg/ha		Soil Treatment
		CARBENDAZIM 12% + MANCOZEB 63% WP	1 g/ ltr	500	Foliar Spray
		CARPROPAMID 27.8% SC	1.0 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 4 % + CARBENDAZIM 16% SC	1.50 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 4 % WP + ZINEB 68% WP	2.0 g / ltr	500	Foliar Spray
		HEXACONAZOLE 5 % + VALIDAMYCIN 2.50 % SC	2.0 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 5% EC	1.0 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 5% SC	2.0 ml/ ltr	500	Foliar Spray
		ISOPROTHIOLANE 40% EC	1.50 ml/ ltr	500	Foliar Spray
		IPRODIONE 25% + CARBENDAZIM 25% WP	1.0 g / ltr	500	Foliar Spray
		KASUGAMYCIN 3% SL	2.5 ml / ltr	500	Foliar Spray
		KASUGAMYCIN 5% + COPPER OXYCHLORIDE 45% WP	2.0 gm / ltr	500	Foliar Spray
		KITAZIN 48% EC	2.0 ml/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 44.3% SC	1.0 ml/ ltr	500	Foliar Spray
		MANCOZEB 75% WP	2.0 -3.0 g/ ltr	500	Foliar Spray
		PICOXYSTROBIN 22.52 %w/w SC	1.4ml/ ltr	500	Foliar Spray
		PICOXYSTROBIN 6.78% + TRICYCLAZOLE 20.33 %W/W SC	2.0 ml / ltr	500	Foliar Spray
		PROCHLORAZ 24.4% + TEBUCONAZOLE 12.1 % w/w EW	2.0 ml/ ltr	500	Foliar Spray
		PROPICONAZOLE 10.7% + TRICYCLAZOLE 34.2% SE	2.0 ml/5 ltr	500	Foliar Spray
		PYRACLOSTROBIN 100G/L CS	2.0 ml/ ltr	500	Foliar Spray
		TEBUCONAZOLE 25 % WG	1.5 g / ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
PADDY	<b>Blast</b>	TEBUCONAZOLE 25.9 %EC	1.5 ml/ ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	4.0 gm / 10 ltr	500	Foliar Spray
		TRICYCLAZOLE 18% + MANCOZEB 62% WP	2.0 g / ltr	500	Foliar Spray
		TRICYCLAZOLE 45% + HEXACONAZOLE 10% WG	1.0 g / ltr	500	Foliar Spray
		TRICYCLAZOLE 18 % + TEBUCONAZOLE 14.4% SC	2.0 ml/ ltr	500	Foliar Spray
		TRICYCLAZOLE 20.4% W/W + AZOXYSTROBIN 6.8% W/W SC	2.0 ml/ ltr	500	Foliar Spray
		TRICYCLAZOLE 75% WP	6.0 g/10 ltr	500	Foliar Spray
		ZINEB 75% WP	2gm/ ltr	500	Foliar Spray
	<b>Leaf &amp; Neck Blast</b>	FLUBENDIAMIDE 7.5% + KRESOXIM-METHYL 37.5% SC	1.33 ml/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 40 % + HEXACONAZOLE 8% WG	1.0 g / ltr	500	Foliar Spray
		PICOXYSTROBIN 6.78 % + TRICYCLAZOLE 20.33 % SC	2.0 ml/ ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	4.0 gm / 10 ltr	500	Foliar Spray
		KASUGAMYCINE 5% + COPPER OXYCHLORIDE 45% WP	2.0 g/ ltr	500	Foliar Spray
	<b>Sheath rot</b>	CARBENDAZIM 50%WP	1.5 g/ ltr	500	Foliar Spray
		IPRODINE 25% + CARBENDAZIM 25%WP	2.5g/ ltr	500	Foliar Spray
		FLUBENDIAMIDE 3.5% + HEXACONAZOLE 5% WG	2.0 g / ltr	500	Foliar Spray
		PROPICONAZOLE 25%EC	1ml/ ltr	500	Foliar Spray
	<b>Sheath blight</b>	AZOXYSTROBIN 11 % + TEBUCONAZOLE 18.3% SC	1.5 ml / ltr	500	Foliar Spray
		AZOXYSTROBIN 16.7 % + TRICYCLAZOLE 33.3% SC	1.0 ml / ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% W/W + DIFENOCONAZOLE 11.4% W/W SC	1.0 ml / ltr	500	Foliar Spray
		AZOXYSTROBIN 7.1%+ PROPICONAZOLE 11.9% w/w SE	1ml/ ltr	500	Foliar Spray
		CARBENDAZIM 25% + FLUSILAZOLE 12.5% SE	3.5 ml/ 2 ltr	500	Foliar Spray
		DIFENOCONAZOLE 11.4% W/W SC	1.0 ml/ ltr	500	Foliar Spray
		DIFENOCONAZOLE 25% EC	1.0 ml/2 ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
PADDY	Sheath blight	FLUBENDIAMIDE 3.5%+HEXACONAZOLE 5% WG	2.0 g/ ltr	500	Foliar Spray
		FLUBENDIAMIDE 7.5% + KRESOXIM-METHYL 37.5% SC	1.33 ml/ ltr	500	Foliar Spray
		FLUSILAZOLE 40% EC	6.0 ml/10 ltr	500	Foliar Spray
		FLUXAPYROXAD 62.5 G/L + EPOXICONAZOLE 62.5 G/L EC	1.5ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 4 % + CARBENDAZIM 16 % SC	1.50 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 5 % + VALIDAMYCIN 2.50 % SC	2.0 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 5% EC	1.5 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 5% SC	2.0 ml/ ltr	500	Foliar Spray
		HEXACONAZOLE 75% WG	1.334 gm/10 ltr	500	Foliar Spray
		HEXACONAZOLE4 % WP + ZINEB 68% WP	2.0 g / ltr	500	Foliar Spray
		IPRODIONE 25% + CARBENDAZIM 25% WP	1.0 g/ ltr	500	Foliar Spray
		KITAZIN 48% EC	2.0 ml/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 44.3% SC	1.0 ml/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 40 % + HEXACONAZOLE 8% WG	1.0 g/ ltr	500	Foliar Spray
		PICOXYSTROBIN 7.05% + PROPICONAZOLE 11.7% SC	2.0 ml/ ltr	500	Foliar Spray
		PENCYCURON 22.9% SC	1.0-1.5 ml/ ltr	500	Foliar Spray
		PROPICONAZOLE 13.9 % + DIFENOCONAZOLE 13.9 % EC	0.7-1.0 ml / ltr	500	Foliar Spray
		PROPICONAZOLE 10.7%+ TRICYCLAZOLE 34.2% SE	2.0 ml/5 ltr	500	Foliar Spray
		PROPICONAZOLE 25% EC	1.0 ml/ ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	4.0 gm / 10 ltr	500	Foliar Spray
		THIFLUZAMIDE 24% SC	1.5 gm/ 2 ltr	500	Foliar Spray
		TRICYCLAZOLE 45% + HEXACONAZOLE 10% WG	1.0 g / ltr	500	Foliar Spray
		TRICYCLAZOLE 18 % + TEBOCONAZOLE 14.4% SC	2.0 g / ltr	500	Foliar Spray
		TRICYCLAZOLE 20.4 % + AZOXYSTROBIN 6.8 % SC	2.0 g / ltr	500	Foliar Spray
VALIDAMYCIN 3% L	2.0 ml/ ltr	500	Foliar Spray		



Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
PADDY	Foot Rot	METALAXYL 8% + MANCOZEB 64% WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Basal drench
		METALAXYL M 4% + MANCOZEB 64% WP	5.0 g / ltr	500	Basal drench
	Leaf Scald	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
		MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
	Grain discoloration	CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
		HEXACONAZOLE 4 % WP + ZINEB 68% WP	2.0 g/ ltr	500	Foliar Spray
		TRICYCLAZOLE 18% + MANCOZEB 62% WP	2.0 g/ ltr	500	Foliar Spray
		TRICYCLAZOLE 20.4% W/W + AZOXYSTROBIN 6.8% W/W SC	2.0 g/ ltr	500	Foliar Spray
		TRICYCLAZOLE 18 % + TEBUCONAZOLE 14.4% SC	2.0 g / ltr	500	Foliar Spray
	Dirty Panicle	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		FLUOPYRAM 17.7% W/W + TEBUCONAZOLE 17.7% W/W SC	1.0 gm/ ltr	500	Foliar Spray
		PROPICONAZOLE 13.9 %+ DIFENOCONAZOLE 13.9 % EC	1.5 ml /2 ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	4.0 gm / 10 ltr	500	Foliar Spray
PEARL MILLET / BAJRA	Downy mildew	METALAXYL 8% + MANCOZEB 64% WP	4.0 g/ ltr	500	Foliar Spray
JOWAR	Leaf Spot	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
RAGI	Blast	ZINEB 75% WP	2.0 g/ ltr	500	Foliar Spray
		PICOXYSTROBIN 22.52% W/W SC	2.0 g/ 10 ltr	500	Foliar Spray
	Smut	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
	Foot Rot	METALAXYL 8% + MANCOZEB 64% WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Basal drench
Leaf Spot	CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray	

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
SOYBEAN	Frog eye leaf spot	FLUXAPYROXAD 167 G/L + PYRACLOSTROBIN 333 G/L SC	3.0 gm/5 ltr	500	Foliar Spray
		PYRACLOSTROBIN 20% WG	1.0 g/ ltr	500	Foliar Spray
	Rust	KRESOXIM-METHYL 44.3% SC	1.0 g/ ltr	500	Foliar Spray
		PROPICONAZOLE 25% EC	1ml/ ltr	500	Foliar Spray
		PICOXYSTROBIN 22.52 %w/w SC	4.0 g/5 ltr	500	Foliar Spray
	Seed and Seedling rot disease	PENFLUFEN 13.28% W/W + TRIFLOXYSTROBIN 13.28% W/W FS	1 ml/5 ltr	500	Foliar Spray
	Cercospora leaf spot	PYRACLOSTROBIN 133 G/L + EPOXICONAZOLE 50G/L SE	1.5 ml/ ltr	500	Foliar Spray
		PICOXYSTROBIN 22.52 %w/w SC	4.0 g/5 ltr	500	Foliar Spray
	Anthracnose (Pod Blight)	TEBUCONAZOLE 25.9% EC	1.25 ml/ ltr	500	Foliar Spray
	Leaf spot & Pod blight	TEBUCONAZOLE 10% + SULPHUR 65% WG	2.5 gm/ ltr	500	Foliar Spray
SUGARCANE	Whip smut	THIRAM 75%WS	3.0 g/ ltr	500	Foliar Spray
		TRIADIMEFON 25%WP	1.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% W/W + DIFENOCONAZOLE 11.4% W/W SC	1.0 g / ltr	500	Foliar Spray
		CARBOXIN 37.5%+THIRAM 37.5% WP	3.0 g/ ltr	500	Foliar Spray
	Red Rot	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Basal drench
		AZOXYSTROBIN 18.2% W/W + DIFENOCONAZOLE 11.4% W/W SC	1.0 g / ltr	500	Foliar Spray
		METALAXYL M 8% +MANCOZEB 64%WP	2.0 g/ ltr	500	Basal drench
	Sett Rot	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Basal drench
		METALAXYL 8% + MANCOZEB 64%WP	2.0 g/ ltr	500	Foliar Spray
	Grassy Shoot Disease	IMIDACLOPRID 17.8%SL	1.0 ml/ 3 ltr	500	Foliar Spray
		THIAMETHOXAM 25%WG	1.0 g / 5 ltr	500	Foliar Spray
		ACETAMAPRID 20% SP	1.0 g/3 ltr	500	Foliar Spray
	Wilt	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Basal drench
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Drenching
	Top Rot	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Drenching
		THIOPHANATE METHYL 70%WP	1.5 g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
SUGAR-CANE	Root Rot	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Drenching
		VALIDAMYCIN 3%L	2.0 ml/ ltr	500	Drenching
	Rust	TRIADIMEFON 25%WP	1.5 g/2 ltr	500	Foliar Spray
		CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% W/W + DIFENOCONAZOLE 11.4% W/W SC	1.0 g / ltr	500	Foliar Spray
		DIFENOCONAZOLE25%EC	1.0 ml/ ltr	500	Foliar Spray
	Leaf Scald	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
		MANCOZEB 75% WP	2.0 g/ ltr	500	Foliar Spray
	Ring Spot	CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Basal drench
		TEBUCONAZOLE 25.9% M/M EC	2.0 ml/ ltr	500	Foliar Spray
		PROPICONAZOLE 25%EC	1.0 ml/ ltr	500	Foliar Spray
	Mosaic	IMIDACLOPRID 17.8%SL	1.0 ml/3 ltr	500	Foliar Spray
		THIAMETHOXAM 25%WG	1.0 g /5 ltr	500	Foliar Spray
		ACETAMAPRID 20% SP	1.0 g/3 ltr	500	Foliar Spray
	Yellow Spot	CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Drenching
	Yellow Spot	DIFENOCONAZOLE25%EC	1.0 ml/ ltr	500	Foliar Spray
	Eye Spot	COPPER OXYCHLORIDE 50%WP	3.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% +MANCOZEB 63% WP	2.0 g/ ltr	500	Drenching
HEXACONAZOLE 5%EC		1.0 ml/ ltr	500	Foliar Spray	
Red Stripe	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP	1.5g / 10 ltr	500	Foliar Spray	
	COPPER OXYCHLORIDE 50%WP	2.5 g/ ltr	500	Foliar Spray	
Ratoon stunting disease	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP	1.5g / 10 ltr	500	Foliar Spray	
	COPPER OXYCHLORIDE 50%WP	3.0 g/ ltr	500	Foliar Spray	
WHEAT	Rust	KRESOXIM-METHYL 44.3% SC	1.0 g/ ltr	500	Foliar Spray
		TRIADIMEFON 25% WP	1 gm/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.0 g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
WHEAT	Rust	AZOXYSTROBIN 18.2% + CYROCONAZOLE 7.3 % W/W SC	2.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% w/w SC	1 g/ ltr	500	Foliar Spray
		MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
		PROPICONAZOLE 25% EC	1ml/ ltr	500	Foliar Spray
	Yellow Rust	TEBUCONAZOLE 25% WG	1.5 ml/ ltr	500	Foliar Spray
		PICOXYSTROBIN 7.05% + PROPICONAZOLE 11.7% SC	2.0 g/ ltr	500	Foliar Spray
		PYRACLOSTROBIN 133 G/L + EPOXICONAZOLE 50G/L SE	1.5 gm/ ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	6.0g/ 10 ltr	500	Foliar Spray
		AZOXYSTROBIN 11 % + TEBUCONAZOLE 18.3% SC W/W	1.5 g / ltr	500	Foliar Spray
	Leaf Blight	KRESOXIM-METHYL 44.3% SC	1.0 g/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.0 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 38.39 % SC	1.2 g / ltr	500	Foliar Spray
	Powder Mildew	SULPHUR 80%WDG/WG	5.0 gm/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + CYROCONAZOLE 7.3 % W/W SC	2.0 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	3.0 gm / 5 ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% w/w SC	1 g/ ltr	500	Foliar Spray
		TRIADIMEFON 25% WP	1 gm/ ltr	500	Foliar Spray
	Karnal Bunt	BITERTANOL 25% WP	3.0 g/ ltr	750	Foliar Spray
		PROPICONAZOLE 25% EC	1ml/ ltr	500	Foliar Spray
		TRIADIMEFON 25% WP	1 gm/ ltr	500	Foliar Spray
Downy mildew	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray	
BEAN	Anthracnose	COPPER HYDROXIDE 53.8% DF	2.0 g/ ltr	500	Foliar Spray
	Damping off	CAPTAN 75% WP	2.5 g/ ltr	500	(soil drench)
	Rust	LIME SULPHUR 22% SC	1 g/ ltr	500	Foliar Spray
	Halo blight	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP	1.5g / 10 ltr	500	Spray thrice at interval of 7 days. For prevention apply first spray 10 days after emergence of leaf.

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
BEAN	Powdery mildew	SULPHUR 40% SC	7.5 g/ ltr	500	Foliar Spray
		SULPHUR 85% DP	10-15 kg/ha		Dusting
		PROPICONAZOLE 25% EC	1.0 ml / 2 ltr	500	Foliar Spray
		PENCONAZOLE 10% EC	1.0 ml / 1 ltr	500	Foliar Spray
		TEBUCONAZOLE 25.9%M/M EC	1.0 ml / 2 ltr	500	Foliar Spray
BITTER GOURD	Downy mildew disease	METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g/ ltr	500	Foliar Spray
BOTTLE GOURD	Anthracnose	THIOPHANATE METHYL 70% WP	1.5g / ltr	500	Foliar Spray
		THIOPHANATE METHYL 70% WG	1.5 g / ltr	500	Foliar Spray
BRINJAL	Leaf spot/Fruit rot	CARBENDAZIM 50% WP	2.0 g / ltr	500	Foliar Spray
	Blight	ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
CABBAGE	Damping off	CAPTAN 75% WP	2.5 g/ ltr	500	Soil drenching to Nursery bed.
	Alternaria Leaf blight	TEBUCONAZOLE 38.39% SC	1.2 g / ltr	500	Foliar Spray
CAULI-FLOWER	Collar rot	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
	Leaf spot	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
CAULI-FLOWER	Leaf spot	CHLOROTHALONIL 75% WP	2.0 g/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
	Damping off	CAPTAN 75% WP	3.0 g/ ltr	500	Soil drenching to Nursery bed.
	Leaf spot, downy mildew	AZOXYSTROBIN 4.8% W/W + CHLOROTHALONIL 40% W/W SC	6.0 gm/ ltr	500	Foliar Spray
CHILLY	Anthracnose	COPPER HYDROXIDE 53.8% DF	2.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% W/W SC	1.0 g / ltr	500	Foliar Spray
		AZOXYSTROBIN 8.3% + MANCOZEB 66.7% WG	3.0 g/ ltr	500	Foliar Spray
		CAPTAN 70% + HEXACONAZOLE 5% WP	1.5g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 40.0% + DIFENOCONAZOLE 4.0% SC	2 g/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 15% + CHLOROTHALONIL 56% WG	2 g / ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
CHILLY	Anthracnose	METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g/ ltr	500	Foliar Spray
		PICOXYSTROBIN 6.78% + TRICYCLAZOLE 20.33 %W/W SC	2.0 g/ ltr	500	Foliar Spray
		FLUXAPYROXAD 250g/l + PYRACLOSTROBIN 250g/l SC	1.0 ml/2 ltr	500	Foliar Spray
		FLUOPYRAM 17.7% W/W + TEBUCONAZOLE 17.7% W/W SC	1.0 gm/ ltr	500	Foliar Spray
		TEBUCONAZOLE 6.7% + CAPTAN 26.9% SC	2.0 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	5.0g/ 10 ltr	500	Foliar Spray
		CAPTAN 70% + HEXACONAZOLE 5% WP	1.0 gm/ ltr	500	Foliar Spray
	Damping off	MANCOZEB 75% WP	3.0 g/ ltr	500	(soil drench)
		METALAXYL-M 31.8% ES	2.0 g/ ltr	500	Foliar Spray
		METALAXYL M 4% + MANCOZEB 64% WP	3.0 g/ ltr	500	Foliar Spray
		CAPTAN 75% WP	2.5 g/ ltr	500	(soil drench)
	Die back	DIFENOCONAZOLE 25% EC	5 ml/ 10 ltr	500	Foliar Spray
		PROPINEB 70% WP	2.5 g/ ltr	500	Foliar Spray
		MYCLOBUTANIL 10% WP	4 gm/10 ltr	500	Foliar Spray
	Twig blight	KRESOXIM-METHYL 44.3% SC	1.0 g/ ltr	500	Foliar Spray
	Early blight	CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		CAPTAN 75% WP	1.7 g/ ltr	500	Foliar Spray
	Leaf spot	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 8.3% + MANCOZEB 66.7% WG	3.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	1.5 g/ ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 15% + CHLOROTHALONIL 56% WG	2 g/ ltr	500	Foliar Spray
		MYCLOBUTANIL 10% WP	4 gm/10 ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	5.0g/ 10 ltr	500	Foliar Spray
		ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
CHILLY	Fruit rot	AZOXYSTROBIN 12.5 % + TEBUCONAZOLE 12.5% SC	1.6 g / ltr	500	Foliar Spray
		AZOXYSTROBIN 23% SC	1.0 g/ ltr	500	Foliar Spray
		CAPTAN 75% WP	2.0 g/ ltr	500	Foliar Spray
		CAPTAN 70% + HEXACONAZOLE 5% WP	1.5 g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 75%WP	2.0 g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 40.0% + DIFENOCONAZOLE 4.0% SC	2 g / ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	1.5 g/ ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	500	Foliar Spray
		DIFENOCONAZOLE 25% EC	5ml/ 10 ltr	500	Foliar Spray
		HEXACONAZOLE 2% SC	3.0 g /5 ltr	500	Foliar Spray
		MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 10% + SULPHUR 65% WG	2.5 gm/ ltr	500	Foliar Spray
		TEBUCONAZOLE 25% WG	1.0 - 1.5 ml/ ltr	500	Foliar Spray
		TEBUCONAZOLE 25.9% EC	1 ml/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
	Fruit rot / dieback	KITAZIN 48% EC	2.0 ml / ltr	500	Foliar Spray
		KRESOXIM-METHYL 44.3% SC	1.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 11 % + TEBUCONAZOLE 18.3% SC	1.2 g / ltr	500	Foliar Spray
		CARBENDAZIM 25% + FLUSILAZOLE 12.5% SE	2.0 ml/ ltr	500	Foliar Spray
		PROCHLORAZ 24.4% + TEBUCONAZOLE 12.1 % w/w EW	2.0 ml/ ltr	500	Foliar Spray
	Powdery mildew	AZOXYSTROBIN 11 % + TEBUCONAZOLE 18.3% SC	1.2 g / ltr	500	Foliar Spray
		AZOXYSTROBIN 12.5 % + TEBUCONAZOLE 12.5% SC	1.6 g / ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% w/w SC	1.0 g / ltr	500	Foliar Spray
		AZOXYSTROBIN 23% SC	1.0 g / ltr	500	Foliar Spray
		AZOXYSTROBIN 8.3% + MANCOZEB 66.7% WG	3.0 g/ ltr	500	Foliar Spray



Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
CHILLY	Powdery mildew	BOSCALID 25.2% + PYRACLOSTROBIN 12.8% WG	1.2 g/ ltr	500	Foliar Spray
		CARBENDAZIM 25% + FLUSILAZOLE 12.5% SE	2.0 ml/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	1.5 g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 40.0% + DIFENOCONAZOLE 4.0% SC	2.0 g/ ltr	500	Foliar Spray
		CYFLUFENAMID 5% EW	1.0 ml/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 15% + CHLOROTHALONIL 56% WG	2 ml/ ltr	500	Foliar Spray
		FLUOPYRAM 17.7% W/W + TEBUCONAZOLE 17.7% W/W SC	1.0 gm/ ltr	500	Foliar Spray
		FLUSILAZOLE 40% EC	1.0 ml/5 ltr	500	Foliar Spray
		FLUXAPYROXAD 250g/l + PYRACLOSTROBIN 250g/l SC	1.0 g /2 ltr	500	Foliar Spray
		HEXACONAZOLE 2% SC	6.0 g/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 44.3% SC	1.0 g / ltr	500	Foliar Spray
		MEPTYL DINOCAP 35.7% EC	0.6 ml/ ltr	500	Foliar Spray
		MYCLOBUTANIL 10% WP	4 gm/10 ltr	500	Foliar Spray
		PICOXYSTROBIN 6.78 % + TRICYCLAZOLE 20.33 % SC	2.0 g / ltr	500	Foliar Spray
		PROCHLORAZ 24.4% + TEBUCONAZOLE 12.1 % w/w EW	2.0 ml/ ltr	500	Foliar Spray
		SULPHUR 52% SC	4.0 g/ ltr	500	Foliar Spray
		SULPHUR 80% WP	4.0 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 6.7% + CAPTAN 26.9% SC	2.0 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	5.0g/ 10 ltr	500	Foliar Spray
		TEBUCONAZOLE 10% + SULPHUR 65% WG	2.5 gm/ ltr	500	Foliar Spray
	TEBUCONAZOLE 25% WG	1.25 g / ltr	500	Foliar Spray	
	TEBUCONAZOLE 25.9% EC	1.25 ml / ltr	500	Foliar Spray	
	Powdery mildew / Leaf spot	PENCONAZOLE 50% WP	1.5 g/Lit	500	Foliar Spray
TEBUCONAZOLE 25% WG		1.0 g/ ltr	500	Foliar Spray	
Ripe rot	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray	

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
CLUSTER BEANS	Powdery mildew	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
CORIAN- NDER	Powdery mildew	SULPHUR 85% DP	15-20 kg/ha		Dusting
COWPEA	Rust	PROPICONAZOLE 50% WP	1.5 gm/ ltr	500	Foliar Spray
	Powdery mildew	SULPHUR 80% WG	2.5 g/ ltr	500	Foliar Spray
		CARBENDAZIM 50% WP	0.5 g/ ltr	500	Foliar Spray
		SULPHUR 80% WP	4.0 g/ ltr	500	Foliar Spray
	Leaf Spot	CARBENDAZIM 50% WP	0.5 g/ ltr	500	Foliar Spray
	Collar rot	CARBENDAZIM 50% WP	0.5 g/ ltr	500	Foliar Spray
	Anthracnose	CARBENDAZIM 50% WP	0.5 g/ ltr	500	Foliar Spray
CUCURBITS	Powdery mildew	CARBENDAZIM 50% WP	0.5 g/ ltr	500	Foliar Spray
	Downy mildew / Anthracnose / Leaf Spot	ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
CUCUMBER	Powdery mildew	AZOXYSTROBIN 23% SC	1.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 4.8 % + CHLOROTHALONIL 40% SC	6 g/ ltr	500	Foliar Spray
		PROPICONAZOLE 50% WP	1.5 gm/ ltr	500	Foliar Spray
	Powdery mildew	FLUXAPYROXAD 250g/l + PYRACLOSTROBIN 250g/l SC	1.0 g /2 ltr	500	Foliar Spray
	Anthracnose	CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
	Downy mildew	ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
		AMETOCTRADIN 27% + DIMETHOMORPH 20.27% W/W SC	1.5 g / ltr	500	Foliar Spray
		DIMETHOMORPH 12% + PYRACLOSTROBIN 6.7% WG	3.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 4.8 % + CHLOROTHALONIL 40% SC	6 g / ltr	500	Foliar Spray
		BENALAXYL 8% + MANCOZEB 65% WP	5.0 g/ ltr	500	Foliar Spray
		METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
CUCUMBER	Downy mildew	CYMOXANIL 8%+ MANCOZEB 64% WP	3.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 23% SC	1.0 g / ltr	500	Foliar Spray
	Leaf spot	ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 4.8 % + CHLOROTHALONIL 40% SC	6.0 g / ltr	500	Foliar Spray
CUMIN	Blight (Alternaria burnsii)	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
		PICOXYSTROBIN 22.52 %w/w SC	4.0 g/5 ltr	500	Foliar Spray
		TEBUCONAZOLE 25% WG	1.5 ml/ ltr	500	Foliar Spray
		AZOXYSTROBIN 23% SC	1.0 g/ ltr	500	Foliar Spray
		PYRACLOSTROBIN 133 G/L + EPOXICONAZOLE 50G/L SE	1.5 gm/ ltr	500	Foliar Spray
		DIFENOCONAZOLE 25% EC	5 ml/ 10 ltr	500	Foliar Spray
	Early blight	ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
	Powdery mildew (Erysipha polygonii)	AZOXYSTROBIN 23% SC	1.0 g/ ltr	500	Foliar Spray
		SULPHUR 40% SC	3.5 g/ ltr	500	Foliar Spray
		TEBUCONAZOLE 25% WG	1.5 ml/ ltr	500	Foliar Spray
		SULPHUR 80% WDG	2.0 g/ ltr	500	Foliar Spray
		SULPHUR 85% DP	15-20 kg/ha	-	Dusting
		DIFENOCONAZOLE 25% EC	5 ml/ 10 ltr	500	Foliar Spray
GUAR	Powdery mildew	SULPHUR 80% WG	2.0 g/ ltr	500	Foliar Spray
GHERKIN	Downy Mildew	FAMOXADONE 16.6% + CYMOXANIL 22.1% SC	1.0 g/ ltr	500	Foliar Spray
		FENAMIDON 10% + MANCOZEB 50% WG	3.0 gm/ ltr	500	Foliar Spray
OKRA	Powdery mildew	SULPHUR 80% WP	4.0 g/ ltr	500	Foliar Spray
ONION	Purple blotch (Alternaria porri)	DIFENOCONAZOLE 25% EC	1.0 ml/ ltr	500	Foliar Spray
		TEBUCONAZOLE 25.9% EC	1.0 ml / ltr	500	Foliar Spray
		TEBUCONAZOLE 25 % WG	3.5 g/ ltr	500	Foliar Spray
		KITAZIN 48% EC	1.0 ml / ltr	500	Foliar Spray
		AZOXYSTROBIN 11 % + TEBUCONAZOLE 18.3% SC W/W	1.5 g / ltr	500	Foliar Spray
		METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g/ ltr	500	Foliar Spray
		BOSCALID 25.2% + PYRACLOSTROBIN 12.8% WG	1.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% w/w SC	1 g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
ONION	<b>Stemphylium Blight</b>	AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% w/w SC	1 g/ ltr	500	Foliar Spray
		BOSCALID 25.2% + PYRACLOSTROBIN 12.8% WG	1.0 g/ ltr	500	Foliar Spray
	<b>Blight</b>	ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
	<b>Downy mildew</b>	ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% w/w SC	1 g/ ltr	500	Foliar Spray
	<b>Leaf blight</b>	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
PAPAYA	<b>Powdery mildew</b>	PROPICONAZOLE 50% WP	1.5 gm/ ltr	500	Foliar Spray
		THIOPHANATE METHYL 70% WP	1.0 gm/ ltr	500	Foliar Spray
PEA	<b>Powdery mildew</b>	SULPHUR 80% WP	4.0 g/ ltr	500	Foliar Spray
		SULPHUR 52% Flowable	5 ml/ ltr	500	Foliar Spray
		SULPHUR 80% WG	4.0 g/ ltr	500	Foliar Spray
		MEPTYL DINOCAAP 35.7% EC	0.6 ml/ ltr	500	Foliar Spray
		SULPHUR 85% DP	15-20 kg/ha	-	Dusting
		TRIADIMEFON 25% WP	1.0 gm/ ltr	500	Foliar Spray
		CARBENDAZIM 50% WP	1.5 g/ ltr	500	Foliar Spray
	<b>Rust</b>	SULPHUR 80% WP	4.0 g/ ltr	500	Foliar Spray
		SULPHUR 85% DP	15-20 kg/ha	-	Dusting
		TRIADIMEFON 25% WP	1gm/1 lit	500	Foliar Spray
POTATO	<b>Black leg and soft rot, bacterial brown wilt or ring or the bangle disease of potato</b>	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP	1.5 g/10 ltr	500	Spray: Two to three sprays at an interval of 15 days. First spray 30 days after planting.
	<b>Early &amp; Late Blight</b>	CHLOROTHALONIL 75% WP	2.0 g/ ltr	500	Foliar Spray
		PROPINEB 70% WP	3.0 g/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 44.3% SC	1 g /1 lit	500	Foliar Spray
		AZOXYSTROBIN 11 % + TEBUCONAZOLE 18.3% SC W/W	1.5 g / ltr	500	Foliar Spray
		CAPTAN 70% + HEXACONAZOLE 5% WP	1.0 - 2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	3.5 g/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 15% + CHLOROTHALONIL 56% WG	2 g / ltr	500	Foliar Spray
		MANCOZEB 35% SC	5 g / ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
POTATO	Early & Late Blight	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
		METIRAM 70% WG	4.0 gm/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.0 g/ ltr	500	Foliar Spray
		HEXACONAZOLE 2% SC	6.0 g/ ltr	500	Foliar Spray
		CAPTAN 75% WP	1.7 g/ ltr	500	Foliar Spray
		CAPTAN 50% WP	2.5 g/ ltr	750	Foliar Spray
	Black scurf	PENCYCURON 22.9 % SC	1.5 g / ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	3.5 g/ ltr	500	Foliar Spray
	Leaf spot	CARBENDAZIM 12% + MANCOZEB 63% WP	2.0 g/ ltr	500	Foliar Spray
	Powdery mildew	PENCONAZOLE 10% EC	2.0 ml/ ltr	500	Foliar Spray
	Early blight	COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	500	Foliar Spray
		AUREOFUNGIN 46.15% W/V. SP	5.0 g/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
		ZIRAM 80% WP	2.0 g/ ltr	500	Foliar Spray
		HEXACONAZOLE 2% SC	6.0 g/ ltr	500	Foliar Spray
		CAPTAN 70% + HEXACONAZOLE 5% WP	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 12%+ MANCOZEB 63% WP	3.0 g/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 15% + CHLOROTHALONIL 56% WG	2.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 11% + TEBUCONAZOLE 18.3% W/W SC	2.0 g/ ltr	500	Foliar Spray
		CARBENDAZIM 25%+ MANCOZEB 50% WS	1.5 g/ ltr	500	Foliar Spray
	Late blight ( <i>Phytophthora infestans</i> )	AMISULBROM 20%SC	1.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 23% SC	1.0 g/ ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	500	Foliar Spray
		COPPER HYDROXIDE 53.8% DF	3.0 g/ ltr	500	Foliar Spray
		CYAZOFAMID 34.5% SC	2.0 g/5 ltr	500	Foliar Spray
		HEXACONAZOLE 2% SC	6.0 g/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
		DIMETHOMORPH 50% WP	1.0 g/ ltr	500	Foliar Spray
		DIMETHOMORPH 12% + PYRACLOSTROBIN 6.7% WG	3.0 g/ ltr	500	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
POTATO	Late blight (Phytophthora infestans)	FAMOXADONE 16.6% + CYMOXANIL 22.1% SC	1.0 g / ltr	500	Foliar Spray
		FENAMIDON 10% + MANCOZEB 50% WG	3.0 gm/ ltr	500	Foliar Spray
		AMETOCTRADIN 27% + DIMETHOMORPH 20.27% w/w SC	2.0 g/ ltr	500	Foliar Spray
		CYMOXANIL 8% + MANCOZEB 64% WP	3.0 g/ ltr	500	Foliar Spray
		DIMETHOMORPH 12% + PYRACLOSTROBIN 6.7% WG	2.5 g/ ltr	500	Foliar Spray
		FAMOXADONE 16.6%+ CYMOXANIL 22.1% SC	1.0 g/ ltr	500	Foliar Spray
		FENAMIDONE 10% + MANCOZEB 50% WG	3.0 g/ ltr	500	Foliar Spray
		MANDIPROPAMID 23.4% SC	4.0 g / 5 ltr	500	Foliar Spray
		METALAXYL M 4% + MANCOZEB 64% WP	5.0 g / ltr	500	Foliar Spray
		METALAXYL M 3.3% + CHLOROTHALONIL 33.1% SC	2.0 g/ ltr	500	Foliar Spray
		METALAXYL 8% + MANCOZEB 64% WP	2.5 g/ ltr	500	Foliar Spray
		METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g/ ltr	500	Foliar Spray
TAPIOCA	Leaf spot	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
TOMATO	Alternaria blight	METIRAM 70% WG	5.0 g/ ltr	500	Foliar Spray
	Buck eye rot	MANCOZEB 75% WP	3.0 g/ ltr	500	Foliar Spray
		PROPINEB 70% WP	3.0 g/ ltr	500	Foliar Spray
	Early blight	AZOXYSTROBIN 23% SC	1.0 g / ltr	500	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	500	Foliar Spray
		IPRODIONE 50% WP	3.0 g/ ltr	500	Foliar Spray
		KITAZIN 48% EC	1.0 ml / ltr	500	Foliar Spray
		MANCOZEB 75% WG	3.0 g/ ltr	500	Foliar Spray
		METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 11 % + TEBUCONAZOLE 18.3% SC	1.5 g / ltr	500	Foliar Spray
		BOSCALID 25.2% + PYRACLOSTROBIN 12.8% WG	1.0 g/ ltr	500	Foliar Spray
		THIFLUZAMIDE 24% SC	1.0 g / ltr	500	Foliar Spray
		PYRACLOSTROBIN 20% WG	1.0 g/ ltr	500	Foliar Spray
TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	5.0g/ 10 ltr	500	Foliar Spray		

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
TOMATO	Early blight	FLUXAPYROXAD 250g/l + PYRACLOSTROBIN 250g/l SC	1.0 g/2 ltr	500	Foliar Spray
		ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
		ZIRAM 80% WP	2.0 g/ ltr	500	Foliar Spray
	Early blight & Late blight	MANCOZEB 35% SC	3.0 g / ltr	500	Foliar Spray
		CAPTAN 75% WP	1.7 g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% w/w SC	1 ml/ ltr	500	Foliar Spray
		AZOXYSTROBIN 11.5% + MANCOZEB 30% WP	1.50 g / ltr	500	Foliar Spray
		METALAXYL M 3.3% + CHLOROTHALONIL 33.1% SC	2.0 g/ ltr	500	Foliar Spray
		MANCOZEB 40% + AZOXYSTROBIN 7% OS	3.0g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 40.0% + DIFENOCONAZOLE 4.0% SC	2 g/ ltr	500	Foliar Spray
		FAMOXADONE 16.6% + CYMOXANIL 22.1% SC	1.0 g/ ltr	500	Foliar Spray
		KRESOXIM-METHYL 18% + MANCOZEB 54% WP	2.75 ml/ ltr	500	Foliar Spray
		CAPTAN 50% WP	2.5 g/ ltr	750	Foliar Spray
		FLUBENDIAMIDE 7.5% + KRESOXIM-METHYL 37.5% SC	1.33 g/ ltr	500	Foliar Spray
	Fruit Rot	KRESOXIM-METHYL 18% + MANCOZEB 54% WP	2.75 g/ ltr	500	Foliar Spray
	Grey leaf mould	ZINEB 75% WP	2.5 g/ ltr	500	Foliar Spray
	Late blight	COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	500	Foliar Spray
		CYAZOFAMID 34.5% SC	2.0 g/ 5 ltr	500	Foliar Spray
		AMETOCTRADIN 27% + DIMETHOMORPH 20.27% w/w SC	2.0 g/ ltr	500	Foliar Spray
		CYMOXANIL 8% + MANCOZEB 64% WP	3.0 g/ ltr	500	Foliar Spray
		MANDIPROPAMID 23.4% SC	4.0 g / 5 ltr	500	Foliar Spray
		MANCOZEB 75% WP	3.0 gm/ ltr	500	Foliar Spray
		ZINEB 75% WP	2.5 gm/ ltr	500	Foliar Spray
Leaf Spot	COPPER OXYCHLORIDE 50% WP	3.0 gm/ ltr	500	Foliar Spray	
	MANCOZEB 75% WP	3.0 gm/ ltr	500	Foliar Spray	
Septoria Leaf Spot	FLUXAPYROXAD 250g/l + PYRACLOSTROBIN 250g/l SC	1.0 g/2 ltr	500	Foliar Spray	
Ring rot	THIOPHANATE METHYL 70% WP	1.5 gm/ ltr	500	Foliar Spray	



Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
TOMATO	<b>Bacterial leaf spot</b>	STREPTOCYCLINE( STREPTOMYCINE SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP+COPPER OXYCHLORIDE 50%WP	1.5 gm + 25 gm /10 ltr	500	Spray seedlings in seed beds and fields after the appearance of first true leaves. Two sprays , one before transplanting and another after 10 days interval.
TOMATO, BRINJAL, CHILLIES, BEANS	<b>Damping off</b>	STREPTOCYCLINE( STREPTOMYCINE SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP+COPPER OXYCHLORIDE 50%WP	1.5 gm + 25 gm /10 ltr		Soil drench in the nursery bed.
TURMERIC	<b>Leaf Blotch, Leaf Spot / Rhizome Rot</b>	AZOXYSTROBIN 18.2% + DIFENOCONAZOLE 11.4% w/w SC	1 g / ltr	500	Foliar Spray
WATER MELON	<b>Powder mildew</b>	TETRACONAZOLE 3.8% w/w EW	2 ml/ ltr	500	Foliar Spray
TOMATO	<b>Leaf Spot , Downy Mildew / Powdery Mildew</b>	AZOXYSTROBIN 4.8% W/W + CHLOROTHALONIL 40% W/W SC	6.0 gm/ ltr	500	Foliar Spray
BANANA	<b>Fruit Rot</b>	COPPER OXYCHLORIDE 50% WP	3.0 gm/ ltr	750	Foliar Spray
		CARBENDAZIM 50% WP	1.5 gm/ ltr	750	Foliar Spray
		THIOPHANATE METHYL 70% WP	1.5 gm/ ltr	750	Foliar Spray
	<b>Sigatoka Leaf Spot</b>	MANCOZEB 75% WP	3.0 gm/ ltr	750	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	3.0 gm/ ltr	750	Foliar Spray
		THIOPHANATE METHYL 70WP	1.0 gm/ ltr	750	Foliar Spray
		METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 gm/ ltr	750	Foliar Spray
		PYRACLOSTROBIN 133 G/L + EPOXICONAZOLE 50G/L SE	1.5 ml/ ltr	750	Foliar Spray
<b>Cigar end rot/ Tip rot</b>	MANCOZEB 75% WP	3.0 gm/ ltr	750	Foliar Spray	

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
BER	<b>Powdery mildew</b>	SULPHUR 80% WP	4.0 gm/ ltr	750	Foliar Spray
CITRUS	<b>Brown rot</b>	MANCOZEB 75% WP	3.0 gm/ ltr	750	Foliar Spray
		CAPTAN 75% WP	2.5 g/ ltr	750	Foliar Spray
	<b>Citrus canker</b>	COPPER OXYCHLORIDE 50% WP	3.0 gm/ ltr	750	Foliar Spray
		STREPTOCYCLINE ( STREPTOMYCINE SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP	1.5 g/10 ltr	750	Spray repeatedly at an interval of 15 to 20 days after the appearance of new growth. Cover the foliage and young fruits fully.
	<b>Gummosis/ Fruit Rot ( Phytophthora palmivora)</b>	AUREOFUNGIN 46.15% W/V. SP	10.0 g/ ltr	750	Soil drench
		BORDEOUX MIXTURE 1%	1.00%		Wood drench
		CYMOXANIL 8% + MANCOZEB 64% WP	2.5 g/ ltr	10 ltr per Tree	Foliar Spray
	<b>Leaf Spot</b>	COPPER OXYCHLORIDE 50% WP	3.0 gm/ ltr	750	Foliar Spray
	<b>Powdery mildew</b>	SULPHUR 80% WP	4.0 gm/ ltr	750	Foliar Spray
	<b>Scab</b>	DIFENOCONAZOLE 25% EC	1.0 ml/ ltr	750	Foliar Spray
		CAPTAN 75% WP	1.7 g/ ltr	500	Foliar Spray
		CHLOROTHALONIL 75% WP	2.0 gm/ ltr	750	Foliar Spray
<b>Greasy spot</b>	ZINEB 75% WP	2.5 gm/ ltr	750	Foliar Spray	
COCONUT	<b>Bud Rot</b>	COPPER OXYCHLORIDE 50% WP	3.0 gm/ ltr	750	Foliar Spray
MANGO	<b>Anthraco</b> <b>nose</b>	COPPER OXYCHLORIDE 50% WP	3.0 gm/ ltr	750	Foliar Spray
		COPPER OXYCHLORIDE 50% WG	2.4 gm/ ltr	750	Foliar Spray
		AZOXYSTROBIN 23% SC	1.0 g / ltr	750	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	5.0g/ 10 ltr	500	Foliar Spray
		CARBENDAZIM 12% + MANCOZEB 63% WP	3.0 gm/ ltr	750	Foliar Spray
	<b>Powdery mildew</b>	AZOXYSTROBIN 23% SC	1.0 g / ltr	750	Foliar Spray
		CARBENDAZIM 46.27% SC	1.0 g / ltr	750	Foliar Spray

Crop	Common name of the disease	Recommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
MANGO	Powdery mildew	CARBENDAZIM 12% + MANCOZEB 63% WP	3.0 gm/ ltr	750	Foliar Spray
		DINOCAP 48% EC	1.0 ml/ ltr	750	Foliar Spray
		MEPTYL DINOCAP 35.7% EC	0.6 ml/ ltr	500	Foliar Spray
		METRAFENONE 500 g/l SC	2.0 ml/ 10 ltr	500	Foliar Spray
		FLUXAPYROXAD 250 g/l + PYRACLOSTROBIN 250 g/l SC	1.0 ml/2 ltr	500	Foliar Spray
		HEXACONAZOLE 5% EC	1.0 ml/ ltr	750	Foliar Spray
		TEBUCONAZOLE 50% + TRIFLOXYSTROBIN 25% WG	5.0g/ 10 ltr	500	Foliar Spray
		PENCONAZOLE 10% EC	5.0 ml/10 ltr	750	Foliar Spray
		PROPICONAZOLE 25 % EC	2.0 ml/ ltr	750	Foliar Spray
		SULPHUR 40% WP	7.0 g/ ltr	750	Foliar Spray
		SULPHUR 55.16 % SC	3.0 g / ltr	750	Foliar Spray
		TETRACONAZOLE 3.8% w/w EW	1.25 ml/ ltr	750	Foliar Spray
		SULPHUR 80% WG	2.5 g/ ltr	750	Foliar Spray
		SULPHUR 80% WP	4.0 g/ ltr	750	Foliar Spray
POMEGRANATE	Fruit rot	DIFENOCONAZOLE 25% EC	1.0 ml/ ltr	750	Foliar Spray
	Fruit spot	METIRAM 55% + PYRACLOSTROBIN 5% WG	3.0 -3.5g/ ltr	750	Foliar Spray
	Leaf and fruit spots	PROPINEB 70% WP	3.0 g/ ltr	750	Foliar Spray
		METALAXYL M 4% + MANCOZEB 64% WP	2.5g/ ltr	500	Foliar Spray
		AZOXYSTROBIN 23% SC	1.0 g / ltr	750	Foliar Spray
GUAVA	Stylar end rot	CARBENDAZIM 50%WP	1.5 g/ ltr	750	Foliar Spray
	Fruit canker	CARBENDAZIM 50%WP	1.5 g/ ltr	750	Foliar Spray
GUAVA	Fruit canker	ZINEB 75% WP	2.5 g/ ltr	750	Foliar Spray
		MANCOZEB 75% WP	3.0 g/ ltr	750	Foliar Spray
	Fruit rot	MANCOZEB 75% WP	3.0 g/ ltr	750	Foliar Spray
		ZINEB 75% WP	2.5 g/ ltr	750	Foliar Spray
LITCH	Leaf blight	COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	750	Foliar Spray
		CHLOROTHALONIL 75% WP	2.0 g/ ltr	750	Foliar Spray
		DIFENOCONAZOLE 25% EC	1.0 ml/ ltr	750	Foliar Spray
		THIOPHANATE METHYL 70%WP	1.0 g/ ltr	750	Foliar Spray
	Twig blight	CARBENDAZIM 50%WP	1.5 g/ ltr	750	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	750	Foliar Spray

Crop	Common name of the disease	Reccommended Fungicides by CIBRC/OUAT/CHES	Dose per water	Dilution in water (L)/ha	Remarks
LITCH	Inflorescence blight	THIOPHANATE METHYL 70% WP	1.0 g/ ltr	750	Foliar Spray
		DIFENOCONAZOLE 25% EC	1.0 ml/ ltr	750	Foliar Spray
		AZOXYSTROBIN 23% SC	1.0 g / ltr	750	Foliar Spray
		CARBENDAZIM 50%WP	1.5 g/ ltr	750	Foliar Spray
	Anthracnose	DIFENOCONAZOLE 25% EC	1.0 ml/ ltr	750	Foliar Spray
		CARBENDAZIM 50%WP	1.5 g/ ltr	750	Foliar Spray
		COPPER OXYCHLORIDE 50% WP	3.0 g/ ltr	750	Foliar Spray
		AZOXYSTROBIN 23% SC	2.5 g /10 ltr	750	Foliar Spray
Wilt	CARBENDAZIM 50%WP	2.0 g/ ltr	750	Foliar Spray	
ROSE	Black spot	THIOPHANATE- METHYL 70% WP	1.5 g/ ltr	750	Foliar Spray
		COPPER OXY CHLORIDE 50% WP	3.0 g/ ltr	750	Foliar Spray
	Powdery mildew	CARBENDAZIM 50% WP	1.5 g/ ltr	750	Foliar Spray
		DINOCAP 48% EC	2 ml/10 ltr	750	Foliar Spray
		SULPHUR 40% WP	4.0 g/ ltr	750	Foliar Spray

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## CROP & DISEASE/PEST WISE RECOMMENDATION OF SEED TREATING MATERIALS

Crop	Common name of the disease/ pest	Recommended Fungicides/Bio fungicides by CIBRC/OUAT	Dose per water	Remarks
ARHAR	Wilt, Root Rot	<i>Trichoderma viride</i> 1% WP	10 gm /kg seed	Seed Treatment
		CARBOXIN 37.5% + THIRAM 37.5% WS	4.0 gm/Kg seed	Seed Treatment
	Stem fly	IMIDACLOPRID 70%WG	3.5 gm / Kg of Seed	Seed Treatment
		IMIDACLOPRID 48% FS	5 ml / Kg of Seed	Seed Treatment
		THIAMETHOXAM 30 %FS	10 ml / Kg of Seed	Seed Treatment
BENGAL GRAM	Seedling wilt <i>Fusarium oxysporum</i>	<i>Trichoderma viride</i> 1% WP	10 gm /kg seed	Seed Treatment
	Root Rot /Wilt	PROCHLORAZ 5.7% + TEBUCONAZOLE 1.4% ES	3.0 g/kg of seed	Seed dresser
	Root Rot/Wilt	TEBUCONAZOLE 5.4% FS	4ml/10 Kg seed	Seed Treatment
	Root Rot / Collar Rot	CARBENDAZIM 25% + MANCOZEB 50% WS	3 - 3.5 g / 1 kg seed	Seed Treatment
BLACK GRAM & GREEN GRAM	Seed Rot	CARBOXIN 37.5% + THIRAM 37.5% WP	4.0 g/kg of seed	Seed Treatment
		CARBENDAZIM 50% WP	2.0 g/kg of seed	Seed Treatment
		THIRAM 75% WS	3g/kg of seed	Seed Treatment
	Root Rot	CARBENDAZIM 25% + MANCOZEB 50% WS	3 - 3.5 g / 1 kg seed	Seed Treatment
		<i>Trichoderma viride</i> 1% WP	10 gm /kg seed	Seed Treatment
		<i>Trichoderma viride</i> 1% AS	4 - 6 ml /kg seed	Seed Treatment
	Leaf Spot ( <i>Cercospora</i> )& <i>Drechslera</i> Leaf spot	THIRAM 75% WP	3.0 g/1 kg seed	Seed Treatment
		CARBENDAZIM 50% WP	3.0 g/1 kg seed	Seed Treatment
		CAPTAN 50% WP	3.0 g/1 kg seed	Seed Treatment
Wilt	TEBUCONAZOLE 2% DS	2-2.5 g/1 kg seed	Seed Treatment	

Crop	Common name of the disease/ pest	Recommended Fungicides/Bio fungicides by CIBRC/OUAT	Dose per water	Remarks
BLACK GRAM & GREEN GRAM	Stem Fly	IMIDACLOPRID 70%WG	3.5 gm / Kg of Seed	
		IMIDACLOPRID 48% FS	5 ml / Kg of Seed	
		THIAMETHOXAM 30% FS	10 ml / Kg of Seed	
COTTON	Angular Leaf Spot	CARBOXIN 75% WP	2.0 g / kg seed	Seed Treatment
		THIRAM 37.5% +CARBOXIN 37.5%WP	3.5 g / kg seed	Seed Treatment
	Seed borne disease	THIRAM 75% WS	3.0 gm/kg seed	Seed Treatment
		FLUXAPYROXAD 333 g/l FS	1.0 ml/kg of seed	Seed Treatment
COTTON	Root Rot	TETRACONAZOLE 11.6% w/w ( 12.5% w/v) SL	10 ml/kg of seed	Seed Dresser
	Bacterial Leaf Blight	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP	40 ppm ( 40 mg/litre water)	Seeds treatment: Prepare streptocycline 40 ppm solution and soak seeds for 12 hours at room temperature before sowing.
		CARBOXIN 37.5% + THIRAM 37.5% WS	3.5gm/Kg seed	Seed Treatment
		<i>Pseudomonas fluorescens</i> 0.5% WP	10 gm /kg seed	Seed Treatment
	Wilting ( <i>Fusarium</i> )	TEBUCONAZOLE 2% DS	2-2.5 g/1 kg seed	Seed Treatment
GROUND NUT	Collar rot	TEBUCONAZOLE 2% DS	2-2.5 g/1 kg seed	Seed Treatment
		CARBENDAZIM 25% + MANCOZEB 50% WS	3 - 3.5 g / 1 kg seed	Seed Treatment
		TEBUCONAZOLE 5.4% FS	4ml/10 Kg seed	Seed Treatment
		MANCOZEB 75% WP	2- 3 g/ kg of seed	Water slurry seed treatment
		IMIDACLOPRID 18.5% + HEXACONAZOLE 1.5% FS	2.0 g/ kg of seed	Seed dresser
		PROCHLORAZ 5.7% + TEBUCONAZOLE 1.4% ES	3.0 g/kg of seed	Seed dresser
		PENFLUFEN 13.28% + TRIFLOXYSTROBIN 13.28% FS	1 ml/ Kg Seed	Seed Treatment
		THIRAM 75% WS	3.0 g/kg of seed	Seed Treatment
	Rust	IMIDACLOPRID 18.5% + HEXACONAZOLE 1.5% FS	2.0 g/ kg of seed	Seed dresser
	Root rot	TEBUCONAZOLE 2% DS	2.0 g/ kg seed	Seed Treatment
		PROCHLORAZ 5.7% + TEBUCONAZOLE 1.4% ES	3.0 g/kg of seed	Seed dresser
		CARBENDAZIM 25% + MANCOZEB 50% WS	3.5 g / kg seed	Seed Treatment

Crop	Common name of the disease/ pest	Recommended Fungicides/Bio fungicides by CIBRC/OUAT	Dose per water	Remarks
GROUND NUT	Seed & seedling disease	PENFLUFEN 13.28% +TRIFLOXYSTROBIN 13.28 FS	1 g/kg of seeds	Seed Treatment
	Late Leaf Spot	<i>Pseudomonas fluorescens</i> 0.5% WP	10 gm /kg seed	
		<i>Pseudomonas fluorescens</i> 1.5% AS	10 ml /kg seed	
	Seedling wilt Fusarium oxysporum	<i>Trichoderma viride</i> 1.15% WP	10 gm /kg seed treatment	
	Wilt	TEBUCONAZOLE 5.4% FS	4ml/10 Kg seed	Seed Treatment
	Tikka	CARBENDAZIM 25% + MANCOZEB 50% WS	3 - 3.5 g / 1 kg seed	Seed Treatment
		IMIDACLOPRID 18.5% + HEXACONAZOLE 1.5% FS	2.0 g/ kg of seed	Seed dresser
	<i>Aspergillus</i> Crown Rot	CARBOXIN 37.5%+THIRAM 37.5%	3.0 g/kg of seed	Seed Treatment
	<i>Aspergillus</i> Crown Rot	CARBENDAZIM 50% WP	2g/kg of seed	Seed Treatment
		CAPTAN 50%WP	2.5g/kg of seed	Seed Treatment
	Stem rot	TEBUCONAZOLE 2% DS	2.0-2.5 g/1 kg seed	Seed Treatment
		PROCHLORAZ 5.7% + TEBUCONAZOLE 1.4% ES	3.0 g/kg of seed	Seed dresser
		THIOPHANATE METHYL 450g/l + PYRACLOSTROBIN 50g/l FS	2.0 ml/kg	Seed Dresser
		IMIDACLOPRID 18.5% + HEXACONAZOLE 1.5% FS	2.0 g/ kg of seed	Seed dresser
		TEBUCONAZOLE 5.4% FS	4ml/10 Kg seed	Seed Treatment
<i>Trichoderma viride</i> 1% WP		10 gm /kg seed		
MUSTARD	White Rust	METALAXYL 35% WS	6.0 g/kg of seed	Seed Treatment
SUN-FLOWER	Downy mildew	METALAXYL-M 31.8% ES	2.0 ml/kg seed	Seed Treatment
		METALAXYL 35% WS	6.0g/kg of seed	Slurry Seed Treatment
	Alternaria Leaf Spot	IPRODINE 25%+ CARBENDAZIM 25%WP	3 gm / kg of seed	Seed Treatment
		CARBENDAZIM 12%+ MANCOZEB 63%WP	3 gm / kg of seed	Seed Treatment
	Sclerotium Wilt	TEBUCONAZOLE 2% DS	2.0 g/1 kg seed	Seed Treatment
		<i>Trichoderma viride</i> 1% WP	6 g/kg seed	Seed Treatment
	Jassid/ Leaf Hopper/Thrips	IMIDACLOPRID 70% WG	7 gm / kg of seed	Seed Treatment
		IMIDACLOPRID 48% FS	5.0 gm/kg of seed	Seed Treatment
		THIAMETHOXAM 30% FS	10 ml /kg of seed	Seed Treatment



Crop	Common name of the disease/ pest	Recommened Fungicides/Bio fungicides by CIBRC/OUAT	Dose per water	Remarks
SUN-FLOWER	White Fly	IMIDACLOPRID 70% WG	7 gm / kg of seed	Seed Treatment
		IMIDACLOPRID 48% FS	5-9 gm/kg of seed	Seed Treatment
SESAMUM	Wilt	TEBUCONAZOLE 2% DS	2.0-2.5g/kg of seed	Seed Treatment
SOYABEAN	Seed & seedling disease	PENFLUFEN 13.28% + TRIFLOXYSTROBIN 13.28 FS	1 g/kg of seeds	Seed Treatment
JUTE & `MESTA	Seedling Blight	CARBENDAZIM 50% WP	2 gm/kg Seed	Seed Treatment
MAIZE	Downy mildew	METALAXYL 35% WS	7g/kg of seed	Slurry Seed Treatment
		METALAXYL-M 31.8% ES	2- 4 ml/kg seed	Seed Treatment
MAIZE	Root Rot (Fusarium Wilt)	<i>Trichoderma harzianum</i> 2.0% WP	20 gm /kg seed	
	Seedling blight	THIRAM 40 % FS	24 ml /10 kg seeds	Slurry treatment
		THIRAM 75% WS	2.5-3.0 gm/kg of seed	Seed Treatment
		CARBENDAZIM 25% + MANCOZEB 50% WS	3 - 3.5 g / 1 kg seed	Seed Treatment
	Bacterial leaf & sheath blight	CARBENDAZIM 50% WP	2 gm/ kg seed	Seed Treatment
	Head Smut	CARBOXIN 37..5%+THIRAM 37.5%WP	3g/kg seed treatment	Seed Treatment
	Shoot Fly	THIAMETHOXAM 30% FS	8 gm / kg of seed	
Fall Army Worm	CYANTRANILIPROLE 19.8% + THIAMETHOXAM 19.8% FS	6 gm per Kg of Seed	Adhoc approval	
PADDY	Brown Leaf Spot	CARBENDAZIM 25% + MANCOZEB 50% WS	3 - 3.5 g / 1 kg seed	Seed Treatment
	Leaf and neck blast ( <i>Pyricularia oryzae</i> )	<i>Pseudomonas fluorescens</i> 0.5% WP	10 gm / kg seed	
		<i>Pseudomonas fluorescens</i> 1.5% LF	4.5 ml / kg seed	
	Bacterial Leaf blight ( <i>Xanthomonas oryzae</i> ), Blast,Leaf spot	<i>Pseudomonas fluorescens</i> 1.5% WP	5 gm/kg of seed	
	Bacterial Leaf Blight	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% +TETRACYCLINE HYDROCHLORIDE 10% )SP	4gm/10 L water	Soak the seeds in solution at room temp before sowing
	False Smut	CARBOXIN 37..5%+THIRAM 37.5%WP	2 g/kg seed	Seed Treatment
CARBENDAZIM 50%WP		3 g/kg seed	Seed Treatment	

Crop	Common name of the disease/ pest	Recommended Fungicides/Bio fungicides by CIBRC/OUAT	Dose per water	Remarks
PADDY	Seedborne disease	CARBOXIN 37.5%+THIRAM 37.5%WP	2.0 gm/kg of seed	Seed Treatment
	Blast	CARBENDAZIM 25% + MANCOZEB 50% WS	3 - 3.5 g / 1 kg seed	Seed Treatment
		TEBUCONAZOLE 5.4% FS	4ml/10 Kg seed	Seed Treatment
	Sheath Blight	CARBENDAZIM 50% WP	2 gm/ kg seed	Seed Treatment
		CARBENDAZIM 25% + MANCOZEB 50% WS	3 - 3.5 g / 1 kg seed	Seed Treatment
	White Tip Nematode ( <i>Aphelenchoidis besseyi</i> )	CARBOSULFAN 25% DS	3 gm/ kg of Seed	Seed Treatment
		TRICHODERMA VIRIDE 1% WP	10gm/ kg of seed	Seed Treatment
Root Knot Nematode ( <i>Meloidogyne graminicola</i> )	PSEUDOMONAS FLUORESCENS 1% WP	10gm/ kg of seed	Seed Treatment	
SUGAR-CANE	Red Rot/ Whip Smut	CARBENDAZIM 50% WP	2.0 g / litre	Sett Treatment
PEARL MILLET	Downy mildew	METALAXYL-M 31.8% ES	2 ml/kg seed	Seed Treatment
		METALAXYL 35% WS	6.0 g/ kg of seed	Slurry Treatment
RAGI	Smut	CARBOXIN 37.5%+THIRAM 37.5% WP	2.0 g/kg of seed	Seed Treatment
		TEBUCONAZOLE 2% DS	1.0 g/kg of seed	Seed Treatment
SOYBEAN	Collar rot, Charcoal rot and other seedling diseases	CARBOXIN 37.5% + THIRAM 37.5% WS	3.0 gm/Kg seed	Seed Treatment
		CARBENDAZIM 25% + MANCOZEB 50% WS	3.0 g/kg of seeds	seed Treatment
		FLUXAPYROXAD 333 g/l FS	1.0 ml/kg of seed	Seed Treatment
	Seed and Seedling rot disease	PENFLUFEN 13.28% W/W + TRIFLOXYSTROBIN 13.28% W/W FS	1 ml/ kg of seed	Seed Treatment
THIOPHANATE METHYL 450g/l + PYRACLOSTROBIN 50g/l FS		1.0 - 1.5 ml/ kg of seed	Seed Dresser	
WHEAT	Loose Smut	CARBENDAZIM 50% WP	2.0 gm/kg of seed	wet slurry treatment
		DIFENOCONAZOLE 3% WS	2.0 ml /kg of seed	Seed Dresser
		CARBENDAZIM 25% + MANCOZEB 50% WS	3.0 g/kg of seeds	Seed Treatment
		CARBOXIN 17.5% + THIRAM 17.5% FF	3.0 gm/kg of seed	wet slurry treatment
		TRTICONAZOLE 80g/l + PYRACLOSTROBIN 40 g/l FS	1.0 ml/kg of seed	Seed Treatment

Crop	Common name of the disease/ pest	Recommended Fungicides/Bio fungicides by CIBRC/OUAT	Dose per water	Remarks
WHEAT	Loose Smut	CARBOXIN 37.5% +THIRAM 37.5% WS	3.0 g/kg of seeds	Seed Treatment
		TEBUCONAZOLE 5.36 % FS	3.33 litre / 10 kg seed	Seed Dresser
		<i>Pseudomonas fluorescens</i> 1.75% WP	5 gm/kg of seed	
		<i>Trichoderma viride</i> 1.15% WP	4 gm/ kg of seeds	
	Smut/ Rust/ Termite/Aphids	IMIDACLOPRID 18.5% + HEXACONAZOLE 1.5% FS	2.0 g/ kg of seed	Seed dresser
	Flag smut/ Bunt/ Loose Smut	CARBOXIN 75% WP	2.0-2.5 gm/kg of seed	Seed Treatment
	Flag smut/ Bunt/ Loose Smut	THIRAM 75% WS	1.0 - 1.5 gm/ kg of seed	Seed Treatment
TEBUCONAZOLE 5.4 % w/w FS		3.0 ml/10 kg of seed	Seed Treatment	
TEBUCONAZOLE 2% DS		1 litre/kg of seed	Seed Dresser	
CABBAGE	Damping off	CAPTAN 75% WS	2.0-3.0 gm per kg seed	Seed Treatment
COWPEA	Root Rot & Wilt ( <i>Fusarium oxysporum</i> )	<i>Trichoderma viride</i> 1% WP	10 gm /kg seed	Seed Treatment
CHILLY	Damping off	CAPTAN 75% WS	2.0-3.0 gm per kg seed	Seed Treatment
		CARBENDAZIM 50% WP	2.0 gm per kg seed	Wet slurry treatment
FRENCH BEAN	Shoot Fly	THIAMETHOXAM 30% FS	5 ml / kg of seed	
ONION	Damping off	CARBENDAZIM 25% + MANCOZEB 50% WS	3.0 gm/kg of seed	
OKRA	Damping off	THIOPHANATE METHYL 450g/l + PYRACLOSTROBIN 50g/l FS	30 ml/ha seed	Seed Dresser
	Aphids, Jassids, Thrips and white fly	IMIDACLOPRID 70% WS	5-10 gm/kg of seeds	
		THIAMETHOXAM 70% WS	2.86 gm/kg of seeds	
OKRA	Wilt ( <i>Fusarium oxysporum</i> )	<i>Pseudomonas fluorescens</i> 1.0% WP	20 gm/ Kg of Seed	Seed Treatment
		<i>Trichoderma harzianum</i> 1.0% WP	20 gm/ Kg of Seed	Seed Treatment
		<i>Trichoderma viride</i> 1.5% WP	10 gm/ Kg of Seed	Seed Treatment
POTATO	Black leg and soft rot, bacterial brown wilt or ring or the bangle disease of potato	STREPTOCYCLINE (STREPTOMYCIN SULPHATE 90% + TETRACYCLINE HYDROCHLORIDE 10%) SP	6.5 gm/10 litre	Seed/Tuber treatment: Prior to planting soak potato seed/tuber in the solution for half an hour.

Crop	Common name of the disease/ pest	Recommended Fungicides/Bio fungicides by CIBRC/OUAT	Dose per water	Remarks
POTATO	Black scurf	CARBOXIN 37.5% + THIRAM 37.5% WS	2.5gm/Kg seed	Seed/tuber Treatment
		THIOPHANATE METHYL 450g/l + PYRACLOSTROBIN 50g/l FS	2.0 ml/kg tuber	Seed Dresser
		THIFLUZAMIDE 24% SC	2.5 ml/kg of potato tuber	Seed/tuber Treatment
		PENFLUFEN 22.43 % FS	8.3 ml/10 litre of water	Seed/tuber Treatment
	Scab	THIRAM 75% WS	3.0 gm/kg of seed/ tuber	Seed/tuber Treatment
	Late Blight	CARBENDAZIM 25% + MANCOZEB 50% WS	6.0 - 7.0 g / 10 kg tuber	Tuber Treatment
TAPIOCA	Sett rot	CARBENDAZIM 50% WP	1.5 g/litre	Dip the setts in solution for 15 min
TOMATO	Damping off	METALAXYL-M 31.8% ES	2.0 g/kg of seeds	seed dressing
		CAPTAN 75% WS	3.0 g/kg of seeds	Seed Treatment
TOMATO, BRINJAL, OKRA & CARROT	Root Knot nematodes	<i>Pseudomonas fluorescens</i> 1.0% WP	20 gm/Kg of Seed	Seed Treatment
		<i>Trichoderma harzianum</i> 1.0% WP	20 gm/Kg of Seed	Seed Treatment
		<i>Trichoderma harzianum</i> 1.5 % WP	20 gm/Kg of Seed	Seed Treatment
TOMATO	Wilt ( <i>Fusarium oxysporum</i> fsp & <i>lycopersici</i> )	<i>Pseudomonas fluorescens</i> 0.5% WP	10 gm/kg of seeds	Seed Treatment
	Seedling Wilt/ Wilt ( <i>Fusarium oxysporum</i> ), Damping Off ( <i>Pythium aphanidermatum</i> ), Root rot ( <i>Rhizoctonia</i> spp.)	<i>Pseudomonas fluorescens</i> 1.0% WP	5gm/kg of seed	Seed Treatment
	Wilt ( <i>Fusarium oxysporum</i> )	<i>Trichoderma harzianum</i> 1.0% WP	20 gm/ Kg of Seed	Seed Treatment
		<i>Trichoderma viride</i> 1.5% WP	10 gm/ Kg of Seed	Seed Treatment
BRINJAL	Wilt ( <i>Fusarium solani</i> )	<i>Pseudomonas fluorescens</i> 1.0% WP	20 gm/ Kg of Seed	Seed Treatment
		<i>Trichoderma harzianum</i> 1.0% WP	20 gm/ Kg of Seed	Seed Treatment
		<i>Trichoderma viride</i> 1.5% WP	10 gm/ Kg of Seed	Seed Treatment

Crop	Common name of the disease/ pest	Reccomended Fungicides/Bio fungicides by CIBRC/OUAT	Dose per water	Remarks
BRINJAL	Root Rot/ Wilt/ Damping off, Rhizoctonia bataticola, Sclerotium rolfsii, Fusarium oxysporum, Rhizoctonia solani	<i>Trichoderma viride</i> 1% WP	10 gm/ Kg of Seed	Seed Treatment
CARROT	Root rot (Sclerotium rolfsii )	<i>Pseudomonas fluorescens</i> 1.0% WP	20 gm/ Kg of Seed	Seed Treatment
CARROT	Root rot (Sclerotium rolfsii )	<i>Trichoderma harzianum</i> 1.0% WP	20 gm/ Kg of Seed	Seed Treatment
		<i>Trichoderma viride</i> 1.5% WP	10 gm/ Kg of Seed	Seed Treatment
CHILLI	Damping off ( <i>Pythium aphanid-ermatum</i> )	<i>Pseudomonas fluorescens</i> 0.5% WP	10 gm/kg seed	Seed Treatment
		<i>Trichoderma viride</i> 1% WP	10 gm/kg seed	Seed Treatment
		<i>Trichoderma viride</i> 5 % SC	2 ml/Kg of Seed	Seed Treatment
CAULI-FLOWER	Stalk rot – Sclerotina sclerotiorum	<i>Trichoderma viride</i> 1% WP	10 gm/kg seed	Seed Treatment

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## CROP & PEST WISE RECOMMENDATION OF BIO-FUNGICIDES

CROP	Common name of the disease	Recommendation of Bio- Fungicides by CIBRC/ OUAT	Type of Treatment	Dosage as per type of treatment	Remarks
ARHAR	<b>Wilt, Root Rot</b>	<i>Trichoderma viride</i> 1% WP	Main field application	5 kg /ha +100 kg FYM	incubate for 7 days with moisture before mainfield application
BENGAL GRAM	<b>Seedling wilt</b> <i>Fusarium oxysporum</i>	<i>Trichoderma viride</i> 1% WP	Main field application	2.5 kg /ha + 50 kg FYM	incubate for 7 days with moisture before mainfield application
PULSES (COWPEA, BLACK GRAM & GREEN GRAM)	<b>Root rot</b>	<i>Trichoderma viride</i> 1% WP	Main field application	2.5 kg /ha + 50 kg FYM	incubate for 7 days with moisture before mainfield application
GROUND NUT	<b>Stem rot</b> ( <i>Sclerotium rolfsii</i> )	<i>Trichoderma viride</i> 1% WP	Main field application	2.5 kg /ha + 50 kg FYM	
			Main field application	2.5 kg /ha + 50 kg FYM	incubate for 7 days with moisture before mainfield application
	<b>Late leaf spot</b>	<i>Pseudomonas fluorescens</i> 0.5% WP	Soil treatment	1 kg/ha	
		<i>Pseudomonas fluorescens</i> 1.5% AS	Soil treatment	1 Litre/ha @ 0.2%	
	<b>Seedling wilt</b> <i>Fusarium oxysporum</i>	<i>Trichoderma viride</i> 1.15% WP	Soil treatment	2.5 kg /ha + 100 kg FYM	
	<b>Stem rot</b> ( <i>Sclerotium rolfsii</i> )	<i>Trichoderma viride</i> 1% WP	Main field application	2.5 kg /ha + 50 kg FYM	incubate for 7 days with moisture before mainfield application
MAIZE	<b>Fall Army Worm</b>	<i>Bacillus thuringiensis</i> var. Kurstaki	Foliar spray:	2 gm/ Litre or 1000 gm per Ha	
		NPV	Foliar spray:	2 gm/ Litre or 1000 gm per Ha	

CROP	Common name of the disease	Recommendation of Bio- Fungicides by CIBRC/ OUAT	Type of Treatment	Dosage as per type of treatment	Remarks
PADDY	<b>Leaf and neck blast</b> ( <i>Pyricularia oryzae</i> )	<i>Pseudomonas fluorescens</i> 0.5% WP	Soil treatment	1 kg /ha+2.5 kg org manure	
			Foliar spray:	1 kg/ha with 500 ltr water	
		<i>Pseudomonas fluorescens</i> 1.5% LF	Foliar spray:	6.0 Litre/ 500 litre/ Ha	
	<b>Sheath blight</b> ( <i>Rhizoctonia solani</i> )	<i>Trichoderma viride</i> 1% WP	Foliar spray:	5 gm/litre of water	
	<b>Bakane (Foot Rot)</b> ( <i>Fusarium moniliforme</i> )	<i>Trichoderma harzianum</i> 2.0% AS	Seedling Root dip treatment	30 ml / Litre of water	Dip the Paddy seedling in the solution for 30 minutes before transplanting
			Main field application	2.5 Litre /ha + 100 kg FYM	
	<b>Bacterial Leaf blight</b> ( <i>Xanthomonas oryzae</i> ), <b>Blast</b> , <b>Leaf spot</b>	<i>Pseudomonas fluorescens</i> 1.5% WP	Soil treatment	2.5 kg+50 kg FYM per ha	
	<b>Brown Spot</b> ( <i>Cochliobolus miyabeanus</i> )	<i>Trichoderma viride</i> 5 % LF	Foliar Spray	1000 ml /ha	
	<b>Bacterial Leaf blight</b> ( <i>Xanthomonas oryzae</i> )	<i>Pseudomonas fluorescens</i> 2.0 % AS	Seedling Root Dip Treatment	10 ml/Litre of water	Dip the Paddy seedling in the solution for 30 minutes before transplanting
			Foliar Spray	1.870- 2.50 Litre / Ha	
<i>Bacillus subtilis</i> 2.0% AS		Seedling Root Dip Treatment	10 ml/Litre of water	Dip the Paddy seedling in the solution for 30 minutes before transplanting	
		Foliar Spray	1.870- 2.50 Litre / Ha		Spray at 40-45 days after transplanting
WHEAT	<b>Loose Smut</b>	<i>Pseudomonas fluorescens</i> 1.75% WP	Foliar Spray	5 gm/Litre	
SUN-FLOWER	<b>Seed rot</b> <i>Sclerotium rolfsii</i>	<i>Trichoderma viride</i> 1% WP	Soil treatment	2.5 kg/ha +30kg FYM	
TOMATO	<b>Wilt</b> ( <i>Fusarium oxysporum fsp &amp; lycopersici</i> )	<i>Pseudomonas fluorescens</i> 0.5% WP	Soil treatment	2.5 kg /ha	



CROP	Common name of the disease	Recommendation of Bio- Fungicides by CIBRC/ OUAT	Type of Treatment	Dosage as per type of treatment	Remarks
TOMATO	<b>Seedling Wilt/ Wilt</b> ( <i>Fusarium oxysporum</i> ), <b>Damping Off</b> ( <i>Pythium aphanidermatum</i> ), <b>Root rot</b> ( <i>Rhizoctonia spp.</i> )	<i>Pseudomonas fluorescens</i> 1.0% WP	Seedling Root Dip Treatment	10gm/litres of water	
			Soil treatment/ Root Zone application	2.5 kg /ha with 150 Kg of FYM	
	<b>Wilt</b> ( <i>Fusarium oxysporum</i> )	<i>Trichoderma harzianum</i> 1.0% WP	Nursery Bed Treatment	50 gm/Sq m	
			Soil treatment	5 Kg/ha with FYM 50 kg	
		<i>Trichoderma viride</i> 1.5% WP	Nursery Bed Treatment	50 gm/Sq m	
			Main field application	5 Kg/ ha with FYM 50 kg	
BRINJAL	<b>Wilt</b> ( <i>Fusarium solani</i> )	<i>Pseudomonas fluorescens</i> 1.0% WP	Nursery Bed Treatment	50 gm/Sq m	
			Soil treatment	5.0 Kg/Ha with 50 kg FYM / Ha	
		<i>Trichoderma harzianum</i> 1.0% WP	Nursery Bed Treatment	50 gm/Sq m	
			Soil treatment	5 Kg/ha with FYM 50 kg	
		<i>Trichoderma viride</i> 1.5% WP	Nursery Bed Treatment	50 gm/Sq m	
			Main field application	5 Kg/ ha with FYM 50 kg	
	<b>Root Rot/ Wilt/ Damping off</b> , <i>Rhizoctonia bataticola</i> , <i>Sclerotium rolfsii</i> , <i>Fusarium oxysporum</i> , <i>Rhizoctonia solani</i>	<i>Trichoderma viride</i> 1% WP	Nursery Treatment	5.0 gm/ litre of water	
			Seedling Root dip treatment:	10 gm/ litre water	
			Main field application	2.5 Kg/ ha with 50 Kg of FYM	
CABBAGE	<b>Root rot/Collar rot</b> <i>Rhizoctonia solani</i>	<i>Trichoderma viride</i> 1% WP	Seedling Root dip treatment:	10 gm/ litre water	
			Main field application	2.5 Kg/ ha with 50 Kg of FYM	

CROP	Common name of the disease	Recommendation of Bio- Fungicides by CIBRC/ OUAT	Type of Treatment	Dosage as per type of treatment	Remarks
CARROT	<b>Root rot</b> ( <i>Sclerotium rolfsii</i> )	<i>Pseudomonas fluorescens</i> 1.0% WP	Soil treatment	5.0 Kg/Ha with 50 kg FYM / Ha	
		<i>Trichoderma harzianum</i> 1.0% WP	Nursery Bed Treatment	50 gm/Sq m	
			Soil treatment	5 Kg/ha with FYM 50 kg	
		<i>Trichoderma viride</i> 1.5% WP	Main field application	5 Kg/ ha with FYM 50 kg	
CAULI-FLOWER	<b>Stalk rot –</b> <i>Sclerotinia sclerotiorum</i>	<i>Trichoderma viride</i> 1% WP	Main field application	2.5 Kg/ ha with 50Kg of FYM	
COWPEA	<b>Root Rot &amp; Wilt</b> ( <i>Fusarium oxysporum</i> )	<i>Trichoderma viride</i> 1% WP	Main field application	2.5 kg /ha + 50 kg FYM	
		<i>Trichoderma viride</i> 5 % LF	Foliar Spray	500 litre/ha	
OKRA	<b>Wilt</b> ( <i>Fusarium oxysporum</i> )	<i>Pseudomonas fluorescens</i> 1.0% WP	Soil treatment	5.0 Kg/Ha with 50 kg FYM / Ha	
		<i>Trichoderma harzianum</i> 1.0% WP	Nursery Bed Treatment	50 gm/Sq m	
			Soil treatment	5 Kg/ha with FYM 50 kg	
		<i>Trichoderma viride</i> 1.5% WP	Main field application	5 Kg/ ha with FYM 50 kg	
	<b>Powdery mildew</b> ( <i>Erysiphe cichoracearum</i> )	<i>Ampelomyces quisqualis</i> 2 % WP	Folial Spray	2.5 kg /ha	
		Azadirachtin 0.03% EC (300 ppm) Neem Oil Based	Folial Spray	2-2.5 Kg/ha	
BANANA	<b>Sigatoka</b> ( <i>Mycosphaerella musicola</i> )	<i>Bacillus subtilis</i> 1.5% LF	Folial Spray	5 litre/ 750 litre water/ha	

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## CROP WISE RECOMMENDATION OF PLANT GROWTH REGULATORS(PGR)

Name of the Crops	Recomm- mendation of PGR by CIBRC / OUAT	a.i. (ppm/ gm/ %) / Ha	Formu-lation (ml/gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Prepa- ration of solution	Time of application / purpose	Remarks
ARHAR	<b>Paclobutrazole 40% SC</b>	30 g	75 g	500 ltr	At Flowering initiation stage	
COTTON	<b>Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)</b>	10-20 ppm.	222-444 ml	1000 ltr.	To prevent shedding of flower squares & bolls (3 sprays at 15 days interval from square formation stage	
	<b>Gibberellic Acid 0.001% L</b>	0.018gm	180 ml	450-500	a) First spray 40-45 DAP b) Second spray: At the time of ball formation	
	<b>Gibberellic Acid 0.186% SP</b>	142ppm.	71 gm	450-500	to improve fibre quality one spray at square formation or early flowering stage	
	<b>Mepiquat chloride 5% AS</b>	50-62.5 gm	1.0-1.25 ltr	500-600	single spray at flowering stage to Control of excessive vegetative growth and to increase crop yield in cotton	
	<b>Sodium Para - Nitrophenolate 0.3% SL</b>	0.50%	5ml	800	Flower bud initiated stage and fruit set stage	
	<b>Triacontanol 0.05% EC</b>	0.125 gm	0.25 ltr	400-500	To increase the yield, Three sprays at 45, 65 and 85 days after planting	
	<b>Triacontanol 0.05%w/w min. GR</b>	12.5 gm	25 kg.	-	To increase the yield, Broadcast & mix the desired quantity of granules in soil 2-3 days before sowing.	

Name of the Crops	Recomm- mendation of PGR by CIBRC / OUAT	a.i. (ppm/ gm/ %) / Ha	Formu-lation (ml/gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Prepa- ration of solution	Time of application / purpose	Remarks
COTTON	<b>Triacantanol 0.1% EW</b>	0.25 gm	0.25 ltr.	400-500	To increase the yield, Three sprays at 45, 65 and 85 days after planting	
	<b>Chlormequat Chloride 50% SL</b>	20-40 gm	40-50 ml	125-600	Square formation to early flowering – single spray	375- 600(high volume) 125- 187 (low volume)
	<b>Chlormequat Chloride 50% SL</b>	75gm	150 ml	375-600 ltrs .	Square formation to early flowering – single spray	
	<b>CYCLANILIDE 2.1% w/w + MEPIQUAT CHLORIDE 8.40% w/w SC</b>	4.40+17.60 to 4.95+19.80 gm	200-225 gm	500	First spray should be applied at square formation stage or after 45-55 days of sowing, 2nd and 3rd spray should be applied at an interval of 15 days.	
GROUND- NUT	<b>Gibberellic Acid 0.001%L</b>	0.018gm	180 ml	450-500	a) First spray at flowering (30-35 DAS)  b) Second spray at the time of flowering	
	<b>Triacantanol 0.05% EC</b>	0.125 gm	0.25 ltr	400-500	Three sprays at 25, 45 and 65 days after planting	
	<b>Triacantanol 0.05%w/w min. GR</b>	12.5 gm	25 kg.	-	Broadcast & mix the desired quantity of granules in soil 2-3 days before sowing.	
	<b>Triacantanol 0.1% EW</b>	0.25gm	0.25 ltr.	400-500	Three sprays at 25, 45 and 65 days after planting	
PADDY	<b>Gibberellic Acid 40% WSG</b>	20-25 g	50-62.5 g	500	20-25 days after transplanting Panicle Emergence	

Name of the Crops	Recomm- mendation of PGR by CIBRC / OUAT	a.i. (ppm/ gm/ %) / Ha	Formu-lation (ml/gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Prepa- ration of solution	Time of application / purpose	Remarks
PADDY	<b>Gibberellic Acid 0.001%L</b>	0.018gm	180 ml	450-500	To increase the yield and quality of the crop produce Short duration varieties 20-25DAT, Medium duration varieties 30-35 DAT , Long duration varieties 40-45 DAT	
	<b>Triacontanol 0.05% EC</b>	0.125 gm	0.25ltr	400-500	Three sprays at 25, 45 and 65 days after transplanting	
	<b>Triacontanol 0.05%w/w min. GR</b>	12.5 gm	25 kg.	-	Broadcast & mix the desired quantity of granules in soil 2-3 days before transplanting.	
	<b>Triacontanol 0.1% EW</b>	0.25 gm	0.25 ltr.	400-500	Three sprays at 25, 45 and 65 days after `transplanting	
SUGAR- CANE	<b>Hydrogen Cyanamide 49% AS ( Import )</b>	0.5	1.00%		Dipping of setts	Mix 1000 ml of the product per 100 litres of water
	<b>Gibberellic Acid 0.001%L</b>	0.018gm	180 ml	450-500	a) First spray 40-45 DAP, b) Second spray 70-80 DAS	
TOMATO	<b>Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)</b>	45ppm	-	4.5 ml/10 ltr	At the time of flowering two spray.	
	<b>Ethephon 39% SL</b>	2500ppm	-	2.5 ml/ltr	For uniform ripening post harvest dip treatment on fruits	
	<b>Sodium Para – Nitrophenolate 0.3% SL</b>	0.50%	4ml	200	Flowering and Fruit stages	
	<b>Triacontanol 0.05% EC</b>	0.125gm	0.25 ltr	400-500	Three sprays at 25, 45 and 65 days after planting	

Name of the Crops	Recomm- mendation of PGR by CIBRC / OUAT	a.i. (ppm/ gm/ %) / Ha	Formu-lation (ml/gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Prepa- ration of solution	Time of application / purpose	Remarks
TOMATO	<b>Triacontanol 0.05%w/w min. GR</b>	12.5 gm	25 kg.	-	Broadcast & mix the desired quantity of granules in soil 2-3 days before sowing.	
	<b>Triacontanol 0.1% EW</b>	0.25 gm	0.25 ltr.	400-500	Three sprays at 25, 45 and 65 days after planting	
CHILLY	<b>Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)</b>	10ppm	-	4.5 ml/10 ltr	Ist spray during flowering & 2nd spray 20 -30 days later.	
	<b>Triacontanol 0.05% EC</b>	0.125 gm	0.25ltr	400-500	Three sprays at 25, 45 and 65 days after planting	
	<b>Triacontanol 0.05%w/w min. GR</b>	12.5 gm	25 kg.	-	Broadcast & mix the desired quantity of granules in soil 2-3 days before sowing.	
	<b>Triacontanol 0.1% EW</b>	0.25 gm	0.25 Ltr.	400-500	Three sprays at 25, 45 and 65 days after planting	
BRINJAL	<b>Chlormequat Chloride 50% SL</b>	50ppm		400-500	Before sowing, seed soaking for 24 hours.	
TOMATO / POTATO/ CABBAGE/ CAULI- FLOWER	<b>Gibberellic Acid 0.001%L</b>	0.018gm	180 ml.	450-500	a) First spray 45 DAS b) Second spray 65 DAS	
BRINJAL/ BHINDI	<b>Gibberellic Acid 0.001%L</b>	0.045 gm	450 ml.	450-500	a)First spray 34 DAP b)Second spray 70 DAP	
POTATO	<b>Chlormequat Chloride 50% SL</b>	100 ppm.		1.0 ml/ltr	Dipping of cut pieces for 10 minutes	
	<b>Chlorpropham 50% HN</b>	18-20 gm/ mt	36-40 ml/mt		Antisprouting agent for stocked potatoes under cold storage condition Temp= 10+2oC, R.H.= 90+5%	Formulation is to be applied as such with fogging applicator
	<b>Triacontanol 0.05% EC</b>	0.250 gm	0.50 ltr	500-600	Two sprays at 30 and 45 days after planting	

Name of the Crops	Recomm- mendation of PGR by CIBRC / OUAT	a.i. (ppm/ gm/ %) / Ha	Formu-lation (ml/gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Prepa- ration of solution	Time of application / purpose	Remarks			
POTATO	Mepiquat chloride 5% AS	62.5-75gm	1.25-1.5Ltr	Mix 200 -300 ml of products in 10 ltrs of water.	One spray 45 DAP To restrict the excessive vegetative growth of potato and increasing its yield				
MANGO	Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)	20ppm	2 ml in 4.5litre.	500-1000	Ist spray when tender fruits one of pea size. 2 <sup>nd</sup> spray when fruits one of marble size( about 2 cm diameter)				
	Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)	200ppm	20 ml in 4.5 ltrs.	500-1000	To control Mango malformation- Before fruit bud differentiations approx.3 months before flowering				
	PACLOBUTRAZOL 23% SC(w/w) (25% w/v)			7-15 yrs old	15 ml/tree	Recommended quantity diluted in clean water of 5 Lit and applied in furrow 5 to 10 cm deep about 30 cm away from the trunk. Fill up with soil after application or apply as soil collar drench.	To reduce the inter node length of new shoots and earlier formation of terminal bud. Application after the harvest of fruits any time from July to October.		
				16-25 yrs old	20 ml/tree				
				above 25 yrs old	30ml/tree				
	Ethephon 39% SL	200ppm				a) for breaking alternate bearing and to increase yiled Total 5 sprays, Ist spray in mid October or early November & Subsequent sprays at fortnightly interval			
								1000 ppm	
500ppm									
PINE- APPLE	Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)	10ppm (In dry weather half strength solution i.e. 5 ppm may be used)	1 ml in 4.5 ltrs ( pour 30-50 ml of solution in to the head of each plant)		(a)To induce flowering and uniform growth				



Name of the Crops	Recomm- mendation of PGR by CIBRC / OUAT	a.i. (ppm/ gm/ %) / Ha	Formu-lation (ml/gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Prepa- ration of solution	Time of application / purpose	Remarks
PINE- APPLE	Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)		10 ml in 4.5 ltrs.( spray to wet the whole plant)			
		199ppm	10 ml in 4.5 ltrs.(Wet the whole fruit 2 weeks before harvest.)		(b)To increase fruit size.	
		100ppm			To delay maturity - Two weeks before harvest.	
	Ethephon 39% SL	100ppm			For flower induction	
POME- GRANATE	Ethephon 39% SL	390-487.5 gm	1000-1250 ml	500 ltr	Defoliation for better flowering and fruit yield (One spray around 1 month before Mrig bahar (Jun-July)/ Hast bahar (Oct.-Nov) / Ambe bahar (Dec-Jan)	
	Paclobutrazol 23% SC(w/w) (25% w/v)	0.69 g. ai		3.0 ml/tree	Recommended as soil drench (single application) ring from furrow to be made at a depth of 5-7 cm around plants and soil drenching to be done in active root zone and covered with soil.	To induce flowering and enhance yield.
BANANA	Gibberellic Acid 0.001%L	0.027gm	270 ml.	450-500	a) First spray 3 <sup>rd</sup> month, b) Second spray 5 <sup>th</sup> month, c)Third spray at the time of fruit formation	

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## CROP WISE RECOMMENDATION OF MICRONUTRIENTS BY OUAT

Name of the Crop	Name of Micronutrients	Dose of application	Formulation in Ha	Time & Method of application
RICE	SULPHUR(90 % S) POWDER	20 kg S/ha	22 kg/ha	Soil application as basal
	SULPHUR(90 % S) GR	20 kg S/ha	22 kg/ha	Soil application as basal
	PHOSPOGYPSUM (17% S)	20 kg S/ha	118 kg/ha	Soil application as basal
	GYPSUM(15 % S)	20 kg S/ha	133 Kg / ha	Soil application as basal
	ZINC SULPHATE HEPTA HYDRATE (21% Zn)	5kg Zn/ha	24kg/ha	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	5kg Zn/ha	15 kg/ha	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	5kg Zn/ha	15kg/ha	Soil application as basal
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	5kg Zn/ha	13 kg/ha	Soil application as basal
	ZINC POLYPHOSPHATE ( 16% Zn)	5kg Zn/ha	31kg/ha	Soil application as basal
	BORAX (10.5% B)	1 kg B/ha	10 kg / ha	Soil application as basal
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	Soil application as basal
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	Soil application as basal
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	Soil application as basal
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	Soil application as basal
MAIZE	GYPSUM (15% S)	30kg S/ha	200 kg/ha	Soil application as basal
	SULPHUR(90 % S) POWDER	30kg S/ha	33 kg/ha	Soil application as basal
	SULPHUR(90 % S) GR	30kg S/ha	33 kg/ha	Soil application as basal
	PHOSPOGYPSUM (17% S)	30kg S/ha	176 kg/ha	Soil application as basal
BLACK GRAM/ GREEN GRAM / BENGAL GRAM	ZINC SULPHATE HEPTA HYDRATE (21% Zn)	2.5kg Zn/ha	12kg/ha	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2.5kg Zn/ha	8 kg/ha	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2.5kg Zn/ha	8kg/ha	Soil application as basal
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2.5kg Zn/ha	6 kg/ha	Soil application as basal

Name of the Crop	Name of Micronutrients	Dose of application	Formulation in Ha	Time & Method of application
BLACK GRAM/ GREEN GRAM / BENGAL GRAM	ZINC POLYPHOSPHATE ( 16% Zn)	2.5kg Zn/ha	16kg/ha	Soil application as basal
	BORAX (10.5% B)	1 kg B/ha	10 kg / ha	Soil application as basal
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	Soil application as basal
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	Soil application as basal
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	Soil application as basal
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	Soil application as basal
	BORAX (10.5% B)	0.03%B	3 g/Litre	two spraying at 20 & 40 days after sowing.
	BORIC ACID( 17% B)	0.03%B	2 g/Litre	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	0.03%B	2 g/Litre	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	0.03%B	2 g/Litre	
	ANHYDROUS BORAX ( 20.5% B)	0.03%B	1.5 g/Litre	
	SODIUM MOLYBDATE (39%Mo)	4 g Mo/25 kg seed	10 gm / 25kg seed	Seed treatment with slurry of Rhizobium culture
	AMMONIUM MOLYBDATE (52%Mo)	4 g Mo/25 kg seed	8 g / 25kg seed	Seed treatment with slurry of Rhizobium culture
	GYPSUM (15% S)	30 kg S/ha	200 kg/ha	Soil application as basal
	SULPHUR(90 % S) POWDER	30kg S/ha	33 kg/ha	Soil application as basal
	SULPHUR(90 % S) GR	30kg S/ha	33 kg/ha	Soil application as basal
	PHOSPOGYPSUM (17% S)	30kg S/ha	176 kg/ha	Soil application as basal
GROUND-NUT	GYPSUM (15% S)	45 kg S/ha	300 kg/ha	Soil application as basal
	PHOSPHOGYPSUM(17% S)	45 kg S/ha	265 kg/ha	Soil application as basal
	SULPHUR(90 % S) POWDER	45 kg S/ha	50 kg/ha	Soil application as basal
	SULPHUR(90 % S) GR	45 kg S/ha	50 kg/ha	Soil application as basal
	ZINC SULPHATE HEPTA HYDRATE (21% ZN)	2.5-5.0 kg Zn/ha	12 - 24 kg / ha	Soil application of Zn @ 5kg / ha as basal or soil application of 2.5 kg Zn/ha as basal+2 sprays @ 0.1% Zn at 20 & 40 DAS
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2.5-5.0 kg Zn/ha	8 - 15 kg / ha	
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2.5-5.0 kg Zn/ha	8 - 15 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2.5-5.0 kg Zn/ha	6 - 13 kg / ha	
	ZINC POLYPHOSPHATE ( 16% Zn)	2.5 - 5 kg Zn/ha	16 - 31 kg / ha	
	BORAX(10.5 %B)	1.0 kg B/ha	10 Kg / ha	Soil application as basal
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	Soil application as basal

Name of the Crop	Name of Micronutrients	Dose of application	Formulation in Ha	Time & Method of application
GROUNDNUT	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	Soil application as basal
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	Soil application as basal
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	Soil application as basal
	SODIUM MOLYBDATE (39%MO)	4 g Mo/25 kg seed	10 gm/ 25kg seed	Seed treatment with slurry of Rhizobium culture
	AMMONIUM MOLYBDATE (52%Mo)	4 g Mo/25 kg seed	8 g / 25kg seed	Seed treatment with slurry of Rhizobium culture
OTHER PULSES	GYPSUM(15 % S)	30 kg S/ha	200 kg/ha	Soil application as basal
	PHOSPHOGYPSUM(17% S)	30 kg S/ha	176 kg/ha	Soil application as basal
	SULPHUR(90 % S) POWDER	30 kg S/ha	33 kg/ha	Soil application as basal
	SULPHUR(90 % S) GR	30 kg S/ha	33 kg/ha	Soil application as basal
	SODIUM MOLYBDATE (39%MO)	4 g Mo/25 kg seed	10 gm/ 25kg seed	Seed treatment with slurry of Rhizobium culture
	AMMONIUM MOLYBDATE (52%Mo)	4 g Mo/25 kg seed	8 g / 25kg seed	Seed treatment with slurry of Rhizobium culture
	BORAX (10.5% B)	1 kg B/ha	10 kg / ha	Soil application as basal
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	Soil application as basal
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	Soil application as basal
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	Soil application as basal
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	Soil application as basal
	BORAX (10.5% B)	0.03%B	3 g/Litre	two spraying at 20 & 40 days after sowing.
	BORIC ACID( 17% B)	0.03%B	2 g/Litre	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	0.03%B	2 g/Litre	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	0.03%B	2 g/Litre	
	ANHYDROUS BORAX ( 20.5% B)	0.03%B	1.5 g/Litre	
MUSTARD & TORIA	GYPSUM(15 % S)	45 kg S/ha	300 kg/ha	Soil application as basal
	SULPHUR(90 % S) POWDER	45 kg S/ha	50 kg/ha	Soil application as basal
	SULPHUR(90 % S) GR	45 kg S/ha	50 kg/ha	Soil application as basal
	PHOSPOGYPSUM (17% S)	45 kg S/ha	265 kg/ha	Soil application as basal
	ZINC SULPHATE HEPTA HYDRATE (21% ZN)	2.5 kg Zn/ha	12 kg / ha	Soil application as basal for mustard

Name of the Crop	Name of Micronutrients	Dose of application	Formulation in Ha	Time & Method of application
MUSTARD & TORIA	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2.5 kg Zn/ha	8 kg / ha	Soil application as basal for mustard
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2.5 kg Zn/ha	8 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2.5 kg Zn/ha	6 kg / ha	
	ZINC POLYPHOSPHATE ( 16% Zn)	2.5 kg Zn/ha	16 kg / ha	
	ZINC SULPHATE HEPTA HYDRATE (21% ZN)	5 kg Zn/ha	24 kg / ha	Soil application as basal for Toria ( In acute Zn deficiency Soil)
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	5 kg Zn/ha	15 kg / ha	
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	5 kg Zn/ha	15 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	5 kg Zn/ha	13 kg / ha	
	ZINC POLYPHOSPHATE ( 16% Zn)	5 kg Zn/ha	31 kg / ha	
	BORAX(10.5 %B)	1kg B/ha	10 kg/ha,	Soil application as basal
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	
SESAMUM	ZINC SULPHATE ( 21% ZN)	2.5 kg Zn/ ha	12 kg / ha	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2.5 kg Zn/ha	8 kg / ha	
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2.5 kg Zn/ha	8 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2.5 kg Zn/ha	6 kg / ha	
	ZINC POLYPHOSPHATE ( 16% Zn)	2.5 kg Zn/ha	16 kg / ha	
SUGAR-CANE	ZINC SULPHATE HEPTA HYDRATE (21 % ZN)	5 kg Zn/ha	24 kg / ha,	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	5 kg Zn/ha	15 kg / ha	
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	5 kg Zn/ha	15 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	5 kg Zn/ha	13 kg / ha	

Name of the Crop	Name of Micronutrients	Dose of application	Formulation in Ha	Time & Method of application
SUGAR-CANE	ZINC POLYPHOSPHATE ( 16% Zn)	5 kg Zn/ha	31 kg / ha	Soil application as basal
	BORAX (10.5%B)	1kg B/ha	10 kg/ha	
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	
COTTON	GYPSUM (15 % S)	15 kg S/ha	100 kg/ha	Soil application as basal
	PHOSPHOGYPSUM(17% S)	15 kg S/ha	88 kg/ha	
	SULPHUR(90 % S) POWDER	15 kg S/ha	16 kg/ha	
	SULPHUR(90 % S) GR	15 kg S/ha	16 kg/ha	
	MAGNESIUM SULPHATE (9.5% Mg)	2 - 5 Kg Mg/ ha	20 - 50 kg/ha	Foliar Spray at 30 DAS
	ZINC SULPHATE HEPTA HYDRATE (21% ZN)	2 - 5 kg Zn/ha	10 - 24 kg / ha	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2 - 5 kg Zn/ha	6 - 15 kg / ha	
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2 - 5 kg Zn/ha	6 - 15 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2 - 5 kg Zn/ha	5 - 13 kg / ha	
	ZINC POLYPHOSPHATE ( 16% Zn)	2 - 5 kg Zn/ha	13 - 31 kg / ha	
	ZINC SULPHATE HEPTA HYDRATE (21% ZN)	0.05 % Zn	5 gm/ ltr	Foliar Spray
	BORAX (10.5%B)	1kg B/ha	10 kg/ha	Soil application as basal
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	
BORAX (10.5%B)	0.02-0.03 % B	2 - 3 g/ ltr	Foliar Spray	
ONION	ZINC SULPHATE HEPTA HYDRATE (21 % ZN)	2.5 kg Zn/ha	12 Kg /ha	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2.5 kg Zn/ha	8 kg / ha	

Name of the Crop	Name of Micronutrients	Dose of application	Formulation in Ha	Time & Method of application	
ONION	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2.5 kg Zn/ha	8 kg / ha	Soil application as basal	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2.5 kg Zn/ha	6 kg / ha		
	ZINC POLYPHOSPHATE ( 16% Zn)	2.5 kg Zn/ha	16 kg / ha		
	GYPSUM (15 % S)	45 kg S/ha	300 Kg/ ha		
	SULPHUR(90 % S) POWDER	45 kg S/ha	50 kg/ha		
	SULPHUR(90 % S) GR	45 kg S/ha	50 kg/ha		
	PHOSPOGYPSUM (17% S)	45 kg S/ha	265 kg/ha		
COLE CROPS (CABBAGE, CAULIFLOWER, KNOL-KHOL, BROCOLI ETC.)	BORAX (10.5% B)	1 kg B/ha	10 kg / ha	Soil application as basal	
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha		
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha		
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha		
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha		
	BORAX (10.5% B)	0.03%B	3 g/Litre		Foliar spray at 30 DAT for short duration and at 30 & 50 DAT for long duration crops
	BORIC ACID( 17% B)	0.03%B	2 g/Litre		
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	0.03%B	2 g/Litre		
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	0.03%B	2 g/Litre		
	ANHYDROUS BORAX ( 20.5% B)	0.03%B	1.5 g/Litre		
	ZINC SULPHATE HEPTA HYDRATE (21% ZN)	2.5-5.0 kg Zn/ha	12 - 24 kg / ha	Soil application of Zn @ 5kg / ha as basal or soil application of 2.5 kg Zn/ha as basal+2 sprays @ 0.1% Zn at 20 & 40 DAS	
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2.5-5.0 kg Zn/ha	8 - 15 kg / ha		
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2.5-5.0 kg Zn/ha	8 - 15 kg / ha		
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2.5-5.0 kg Zn/ha	6 - 13 kg / ha		
	ZINC POLYPHOSPHATE ( 16% Zn)	2.5 - 5 kg Zn/ha	16 - 31 kg / ha		
	GYPSUM (15 % S)	30 kg S/ha	200 Kg/ ha		Soil application as basal
	PHOSPHOGYPSUM(17% S)	30 kg S/ha	176 kg/ha		Soil application as basal
SULPHUR(90 % S) POWDER	30 kg S/ha	33 kg/ha	Soil application as basal		
SULPHUR(90 % S) GR	30 kg S/ha	33 kg/ha	Soil application as basal		



Name of the Crop	Name of Micronutrients	Dose of application	Formulation in Ha	Time & Method of application
FIELD PEA	ZINC SULPHATE HEPTA HYDRATE (21%ZN)	2.5 kg Zn/ha	12 Kg /ha	Soil application along with 200 kg FYM/ha
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2.5 kg Zn/ha	8 kg / ha	
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2.5 kg Zn/ha	8 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2.5 kg Zn/ha	6 kg / ha	
	ZINC POLYPHOSPHATE ( 16% Zn)	2.5 kg Zn/ha	16 kg / ha	
	BORAX(10.5 %B)	1kg B/ha	10 kg/ha,	Soil application as basal
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	
SODIUM MOLYBDATE (39%MO)	4 g Mo/25 kg seed	10 gm/ 25kg seed	Seed treatment with slurry of Rhizobium culture	
AMMONIUM MOLYBDATE (52%Mo)	4 g Mo/25 kg seed	8 g / 25kg seed		
POTATO	ZINC SULPHATE HEPTA HYDRATE (21 % ZN)	5 kg Zn/ha	24 kg / ha,	Soil application as basal
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	5 kg Zn/ha	15 kg / ha	
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	5 kg Zn/ha	15 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	5 kg Zn/ha	13 kg / ha	
	ZINC POLYPHOSPHATE ( 16% Zn)	5 kg Zn/ha	31 kg / ha	
	GYPSUM (15 % S)	45-60 kg S/ha	300-400 Kg/ ha	Soil application as basal
	SULPHUR(90 % S) POWDER	45-60 kg S/ha	50-66 kg/ha	
	SULPHUR(90 % S) GR	45-60 kg S/ha	50-66 kg/ha	
	PHOSPOGYPSUM (17% S)	45-60 kg S/ha	265-350 kg/ha	
TOMATO	ZINC SULPHATE HEPTA HYDRATE (21 % ZN)	2.5-5.0 kg Zn/ha	12 - 24 Kg /ha	Soil and at 30 & 50 DAT for long duration
	ZINC SULPHATE MONO HYDRATE (33% Zn)POWDER	2.5-5.0 kg Zn/ha	8 - 15 kg / ha	
	ZINC SULPHATE MONO HYDRATE (33% Zn)GR	2.5-5.0 kg Zn/ha	8 - 15 kg / ha	
	ZINC OXIDE SUSPENSION CONCENTRATE ( 39.5% Zn)	2.5-5.0 kg Zn/ha	6 - 13 kg / ha	
	ZINC POLYPHOSPHATE ( 16% Zn)	2.5 - 5 kg Zn/ha	16 - 31 kg / ha	

Name of the Crop	Name of Micronutrients	Dose of application	Formulation in Ha	Time & Method of application
TOMATO	BORAX(10.5 %B)	1.0 kg B/ha	10 kg/ha	Soil application of B @ 1kg B/ha as basal
	BORIC ACID( 17% B)	1 kg B/ha	6 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	1 kg B/ha	7 kg / ha	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	1 kg B/ha	7 kg / ha	
	ANHYDROUS BORAX ( 20.5% B)	1 kg B/ha	5 kg / ha	
	BORAX(10.5 %B)	0.03%B	3 gm/ litre	Two foliar sprays @ 0.03% B at 20 days interval starting from 30 days after sowing.
	BORIC ACID( 17% B)	0.03%B	2 g/Litre	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	0.03%B	2 g/Litre	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	0.03%B	2 g/Litre	
	ANHYDROUS BORAX ( 20.5% B)	0.03%B	1.5 g/Litre	
VEGETABLES (OTHERS)	GYPSUM(15 % S)	30 kg S/ha	200 Kg /ha	Soil application as basal
	SULPHUR(90 % S) POWDER	30kg S/ha	33 kg/ha	
	SULPHUR(90 % S) GR	30kg S/ha	33 kg/ha	
	PHOSPOGYPSUM (17% S)	30kg S/ha	176 kg/ha	
COCONUT	BORAX(10.5 %B)	5 gm B/plant	50 gm /Plant	Soil application 1 to 5 years old or less coconut plant
	BORIC ACID( 17% B)	5 gm B/plant	30 gm /Plant	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	5 gm B/plant	35 gm /Plant	
COCONUT	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	5 gm B/plant	35 gm /Plant	Soil application 1 to 5 years old or less coconut plant
	ANHYDROUS BORAX ( 20.5% B)	5 gm B/plant	25 gm /Plant	
	BORAX(10.5 %B)	10 gm B/plant	100 gm/plant	Soil application to above 5 years old coconut plant
	BORIC ACID( 17% B)	10 gm B/plant	60 gm/plant	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) POWDER	10 gm B/plant	70 gm/plant	
	DI-SODIUM TETRA BORATE PENTA HYDRATE ( 14.5% B) GR	10 gm B/plant	70 gm/plant	
	ANHYDROUS BORAX ( 20.5% B)	10 gm B/plant	50 gm/plant	

NB : 1. Secondary Nutrients & Micronutrients should be applied to the deficient soil on the basis of soil test Report avoiding multi micronutrient sources.

2. Other FCO approved formulations of Micronutrients with different concentrations of nutrient elements can also be used. The dose of nutrient elements remaining same, but the formulation dose may be changed (increase/decrease) accordingly.

## LIMING MATERIALS

Crops	Liming Materials	General recommendations	Formulation Dose	Time & Method of Application
<b>DICOTS</b> <b>(Pulses, Vegetables, Oil seeds, Flower etc.)</b> ( 0.2LR or 1/5 th of Lime require-ment)	PMS (NV 60)	1000 Kg CaCO <sub>3</sub> /ha	1600 Kg/ha	Soil application with FYM/ Compost on the day of sowing below the seed zone. For Seedling transplanting it should be applied one day before transplanting.
	Calcium Silicate /Phosphate Silicate of Lime/ Basic Slag ( NV 80)		1200 Kg/ha	
	Stromatolyte ( Natural Deposits) (NV 80)		1200 Kg/ha	
<b>MONO-COTS</b> <b>(Maize, Ragi, Millets etc.)</b> ( 0.1LR or 1/10 th of Lime require-ment)	PMS(NV 60)	500 Kg CaCO <sub>3</sub> /ha	800 Kg/ha	Soil application with FYM/ Compost on the day of sowing below the seed zone. For Seedling transplanting it should be applied one day before transplanting.
	Calcium Silicate /Phosphate Silicate of Lime/ Basic Slag ( NV 80)		600 Kg/ha	
	Stromatolyte ( Natural Deposits) (NV 80)		600 Kg/ha	

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## CROP WISE RECOMMENDATION OF BIO-FERTILIZERS & ORGANIC FERTILIZERS

Crop	Name of Bio-Fertilizers	Dosage per ha (kg/ml)	Time & Method of application		Remarks
			Seed	Soil	
PADDY (UPLAND)	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12 kg	Coating of 200 gm for 10-12 kg of seeds for nursery	Inoculation of microbes to limed (5%) vermicompost/ FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture. Apply to upland and direct sown crop.	Soil application
	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (LIQUID)	10 L	Soaking with 100 ml mixed with 2 lit of water for 10-12 kg of seeds for nursery		Soil application
LOWLAND OR MEDIUM LAND PADDY	BLUE GREEN ALGAE	10 kg/ha	Dry BGA to broadcast 5-7 DAT at 3-5 cm standing water		
	AZOLLA	One ton fresh azolla/ ha	As green manure 15 days prior to transplanting @ 1 ton fresh azolla/ha as main crop or as intercrop with rice.		
MAIZE	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12kg	200g for 10-12 kg seed	Inoculation of microbes to limed (5%) vermicompost/ FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture.	
	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (LIQUID)	10 L	Soaking with 100 ml mixed with 2 lit of water for 10-12 kg of seeds		
RAGI	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12kg	-	Inoculation of microbes to limed (5%) vermicompost/ FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture.	
	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (LIQUID)	10 L			
ARHAR, BIRI, MUNG, BENGAL GRAM, GROUND-NUT	RHIZOBIUM (POWDER)	500g/ 25kg of seed	Coating of 500g/25kg Rhizobium and drying under shade	Inoculation of 4kg/3.5 L PSB with 100 kg FYM/ vermicompost incubating at room temperature for 7 days at 30% moisture and applying at the time of sowing.	1. At the time of sowing. 2. Seed Inoculation & Sowing in cool hour (afternoon hours)
	RHIZOBIUM (LIQUID)	250ml/ 25kg of seed			
	PSB (POWDER)	4kg			
	PSB (LIQUID)	3.5L			

Crop	Name of Bio-Fertilizers	Dosage per ha (kg/ml)	Time & Method of application		Remarks
			Seed	Soil	
OILSEEDS (MUSTARD, SUN-FLOWER, SESAMUM)	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12kg		Inoculation of microbes to limed (5%) vermicompost/FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture	Rhizospheric application at the time planting/ Sowing
	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (LIQUID)	10 L			
COTTON	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12kg		Inoculation of microbes to limed (5%) vermicompost/FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture	Rhizospheric application at the time planting / sowing
	CONSORTIA OF AZOTOBACTER + PSB (LIQUID)	10 L			
SUGAR-CANE	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12kg	2kg for setts dipping treatment	10 kg for main field treatment with FYM/ Compost at 30% moisture	for Adsali crop (18 months) another dose may be top dressed with organic manure
	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (LIQUID)	10 L	2.0 L for setts dipping treatment	8L for main field treatments with FYM/ Compost at 30% moisture	
JUTE	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12kg	-	Inoculation of microbes to limed (5%) vermicompost/ FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture.	
	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (LIQUID)	10 L			
	MICROBIAL CONSORTIUM (Talc based retting consortium made up of pectinolytic bacteria having xylanase activity without any cellulase activity which facilitates the jute retting process)	20-25 Kg	Apply talc based retting formulation to the bundles of jute plants before immersing in to the water for retting After application of the formulation on the Jute plants, Sand bags should be used as jak for immersing the bundles.		
VEGE-TABLES	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12kg	2 kg Rhizospheric application at the time nursery sowing	10kg/8L for main field. Inoculation of microbes to limed (5%) vermicompost/ FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture.	Seedling root dip may also be done.
	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (LIQUID)	10L	2L for nursery sowing		

Crop	Name of Bio-Fertilizers	Dosage per ha (kg/ml)	Time & Method of application		Remarks
			Seed	Soil	
VEGE-TABLES	VERMICOMPOST/ CITY COMPOST/ PRESS MUD/ ORGANIC MANURE	2.5 ton/ ha	-	Rhizosperic application at the time of planting.	Soil application
	NON EDIBLE DE-OILED CAKE	1.0 ton/ ha.			Soil application
	MYCORRHIZA	12.5 kg/ ha	-	Mixed with 500 kg compost	Soil application
FLOWERS	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12kg		100-200g per pot. Inoculation of microbes to limed (5%) vermicompost /FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture.	
	CONSORTIA OF AZOTOBACTER + PSB (LIQUID)	10 L			
FRUIT CROPS/ PLANTATION CROP	CONSORTIA OF AZOTOBACTER + AZOSPIRILLIUM + PSB (CARRIER BASED)	12 kg	Rhizosperic application at the time of planting/sowing	Inoculation of microbes (1:1:1) to limed (5%) vermicompost/ FYM in 1: 25 ratio, incubate it for 7 days at 30% moisture.	Soil application
			200-500g per plant or pit		
	Mycorrhiza (VAM)	50-100 g of mycorrhizal inoculums per plant or pit			
	VERMICOMPOST/ CITY COMPOST/ PRESS MUD / ORGANIC MANURE	2-5 kg/ plant/ year			Soil application
	NON EDIBLE DE-OILED CAKE	0.5-1Kg/ plant/ year			Soil application

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## CROP WISE RECOMMENDATION OF TRAPS & LURES

Crop	Target Pest	Name of Traps & Lures	Nos. Per Ha	Time of Application/ Installation
PADDY	YSB-Scirpophaga incertulas	Pheromone Trap	20	20 DAT/30 DAS (replace lure after 3 weeks)
		Scirpo lure		
		Light Trap	1	
	LEAF FOLDER, Cnaphalocrosis medinalis	Pheromone Trap	20	20 DAT/30 DAS (replace lure after 3 weeks)
		Cnaphalo lure		
		Light Trap	1	
	Rice Ear cutting caterpillar, Mythimna separata	Pheromone Trap	20	20 DAT/30 DAS (replace lure after 3 weeks)
		Mythimna lure		
		Light Trap	1	
MAIZE	Pink stem borer, <i>Sesamia inferens</i>	Pheromone Trap	20	20 DAT/30 DAS (replace lure after 3 weeks)
		<i>Sesamia inferens</i> lure		
	Army worm, <i>Mythimna separata</i>	Pheromone Trap	20	20 DAT/30 DAS (replace lure after 3 weeks)
		<i>Mythimna</i> lure		
	Fall Army Worm, <i>Spodoptera frugiperda</i>	Pheromone Trap	20	20 DAT/30 DAS (replace lure after 3 weeks)
		Spodo lure		
	Hairy caterpillar, <i>Amsacta albistriga</i>	Light trap	2-3	Vegetative stage, 6PM to 9PM
ARHAR/ RED GRAM	Gram Pod borer, <i>Helicoverpa armigera</i>	Pheromone Trap	20	Just before flowering (replace lure after 3 weeks)
		Heli lure		
	Spotted pod borer, <i>Maruca vitrata</i>	Pheromone Trap	20	Just before flowering (replace lure after 3 weeks)
		Maruca lure		
	Bihar hairy caterpillar, <i>Spilosoma obliqua</i>	Light trap	2-3	Vegetative stage, 6PM to 9PM
	Red hairy caterpillar, <i>Amsacta moori</i> /A. <i>albistriga</i>	Light trap	2-3	Vegetative stage, 6PM to 9PM
	Aphids/ White fly	Yellow sticky trap	20	Vegetative stage
Thrips	Blue sticky trap	20	Vegetative stage	
BLACK GRAM/ GREEN GRAM	Gram Pod borer ( <i>Helicoverpa armigera</i> )	Pheromone Trap	20	Vegetative stage (replace lure after 3 weeks)
		Heli lure		
	Spotted pod borer, <i>Maruca vitrata</i>	Pheromone Trap	20	Vegetative stage (replace lure after 3 weeks)
		Maruca lure		



BLACK GRAM/ GREEN GRAM	Bihar hairy caterpillar, Spilosoma obliqua	Light trap	2-3	Vegetative stage, 6PM to 9PM
	Aphids/ Jassids/ White fly	Yellow sticky trap	20	Vegetative stage
	Thrips	Blue sticky trap	20	Vegetative stage
BENGAL GRAM	Gram Pod borer (Helicoverpa armigera )	Pheromone Trap	20	Vegetative stage (replace lure after 3 weeks)
		Heli lure		
	Tobacco caterpillar (Spodoptera litura )	Pheromone Trap	20	Vegetative stage (replace lure after 3 weeks)
		Spodo lure		
Aphids	Yellow sticky trap	20	Vegetative stage	
GROUND NUT	Gram Pod borer (Helicoverpa armigera )	Pheromone Trap	20	Vegetative stage (replace lure after 3 weeks)
		Heli lure		
	Tobacco caterpillar (Spodoptera litura )	Pheromone Trap	20	Vegetative stage (replace lure after 3 weeks)
		Spodo lure		
	Leaf miner (Aproarema modicella )	Pheromone Trap/ Delta	20	Vegetative stage (replace lure after 3 weeks)
		Aproarema lure		
	Bihar hairy caterpillar (Spilosoma obliqua), Red hairy caterpillar (Amsacta moori /A. albistriga )	Light trap	2-3	Vegetative stage, 6PM to 9PM
Aphids, Jassids	Yellow sticky trap	20	Vegetative stage	
Thrips	Blue sticky trap	20	Vegetative stage	
MUSTARD	Mustard aphid (Lipaphis erysimi )	Yellow sticky trap	20	Vegetative/Flowering stage
	Bihar hairy caterpillar (Spilosoma obliqua )	Light trap	2-3	Vegetative stage, 6PM to 9PM
COTTON	Pink boll worm (Pectinophora gossypiella )	Pheromone Trap	20	Vegetative-flowering stage (replace lure after 3 weeks)
		Pectino lure		
	American boll worm (Helicoverpa armigera )	Pheromone Trap	20	Vegetative-flowering stage (replace lure after 3 weeks)
		Heli lure		
	Tobacco caterpillar (Spodoptera litura )	Pheromone Trap	20	Vegetative-flowering stage (replace lure after 3 weeks)
		Spodo lure		
	Spiny boll worm (Earias insulana )	Pheromone Trap	20	Vegetative-flowering stage (replace lure after 3 weeks)
		Insulana lure		
Spotted bollworm (Earias vittella )	Pheromone Trap	20	Vegetative-flowering stage (replace lure after 3 weeks)	
	Vittella lure			
Aphids, Jassids, White fly	Yellow sticky trap	20	Vegetative stage	
Thrips	Blue sticky trap	20	Vegetative stage	
SUGAR-CANE	Early Shoot borer (Chilo infuscatellus )	Pheromone Trap	20	Vegetative stage (replace lure after 3 weeks)
		Infuscatellus lure		

SUGAR-CANE	Internode borer ( <i>Chilo sacchariphagus indicus</i> )	Pheromone Trap	20	Grand growth stage (replace lure after 3 weeks)
		Indicus lure		
SUGAR-CANE	Top shoot borer ( <i>Scirpophaga novella/excerptalis</i> )	Pheromone Trap	20	Cane formation stage (replace lure after 3 weeks))
		Novella/Excerptalis lure		
	Pink stem borer ( <i>Sesamia inferens</i> )	Pheromone Trap	20	Grand growth stage (replace lure after 3 weeks)
		Sesamia inferens lure		
	Stalk borer ( <i>Chilo auricilius</i> )	Pheromone Trap	20	Grand growth stage (replace lure after 3 weeks)
Auricilius lure				
Aphids, White fly	Yellow sticky trap	20	Vegetative stage- Grand growth stage	
BRINJAL	Brinjal fruit and shoot borer ( <i>Leucinodes orbonalis</i> )	Pheromone trap/ Wata trap	20	Vegetative stage, Replace lure after 3weeks
		Leuci lure		
	Aphids, Jassids, White fly	Yellow sticky trap	20	Vegetative stage
TOMATO	Fruit borer ( <i>Helicoverpa armigera</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks
		Heli lure		
	Tobacco caterpillar ( <i>Spodoptera litura</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks
		Spodo lure		
TOMATO	Tomato leaf miner ( <i>Tuta absoluta</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks
		Absoluta lure		
	Aphids, Jassids, White fly	Yellow sticky trap	20	Vegetative stage
OKRA	Shoot and fruit borer ( <i>Earias vitelia</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks
		Vittella lure		
	Shoot and fruit borer ( <i>Earias insulana</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks
		Insulana lure		
Fruit borer ( <i>Helicoverpa armigera</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks	
	Heli lure			
Aphids, Jassids, White fly	Yellow sticky trap	20	Vegetative stage	
CHILLI	Fruit borer ( <i>Helicoverpa armigera</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks
		Heli lure		
	Tobacco caterpillar ( <i>Spodoptera litura</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks
Spodo lure				
	Thrips	Blue sticky trap	20	Vegetative stage
COLE CROPS	Diamond back moth ( <i>Plutella xylostella</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3weeks
		Plutella lure		

COLE CROPS	Tobacco caterpillar ( <i>Spodoptera litura</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3 weeks
		Spodo lure		
	Aphids, Jassids	Yellow sticky trap	20	Vegetative stage
CUCURBITS	Cucurbit fruit fly ( <i>Bactrocera cucurbitae</i> )	Fruit fly trap	8	Vegetative stage, Replace lure after 3 weeks
		Cucurbitae lure		
	Pumpkin leaf caterpillar ( <i>Diaphania indica</i> )	Pheromone Trap	20	Vegetative stage, Replace lure after 3 weeks
		Diaphania lure		
Serpentine leaf miner ( <i>Liriomyza trifolii</i> )	Yellow sticky trap	20	Vegetative stage	
FRUITS	Oriental fruit fly ( <i>Bactrocera dorsalis</i> )	Fruit fly trap	8	Just before flowering, Replace lure every 3 months
		Dorsalis lure		
COCONUT	Rhinoceros Beetle ( <i>Oryctes rhinoceros</i> )	Coco trap	2 per plant	Any stage of tree & Replace lure every 3 months
		Oryctes rhinoceros lure		
		Light trap		
	Red Palm weevil ( <i>Rhynchophorus ferrugineus</i> )	Coco trap	2 per plant	Any stage of tree & Replace lure every 3 months
		Rhynchophorus ferrugineus lure		
	Black headed caterpillar ( <i>Opisina arenosella</i> )	Pheromone Trap	20	Any stage of tree & Replace lure every 3 months
Opisina lure				
Rugose Spiralling White fly ( <i>Aleurodicus rugioperculatus</i> Martin)	Yellow Sticky Trap	1 per Tree	Any stage of the Tree	

Sd/-  
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## IPM KIT

Sl no	Item	Specification	Quantity
1	SWEEP NET	Steel ring 5 mm thickness 37.5 cm diameter with 37.5 cm flap & 60 cm long conical bag made of markin cloth and a sturdy 1m. Long handle of 2.5 cm diameter. Ring cover flap made of jeans cloth	1
2	HAND LENS -(10 X)	Steel framed Box ( Folded)	1
3	BRUSH	Camel Hair No. 3	1
4	WATCH GLASS	7.5cm diameter	1
5	PLASTIC VIALS	7.5 cm x 2.5cm with lid	5
6	DISSECTING NEEDLE	with plastic handle	1
7	POLY BAG	30 X 20 cm	10
8	RUBBER BAND	( 2.5 cm diameter)	20
9	NOTE PAD/ WRITING PAD	20 X 13 cm & 40 pages	1
10	BALL PEN	15 cm with cap	1
11	CELLO TAP	1.5 X 9 mtr	1
12	DRAWING/ SKETCH PEN	Blue and Red	2
13	IPM CAP	Front cover 7.5 cm length , 16.5 cm diameter, 17.5 cm elastic trap and tight & loose system with National IPM emblem embrassing.	1
14	IPM KIT BAG	Made of Jean cloth 35 cm X 30 cm having 5 cm depth and with 90cm shoulder sling with National IPM emblem embrassing	1
15	DRAWING SHEET / ART PAPER	Full size (75 cm X 55 cm)	2
16	GUM BOOT	-	01 pair
17	APRON	-	1
18	HAND GLOVES	-	01 pair
19	GOGGLE	-	1

Sd/-  
 PLANT PROTECTION OF OFFICER  
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**ABBREVIATIONS**

CG	Encapsulated Granule
CHES	Central Horticulture Experiment Station
CIBRC	Central Insecticide Board and Registration Committee
CS	Capsule Suspension
D	Dust
DP	Dustable Powder
DS	Powder for Dry Seed
DF	Dry Flowable
EC	Emulsifiable Concentrate
ES	Emulsion for Seed Treatment
EW	Emulsion Oil in Water
FS	Flowable Concentrate for Seed Treatment
GB	Granular Bait
GR	Granule
ME	Micro Emulsion
NRCL	National Regional Center for Litchi
OD	Oil Dispersion
OUAT	Orissa University of Agriculture and Technology
SC	Suspension Concentrate
SE	Suspension Emulsion
SG	Suspension Granules
SL	Soluble Concentrate
SP	Water soluble Powder
WDG	Water Dispersible Granules
WG	Water Dispersible Granules
WP	Wettable Powder
WS	Water Dispersible Solution
WT	Water Dispersible Tablets
ZC	Mix formulation of CS & SC
ZE	Mix formulation of CS & SE
ZW	Mix formulation of CS & EW



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Agriculture Information Wing  
Bhubaneswar, March- 2021- 9000