

OFFICE OF THE DIRECTOR OF HORTICULTURE, ODISHA, BHUBANESWAR

Letter No.2MA(H1)37/2015 <sup>1/9540</sup> / Hort. Dated <sup>12-09-2018</sup> ~~11-09-2018~~

To,

The Dy. Director of Horticulture (All)/

Assistant Director of Horticulture (All).

**Sub: Minutes of the meeting of pesticides and Bio-fertilisers held on dt.09.08.2018.**

**Ref: Letter no. 1136 Dt. 23.08.2018 of DA&FP & this office Letter No. 8363 Dt. 27.07.2018.**

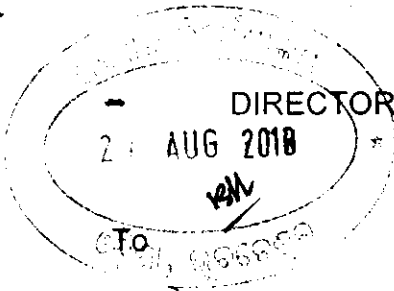
Sir,

Enclosed, please find herewith the copy of the minutes of the meeting of pesticides and bio-fertilisers held on 09.08.2018 which is self-explanatory. In this connection, following points are to be adopted at your level.

1. The materials if required in different schemes should be procured as per the SLTC approval for the year 2018-19.
2. If any material is required other than the SLTC approved list, it may be procured following OGFR rule for purchase of goods.
3. The detailed information regarding cluster wise manufacturers and their products and single product manufacturer etc. may be downloaded from the website **agrisnetodisha.ori.nic.in**
4. The supply order of SLTC approved products may be placed with OAIC Ltd. only.

Yours faithfully,

*[Signature]*  
8.9.18  
Director of Horticulture,  
Odisha, Bhubaneswar



616  
D. J. ANAND (2018)  
28/8/18

DIRECTORATE OF AGRICULTURE & FOOD PRODUCTION, ODISHA

21 AUG 2018

L.No.VII-GII-18/2018 1136

Agril/pp dt 23.08.18

DDHCNHM


The Deputy Director of Agriculture (All)  
The District Agriculture Officer (All)

Sub: Minutes of the meeting on Pesticides and Bio-fertilizers held on dt.09.08.2018.

Sir,

I am directed to intimate you the detail decision held on the special review meeting on pesticides and Bio-fertilizers held on 09.08.2018 under the Chairmanship of Principal Secretary, Agriculture and Farmers Empowerment Department for your information and necessary action.


Yours faithfully,

  
Deputy Director of Agriculture,  
(Plant Protection), Odisha

Memo No 1137 Agril/pp dt 23.08.18

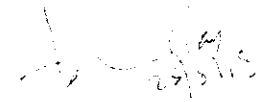
Copy forwarded to the P.A to Director of Horticulture, Udyan Bhawan and Director of Soil Conservation and Watershed Mission, Bhubaneswar for information and necessary action.

SO 2  
P. Patel  
for  
29/8/18

  
Deputy Director of Agriculture,  
(Plant Protection), Odisha

Memo No 1138 Agril/pp dt 23.08.18

Copy forwarded to PA to Director of Agriculture and Food Production, Odisha for information.

  
Deputy Director of Agriculture,  
(Plant Protection), Odisha

Admit

MINUTES OF SPECIAL REVIEW MEETING ON "PESTICIDES & BIO-FERTILIZERS" HELD ON 09.08.2018 AT 11.30 AM IN THE CONFERENCE HALL OF AGRICULTURE & FARMER'S EMPOWERMENT DEPARTMENT UNDER THE CHAIRMANSHIP OF PRINCIPAL SECRETARY

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A special review meeting of was held on "Pesticides & Bio-fertilizers" held on 09.08.2018 at 11.30 A.M. in the Conference Hall of Agriculture & Farmer's Empowerment Department under the Chairmanship of Principal Secretary. The list of members and other participants in the meeting is given at Annexure - I.

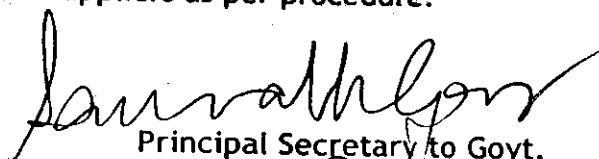
At the outset, the Principal Secretary welcomed all the participants. Initiating the discussion, the Director of Agriculture & Food Production, Odisha informed that it is reported by the DDAs that supply of inputs for demonstration program has been hampered due to non-functioning of SURAVI at many block points. As the transplanting operation of paddy crop is in full swing in the demonstration sites, it is high time to make the critical inputs available to the beneficiaries under different schemes. It was proposed to make alternative arrangement for ensuring supply of required inputs for demonstration program as well as for subsidy sale of inputs.

M.D, OAIC Ltd. intimated that about 78 no's of SURAVI are fully functional. All the SURAVI dealers have been instructed to take up supply of inputs on cash and carry basis. But they are willing to lift limited quantity of stock at a time due to financial problem. This will be feasible for supply of inputs under subsidized sale. But as the demonstration program involve a huge quantity with a higher investment, it may not be possible in the part of many SURAVI centers to supply the required inputs at a time which will hamper supply of inputs in time. It was proposed to allow the District Manager (DM) of OAIC to pre-position the stock at Block point under their own custody and distribute/ sale the inputs to the beneficiaries by local arrangement/ outsourcing where SURAVI is non-functional.

Further, Manager (PP), OAIC intimated that there is a huge outstanding due of OAIC against supply of different inputs during last few years with the DDAs. The Principal Secretary took serious note of the non-payment of dues. It was suggested that OAIC may utilize the services of PACS/ LAMPCS for supply / sale of inputs in future.

Then, after detail discussion and deliberations, the following decisions were taken:-

- i. M.D, OAIC Ltd. should ensure timely supply of required inputs for Demonstration program as well as Subsidy sale of inputs through SURAVI outlets where ever it is fully functional.
- ii. In case of non-functioning of SURAVI, the District Manager (DM) of OAIC will keep the required stock at Block point i.e. existing infrastructure of FIAC/ Horticulture/ Soil Conservation (as per availability) under their own custody and distribute/ sale the inputs to the beneficiary farmers under different schemes (NFSM/BGREI) by local arrangement/ out sourcing with immediate effect.
- iii. A time limit of 10 days may be fixed for the selected manufacturer for supply of indented inputs at the Block point failing which the supply order may be cancelled and necessary action may be taken as per rule. The alternative empanelled Manufacturer may be placed with the supply order.
- iv. A time limit may be fixed for release of payment by DDAs against the supply of inputs after submission of bills by OAIC Ltd.
- v. OAIC may initiate action for utilizing the services of PACS/ LAMPCS for distribution/ sale of Agril. inputs in future. PACS/ LAMPS should be motivated for obtaining Pesticides license as per new guidelines issued by Govt. A phase wise training program for the Secretaries of PACS/ LAMPCS may be chalked out.
- vi. OAIC Ltd. should submit district wise/ Scheme wise statement on the outstanding dues to the Director of Agriculture for settlement of claims at the earliest.
- vii. In case of exigency procurement of inputs required for e-Pest Surveillance may be taken by respective DDA's directly from empanelled manufacture/supplier at the approved rate with GST applicable.
- viii. Department of Horticulture and Soil Conservation & Watershed Development should procure the inputs such as Plant Protection Chemicals, Organic manures, bio-fertilizers through the empanelled manufacturers/ suppliers as per procedure.

  
Principal Secretary to Govt.

16/2/16



GOVERNMENT OF ODISHA

# EXPERT COMMITTEE RECOMMENDATION

## 2018-19

### FOR

Insecticides, Fungicides, Herbicides, Nematicides,  
Bio-insecticides, Bio-fungicides, Plant Growth Regulators,  
Micronutrients, Bio-fertilizers &  
Organic fertilizers, Traps/Lures & IPM Kit

**DIRECTORATE OF AGRICULTURE & FOOD PRODUCTION  
ODISHA, BHUBANESWAR**

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## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Arhar	Jassids	IMIDACLOPRID 17.8 SL	OUAT	25	140	500-1000
		THIAMETHOXAM 25WG	OUAT	25	100	500-1000
		CLOTHIANIDIN 50WDG	OUAT	125	250	500-1000
	Pod borer, Plume Moth & Pod Fly	CHLORANTRANILIPROLE 18.5% SC	CIBRC/OUAT	30	150	500-750
		FLUBENDIAMIDE 39.35% M/M SC	CIBRC/OUAT	48	100	500
		EMAMECTIN BENZOATE 5% SG	CIBRC/OUAT	11	220	500-750
		SPINOSAD 45.0% SC	CIBRC/OUAT	56-73	125-162	800-1000
		INDOXACARB 15.8% EC	CIBRC/OUAT	50	333	500-700
	Stem fly	INDOXACARB 14.5% SC	CIBRC/OUAT	50-60	353-400	500-1000
		IMIDACLOPRID 70%WG	OUAT	350	500	500-1000
		IMIDACLOPRID 60 FS	OUAT	5 ml / Kg of Seed		
	THIOMETHOXAM 35 FS	OUAT	10 ml / Kg of Seed			(Seed Treatment)
Arhar	Pod Sucking Bug ,Cow Bug & Aphid	IMIDACLOPRID 17.8 SL	OUAT	25	140	500-1000
		THIAMETHOXAM 25WG	OUAT	25	100	500-1000
		ACETAMIPRID 20SP	OUAT	25	125	500-1000
		CLOTHIANIDIN 50WDG	OUAT	125	250	
	Leaf Webber	CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC	OUAT	500 + 50	1000-1250	500-1000
		MONOCROTOPHOS 36% SL	OUAT	360	1000	500-1000
	Aphids	IMIDACLOPRID 17.8 SL	OUAT	25	140	
		THIAMETHOXAM 25WG	OUAT	25	100	
		CLOTHIANIDIN 50WDG	OUAT	125	250	
Bengal Gram	Pod Borer (Helicoverpa armigera)	NOVALURON 10% EC	CIBRC/OUAT	75	750	500
		CHLORANTRANILIPROLE 18.5% SC	CIBRC/OUAT	25	125	500
		EMAMECTIN BENZOATE 5% SG	CIBRC/OUAT	11	220	500
		LAMBDA-CYHALOTHRIN 5% EC	CIBRC/OUAT	25	500	300-400

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Bengal Gram	Cut worm	CHLORPYRIFPHOS 20% EC	CIBRC/OUAT	500	2500	500	
		CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC	OUAT	500 + 50	1000	500	
		PROFENOPHOS 50% EC	OUAT	500	1000	500	
	Termite	CHLOROPYRIPHOS 20% EC	OUAT	500	2500	500	
		FIPRONIL 5% SC	OUAT	75	1500	500	
		BIFENTHRIN 10% EC	OUAT	100	1000	500	
Bengal Gram	Semilooper	FLUBENDIAMIDE 20WDG	OUAT	100	500	500	
		INDOXACARB 14.5% SC	OUAT	72.5	500	500	
Black & Green gram	Bihar hairy Caterpillar	QUINALPHOS 25% EC	CIBRC/OUAT	375	1500	500	
		PROFENOPHOS 50% EC	OUAT	500	1000	500	
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	OUAT	400 + 40	1000	500	
	Jassids, Aphid & Thrips	IMIDACLOPRID 17.8 SL	OUAT	25	140	500	
		THIAMETHOXAM 25WG	OUAT	25	100	500	
		CLOTHIANIDIN 50WDG	OUAT	125	250	500	
		ACETAMIPRID 20SP	OUAT	25	125	500	
	Pod borer , Plume moth & Pod fly	FLUBENDIAMIDE 39.35% M/M SC	CIBRC/OUAT	48	100	500	
		EMAMECTIN BENZOATE 5% SG	OUAT	11	220	500	
		THIODICARB 75% WP	CIBRC/OUAT	468-562	625-750	375-500	
		MONOCROTOPHOS 36% SL	CIBRC/OUAT	250	625	500-1000	
		CHLORANTRANILIPROLE 18.5% SC	CIBRC/OUAT	20	100	500	
	Stem fly	IMIDACLOPRID 70%WG	OUAT	350	500	500	
		IMIDACLOPRID 60 FS	OUAT	5 ml / Kg of Seed			Seed Treatment
		THIAMETHOXAM 35 FS	OUAT	10 ml / Kg of Seed			Seed Treatment
	White fly	ACETAMIPRID 20SP	OUAT	25	125	500	
		BUPROFEZIN 25%SC	OUAT	125	500	500	
		PYRIPROXYFEN 10%EC	OUAT	50	500	500	
	Tobacco Caterpillar & Hawk Moth	QUINALPHOS 20% + CYPERMETHRIN 3% EC	OUAT	200 + 30	1000	500	
		CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC	OUAT	500 + 50	1000	500	
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	OUAT	400 + 40	1000	500	



## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Black & Green gram	Flee Beetle	<b>FIPRONIL 5% SC</b>	OUAT	50	1000	
		<b>TOLFENPYRAD 15% EC</b>	OUAT	150	1000	
		<b>CHLORPYRIPHOS 1.5%D</b>	OUAT	375-450	25-30 KG	
	Mites	<b>PROPARGITE 57% EC</b>	OUAT	570	1000	
		<b>FENAZAQUIN 10% EC</b>	OUAT	100	1000	
		<b>FENPYROXYMATE 5% SC</b>	OUAT	50	1000	
Cotton	Boll Worms complex	<b>FLUBENDIAMIDE 39.35% M/M SC</b>	CIBRC/OUAT	48-60	100-125	375-500
		<b>CHLORANTRANILIPROLE 18.5% SC</b>	CIBRC/OUAT	30	150	500
		<b>FLUBENDIAMIDE 20% WG</b>	CIBRC/OUAT	50	250	500
	Boll Worms complex	<b>NOVALURON 10% EC</b>	CIBRC/OUAT	100	1000	500-1000
		<b>SPINOSAD 45.0% SC</b>	CIBRC/OUAT	75-100	165-220	500
		<b>INDOXACARB 15.8% EC</b>	CIBRC/OUAT	75	500	500-1000
		<b>EMAMECTIN BENZOATE 5% SG</b>	CIBRC/OUAT	11	190-220	500
	Aphid, Jassids, Thrips, Red & Dusky Cotton Bug	<b>THIAMETHOXAM 25% WG</b>	CIBRC/OUAT	25	100	500-750
		<b>CLOTHIANIDIN 50% WDG</b>	CIBRC/OUAT	100-125	200-250	1000
		<b>DINOTEFURAN 20% SG</b>	CIBRC/OUAT	25-30	125-150	500
		<b>IMIDACLOPRID 30.5% M/M SC</b>	CIBRC/OUAT	21-26.25	60-75	500 – 750
		<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/OUAT	20 – 25	100 – 125	500 – 700
		<b>FLONICAMID 50% WG</b>	CIBRC/OUAT	75	150	500
	Cut worm / Green Semilooper/ Hairy Caterpillar	<b>CHLORPYRIFOS 20% EC</b>	CIBRC/OUAT	500-750	2500-3750	500-1000
		<b>QUINALPHOS 20% + CYPERMETHRIN 3% EC</b>	OUAT	200 + 30	1000	500
		<b>CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC</b>	OUAT	500 + 50	1000	500
		<b>PROFENOPHOS 40% + CYPERMETHRIN 4% EC</b>	OUAT	400 + 40	1000	500

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommeneded Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Cotton	Leaf Eating Caterpillar/ Leaf Roller	<b>CHLORPYRIFOS 20% EC</b>	OUAT	500	2500	500-1000
		<b>QUINALPHOS 25 % EC</b>	OUAT	375	1500	500-1000
	Mite	<b>SPIROMESIFEN 22.9% SC</b>	CIBRC/OUAT	144	600	500
		<b>PROPARGITE 57% EC</b>	OUAT	570	1000	500
		<b>FENAZAQUIN 10% EC</b>	OUAT	100	1000	500
	Stem weevil	<b>CHLORPYRIPHOS 20% EC</b>	OUAT	200	1000	500-1000
	Tobacco caterpillar	<b>CHLORANTRANILIPROLE 18.5% SC</b>	CIBRC/OUAT	30	150	500
		<b>SPINETORAM 11.7 % SC</b>	CIBRC/OUAT	50-56	420-470	500-1000
		<b>DIFLUBENZURON 25% WP</b>	CIBRC/OUAT	75-87.5	300-350	500-1000
	White flies	<b>ACETAMIPRID 20% SP</b>	CIBRC/OUAT	20	100	500-600
		<b>BUPROFEZIN 25% SC</b>	CIBRC/OUAT	250	1000	500-750
	White flies	<b>FLONICAMID 50% WG</b>	CIBRC/OUAT	75	150	500
		<b>PYRIPROXYFEN 10% EC</b>	CIBRC/OUAT	100	1000	500
		<b>SPIROMESIFEN 22.9% SC</b>	CIBRC/OUAT	144	600	500
	Leaf Miner	<b>SPINOSAD 45% SC</b>	OUAT	90	200	500-1000
		<b>IMIDACLOPRID 17.8% SL</b>	OUAT	20-25	100-125	500-1000
		<b>FIPRONIL 5% SC</b>	OUAT	75-100	1500-2000	500-1000
	Mealy Bug	<b>ACEPHATE 75 SP</b>	OUAT	292	390	500-1000
		<b>BUPROFEZIN 25%SC</b>	OUAT	250	1000	500-1000
		<b>PROFENOPHOS 50% EC</b>	OUAT	500	1000	500-1000
Ground nut	Aphid / Jassids/ Thrips	<b>THIAMETHOXAM 25WG</b>	OUAT	25	100	
		<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/OUAT	250	1000	500-1000
		<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/OUAT	20-25	100-125	500
	Tobacco Leaf eating caterpillar	<b>CHLORPYRIPHOS 20% EC</b>	OUAT	200	1000	500
		<b>PROFENOPHOS 50% EC</b>	OUAT	500	1000	500
		<b>MONOCROTOPHOS 36% SL</b>	OUAT	360	1000	500

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Ground nut	Leaf miner	<b>MONOCROTOPHOS 36% SL</b>	OUAT	360	1000	500
		<b>QUINALPHOS 25% EC</b>	CIBRC/OUAT	250	1000	500-1000
		<b>SPINOSAD 45% SC</b>	OUAT	90	200	500-1000
	Leaf Webber	<b>CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC</b>	OUAT	500 + 50	1000	500-1000
		<b>QUINALPHOS 25% EC</b>	OUAT	250	1000	500-1000
		<b>PROFENOPHOS 40% + CYPERMETHRIN 4% EC</b>	OUAT	400 + 40	1000	500-1000
	Mites	<b>PROPARGITE 57% EC</b>	OUAT	570	1000	500-1000
		<b>FENPYROXIMATE 5% EC</b>	OUAT	50	1000	500-1000
		<b>FENAZAQUIN 10% EC</b>	OUAT	100	1000	500-1000
	Red hairy Caterpillar	<b>CHLORPYRIPHOS 1.5%D</b>	OUAT	375-450	25-30 Kg/ha	
		<b>PROFENOPHOS 40% + CYPERMETHRIN 4% EC</b>	OUAT	400 + 40	1000	500-1000
		<b>CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC</b>	OUAT	500 + 50	1000	500-1000
	Termites	<b>THIAMETHOXAM 75% w/w SG</b>	CIBRC/OUAT	94	125	500-1000
		<b>CHLORPYRIPHOS 20% EC</b>	OUAT	400	2000	500-1000
		<b>FIPRONIL 5% SC</b>	OUAT	75	1500	500-1000
<b>BIFENTHRIN 10% EC</b>		OUAT	100	1000	500-1000	
White grub	<b>CHLORPYRIPHOS 1.5%D</b>	OUAT	375-450	25-30 Kg/ha	500-1000	
	<b>CARBOFURAN 3% CG</b>	CIBRC/OUAT	1000	33300	500-1000	
	<b>CHLORPYRIPHOS 20% EC</b>	OUAT	400	2000	500-1000	
Sun flower	Bihar hairy caterpillar, Cabbage Semilooper, Green Semilooper, Tobacco Caterpillar, Cut Worm & Army Worm	<b>QUINALPHOS 25 %EC</b>	OUAT	250	1000	500-1000
		<b>PROFENOPHOS 50% EC</b>	OUAT	500	1000	500-1000
		<b>CHLORPYRIPHOS 20% EC</b>	OUAT	400	2000	500-1000

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Sun flower	Jassid/ Leaf Hopper/ Thrips	IMIDACLOPRID 17.8% SL	CIBRC/OUAT	20-25	100-140	500	
		IMIDACLOPRID 70% WS	CIBRC/OUAT	490	700	100 kg seed	Seed Treatment
		IMIDACLOPRID 48% FS	CIBRC/OUAT	300 – 540	500 – 900	100 kg seed	Seed Treatment
		THIAMETHOXAM 30% FS	CIBRC/OUAT	3 gm/ Kg of Seed	10/kg of seed		Seed Treatment
	White fly	ACETAMIPRID 20SP	OUAT	25	125	500	
		IMIDACLOPRID 17.8% SL	CIBRC/OUAT	20-25	100-140	500	
		IMIDACLOPRID 70% WS	CIBRC/OUAT	490	700	100 kg seed	Seed Treatment
		IMIDACLOPRID 48% FS	CIBRC/OUAT	300 – 540	500 – 900	100 kg seed	Seed Treatment
	Termite/ White ants	CHLORPYRIPHOS 20% EC	OUAT	400	2000	500	
		FIPRONIL 5% SC	OUAT	75	1500	500	
		BIFENTHRIN 10% EC	OUAT	100	1000	500	
	Capitulum Borer (Helicoverpa armigera)	FLUBENDIAMIDE 39.35 SC	OUAT	48-60	100-125	500	
	Seasamum	Gall Fly	MONOCROTOPHOS 36% SL	OUAT	360	1000	500
ACEPHATE 75 SP			OUAT	375	500	500	
ETHOFENPROX 10% EC			OUAT	50	500	500	
White fly		ACETAMIPRID 20SP	OUAT	25	125	500	
		BUPROFEZIN 25%SC	OUAT	125	500	500	
Jassids		THIAMETHOXAM 25WG	OUAT	25	100	500	
		DIMETHOATE 30 EC	OUAT	300	1000	500	
	OXYDEMETON – METHYL 25% EC	CIBRC/OUAT	300	1200	500-1000		
Seasamum	Leaf webber & Hawk Moth	QUINALPHOS 25% EC	CIBRC/OUAT	500	2000	500-1000	
		MONOCROTOPHOS 36% SL	OUAT	360	1000	500-1000	
		EMAMECTINBENZOATE 5% SG	OUAT	11	220	500-1000	
Mustard	Aphid/ Painted Bug	IMIDACLOPRID 17.8% SL	OUAT	25	140	500-1000	
		OXYDEMETON – METHYL 25% EC	CIBRC/OUAT	250	1000	500-1000	

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Mustard	Aphid/ Painted Bug	<b>THIAMETHOXAM 25% WG</b>	CIBRC/ OUAT	12.5-25.0	50-100	500-1000
		<b>DIMETHOATE 30% EC</b>	CIBRC/ OUAT	200	660	500-1000
		<b>CLOTHIANIDIN 50WDG</b>	OUAT	50	100	500-1000
	Leaf Webber/ Diamond Back Moth	<b>ETHOFENPROX 10% EC</b>	OUAT	50	500	500-1000
		<b>EMAMECTINBENZOATE 5% SG</b>	OUAT	11	220	500-1000
		<b>INDOXACARB 14.5 SC</b>	OUAT	72.5	500	500-1000
		<b>FIPRONIL 5% SC</b>	OUAT	50	1000	500-1000
	Sawfly / Cabbage Butterfly/ Bihar hairy caterpillar	<b>QUINALPHOS 25% EC</b>	CIBRC/ OUAT	300	1200	500-1000
		<b>ETHOFENPROX 10% EC</b>	OUAT	50	500	500-1000
		<b>ACEPHATE 75 SP</b>	OUAT	375	500	500-1000
		<b>CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC</b>	OUAT	500 + 50	1000	500-1000
	White fly	<b>ACETAMIPRID 20SP</b>	OUAT	25	125	500-1000
		<b>BUPROFEZIN 25%SC</b>	OUAT	125	500	500-1000
		<b>PYRIPROXYFEN 10%EC</b>	OUAT	50	500	500-1000
	Flea Beetle	<b>CHLORPYRIPHOS 20% EC</b>	OUAT	200	1000	500-1000
		<b>FIPRONIL 5% SC</b>	OUAT	50	1000	500-1000
		<b>CHLORPYRIPHOS 1.5%D</b>	OUAT	375 - 450	25-30 Kg/ha	500-1000
	Termite/ White ant	<b>CHLORPYRIPHOS 20% EC</b>	OUAT	400	2000	500-1000
<b>FIPRONIL 5% SC</b>		OUAT	75	1500	500-1000	
<b>BIFENTHRIN 10% EC</b>		OUAT	100	1000	500-1000	
Paddy	Army worm / Cut Worm/ Swarming Caterpillar	<b>CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC</b>	OUAT	500 + 50	1000	500-1000
		<b>PROFENOPHOS 50EC</b>	OUAT	500	1000	500-1000
	Brown Plant Hopper (BPH)/ White Backed Plant Hopper (WBPH)/ Green Leaf Hopper (GLH)	<b>Ethiprole 40 + Imidacloprid 40%WG</b>	CIBRC/ OUAT	37.5+37.5	93.75	375
		<b>THIAMETHOXAM 25% WG</b>	CIBRC/ OUAT	25	100	500-750
		<b>Buprofezin 15% + Acephate 35% w/w WP</b>	CIBRC/ OUAT	187.5+ 437.5	1250	500
		<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/ OUAT	20 – 25	100 – 140	500 – 700
		<b>PYMETROZINE 50% WG</b>	CIBRC/ OUAT	150	300	500

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommeneded Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Paddy		<b>CLOTHIANIDIN 50% WDG</b>	CIBRC/OUAT	10-Dec	20-24	500	
		<b>DINOTEFURAN 20% SG</b>	CIBRC/OUAT	30-40	150-200	500	
		<b>FLONICAMID 50% WG</b>	CIBRC/OUAT	75	150	500	
	Case worm	<b>FIPRONIL 5% SC</b>	OUAT	50	1000	500	
		<b>INDOXACARB 14.5 SC</b>	OUAT	72.5	500	500	
		<b>PROFENOPHOS 50% EC</b>	OUAT	500	1000	500	
	Ear head bug/ Caterpillar & Gundhi Bug	<b>CHLORPYRIPHOS 1.5%DP</b>	OUAT	375 - 450	25-30 Kg	500-1000	
		<b>Fermented Snail trap</b>	OUAT				Field preparation
		<b>MALATHION 50 EC</b>	OUAT	500	1000	500-1000	
	Gall midge	<b>FIPRONIL 0.3 G</b>	OUAT	60 - 75	20- 25 Kg	500-1000	
		<b>CARBOFURAN 3% CG</b>	CIBRC/OUAT	750	25000	500-1000	
		<b>CARBOSULFAN 25% EC</b>	CIBRC/OUAT	200-253	800-1000	500-1000	
		<b>CHLORPYRIFOS 20% EC</b>	CIBRC/OUAT	250	1250	500-1000	
		<b>THIAMETHOXAM 25% WG</b>	CIBRC/OUAT	25	100	500-750	
		<b>FIPRONIL 5% SC</b>	CIBRC/OUAT	50-75	1000-1500	500	
	Green Horn Caterpillar / Rice Skipper/ Hispa	<b>INDOXACARB 15.8% EC</b>	CIBRC/OUAT	30	200	500	
		<b>CHLORPYRIPHOS 20% EC</b>	OUAT	200	1000	500	
		<b>PROFENOPHOS 50% EC</b>	OUAT	500	1000	500	
	Mealy Bug	<b>PROFENPHOS 50 EC</b>	OUAT	500	1000	500	
		<b>THIAMETHOXAM 25 WG</b>	OUAT	25	100	500	
		<b>IMIDACLOPRID 17.8% SL</b>	OUAT	25	140	500	
Leaf folder	<b>CHLORANTRANILIPROLE 0.4% GR</b>	CIBRC	41	11 000	---		
	<b>CHLORANTRANILIPROLE 18.5% SC</b>	OUAT	40	200			
	<b>FLUBENDIAMIDE 20% WG</b>	CIBRC/OUAT	25	125	500		

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Paddy	Leaf folder	<b>CARTAP HYDROCHLORIDE 50% SP</b>	CIBRC/OUAT 500	1000	501 – 1000	
		<b>INDOXACARB 15.8% EC</b>	CIBRC/OUAT 30	200	500	
		<b>LAMBDA-CYHALOTHRIN 2.5% EC</b>	CIBRC/OUAT 12.5	500	400-600	
	Leaf folder	<b>THIOCYCLAM HYDROGEN OXALATE</b>	CIBRC/OUAT 500	1000	500	
	Grass hopper	<b>CHLORPYRIFOS 1.5% DP</b>	CIBRC/OUAT 375	25000		
	Stem borer	<b>CHLORANTRANILIPROLE 0.4% GR</b>	CIBRC/OUAT 41	11 000	---	
		<b>CHROMAFENOZIDE 80% WP</b>	CIBRC/OUAT 75-100	94-125	500	
	Stem borer	<b>FIPRONIL 5% SC</b>	CIBRC/OUAT 50-75	1000-1500	500	
		<b>FIPRONIL 0.3% GR</b>	CIBRC/OUAT 50-75	16.67-25.00kg		
		<b>FLUBENDIAMIDE 20% WG</b>	CIBRC/OUAT 25	125	500	
		<b>FLUBENDIAMIDE 39.35% M/M SC</b>	CIBRC/OUAT 24	50	375-500	
		<b>MONOCROTOPHOS 36% SL</b>	CIBRC/OUAT 500	1250	500-1000	
		<b>CHLORANTRANILIPROLE 18.5% SC</b>	CIBRC/OUAT 30	150	500	
		<b>CARTAP HYDROCHLORIDE 4% GRANULES</b>	CIBRC/OUAT 750	18750	--	
	Panicle Mite	<b>FENAZAQUIN 10% EC</b>	OUAT 100	1000	500-1000	
		<b>FENPYROXIMATE 5% EC</b>	OUAT 50	1000	500-1000	
		<b>PROPARGITE 57% EC</b>	OUAT 570	1000	500-1000	
		<b>DIAFENTHIURON 50%WP</b>	OUAT 500	1000	500-1000	
	Thrips	<b>THIAMETHOXAM 25% WG</b>	CIBRC/OUAT 25	100	500-750	
	Whorl maggot	<b>CHLORPYRIFOS 20% EC</b>	CIBRC/OUAT 250	1250	500-1000	Seedling Root Dip
		<b>CARTAP HYDROCHLORIDE 4% GRANULES</b>	CIBRC/OUAT 750-1000	18.75-25.00kg	--	

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Paddy	Whorl maggot	FIPRONIL 0.3% GR	CIBRC/OUAT	50-80	16.67-25.00kg		
		FIPRONIL 5% SC	CIBRC/OUAT	50-75	1000-1500	500	
	Termite (Upland Condition)	THIAMETHOXAM 75% w/w SG	CIBRC/OUAT	94	125	500-1000	
		CHLORPYRIPHOS 20% EC	OUAT	400	2000	500-1000	
		FIPRONIL 5% SC	OUAT	75	1500	500-1000	
		BIFENTHRIN 10% EC	OUAT	100	1000	500-1000	
Maize	Aphid/Thrips	IMIDACLOPRID 17.8% SL	OUAT	25	140	500	
		THIOMETHOXAM 25 WG	OUAT	25	100	500	
		CLOTHIANIDIN 50% WDG	OUAT	125	250	500	
	Shoot fly	MONOCROTOPHOS 36% SL	CIBRC/OUAT	250	625	500-1000	
		CARBOFURAN 3% CG	CIBRC/OUAT	1000	33300		
		THIAMETHOXAM 30% FS	CIBRC/OUAT	2.4	8	500	
	Stem Borer	FIPRONIL 5% SC	OUAT	50	1000	500	
		PROFENOPHOS 50% EC	OUAT	500	1000	500	
		CARBOFURAN 3% CG	OUAT	1000	33300		
	Hairy Caterpillar	CHLORPYRIPHOS 1.5% DP	OUAT	375-450	25 -30 Kg		
		CHLORPYRIPHOS 50% + CYPERMETHRIN 5% EC	OUAT	500 + 50	1000	500	
		QUINALPHOS 25% EC	OUAT	250	1000	500	
	Grass Hopper	CHLORPYRIPHOS 1.5% DP	OUAT	375-450	25 -30 Kg		
	Mite	PROPARGITE 57% EC	OUAT	570	1000	500	
		FENPYROXIMATE 5% EC	OUAT	50	1000	500	
		FENAZAQUIN 10% EC	OUAT	100	1000	500	
	Termite/ White ants	CHLORPYRIPHOS 20% EC	OUAT	400	2000	500-1000	
		FIPRONIL 5% SC	OUAT	75	1500	500-1000	
		BIFENTHRIN 10% EC	OUAT	100	1000	500-1000	
	American Cob borer	FLUBENDIAMIDE 39.35 SC	OUAT	80	200	500-1000	



## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Ragi	Stem Borer	CHLORPYRIPHOS 20% EC	OUAT	200	1000	500
		MONOCROTOPHOS 36% SL	OUAT	360	1000	500
		FIPRONIL 5% SC	OUAT	50	1000	500
	Cut worm	CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC	OUAT	500 + 50	1000	500
		PROFENOPHOS 50EC	OUAT	500	1000	500
	Hairy Caterpillar	PROFENOPHOS 40% + CYPERMETHRIN 4% EC	OUAT	400 + 40	1000	500
		CHLOROPYRIPHOS 50% + CYPERMETHRIN 5% EC	OUAT	500 + 50	1000	500
	Grass Hopper	CHLORPYRIFOS 1.5% DP	OUAT	375	25000	
	Aphids & Jassids	IMIDACLOPRID 17.8% SL	OUAT	25	140	500
		THIOMETHOXAM 25 WG	OUAT	25	100	500
		CLOTHIANIDIN 50% WDG	OUAT	125	250	500
	Termites	CHLORPYRIPHOS 20% EC	OUAT	400	2000	500
		FIPRONIL 5% SC	OUAT	75	1500	500
BIFENTHRIN 10% EC		OUAT	100	1000	500	
Sugar cane	Termites	BIFENTHRIN 10% EC	CIBRC/OUAT	100	1000	500
		THIAMETHOXAM 75% w/w SG	CIBRC/OUAT	120	160	500-1000
		IMIDACLOPRID 17.8% SL	OUAT	150	750	
	Top borer	CHLORANTRANILIPROLE 0.4% GR	CIBRC/OUAT	75	18.75	500
		CHLORANTRANILIPROLE 18.5% SC	CIBRC/OUAT	75	375	1000
		CARBOFURAN 3% CG	CIBRC/OUAT	2000	66600	
	Early shoot borer	CHLORANTRANILIPROLE 18.5% SC	CIBRC/OUAT	75	375	1000
		FIPRONIL 0.3% GR	CIBRC/OUAT	75-100	25000-33300	
		FIPRONIL 5% SC	CIBRC/OUAT	75-100	1500-2000	500

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommeneded Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Sugar cane	Early shoot borer	CHLORANTRANILIPROLE 0.4% GR	CIBRC/OUAT	75	18.75	-
		MONOCROTOPHOS 36% SL	CIBRC/OUAT	600-800	1500-2250	500-1000
	Stalk/ Internode borer	CHLORPYRIFOS 20% EC	CIBRC/OUAT	250-300	1250-1500	500-1000
		MONOCROTOPHOS 36% SL	CIBRC/OUAT	750	1875	500-1000
		FIPRONIL 5% SC	OUAT	50	1000	500-1000
	Mealy bug	MONOCROTOPHOS 36% SL	CIBRC/OUAT	600	1500	500-1000
		PROFENOPHOS 50% EC	OUAT	500	1000	500-1000
		THIAMETHOXAM 25 WG	OUAT	25	100	500-1000
	Pyrilla	MONOCROTOPHOS 36% SL	CIBRC/OUAT	200	500	500-1000
		THIAMETHOXAM 25 WG	OUAT	25	100	500-1000
		IMIDACLOPRID 17.8% SL	OUAT	25	140	500-1000
	Root borer	FIPRONIL 5% SC	CIBRC/OUAT	75-100	1500-2000	500
		FIPRONIL 0.3% GR	CIBRC/OUAT	75-100	25000-33300	500
		CHLORANTRANILIPROLE 0.4% GR	OUAT	75	18.75 kg	
	Scale Insect/ Black Bug	MONOCROTOPHOS 36% SL	CIBRC/OUAT	600	1500	500-1000
		THIAMETHOXAM 25 WG	OUAT	25	100	500-1000
		ACETAMIPRID 20 % SP	OUAT	25	125	500-1000
	Termite	CHLORANTRANILIPROLE 18.5% SC	CIBRC/OUAT	100-125	500-625	1000
		IMIDACLOPRID 70% WS PER 100KG SEED	CIBRC/OUAT	70 – 105	100 – 150	
		IMIDACLOPRID 17.8% SL	CIBRC/OUAT	70	350	1875
		CLOTHIANIDIN 50% WDG	CIBRC/OUAT	125	250	1000
White grub	CHLORPYRIFOS 20% EC	OUAT	400	2000	1000	
	Fipronil 40% + Imidacloprid 40% WG	CIBRC/OUAT	175+175-200+200	437.5-500 ( Soil Drench)	1000-1250	
	CARTAP HYDROCHLORIDE 4% G	OUAT	800	20 kg		

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Sugar cane	Red Mite & Yellow Mite	PROPARGITE 57% EC	OUAT	570	1000	500 - 1000
		FENPYROXIMATE 5% EC	OUAT	50	1000	500 - 1000
		FENAZAQUIN 10% EC	OUAT	100	1000	500 - 1000
	Whitefly	ACETAMIPRID 20% SP	OUAT	25	125	500 - 1000
		BUPROFEZIN 25% SC	OUAT	125	500	500 - 1000
		PRYIPROXYFEN 10% EC	OUAT	50	500	500 - 1000
	Wooly aphid	IMIDACLOPRID 17.8% SL	OUAT	25	140	500 - 1000
		THIAMETHOXAM 25 WG	OUAT	25	100	500 - 1000
		CLOTHIANIDIN 50% WDG	OUAT	125	250	500 - 1000
	Grass Hopper	CHLORPYRIOS 1.5% DP	OUAT	375	25000	
Jute & Mesta	Bihar Hairy caterpillar	CHLORPYRIFOS 1.5% DP	OUAT	375-450	25 - 30 kg	
		PROFENOPHOS 40% + CYPERMETHRIN 4% EC	OUAT	400 + 40	1000	500-1000
	Leaf roller	QUINALPHOS 25% EC	CIBRC/OUAT	375	1500	500-1000
		MONOCROTOPHOS 36% SL	OUAT	360	1000	500-1000
		ACEPHATE 75% SP	OUAT	292	390	500-1000
	Red spider mite, Yellow mite & Mite	SPIROMESIFEN 22.9% SC	OUAT	144	600	500 - 1000
		PROPARGITE 57% EC	OUAT	570	1000	500 - 1000
		FENPYROXIMATE 5% EC	OUAT	50	1000	500 - 1000
		FENAZAQUIN 10% EC	OUAT	100	1000	500 - 1000
	Semi Looper	QUINALPHOS 25% EC	CIBRC/OUAT	375	1500	500-1000
	Stem Weevil & Stem Girdler	MONOCROTOPHOS 36% SL	OUAT	360	1000	500-1000
		FIPRONIL 5% SC	OUAT	50	1000	500-1000
		ACEPHATE 75% SP	OUAT	375	500	500-1000
	Leaf Eating Caterpillar	CHLORPYRIPHOS 20% EC	OUAT	200	1000	500-1000
		QUINALPHOS 25% EC	OUAT	250	1000	500-1000
		PROFENOPHOS 50% EC	OUAT	500	1000	500-1000
	Cow Bug	IMIDACLOPRID 17.8% SL	OUAT	25	140	500 - 1000
		THIOMETHOXAM 25 WG	OUAT	25	100	500 - 1000
		ACETAMIPRID 20% SP	OUAT	25	125	500 - 1000

## CROP & PEST WISE RECOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommeneded Insecticides by CIBRC/ OUAT	Dosage/ ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Jute & Mesta	Mealybug	<b>THIOMETHOXAM 25 WG</b>	OUAT	25	100	500 - 1000
		<b>PROFENOPHOS 50% EC</b>	OUAT	500	1000	500-1000
		<b>IMIDACLOPRID 17.8% SL</b>	OUAT	25	140	500 - 1000
Bitter gourd	Fruit borers & Caterpillars	<b>CHLORANTRANILIPROLE 18.5% SC</b>	CIBRC/ CHES	20-25	100-125	500
Bottle & Bitter gourd	Red Spider mite	<b>DICOFOL 18.5% EC</b>	CIBRC/ CHES	250-500	1350-2700	500-1000
Brinjal	Two spotted spider mite	<b>PROPARGITE 57% EC</b>	CIBRC/ CHES	570	1000	400
		<b>Deltamethrin 1% + Trizophos 35%EC</b>	CIBRC/ CHES	10+350 to 12.5+450	1000-1250	500
		<b>FENVALERATE 20% EC</b>	CIBRC/ CHES	75-100	375-500	600-800
		<b>Betacyfluthrin 8.49% + Imidacloprid 19.81% OD</b>	CIBRC/ CHES	15.75 + 36.75 to 18 + 42	175-200	500
	Epilachna grub	<b>CYPERMETHRIN 25% EC</b>	CIBRC/ CHES	37-50	150-200	500
	Fruit and Shoot borer (Leucinodes orbonalis)	<b>CHLORPYRIFOS 20% EC</b>	CIBRC/ CHES	200	1000	500-1000
		<b>Betacyfluthrin 8.49% + Imidacloprid 19.81% OD</b>	CIBRC/ CHES	18 + 42	175-200	500
		<b>CHLORANTRANILIPROLE 18.5% SC</b>	CIBRC/ CHES	40	200	500-750
		<b>CYPERMETHRIN 0.25% DP</b>	CIBRC/ CHES	50-60	20000-24000	
		<b>CYPERMETHRIN 10% EC</b>	CIBRC/ CHES	50-70	550-760	150-400
		<b>CYPERMETHRIN 25% EC</b>	CIBRC/ CHES	37-50	150-200	500
		<b>Deltamethrin 1% + Trizophos 35%EC</b>	CIBRC/ CHES	10+350 to 12.5+450	1000-1250	500
		<b>DELTAMETHRIN 2.8% EC</b>	CIBRC/ CHES	10-12.5	400-500	500
<b>DIMETHOATE 30% EC</b>		CIBRC/ CHES	200	660	500-1000	

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Brinjal	Fruit and Shoot borer (Leucinodes orbonalis)	<b>EMAMECTIN BENZOATE 5% SG</b>	CIBRC/CHES	10	200	500
		<b>FENVALERATE 20% EC</b>	CIBRC/CHES	75-100	375-500	600-800
		<b>LAMBDA-CYHALOTHRIN 4.9% CS</b>	CIBRC/CHES	15	300	500
		<b>LAMBDA-CYHALOTHRIN 5% EC</b>	CIBRC/CHES	15	300	400-600
		<b>PHOSALONE 35% EC</b>	CIBRC/CHES	500	1428	500-1000
		<b>THIACLOPRID 21.7% SC</b>	CIBRC/CHES	180	750	500
		<b>THIODICARB 75% WP</b>	CIBRC/CHES	470 to 750	625 to 1000	500
	Mites	<b>FENPROPATHRIN 30% EC</b>	CIBRC/CHES	75-100	250-340	750-1000
		<b>FLUMITE 20% SC</b>	CIBRC/CHES	80-100	400-500	500-1000
		<b>FLUFENZINE 20%SC</b>	CIBRC/CHES	80-100	400-500	500-1000
		<b>MALATHION 50% EC</b>	CIBRC/CHES	750	1500	500-1000
	Red Spider Mite	<b>ETOXAZOLE 10% SC</b>	CIBRC/CHES	40	400	400-500
		<b>FENAZAQUIN 10% EC</b>	CIBRC/CHES	125	1250	500
		<b>SPIROMESIFEN 22.9% SC</b>	CIBRC/CHES	96	400	500
	Yellow mite	<b>DICOFOL 18.5% EC</b>	CIBRC/CHES	500-1000	2700-5400	500-1000
	White flies	<b>THIAMETHOXAM 25% WG</b>	CIBRC/CHES	50	200	500
<b>DIAFENTHIURON 50%WP</b>		CIBRC/CHES	300	600	500-750	
<b>FENPROPATHRIN 30% EC</b>		CIBRC/CHES	75-100	250-340	750-1000	
<b>Pyriproxyfen 5% EC + Fenpropathrin 15% EC</b>		CIBRC/CHES	25+75 to 37.5 + 112.5	500-750	500-750	

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Cabbage & Cauli flower	Cabbage Aphid- Brevicoryne brassicae	PHOSALONE 35% EC	CIBRC/ CHES	500	1428	500-1000
		ACETAMIPRID 20% SP	CIBRC/ CHES	15	75	500-600
		CYANTRANILIPROLE 10.26% OD	CIBRC/ CHES	60	600	500
	Aphid , Painted bug	DIMETHOATE 30% EC	CIBRC/ CHES	200	660	500-1000
	Diamond back moth- Plutella xylostella	FLUBENDIAMIDE 20% WG	CIBRC/ CHES	18.24	37.5-50	375-500
		CHLORANTRANILIPROLE 18.5% SC	CIBRC/ CHES	10	50	500
		CHLORPYRIFOS 20% EC	CIBRC/ CHES	400	2000	500-1000
		DIAFENTHIURON 50%WP	CIBRC/ CHES	300	600	500-750
		EMAMECTIN BENZOATE 5% SG	CIBRC/ CHES	7.5-10	150-200	500
		FIPRONIL 5% SC	CIBRC/ CHES	40-50	800-1000	500
		FIPRONIL 80%WG	CIBRC/ CHES	75	93.75	500
		INDOXACARB 14.5% SC	CIBRC/ CHES	30-40	200-266	400-750
		METAFLUMIZONE 22% SC	CIBRC/ CHES	165-220	750-1000	500
		NOVALURON 10% EC	CIBRC/ CHES	75	750	500-1000
		PYRIDALYL 10% EC	CIBRC/ CHES	50-75	500-750	500-750
		THIODICARB 75% WP	CIBRC/ CHES	750 to 1000	1000 to 1330	500
		SPINOSAD 2.5% SC	CIBRC/ CHES	15.0- 17.5	600-700	500
		CHLORFENAPYR 10% SC	CIBRC/ CHES	75-100	750-1000	500
TOLFENPYRAD 15% EC		CIBRC/ CHES	150	1000	500	
CYPERMETHRIN 10% EC	CIBRC/ CHES	60-70	650-760	100-400		

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommeneded Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Cabbage & Cauli flower	Diamond back moth- Plutella xylostella	<b>LUFENURON 5.4% EC</b>	CIBRC/ CHES	30	600	500
		<b>FLUBENDIAMIDE 39.35% M/M SC</b>	CIBRC/ CHES	18.24	37.5-50	375-500
	Diamond back moth , American boll worm, Aphids, Jassids	<b>FENVALERATE 20% EC</b>	CIBRC/ CHES	60-75	300-375	600-750
	Diamond back moth, Tobacco leaf eating caterpillar	<b>CHLORFLUAZURON 5.4% EC (w/w)</b>	CIBRC/ CHES	75	1500	500
	Head borer	<b>MALATHION 50% EC</b>	CIBRC/ CHES	750	1500	500-1000
	Mustard Aphid- Lipaphis erysimi	<b>MALATHION 50% EC</b>	CIBRC/ CHES	750	1500	500-1000
		<b>DIMETHOATE 30% EC</b>	CIBRC/ CHES			
		<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/ CHES	60	600	500
	Tobacco caterpillar-	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/ CHES	60	600	500
	Chilly	Aphid, Thrips	<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/ CHES	400	1600
<b>QUINALPHOS 25% EC</b>			CIBRC/ CHES	250	1000	500-1000
<b>QUINALPHOS 1.5% DP</b>			CIBRC/ CHES	300	20000	
<b>FIPRONIL 5% SC</b>			CIBRC/ CHES	40-50	800-1000	500
Fruit borer- Helicovepra armigera		<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/ CHES	60	600	500
		<b>NOVALURON 10% EC</b>	CIBRC/ CHES	33.5	375	500
		<b>SPINOSAD 45.0% SC</b>	CIBRC/ CHES	73	160	500
		<b>EMAMECTIN BENZOATE 5% SG</b>	CIBRC/ CHES	10	200	500

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommeneded Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Chilly		<b>FIPRONIL 5% SC</b>	CIBRC/CHES	40-50	800-1000	500	
	Fruit borer (spodoptera litura)	<b>FLUBENDIAMIDE 20% WG</b>	CIBRC/CHES	50-60	250-300	500	
		<b>SPINETORAM 11.7 % SC</b>	CIBRC/CHES	56-60	470-500	400-500	
		<b>CHLORANTRANILIPROLE 18.5% SC</b>	CIBRC/CHES	30	150	500	
		<b>DELTAMETHRIN 2.8% EC</b>	CIBRC/CHES	10-12.5	400-500	400-600	
		<b>FLUBENDIAMIDE 39.35% M/M SC</b>	CIBRC/CHES	48-60	100-125	500	
		<b>LUFENURON 5.4% EC</b>	CIBRC/CHES	30	600	500	
		<b>THIODICARB 75% WP</b>	CIBRC/CHES	470 to 750	626 to 1000	500	
		<b>NOVALURON 10% EC</b>	CIBRC/CHES	33.5	375	500	
		<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	60	600	500	
		<b>INDOXACARB 14.5% SC</b>	CIBRC/CHES	50-60	333-400	300-600	
	<b>Indoxacarb 14.5% + Acetamiprid 7.7% w/w SC</b>	CIBRC/CHES	88.8-111	400-500	500		
	Jassid, Aphid, Thrips	<b>IMIDACLOPRID 70% WS PER 100KG SEED</b>	CIBRC/CHES	700 – 1050	1000 – 1500		Seed Treatment
		<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/CHES	25 – 50	125-250	500-700	
	Leaf folder	<b>CARBOSULFAN 25% EC</b>	CIBRC/CHES	200-250	800-1000	500-1000	
Mites (Polyphagotars onemus latus)	<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	300	990	500-1000		
	<b>PROPARGITE 57% EC</b>	CIBRC/CHES	850	1500	500-625		
	<b>QUINALPHOS 25% EC</b>	CIBRC/CHES	375	1500	500-1000		
	<b>DIAFENTHIURON 50%WP</b>	CIBRC/CHES	300	600	500-750		



## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommeneded Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Chilly	Mites (Polyphagotars onemus latus)	<b>EMAMECTIN BENZOATE 5% SG</b>	CIBRC/CHES	10	200	500
		<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	500	2000	500-1000
		<b>ETHION 50% EC</b>	CIBRC/CHES	750-1000	1500-2000	500-1000
		<b>CHLORFENAPYR 10% SC</b>	CIBRC/CHES	75-100	750-1000	500
	Thrips-Scirtothrips dorsalis	<b>ACETAMIPRID 20% SP</b>	CIBRC/CHES	10-20	50-100	500-600
		<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	250	1000	500-1000
		<b>THIACLOPRID 21.7% SC</b>	CIBRC/CHES	54-72	225-300	500
		<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	60	600	500
		<b>SPINETORAM 11.7 % SC</b>	CIBRC/CHES	56-60	470-500	400-500
		<b>Indoxacarb 14.5% + Acetamiprid 7.7% w/w SC</b>	CIBRC/CHES	88.8-111	400-500	500
	Thrips & Fruit Borer	<b>Flubendiamide 19.92% w/w+ Thiacloprid 19.92% w/w</b>	CIBRC/CHES	48+48 to 60+60	200-250	500
	Thrips & pod borer	<b>LAMBDA-CYHALOTHRIN 4.9% CS</b>	CIBRC/CHES	25	500	500
		<b>METHOMYL 40% SP</b>	CIBRC/CHES	300-400	750-1125	500-1000
	Thrips , mite, pod borer	<b>LAMBDA-CYHALOTHRIN 5% EC</b>	CIBRC/CHES	15	300	400-600
	Thrips, Aphids,	<b>FIPRONIL 5% SC</b>	CIBRC/CHES	40-50	800-1000	500
	Thrips, Whitefly, Mites	<b>FENPROPATHRIN 30% EC</b>	CIBRC/CHES	75-100	250-340	750-1000
	Whitefly, Aphids	<b>CARBOSULFAN 25% EC</b>	CIBRC/CHES	200-250	800-1000	500-1000
		<b>PYRIPROXYFEN 10% EC</b>	CIBRC/CHES	50	500	300

## 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)	Dilution in Water (Liter)/ha	Remarks
	Yellow mite	<b>MILBEMECTIN 1% EC</b>	CIBRC/CHES 3.25	325	500	
		<b>FENAZAQUIN 10% EC</b>	CIBRC/CHES 125	1250	400-600	
		<b>FENPYROXIMATE 5% EC</b>	CIBRC/CHES 15-30	300-600	300-500	
		<b>HEXYTHIAZOX 5.45% W/W EC</b>	CIBRC/CHES 15-25	300-500	625/ha	
		<b>BUPROFEZIN 25% SC</b>	CIBRC/CHES 75-150	300-600	500-750	
		<b>SPIROMESIFEN 22.9% SC</b>	CIBRC/CHES 96	400	500 -750	
Cucumber	Aphids & Jassids	<b>IMIDACLOPRIDE 70% WG</b>	CIBRC/CHES 24.5	35	500	
Cucurbit	Red pumpkin beetle/ Tobacco caterpillar	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES 90	900	500	
French bean	Stem fly	<b>QUINALPHOS 25% EC</b>	CIBRC/CHES 250	1000	500-1000	
		<b>QUINALPHOS 1.5% DP</b>	CIBRC/CHES 300	20000		
	Pod borer , Black bug	<b>CHLORPYRIFOS 20% EC</b>	CIBRC/CHES 600	3000	500-1000	
Gherkins	Leaf miner / Red pumpkin beetle/Aphid/ Thrips/ Whitefly/ Pumpkin Caterpillar/ Fruit fly	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES 90	900	500	
Okra	Aphid	<b>DIMETHOATE 30% EC</b>	CIBRC/CHES 700	2310	500-1000	
		<b>MALATHION 50% EC</b>	CIBRC/CHES 500	1000	500-1000	
		<b>ACETAMIPRID 20% SP</b>	CIBRC/CHES 15	75	500-600	
	Aphid, Jassid, Thrips	<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/CHES 20	100	500	

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommeneded Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Okra	Aphids, Jassids	<b>THIAMETHOXAM 70% WS</b>	CIBRC/CHES 200	286		Use as seed dresser at the time of sowing	
		<b>DELTAMETHRIN 2.8% EC</b>	CIBRC/CHES 10	400	400-600		
		<b>IMIDACLOPRID 48% FS</b>	CIBRC/CHES 300 – 540	500– 900	for 100 kg Seeds	Seed Treatment	
		<b>IMIDACLOPRID 70% WS</b>	CIBRC/CHES 350 – 700	500 – 1000	for 100 kg Seeds	Seed Treatment	
	Fruit borer (Earias spp.)/ Spotted Bollworm	Aphids, Jassids, Thrips and white fly	<b>TOLFENPYRAD 15% EC</b>	CIBRC/CHES 150	1000	500	
			<b>EMAMECTIN BENZOATE 5% SG</b>	CIBRC/CHES 6.75-8.5	135-170	500	
			<b>PYRIDALYL 10% EC</b>	CIBRC/CHES 50-75	500-750	500-750	
			<b>QUINALPHOS 25% EC</b>	CIBRC/CHES 200	800	500-1000	
			<b>LAMBDA-CYHALOTHRIN 4.9% CS</b>	CIBRC/CHES 15	300	500	
			<b>LAMBDA-CYHALOTHRIN 5% EC</b>	CIBRC/CHES 15	300	300-400	
			<b>CHLORANTRANILIPROLE 18.5% SC</b>	CIBRC/CHES 25	125	500	
			<b>CYPERMETHRIN 10% EC</b>	CIBRC/CHES 50-70	550-760	150-400	
			<b>DELTAMETHRIN 2.8% EC</b>	CIBRC/CHES 10-15	400-600	400-600	
			<b>CYPERMETHRIN 25% EC</b>	CIBRC/CHES 37-50	150-200	500	
<b>FENVALERATE 20% EC</b>	CIBRC/CHES 60-75	300-375	600-750				
Fruit borer, Mites	<b>FENPROPATHRIN 30% EC</b>	CIBRC/CHES 75-100	250-340	750-1000			
White flies	<b>THIAMETHOXAM 25% WG</b>	CIBRC/CHES 25	100	500-1000			

## CROP & PEST WISE RECOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Recommened Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Okra	White flies	<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	250	1000	500-1000	
		<b>Pyriproxyfen 5% EC + Fenpropathrin 15% EC</b>	CIBRC/CHES	25+75 – 37.5 + 112.5	500-750	500-750	
		<b>FENPROPATHRIN 30% EC</b>	CIBRC/CHES	75-100	250-340	750-1000	
	Jassid/ Leaf hopper	<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	400	1600	500-1000	
		<b>CYPERMETHRIN 25% EC</b>	CIBRC/CHES	37-50	150-200	500	
		<b>BUPROFEZIN 70% DF</b>	CIBRC/CHES	200	286	500	
		<b>FENVALERATE 20% EC</b>	CIBRC/CHES	60-75	300-375	600-750	
		<b>THIAMETHOXAM 30% FS</b>	CIBRC/CHES	1.7	5.7 g/kg of seed		This is used as seed dresser
		<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	600	1980	500-1000	
	Jassids, Aphids, Thrips	<b>IMIDACLOPRIDE 70% WG</b>	CIBRC/CHES	21 – 24.5	30 – 35	375 – 500	
	Jassid/ Leaf hopper	<b>QUINALPHOS 25% EC</b>	CIBRC/CHES	250	1000	500-1000	
	Mite	<b>QUINALPHOS 25% EC</b>	CIBRC/CHES	250	1000	500-1000	
	Pod Borer	<b>AZADIRACHTIN 5% W/W MIN. NEEM EXTRACT CONCENTRATES</b>	CIBRC/CHES	-	200	400	
Red spider mite	<b>FENAZAQUIN 10% EC</b>	CIBRC/CHES	125	1250	500		
	<b>SPIROMESIFEN 22.9% SC</b>	CIBRC/CHES	96-120	400-500	500		
	<b>DICOFOL 18.5% EC</b>	CIBRC/CHES	250-500	1350-2700	500-1000		
Onion	Root grub	<b>CHLORPYRIFOS 20% EC</b>	CIBRC/CHES	1000	5000	500-1000	
	Thrips	<b>FIPRONIL 80%WG</b>	CIBRC/CHES	60	75	500	

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Onion	Thrips	<b>LAMBDA-CYHALOTHRIN 5% EC</b>	CIBRC/CHES	15	300	300-400	
		<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	300	1200	500-1000	
		<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	200	660	500-1000	
Pea	Pod borer	<b>MALATHION 50% EC</b>	CIBRC/CHES	750	1500	500-1000	
	Leaf minor	<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES	400	1000	500-1000	
Potato	Aphid	<b>CARBOFURAN 3% CG</b>	CIBRC/CHES	500	16600		
		<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	250	1000	500-1000	
		<b>THIAMETHOXAM 25% WG</b>	CIBRC/CHES	50	200	400-500	Soil Drench
		<b>THIAMETHOXAM 25% WG</b>	CIBRC/CHES	25	100	500	
	Thrips	<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	200	660	500-1000	
Radish	Stem borer	<b>MALATHION 50% EC</b>	CIBRC/CHES	750	1500	500-1000	
Tomato	Leaf miner – Liriomyza trifolii	<b>Chlorantraniliprole 8.8% w/w + Thiamethoxam 17.5 % w/w SC:</b>	CIBRC/CHES	150 ( Soil drench ( Single application)	500	50-100 ml/plant (8-10 days after trans planting )	
		<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	90	900	500	
	Aphids. White fly	<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	200	660	500-1000	
		<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	90	900	500	
	Aphids & Thrips	<b>THIAMETHOXAM 70% WS</b>	CIBRC/CHES	420	600		Use as seed dresser at the time of sowing
	Fruit borer (Helicoverpa armigera)	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	90	900	500	

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/ Ouat	Dosage/ ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks	
Tomato	Fruit borer (Helicoverpa armigera)	<b>LAMBDA-CYHALOTHRIN 4.9% CS</b>	CIBRC/ CHES	15	300	500	
		<b>CHLORANTRANILIPROLE 18.5% SC</b>	CIBRC/ CHES	30	150	500	
		<b>FLUBENDIAMIDE 20% WG</b>	CIBRC/ CHES	48	100	375-500	
		<b>FLUBENDIAMIDE 39.35% M/M SC</b>	CIBRC/ CHES	48	100	375-500	
		<b>INDOXACARB 14.5% SC</b>	CIBRC/ CHES	60-75	400-500	300-600	
		<b>LAMBDA-CYHALOTHRIN 5% EC</b>	CIBRC/ CHES	15	300	400-600	
		<b>NOVALURON 10% EC</b>	CIBRC/ CHES	75	750	500-1000	
		<b>PHOSALONE 35% EC</b>	CIBRC/ CHES	450	1285	500-1000	
		<b>QUINALPHOS 20% AF</b>	CIBRC/ CHES	300-350	1500-1750	750-1000	
		<b>QUINALPHOS 25% EC</b>	CIBRC/ CHES	250	1000	500-1000	
		<b>Chlorantraniliprole 8.8% w/w + Thiamethoxam 17.5 % w/w SC:</b>	CIBRC/ CHES	150 ( Soil drench (Single	500	50-100 ml/plant (8-10 days after	
		<b>Novaluron 5.25% + Indoxacarb 4.5% SC</b>	CIBRC/ CHES	43.31 + 37.13 to 45.94 + 39.38	825-875	500	
leaf eating caterpillar	<b>Novaluron 5.25% + Indoxacarb 4.5% SC</b>	CIBRC/ CHES	43.31 + 37.13 to 45.94 + 39.38	825-875	500		
Pod borers	<b>METHOMYL 40% SP</b>	CIBRC/ CHES	300-450	750-1125	500-1000		
Thrips- Thrips tabaci	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/ CHES	90	900	500		
Two spotted spider mite	<b>FENAZAQUIN 10% EC</b>	CIBRC/ CHES	125	1250	500		
Mites	<b>SPIROMESIFEN 22.9% SC</b>	CIBRC/ CHES	150	625	500		

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Tomato	White fly – Bemisia tabaci	<b>THIAMETHOXAM 25% WG</b>	CIBRC/CHES	50	200	500
		<b>CARBOFURAN 3% CG</b>	CIBRC/CHES	1200	40000	
		<b>MALATHION 50% EC</b>	CIBRC/CHES	750	1500	500-1000
		<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	250	1000	500-1000
		<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	300	990	500-1000
		<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/CHES	30-35	150-175	500
		<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	90	900	500
		<b>Chlorantraniliprole 8.8% w/w + Thiamethoxam 17.5 % w/w SC:</b>	CIBRC/CHES	150	500	50-100 ml/plant
	<b>SPIROMESIFEN 22.9% SC</b>	CIBRC/CHES	150	625	500	
Banana	Aphid, Lace wing bug	<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	0.03%	1485-1980	1500-2000
	Aphid	<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	0.05%	3000-4000	1500-2000
	Tingid bug	<b>QUINALPHOS 25% EC</b>	CIBRC/CHES	0.05%	3000-4000	500-1000
		<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	0.03%	1500-2000	1500-2000
Ber	Leaf hopper	<b>CHLORPYRIFOS 20% EC</b>	CIBRC/CHES	0.03%	2250-3000	1500-2000
Citrus	Black citrus, Aphid	<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES	0.04%	1500-2000	500-2000
		<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	0.03%	1485-1980	1500-2000
		<b>CHLORPYRIFOS 20% EC</b>	CIBRC/CHES	0.02%	1500-2000	1500-2000
	Citrus butterfly	<b>QUINALPHOS 25% EC</b>	CIBRC/CHES	0.03%	1500-2000	500-1000
	Leaf miner	<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/CHES	10	50	500-1000
	Mite	<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES	0.03%	937-1250	500-1000

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Citrus	Psylla	<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/CHES 10	50	500-1000	
		<b>THIAMETHOXAM 25% WG</b>	CIBRC/CHES 25	100	1000	
	Red Spider mite	<b>DICOFOL 18.5% EC</b>	CIBRC/CHES 0.05%	2700-4050	1000-5000	
	Scale	<b>QUINALPHOS 25% EC</b>	CIBRC/CHES 0.07%	4200-5600	500-1000	
Litchi	Red Spider mite	<b>DICOFOL 18.5% EC</b>	CIBRC/CHES 0.05%	2700-4050	1000-5000	
Coconut	Eriophyde mite	<b>FENPYROXIMATE 5% EC</b>	CIBRC/CHES 0.5gm./tree (Root feeding)	10ml/lit.	1500-2000	
		<b>FENPYROXIMATE 5% EC</b>	CIBRC/CHES 0.056 -0.075 gm/tree	0.75 – 1ml/lit	1500-2000	
	Black headed Caterpillar	<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES 3.5 -7gm per tree	8.75-17.5ml per tree		
Mango	Bug mite	<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES 0.04%	1500-2000	500-2000	
	Gall maker	<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES 0.04%	1500-2000	500-2000	
	Hopper	<b>DIMETHOATE 30% EC</b>	CIBRC/CHES 0.05%	2475-3300	1500-2000	
		<b>IMIDACLOPRID 17.8% SL</b>	CIBRC/CHES 0.4 – 0.8	2-4 ml/tree	10 litre	
		<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES 0.04%	1500-2000	500-2000	
		<b>BUPROFEZIN 25% SC</b>	CIBRC/CHES 0.025%to 0.05%	1-2 ml/liter of water	5-15 liter per tree	
		<b>DELTAMETHRIN 2.8% EC</b>	CIBRC/CHES 0.03-0.05%	0.33to 0.5ml/lit	As per spray field requirement	



## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Mango	Hopper	<b>LAMBDA-CYHALOTHRIN 5% EC</b>	CIBRC/CHES	0.0025-0.005%	0.5-1.0 ml/l of water	
		<b>OXYDEMETON – METHYL 25% EC</b>	CIBRC/CHES	0.03%	1500-2000	1500-2000
		<b>THIAMETHOXAM 25% WG</b>	CIBRC/CHES	25	100	1000
		<b>MALATHION 50% EC</b>	CIBRC/CHES	0.08%	2250-3000	1500-2000
	Mealy bug	<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES	0.04%	1500-2000	500-2000
	Mealy scale,	<b>MALATHION 50% EC</b>	CIBRC/CHES	0.08%	2250-3000	1500-2000
	Shoot borer	<b>MONOCROTOPHOS 36% SL</b>	CIBRC/CHES	0.04%	1500-2000	500-2000
Pomegranate	Thrips – Scirtothrips dorsalis	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	75 (0.0075%)	750 (0.075%)	1000
	Pomegranate butterfly-Deudorix isocrates	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	75 (0.0075%)	750 (0.075%)	1000
	Whitefly-Siphoninus phillyreae	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	90 (0.009%)	900 (0.09%)	
	Aphids-Aphis punicae	<b>CYANTRANILIPROLE 10.26% OD</b>	CIBRC/CHES	90 (0.009%)	900 (0.09%)	
	Scales	<b>QUINALPHOS 25% EC</b>	CIBRC/CHES	0.08%	4800-6400	500-1000
Cashew	Apple & Nut borer	<b>LAMBDA-CYHALOTHRIN 5% EC</b>	CIBRC/CHES	0.0025-0.005%	0.5-1.0 ml/l of water	500-1000
	Tea Mosquito Bug	<b>MONOCROTOPHOS 36% SL</b> <b>LAMBDA-CYHALOTHRIN 5% EC</b>		0.05% 0.003%	1.5ml/l 0.5-1.0 ml/l of water	500-1000 500-1000

## CROP & PEST WISE RECCOMMENDATION OF INSECTICIDES

Crop	Common name of the pest	Reccommended Insecticides by CIBRC/OUAT	Dosage/ha a.i (gm)	Formulation (gm/ml)	Dilution in Water (Liter)/ha	Remarks
Cashew	Tea Mosquito Bug	<b>CHLOROPYRIPHOS 20% EC</b>	0.05%	2ml/l	500-1000	2nd spray during flowering Stage ( Dec-January)
	Mealy Bug	<b>DIMETHOATE 30% EC</b>	0.05%	1.75ml/l	500-1000	Spray in combination with fish oil resin soap @ 20g/litre of water to reduce bug incidence effectively
	Thrips (Flower & Foliage)	<b>MONOCROTOPHOS 36% SL</b>	0.05%	1.5ml/l	500-1000	
	Leaf & blossom Webber	<b>CHLOROPYRIPHOS 20% EC</b>	0.05%	2ml/l	500-1000	
Rose	Two Spotted Mite (Tetranychusurticae)	<b>BIFENAZATE 50% WP</b>	CIBRC/CHES	375	750	3000
		<b>BIFENAZATE 22.6% SC</b>	CIBRC/CHES	120	500	2000
		<b>MILBEMECTIN 1% EC</b>	CIBRC/CHES	4.5	450	1000
	Scale/Thrips	<b>DIMETHOATE 30% EC</b>	CIBRC/CHES	750	2475	500-1000
	Mites	<b>FLUFENOXURON 10% DC</b>	CIBRC/CHES	50	500	500-1000

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Arhar	Alternaria Leaf Blight	Copper oxychloride 88%W/W	OUAT	4g/l	500	
		Mancozeb 75% WP	OUAT	2.5g/l	500	
		Carbendazim 12%+Mancozeb 63%	OUAT	2g/l	500	
	Bacterial Leaf Spot	Streptocyclin90% Tetracyclinhydrochloride 10%	OUAT	1.5g/lt	500	
		Streptocyclin9% Tetracyclinhydrochloride 1%	OUAT	1g/l	500	
		Copperoxychloride 50%WDG	OUAT	0.3g/l	500	
	Botrytis Gray mold	Carboxin 75%WP	OUAT	4g/l	500	
		Carbendazim 50%WP	OUAT	1g/l	500	
	Cercospora Leaf Spot	Chlorothalonil 75%WP	OUAT	2g/l	500	
		Difenconazole 25%EC	OUAT	1ml/l (spraying)	500	
		Carbendazim 12%+Mancozeb 63%	OUAT	1.5g/l	500	
	Collar Rot	Metalaxyl 4%+Mancozeb 64%	OUAT	2g/l	500	
		Carbendazim 50%WP	OUAT	2g/l	500	
		Validamycin 3%SL	OUAT	2ml/l	500	
	Wilt	Mancozeb 75% WP	OUAT	18.75 to 22.50/ 10 kg seed		Seed Tretment
		Tebuconazole 2% DS	OUAT	0.2 to 0.25 kg/10 kg seed		Seed Tretment
		Metiram 70%WG	OUAT	1.5g/l		Soil drenching
	Phytophthora Blight	Metalaxyl 35%WS	OUAT	1.5g/l		Soil drenching
		Metalaxyl4%+Mancozeb 64%	OUAT	2g/l	500	
		Fosetil -AL 80%WP	OUAT	3g/l		Soil drenching
	Powdery Mildew	Sulphur 80% WP	OUAT	1 ml/l	500	
Propioconazole 25% EC		OUAT	1g/l	500		
Penconazole 10% EC		OUAT	0.5ml/l	500		
Rust	Triademefon 25%WP	OUAT	1ml/4lt	500		
	Chlorothalonil 75%Wp	OUAT	2g/lt	500		
	Difenoconazole25%EC	OUAT	1ml/lt	500		
Yellow Mosaic Virus	Sulphur 80% WP	OUAT	5g/l	500		
	Imidacloprid 17.8%SL	OUAT	1ml/3lt	500		
	Thiamethoxam 25%WG	OUAT	1g/lt	500		

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Recommeneded Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Arhar	Dry Root Rot	Validamycin 3%L	OUAT	2ml/l	500	
		Pencycuron22.9%SC	OUAT	1.5ml/l	500	
		Carbendazim 50%WP	OUAT	2g/l	500	
Black & Green Gram	Powdery mildew (Erysiphe polygoni)	Penconazole 10% EC	CIBRC/OUAT	5 ml/10 Lt. water	500	
		Sulphur 80% WP	CIBRC/OUAT	5g/l	500	
	Root rot (Macro phomina Phaseolina)	Mancozeb 63%+Carbendazim 12%WP	OUAT	2g/lt(drenching)		Drenching
		Validamycin 3%L	OUAT	2ml/lt(Drenching)		Drenching
	Rust	Sulphur 85% DP	CIBRC/OUAT	15-20 kg		
		Chlorothalonil 75%WP	OUAT	2g/lt	500	
		Difenoconazole25%EC	OUAT	1ml/lt	500	
	Seed Rot	Carboxin 37.5% WP+Thiram 37.5% WP	OUAT	2.5 g/kg of seed		Seed Treatment
		Carbendazim 50% WP	OUAT	1.5g/kg of seed		Seed Treatment
		Thiram 75% WS	OUAT	3g/kg of seed		Seed Treatment
	Bacterial Leaf Blight	Streptocyclin90% Tetracyclinhydrochloride 10%	OUAT	1.5g/10lt	500	
		Streptocyclin9% Tetracyclinhydrochloride 1%	OUAT	1g/l	500	
		Copperoxychloride 50%WDG	OUAT	0.3g/l	500	
	Yellow Mosaic Virus	Imidacloprid 17.8%SL	OUAT	1ml/3lt	500	
		Thiamethoxam 25%WG	OUAT	1g/lt	500	
Anthracnose	Carbendazim 12%+Mancozeb 63%WP	OUAT	1.5g/l	500		
	Copperoxychloride 50%WG	OUAT	2.5g/l	500		
	Kasugamysycin 3%SL	OUAT	2.5g/l	500		
Leaf Spot (Cercospora) & Dresalera Leaf spot	Chlorothalonil 75%WP	OUAT	2g/l	500		
	Difenconazole 25%EC	OUAT	1ml/l	500		
	Carbendazim 12%+Mancozeb 63%WP	OUAT	1.5g/l	500		
Leaf Spot (Macro phomina)	Carbendazim 50% WP	OUAT	2g/lt	500		
	Carbendazim 12%+Mancozeb 63%WP	OUAT	1.5g/l	500		

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Black & Green Gram	Wilt (Fusarium)	Mancozeb 75% WP	OUAT	2-2.5 g/1 kg seed	Seed Treatment	
		Tebuconazole 2% DS	OUAT	2-2.5 g/1 kg seed	Seed Treatment	
		Metiram 75%WG	OUAT	1.5g/4l	Soil drenching	
	Ascochyta Blight	Carbendazim 50%WP	OUAT	1g/l	500	
		Chlorothalonil 75%WP	OUAT	2g/l	500	
		Carbendazim 12%+Mancozeb 63%WP	OUAT	1.5g/l	500	
Bengal gram	Botrytis Grey Mould	Copper oxychloride 88%W/W	OUAT	0.3g/l	500	
		Carbendazim 50%WP	OUAT	1g/l	500	
		Carboxin 75%WP	OUAT	4g/l	500	
	Dry Root Rot	Validamycin 3%L	OUAT	2ml/l	500	
		Pencycuron22.9%SC	OUAT	1.5ml/l	500	
		Carbendazim 50%WP	OUAT	2g/l	500	
	Collar Rot	Metalaxyl 8%+Mancozeb 64%WP	OUAT	2g/l	500	
		Carbendazim 50%WP	OUAT	2g/l	500	
		Validamycin 3%L	OUAT	2ml/l	500	
	Rust	Triademefon 25%WP	OUAT	1ml/4lt	500	
		Chlorothalonil 75%WP	OUAT	2g/lt	500	
		Difenoconazole25%EC	OUAT	1ml/lt	500	
	Powdery Mildew	Sulphur 80% WP	OUAT	1 ml/l	500	
		Propioconazole 25% EC	OUAT	1g/l	500	
		Penconazole 10% EC	OUAT	0.5ml/l	500	
Cotton	Leaf spot I (Myrothecium)	Carbendazim 50% WP	CIBRC/OUAT	1.5g/l	500	
		Chlorothalonil 75% WP	OUAT	2g/l	500	
		Carbendazim 12%+Mancozeb 63%WP	OUAT	1.5g/l	500	
	Angular Leaf Spot	Carboxin 75% WP	CIBRC/OUAT	2 -2.5 gm/ kg seed	Seed Treatment	
		Thiram 37.5%+Carboxin 37.5%WP	OUAT	2g/kg of seed	Seed Treatment	
	Seed born disease	Thiram 75% WS	CIBRC/OUAT	25-30 gm/1kg seed	Seed Treatment	
	Grey mildew	Copper oxychloride 50% WP	OUAT	2 g/lt	500	

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Recommeneded Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Cotton	Bacterial Leaf Blight	<b>Streptomycin Sulphate 90% + Tetracylin Hydrochloride 10% SP</b>	OUAT	40 ppm (40 mg/ltr water)	<b>Seeds treatment:</b> Prepare streptocycline 40 ppm solution and soak seeds for 12 hours at room temperature before sowing.	
		<b>(Streptomycin Sulphate 9% + Tetracylin Hydrochloride 1% SP)+Copper oxychloride 50% WP</b>	OUAT	1g/lt+2.5g/lt		500
		<b>Copper oxychloride 50% WP</b>	OUAT	2 g/lt		500
	Alternaria Leaf blight	<b>Pyraclostrobin 20% WG</b>	CIBRC/OUAT	1g/L	500	
		<b>Difenoconazole25%EC</b>	OUAT	1ml/lt	500	
	Dry Root Rot	<b>Carbendazim 50% WP</b>	CIBRC/OUAT	2.5 to 3g/l	500	
		<b>Validamycin 3%L</b>	OUAT	2ml/l	500	
		<b>Pencycuron22.9%SC</b>	OUAT	1.5ml/l	500	
	Wilting (Fusarium)	<b>Mancozeb 75% WP</b>	OUAT	2-2.5 g/1 kg seed		Seed Treatment
		<b>Tebuconazole 2% DS</b>	OUAT	2-2.5 g/1 kg seed		Seed Treatment
		<b>Metiram 75%WG</b>	OUAT	1.5g/4l (drenching)		Soil drenching
	Leaf Curl Gemini Virus	<b>Imidacloprid 17%SL</b>	OUAT	1ml/3lt	500	
		<b>Thiamethoxam 25%WG</b>	OUAT	1g/lt	500	
<b>Acetamaprid 25% SP</b>		OUAT	1g/3lt.	500		
Ground nut	Collar rot	<b>Tebuconazole 2% DS</b>	CIBRC/OUAT	2-2.5 g/1 kg seed	Seed Treatment	
		<b>Thiram 75% WS</b>	CIBRC/OUAT	3g/kg of seed	Seed Treatment	
	Early leaf spot (Cercospora arachidicola)	<b>Propiconazole 25% EC</b>	CIBRC/OUAT	0.5-1.0 ml/l	500-750	
		<b>Difenconazole 25%EC</b>	OUAT	1ml/l	500-750	
		<b>Carbendazim 12%+Mancozeb 63% WP</b>	OUAT	1.5g/l	1.5g/l	
	Late leaf spot (C. personata)	<b>Propiconazole 25% EC</b>	CIBRC/OUAT	0.5-1.0 ml/l	500-750	
		<b>Mancozeb 75% WP</b>	CIBRC/OUAT	2.5 - 3.0 g/ 1 kg seed		Seed Treatment
		<b>Carbendazim 12%+Mancozeb 63%</b>	OUAT	1.5g/l	500-750	

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks
Ground nut	Root rot	<b>Tebuconazole 2% DS</b>	CIBRC/OUAT	20-25 g/1 kg seed	Seed Treatment
		<b>Pencycuron 22.9% SC</b>	OUAT	1.5ml/l	500-750
		<b>Carbendazim 50% WP</b>	OUAT	2g/l	500-750
	Rust	<b>Mancozeb 75% WP</b>	CIBRC/OUAT	2-3 g/l	500-750
		<b>Bitertanol 25% WP</b>	CIBRC/OUAT	2 g/lt	500-750
		<b>Chlorothalonil 75% WP</b>	CIBRC/OUAT	1-1.5g/l	500-750
		<b>Tebuconazole 25.9% EC</b>	CIBRC/OUAT	1-1.5 ml/l	500-750
		<b>Propiconazole 25% EC</b>	CIBRC/OUAT	0.5-1.0 ml/l	500-750
	Tikka	<b>Bitertanol 25% WP</b>	CIBRC/OUAT	2g/l	500-750
		<b>Chlorothalonil 75% WP</b>	CIBRC/OUAT	1-1.5g/l	500-750
		<b>Mancozeb 75% WP</b>	CIBRC/OUAT	2-3 g/l	500-750
		<b>Carbendazim 50% WP</b>	CIBRC/OUAT	2g/l	500-750
		<b>Hexaconazole 5% EC</b>	CIBRC/OUAT	2-3 ml/l	500-750
	Aspergillus Crown Rot	<b>Carboxin 37.5%+Thiram 37.5%</b>	OUAT	2g/kg of seed	Seed Treatment
		<b>Carbendazim 50% WP</b>	OUAT	2g/kg of seed	Seed Treatment
		<b>Captan 50% WP</b>	OUAT	2.5g/kg of seed	Seed Treatment
	Stem rot	<b>Tebuconazole 2% DS</b>	CIBRC/OUAT	20-25 g/1 kg seed	Seed Treatment
		<b>Metalaxyl 8%+Mancozeb 64% WP</b>	OUAT	2g/l	500-750
		<b>Carbendazim 50% WP</b>	OUAT	2g/l	500-750
		<b>Validamycin 3% L</b>	OUAT	2ml/l	500-750
Bud Necrosis	<b>Imidacloprid 17.8% SL</b>	OUAT	1ml/3lt	500-750	
	<b>Thiamethoxam 25% WG</b>	OUAT	1g/lt	500-750	
	<b>Acetamaprid 20% SP</b>	OUAT	1g/3lt.	500-750	

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Mustard	Alternaria blight	Iprodione 50% WP	CIBRC/OUAT	2.25 kg-3 kg	500-750	
		Mancozeb 75% WP	OUAT	2.5g/l	500-750	
		Carbendazim 12%+Mancozeb 63% WP	OUAT	1.5g/l	500-750	
	Downey Mildew	Metalaxyl-M 31.8% ES	CIBRC	3.5ml/l	500-750	
		Metalaxyl8%+Mancozeb 64%	OUAT	2g/l	500-750	
		Fosetyb-AL 80%WP	OUAT	3g/l	500-750	
	White rust	Metalaxyl-M 31.8% ES	CIBRC/OUAT	3.5ml/l	500-750	
		Metalaxyl 35% WS	CIBRC/OUAT	6-7.5g/kg of seed		Seed Treatment
		Copper Oxychloride 50%WP	OUAT	4g/l	500-750	
	Powdery Mildew	Sulphur 80% WP	OUAT	1 ml/l	500-750	
		Propioconazole 25% EC	OUAT	1g/l	500-750	
		Penconazole 10% EC	OUAT	0.5ml/l	500-750	
	Sclerotinia Stem Rot	Validamycin 3%L	OUAT	2ml/l	500-750	
		Pencycuron22.9%AC	OUAT	1.5ml/l	500-750	
		Carbendazim 50%WP	OUAT	2g/l	500-750	
Bacterial Rot	Streptocyclin90% Tetracyclinhydrochloride 10%	OUAT	1.5g/10lt	500-750		
	Streptocyclin9% Tetracyclinhydrochloride 1%	OUAT	1g/l	500-750		
	Copperoxychloride 50%WG	OUAT	0.3g/l	500-750		
Sun flower	Downey mildew	Metalaxyl-M 31.8% ES	CIBRC/OUAT	2.0 ml/kg seed	Seed Treatment	
		Metalaxyl 35% WS	CIBRC/OUAT	6-7.5g/kg of seed	Seed Treatment	
		Fosetyl-AL 80%WP	OUAT	3g/l	500-750	
	Alternaria Leaf Spot	Copper oxychloride 88%W/W	OUAT	4g/l	500-750	
		Mancozeb 75% WP	OUAT	2.5g/l	500-750	
		Carbendazim 12%+Mancozeb 63%WP	OUAT	1.5g/l	500-750	
	Rust	Triademeform 25%WP	OUAT	1ml/4lt	500-750	
		Chlorothalonil 75%WP	OUAT	2g/lt	500-750	
		Difenoconazole25%EC	OUAT	1ml/lt	500-750	
	Head Rot	Copper oxychloride 88%W/W	OUAT	4g/l	500-750	
		Mancozeb 75% WP	OUAT	2.5g/l	500-750	
		Carbendazim 12%+ Mancozeb 63% WP	OUAT	1.5g/l	500-750	



## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/ OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks
Sun flower	Sclerotium Wilt	Mancozeb 75% WP	OUAT	2-2.5g/kg of seed	Seed Treatment
		Tebuconazole 2% DS	OUAT	20-25 g/1 kg seed	Seed Treatment
		Metiram 75%WG	OUAT	1.5g/4l	Soil drenching
Seasamum	Phyllody	Imidacloprid 17%SL	OUAT	1ml/3lt	500-750
		Thiamethoxam 25%WG	OUAT	1g/lt	500-750
		Acetamaprid 20% SP	OUAT	1g/3lt.	500-750
	Bacterial Leaf blight	Streptomycine Sulphate 90% Tetracyclin Hydrochloride 10% +Copper Oxychloride 50%WP	OUAT	1.5g + 20g/10lt.	500-750
		Copper oxychloride 50% WP	OUAT	2g/l	500-750
	Cercospora Leaf Spot	Chlorothalonil 75%WP	OUAT	2g/l	500-750
		Difenconazole 25%EC	OUAT	1ml/l	500-750
		Carbendazim 12%+Mancozeb 63% WP	OUAT	1.5g/l	500-750
	Powdery Mildew	Sulphur 80% WP	OUAT	1 ml/l	500-750
		Propioconazole 25% EC	OUAT	1g/l	500-750
		Penconazole 10% EC	OUAT	0.5ml/l	500-750
	Wilt	Mancozeb 75% WP	OUAT	2-2.5g/kg of seed	Seed Treatment
		Tebuconazole 2% DS	OUAT	20-25g/kg of seed	Seed Treatment
		Metiram 70%WG	OUAT	1.5g/4l	Soil drenching
	Charcoal Rot	Carbendazim 50% WP	OUAT	2g/lt	500-750
Carbendazim 46.27 %SC		OUAT	1.25ml/l	500-750	
Carbendazim 12%+Mancozeb 63% WP		OUAT	1.5g/l	500-750	
Jute & Mesta	Seedling Blight	Carbendazim 50% WP	CIBRC/OUAT	2 gm/kg Seed	Seed Treatment
		Carbendazim 50%WP	OUAT	2g/l	500-750
		Validamycin 3%SL	OUAT	2ml/l	500-750
	Stem Rot	Validamycin 3%SL	OUAT	2ml/l	500-750
		Pencycuron22.9%AC	OUAT	1.5ml/l	500-750
		Carbendazim 50%WP	OUAT	2g/l	500-750
	Root Rot	Validamycin 3%L	OUAT	2ml/l	500-750
		Pencycuron22.9%AC	OUAT	1.5ml/l	500-750
		Carbendazim 50%WP	OUAT	2g/l	500-750

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/ OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Jute & Mesta	Collar Rot	<b>Metalaxyl 8%+Mancozeb 64%</b>	OUAT	2g/l	500-750	
		<b>Carbendazim 50%WP</b>	OUAT	2g/l	500-750	
		<b>Validamycin 3%L</b>	OUAT	2ml/l	500-750	
	Soft Rot	<b>Validamycin 3% L</b>	OUAT	2ml/lt	500-750	
		<b>Hexaconazole 5%EC</b>	OUAT	1ml/lt	500-750	
		<b>Hexaconazole 5%SC</b>	OUAT	2ml/lt	500-750	
		<b>Carbendazim 50% WP</b>	OUAT	1.5g/lt	500-750	
	Anthracnose	<b>Carbendazim 12%+Mancozeb 63% WP</b>	OUAT	1.5g/l	500-750	
		<b>Copperoxychloride 50%WG</b>	OUAT	2.5g/l	500-750	
		<b>Kasugamysycin 3%SL</b>	OUAT	2.5g/l	500-750	
	Die Back	<b>Carbendazim 12%+Mancozeb 63%</b>	OUAT	1.5g/l	500-750	
		<b>Copperoxychloride 50%WG</b>	OUAT	2.5g/l	500-750	
<b>Kasugamysycin 3%SL</b>		OUAT	2.5g/l	500-750		
Maize	Downey mildew	<b>Metalaxyl 35% WS</b>	CIBRC/OUAT	7g/kg of seed	Seed Treatment	
		<b>Metalaxyl-M 31.8% ES</b>	CIBRC/OUAT	2.4 ml/kg seed	Seed Treatment	
	Leaf blight	<b>Mancozeb 75% WP</b>	CIBRC/OUAT	2-3g/l	500-750	
		<b>Zineb 75% WP</b>	CIBRC/OUAT	2-3g/l	500-750	
		<b>Carbendazim 12% +Mancozeb 63% WP</b>	OUAT	2g/lt.	500-750	
	Seedling blight	<b>Thiram 40 FS</b>	CIBRC/OUAT	24g/100ml	Slurry treatment	Seed Treatment
		<b>Thiram 75% WS</b>	CIBRC/OUAT	25-30 gm/kg of seed		Seed Treatment
	Bacterial leaf & sheath blight	<b>Carbendazim 50% WP</b>	CIBRC/OUAT	2 gm/ kg seed		Seed Treatment
		<b>Kresoxim-methyl 44.3% SC</b>	CIBRC/OUAT	1ml/l	500-750	
	Bacterial Stalk Rot	<b>Streptocyclin90% Tetracyclinhydrochloride 10% +Copper Oxychloride 50%WP</b>	OUAT	0.15g/10lt +20g/10lt	500-750	
		<b>Copper oxy chloride 50%WP</b>	OUAT	20g/10lt	500-750	
	Brown Spot	<b>Captan 75% WP</b>	CIBRC/OUAT	1.5-2.0g/l	500-750	
		<b>Ediphenphos 50% EC</b>	CIBRC/OUAT	1ml/l	500-750	

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Maize	Head Smut	Copper Hydroxide 77% WP	CIBRC/OUAT	2.5g/l	500-750	
		COPPER HYDROXIDE 53.8% DF	CIBRC/OUAT	2g/l	500-750	
		Carboxin 37..5%+Thiram 37.5%WP	OUAT	3g/kg seed treatment		
	Common Rust	Triademeform 25%WP	OUAT	1ml/4lt	500-750	
		Chlorothalonil 75%WP	OUAT	2g/lt	500-750	
		Difenoconazole25%EC	OUAT	1ml/lt	500-750	
	Root & Stalk Rot	Validamycin 3%L	OUAT	2ml/l	500-750	
		Pencycuron22.9%SC	OUAT	1.5ml/l	500-750	
		Carbendazim 50%WP	OUAT	2g/l	500-750	
Paddy	Bacterial leaf blight	COPPER HYDROXIDE 53.8% DF	CIBRC/OUAT	3g/l	500	
		Copper oxy chloride 50%WP	OUAT	2g/lt	500	
		Streptomycin Sulphate 90% + Tetracylin Hydrochloride 10% SP	CIBRC/OUAT	40-100ppm (4gm/10l water)		
	Blast	Carbendazim 50% WP	CIBRC/OUAT	2g/l	500	
		Ediphenphos 50% EC	CIBRC/OUAT	1ml/l	500	
		Mancozeb 75% WP	CIBRC/OUAT	3-4g/l	500	
		Propiconazole 10.7%+ Tricyclazole 34.2% SE	CIBRC/OUAT	1ml/5l	500	
		Tricyclazole 75% WP	CIBRC/OUAT	6g/10l	500	
		Hexaconazole 5% EC	CIBRC/OUAT	1ml/l	500	
		Hexaconazole 5% SC	CIBRC/OUAT	2ml/l	500	
		Kasugamycin 3% SL	CIBRC/OUAT	2-3ml/l	500	
		Tebuconazole 25% WG	CIBRC/OUAT	1.5g/l	500	
		Kitazin 48% EC	CIBRC/OUAT	2ml/l	500	

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Paddy	Brown leaf spot	Captan 75% WP	CIBRC/OUAT	2g/l	500	
		Ediphenphos 50% EC	CIBRC/OUAT	1ml/l	500	
		Propineb 70% WP	CIBRC/OUAT	3-4g/l	500	
	False smut	Copper Hydroxide 77% WP	CIBRC/OUAT	2.5g/l	500	
		COPPER HYDROXIDE 53.8% DF	CIBRC/OUAT	3g/l	500	
		Carboxin 37..5%+Thiram 37.5%WP	OUAT	3g/kg seed treatment		Seed Treatment
		Carbendazim 50%WP	OUAT	1.5g/kg seed treatment		Seed Treatment
	Seed born disease	Thiram 75% WS	CIBRC/OUAT	25-30 gm/kg of seed		Seed Treatment
	Sheath rot	Carbendazim 50%WP	OUAT	1.5 g/lt	500	
		Iprodine 25%+Carbendazim 25%WP	OUAT	2.5g/l	500	
		Propiconazole 25%EC	OUAT	1ml/lt.	500	
	Sheath blight	Carbendazim 50% WP	CIBRC/OUAT	2 gm/ kg seed		Seed Treatment
		Propiconazole 10.7%+ Tricyclazole 34.2% SE	CIBRC/OUAT	1ml/5l	500	
		Difenoconazole 25% EC	CIBRC/OUAT	1ml/2l	500	
		Flusilazole 40% EC	CIBRC/OUAT	6ml/10l	500	
		Hexaconazole 5% EC	CIBRC/OUAT	2ml/l	500	
		Iprodione 50% WP	CIBRC/OUAT	4-5g/l	500	
		Validamycin 3% L	CIBRC/OUAT	4g/l	500	
		Propiconazole 25% EC	CIBRC/OUAT	1g/l	500	
	Foot Rot	Metalaxyl M 8%+Mancozeb 64% WP	OUAT	2.5g/lt.	500	
Carbendazim 50% WP		OUAT	1.5 g/lt	500		
Carbendazim 12% +Mancozeb 63% WP		OUAT	1.5g/lt	500	Basal drench	
Metalxyyl 4%+Mancozeb 64% WP		OUAT	3g/lt	500	Basal drench	

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Paddy	Leaf Scald	Carbendazim 50% WP	OUAT	2g/l.	500	Basal drench
		Carbendazim 12% +Mancozeb 63% WP	OUAT	1.5g/l	500	Basal drench
		Mancozeb 75% WP	OUAT	2.5g/l.	500	
	Grain discoloration	Carbendazim 12% +Mancozeb 63% WP	OUAT	1g/l	500	
		Carbendazim 50% WP	OUAT	1.5g/l	500	
Ragi	Blast	Zineb 75% WP	CIBRC/OUAT	2g/l	500	
		Picoxystobin 22.52% w/w SC	OUAT	3g/10lt	150	
	Smut	Carboxin 37.5%+Thiram 37.5% WP	OUAT	2g/kg(Seed Treatment)		Seed Treatment
		Tebuconazole 2% DS W/W	OUAT	1.2g/kg of seed		Seed Treatment
		Carbendazim 50% WP	OUAT	1.5g/l.	500	
	Foot Rot	Metalaxyl M 8%+Mancozeb 64% WP	OUAT	2.5g/l.	500	
		Carbendazim 50% WP	OUAT	1.5g/l.	500	
		Carbendazim 12% +Mancozeb 63% WP	OUAT	1.5g/l	500	Basal drench
	Leaf Spot	Captan 75% WP	OUAT	1.5g/l	500	
		Ediphenphos 50% EC	OUAT	5g/10l	500	
Sugar cane	Whip smut	Thiram 75%WS	OUAT	3g/l	500-750	
		Triademephon 25%WP	OUAT	1g/l	500-750	
		Carboxin 37.5%+Thiram 37.5% WP	OUAT	3g/l	500-750	
	Red Rot	Carbendazim 50% WP	OUAT	2g/l	500-750	
		Carbendazim 12% +Mancozeb 63% WP	OUAT	2.5g/l	500-750	Basal drench
		Metalaxyl M 8%+Mancozeb 64%WP	OUAT	2g/l	500-750	Basal drench
	Sett Rot	Carbendazim 50% WP	OUAT	2g/l	500-750	
		Carbendazim 12% +Mancozeb 63% WP	OUAT	2.5g/l	500-750	Basal drench
		Metalaxyl M 8%+Mancozeb 64%WP	OUAT	2g/l	500-750	
	Grassy Shoot Disease	Imidacloprid 17%SL	OUAT	1ml/3lt	500-750	
		Thiamethoxam 25%WG	OUAT	1g/l	500-750	
		Acetamaprid 20% SP	OUAT	1g/3lt.	500-750	
	Wilt (Fusarium)	Carbendazim 50% WP	OUAT	2g/l	500-750	Basal drench
		Carbendazim 5% G	OUAT	12.5kg/ha	500-750	
		Mancozeb 63%+Carbendazim 12%WP	OUAT	2g/l	500-750	Drenching
Top Rot	Carbendazim 50% WP	OUAT	2g/l	500-750		
	Mancozeb 63%+Carbendazim 12%WP	OUAT	2g/l	500-750	Drenching	
	Thiophanate methyl 70%WP	OUAT	1g/l	500-750		

## CROP & DISEASE WISE RECCOMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Sugar cane	Root Rot	Carbendazim 50% WP	OUAT	2g/lt	500-750	
		Mancozeb 63%+Carbendazim 12%WP	OUAT	2g/lt	500-750	Drenching
		Validamycin 3%L	OUAT	2ml/lt	500-750	Drenching
	Rust	Triademeform 25%WP	OUAT	1ml/4lt	500-750	
		Chlorothalonil 75%Wp	OUAT	2g/ltr	500-750	
		Difenoconazole25%EC	OUAT	1ml/lt	500-750	
	Leaf Scald	Carbendazim 50% WP	OUAT	2g/lt.	500-750	Basal drench
		Carbendazim 12% +Mancozeb 63% WP	OUAT	1.5g/lt	500-750	Basal drench
		Mancozeb 75% WP	OUAT	2.5g/lt.	500-750	
	Ring Spot	Carbendazim 12% +Mancozeb 63% WP	OUAT	1.5g/lt	500-750	Basal drench
		Tebuconazole 25.9% EC	OUAT	1.5ml/l	500-750	
		Propiconazole 25%EC	OUAT	1ml/lt	500-750	
	Mosaic	Imidacloprid 17%SL	OUAT	1ml/3lt	500-750	
		Thiamethoxam 25%WG	OUAT	1g/lt	500-750	
		Acetamaprid 20% SP	OUAT	1g/3lt.	500-750	
	Yellow Spot	Chlorothalonil 75%Wp	OUAT	2g/lt	500-750	
		Carbendazim 12% +Mancozeb 63%	OUAT	2g/lt	500-750	Drenching
		Difenoconazole25%EC	OUAT	1ml/lt	500-750	
	Eye Spot	Copperoxychloride 88%WG	OUAT	0.3g/l	500-750	
		Carbendazim 12% +Mancozeb 63%	OUAT	2g/lt	500-750	Drenching
		Hexaconazole 5%EC	OUAT	1ml/lt	500-750	
Red Stripe	Streptomycin Sulphate90% +Tetracyclin Hydrochloride 10% SP	OUAT	1.5g/lt	500-750		
	Copperoxychloride 50%WG	OUAT	0.3g/l	500-750		
Ratoon stunting disease	Streptomycin Sulphate90% +Tetracyclin Hydrochloride 10% SP	OUAT	1.5g / 10lt	500-750		
	Copperoxychloride 50%WG	OUAT	0.3g/l	500-750		
Bean	Anthracnose	Copper hydroxide 53.8% DF	CIBRC/CHES	2g/l	750-1000	
	Halo blight	Streptomycin Sulphate 90% + Tetracylin Hydrochloride 10% SP	CIBRC/CHES	100-150 PPM ( 1-1.5g/10lit)	750-1000	Spray thrice at interval of 7 days. For prevention apply first spray 10 days after emergence of leaf.

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks
Bean	Powdery mildew	<b>Sulphur 40% WP</b>	CIBRC/CHES	8g/l	750-1000
		<b>Sulphur 85% DP</b>	CIBRC/CHES	15-20 kg/ha	Dusting
	Rust	<b>Lime Sulphur 22% SC</b>	CIBRC/CHES	3-5ml/l	750-1000
Bottle gourd	Anthracoese	<b>Thiophanate Methyl 70% WP</b>	CIBRC/CHES	2g/l	750-1000
Brinjal	Leaf spot/ Fruit rot	<b>Carbendazim 50% WP</b>	CIBRC/CHES	1.5g/l	600
	Blight	<b>Zineb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000
Cabbage	Damping off	<b>Captan 75% WS</b>	CIBRC/CHES	20-30 gm per kg seed	Seed Treatment
		<b>Captan 75% WP</b>	CIBRC/CHES	2.5g/l	1000 Soil drenching to Nursery bed.
Cauli flower	Collar rot	<b>Mancozeb 75% WP</b>	CIBRC/CHES	3 g/l	750-1000
	Leaf spot	<b>Mancozeb 75% WP</b>	CIBRC/CHES	2-3 g/l	750-1000
		<b>Zineb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000
	Damping off	<b>Captan 75% WP</b>	CIBRC/CHES	2.5g/l	1000 Soil drenching to Nursery bed.
Chilly	Anthracoese	<b>Copper hydroxide 53.8% DF</b>	CIBRC/CHES	2 g/lt	750-1000
	Damping off	<b>Mancozeb 75% WP</b>	CIBRC/CHES	3 g /l	1000 (soil drench)
		<b>Metalaxyl-M 31.8% ES</b>	CIBRC/CHES	2g/l	1000
		<b>Captan 75% WS</b>	CIBRC/CHES	20-30 gm per kg seed	Seed Treatment
	Die back	<b>Myclobutanil 10% WP</b>	CIBRC/CHES	0.04% or 4ml/10lt water	500
		<b>Propineb 70% WP</b>	CIBRC/CHES	5g/l	500
<b>Difenoconazole 25% EC</b>		CIBRC/CHES	0.05% or 5 ml/ 10 lit water	500	

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks
Chilly	Early blight	<b>Captan 75% WP</b>	CIBRC/CHES	1.6 - 2g/l	1000
	Fruit rot	<b>Tebuconazole 25.9% m/m EC</b>	CIBRC/CHES	1-1.5ml/l	500
		<b>Mancozeb 75% WP</b>	CIBRC/CHES	2-3g/l	500 - 750
		<b>Azoxystrobin 23% SC</b>	CIBRC/CHES	1ml/l	500 - 750
		<b>Difenoconazole 25% EC</b>	CIBRC/CHES	0.05% or 5ml/10 lit water	500
		<b>Captan 75% WP</b>	CIBRC/CHES	2g/l	1000
		Fruit rot	<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3g/l
	<b>Hexaconazole 2% SC</b>		CIBRC/CHES	6ml/l	500
	<b>Zineb 75% WP</b>		CIBRC/CHES	2g/l	750-1000 Lt
	Fruit rot / Anthracnose	<b>Captan 50% WG</b>	CIBRC/CHES	3g/l	500
	Fruit rot / dieback	<b>Kitazin 48% EC</b>	CIBRC/CHES	0.20% or 2ml in 1 lit of water	500-750
	Leaf spot	<b>Mancozeb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000
		<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000
		<b>Zineb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000
	Powdery mildew	<b>Tebuconazole 25.9% m/m EC</b>	CIBRC/CHES	1-1.5ml/l	500
		<b>Azoxystrobin 23% SC</b>	CIBRC/CHES	1ml/l	500 - 750
		<b>Flusilazole 40% EC</b>	CIBRC/CHES	1ml/5l	500
		<b>Sulphur 52% SC</b>	CIBRC/CHES	5ml/l	400
		<b>Hexaconazole 2% SC</b>	CIBRC/CHES	6ml/l	500
		<b>Sulphur 80% WP</b>	CIBRC/CHES	4g/l	750-1000



## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks
Chilly	Powdery mildew / Leaf spot	<b>Myclobutanil 10% WP</b>	CIBRC/CHES	0.04% or 4ml/10lt water	500
	Powdery mildew, fruit rot	<b>Tebuconazole 25% WG</b>	CIBRC/CHES	1g/l	500
	Ripe rot	<b>Mancozeb 75% WP</b>	CIBRC/CHES	2-3g/l	750 Lt
Cluster Beans	Powdery mildew	<b>Carbendazim 50% WP</b>	CIBRC/CHES	1g/l	750
Coriander	Powdery mildew	<b>Sulphur 85% DP</b>	CIBRC/CHES	15-20 kg/ha	
Cow pea	Rust	<b>Sulphur 85% DP</b>	CIBRC/CHES	15-20 kg/ha	-
	Powdery mildew	<b>Sulphur 80% WG</b>	CIBRC/CHES	2.5g/l	750-1000
		<b>Sulphur 80% WP</b>	CIBRC/CHES	4g/l	750-1000
Cucumber	Downey mildew Powdery mildew	<b>Azoxystrobin 23% SC</b>	CIBRC/CHES	1ml/l	500
	Anthracnose	<b>Carbendazim 50% WP</b>	CIBRC/CHES	1g/l	600
		<b>Zineb 75% WP</b>	CIBRC/CHES	2g/l	750-1000 Lt
	Downy mildew	<b>Zineb 75% WP</b>	CIBRC/CHES	2g/l	750-1000 Lt
	Leaf spot	<b>Zineb 75% WP</b>	CIBRC/CHES	2g/l	750-1000 Lt
	Powdery mildew	<b>Carbendazim 50% WP</b>	CIBRC/CHES	1g/l	600
Cumin	Blight & Powdery mildew	<b>Azoxystrobin 23% SC</b>	CIBRC/CHES	1ml/l	500
	Blight (Alternaria burnsii)	<b>Mancozeb 75% WP</b>	CIBRC/CHES	3-4g/l	500
		<b>Difenoconazole 25% EC</b>	CIBRC/CHES	0.05% or 5 ml/ 10 lit water	500
	Early blight	<b>Zineb 75% WP</b>	CIBRC/CHES	2g/l	750-1000

## CROP & DISEASE WISE RECOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Recommended Insecticides by CIBRC/OUAT/CHES	Dose g/ml per Litre of water	Dilution in water (L) / ha	Remarks
Cumin	Powdery mildew (Erysiphae polygonii)	<b>Sulphur 40% WP</b>	CIBRC/CHES	3.5g/l	1000
		<b>Sulphur 80% WG</b>	CIBRC/CHES	2g/l	750-1000
		<b>Sulphur 85% DP</b>	CIBRC/CHES	15-20 kg/ha	-
		<b>Difenoconazole 25% EC</b>	CIBRC/CHES	0.05% or 5 ml/ 10 lit water	500
Guar	Powdery mildew	<b>Sulphur 80% WG</b>	CIBRC/CHES	2g/l	750-1000
Okra	Powdery mildew	<b>Sulphur 80% WP</b>	CIBRC/CHES	6g/10l	750-1000
Onion	Purple blotch (Alternaria porri)	<b>Difenoconazole 25% EC</b>	CIBRC/CHES	0.1% or 1ml/1 lit	500
		<b>Kitazin 48% EC</b>	CIBRC/CHES	0.20% or 2ml in 1 lit of water	500
		<b>Tebuconazole 25.9% m/m EC</b>	CIBRC/CHES	0.625-0.750	500
	Blight	<b>Zineb 75% WP</b>	CIBRC/CHES	2g/l	750-1000 Lt
	Downy mildew	<b>Zineb 75% WP</b>	CIBRC/CHES	2g/l	750-1000 Lt
	Leaf blight	<b>Mancozeb 75% WP</b>	CIBRC/CHES	2g/l	750 Lt
Papaya	Powdery mildew	<b>Thiophanate Methyl 70% WP</b>	CIBRC/CHES	1g/l	750-1000
Pea	Powdery mildew	<b>Sulphur 52% SC</b>	CIBRC/CHES	5ml/l	400
		<b>Sulphur 80% WG</b>	CIBRC/CHES	2.5g/l	750-1000
		<b>Sulphur 85% DP</b>	CIBRC/CHES	15-20 kg/ha	-
		<b>Triadimefon 25% WP</b>	CIBRC/CHES	0.1% or 1ml/1 lit	750
		<b>Carbendazim 50% WP</b>	CIBRC/CHES	1g/l	750
		<b>Sulphur 40% WP</b>	CIBRC/CHES	0.8-1g/l	750-1000

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Pea	Rust	Sulphur 80% WP	CIBRC/CHES	6g/10l	750-1000	
		Sulphur 85% DP	CIBRC/CHES	15-20 kg/ha	-	
		Triadimefon 25% WP	CIBRC/CHES	0.1% or 1ml/1 lit	750	
Potato	Black leg and soft rot, bacterial brown wilt or ring or the bangle disease of potato	(Streptomycin Sulphate 90% + Tetracylin Hydrochloride 10%) SP	CIBRC/CHES	40-100ppm (4-10gm/10l water)		Seed treatment: Prior to planting soak potato seed in the solution for half an hour.
				40-50ppm (4-5gm/10l water)	750-1000	Spray: Two to three sprays at an interval of 20 days. First spray 30 days after planting.
Potato	Early & Late Blight	Chlorothalonil 75% WP	CIBRC/CHES	1-1.5g./l	600-800	
		Propineb 70% WP	CIBRC/CHES	0.30% or 3 gram/ 1 Lt. water	600-800	
	Early blight & Late blight	Captan 50% WG	CIBRC/CHES	3g/l	500	
	Early blight	Captan 50% WP	CIBRC/CHES	3-4g/l	750-1000	
		Captan 75% WP	CIBRC/CHES	1.6-2g/l	1000	
		Copper oxy chloride 50% WP	CIBRC/CHES	3-4g/l	750-1000	
		Kitazin 48% EC	CIBRC/CHES	0.20% or 2ml in 1 lit of water	750-1000	
		Mancozeb 75% WP	CIBRC/CHES	4g/l	750-1000	
		Zineb 75% WP	CIBRC/CHES	4g/l	750-1000	
		Ziram 80% WP	CIBRC/CHES	4g/l	750-1000	
Hexaconazole 2% SC		CIBRC/CHES	6ml/l	500		

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks
Potato	Late blight (Phytophthora infestans)	<b>Azoxystrobin 23% SC</b>	CIBRC/CHES	1ml/l	500
		<b>Captan 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000
		<b>Captan 75% WP</b>	CIBRC/CHES	1.6-2g/l	1000
		<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000
		<b>Copper hydroxide 53.8% DF</b>	CIBRC/CHES	3g/l	750-1000
		<b>Cyazafamid 34.5% SC</b>	CIBRC/CHES	1ml/2l	750-1000
		<b>Hexaconazole 2% SC</b>	CIBRC/CHES	6ml/l	750-1000
		<b>Mancozeb 75% WP</b>	CIBRC/CHES	4g/l	750-1000
		<b>Mandipropamid 23.4% SC</b>	CIBRC/CHES	0.8 ml/lit	750-1000
		<b>Zineb 75% WP</b>	CIBRC/CHES	4g/l	750-1000
		<b>Dimethomorph 50% WP</b>	CIBRC/CHES	20g/15ltr water	750-1000
	Scab	<b>Thiram 75% WS</b>	CIBRC/CHES	25-30 gm/kg of seed	Seed Treatment
	Leaf spot	<b>Carbendazim 50% WP</b>	CIBRC/CHES	1g/l	750-1000
	Powdery mildew	<b>Carbendazim 50% WP</b>	CIBRC/CHES	1g/l	750-1000
Tapioca	Sett rot	<b>Carbendazim 50% WP</b>	CIBRC/CHES	1 gm/l	Dip the setts in 1gm/lit of water for 15 min
	Leaf spot	<b>Mancozeb 75% WP</b>	CIBRC/CHES	4g/l	750 Lt
Tomato	Early Blight	<b>Azoxystrobin 23% SC</b>	CIBRC/CHES	1ml/l	500
	Alternaria blight (Alternaria solani)	<b>Metiram 70% WG</b>	CIBRC/CHES	5g/l	500-750 lt
	Buck eye rot	<b>Mancozeb 75% WP</b>	CIBRC/CHES	4g/l	750 Lt

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Tomato		<b>Propineb 70% WP</b>	CIBRC/CHES	0.30% or 3 gram/ 1 Lt. water	500-750 lt	
	Damping off	<b>Metalaxyl-M 31.8% ES</b>	CIBRC/CHES	2gm/kgof seeds	seed dressing	
		<b>Captan 75% WS</b>	CIBRC/CHES	20-30 gm per kg seed	Seed Treatment	
	Early blight		<b>Captan 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000
			<b>Captan 75% WP</b>	CIBRC/CHES	1.6-2g/l	1000
			<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000
			<b>Iprodione 50% WP</b>	CIBRC/CHES	3g/l	500
			<b>Kitazin 48% EC</b>	CIBRC/CHES	0.20% or 2ml in 1 lit of water	500
			<b>Mancozeb 75% WG</b>	CIBRC/CHES	4g/l	500 Lit
			<b>Pyraclostrobin 20% WG</b>	CIBRC/CHES	0.7-1g/l	500
			<b>Zineb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000 Lt
			<b>Ziram 80% WP</b>	CIBRC/CHES	2-3g/l	750-1000
	Early blight & Late blight	<b>Mancozeb 35% SC</b>	CIBRC/CHES	0.5% or 5 gm/1 lit water	500	
	Grey leaf mould	<b>Zineb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000 Lt	
	Late blight		<b>Mandipropamid 23.4% SC</b>	CIBRC/CHES	0.08% or 8m/10 L	500
			<b>Captan 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000
			<b>Captan 75% WP</b>	CIBRC/CHES	1.6-2g/l	1000
			<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000
			<b>Mancozeb 75% WP</b>	CIBRC/CHES	2-3g/l	750 Lt
			<b>Zineb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000 Lt

## CROP & DISEASE WISE RECOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Recommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Tomato	Leaf Spot	<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000	
		<b>Mancozeb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000	
	Ring rot	<b>Thiophanate Methyl 70% WP</b>	CIBRC/CHES	1g/l	750-1000	
	Bacterial leaf spot	<b>Streptomycin Sulphate 90% + Tetracylin Hydrochloride 10% SP</b>	CIBRC/CHES	40 to 100ppm (0.4g - 1g/10ltr)	750-1000	
Tomato, Brinjal, Chillies, Beans	Damping off	<b>Captan 75% WP</b>	CIBRC/CHES	2.5g/l	1000 ltr	Soil drench in the nursery
Banana	Fruit Rot	<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	2.5kg	750-1000	
		<b>Carbendazim 50% WP</b>	CHES	0.10% (1g/l)	750-1000	
		<b>Thiophanate methyl 70% WP</b>	CHES	0.10% (1g/l)	750-1000	
	Sigatoka Leaf Spot	<b>Mancozeb 75% WP</b>	CIBRC/CHES	1.5-2g/l	1000	
		<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000	
		<b>Thiophanate methyl 70WP*</b>	CHES	0.10% (1g/l)	750-1000	
	Cigar end rot/Tip rot	<b>Mancozeb 75% WP</b>	CIBRC/CHES	1.5-2 kg	1000	
Ber	Powdery mildew	<b>Sulphur 80% WP</b>	CHES	4g/l	750-1000	
Citrus	Brown rot	<b>Captan 75% WP</b>	CIBRC/CHES	2500 gm	15-20**	
	Citrus canker	<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	2.5	750-1000	

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks	
Citrus	Citrus canker	<b>(Streptomycin Sulphate 90% + Tetracylin Hydrochloride 10%) SP</b>	CIBRC/CHES	50-100ppm ( 0.5 - 1g/10 lit water)	750-1000	Spray repeatedly at an interval of 15 to 20 days after the appearance of new growth. Cover the foliage and young fruits fully.
	Gummosis	<b>Aureofungin 46.15% w/v. SP</b>	CIBRC/CHES	1% ( 10g/l)	750	Soil drench
	Leaf Spot	<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000	
	Powdery mildew	<b>Sulphur 80% WP</b>	CIBRC/CHES	4g/l	750-1000	
	Scab	<b>Captan 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000	
	Greasy spot	<b>Zineb 75% WP</b>	CIBRC/CHES	2-3g/l	750-1000 Lt	
Coconut	Bud Rot	<b>Copper oxy chloride 50% WP</b>	CIBRC/CHES	3-4g/l	750-1000	
Mango	Anthracnose	<b>Copper Oxychloride 50% WG</b>	CIBRC/CHES	0.24% or 24 g/ 10 lit water	750-1000	
		<b>Azoxystrobin 23% SC</b>	CIBRC/CHES	0.1% (1ml/l)	750-1000	
		<b>Carbendazim 12% + Mancozeb 63% WP</b>	CIBRC/CHES	0.15% (1.5g/l)	750-1000	
	Powdery mildew	<b>Dinocap 48% EC</b>	CIBRC/CHES	0.1% (1ml/l)	750-1000	
		<b>Azoxystrobin 23% SC</b>	CIBRC/CHES	0.1% (1ml/l)	750-1000	
		<b>Hexaconazole 5% EC</b>	CIBRC/CHES	0.1% (100 ml/100 lt)	750-1000	
		<b>Hexaconazole 5 % SC</b>	CIBRC/CHES	0.2% or (2 ml/1 lt. water)	750-1000	
	Powdery mildew	<b>Sulphur 40% WP</b>	CIBRC/CHES	3.75-5.00g/l	1000	
		<b>Sulphur 55.16 % SC</b>	CIBRC/CHES	0.30% or 3 ml/ 1 Lt. water	1000	
		<b>Sulphur 80% WP</b>	CIBRC/CHES	4g/l	750-1000	
<b>Sulphur 80% WG</b>		CIBRC/CHES	2.5-3g/l	750-1000		

## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks
		<b>Penconazole 10% EC</b>	CIBRC/CHES	5 ml/10 Lt. water	10 Lt. water per tree
Pomegrate	Fruit rot	<b>Difenoconazole 25% EC</b>	CIBRC/CHES	0.1% or 1ml/1 lit	500
	Anthrachnose	<b>Kitazin 48% EC</b>	CIBRC/CHES	0.20% or 2ml in 1 lit of water	500
	Fruit spot	<b>Metiram 55% + Pyraclostrobin 5% WG</b>	CIBRC/CHES	3-3.5g/l	500
	Leaf and fruit spots	<b>Propineb 70% WP</b>	CIBRC/CHES	0.30% or 3 gram/ 1 Lt. water	500
Guava	Stylar end rot	<b>Carbendazim 50%WP</b>	CHES	0.1% or 1ml/1 lit	500
	Fruit canker	<b>Carbendazim 50%WP</b>	CHES	0.1% or 1ml/1 lit	500
		<b>Zineb 75% WP</b>	CHES	0.30% or 3 gram/ 1 Lt. water	500
		<b>Mancozeb 75% WP</b>	CHES	0.20% or 2ml in 1 lit of water	500
	Fruit rot	<b>Mancozeb 75% WP</b>	CHES	20 g	10/tree Lt
<b>Zineb 75% WP</b>		CHES	1.5-2 KG	750-1000 Lt	
Litch	Leaf blight	<b>Copper oxychloride 50% WP</b>	NRCL	0.25% (2.5ml/l)	750-1000 Lt
		<b>Chlorothalonil 75% WP</b>	NRCL	0.15%(1.5ml/l)	750-1000 Lt
		<b>Difenoconazole 25% EC</b>	NRCL	0.05%(1ml/2l)	750-1000 Lt
		<b>Thiophanate methyl 70%WP</b>	NRCL	0.15%(1.5ml/l)	750-1000 Lt
	Twig blight	<b>Carbendazim 50%WP</b>	NRCL	0.1%(1ml/l)	750-1000 Lt
		<b>Copper oxychloride 50% WP</b>	NRCL	0.25% ( 2.5ml/l)	750-1000 Lt
	Inflorescence blight	<b>Thiophanate methyl</b>	NRCL	0.1%(1ml/l)	750-1000 Lt
		<b>Difenoconazole 25% EC</b>	NRCL	0.05%(1ml/2l)	750-1000 Lt
		<b>Azoxystrobin 23% SC</b>	NRCL	0.023% (2.3ml/10litre)	750-1000 Lt
		<b>Carbendazim 50%WP</b>	NRCL	0.1%(1ml/l)	750-1000 Lt
	Anthrachnose	<b>Difenoconazole 25% EC</b>	NRCL	0.05%(1ml/2l)	750-1000 Lt
		<b>Carbendazim 50%WP</b>	NRCL	0.1%(1ml/l)	750-1000 Lt



## CROP & DISEASE WISE RECCOMMENDATION OF FUNGICIDES

Crop	Common name of the disease	Reccommended Insecticides by CIBRC/OUAT/CHES	Dose g/ mlper Litre of water	Dilution in water (L) / ha	Remarks
Litch	Anthracnose	<b>Copper oxychloride 50% WP</b>	NRCL	0.25% ( 2.5ml/l)	750-1000 Lt
		<b>Azoxystrobin 23% SC</b>	NRCL	0.023% (2.3ml/10litre)	750-1000 Lt
	Wilt	<b>Carbendazim 50%WP</b>	NRCL	0.1%(1ml/l)	750-1000 Lt
Rose	Black spot	<b>Captan 75% WP</b>	CIBRC/CHES	1.6-2g/l	1000
	Powdery mildew	<b>Carbendazim 50% WP</b>	CIBRC/CHES	1 gm/l	1000
		<b>Dinocap 48% EC</b>	CIBRC/CHES	2 ml/10litre	1000
		<b>Sulphur 40% WP</b>	CIBRC/CHES	3.75-5.00 g/l	1000
Orna mental	Damping off (Nursery)	<b>Captan 75% WP</b>	CIBRC/CHES	2.5g/l gm	1000 Soil drench in the nursery Soil drench in the nursery

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## CROP WISE RECCOMMENDATION OF HERBICIDES

Name of the Crops	Reccommendation of Herbicide by CIBRC/OUAT	Dosage / ha a.i. (gm/ Kg)/ha	Formulation / ha	Dilution In Water (Litres/ha)	Remarks	
Arhar	<b>Pendimethalin 30% EC</b>	OUAT	750g	2500 ml	500	Pre emergence (0-3 DAS)
Black& Green gram	<b>Quizalofop-ethyl 5% EC</b>	CIBRC/OUAT	37.5-50.0 g	750-1000 ml	500	Post emergence 20 DAS
	<b>Imazethapyr 10% SL</b>	OUAT	75 g	750 ml	500	Controls Dicots , Post emergence 20-25 DAS
	<b>Propaquizafop 10% EC</b>	CIBRC/OUAT	75-100 g	750-1000 ml	500	Post emergence 20-25 DAS
Cotton	<b>Glyphosate 41% SL</b>	OUAT	1 Kg	2500 ml	500	Spray using Hood (Directed spray)
	<b>Paraquat dichloride 24% SL</b>	CIBRC/OUAT	0.3-0.5 kg	1.25-2.0 ltr	500	(Post-emergence directed inter row application at 2-3 leaf stage of weeds using Hood
	<b>Pendimethalin 30% EC</b>	CIBRC/OUAT	0.75-1.25kg	2.5-4.165 ltr	500	Pre emergence (0-3 DAS)
	<b>Pyrithiobac Sodium 10% EC</b>	CIBRC/OUAT	62.5-75 g	625-750 ml	500	Post emergence 21-25 DAS
	<b>Quizalofop-ethyl 5% EC</b>	CIBRC/OUAT	50.5	1000 ml	500	Post emergence 15 DAS
Ground nut	<b>Imazethapyr 10% SL</b>	CIBRC/OUAT	75 g	750 ml	500	Post emergence within 2 Week
	<b>Oxyfluorfen 23.5% EC</b>	CIBRC/OUAT	50 g	200 ml	500	Pre emergence 0 - 3 DAS
	<b>Quizalofop-ethyl 5% EC</b>	OUAT	50 g	1000 ml	500	Post emergence 15 DAS
Mustard	<b>Isoproturon 50% WP</b>	OUAT	800 g	1600 g	500	Pre emergence 0 - 3 DAS
	<b>Quizalofop-ethyl 5% EC</b>	OUAT	50 g	1000 ml	500	Post emergence 15 DAS
Sunflower	<b>Quizalofop-ethyl 5% EC</b>	OUAT	50 g	1000 ml	500	Post emergence 15 DAS
	<b>Pendimethalin 30% EC</b>	OUAT	750 g	2250 ml	500	Pre emergence 0 - 3 DAS
Sesamum	<b>Quizalofop-ethyl 5% EC</b>	OUAT	50 g	1000 ml	500	Post emergence 15 DAS
	<b>Pendimethalin 30% EC</b>	OUAT	750 g	2250 ml	500	Pre emergence 0 - 3 DAS
Maize	<b>2,4-D Sodium salt Technical (having 2,4-D acid 80 % w/w)</b>	CIBRC/OUAT	1.00 Kg.	1.25 kg	500	Post emergence 25 DAS

## 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 (Litres/ha)	Remarks	
	<b>2,4-D Ethyl Ester 38 % EC (having 2,4-D acid 34 % w/w)</b>	CIBRC/OUAT	0.9 kg	2.65 ltr	500	Post emergence 25 DAS
	<b>Atrazine 50% WP</b>	CIBRC/OUAT	0.5-1.0 kg	1-2 kg	500	Pre emergence 0 - 3 DAS
Maize	<b>Paraquat dichloride 24% SL</b>	CIBRC/OUAT	0.2-0.5 kg	0.8-2.0 ltrs	500	[pre-plant (minimum tillage) before sowing]
	<b>Tembotrione 34.4% SC</b>	CIBRC/OUAT	120g	286ml	500L	Post emergence 20-25 DAS
Sugarcane	<b>2,4-D Ethyl Ester 38 % EC (having 2,4-D acid 34 % w/w)</b>	CIBRC/OUAT	1.2 to 1.8 kg	3.53- 5.29 kg	500	Post emergence 25-30 DAS
	<b>2,4-D Sodium salt Technical (having 2,4-D acid 80 % w/w)</b>	CIBRC/OUAT	2.0-2.6kg	2.5-3.25 kg	500	Post emergence 25-30 DAS
	<b>Glyphosate 41% SL</b>	CIBRC/OUAT	1 Kg	2500 ml	500	Spray using Hood (Directed spray)
	<b>Halosulfuron Methyl 75% WG</b>	CIBRC/OUAT	60-67.5g	80-90 g	375	Post emergence 20-25 DAS
	<b>Paraquat dichloride 24% SL</b>	CIBRC/OUAT	500g	2 ltr	500	Spray using Hood ( Directed spray)
Jute & Mesta	<b>Pendimethalin 30% EC</b>	OUAT	750g	2250 ml	500	Pre emergence 0 - 3 DAS
	<b>Quizalofop-ethyl 5% EC</b>	OUAT	50g	1000 ml	500	Post emergence- drift hazardous to near by Rice field ( 15 DAS)
Paddy (Trans planted)	<b>Oxadiargyl 80% WP</b>	CIBRC/OUAT	100g	0.125 kg.	500/ sand mix 50 kg	pre-emergence ( 3-5 DAT)
	<b>Pretilachlor 37%EW</b>	CIBRC/OUAT	0.60-0.75 kg	1.5-1.875 ltrs.	500	pre-emergence ( 3-5 DAT)
	<b>2,4-D Ethyl Ester 38 % EC (having 2,4-D acid 34 % w/w)</b>	CIBRC/OUAT	0.76 kg	2 ltr	500	post-emergence (30 DAT)
	<b>Azimsulfuron 50% DF</b>	CIBRC/OUAT	35 g	70 g	500	post-emergence (20-25 DAT)
	<b>Bensulfuron methyl 0.6%+Pretilachlor 6% GR</b>	CIBRC/OUAT	60 + 600 g	10 kg	Sand mix 50 Kg	pre-emergence ( 3-5 DAT)
	<b>Bispyribac Sodium 10% SC</b>	CIBRC/OUAT	20 gm	200 ml	500	post-emergence (21-25 DAT)
	<b>Butachlor 50% EC</b>	CIBRC/OUAT	1.25- 2.00kg	2.5-4 ltrs	500/ sand mix 50 kg	pre-emergence ( 3-5 DAT)

## CROP WISE RECCOMMENDATION OF HERBICIDES

Name of the Crops	Reccommendation of Herbicide by CIBRC/OUAT	Dosage / ha a.i. (gm/ Kg)/ha	Formulation / ha	Dilution In Water (Litres/ha)	Remarks	
Paddy (Trans planted)	<b>Clomazone 20%+2,4-D EE 30% EC</b>	CIBRC/OUAT	0.250-0.375 Kg	1.25 ltrs.	500	post-emergence (21-25 DAT)
	<b>Clomazone 50%EC</b>	CIBRC/OUAT	0.4 - 0.5kg	0.8-1.0 ltr	500	post-emergence (21-25 DAT)
	<b>Ethoxysulfuron 15% WDG</b>	CIBRC/OUAT	12.5-15gm	83.3-100gm	500	post-emergence (21-25 DAT)
	<b>Fenoxaprop-p-ethyl 9.3% w/w EC (9% w/v)</b>	CIBRC/OUAT	56.25 gm	625 ml.(10-15 DAT)	300-375	post-emergence (21-25 DAT)
	<b>Metsulfuron Methyl 10% + Chlorimuron ethyl 10% WP</b>	CIBRC/OUAT	4g	20 g.	500	Early Post emergence application-15 DAT
	<b>Penoxsulam 21.7 % SC</b>	CIBRC/OUAT	22.5 to 25 g	93.7 to 104.2 ml	500	pre-emergence ( 0-5 DAT)
	<b>Pretilachlor 50% EC</b>	CIBRC/OUAT	0.50-0.75 kg.	1.0-1.5 ltrs.	500-700	pre-emergence ( 3-5 DAT)
	<b>Pyrazosulfuron Ethyl 10% WP</b>	CIBRC/OUAT	0.02 kg	200 g	500 / sand mix	post-emergence (10-15 DAT) or Pre-emergence 0-3 DAT
	<b>Pyrozosulfuron Ethyl 70% WDG</b>	CIBRC/OUAT	21g	30g	500	post-emergence (10-15 DAT) or Pre-emergence 0-3 DAT
Paddy (Trans planted & Direct Seeded)	<b>Fenoxaprop-p-ethyl 6.7% w/w EC</b>	CIBRC/OUAT	56.6-60.38g	812.5 - 875 ml	500	post-emergence (21-25 DAT)
	<b>Paraquat dichloride 24% SL</b>	CIBRC/OUAT	0.3-0.8 kg	1.25-3.5 ltr	500	[pre-plant (minimum/Zero tillage) before sowing/ transplanting for controlling standing weeds]
Paddy (Direct Seeded)	<b>Azimsulfuron 50% DF</b>	CIBRC/OUAT	35 g	70 g	500	post-emergence (20-25 DAT)
	<b>Bispyribac Sodium 10% SC</b>	CIBRC/OUAT	20 g	200 ml	500	post-emergence (21-25 DAT)
	<b>Cyhalofop Butyl 10% EC</b>	CIBRC/OUAT	75-80 g	0.75-0.80ltr	500	post-emergence (21-25 DAT)
	<b>Oxyfluorfen 23.5% EC</b>	CIBRC/OUAT	150-240 g	650-1000 ml	500	Pre emergence 3-5 DAT/ 24-48 hr after cessation of rain for direct sown Paddy
Paddy (Trans planted & Direct sown puddled)	<b>Pretilachlor 30.7% EC</b>	CIBRC/OUAT	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
	<b>Pendimethalin 30% EC</b>	CIBRC/OUAT	Light to Heavy soil 1-1.5kg	3.3 –5 Ltrs.	500	Pre emergence 3-5 DAT/ 24-48 hr after cessation of rain for direct sown Paddy

## 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 (Litres/ha)	Remarks
	<b>Oxyfluorfen 0.35% GR</b>	CIBRC/OUAT	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
Potato	<b>2,4-D Dimethyl Amine salt 58% SL</b>	CIBRC	2.0 kg	3.44	400
	<b>Oxyflourfen 23.5% EC</b>	CIBRC	100-200 gm	425-850	500-750
Citrus	<b>2,4-D Sodium salt Technical (having 2,4-D acid 80 % w/w)</b>	CIBRC	1.00-2.5 kg	1.25-3.2 kg	600 >6 months
Banana	<b>Diuron 80% WP</b>	CIBRC	1.60 kg	2 kg.	625

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## CROP & DISEASE WISE RECCOMMENDATION 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
Paddy	White Tip Nematode	Quinalphos 25% EC	OUAT	300	1500 ml	500	
		Monocrotophos 36%SL	OUAT	540	1500 ml	500	
	Root Knot Nematode	Carbosulfan 25% EC	OUAT	25	100 ml	500	
		Carbofuran 3G	OUAT	1000	33.300 kg		Soil application
		Cartap Hydrochloride 4G	OUAT	1000	25 kg		Soil application
Tomato, Brinjal & Chilly	Root Knot Nematode	Carbofuran 3G	OUAT	0.3g/sqm	10 g/sqm		Nursery Treatment
		DAZOMET TECHNICAL	CHES	30-40	30-40	500	
		Cartap Hydrochloride 4G	OUAT	0.3g/sqm	7.5 g/ sqm		Nursery Treatment
		Carbosulfan 25% EC	OUAT	0.05%	2ml/ltr	500	SRD
Pointed Gourd	Root Knot Nematode	Carbosulfan 25% EC	OUAT	0.05%	2ml/ltr		Dipping of Root cutting
Banana	Root Knot Nematode	Carbofuran 3G	OUAT	0.5g ai/pit	16.5g/pit		Pit application
Carnation & Gerbera	Root-knot nematode	DAZOMET TECHNICAL	CIBRC/CHES	30-40	30-40	500	

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

Name of the Crops	Reccommendation of PGR by CIBRC/OUAT	a.i. (ppm/ gm/ %) / Ha	Formu- lation (ml/ gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Preparation of solution	Time of application / purpose	Remarks	
Cotton	Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)	CIBRC/OUAT	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)	
	Gibberellic Acid 0.001%L	CIBRC/OUAT	0.018gm	180 ml	450-500	a) First spray 40-45 DAP      b) Second spray: At the time of ball formation	
	Gibberellic Acid 0.186% SP	CIBRC/OUAT	142ppm.	71 gm	450-500	to improve fibre quality one spray at square formation or early flowering stage	
	Mepiquat chloride 5% AS	CIBRC/OUAT	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	
	Sodium Para –Nitrophenolate 0.3% SL	CIBRC/OUAT	0.50%	5ml	800	Flower bud initiated stage and fruit set stage	
	Triacontanol 0.05% EC	CIBRC/OUAT	0.125 gm	0.25ltr	400-500	To increase the yield, Three sprays at 45, 65 and 85 days after planting	
	Triacontanol 0.05%w/w min. GR	CIBRC/OUAT	12.5 gm	25 kg.	-	To increase the yield, Broadcast & mix the desired quantity of granules in soil 2-3 days before sowing.	
	Triacontanol 0.1% EW	CIBRC/OUAT	0.25 gm	0.25 ltr.	400-500	To increase the yield, Three sprays at 45, 65 and 85 days after planting	
	Chlormequat Chloride 50% SL	CIBRC/OUAT	20-40 gm		125-600	Square formation to early flowering – single spray	375- 600(high volume) 125-187 (low volume)
	Chlormequat Chloride 50% SL	CIBRC/OUAT	75gm	-	375-600 ltrs .	Square formation to early flowering – single spray	

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

Name of the Crops	Reccommendation of PGR by CIBRC/OUAT	a.i. (ppm/ gm/ %) / Ha	Formu- lation (ml/ gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Preparation of solution	Time of application / purpose	Remarks	
Groundnut	Gibberellic Acid 0.001%L	CIBRC/OUAT	0.018gm	180 ml	450-500	a) First spray at flowering (30-35 AS) b) Second spray at the time of flowering	
	Triacontanol 0.05% EC	CIBRC/OUAT	0.125 gm	0.25 ltr	400-500	Three sprays at 25, 45 and 65 days after planting	
Groundnut	Triacontanol 0.05%w/w min. GR	CIBRC/OUAT	12.5 gm	25 kg.	-	Broadcast & mix the desired quantity of granules in soil 2-3 days before sowing.	
	Triacontanol 0.1% EW	CIBRC/OUAT	0.25gm	0.25 ltr.	400-500	Three sprays at 25, 45 and 65 days after planting	
Paddy	Gibberellic Acid 40% WSG	CIBRC/OUAT	20-25	50-62.5	500	20-25 days after transplanting Panicle Emergence	
	Gibberellic Acid 0.001%L	CIBRC/OUAT	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	
	Triacontanol 0.05% EC	CIBRC/OUAT	0.125 gm	0.25ltr	400-500	Three sprays at 25, 45 and 65 days after transplanting	
	Triacontanol 0.05%w/w min. GR	CIBRC/OUAT	12.5 gm	25 kg.	-	Broadcast & mix the desired quantity of granules in soil 2-3 days before transplanting.	
	Triacontanol 0.1% EW	CIBRC/OUAT	0.25 gm	0.25 ltr.	400-500	Three sprays at 25, 45 and 65 days after transplanting	
Sugarcane	Hydrogen Cyanamide 49% AS ( Import )	CIBRC/OUAT	0.5	1.00%		Dipping of setts	Mix 1000 ml of the product per 100 litres of water
	Gibberellic Acid 0.001%L	CIBRC/OUAT	0.018gm	180 ml	450-500	a)First spray 40-45 DAP, b)Second spray 70-80 DAS	



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

Name of the Crops	Recommendation of PGR by CIBRC/OUAT	a.i. (ppm/ gm/ %) / Ha	Formu- lation (ml/ gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Preparation of solution	Time of application / purpose	Remarks
Tomato	Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)	CIBRC	45ppm	-	-	At the time of flowering two spray.
	Ethephon 39% SL	CIBRC	2500ppm	-	-	For uniform ripening post harvest dip treatment on fruits
	Triacantanol 0.05% EC	CIBRC	0.125gm	0.25 ltr	400-500	Three sprays at 25, 45 and 65 days after planting
	Triacantanol 0.05%w/w min. GR	CIBRC	12.5 gm	25 kg.	-	Broadcast & mix the desired quantity of granules in soil 2-3 days before sowing.
	Triacantanol 0.1% EW	CIBRC	0.25 gm	0.25 ltr.	400-500	Three sprays at 25, 45 and 65 days after planting
Chilly	Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)	CIBRC	10ppm	-	-	1st spray during flowering & 2nd spray 20 -30 days later.
	Triacantanol 0.05% EC	CIBRC	0.125 gm	0.25ltr	400-500	Three sprays at 25, 45 and 65 days after planting
	Triacantanol 0.05%w/w min. GR	CIBRC	12.5 gm	25 kg.	-	Broadcast & mix the desired quantity of granules in soil 2-3 days before sowing.
	Triacantanol 0.1% EW	CIBRC	0.25 gm	0.25 Ltr.	400-500	Three sprays at 25, 45 and 65 days after planting
Brinjal	Chlormequat Chloride 50% SL	CIBRC	50ppm		400-500	Before sowing, seed soaking for 24 hours.
Tomato / Potato / Cabbage / Cauliflower	Gibberellic Acid 0.001%L	CIBRC	0.018gm	180 ml.	450-500	a) First spray 45 DAS b) Second spray 65 DAS
Brinjal/ Bhindi	Gibberellic Acid 0.001%L	CIBRC	0.045 gm	450 ml.	450-500	a)First spray 34 DAP b) Second spray 70 DAP
Potato	Chlormequat Chloride 50% SL	CIBRC	100 ppm.			Dipping of cut pieces for 10 minutes

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

Name of the Crops	Reccommendation of PGR by CIBRC/OUAT	a.i. (ppm/ gm/ %) / Ha	Formu- lation (ml/ gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Preparation of solution	Time of application / purpose	Remarks	
Potato	Chlorpropham 50% HN	CIBRC	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
	Triacantanol 0.05% EC	CIBRC	0.250 gm	0.50 ltr	500-600	Two sprays at 30 and 45 days after planting	
	Mepiquat chloride 5% AS	CIBRC	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)	CIBRC	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)	CIBRC	200ppm	20 ml in 4.5 ltrs.	500-1000	<u>To control Mango malformation</u> - Before fruit bud differentiations approx.3 months before flowering	
	Ethephon 39% SL	CIBRC	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	
		CIBRC	1000 ppm			b)for flower induction in juvenile mango Total 5 sprays at weekly interval commencing from early November.	
		CIBRC	500ppm			(c )Post harvest treatment for uniform ripening Single dip treatment or spraying on physiologically matured fruits.	

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

Name of the Crops	Recommendation of PGR by CIBRC/OUAT	a.i. (ppm/ gm/ %) / Ha	Formu- lation (ml/ gm/Ltr/ kg/%)per Ha	Dilution In Water (Litres) / Preparation of solution	Time of application / purpose	Remarks
Pineapple	Alpha Naphthyl Acetic Acid 4.5% SL ( Na salt)	CIBRC	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) <u>To induce flowering and uniform growth</u>
				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	CIBRC	100ppm			For flower induction
Pomegranate	Ethephon 39% SL	CIBRC	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)
Banana	Gibberellic Acid 0.001%L	CIBRC	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 & PEST WISE RECCOMMENDATION OF BIO-FUNGICIDES

Crop	Common name of the disease	Reccommendation of Bio- Fungicides by CIBRC/ OUAT	Type of Treatment	Dosage as per type of treatment	Remarks
Arhar	Wilt, Root Rot	<b>Trichoderma viride 1% WP</b>	Seed treatment	4-8 gm /kg seed	
Bengal gram	Seedling wilt Fusarium oxysporum	<b>Trichoderma viride 1% WP</b>	Seed treatment	4-8 g/kg seed	
Pulses (Cowpea , Black Gram & Green Gram)	Root rot	<b>Trichoderma viride 1% WP</b>	Seed treatment	4g/kg of seed	
Ground Nut	Stem rot (Sclerotium rolfsii)	<b>Trichoderma viride 1% WP</b>	Seed treatment)	4 gm/kg seed	
Ground Nut	Late leaf spot	<b>Pseudomonas fluorescens 0.5% WP</b>	Seed treatment	10 g/kg seed	(TNAU Strain Accession No. ITCC BE 0005)
	Stem rot (Sclerotium rolfsii)	<b>Trichoderma viride 1% WP</b>	Seed treatment)	4 gm / kg of seed	
Maize	Root rot Fusarium wilt (Fusarium moniliforme)	<b>Trichoderma harzianum 2.0% WP</b>	Seed treatment:	20 gm /kg seed	
Paddy	Leaf and neck blast (Pyricularia oryzae)	<b>Pseudomonas fluorescens 0.5% WP</b>	Seed treatment:	10 gm / kg seed	(TNAU Strain Accession No. ITCC BE 0005)
			Foliar spray:	1 kg/ha with 500 ltr water	
	Sheath blight (Rhizoctonia solani)	<b>Trichoderma viride 1% WP</b>	Foliar spray:	5-10 gm/ litre of water	(Strain T-14 in house isolate of M/s Indore Biotech Inputs & Research (P) Ltd., Indore)
	Bacterial Leaf blight (Xanthomonas oryzae)	<b>Pseudomonas fluorescens 1.5% WP</b>	Seed treatment	5gm/kg of seed	(BIL-331 Accession No. MTCC5866)
Sunflower	Seed rot Sclerotium rolfsii	<b>Trichoderma viride 1% WP</b>	Seed treatment	6 g/kg seed	
Tomato	Wilt (Fusarium oxysporum F.sp)	<b>Pseudomonas fluorescens 0.5% WP</b>	Seed treatment	10 gm/kg of seeds	(TNAU Strain Accession No. ITCC BE 0005)

## CROP & PEST WISE RECCOMMENDATION OF BIO-FUNGICIDES

Crop	Common name of the disease	Reccommendation of Bio- Fungicides by CIBRC/ OUAT	Type of Treatment	Dosage as per type of treatment	Remarks	
Tomato	Wilt (Fusarium oxyporum), Damping Off (Pythium aphanidermatum), Root rot (Rhizoctonia spp.)	<b>Pseudomonas fluorescens 1.0% WP</b>	Seed treatment	5gm/kg of seed	(IPL/PS-01 Accession No. MTCC5727) & (Strain No. IIHR-PF-2 Accession No. ITCCB0034)	
			Seedling Root Dip Treatment	10gm/litres of water		
			Nursery Bed Treatment	50gm/Sq m		
	Wilt (Fusarium Oxysporum)	<b>Trichoderma harzianum 1.0% WP</b>	Seed Treatment & Nursery Bed Treatment	20 gm/ Kg of Seed & 50gm/Sq m	(Strain No. IIHR-TH-2 Accessions No. ITCC6888)	
			<b>Trichoderma viride 1.5% WP</b>	Seed Treatment & Nursery Bed Treatment	20 gm/ Kg of Seed & 50gm/Sq m	(Strain No. IIHR-TV-5, Accession No. ITCC 6889)
	Brinjal	Wilt (Fusarium solani)	<b>Pseudomonas fluorescens 1.0% WP</b>	Seed Treatment & Nursery Bed Treatment	20 gm/ Kg of Seed & 50gm/Sq m	(Strain No. IIHR-PF-2 Accession No. ITCCB0034)
<b>Trichoderma harzianum 1.0% WP</b>				Seed Treatment & Nursery Bed Treatment	20 gm/ Kg of Seed & 50gm/Sq m	(Strain No. IIHR-TH-2 Accessions No. ITCC6888)
<b>Trichoderma viride 1.5% WP</b>				Seed Treatment & Nursery Bed Treatment	20 gm/ Kg of Seed & 50gm/Sq m	(Strain No. IIHR-TV-5, Accession No. ITCC 6889)
Root Rot/ Wilt/ Damping off, Rhizoctonia bataticola, Sclerotium rolfsii, Fusarium oxysporum, Rhizoctonia solani		<b>Trichoderma viride 1% WP</b>	Seed treatment:	5 gm/kg seeds		
			Nursery Treatment:	250 gm/50 litre of water/ 400 sq. mt.		
Cabbage		Root rot/Collar rot Rhizoctonia solani	<b>Trichoderma viride 1% WP</b>	Seedling Root dip treatment:	10 gm/ litre water	

## CROP & PEST WISE RECCOMMENDATION OF BIO-FUNGICIDES

Crop	Common name of the disease	Reccommendation of Bio- Fungicides by CIBRC/ OUAT	Type of Treatment	Dosage as per type of treatment	Remarks
Carrot	Root rot (Sclerotium rolfsi)	<b>Pseudomonas fluorescens 1.0% WP</b>	Seed Treatment	20 gm/ Kg of Seed,	(Strain No. IIHR-PF-2 Accession No. ITCCB0034)
		<b>Trichoderma harzianum 1.0% WP</b>	Seed Treatment	20 gm/ Kg of Seed,	(Strain No. IIHR-TH-2 Accessions No. ITCC6888)
		<b>Trichoderma viride 1.5% WP</b>	Seed Treatment	20 gm/ Kg of Seed,	(Strain No. IIHR-TV-5, Accession No. ITCC 6889)
Cauliflower	Stalk rot – Sclerotina sclerotiorum	<b>Trichoderma viride 1% WP</b>	Seed treatment:	4 gm /kg seed	
Chilli	Damping off (Pythium aphanidermatum)	<b>Pseudomonas fluorescens 0.5% WP</b>	Seed treatment	10 g/kg seed	(TNAU Strain Accession No. ITCC BE 0005)
	Damping off (Pythium aphanidermatum)	<b>Trichoderma viride 1% WP</b>	Seed treatment	4 g/kg seed	(TNAU Strain Accession No. ITCC 6914)
Cowpea	Root Rot & Wilt (Fusarium oxysporum)	<b>Trichoderma viride 1% WP</b>	Seed treatment:	4-5 gm /kg seed	(TNAU Strain Accession No. ITCC 6914)
Okra	Wilt (Fusarium Oxysporum )	<b>Pseudomonas fluorescens 1.0% WP</b>	Seed treatment:	20 gm/ Kg of Seed,	(Strain No. IIHR-PF-2 Accession No. ITCCB0034)
		<b>Trichoderma harzianum 1.0% WP</b>	Seed Treatment	20 gm/ Kg of Seed,	(Strain No. IIHR-TH-2 Accessions No. ITCC6888)
		<b>Trichoderma viride 1.5% WP</b>	Seed Treatment	20 gm/ Kg of Seed,	(Strain No. IIHR-TV-5, Accession No. ITCC 6889)

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## CROP & PEST WISE RECOMMENDATION OF BIO-INSECTICIDES

Name of Crop	Name of Insect	Name of the Bio-Insecticides	Dose / ha (Formulation)	Dilution in water(Litre)/ha	Remarks	
Arhar	Pod borer , Plume Moth & Pod Fly	Azadirachtin 0.03% (300 ppm)	CIBRC	2500-5000 ml	500-1000	Neem Oil Based WSP Containing
		BACILLUS THURINGIENSIS SEROVAR KURSTAKI 5% WP	CIBRC	750 g	500-750	SERO TYPE (3A, 3B, 3C) & SEROTYPE H-39, 3B, STRAIN Z-55
		NPV of Helicoverpa armigera 2.0% AS	CIBRC	250-500 ml	500-750	Strain no NBRI- 8821 (1x10 <sup>8</sup> POB/ml min)
Bengal Gram	Pod Borer (Heliiothis)	Azadirachtin 0.03% (300 ppm)	CIBRC	2500-5000	500-1000	Neem Oil Based WSP Containing
		Bacillus thuringiensis var. Kurstaki 5% WP	CIBRC	750 g	500-750	Serotype H-3a, 3b, Strain Z-54
	Grampod borer (Helicoverpa armigera)	Bacillus thuriengiensis var Kurstaki 2.5% AS.	CIBRC	1000-1500g	500	(Spichio-Btk AS)
		Beauveria bassiana 1% WP	CIBRC	3 kg.	500	Strain No: NBRI – 9947 (1x10 <sup>8</sup> CFU/gm min) & Strain No. SVBPU/CSP/ Bb-10, Accession No. ITCC-7520
		NPV of Helicoverpa armigera 2.0% AS	CIBRC	250-500 ml	500-750	Strain No. IBH-17268 & Strain No. BIL/HV-9 POB(1x10 <sup>9</sup> POB/ml)
Sunflower	Capitulum Borer (Helicoverpa armigera)	NPV of Helicoverpa armigera 2.0% AS	CIBRC	500 ml	500	Strain No. IBH-17268 & Strain No. BIL/HV-9 POB(1x10 <sup>9</sup> POB/ml)
		BACILLUS THURINGIENSIS SEROVAR KURSTAKI 5% WP	CIBRC	500-750g	500	SEROTYPE H-39, 3B, STRAIN Z-55
Cotton	White fly & Boll worm	Azadirachtin 0.15% W/W Min.	CIBRC	2500-5000 ml	500-1000	Neem Seed Kernel Based E.C.
	Bollworm (Helicoverpa Armigera), Aphids	Azadirachtin 0.3% (3000 PPM) Min.	CIBRC	4000 ml	1000	Neem Seed Kernel Based E.C.
	Aphids, Jassids, White Flies, Bollworms,	Azadirachtin 0.03% (300 ppm)	CIBRC	2500-5000 ml	500-1000	Neem Oil Based WSP Containing
	White Fly,Leaf hoppers, Heliiothis, Aphids,Leaf roller	Azadirachtin 5% w/w Min.	CIBRC	375 ml	750	Neem Extract Concentrate Containing

## CROP & PEST WISE RECOMMENDATION OF BIO-INSECTICIDES

Name of Crop	Name of Insect	Name of the Bio-Insecticides		Dose / ha (Formulation)	Dilution in water(Litre)/ha	Remarks
Cotton	Boll worm Complex	BACILLUS THURINGIENSIS SEROVAR KURSTAKI(3A,3B,3C) 5% WP	CIBRC	500-1000 g	500-1000	
		Beauveria bassiana 1.15% W.P.	CIBRC	400 gm	750-1000	
		Nuclear Polyhedrosis Virus of Helicoverpa Armigera 0.43% AS	CIBRC	2700 ml	400-600 L/Ha	(1x109 POB/ml)
Jute	Semi looper,Bihar Hairy caterpillar	Azadirachtin 0.03% (300 ppm)	CIBRC	2500-5000 ml	500-1000	Neem Oil Based WSP Containing
Maize	American Cob borer	NPV of Helicoverpa armigera 2.0% AS	CIBRC	500 g	500-1000	
		BACILLUS THURINGIENSIS SEROVAR KURSTAKI 5% WP	CIBRC	500-750g	500-1000	SEROTYPE H-39, 3B, STRAIN Z-55
Ragi	Stem Borer	AZADIRACHTIN 0.15% W/W MIN.	CIBRC	1500 – 2500 ml	500	NEEM SEED KERNEL BASED E.C.
Paddy	Thrips, Stem borer, Brown Plant hopper, Leaf folder	Azadirachtin 0.15% W/W Min.	CIBRC	1500 to 2500 ml	500	Neem Seed Kernel Based E.C.
		Azadirachtin 0.03% Min.	CIBRC	2000	1000	Neem Oil Based E.C. Containing
		Azadirachtin 5% w/w Min.	CIBRC	200	400	Neem Extract Concentrate Containing
	Stem borer & Leaf folder	Bacillus thuringiensis var. Kurstaki, Serotype H-3a, 3b, Strain Z-53	CIBRC	1.50 kg.	500-750	
	Rice leaf folder (Cnaphalocrosis medinalis)	Beauveria bassiana 1.15% W.P. (1x10 <sup>8</sup> /gm min)	CIBRC	2.5 kg/ha	750-850 L/Ha	StrainBCRL- BBPH-6892 & BB-ICAR-RJP assession no MCC 1022
	Brown plant hopper (BPH) (Nilapavata lungens)	Metarhizium Anisopliae 1.15% WP	CIBRC	2.5 kgs (Formulated)	500 Liters of water	Accession No. MTCC – 5173 (1x10 <sup>8</sup> CFU/gm min)
Tomato	Aphids, Whitefly,Fruit borer	Azadirachtin 5% w/w Min. Neem Extract Concentrate Containing	CIBRC	200	400	



## CROP & PEST WISE RECOMMENDATION OF BIO-INSECTICIDES

Name of Crop	Name of Insect	Name of the Bio-Insecticides		Dose / ha (Formulation)	Dilution in water(Litre)/ha	Remarks
Tomato	Root Knot nematodes (Meloidogyne incognita.)	Verticillium Chlamydosporium 1% WP (2x10 <sup>6</sup> CFU/gm min)	CIBRC	20 gm/Kg of Seed	Seed Treatment	Strain – IIHR-VC-3 Acession No – ITCC-6898.
			CIBRC	50 gm/sq.m	Nursery Bed Treatment	
			CIBRC	5 Kg/Ha with enriched FYM 5 tn/Ha	Soil Treatment	
	Fruit borer (Helicoverpa armigera)	Nuclear Polyhedrosis Virus of Helicoverpa Armigera 0.43% AS (1x10 <sup>9</sup> POB/ml)	CIBRC	1500 ml	400-600	Strain No. BIL/HV-9 (1x10 <sup>9</sup> POB/ml)
			CIBRC	NPV of Helicoverpa armigera 2.0% AS Strain No. BIL/HV-9 POB(1x10 <sup>9</sup> POB/ml)	250-500 ml	500
Brinjal	Shoot & Fruit borer, Epilachna beetles	Azadirachtin 0.03% (300 ppm)	CIBRC	2500-5000	500-1000	Neem Oil Based WSP Containing
	Shoot & Fruit borer (Leucinodes orbonalis)	Metarhizium Anisopliae 1.0% WP (1x10 <sup>8</sup> CFU/gm min)	CIBRC	2.5-5.0	500-750	Strain No. IPL/KC/44 (Own R & D Isolate), Accession No. 6895.
	Root Knot nematodes (Meloidogyne incognita.)	Verticillium Chlamydosporium 1% WP (2x10 <sup>6</sup> CFU/gm min)	CIBRC	20 gm/Kg of Seed	Seed Treatment	Strain – IIHR-VC-3 Acession No – ITCC-6898.
			CIBRC	50 gm/sq.m	Nursery Bed Treatment	
			CIBRC	5 Kg/Ha with enriched FYM 5 tn/Ha	Soil Treatment	
	PAECILOMYCES LILACINUS 1.15% WP	CIBRC	3kg/Ha with 500 kg organic manure	Soil Treatment		
Cabbage & Cauliflower	Aphids, DBM, Cabbage - worm, Cabbage - looper	Azadirachtin 0.03% (300 ppm)	CIBRC	2500-5000	500-1000	Neem Oil Based WSP Containing
	Diamond back moth (Plutella xylostella)	Bacillus thuringiensis Serovar Kurstaki 5% WP	CIBRC	25.00-50.00	500-1000	(3a, 3b, 3c) Potency 55000 su(spodoptra unit based) (5x10 <sup>7</sup> spore/mg)

## CROP & PEST WISE RECOMMENDATION OF BIO-INSECTICIDES

Name of Crop	Name of Insect	Name of the Bio-Insecticides		Dose / ha (Formulation)	Dilution in water(Litre)/ha	Remarks
Cabbage & Cauliflower	Diamond back moth (Plutella xylostella)	Beauveria bassiana 1.15% W.P.	CIBRC	1.1.5 litre/ha formulation	500-750 litre/ha of water	Strain BCRL, Accession No – BCRL Bbpx-6892(1x10 <sup>8</sup> /spores/ml)
Carrot	Root Knot nematodes (Meloidogyne incognita.)	Verticillium Chlamydosporium 1% WP	CIBRC	20 gm/Kg of Seed	Seed Treatment	(2x10 <sup>6</sup> CFU/gm min) Strain – IIHR-VC-3 Accession No – ITCC-6898.
			CIBRC	50 gm/sq.m	Nursery Bed Treatment	
			CIBRC	5 Kg/Ha with enriched FYM 5 tn/Ha	Soil Treatment	
Cauliflower	Spodoptera, Diamond back moth, Aphids	Azadirachtin 5% w/w Min.	CIBRC	200 ml	400	Neem Extract Concentrate Containing
Citrus	Mealybugs (Planococcus citri)	Verticillium Lecanii 1.15%WP (1x10 <sup>8</sup> CFU/gm min)	CIBRC	2.5 kg	550 litres of water	Strain – AS MEGH-VL Accession No – MCC-1028
Okra	Fruit borer, White flies, Leaf Hopper	Azadirachtin 0.03% (300 ppm)	CIBRC	2500-5000	500-1000	Neem Oil Based WSP Containing
	Root Knot nematodes (Meloidogyne incognita.)	Verticillium Chlamydosporium 1% WP	CIBRC	20 gm/Kg of Seed	Seed Treatment	(2x10 <sup>6</sup> CFU/gm min) Strain – IIHR-VC-3 Accession No – ITCC-6898.
			CIBRC	50 gm/sq.m	Nursery Bed Treatment	
			CIBRC	5 Kg/Ha with enriched FYM 5 tn/Ha	Soil Treatment	
	Powdery mildew (Erysiphe cichoracearum)	Ampelomyces quisqualis 2.0% WP,	CIBRC	2.5 kg	500 liters	Strain No. MTCC-5683) (CFU Count: 2 x 10 <sup>6</sup> g/ min.)
Leafhopper, whitefly, Aphid, Pod Borer	Azadirachtin 5% w/w Min.	CIBRC	200 ml	400	Neem Extract Concentrate Containing	

sd/-  
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## CROP WISE RECCOMMENDATION OF MICRONUTRIENTS BY OUAT

Name of the Crop	Name of Micronutrients	Doses of application	Time & Method of appliaction
Rice	Sulphur(95 % S)	@40 kg/ha	Soil application as basal
	Gypsum(15 % S)	@60 kg/ha	Soil application as basal for Hybrid Rice
	Zinc Sulphate (21% Zn)	25kg /ha	Soil application as basal
	Borax (10.5% B)	@1kg/ha	Soil application as basal
Maize	Gypsum(15%)	@30 kg/ha	Soil application as basal
Blackgram	Zinc Sulphate (21% Zn)	@ 5 kg / ha	Soil application as basal
Green gram	Zinc Sulphate (21% Zn)	5 kg / ha,	Soil application as basal
	Gypsum (15% )	40kg/ha	Soil application as basal
Bengal gram	Zinc Sulphate (21% Zn)	@ Zn 2.5 kg / ha	Soil application as basal
Groundnut	Gypsum (15%)	@30-40 kg/ha	Soil application of 30 kg S/ha (heavy texture soil) & 40 kg S/ha (coarse texture soil)
	Phosphogypsum(17% S)	@45 kg /ha	Soil application of 75 % as basal and another 25 % 30-35 days after sowing under Irrigated condition
	Zinc Sulphate (21% Zn)	@ 2.5 kg / ha	Soil application of Zn @ 2.5 kg along with 200 kg FYM/ha
	Borax ( 10 % B )	@0.03 %	Foliar spray of Agribor @0.03 % ( twice) 7 days interval after 30days of sowing
	Borax(10.5 %B)	@ 1.0 kg/ha	Soil application of B @ 1.0 kg/ha
		@ 0.03 %	Two foliar spray @0.03 % B at 10 days interval starting from 30 days after sowing
Sodium molybdate (12.5 % Mo)	@ 10 g /25 kg seed	Seed treatment with slurry of Amonium molybdate (10 g) for 25 kg seed of groundnut (Mo deficient soil)	
Other Pulses	Gypsum(15 % S)	@45 kg/ha	Soil application
	Sodium molybdate (12.5 % Mo)	@ 10 g/25 kg seed	Seed treatment with slurry of Amonium molybdate (10 g) for 25 kg seed of pulses
Mustard	Gypsum(15 % S)	@ 60 kg/ha	Soil application
	Zinc Sulphate (21% Zn)	@ 2.5 kg / ha	Soil application
		5 kg / ha,	Soil application
	Borax(10.5 %B)	1 kg/ha,	Soil application
Sesamum	Zinc Sulphate (21% Zn)	@ 2.5 kg / ha	Soil application of Zn @ 2.5 kg + 200 kg FYM/ha .

## CROP WISE RECOMMENDATION OF MICRONUTRIENTS BY OUAT

Name of the Crop	Name of Micronutrients	Doses of application	Time & Method of application
Sugarcane	Borax(10.5 %B)	@1kg/ha	Soil application of B @1.0 kg/ha as basal.
Cabbage	Borax(10.5 %B)	@1kg/ha	Soil application of B @1kg/ha as basal with 100kg FYM.
		@ 0.25 %	Two foliar Spray Borax @ 0.25 % at 10 days interval starting from 30 days after sowing.
Cauliflower	Borax(10.5 %B)	@1kg/ha	Soil application of B @1kg/ha as basal with 100kg FYM .
		@ 0.25 %	Two foliar Spray Borax @ 0.25 % at 10 days interval starting from 30 days after sowing .
Field pea	Zinc Sulphate (21% Zn)	@ 2.5 kg / ha	Soil application of Zn @ 2.5 kg along with 200 kg FYM/ha .
Onion	Gypsum(15 % S)	@ 60 kg/ha	Soil application of S @ 60 kg/ha
Potato	Gypsum(15 % S)	@ 60 kg/ha	Soil application of S @ 60 kg/ha
Tomato	Borax(10.5 %B)	@1kg/ha	Soil application of B @1kg/ha as basal with 100kg FYM .
	Borax(10.5 %B)	@ 0.25 %	Two foliar Sprays of Borax @ 0.25 % at 10 days interval starting from 30 days after sowing .
Vegetables (Others)	Gypsum(15 % S)	@40 kg /ha	Soil application of 40 kg S /ha as basal
Coconut	Borax(10.5 %B)	@ 50 gm	Soil application - 1 year to 5 years old or less coconut plant .
		@ 100 gm	Soil application - above 5 years old Coconut plant (B deficient soil)

**Micronutrients should be applied to the soil when these are deficient in soil. Apply micronutrient/ micronutrients which are deficient, avoiding multi micronutrient sources.**

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

Crop	Name of Bio-Fertilizers	Dosage per ha (kg/ml)	Time & Method of application		Remarks
			Seed	Soil	
Paddy	Azospirillum (Powder)	4 kg	Coating of 200 gm for 10-12 kg of seeds	Inoculation of microbes to Limed (5 %) vermicompost/FYM in 1: 25 ratio, incubate it for 7 days at 30 % moisture . Apply to nursery/upland and direct sown crop.	
	Azospirillum (liquid)	2-5 L	Soaking with 100 ml mixed with 2 lit of water for 10-12 kg of seeds		
	PSB (Carrier based)	4 kg	200 gm for 10-12 kg of seeds		
	PSB (liquid)	2-5 L	100 ml for 10-12 kg of seeds		
	Blue green algae	10 kg/ha	Dry matter of BGA 5-7 DAT to 3.5 cm standing water.		
	Azolla	one ton fresh azolla/ha	As green manure 15 days prior to transplanting @ 1 ton fresh azolla/ha		
Maize	Azotobacter/ Azospirillum (Powder)	4 kg		Inoculation of microbes to limed (5 %) vermicompost/FYM in 1: 25 ratio, incubate it for 7 days at 30 % moisture	
	Azotobacter/ Azospirillum (liquid)	2-5 L			
	PSB (Carrier based)	4 kg			
	PSB (liquid)	2-5 L			
Ragi	Azotobacter/ Azospirillum (Carrier based)	4 kg		Inoculation of microbes to limed (5 %) vermicompost/FYM in 1: 25 ratio, incubate it for 7 days at 30 % moisture	
	Azotobacter/ Azospirillum (liquid)	2-5 L			
	PSB (Powder)	4 kg			
	PSB (liquid)	2-5 L			
Arhar, Biri, Mung, Bengal Gram, Groundnut	Rhizobium (Powder)	500g/25 kg of Seed		Inoculation of 4 kg/250 ml PSB with 100 kg FYM/vermicompost incubating at room temperature for seven days at 30% moisture and applying at the time of sowing.	1- At the time of sowing 2- Seed Inoculation & Sowing in cool hours (afternoon hours)
	Rhizobium (liquid)	250ml/25 kg of Seed			
	PSB (Powder)	500g/25 kg of Seed			
	PSB (liquid)	250ml/25 kg of Seed			

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

Crop	Name of Bio-Fertilizers	Dosage per ha (kg/ml)	Time & Method of application		Remarks
			Seed	Soil	
Oilseeds (Mustard, Sunflower, Sesamum)	Azoto bacter(powder), Azospirillum powder	4 kg each		Inoculation of microbes to limerd (5 %) vermicompost/FYM in 1: 25 ratio, incubate it for 7 days at 30 % moisture	Rhizosperic application at the time planting/ Sowing
	Azotobacter (liquid), Azospirillum (liquid)	2-5 L			
	PSB (Powder)	5-10 kg			
	PSB (liquid)	2-5 L			
Cotton	Azotobacter (Powder)	5-10 kg		Inoculation of microbes to limerd (5 %) vermicompost/FYM in 1: 25 ratio, incubate it for 7 days at 30 % moisture	
	Azotobacter (liquid)	2-5 L			
	PSB (Powder)	5-10 kg			
	PSB (liquid)	2-5 L			
Sugarcane	Acetobacter (Powder)	10 kg	2 Kg for setts dipping treatment and 8 kg for main field treatment		
	Acetobacter (liquid)	5 L	1 L for setts dipping treatment and 4 L for main field treatment		
	PSB (Powder)	10 kg	2 Kg for setts dipping treatment and 8 kg for main field treatment		
	PSB (liquid)	5 L	1 L for setts dipping treatment and 4 L for main field treatment		
Jute	Azotobacter/ Azospirillum (Powder)	5-10 kg		Inoculation of microbes to limerd (5 %) vermicompost/FYM in 1: 25 ratio, incubate it for 7 days at 30 % moisture	
	Azotobacter/ Azospirillum (liquid)	2-5 L			
	PSB (Powder)	5-10 kg			
	PSB (liquid)	2-5 L			
Vegetables	Azotobacter + Azospirillum + PSB	4 Kg each	200g each for 10kg seeds. Rhizosperic application at the time planting/Sowing	Inoculation of microbes (1:1:1) to Limerd (5 %) vermicompost / FYM in 1: 25 ratio, incubate it for 7 days at 30 % moisture	

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

Crop	Name of Bio-Fertilizers	Dosage per ha (kg/ml)	Time & Method of application		Remarks
			Seed	Soil	
Tomato/ Brinjal/ Chilli/ Cabbage/ Cauliflower	Azotobactor + PSB ( Liquid)	2 Ltr+ 2 Ltr for one acre Seedling Root Dip	Seedling root dip.	Inoculated and incubated method	Seedling root Dip
Vegetables	Vermicompost/ City Compost/ Press mud/ Organic manure	2.5 ton/ ha		Rhizospheric application at the time of planting.	Soil application
	Mycorrhiza (VAM)	12.5 kg each per ha		Mixed with 500 kg compost	Soil application
Flowers	Azotobactor + Azospirillum + PSB	4 Kg each	Rhizosperic application at the time 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	
Fruit crops/ Plantation crop	Azotobactor + Azospirillum + PSB	4kg each (200g/plant)	Rhizosperic application at the time 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	
	Mycorrhiza (VAM)	50 g of mycorrhizal inoculums per plant			
	Vermicompost/ City Compost/ Press mud/ Organic manure	2-5 kg / plant/year			Soil application

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## CROP WISE RECCOMMENDATION OF TRAPS & LURES

Crop	Target Pest	Name Of Traps & Lures	Nos. Per Ha	Time Of Application/ Installation
Paddy	YSB-Scirpophaga incertulas	Pheromone Trap	20 Nos. Per Ha	20 DAT/30 DAS
		Scirpo lure		
	LEAF FOLDER, Cnaphalocrosis medinalis	Pheromone Trap	20 Nos. Per Ha	20 DAT/30 DAS
		Cnaphalo lure		
	Rice Ear cutting caterpillar, Mythimna separata	Pheromone Trap	20 Nos. Per Ha	20 DAT/30 DAS
		Mythimna lure		
Maize	Pink stem borer, Sesamia inferens	Pheromone Trap	20 Nos. Per Ha	20 DAT/30 DAS
		Sesamia inferens lure		
	Army worm, Mythimna separata	Pheromone Trap	20 Nos. Per Ha	20 DAT/30 DAS
		Mythimna lure		
Hairy caterpillar ,Amsacta albistriga	Light trap	12 nos per ha	Vegetative stage, 6PM to 9PM	
Arhar/Red Gram	Gram Pod borer, Helicoverpa armigera	Pheromone Trap	20 Nos. Per Ha	Just before flowering
		Heli lure		
	Spotted pod borer, Maruca vitrata	Pheromone Trap	20 Nos. Per Ha	Just before flowering
		Maruca lure		
	Bihar hairy caterpillar, Spilosoma obliqua	Light trap	@ 12 nos.	Vegetative stage, 6PM to 9PM
	Red hairy caterpillar, Amsacta moori /A. albistriga	Light trap	@ 12 nos.	Vegetative stage, 6PM to 9PM
	Aphids/ White fly	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage
Thrips	Blue sticky trap	20 Nos. Per Ha	Vegetative stage	
Black Gram/ Green Gram	Gram Pod borer (Helicoverpa armigera )	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Heli lure		
	Spotted pod borer, Maruca vitrata	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Maruca lure		
	Bihar hairy caterpillar, Spilosoma obliqua	Light trap	@ 12 nos.	Vegetative stage, 6PM to 9PM
	Aphids/ Jassids/ White fly	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage
Thrips	Blue sticky trap	20 Nos. Per Ha	Vegetative stage	



## CROP WISE RECCOMMENDATION OF TRAPS & LURES

Crop	Target Pest	Name Of Traps & Lures	Nos. Per Ha	Time Of Application/ Installation
Bengal Gram	Gram Pod borer (Helicoverpa armigera )	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Heli lure		
	Tobacco caterpillar (Spodoptera litura )	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Spodo lure		
	Aphids	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage
	Ground Nut	Gram Pod borer (Helicoverpa armigera )	Pheromone Trap	20 Nos. Per Ha
Heli lure				
Tobacco caterpillar (Spodoptera litura )		Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Spodo lure		
Leaf miner (Aproarema modicella )		Pheromone Trap/Delta	20 Nos. Per Ha	Vegetative stage
		Aproarema lure		
Bihar hairy caterpillar( Spilosoma obliqua), Red hairy caterpillar (Amsacta moori /A. albistriga )		Light trap	@ 12 nos.	Vegetative stage, 6PM to 9PM
Aphids, Jassids	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage	
Thrips	Blue sticky trap	20 Nos. Per Ha	Vegetative stage	
Mustard	Mustard aphid (Lipaphis erysimi )	Yellow sticky trap	20 Nos. Per Ha	Vegetative/Flowering stage
	Bihar hairy caterpillar (Spilosoma obliqua )	Light trap	@ 12 nos. Per Ha	Vegetative stage, 6PM to 9PM
Cotton	Pink boll worm (Pectinophora gossypiella )	Pheromone Trap	20 Nos. Per Ha	Vegetative-flowering stage
		Pectino lure		
	American boll worm (Helicoverpa armigera )	Pheromone Trap	20 Nos. Per Ha	Vegetative-flowering stage
		Heli lure		
	Tobacco caterpillar (Spodoptera litura )	Pheromone Trap	20 Nos. Per Ha	Vegetative-flowering stage
		Spodo lure		
Cotton	Spiny boll worm (Earias insulana )	Pheromone Trap	20 Nos. Per Ha	Vegetative-flowering stage
		insulana lure		
	Spotted bollworm (Earias vittella )	Pheromone Trap	20 Nos. Per Ha	Vegetative-flowering stage
		vittella lure		
Aphids,Jassids,White fly	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage	
Thrips	Blue sticky trap	20 Nos. Per Ha	Vegetative stage	

## CROP WISE RECCOMMENDATION OF TRAPS & LURES

Crop	Target Pest	Name Of Traps & Lures	Nos. Per Ha	Time Of Application/ Installation
Sugarcane	Early Shoot borer (Chilo infuscatellus )	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Infuscatellus lure		
	Internode borer (Chilo sacchariphagus indicus )	Pheromone Trap	20 Nos. Per Ha	Grand growth stage
		Indicus lure		
	Top shoot borer (Scirpophaga novella/ excerptalis)	Pheromone Trap	20 Nos. Per Ha	Cane formation stage
		novella/excerptalis lure		
	Pink stem borer(Sesamia inferens )	Pheromone Trap	20 Nos. Per Ha	Grand growth stage
Sesamia inferens lure				
Stalk borer (Chilo auricilius)	Pheromone Trap	20 Nos. Per Ha	Grand growth stage	
	auricilius lure			
Aphids ,White fly	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage- Grand growth stage	
Brinjal	Brinjal fruit and shoot borer (Leucinodes orbonalis)	Pheromone trap/Wata trap	20 Nos. Per Ha	Vegetative stage,Replace lure after 3weeks
		Leuci lure		
	Aphids,Jassids,White fly	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage
Tomato	Fruit borer (Helicoverpa armigera)	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Heli lure		
	Tobacco caterpillar (Spodoptera litura )	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Spodo lure		
Tomato	Tomato leaf miner (Tuta absoluta)	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		absoluta lure		
	Aphids,Jassids,White fly	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage
Okra	Shoot and fruit borer( Earias vitelia)	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		vittella lure		
	Shoot and fruit borer (Earias insulana)	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		insulana lure		
Fruit borer (Helicoverpa armigera)	Pheromone Trap	20 Nos. Per Ha	Vegetative stage	
	Heli lure			
	Aphids,Jassids,White fly	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage

## CROP WISE RECOMMENDATION OF TRAPS & LURES

Crop	Target Pest	Name Of Traps & Lures	Nos. Per Ha	Time Of Application/ Installation
Chilli	Fruit borer (Helicoverpa armigera)	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Heli lure		
	Tobacco caterpillar (Spodoptera litura )	Pheromone Trap Spodo lure	20 Nos. Per Ha	Vegetative stage
	Thrips	Blue sticky trap	20 Nos. Per Ha	Vegetative stage
Cole Crops	Diamond back moth(Plutella xylostella )	Pheromone Trap	20 Nos. Per Ha	Vegetative stage
		Plutella lure		
	Tobacco caterpillar (Spodoptera litura )	Pheromone Trap Spodo lure	20 Nos. Per Ha	Vegetative stage
	Aphids,Jassids	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage
Cucurbits	Cucurbit fruit fly (Bactrocera cucurbitae )	Fruit fly trap	8 Nos. Per Ha	Vegetative stage
		Cucurbitae lure		
	Pumpkin leaf caterpillar (Diaphania indica)	Pheromone Trap Diaphania lure	20 Nos. Per Ha	Vegetative stage
	Serpentine leaf miner (Liriomyza trifolii)	Yellow sticky trap	20 Nos. Per Ha	Vegetative stage
Fruits	Oriental fruit fly (Bactrocera dorsalis)	Fruit fly trap	8 -10 Nos. Per Ha	Just before flowering, Replace lure every 3 months
		dorsalis lure		
Coconut	Rhinoceros Beetle(Oryctes rhinoceros)	Coco trap	2 Nos. Per Ha	Any stage of tree & Replace lure every 3 months
		Oryctes rhinoceros lure		
		Light trap	@ 12 nos. Per Ha	Set up light traps following the first rains in summer and monsoon period to attract and kill the adult beetles
	Red Palm weevil (Rhynchophorus ferrugineus)	Coco trap	2 Nos. Per Ha	Any stage of tree & Replace lure every 3 months
		Rhynchophorus ferrugineus lure		
Black headed caterpillar (Opisina arenosella )	Pheromone Trap	20 Nos. Per Ha	Any stage of tree & Replace lure every 3 months	
	Opisina lure			

sd/-  
**Plant Protection of Officer**  
**Central Insecticide & Pest Management Centre**  
**Odisha,Bhubaneswar**

## IPM KIT

1	Sweep net ( Steel ring 5mm thickness 37.5 cm long conical bag made of nylon cloth and a sturdy 1m. Long steel handle of 2.5 cm diameter. Ring cover flap made of jeans cloth)
2	Hand Lens -10 X
3	Brush ( No. 3)
4	Watch glass ( 7.5cm diameter)
5	Plastic vials ( with lid 7.5 cm x 2.5cm)
6	Dissecting needle with plastic handle
7	Poly Bag ( 30 X 20 cm)
8	Rubber Band ( 2.5 cm diameter)
9	Note pad/ Writing pad ( 20 X 13 cm , 40 pages)
10	Ball pen ( 15 cm with cap)
11	Cello tap ( 1.5 X 9 mtr)
12	Drawing pen ( Blue and Red)
13	IPM Cap( Good quality made of white Jeans cloth )( Front cover 7.5 cm length , 16.5 cm diameter, 17.5 cm elastic trap and tight & loose system with National IPM emblem embassing)
14	IPM Kit Bag ( Made of Foam cloth 35 cm X 30 cm having 5 cm depth and with 90cm shoulder sling with National IPM emblem embassing)
15	Drawing Sheet / Art paper ( Full size (75 cm X 55 cm)

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