भारत सरकार / **Government of India**

कृषि एवं किसान कल्याण मंत्रालय / **Ministry of Agriculture & Farmers Welfare**

कृषि एवं किसान कल्याण विभाग

Department of Agriculture & Farmers Welfare

वनस्पति संरक्षण, संगरोध और संग्रह निदेशालय

Directorate of Plant Protection, Quarantine & Storage

केंद्रीय कीटनाशी बोर्ड एवं पंजीकरण समिति

Central Insecticide Board & Registration Committee

एन. एच. - 4, फरीदाबाद001 121 – (हरियाणा)

N.H.-IV, Faridabad-121 001 (Haryana)

MAJOR USES OF PESTICIDES

(Registered under the Insecticides Act, 1968)

(UPTO - 31/05/2022)

(Based on certificate issued)

***Disclaimer**: The document has been compiled on the basis of available information forguidance and not for legal purposes.*

INSECTICIDES

Approved Uses of Registered Insecticides.

Agricultural Use					
Crop	**Common Name of the pest**	**Dosage/ha**			**Waiting Period (days)**
		a.i (gm)	**Formulation (gm/ml)**	**Dilution in Water (Liter)**	
Abamectin 01.90 % EC					
Rose (Ornamental)	Red spider mites (*Tetranychus urticae*)	0.00048-0.00096%	0.025-0.050%	500	03
Grapes	Mites	0.014/L	0.75 ml/L water	500 – 1000	03
Acephate 75 % SP					
Cotton	Jassids	292	390	500 – 1000	15
	Bollworms	584	780	500 – 1000	15
Safflower	Aphids	584	780	500 – 1000	15
Rice (Paddy)	Yellow stem borer, Leaf folder, Plant Hoppers, Green leafhopper	500 – 750	666 – 100	300 – 500	15
Acephate 97 % DF					
Cotton	Jassids & Boll wormcomplex	436.50 – 582	450 – 600	500	48
Paddy (Rice)	Yellow stem borer,Leaf folder, Plant hoppers, Green leafhopper	727.50	750	500	21
Acephate 95 % SG					
Rice (Paddy)	Stem borer, Leaf folder, Brown planthopper	562.50	592	500	30
Cotton	Jassids	750	790	500	18

Chilli	Thrips, Fruit borer (*Helicoverpa armigera*), Aphid	750	790	500	07
Acetamiprid 20 % SP					
Cotton	Aphids, Jassids	10	50	500 – 600	15
	Whiteflies	20	100	500 – 600	15
Cabbage	Aphids	15	75	500 – 600	07
Okra (Bhindi)	Aphids	15	75	500 – 600	03
Chilli	Thrips	10 – 20	50 – 100	500 – 600	03
Rice (Paddy)	Brown plant hopper	10 – 20	50 – 100	500 – 600	07
Afidopyropen 50 g/L DC					
Brinjal	Whitefly, Jassids	50	1000	500 – 750	01
Cotton	Whitefly, Jassids	50	1000	500 – 750	25
Cucumber	Whitefly	35 – 50	700 – 1000	500	05
Alphacypermethrin 10.00% EC					
Cotton	Boll Worms	15 – 25	165 – 280	600 – 1000	07
Alphacypermethrin 10.00% SC					
Cotton	Boll Worms	25 – 30	250 – 300	500 – 1000	10

Name of Commodity	**Common name of the pest**	**Dose**	**Exposure Period**	**Aeration Waiting period**
Aluminum Phosphide 56 % (3g Tablet, 10g Pouch)				
Stored Whole Cereals and Seed Grains Millet, Pulses Dry Fruits,Nuts Spices & Oil Seeds	Rice Weevil (*Sitophilus oryzae*),Lesser Grain Borer, Khapra Beetle (*Trogoderma granarium*), Rust Red Flour Beetle, Saw	03 tablets (03 gm) per ton or 150 gm per 100m^3 or 10 gm Pouch Per ton of commodity or 150 gm per 100 m^3.	Minimum 05 Days (*Sitophilus oryzae*) or 07 Days (*Trogoderma granarium*)	One hour of partial aeration in case non-polyethylene packed commodities allowed by 6-8 hrs of full aeration. For polyethylene

	Toothed Grain Beetle, Caddle Beetle, Drug Store Beetle, Cigarette Beetle, Pulse Beetle			packed commodities minimum aeration period is 48 hrs. The waiting period for the release of stock is 48hrsin both the cases. Recommendation for bag stock 15 days.
Mild Products: De-oiled Cakes, Rice Bran Flour, Grain Animal & Poultry Food SplitPulses (Dal) & other Processed Food	Long Headed Floor Beetle, Coffee Borer, Dried Fruit Beetle, Flat Grain Beetle, Carpet Beetle	03 tablets/10 gm per ton or 225 gm/100 m^3	05 days	Aeration is waiting Period07 days to be checked PH^3 detector strips.
Empty Godowns &Sheds	Rice Moth, Almond Moth, Mites, Fruit Fly, Granary Weevil, Caddle or Flour worm, Red Flour Beetle, Indian Meal Moth, Larger cabinet Moth, Wheat KernelDamage in the field Cockroach.	14 tablets/1000 m^3 or 150 gm/100 m^3 or 4pouch 10 gms each/1000 CFTor 150 gm/100 m^3	72 hrs.	Aeration Period24 hrs detectorstrips or 4hosphine detect tubes should be used in the premises to signal safety of atmosphere.
Rodents Burrows	Rodents	01 Tablet / Burrow	-	-
Aluminum Phosphide 15 % (12g Tablet)				
Stored whole cereals and seed grains.	Rice weevil, Rust redflower beetle	1 tablet (12 g)per ton or 600100 m^3	Non polythene Packed commodities: Partial-1 hour. Full-(6-8) hour. Polythene Packed commodities: Minimum 48 hrs.	07-14

Millets, pulses, dry fruits, nuts, spices & oilseeds (Air tight cover or godowns)	Lesser Grain Borer, Khapra Beetle, Saw Toothed Grain Beetle, Rice Moth, Almond Moth	900 g/100 m^3	-		05
Milled products: De-oiled cakes, Rice bran	Rust red flower beetle	3 tablets/ton	48 hrs.		05
Flour Suji meals and Crushed grain (Animal & poultry feed), Split Pulses Dals)	Saw Toothed Grain, Beetle , Rice Moth, Almond Moth, long headed flour beetle & Mites	900 g/100 m3	48 hrs.		03
Other processed food and Empty Godowns & Sheds (under air tight condition)	All insect pests.	14 tablets/1000 tons or 600 g/1000 m^3	48 hrs. 24 hrs.		03
Aluminium Phosphide 77.50 % GR					
Stored Grain	Red Rust Flour Beetle, Lesser GrainBorer, Rice Weevil,Khapra Beetle	3.35 gm	07 days		24 hours
Aluminum Phosphide 06 % Tablet					
Crop & Non-Crop area	Field rodents	0.72 g a.i./burrow	One tablet of 12 gm/burrow		-
Barium Carbonate 1% P					
Godowns, Residential Premises, Public halls	Rats, Mice, Field Rodents	10-20% Technical material to be mixed with bait	-	-	-

Beta-cyfluthrin 02.45 % SC					
Cotton	Bollworm	12.5-18.75	500 – 750	500 – 1000	20
Benfuracarb 03 % GR					
Rice (Paddy)	Stem borer, Leaf folder, Brown planthopper	1000	33000	-	20
Benfuracarb 40 % EC					
Red gram (Tur or Arhar)	Pod borer	1000	2500	500	20
Benzpyrimoxan 10% SC					
Rice	Brown Plant Hopper, White Backed Plant Hopper	75-100	750-1000	500	31
Bifenazate 50 % WP					
Rose	Two Spotted Mite (*Tetranychus urticae*)	375	750	3000	-
Bifenazate 22.60 % SC					
Rose	Two Spotted Mite (*Tetranychus urticae*)	120	500	2000	-
Bifenthrin 08 % SC					
Tea	Red spider mite, Tea Mosquito bug	40.00	500	400	11
Apple	Mites	60 gm (0.006% Conc.)	7.50 ml/tree	10 lit/tree	21
Bifenthrin 08.80 % CS					
Rice (Paddy)	Stem borer, Leaffolder	44	500	500	21
Bifenthrin 10 % EC					
Cotton	Bollworms, Whitefly	80	800	500	15
Rice (Paddy)	Stem borer, Leaf folder, Green leaf hopper	50	500	500	21

Sugarcane	Termites	100	1000	500	300

Bifenthrin 02.50 % EC

Pre and post construction: Bifenthrin 2.5% EC shall be applied at 0.05% a.i. conc. i.e. 20.0 ml formulated product diluted in 1 liter of water for the control of termites in building during pre and post construction. Treatment should be as per IS 6313 (Part 2):2001 for pre construction chemical treatment and IS 6313 (Part-3): 2001 for post construction treatment of the existing building.

Recommendation for use of control of Wood borer (Powder Post Beetle) in plywood, veneer and wood

Use	Method of application	Dosage (a.i.)	Dilution
Plywood	Glue Line Poisoning	10 g/ meter3 of wood	400 ml formulation per meter3 of wood
	Dipping	0.025% Solution	Mix 01 lit of formulation in 99 lit of water to make 0.025% Solution
Veneer	Dipping	0.025% Solution	Mix 01 lit of formulation in 99 lit of water to make 0.025% Solution
Wood	Dipping /Brushing	0.025% Solution	Mix 01 lit of formulation in 99 lit of water to make 0.025% Solution

Brodifacoum 0.005 %w/w BB

Pest	Dose rate	Manner of application /use pattern
Field rats/Bandicootrats (*Bandoicota bengalensis; B. indica*) Indian houserat / Black, Indian house rat/black rat/roof rat (*Rattus rattus; R. meltade*),	One bait of 0.005% (a block of 20 gm each) per baiting station as a single feed	In and around premises (Residential, commercial, institutional, industrial public service premises, cold storage , Godowns, ware house, municipal locations, grain mandis, crop store rooms, burrow baiting, livestock rearing facilities, damp premises such as sewer etc.)
House mouse/ Fieldmouse (*Mus musculus*)		

Broflanilide 300 g/l SC

Chilli	Fruit borer (Helicoverpa armigera)	12.6- 18.6	42-62	500	1
	Thrips (Scirtothrips dorsalis)	18.6- 25.2	62-84	500	1
Brinjal	Shoot and fruit borer (Leucinodes orbonalis)	12.6- 18.6	42-62	500	1
	Thrips (Thrips tabaci)	18.5- 25.2	62-84	500	1
Cabbage	Diamond back moth (Plutella xylostella), tobacco leaf eating caterpillar (Spodoptera litura)	12.6-18.6	42-62	500	18
Tomato	Fruit borer(Helicoverpa armigera) &	18.6-25.2	62-84	500	1

	leaf miner (Liriomyza trifolii)				
Soybean	Helicoverpa armigera, Spodoptera litura, Semilooper (Chrysodeixis acuta)	12.6-18.6	42-62	500	37
Red gram	Helicoverpa armigera&Maruca vitrata	12.6-18.6	42-62	500	25
Broflanilide 20% SC					
Brinjal	Shoot and fruit borer (Leucinodes orbonalis), Thrips (Thrips tabaci) & Jassids (Amrasca devastans)	25	125	500	1
Cabbage	Diamond back moth (Plutella xylostella) & Tobacco caterpillar (Spodoptera litura)	25	125	500	1
Chilli	Fruit borer (Helicoverpa armigera), Tobacco caterpillar (Spodoptera litura), Thrips (Thrips tabaci) and Jassids (Amrasca devastans)	25	125	500	1
Okra	Fruit borer (Helicoverpa armigera), Thrips (Thrips tabaci) and Jassids (Amrasca devastans)	25	125	500	1

Bromadiolone 00.25 % CB					
Paddy (Rice)	Field Rat, Large Bandicota Indian house rat, Indian field mouse	0.005	-	-	-
Wheat , Gram	Field Rat, Indian house rat	0.005	-	-	-
Groundnut, Sugarcane	Field Rat, Large Bandicota	0.005	-	-	-
Coconut/ Bamboo	Indian house rat	0.005	-	-	-
Residentialpremises	Field Rat, Large Bandicota	0.005	-	-	-
Poultry Farm	Indian house rat, House mouse	0.005	-	-	-

Bromadiolone 00.005 % RB					
Paddy (Rice)	Field Rat, Large Bandicota, Indianhouse rat	0.005	-	-	-
Wheat	Indian Field mouse,Field Rat	0.005	-	-	-

Gram	Indian house rat, Field Rat, Indianhouse rat	0.005	-	-	-
Groundnut, Sugarcane	Field Rat, LargeBandicota	0.005	-	-	-
Coconut/ Bamboo	Indian house rat,Field Rat Large Bandicota	0.005	-	-	-
Residential premises	Indian House rat,House mouse	0.005	-	-	-
Poultry Farm	Indian house rat, House mouse, LargeBandicota	0.005	-	-	-
Buprofezin 25 % SC					
Cotton	Whitefly Aphids, Jassids, Thrips	250.0	1000	500 – 750	20
Chilies	Yellow Mite	75.0-150.0	300-600	500 – 750	05
Mango	Hoppers	0.025% - 0.05%	1-2 ml/liter of water	5-15 liter per tree	20
Grapes	Mealy bugs	250 – 375	1000 – 1500	500 – 1000	07
Rice	Brown plant hopper, Green leaf hopper, White Back Plant Hopper	200	800	400 – 500	20
Buprofezin 70 % DF					
Okra (Bhindi)	Jassids	200	286	500	05
Cotton	Jassids, Whitefly	250 – 300	357 – 429	500	20
Rice	Brown plant hopper	175	250	500	24
Carbofuran 03 % CG					
Barley	Aphid, Cystnematode	1000	33300	-	-
	Jassids	1250	41600	-	-
Bajra	Shoot fly	1500	50000	-	-
Sorghum	Shoot fly	1000	33300	-	-
	Stem borer	250	8300	-	-
Jute	Nematodes	1000	33300	-	-

Groundnut	Pod borer	1500	50000	-	-
	White grub	1000	33300	-	-
French bean	White grub	700	23300	-	-
Potato	Aphid	500	16600	-	-
	Jassids	1000	33300	-	-
Tomato	Whitefly fly	1200	40000	-	-
Apple	Woolly aphid	05/tree	166/tree	-	-
Citrus	Nematode	360	12000	-	-
	Leaf miner	1500	50000	-	-
Maize	Stem borer, Shootfly, Thrips	1000	33300	-	-
Paddy (Rice)	Brown plant hopperGall midge, Stem borer, Green leaf hopper, Hispa	750	25000	-	-
	Nematodes	1500	50000	-	-
Mustard	Mustard leaf miner	2000	66600	-	-
	Whitefly	1000	33300	-	-
Soybean	Root knot nematode	1500	50000	-	-
Sugarcane	Top borer	2000	66600	-	-
Bhindi (Okra)	Jassids	1000	33300	-	-
Chilli	Aphid , Thrips	1000	33300	-	-
Cabbage	Nematode	1000	50000	-	-
Wheat	Ear cockle nematode	3000	10000	-	-
	Cereal cyst nematode	2000	66600	-	-
Brinjal	Root knot nematode,Reni form nematode	2000	66600	-	-
Banana	Rhizome weevil	01 g/ suckers	33 g/sucker	-	-
	Aphid	50 g/ suckers	166 g/sucker	-	-
	Nematode	1.5 g/suckers	50 g/suckers	-	-
Peach	Leaf curl aphid	1000	33300	-	-

Mandarins	Soft greens scale	0.40 g/plant	13.30 g/plant	-	-
French bean	White grubs	750	23300	-	-
	Grey & Stem weevil	1000	33300	-	-
Pea	Shoot fly & Aphid	1000	-	-	-
Tea	Cock chafer grub	0.30 g/plant	33.10 g/plant	-	-
Carbosulfan 06 % Granules					
Rice (Paddy)	Stem borer, Gall midge, Green leaf hopper, Leaf folder	1000	16700	-	37
Carbosulfan 25% EC					
Rice (Paddy)	Green leaf hopper, White Back Plant Hopper, Brown plant hopper, Gall midge, Stem borer, leaf folder	200 – 250	800 – 1000	500 – 1000	14
Chilli	White aphid	200 – 250	800 – 1000	500 – 1000	08
Cumin	Aphid, Thrips	312.5	1250	500	17
Brinjal	Fruit and Shoot borer	312.5	1250	500	5
Cotton	Aphid, Thrips	312.5	1250	500	70
Carbosulfan 25 % DS					
Cotton	Jassid, Aphids,Thrips	15 gm/kg seed	60 gm/kg seed	Not required	-
Cartap Hydrochloride 04 % Granules					
Rice (Paddy)	Stem borer	750.0	18750	-	-
	Leaf folder, Whorlmaggot	750-1000	18750-25000	-	-
Cartap Hydrochloride 50 % SP					
Rice (Paddy)	Stem borer, Leaffolder	500	1000	500 – 1000	-
Cartap Hydrochloride 75 % SG					

Rice	Yellow stem borer,Leaf folder	318.75 – 375	425 – 500	250 – 500	35-89
Chlorantraniliprole 18.50 % SC					
Rice	Stem borer, Leaffolder	30	150	500	47
Cabbage	Diamond back moth	10	50	500	03
Cotton	American bollworm,Spotted bollworm, Tobacco caterpillar	30	150	500	09
Sugarcane	Termite	100 – 125	500 – 625	1000	208
	Early shoot borer,Top borer	75	375	1000	208
Tomato	Fruit borer	30	150	500	03
Chilli	Fruit borer	30	150	500	03
Brinjal	Shoot & Fruit borer	40	200	500 –750	22
Pigeon pea	Pod borer	30	150	500 –750	29
Soybean	Green Semi looper,Stem fly, Girdle beetle	30	150	500 –750	22
Bengal gram	Pod borers	25	125	500	11
Black gram	Pod borers	20	100	500	20
Bitter gourd	Fruit borers & Caterpillars	20 – 25	100 – 125	500	07
Okra (Bhindi)	Fruit Borer	25	125	500	05
Chlorantraniliprole 00.40 % GR					
Rice (Paddy)	Yellow stem borer,Leaf folder	40	10000	-	53
Sugarcane	Early shoot borer,Top borer	75	18.75	-	147
Chlorantraniliprole 35 % WG					
Okra	Fruit borer (*Helicoverpa armigera & Earias vittella*)	25	71	500	05
Tomato	Fruit borer (*Helicoverpa*	30	86	500	03

	armigera)				
Chlorfenapyr 10 % SC					
Cabbage	Diamond back moth(*Plutella xylostella*)	75 – 100	750 –1000	500	07
Chilli	Mites (*Polyphagotarsonemus latus*)	75 – 100	750 –1000	500	05
Chlorfluazuron 05.40 % EC					
Cabbage	Diamond back moth,Tobacco leaf eating caterpillar	75	1500	500	07
Cotton	American bollworm,Tobacco leaf eating caterpillar	75 – 100	1500-2000	500	10
Chlorpyrifos 10 % Granules					
Rice (Paddy)	Stem borer, Leaf folder, Gall midge	1000	10000	-	30
Chlorpyriphos 75 % w/w WG					
Rice	Yellow stem borer *(Scirpophaga 12incertulas)*	375 – 400	500 – 533	500 –1000	15
Chlorpyrifos 20 % EC					
Paddy (Rice)	Hispa	250	1250	500 –1000	-
	Leaf folder	375	1875	500 –1000	-
	Gall midge, Stem borer, Whorl maggot	250	1250	500 –1000	-
Beans	Pod borer, Black bug	600	3000	500 –1000	-
Gram	Cut worm	500	2500	500 –1000	-
Sugarcane	Black bug	150	750	500 –1000	-
	Early shoot & stalkborer	250 – 300	1250 –1500	500 –1000	-
	Pyrilla	300	1500	500 –1000	-

Cotton	Aphid, Bollworm,Whitefly	250	1250	500 –1000	-
	Cut worm	750	3750	500 –1000	-
Groundnut	Aphid	200	1000	500 –1000	-
	Root grub	225	1125	500 –1000	-
Mustard	Aphid	100	500	500 –1000	-
Brinjal	Shoot & fruit borer	200	1000	500 –1000	-
Cabbage	Diamond back moth	400	2000	500 –1000	-
Onion	Root grub	1000	5000	500 –1000	-
Apple	Aphid	0.05%	3750-5000	1500 –2000	-
Ber	Leaf hopper	0.03%	2250-3000	1500 –2000	-
Citrus	Black citrus, Aphid	0.02%	1500-2000	1500 –2000	-
Tobacco	Ground beetle	350	1750	500 – 1000	-

Termite control

Non cropped area: Building (Pre & Post construction treatment @1.0% a.i.)

Forestry @1.0% a.i.

Cropped area: Wheat: 3-4 ml/kg seed

Barley: 4-6 ml/kg seed

Gram: 15-30 ml/kg seed

Soil treatment: Wheat: 2-3 lit/ha.

Sugarcane: 6.25 lit/ha.

Chlorpyrifos 50 % EC

Rice (Paddy)	Stem borer, Leaffolder	375-400	750-800	500-1000	15
Cotton	Bollworms	500-600	1000-1200	500-1000	30

For non- agricultural use: - For protecting building from termite attack at pre and posts construction stages, apply Chlorpyriphos 50% EC @ 0.5% and 1.0% concentration.

Chlorpyrifos 01.50 % DP

Paddy (Rice)	Stem borer, Green leaf hopper, Brownplant hopper, Leaf folder, Gall midge, Grass hopper	375	25000	-	07
Bengal gram	Pod borer (*Helicoverpa armigera*)	375	25000	-	07
Chromafenozide 80 % WP					
Paddy (Rice)	Leaf folder, Stemborer	75-100	94-125	500	32
Clothianidin 0.5 % GR					
Okra	Jassids & White fly	40 – 60	8 - 12	--	01
Clothianidin 50 % WDG					
Rice (Paddy)	Brown plant hopper	10 – 12	20 – 24	500	12
Cotton	Jassids	15 – 20	30 – 40	500	20
	Whitefly	20 – 25	40 – 50	500	20
Cotton (Soil drench)	Jassids, Aphids,Thrips, Whitefly	100 – 125	200 – 250	1000	76
Sugarcane (Soil drench)	Termite	125	250	1000	310
Tea	Mosquito Bug (*Helopeltis theiovora*)	60	120	500	05
Coumatetralyl 0.75 % w/w Gel					
Indoor or outdoor	Rats (*Rattus rattus,Rattus norvegicus, Bandicota bengalensis, Bandicota indica,*	01 mg per spot	2.50 per spot	-	-
	Tetra indica, Meriones hurrianae)				
Indoor	Mice	01	2.50	-	-

Coumatetralyl 0.0375 % Bait					
Indoor or outdoor	Rats (*Rattus rattus, Rattus norvegicus, Bandicota bengalensis, Bandicota indica, Tetra indica, Meriones hurrianae*)	01 mg per spot	02.50 per spot	-	-
Indoor	Mice	01	02.50	-	-
Cyantraniliprole 10.26 % OD					
Grapes	Thrips (*Scirtothrips dorsalis),* Flea beetle (*Scelodonta strigicollis)*	70	700	1000	05
Pomegranate	Thrips (*Scirtothrips dorsalis),* Pomegranate butterfly (*Deudorixossypi15s)*	75 (0.0075%)	750 (0.075%)	1000	05
	Whitefly (*Siphoninus phillyreae),* Aphids (*Aphis punicae*)	90 (0.009%)	900 (0.09%)	1000	05
Cabbage	Cabbage Aphid (*Brevicoryne brassicae*), MustardAphid (*Lipaphis erysimi*), Diamond back moth (*Plutellaxylostella*), Tobaccocaterpillar (*Spodoptera litura*)	60	600	500	05
Chilli	Thrips (*Scirtothrips dorsalis*), Fruit borer (*Helicoverpa armigera*), Tobacco caterpillar (*Spodoptera litura*)	60	600	500	03

Tomato	Leaf miner (*Liriomyza trifolii*),Aphids (*Aphis ossypi*), Thrips (*Thrips tabaci*), Whitefly (*Bemesia tabaci*), Fruit borer (*Helicoverpa armigera*)	90	900	500	03
Gherkins	Leaf miner (*Liriomyzatrifolii*), Red pumpkinbeetle (*Aulacophora foveicollis*), Aphids (*Aphis 16ossypi*), Thrips (*Thrips palmi*), Whitefly (*Bemesia tabaci*), Pumpkin caterpillar (*Diaphaniaindica*), Fruit fly (*Bactrocera cucurbitae*)	90	900	500	05
Cyantraniliprole 16.9% + Lufenuron 16.9% SC					
Rice	Stem borer (Scirpophaga incertulus) & Leaf folder (Cnaphalocrosis medinalis)	20(10+10)	50	500	39
Cyenopyrafen 30 % SC					
Apple	Mite	60 – 90	200 – 300	1000	15
Chilli	Mite	60 – 90	200 – 300	400 – 600	07
Cyflumetofen 20 % SC					
Tea	Red spider mite	125 – 150	625 – 750	400 – 500	05
Cypermethrin 00.25% DP					
Brinjal	Fruit & shoot borer	50 – 60	20000 – 24000	-	03
Cypermethrin 10 % EC					

Cotton	Spotted bollworm, American bollworm, Pink bollworm	50 – 70	550 – 760	150 – 1000	07
Cabbage	Diamond back moth	60 – 70	650 – 760	100 – 400	07
Okra (Bhindi)	Fruit borer	50 – 70	550 – 760	150 – 400	03
Brinjal	Fruit & shoot borer	50 – 70	550 – 760	150 – 400	03
Wheat	Shoot fly	50	550.0	500 – 800	14
Sunflower	Bihar hairy caterpillar	60 – 70	650 – 760	500 – 700	14
Cypermethrin 25 % EC					
Cotton	Bollworms	40 – 70	160 – 280	400 – 800	-
	Jassids, Thrips	20 – 30	80 – 120	200 – 300	-
Bhindi (Okra)	Shoot & fruit borer,Jassids	37 – 50	150 – 200	500	03
Brinjal	Shoot & fruit borer,Jassids, *Epilachna* grub (Hadda beetle)	37 – 50	150 – 200	500	01
Dazomet					
Tobacco (Nursery)	Root knot nematode,Stunt nematode, Reni-form nematode	30 – 40	30 – 40	-	-
Tomato nursery	Root knot nematode	30 – 40	30 – 40	-	
Floriculture (Carnation &Gerbera)	Root-knot nematode	30 – 40	30 – 40		-
Deltamethrin 11% w/w EC					
Cotton	Bollworms	12.50	125	400 – 600	30
Rice (Paddy)	Stem borer, Leaf folder, Green leafhopper, Whorl maggot	15	150	500	13
Tea	Tea Thrips	10	100	400	15

Rice	Leaf folder	15 – 18.75	150 – 187.5	500	13
Tomato	Fruit borers	10 – 12.5	100 – 125	375 – 500	3
Okra	Fruit Borers	10-12.5	100-125	375 – 500	3
Chilli	Fruit borers	17.5	175	500	5
Onion	Thrips	15	150	500	5
Deltamethrin 25 % Tablet					
Cotton	Bollworms	12.50	50	400 – 600	30
Deltamethrin 01.80 % EC					
Cotton	Bollworms	12.50	781	400 – 600	30
	Sucking insects	10	625	400 – 600	30
Rice (Paddy)	Stem borer, Leaffolder	10 – 12.50	625 – 780	500	07
Deltamethrin 02.50 % WP					
Wheat & Rice (Grain & seed in stacks)	Rice weevil, Leasergrain borer, Khaprabeetle, Red flour beetle, Saw toothed grain beetle, Rice moth, Almond moth	30	1200	1 litre/30 m2	-
Walls, ceilings floors of Godowns	Rice weevil, Leaser grain borer, Khaprabeetle, Red flour beetle, Saw toothed grain beetle, Rice moth, Almond moth	30	1200	1.5-2.5 litre/50 m2	-
Public health	Mosquito	625 – 1250	25000 – 50000	-	-
Deltamethrin 02.80 % EC					
Cotton	Bollworm	12.50	500	400 – 600	-
	Sucking Insects	10	400	400 – 600	-
Tea	Thrips, Caterpillar	3-4	120 – 150	400 – 600	03

	Leaf folder	10	400	400 – 600	03
	Lopper	2.50 – 3.75	100 – 150	400 – 600	03
Bhindi (Okra)	Shoot & fruit borer	10 – 15	400 – 600	400 – 600	01
	Jassid	10	400.0	400 – 600	01
Groundnut	Leaf miner	12.50	500.0	400 – 600	03
Mango	Hoppers	0.03 – 0.05%	0.33-0.5 ml/lit	As per spray field requirement	01
Chilli	Fruit borer	10 – 12.5	400 – 500	400 – 600	05
Brinjal	Shoot & Fruit Borer	10 – 12.5	400 – 500	500	03
Red Gram (Arhar/Tur)	Pod Borer & Pod Fly	12.50	500.0	500	10
Dicofol 18.50 % EC					
Tea	Red spider mite, Scarlet mite, Pinkmite, Purple mite,Yellow mite	230	1250.0	250	15-20
Okra (Bhindi)	Red spider mite	250-500	1350 – 2700	500 – 1000	15-20
Citrus	Red spider mite	0.05%	2700 – 4050	1000 – 5000	15-20
Litchi	Red spider mite	0.05%	2700 – 4050	1000 – 5000	15-20
Cotton	Red spider mite	500 – 1000	2700 –5400	500 – 1000	15-20
Brinjal	Yellow mite	500 – 1000	2700 – 5400	500 – 1000	15-20
Bottle & Bittergourd	Red spider mite	250 – 500	1350 – 2700	500 – 1000	15-20
Diafenthiuron 47.80 % SC					
Cotton	Whiteflies, Aphids,Thrips, Jassids	239	500	500	30
Diafenthiuron 50 % WP					

Cotton	Whiteflies, Aphids,Thrips, Jassids	300	600	500 – 1000	21
Cabbage	Diamond back moth	300	600	500 – 750	07
Chilli	Mites	300	600	500 – 750	03
Brinjal	Whitefly	300	600	500 – 750	03
Cardamom	Thrips, Capsule borer	400	800	1000	07
Citrus	Mites	1.0 g/l	2.0 g/l	2-3 liter/ha.	30
Cotton	Whiteflies, Aphids,Thrips, Jassids	239	500	500	30
watermelon	Whiteflies and Red spider mites	300	600	500	05
Okra	Whiteflies, Red Spider mites and Jassids	300	600	500	05
Tomato	Whiteflies and Redspider mites	300	600	500	05
Diflubenzuron 25 % WP					
Cotton	Tobacco Caterpillar	75 – 87.50	300 – 350	500 – 1000	-
	Bollworms	75	300	500 – 1000	-
Dimethoate 30 % EC					
Bajra	Milky weed bug	180-200	594-660	500 -1 000	-
Cotton	Aphis, Jassids, Thrips	200	660	500 - 1000	24
	Grey weevil	300	1000		
Apple	Stem borer	0.03%	1485-1980	1500 – 2000	In March April And June
Cabbage	Aphid	200	660	500 – 1000	-
Cauliflower	Painted bug, MustardAphid	200	660	500 – 1000	-
Chilli	Thrips	200	660	500 – 1000	-
	Mites	300	990	500 – 1000	-

Maize	Stem borer	200	660	500 – 1000	-
	Shoot fly	350	1155	500 – 1000	-
Sorghum	Midge	500	1650	500 – 1000	-
Castor	Jassids, Mites	250	825	500 – 1000	-
	Semi looper	350	1155	500 – 1000	-
Mustard	Leaf minor, Aphid,Sawfly	200	660	500 – 1000	-
Safflower	Aphid	200	660	500 – 1000	-
Onion	Thrips	200	660	500 – 1000	-
Potato	Thrips	200	660	500 – 1000	-
	Aphid	200	660	500 – 1000	-
Apricot	Aphid	0.03%	1485- 1980	1500 – 2000	Pre bloom
Banana	Aphid	0.03%	1485- 1980	1500 – 2000	At 3 mont hsold
	Lace wing bug	0.03%	1485- 1980	1500 – 2000	-
Citrus	Black citrus aphid	0.03%	1485- 1980	1500 – 2000	-
Bhindi (okra)	Aphid	700	2310	500 – 1000	-
	Leaf hopper, Jassids	600	1980	500 – 1000	-
Fig	Fig Jassid	0.03%	1485- 1980	1500 – 2000	-
Mango	Mealy bug	0.05%	2475- 3300	1500 – 2000	-
	Hopper	0.05%	2475- 3300	1500 – 2000	-
Tomato	Aphid, Whitefly	300	990	500 – 100	-
Brinjal	Jassids	600	1980	500 – 1000	-
	Shoot borer	200	660	500 – 1000	-
Rose	Scale	750	2475	500 – 1000	-

	Thrips	400	1320	500 – 1000	-
Dinotefuran 20 % SG					
Rice (Paddy)	Brown plant hopper	30 – 40	150 – 200	500	21
Cotton	Whitefly, Jassids,Aphids & Thrips	25 – 30	125 – 150	500	15
Emamectin benzoate 05 % SG					
Cotton	Boll worms	9.5 –11.0	190 – 220	500	10
Okra (Bhindi)	Fruit & Shoot Borer	6.75 –8.50	135 – 170	500	05
Cabbage	Diamond back moth	7.5 – 10	150 – 200	500	03
Chilli	Fruit borer, Thrips,Mites	10	200	500	03
Brinjal	Fruit and Shoot borer	10	200	500	03
Red gram (Arhar/Tur)	Pod borer	11	220	500 – 750	14
Chickpea	Pod borer	11	220	500	14
Grapes	Thrips	11	220	500 – 1000	05
Tea	Tea looper	10	200	500	01
Emamectin benzoate 01.90 % EC					
Cotton	Boll worms	11	580	500	15
Chilli	Fruit borer , Thrips	07.13	375	500	03
Chick pea	Pod borer	07.13	375	500	14
Paddy	Leaf folder & Hispa	8.08	425	500	48
Soybean	Green semi looper,pod borer, Girdle beetle & Tobacco caterpillar	8.08	425	500	20
Ethion 50 % EC					
Tea	Red spider mites, Purple mites, Yellowmite, Thrips, Scale	250	500	500 – 1000	03

Cotton	Whitefly	750–1000	1500 –2000	500 – 1000	-
	Bollworms	1000	2000	500 – 1000	25
Chilli	Mites & thrips	75 – 1000	1500 –2000	500 – 1000	05
Gram	Pod borer	500 –750	1000 –1500	500 – 1000	21
Pigeon pea orRedgram (Arhar/Tur)	Pod borer	500 – 750	1000 –1500	500 – 1000	21
Soybean	Girdle beetle & stemfly	750	1500	500 – 1000	30
Ethofenoprox 10 % EC					
Rice	Brown plant hopper,Green leaf hopper, Stem borer, Leaf folder, Gall midge, Whorl maggot, White backed plant hopper	50 – 75	500 – 750	500	15

Ethylene dichloride+Carbon tetrachloride (3:1)

Crop	**Common name of the pest**	**Cond.**	**Weight of volume**	**Exposure period**	**Conc. In air (ppm)**	**Aeratio n / Waitin g**
Stored whole cereals MilletsPulses	Rice weevil, Lesser grain Borer, Khapra Beetle, Rust red flour beetle, Pulse beetle, Dried fruit Beetle	Air tight cover	300 –400 gm/m^3 (230 – 307 ml)	48 – 72 Hr. forcover fumigation	10 ppm	Partial aeration Forat least 1 hr. followed by24 hr. complete Aeration waiting period of 24hr.

Godown fumigation	Rice weevil, Lesser grain Borer, Khapra Beetle, Rust red flour beetle, Pulse beetle, Dried fruit Beetle	Air tight cover	150 gm/m3	07 days	10 ppm	Partial aeration Forat least 1 hr. followed by24 hr. complete Aeration waiting period of 24hr.
Etoxazole 10 % SC						
Brinjal	Red spider mite		40	400	400 – 500	05
Tea	Red spider mite		40	400	400	05
Fenazaquin 10 % EC						
Tea	Red spider mite, PinkMite, Purple mite		100	1000	400 – 600	07
	Scarlet mite		125	1250	400 – 600	07
Chilli	Yellow mite		125	1250	400 – 600	10
Apple	Red spider mite, Twospotted mite		40	400	1000	30
Okra (Bhindi)	Red spider mite		125	1250	500	07
Brinjal	Red spider mite		125	1250	500	07
Tomato	Two spotted spidermite		125.0	1250	500	07
Fenazaquin 18.3 % SC						
Brinjal	Red spider mite		114.375	625	400 – 500	10
Fenobucarb (BPMC) 50 % EC						
Rice	Brown plant hopper,Green leaf hopper		250 – 750	500 – 1500	500	30

Fenpropathrin 10 % EC					
Cotton	Pink boll worm, Spotted boll worm, American boll worm	75 – 100	750 – 1000	750 –1000	14
Fenpropathrin 30 % EC					
Cotton	Pink boll worm, Spotted boll worm, American boll worm, White fly	75100	250 – 340	750 – 1000	14
Chilli	Thrips, Whitefly,Mites	75 – 100	250 – 340	750 – 1000	07
Brinjal	Whitefly, Shoot andFruit borer, Mites	75 – 100	250 – 340	750 – 1000	10
Okra (Bhindi)	Whitefly, Shoot andFruit borer, Mites	75 – 100	250 – 340	750 – 1000	07
Tea	Mites	50 – 60	165 – 200	400 – 500	07
Paddy (Rice)	Yellow stem borer,Leaf folder	100	333	500	30
Fenpyroximate 05 % EC					
Tea	Red spider mite, PinkMite, Purple mite	15 – 30	300 – 600	400 – 500	07
Chilli	Yellow mite	15-30	300 – 600	300 – 500	07
Cotton	Jassids, Mites	37.50	750	500	15
Coconut	Eriophyid mites	0.50 gm/tree (Root feeding)	10ml/lit.	As required	-
	Eriophyid mites	0.056-0.075 gm/tree	0.75-01.0 ml/lit.	As required	-
Fenpyroximate 05 % SC					
Chilli	Yellow mite	15 – 30	300 – 600	500 – 750	03
Tea	Red spider mite, Pinkmite, Purple mite	30 – 60	600 – 1200	400	07
Fenpropathrin 10% EW					
Rice	Stem borer (Scirpophagaincertulas) and leaf folder (Cnaphalocrocismedinalis)	100	1000	5000	58

Fenvalerate 20 % EC					
Cauliflower	Diamond back moth, American boll worm, Aphids, Jassids	60 -75	300 – 375	600 – 750	07
Cotton	Boll worm	75 -100	375 – 500	700 – 900	07
	Aphids, Jassids, Thrips	25 -40	125 – 200	250 – 400	07
Brinjal	Shoot & fruit borer, Aphids	75 – 100	375 – 500	600 – 800	05
Okra (Bhindi)	Shoot & fruit borer, Jassids	60 – 75	300 – 375	600 – 750	07
Fenvalerate 02 % Conc.					
Cotton	Spotted & Spiny, Pink American, Egyptian boll worm	80 – 100	4000 – 5000	-	-
Fenvalerate 00.40 % DP					
Cotton	Spotted Bollworm, Pink Bollworm	80 – 100	20000-25000	-	07
Fipronil 05 % SC					
Rice	Stem borer, Brown plant hopper, Green leaf hopper, Rice leafhopper, Rice Gall midge, Whorl maggot, White backed plant hopper	50 – 75	1000 – 1500	500	32
Cabbage	Diamond back moth	40 – 50	800 – 1000	500	07
Chilli	Thrips, Aphids, Fruitborers	40 – 50	800 – 1000	500	07
Sugarcane	Early shoot borer &Root borer	75 – 100	1500 –2000	500	270
Cotton	Aphid, Jassid, Thrips, White fly	75 – 100	1500 –2000	500	06
	Boll worms	100	2000	500	07
Fipronil 18.87 % w/w SC					
Cotton	Thrips	75	375	375 – 500	21

Chilli	Thrips, Aphids, *Helicoverpa armigera*	50	250	500	5
Rice	Stem Borer, Leaf Folder , Brown Plant Hopper	50	250	500	46
Fipronil 02.92 % EC					
Pre-construction (Building)	Termite	0.25%	100	01	IS:6313-2001 (Part-2)
Post-construction (Building)	Termite	0.25%	100	01	IS:6313-2001 (Part-3)
Fipronil 00.30 % GR					
Rice	Stem borer, Brown plant hopper, Green leaf hopper Rice leafhopper, Rice gall midge, Whorl maggot, White backed plant hopper	50 – 75	16670 –25000	-	32
Sugarcane	Early shoot borer,Root borer	75.0 – 100	25000 –33300		09
Wheat	Termites	0.06	20 kg	-	91
Fipronil 00.60 % w/w GR					
Rice	Stem borer & Leaffolder	60	10	65	-
Fipronil 80 % WG					
Rice	Stem borer, Leaffolder	40 – 50	50 – 62.50	375 – 500	19
Grapes	Thrips	40 – 50	50 – 62.5	750 – 1000	10
Onion	Thrips	60	75	500	15
Cabbage	Diamond back moth	75	93.75	500	15
Chilli	Thrips	40 – 50	50 – 62.5	500	5

Flocoumafen 0.005% Block Bait (Strom)					
Usage	*Common pest*	a.i. (mg)	Formulation (g)	How to apply	Waiting Period

For rodent control in field , storage andcrops like rice, soybean and coconut)	*Rattus rattus, Bandicota bengalensis, Tatera indica, Mus musculus*	0.75-1.0	15-20	At an interval of 5-10m in bait station or active burrow. Repeat the application after 14days if problem persists.	NA
Flonicamid 50 % WG					
Rice	Brown plant hopper,White backed plant hopper, Green leaf hopper	75	150	500	36
Cotton	Aphids, Jassids, Thrips & Whiteflies	75	150	500	25
Flubendiamide 20 % WG					
Rice	Stem borer, Leaffolder	25	125	500	30
Cotton	American bollworm	50	250	500	30
Pigeon pea (Tur/Arhar)	Pod borer	50	250	500	30
Cabbage	Diamond back moth	18.24	37.5 – 50	375 – 500	07
	Diamond back moth	12.5	62.5	500	07
Tomato	Fruit borer	48	100	375 – 500	05
	Fruit borer	50	250	500	05
Tea	Semilooper	30	150	400	07
Chilli	Fruit borer	50 – 60	250 – 300	500	05
Soybean	*Spodoptera litura*, Semilooper	50 – 60	250 – 300	500	29
Groundnut	*Spodoptera litura*	60	300	500	31
Black gram	*Spodoptera litura,Maruca* spp.	60	300	500	23
Bengal gram	Pod borer	50	250	500	15
Sugarcane	Early shoot borer	75	375	500 – 750	204

Flubendiamide 39.35 % w/w SC					
Rice	Stem borer, Leaffolder	24.0	50.0	375 – 500	40
Cotton	Bollworms (American & Spottedbollworm)	48 – 60	100 – 125	375 – 500	25
Pigeon pea	Pod borer	48	100	500	10
Black gram	Fruit borer	48	100	500	11
Chilli	Fruit borer	48 – 60	100 – 125	500	07
Tomato	Fruit borer	48	100	375 – 500	05
Cabbage	Diamond moth back	18.24	37.5 – 50	375 – 500	07
Brinjal	Shoot and fruit borer	72 – 90	150 – 187.5	500	05
Bengal gram	Pod Borer (*Helicoverpa armigera* & *Spodoptera* spp.)	48	100	500	05
Okra	Shoot & fruit borer	48 – 60	100 – 125	500	03
Soybean	Defoliators (*Helicoverpa armigera, Spodoptera litura*and Semilooper)	72	150	500	17
Flubendiamide 00.70 % GR					
Paddy(Rice)	Stem borer	85 – 100	12.14-14.28	NA	25
Flufenoxuron 10 % DC					
Rose	Mites	50	500	500 –1000	06
Flumite 20 % SC / Flufenzine 20 % SC					
Brinjal	Mite	80 – 100	400-500	500 – 1000	05
Tea	Pink mite, Purplemite	80 – 100	400-500	500 – 1000	07
	Red spider mite	100 – 120	500-600	500 – 1000	07
Fluopyram 34.48 % w/w SC					

Tomato	Root knot nematode (*Meloidogyne incognita*)	250 (2 application) or 500 (Single application)	625 (2 application) or 1250(Single application)	1000	05
Flupyradifurone 17.09 % w/w SL					
Okra (Bhindi)	Jassids, Whitefly	250	1250	500	03
Flupyrimin 2% GR					
Rice	Stem Borer, Brown Plant Hopper	100-150	5000-7500	NA	77
Fluvalinate 25 % EC					
Cotton	Aphids, Jassids, Redcotton bug	50 – 100	200 -400	500 –1000	07
	Bollworm	50 – 100	200 -400	500 – 1000	07
Hexythiazox 05.45 % w/w EC					
Tea	Scarlet mite (*Brevipalpus phoenicis*)Red spider mite (*Oligonychus cofeeaea*)	15-25	300 – 500	400/ha	05
Chilli	Yellow mites (*Polyphagotarsonemus latus*)	15 – 25	300 – 500	625/ha	03
Apple	European Red Mite (*Panonychus ulmi*)	0.002%	0.04%	10ltr./tree	15
Grapes	Red spider mite	25	500	1000	05
Rose	Red spider mite	20-25	400 – 500	500	05
Brinjal	Red spider mite	25	500	500	07
Okra	Red spider mite	25	500	500	07
Imidacloprid 70 % WG					
Cotton	Jassids, Aphids,Thrips	21 – 24.5	30 – 35	375 – 500	07
Rice (Paddy)	Brown plant hoppers,White backed plant hoppers	21 – 24.5	30 – 35	300 – 375	07
Okra (Bhindi)	Jassids, Aphids,Thrips	21 – 24.5	30 – 35	300 – 375	03

Cucumber	Aphids & Jassids	24.5	35.0	500	05
Tomato	Thrips & White fly	35	50	500	05
Potato	Aphids & White fly	63	90	500	30
Imidacloprid 48 % FS					
Cotton	Aphids, Whitefly,Jassids, Thrips	300 - 540	500 - 900	-	NR
Okra (Bhindi)	Jassid, Aphid	300 - 540	500 - 900	-	-
Sunflower	Jassid, Whitefly	300 - 540	500 - 900	-	-
Sorghum	Shoot fly	720	1200	-	-
Pearl millet	Shoot fly andtermites	720	1200	-	-
Soybean	Jassids	75	125	-	-
Maize	Shoot fly	0.6	1.0	-	-
Potato	Aphid & Jassids	0.0105	0.0175	-	-
Rice	Thrips	0.15	0.25	-	-
Wheat	Aphids, Termite	0.21	0.35	-	-
Imidacloprid 70 % WS					
Cotton	Aphids, Whitefly,Jassids, Thrips	350 - 700	500 - 1000	-	NR
Okra (Bhindi)	Jassid, Aphid	350 - 700	500 - 1000	-	-
Chilli	Jassid, Aphid, Thrips	700 - 1050	1000 - 1500	-	-
Sunflower	Jassid, Whitefly	490	700	-	-
Sugarcane	Termite	70 - 105	100 - 150	-	-
Sorghum	Shoot fly	700	1000	-	-
Pearl millet	Termites and shootfly	700	1000	-	-
Mustard	Mustard sawfly,Painted bug	490	700	-	-
Imidacloprid 30.50 % m/m SC					

Cotton	Aphid, Jassids,Thrips	21 - 26.25	60 - 75	500 - 750	26
Rice (Paddy)	Brown plant hopper,White backed plant hopper	21 - 26.25	60 - 75	500 - 750	37
Chilli	Aphids, Thrips	43.75 – 52.5	125 - 150	500	5
For non- agricultural use:- For protecting building from termite attack at pre and post construction stages,apply Imidacloprid 30.5% m/m SC @ 0.075% a.i. concentration.					
Imidacloprid 17.80 % SL					
Cotton	Aphid, Whitefly,Jassid, Thrips	20 - 25	100 - 125	500 - 700	40
Paddy (Rice)	Brown plant hopper,White backed plant hopper, Green leaf hopper	20 - 25	100 - 125	500 - 700	40
Chilli	Jassid, Aphid, Thrips	25 - 50	125 - 250	500 - 700	40
Sugarcane	Termite	70	350	1875	45
Mango	Hopper	0.40-0.80g/tree	2-4ml/tree	10 litre	45
Sunflower	Whitefly, Jassid,Thrips,	20	100	500	30
Okra (Bhindi)	Aphid, Jassid, Thrips	20	100	500	03
Citrus	Leaf miner, Psylla	10	50	Depending on size of tree & Protection equipment used	15
Groundnut	Aphid , Jassid	20 - 25	100 - 125	500	40
Tomato	Whitefly	30 - 35	150 - 175	500	03
Grapes	Flea beetle	0.06 - 0.08	300 - 400	1000	32
Imidacloprid 00.30 % GR					
Paddy(Rice)	Stem borer	0.045	15.0 kg	-	26
Imidacloprid 17.1 % w/w SL					
Cotton	Aphid, Whitefly, Jassids, Thrips	50	250	500	50
Rice	Brown Plant Hopper, White Backed Plant Hopper and	60	300	500	39

	Green Leaf Hopper				
Indoxacarb 14.50 % SC					
Cotton	Bollworm	75	500.0	600 - 1000	16
Cabbage	Diamond back moth	30 - 40	200 - 266	400 - 750	07
Chilli	Fruit borer	50-60	333 - 400	300 - 600	05
Tomato	Fruit borer	60-75	400 - 500	300 - 600	05
Pigeon pea	Pod borer complex	50-60	353 - 400	500 - 1000	15
Indoxacarb 15.80 % EC					
Cotton	Bollworms (*Helicoverpaarmigera*)	75	500	500 - 1000	14
Cabbage	Diamond back moth(*Plutella xylostella*)	40	266	500 - 1000	05
Pigeon pea	Pod borer complex(*Helicoverpa armigera*), Pod fly	50	333	500 - 700	12
Rice	Leaf folder (*Cnephalocrosis medinalis*), Green Semilooper, Stem fly	30	200	500	14
Soybean	Tobacco caterpillar (*Spodoptera litura*),Pod borer (*Heliothis armigera*), Green Semilooper (*Chrysodexis acuta*), stem fly (*Melanogromyza spp*.)	30	333	500	31
Chickpea	Pod borer *(Helicoverpa armigera)*	50	333	500	18
Lambda-cyhalothrin 04.90 % CS					
Cotton	Bollworms	25	500	500	21
Paddy (Rice)	Stem borer, Leaffolder	12.50	250	500	15
Brinjal	Shoot & fruit borer	15	300	500	05
Okra (Bhindi)	Fruit borer	15	300	500	05
Tomato	Fruit borer	15	300	500	05

Grapes	Thrips & Flea beetle	12.50	250	500 - 1000	07
Chilli	Thrips, Pod borer	25	500	500	05
Soybean	Stem fly, Semilooper	15	300	500	31
Pomegranate	Thrips & fruit borer	0.002	0.04	500-1000/as Per age of tree	5
Cardamom	Shoot and CapsuleBorer and Thrips	20	400	1000	34
Lambda-cyhalothrin 02.50 % EC					
Cotton	Bollworms, Jassids,Thrips	15 - 25	600 - 1000	400 - 600	21
Rice (Paddy)	Leaf folder, Stem borer, Green leaf hopper, Gall midge,Hispa, Thrips	12.50	500	400 - 600	15
Lambda-cyhalothrin 05 % EC					
Cotton	Bollworms, Jassids,Thrips	15 - 25	300 - 500	400 - 600	21
Rice (Paddy)	Leaf folder, Stem borer, Green leaf hopper, Gall Midge,Rice hispa, Thrips	12.50	250	400 -600	15
Brinjal	Shoot & fruit borer	15	300	400 - 600	04
Tomato	Fruit borer	15	300	400 - 600	04
Chilli	Thrips , mite, podborer	15	300	400 - 600	05
Pigeon pea	Pod borer, Pod fly	20 - 25	400-500	400 - 600	15
Onion	Thrips	15	300	300 - 400	05
Bhindi (Okra)	Jassids , Shoot borer	15	300	300 - 400	04
Chickpea	Pod borer	25	500	300 - 400	06
Groundnut	Thrips, Leaf hopper,Leaf miner	10 - 15	200 - 300	400 - 500	10
Mango	Hoppers	0.0025-0.005%	0.5-1.0 ml/lof water	-	07
Lufenuron 05.40 % EC					

Cabbage	Diamond back moth	30	600	500	14
Cauliflower	Diamond back moth	30	600	500	05
Pigeon pea	Pod borer, Pod fly	30	600	500 - 1000	65
Cotton	American bollworm	30	600	500 - 750	48
Black gram	Pod borer	30	600	500	10
Chilli	Fruit borer	30	600	500	05
Magnesium Phosphide Degesch plates recommended for fumigation of un-manufactured tobacco forexport, as per importing country requirement.					
Malathion 05 % DP					
Paddy (Rice)	Rice Hispa	1250	25000	-	-
Sorghum	Earhead midge	1000	20000	-	At 90% emergence of ear head
Malathion 50.00% EC					
Paddy (Rice)	Rice Hispa	575	1150	500- 1000	-
Sorghum	Earhead midge	500	1000	500 - 1000	-
Pea	Pod borer	750	1500	500 - 1000	-
Soybean	Leaf weevil	750	1500	500 - 1000	-
Castor	Jassids	750	1500	500 - 1000	-
	Semi looper	1000	2000	500 - 1000	-
Sunflower	White fly	500	1000	500 - 1000	-
Bhindi (Okra)	Aphid	500	1000	500 - 1000	-
	Jassids	625	1250	500 - 1000	-
	Spotted Bollworm	750	1500	500 - 1000	-
Brinjal	Mites	750	1500	500 - 1000	-

Cabbage	Mustard aphid	750	1500	500 - 1000	-
Cauliflower	Head borer	750	1500	500 - 1000	-
Radish	Stem borer	750	1500	500 - 1000	-
Turnip	Tobacco caterpillar	600	1200	500 - 1000	-
Tomato	White fly	750	1500	500 - 1000	-
Apple	Sanjose scale, Woolyaphid	0.05%	1500-2000	1500 - 2000	-
Mango	Mealy scale, Mangohoppers	0.075%	2250-3000	1500 - 2000	-
Grape	Beetle	500	1000	1500 - 2000	-
Metaflumizone 22 % SC					
Cabbage	Diamond back moth	165 - 220	750 - 1000	500	03
Metaldehyde 2.5% DP					
Citrus, Rubber, Paddy (Rice), Tea,Vegetables	Snails, Slugs, Giant,African snails	Available in ready to use 2.5% Dust			
Methomyl 40 % SP					
Cotton	Bollworms	300 - 450	750 – 1125	500 - 1000	10
Pigeon Pea	Pod borers	300 - 450	750 - 1125	500 - 1000	07
Tomato	Pod borers	300 - 450	750 - 1125	500 - 1000	5/6
Chilli	Pod borers & Thrips	300 - 400	750 - 1125	500 - 1000	05-06
Groundnut	*Spodoptera litura*	300 - 350	750 - 850	500	07
Grapes	Mealy bug	500.0	1250	500 - 1000	10
Methoxyfenozide 21.8 % w/w SC					
Groundnut	Leaf eating caterpillar (*Spodopotera litura*)	210	875	500	26
	Groundnut leaf minor (*Aproaerema modicella*)	210	875	500	
	Pod borer (*Helicoverpaarmigera*)	210	875	500	

Sugarcane	Early shoot borer (*Chilo infuscatellus*)	120-150	500-625 (depending upon stage of crop)	500	161
Methyl Bromide 98 % w/w					
Stored Whole Cereals and Seed,Millet, Pulses	Rice Weevil, LesserGrain Bore, KhapraBeetle, Rust Red Flour Beetle, Saw Drug Store Beetle	Air tight cover	24 gm/m3	6-8 hours waiting Period 24 hrs.	As when residues not to exceed 25 ppm
Milled Products:Flour	Khapra Beetle, RustRed Flour Beetle, Lesser grain borer	Air tight cover	24 -32 gm/m3	12-24 hrs waiting Period 72 hrs	As when residues not to exceed 25 ppm
Dry Fruits, Nuts Spices & Oil Seeds	Rust Red FlourBeetle	Air tight cover	24 -32 gm/m3	24 hrs waiting Period 72 hrs	As when residues not to exceed 25 ppm
Milbemectin 01 % EC					
Rose	Two spotted, Spidermite	04.50	450	1000	05
Chilli	Yellow , White mite	03.25	325	500	07
Monocrotophos 15 % SG					
Cotton	Aphids, Jassids, Thrips, Whiteflies	200	1333	500 - 1000	58
Monocrotophos 36 % SL					
Paddy (Rice)	Brown plant hopper,Yellow stem borer	500	1250	500 - 1000	-
	Green leaf hopper,Leaf roller/folder	250	625	500 - 1000	-
Maize	Shoot fly	250	625	500 - 1000	-
Black gram	Pod borer	250	625	500 - 1000	-
Green gram	Pod borer	175	437	500 - 1000	-
Pea	Leaf minor	400	1000	500 - 1000	-

Red gram	Plume mouth, Podfly	250	625	500 - 1000	-
	Pod borer	500	1250	500 - 1000	-
Sugarcane	Shoot borer	600-800	1500-2250	500 - 1000	-
	Mealy bug	600.0	1500	500 - 1000	-
	Pyrilla	200	500	500 - 1000	-
	Scale Insect	600	1500	500 - 1000	-
	Stalk borer	750	1875	500 - 1000	
Cotton	Bollworms	450 - 800	1125 -2250	500 - 1000	-
	Aphid, Leaf Hopper,Thrips	175	437	500 - 1000	-
	Grey weevil	500	1250	500 - 1000	-
	White fly	150	375	500 - 1000	-
Citrus	Black aphids	0.040%	1500 - 2000	500 - 2000	10 lit./trees
	Mite	0.025%	937 - 1250	500 - 2000	10 lit./trees
Mango	Bug mite	0.040%	1500 - 2000	500 - 2000	10 lit./trees
	Gall maker, Hopper,Mealy bug, Shoot borer	0.04%	1500 - 2000	500 - 2000	20 lit./trees
Coconut	Black headed Caterpillar	03.50-07.00 gm per tree	08.75-17.50 ml per tree	Lower dose to be applied on plants below 09 years & higher or more than 09 years of age.	-
Coffee	Green bug	625	1562	500 - 1000	-
Cardamom	Thrips	375	937	500 - 1000	-
Novaluron 10 % EC					
Cotton	American Bollworm	100	1000	500 - 1000	40

Cabbage	Diamond back moth	75	750	500 - 1000	05
Tomato	Fruit borer	75	750	500 - 1000	1-3
Chilli	Fruit borer, Tobacco Caterpillar	33.50	375	500	03
Bengal gram	Pod borer	75	750	500	07
Novaluron 08.80 % SC					
Cotton	American boll worm,Tobacco caterpillar	100	1000	500 -1000	20
Oxydemeton-methyl 25 % EC					
Paddy (Rice)	Blue leaf hopper	125	500	500 - 1000	-
	White leaf hopper	250	1000	500 - 1000	-
Maize	Shoot fly	250	1000	500 - 1000	-
Sorghum	Shoot fly	250	1000	500 - 1000	-
Cotton	Aphid, Jassid (leafhopper)	300	1200	500 - 1000	-
Ground nut	Aphid, Leaf minor	250	1000	500 - 1000	-
Mustard	Aphid	250	1000	500 - 1000	-
Sesamum	Leaf hopper	300	1200	500 - 1000	-
Bhindi (Okra)	White fly	250	1000	500 - 1000	-
	Jassid, Leaf beetle	400	1600	500 - 1000	-
Chilli	Aphid	400	1600	500 - 1000	-
	Mites	500	2000	500 - 1000	-
	Thrips	250	1000	500 - 1000	-
Onion	Thrips	300	1200	500 - 1000	-
Tomato	White fly	250	1000	500 - 1000	-
Potato	Aphids	250	1000	500 - 1000	-
Apple	Sanjose scale	0.07%	4200- 5600	1500 - 2000	-
	Wooly Aphid	0.025%	1500-2000	1500- 2000	-

Banana	Tingid bug	0.025%	1500-2000	1500- 2000	-
	Aphids	0.05%	3000-4000	1500- 2000	-
Mango	Hoppers	0.025%	1500-2000	1500- 2000	-
Peaches	Leaf curl aphids	0.025%	1500-2000	1500- 2000	-
Coffee	Green bug	625	2500	500-1000	-
	Leaf minor	1000	4000	500-1000	-
Tobacco	White fly, Aphids	250	1000	500-1000	-
Permethrin 25 % EC					
Cotton	Bollworms	100 - 125	400 - 500	500 - 1000	-
Phenthoate 02 % DP					
Sorghum	Red spider mite, Pinkmite, Purple mite, Scarlet mite	400	20000	-	90% Emergence of earhead
Safflower	Aphid	400	20000	-	-
Phenthoate 50 % EC					
Paddy (Rice)	Rice case worm	500	1000	500 -1000	-
Ground nut	Leaf Webber	500	1000	500 -1000	-
Phosalone 35 % EC					
Barely	Aphid	500	1428	500 - 1000	-
Sorghum	Ear head midge	400	1143	500 - 1000	-
Jute	Red spider mite	350	1000	500 - 1000	-
Brinjal	Fruit borer	500	1428	500 - 1000	-
Cabbage	Aphid	500	1428	500 - 1000	-
Tomato	Fruit borer	450	1285	500 - 1000	-
Tea	Aphid, Pink mite,Purple mite	360	1028	500 - 1000	-
Phosalone 04 % DP					
Sorghum	Earhead midge	1000	25000	-	-

Profenofos 50 % EC					
Cotton	Bollworm	750 - 1000	1500 - 2000	500 - 1000	15
	Jassids, Aphids, Thrips, Whiteflies	500	1000	500 - 1000	15
Soybean	Semi looper &Girdle beetle	500	1000	500	40
Propargite 57 % EC					
Tea	Red spider mite, Pinkmite, Purple mite, Scarlet mite	430-612	750-1250	400	07
Chilli	Mite	850	1500	500 - 625	07
Apple	European red mite,Two spotted mite	2.85-5.7/tree	5-10 ml/tree	10 lit/tree	09
Brinjal	Two spotted spidermite	570	1000	400	06
Pymetrozine 50 % WG					
Paddy (Rice)	Brown plant hopper	150	300	500	19
Pyrifluinazon 20% WG					
Cotton	White fly (Bemisia tabaci)	100	375-500	500	30
Pyriproxyfen 10 % EC					
Brinjal	White fly & Jassids	50	500	300	07
Cotton	Whitefly	100	1000	500	31
Cotton	Whitefly	50-60	500-700	500	50
Chilli	Whitefly, Aphids	50	500	300	07
Okra	White fly & Jassids	50	500	300	07
Pyriproxyfen 10% EW					
Cotton	Whitefly (Bemisiatabaci), Jassid (Amrascadevastans) and thrips (Thrips tabaci)	100-125	1000-2500	500	38
Pyridaben 20 % w/w WP					

Tea	Red spider mite	100	500	500	07
Cotton	White fly	100	500	500	28
Chilli	Yellow mite	75 - 100	375 - 500	500	5
Pyridalyl 10 % EC					
Cotton	Bollworms	75 - 100	750 - 1000	500 - 750	07
Okra	Fruit & shoot borer	50 - 75	500 - 750	500 - 750	03
Cabbage	Diamond back moth	50 - 75	500 - 750	500 - 750	03
Quinalphos 25 % Gel					
Chilli	Aphid	250	1000	500 - 1000	-
Paddy (Rice)	Brown plant hopper,Leaf folder, Stem borer, Hispa	250	1000	500 - 1000	-
Quinalphos 05 % Granules					
Sorghum	Stem borer	750	15000	-	-
Paddy (Rice)	Gall midge, Stemborer	250	5000	-	-
Quinalphos 20 % AF					
Rice (Paddy)	Brown plant hopper,Green leaf hopper, Leaf folder, Stem borer	250 - 300	1250 - 1500	750 - 1000	40
Okra (Bhindi)	Shoot /Fruit borer	250 - 300	1250 - 1500	750 - 1000	07
Cotton	American bollworm,Pink Bollworm, Spotted bollworm	350 - 500	1750 - 2500	750 - 1000	07
Tomato	Fruit borer	300 - 350	1500 - 1750	750 - 1000	07
Tea	Hopper caterpillar	0.05%	1000	400	07
Pigeon pea	Pod borer	500.	2500	750 - 1000	30
Groundnut	Spodoptera	250 - 375	1250 - 1775	750 - 1000	30
Quinalphos 25 % EC					
Paddy (Rice)	Brown plant hopper	375	1500	500 - 1000	40

	Hispa/blue beetle	500	2000	500 - 1000	40
	Leaf folder	250	1000	500 - 1000	40
	Stem borer	325	1300	500 - 1000	40
Sorghum	Mite, Shoot fly	375	1500	500 - 1000	-
Wheat	Aphid	250	1000	500 - 1000	-
	Ear head Caterpillar,Mite	400	1600	500 - 1000	-
Bengal gram	Pod borer	250	1000	500 - 1000	-
Black gram	Bihar hairy caterpillar	375	1500	500 - 1000	-
French bean	Stem fly	250	1000	500 - 1000	-
Red gram	Pod borer, Pod fly	350	1400	500 - 1000	30
Soybean	Leaf weevil	250	1000	500 - 1000	-
Jute	Leaf roller, Semi looper, Yellow mite	375	1500	500 - 1000	-
Groundnut	Leaf Hopper, Thrips	350	1400	500 - 1000	30
	Leaf miner	250	1000	500 - 1000	30
Mustard	Sawfly	300	1200	500 - 1000	-
Sesamum	Leaf Webber, Jassids	500	2000	500 - 1000	-
Bhindi (Okra)	Fruit borer	200	800	500-1000	-
	Leaf hopper, Mite	250	1000	500-1000	-
Cauliflower	Stem borer	500	2000	500 - 1000	-
Chilli	Aphid	250	1000	500 - 1000	-
	Mite	375	1500	500 - 1000	-
Tomato	Fruit borer	250	1000	500 - 1000	-
Apple	Wooly Aphid	0.05%	3000 - 4000	500 - 1000	-
Banana	Tingid bug	0.05%	3000 - 4000	500 - 1000	-

Citrus	Scale	0.07%	4200 - 5600	500 - 1000	-
	Citrus butterfly	0.025%	1500 - 2000	500 - 1000	-
Pomegranate	Scales	0.08%	4800 - 6400	500 - 1000	-
Cardamom	Thrips	0.03%	600 - 1200	500 - 1000	30
Tea	Thrips	190	760	500 - 1000	07
Quinalphos 01.50 % DP					
Sorghum	Earhead bug	375	25000	At milk stage	
	Earhead midge	400	26600	At milk stage	
Paddy (Rice)	Brown plant hopper	300	20000	-	40
Gram	Pod borer	350	23300	At pod formation	
Red gram	Pod borer	350	23300	-	30
Soybean	Leaf weevil	250	16600	-	-
French bean	Stem fly	30	20000	-	-
Cotton	Aphid, Jassids,Thrips	300	20000	From square formation onwards	
	Bollworms	450	30000	From square formation onwards	
Ground nut	Thrips, Jassids	350	23300	-	30
	Red hairy caterpillar	375	25000	-	30
Safflower	Aphid	300	20000	-	-
Chilli	Aphid	300	20000	-	-
Spinetoram 11.70 % SC					
Cotton	Thrips	50	420	500 - 1000	30
	Tobacco caterpillar	50-56	420 - 470	500 - 1000	30
	Spotted boll worm				
Soybean	Tobacco caterpillar	54	450	500 - 625	30

Chilli	Thrips, Fruit borer,Tobacco caterpillar	56-60	470-500	400 - 500	07
Spinosad 45 % SC					
Cotton	American bollworm	75-100	165-220	500	10
Chilli	Fruit borer, Thrips	73	160	500	03
Chilli	Fruit borer (*H.armigera*) (*Scirtothripsdorsalis*)	56-73	124-162	500	03
Red gram	Pod borer	56 - 73	125 - 162	800 - 1000	47
Brinjal	Fruit & Shoot borer	73 - 84	162 - 187	500	03
Grapes	Thrips	25 ml/100 lit	250	1000	15
Spinosad 02.50 % SC					
Cabbage & Cauliflower	Diamond back moth	15 - 17.50	600 - 700	500	03
Spiromesifen 22.90 % SC					
Brinjal	Red spider mite	96	400	500	05
Cotton	White fly & mite	144	600	500	10
Apple	European Red Mite& Red spider mite	72 (0.03%)	300	1000	30
Chilli	Chilli Yellow Mite	96	400	500 - 750	07
Tea	Red spider mite	96	400	400	07
Okra (Bhindi)	Red spider mite	96 - 120	400 - 500	500	03
Tomato	Whiteflies & Mites	150	625	500	03
Cotton	White fly & mite	144	600	500	10
Spirotetramat 15.31 % w/w OD					
Chilli	Thrips & Aphids	60	400	500	05
Okra	Aphid, Whitefly, Mites	90	600	500	03
Grapes	Mealy bug, Mites	105	700	500 - 1000	60

Tetraniliprole 18.18 SC					
Rice	Yellow stem borer (*Scripophaga incertulus*) Leaf folder (*Cnaphalocrocis medinalis*)	50 - 60	250 - 300	500	43
Soybean	Girdle beetle (*Oberea brevis*) *Spodoptera spp.* Semilooper (*Chrysodeixis acuta*)	50 - 60	250 - 300	500	35
Tetraniliprole 40.34% FS					
Rice	Stem borer and leaf folder	4.8-6.0	10.0-12.5	NA	NA
Maize	Stem borer	2.4-3.6	5.0-7.5	NA	NA
Thiacloprid 21.70 % SC					
Cotton	Aphid, Thrips, Jassid	24 - 30	100 - 125	500	52
	Whitefly	120-144	500 - 600	500	52
Paddy (Rice)	Stem borer	120	500	500	30
Chilli	Thrips	54 - 72	225 - 300	500	05
Tea	Mosquito bug	90	375	400	07
Brinjal	Shoot & fruit borer	180	750	500	05
Soybean	Girdle beetle	180	750	500	17
Apple	Thrips	0.01-0.012%	0.04-0.05%	As per size of tree	30
Thiocyclam Hydrogen Oxalate 50% SP					
Rice	Stem borer, Leaffolder	500	1000	500	30
Thiodicarb 75 % WP					
Cabbage	Diamond back moth	750 - 1000	1000 - 1330	500	07
Cotton	Bollworms	750	1000	500	30
Brinjal	Shoot & Fruit borer	470 - 750	625 - 1000	500	06

Chilli	Fruit borer	470 - 750	626 - 1000	500	06
Black gram	Pod borer (*Maruca* spp.) & (*Helicoverpa*spp.)	468 - 562	625 - 750	375 - 500	17
Pigeon Pea	Pod Borer	470 - 750	625 - 1000	500	30
Thiamethoxam 30 % FS					
Cotton	Aphid, whiteflies,Jassids	03	10	This is used as seed dresser	
Sorghum	Shoot fly	03	10	This is used as seed dresser	
Wheat	Termites	01	3.3	This is used as seed dresser	
Soybean	Shoot fly	03	10	This is used as seed dresser	
Chilli	Thrips	02.1	7.0	This is used as seed dresser	
Okra (Bhindi)	Jassids	01.7	5.7	This is used as seed dresser	
Maize	Stem Fly	02.4	8	This is used as seed dresser	
Sunflower	Jassids, Thrips	03	10	This is used as seed dresser	
Thiamethoxam 70 % WS					
Cotton	Aphid, Thrips, Whitefly, Jassids	300	430	Use as seed dresser at the time of sowing	
Okra (Bhindi)	Aphids, Jassids	200	286	Use as seed dresser at the time of sowing	
Tomato	Aphids, Thrips	420	600	Use as seed dresser at the time of sowing	
Sunflower	Jassids, Thrips	280	400	Use as seed dresser at the time of sowing	
Wheat	Termite, Aphids	121	175	Use as seed dresser at the time of sowing	
Maize	Shoot fly, Aphids	245	350	Use as seed dresser at the time of sowing	

Rice (Paddy)	Thrips, Green leafhopper	105	150	Use as seed dresser at the time of sowing	
Thiamethoxam 75 % w/w SG					
Groundnut	Termite	94	125	500 - 1000	57
Sugarcane	Termite, Early shootborer	120	160	500 - 1000	230
Rice (Paddy)	Green leaf hopper, Brown plant hopper	113	150	Dissolve in500 ml water and mix with 20 kg sand/ha.	60
Cotton	Jassids & Thrips	94	125	50 - 100 ml/plant	109
Thiamethoxam 25 % WG					
Rice (Paddy)	Stem borer, Gall midge, Leaf folder, White backed plant hopper, Brown planthopper, Green leaf hopper, Thrips	25	100	500 - 750	14
Cotton	Jassid, Aphid,Thrips	25	100	500 - 750	21
	Whitefly	50	200	500 - 750	21
Okra (Bhindi)	Jassid, Aphid,Whitefly	25	100	500 - 1000	05
Mango	Hoppers	25	100	1000	30
Wheat	Aphid	12.5	50	500	21
Mustard	Aphid	12.5 - 25	50-100	500 - 1000	21
Tomato	Whitefly	50	200	500	05
Foliar application	(Apply first spray during initial appearance of pest and repeat 2 – 3 sprays at 10 – 15 days interval depending on the level of pest intensity)				
Brinjal	Whitefly	50	200	500	03
Foliar application	(Apply first spray during initial appearance of pest and repeat 2 – 3 sprays at 15 – 21 days interval depending on the level of pest intensity)				

Tea	Mosquito bug	25	100	400 - 500	07
Potato	Aphids: ➢ Foliar Application Soil drench	 25 50	 100 200	 500 400 - 500	 77 77
Citrus	Psylla	25	100	1000	20
	(Apply first spray during initial appearance of pest and repeat 2 – 3 sprays at 15 – 21 days interval depending on the level of pest intensity)				
Rice-Nursery (SoilDrenching)	Green leaf hopper,Thrips, Whorl Maggot	500	2000	250 ml/sq.mtr	86
Tomato Soil drench	White flies	100	400	500	05
	(Apply root zone after transplanting as soil drench once during crop season.)				
Cumin	Aphids	25	100	500	05
Tolfenpyrad 15 % EC					
Cabbage	Diamond back moth,Aphids	150	1000	500	05
Okra (Bhindi)	Aphids, Jassids,Thrips, Whitefly	150	1000	500	03
Cotton	Aphids, Jassids,Thrips, Whitefly	150	1000	500	26
Cumin	Aphids, Thrips	150	1000	500	29
Chilli	Aphids, Thrips	150	1000	500	7
Mango	Hoppers, Thrips	150.0	1000	500	7
Onion	Thrips	150.0	1000	500	10

Zinc Phosphide 80 % Powder					
Crop	**Pest organism**		**Dosage**	**Technical**	
For rodent control in field and residential premises(to be used under the supervision of trained personal)	*Rattus rattus, Bandicota bengalensis, Rattus meltade , Tatera indica, Meriones hurrianae, Mus platythrix, Mus musculus, Rattus norvegicus, Musbooduga, Suncus caeruleus*		1.5-2.5% active ingredient inbait	Mix 10 g of Zinc phosphide with 10g of edible oil and then mix with 380g of food material. Keep 10g of poisoned bait at each points.	
Combination Product					
Acephate 50 % + Bifenthrin 10 % WDG					
Cotton	Leaf hopper, Thrips,Bollworms	400 + 80.	800	500 - 750	20
Acephate 45 % + Cypermethrin 5 % DF					
Cotton	Aphid, Jassids, Thrips& White fly.	425	850	500 - 600	22
Acephate 25 % + Fenvalerate 03 % w/w EC					
Cotton	American bollworm,Sucking pest	500 + 60.	2000	500	15
Acephate 50 % + Fipronil 5% WDG					
Paddy	Stem borer, Leaf folder, Brown Plant Hopper	500 + 50	1000	500	27
Acephate 50 % + Imidacloprid 01.80 % SP					
Cotton	Aphid, Jassids, Thrips, Whitefly, Bollworms	518	1000	500	40

Paddy (Rice)	Brown Plant Hopper,Green Leaf Hopper, Stem borer & Leaf folder	518	1000	500	--
Acetamiprid 00.40 % + Chlorpyriphos 20 % EC					
Paddy (Rice)	Stem borer, Brown plant hopper, Whitebacked plant hopper	10 + 500	2.50	500 - 800	10
Acetamiprid 01.10 % + Cypermethrin 05.50 % EC					
Cotton	Aphids, Jassids, Thrips, Bollworms	10 + 50	1000	400 - 1000	30
Azoxysrobin 1.3% + Tebuconazole 0.22% + Thaiamethoxam 25.9% FS					
Okra (seed treatment)	Aphids and Jassids	0.9+0.15+18.0	60	NA	NA
Beta-cyfluthrin 08.49 % + Imidacloprid 19.81 % w/w OD					
Brinjal	Aphids, Jassids, Shoot & fruit borer	15.75 + 36.75-18 + 42	175 – 200	500	07
Soybean	Girdle beetle Semilooper	31.5 + 73.5	350	500	17
Cotton	Jassid Whitefly	18 + 42	200	500	21
Bifenthrin 03 % + Chlorpyriphos 30 % w/w EC					
Paddy (Rice)	Stem borer, Leaffolder	24 + 240-30 + 300	800 - 1000	500	21
Bifenthrin 8% + Clothianidin 10% SC					
Ground nut	Whitegrub, thrips and aphids	80+100	1000	1000	83

Cotton	Grey weevil, mealy bug, jassids, whitefly, aphids and thrips	80+100	1000	1000	73
Sugarcane	Termites and early shoot borer	80+100	1000	1000	300
Buprofezin 09 % + Acephate 24 % w/w WP					
Rice (Paddy)	Brown plant hopper	54 + 144	600	500	20
Buprofezin 15 % + Acephate 35 % w/w WP					
Cotton	Jassids, Thrips &White fly	187.5 + 437.5	1250	500	--
Okra	Jassids & White fly	112.5 + 262.5	750	500	07
Paddy (Rice)	Brown plant hopper,White backed plant hopper	187.5 + 437.5	1250	500	20
Buprofezin 20 % + Acephate 50 % w/w WP					
Paddy (Rice)	Stem Borer, Leaf folder, Brown planthopper	200 + 500	1000	500	20
Cotton	Thrips, Jassids,Mealy bug	250 + 625	1250	500	15
Buprofezin 20 % + Acetamiprid 2% w/w WP					
Rice	Brown plant hopper, White backed plant hopper, Leaf Folder, Green Leaf Hopper, Stem Borer	176	800	400	15
Buprofezin 22 0% + Fipronil 3 % SC					
Rice (Paddy)	Brown plant hopper	110 + 15	500	400 – 500	32

Buprofezin 23.10 % + Fipronil 03.85 % w/w SC					
Rice	Brown plant hopper	173.25 + 28.88	750	500	30
Cartap Hydrochloride 50 % + Buprofezin 10 % w/w WP					
Rice	Yellow stem borer, Brown plant hopper,Leaf folder, Green leaf hopper, White backed plant hopper	480	800	500	20
Cartap Hydrochloride 7.5 % w/w + Emamectin benzoate 0.25 %w/w GR					
Rice	Yellow stem borer (*Scirpophaga incertulus*)	18.75 + 562.5	7.5	-	35
Cartap Hydrochloride 04 % + Fipronil 00.50 % CG					
Paddy (Rice)	Stem borer, Leaffolder	675 - 900	15 - 20	-	27
Cypermethrin 10 % + Indoxacarb 10 % w/w SC					
Cotton	Jassids, Thrips, Bollworms	50 +50	500	400 - 1000	07
Rice	Yellow stem Borer	25 + 25	250	500	37
	Leaf Folder	37.5+37.5	375		
Cypermethrin 3 % + Quinalphos 20 % EC					
Brinjal	Shoot & Fruit borer	-	350 - 400	500 - 600	07
Cotton	American bollworm,Spotted bollworm, Jassids	-	1000 - 1250	500 - 600	15
Chlorpyrifos 50 % + Cypermethrin 05 % EC					

Cotton	Aphid, Jassids, Thrips,Whitefly, *Spodoptera litura*, Spotted bollworm, Pink bollworm, American bollworm	500 + 50	1000	500 - 1000	15
Rice (Paddy)	Stem borer, Leaf folder	312 + 32-375 + 38	625 - 750	500 - 700	15
Brinjal	Shoot & Fruit Borer	500+50	1000	500	7
Cabbage	Diamond Back Moth	375+37.5	750	500	5
Chlorpyriphos 16 % + Alphacypermethrin 01 % EC					
Cotton	Spotted bollworm, Pink bollworm, American bollworm	425	2500	500 - 750	15
Deltamethrin 00.72 % + Buprofezin 05.65 % w/w EC					
Rice (Paddy)	Brown plant hopper, Leaf folder	0.78 + 62.50-0.94 + 75.00	1250 + 1500	500	30
Diafenthiuron 47 % + Bifenthrin 09.40 % w/w SC					
Cotton	Thrips (*Thrips tabaci*), Leaf hopper (*Amrasca devastans*),Whitefly (*Bemisia tabaci*), Aphid (*Aphis gossypii*)	293.75 + 58.7	625	500	30
Chilli	Thrips (*Scirtothrips dorsalis*), Aphids (*Aphis gossypii*)	293.75 + 58.7	625	500	07
Dinotefuran 4 % + Acephate 50% w/w/ SG					

Rice	Brown Plant Hopper & whiteBacked Plant Hopper	35 + 400	500	500	28
Cotton	Aphids, Jassids, Thrips & Whiteflies.	22 + 275	880	500	10
Dinotefuran 15 % + Pymetrozine 45% WG					
Rice	Brown Plant Hopper, white Backed Plant Hopper, Green Leaf Hopper, Rice Ear Head Bug	200	333	500	24
Emamectin Benzoate 01.50 % + Fipronil 03.50 % SC					
Chilli	Thrips, Fruit borer	07.5 + 17.5-11.25 + 26.25	500 - 750	500	03 (day) or 48 (Hrs) Re-entry period after each application
Emamectin benzoate 5 % w/w + Lufenuron 40 % w/w WG					
Cauliflower	Diamond Back Moth (*Plutella xylostella*) Fruit borer (*Spodoptera litura & Helicoverpa armigera*)	27(Emamectin benzoate 3.0 + Lufenuron 24.0)	60	500	03
Chilli	Fruit borer (*Spodoptera litura & Helicoverpa armigera*)	27(Emamectin benzoate 3.0 + Lufenuron 24.0)	60	500	03

	Thrips (*Scritothrips dorsalis*) Mites (*Polypagotarsone muslatus*)				
Emamectin Benzoate 1.5% + Profenofos 35% w/w WDG					
Cotton	Whiteflies, Jassids, Thrips, Aphids and Pink Boll Worm	10.5 + 245	700	500	15
Ethion 40 % + Cypermethrin 05 % w/w EC					
Cotton	American bollworm	400 + 50	1000	500	15
Ethiprole 40% + Imidacloprid 40 % WG					
Rice (Paddy)	Brown plant hopper	37.50 + 37.50	93.75	375	15
	White backed planthopper	50 + 50	125	375	15
Fenobucarb 20 % + Buprofezin 05 % w/w SE					
Paddy (Rice)	Brown plant hopper,Green leaf hopper	400 + 100	2000	500	30
Fipronil 5% + Buprofezin 20% SC					
Chilli	Thrips	37.5+150	750	500	5
	Fruit Borer	50+200	1000		
Cotton	Jassids, Thrips. Aphid & Whitefly	50+200	1000	500	6
RIce	Brown Plant Hopper	25 + 100	500	500	20
	Yellow Stem Borer, Leaf Folder	50 + 200	1000	500	

Flubendiamide 04 % + Buprofezin 20 % w/w SC					
Paddy (Rice)	Yellow stem borer, Leaf folder, Brown plant hopper	35 + 175	175 + 700	500	30
Flubendiamide 8.33 % + Deltamethrin 5.56 % w/w SC					
Chickpea	Pod borer	22.50 + 15	250	500	07
Cucumber	Cucumber beetle,Fruit fly	18 + 12- 22.50 + 15	200 - 250	500	05
Flubendiamide 03.50 % + Hexaconazole 05 % w/w WG					
Paddy (Rice)	Stem borer, Leaf folder	35 + 50	1000	500	20
Groundnut	*Spodoptera litura*	52.5 + 75	1500	500	31
Chilli	*Spodoptera litura* *Helicoverpa armigera*	52.5 + 75	1500	500	10
Flubendiamide 07.5 % + Kresoxim Methyl 37.5 % w/w SC					
Rice	Stem borer & Leaffolder	50 + 250	667	500	30
Tomato	Fruit borer (*Helicoverpa armigera*) Leaf eating caterpillar/Fruit borer (*Spodoptera litura*)	50 + 250	667	500	07
Flubendiamide 19.92 % + Thiacloprid 19.92 % w/w SC					
Chilli	Thrips, Fruit borer	48 + 48- 60 + 60	200 – 250	500	05

Rice	Yellow stem borerLeaf folder	60 + 60	250	500	33
Fipronil 40 % + Imidacloprid 40 % WG					
Sugarcane	White grub (*Holotrichia consanguinea*)	175 + 175-200 + 200	437.5-500	1000 - 250	296
Groundnut	White Grubs (*Holotrichia serrata*)	100 + 100 to 120 + 120	250 - 300	1000	106
Fipronil 04 % + Acetamiprid 04 % w/w SC					
Cotton	Aphid, Jassids, Whitefly	40 + 40	1000	500	30
Fipronil 04 % + Thiamethoxam 04 % w/w SC					
Rice	Brown Plant Hopper,Green Leaf Hopper & White Backed Plant Hopper	44 + 44	1100	500	45
Fipronil 07 % + Hexythiazox 02 % w/w SC					
Chilli	Mites and Thrips	70 + 20	1000	500	07
Fipronil 15% + Flonicamid 15% WDG					
Cotton	Aphid, Jassid, thrip, whitefly, mealy bug and bollworm	60 + 60	400	500	33
Paddy	Brown plant hopper, green leaf hopper, stem borer and leaf folder	60 + 60	400	500	33
Hexythiazox 3.5% + Diafenthiuron 42% WDG					
Chilli	Mites, Thrips, Jassids, Aphids & White fly	22.75 + 273	650	500	07
Imidacloprid 18.50 % + Hexaconazole 01.50 % FS					

Groundnut	Termites, Thrips, Jassids, Root grubs,Collar rot, Stem rot,Tikka leaf spot & Rust	37 + 3	200	Not applicable	This is used as seed dresser
Wheat	Termites, Aphids,Smut, Rust	37 + 3	200	Not applicable	This is used as seed dresser
Imidacloprid 06 % + Lambda-cyhalothrin 04 % SL					
Paddy (Rice)	Stem borer, Hispa, Plant hopper, Gundhibug	18 + 12	300	500	10
Indoxacarb 14.50 % + Acetamiprid 07.70 % w/w SC					
Cotton	Jassids, Whitefly, Bollworms	88.8 - 111	400 - 500	500	30
Chilli	Thrips, Fruit borer	88.8 - 111	400 - 500	500	05
Novaluron 05.25 % + Indoxacarb 04.50 % SC					
Tomato	Fruit borer (*Helicoverpa armigera*) & Leaf eating caterpillar (*Spodoptera litura*)	43.31 + 37.13-45.94 + 39.38	825 - 875	500	05
Chickpea	Gram pod borer (*Helicoverpa armigera*)	43.31 + 37.13-45.94 + 39.38	825 - 875	500	9
Soybean	*Spodoptera* spp., *Helicoverpa armigera* and *Semilooper*	43.31 + 37.13-45.94 + 39.38	825 - 875	500	14
Pigeon pea (Red	Pod borer complex	43.31 + 37.13-	825 - 875	500	25

Gram/Arhar/Tur)	(*Helicoverpa armigera& Maruca ossyp)*	45.94 + 39.38			
Chilli	Fruit borer complex (*Helicoverpa armigera, Spodoptera litura)*	43.31 + 37.13-45.94 + 39.38	825 - 875	500	7
Black gram	Black gram pod borer complex (*Etiella zinckenella*, *Spodoptera litura* and *Maruca vitrata*)	43.31 + 37.13-45.94 + 39.38	825 - 875	500	14
Rice (Paddy)	Rice leaf folder (*Cnaphalocrosi smedinalis*)	22.97 + 19.69	437.5	500	40
Groundnut	*Helicoverpa armigera & Spodoptera litura*	45.94 + 39.38	875	500	34
Phenthoate 45% + Cypermethrin 6% EC					
Paddy	Yellow Stem Borer, Leaf Folder and Brown Plant Hopper	450+60	1000	500	At the end of the Harvest
Profenofos 40 % + Cypermethrin 04 % EC					
Cotton	Bollworm complex	440 - 660	1000 - 1500	500 - 1000	14
Profenofos 40 % + Fenpyroximate 02.50 % w/w EC					
Chilli	Thrips, Mites, Fruitborer	0.4 + 0.025	1000	500	07
Propargite 50 % + Bifenthrin 5 % w/w SE					
Okra	Mite , White fly &	594 + 59.4 –	1100 – 1150	500	05
	Jassids	621 + 62.1			

Tomato	Mite , White fly & Jassids	594 + 59.4 – 621 + 62.1	1100 – 1150	500	05
Propargite 42 % + Hexythiazox 2 %EC					
Tea	**Red spider Mites**	525 + 25	1250	400 - 500	07
Pyriproxyfen 05 % + Fenpropathrin 15 % EC					
Cotton	Bollworms	25 + 75- 37.5 + 112.5	500-750	500-750	14
	Whitefly	60 + 60	600	500	19
Brinjal	Whitefly, Shoot &	25 + 75-	500 -750	500 - 750	07

	fruit borer	37.5 + 112.5			
Okra (Bhindi)	Whitefly, Fruit borer	25 + 75- 37.5 + 112.5	500 - 750	500 - 750	07
Chilli	Whitefly, Fruit borer	25 + 75- 37.5 + 112.5	500 - 750	500 - 750	07
Pyriproxyfen 05 % + Diafenthiuron 25 % SE					
Cotton	Whitefly (*Bemisia tabaci*), Thrips (*Thrips tabaci*), Jassid (*Amrasca biguttula biguttula*), Aphid (*Aphis ossypi*)	250 + 50- 312.5 + 62.50	1000 – 1250	500	35
Pyriproxyfen 10 % + Bifenthrin10 % w/w EC					
Cotton	Whitefly	60 + 60	600	500	19
Spirotetramat 11.01 % + Imidacloprid 11.01 % w/w SC					
Okra (Bhindi)	Red spider mites	60 + 60	500	500	03
Brinjal	Whitefly, Red spidermites	60 + 60	500	500	05
Mango	Mealy bug	0.018%	0.075%	Spray fluid as required dependin g upon size of tree.	15
Thiamethoxam 12.60 % + Lambda-cyhalothrin 09.50 % ZC					
Cotton	Jassids, Aphids, Thrips, Bollworms	44	200	500	26
Maize	Aphid, Shoot fly,Stem borer	27.50	125	500	42

Groundnut	Leaf hopper, Leafeating caterpillar	27.5	150	500	28
Soybean	Stem fly, Semilooper,Girdle beetle	27.50	125	500	48
Chilli	Thrips, Fruit borer	33	150	500	03
Tea	Tea mosquito bug, Thrips, Semilooper	33	150	400	01
Tomato	Thrips, Whiteflies &Fruit borer	27.5	125	500	05
Acetamiprid 00.40 % + Chlorpyriphos 20 % EC					
Paddy (Rice)	Stem Borer, Brownplant hopper & White backed plant hopper	10 + 500	2.5	500 - 800	10
Cypermethrin 10 % + Indoxacarb 10 % SC					
Cotton	Jassids, Thrips, Bollworms	50 + 50	500	400 - 1000	07
Chlorantraniliprole 09.30 % + Lambda-cyhalothrin 04.60 % ZC					
Pigeon pea	Pod borer	30	200	500	18
Cotton	Bollworms complex	37.50	250	500	20
Brinjal	Shoot and fruit borer,Jassids	28	200	500	05
Okra	Shoot and fruit borer,Jassids	28	200	500	03
Rice	Stem borer, Leaf folder & Green leafhopper	28 – 35	200 – 250	500	53
Soybean	Leaf worm, Girdle beetle, Semilooper, Stem	28	200	500	41

	fly				
Chlorantraniliprole 00.50 % + Thiamethoxam 01 % w/w GR					
Rice	Stem borer, Leaf folder, Brown plant hopper, Green leafhopper	30.0 + 60.0	6 kg/ha	-	60
Chlorantraniliprole 08.80 % + Thiamethoxam 17.50 % w/w SC					
Tomato	Leaf Miner, Whitefly, Fruit borer	150	500 **Application method**-Soil drench (Single application), **Application time-**8-10 days after transplanting	50-100 ml/plant	36
Thiamethoxam 00.90 % + Fipronil 00.20 % w/w GR					
Ground nut	White grub, Termite	108 + 24-135 + 30	12.15	106	48
	Public Health Use				
Pest	**Habitat**	**a.i. (mg/m^2)**	**Formulation (gm)**		**Dilution (Ltr.)**
Alphacypermethrin 05 % WP					
Adult Mosquito	-	25 (2 cycles application to repeat after 3 month)	Dilute 250 gm of Alphacypermethrin5% WP in 10 litres of water tocover 500 sq m area.		250
	-	40 (single cycle application)	Dilute 250 gm of Alphacypermethrin 5% WP in 10 litres of water tocover 500 sq m area.		400

Alphacypermethrin Impregnated long lasting nets 00.667 % w/w (200 mg/m^2) (For Import only)					
Ready to use Impregnated Bed Net		To control mosquitoes under Public Health			
Bifenthrin 10.00%WP					
Adult Mosquito	-	25 (2 rounds of spraying 3 months apart	125	Dilute 125 gm of Bifenthr in 10% WP in 10 liters of water to cover 500m^2 areas.	-
Chlorpyriphos Methyl 40 % EC					
-	Used to control of adult vector mosquitoes				
Cyfluthrin 10 % WP					
Under Public Health Programme (Adult Mosquitoes)	-	25 (2 cycles application to be Repeated after 3 months.	250	Dilute 250 gm of Cyfluthrin 10% WP in 10litres of water to cover 500 m^2 areas.	
	-	40 (single cycles application)	400	Dilute 400 gm of Cyfluthrin 10% WP in 10litres of water to cover 500 m^2 areas.	
DDT 50 % WP					
Adult mosquitoes	-	1-2gm	-	-	-
Deltamethrin 00.15 % + Piperonyl 00.55 % EC					
Adult mosquitoes	-	Mosquitoes control under Public Health	-	-	-
Deltamethrin 01.25 % w/w or 01.00 % w/v EC					
Insect	**Method of**	**Dosage/ha.**			

	Applicatio n	a.i. (gm)	rmulation (ml)	Dilution in diesel Oil(Litre)
Adult Mosquitoes	Thermal fogging	0.50	50	10
	Ultra low volume application	0.50	50	0.50
Deltamethrin 02.50 % WP				
Adult Mosquitoes	For public healthpurpose only	625-1250 mg/50 m^2	25-50 g/50 m^2	1.5-2.5 Ltr./50 m^2
Deltamethrin impregnated Bed Net 55 mg/m^2 (For Import only)				
Ready to use insecticide Impregnated Bed net			Mosquitoes control under Public Health	
Diflubenzuron 02 % GR				
Name of the insectpest	**Habitat**	**Dosage/ha (Kg.)**	**-**	**Waiting period**
Mosquit olarvae	Water bodies (Cess pits, Drains, Disusedwells and Pools)	1.25-3.0	-	-
Fenitrothion 40 % WP				
Common name ofpest	**a.i. (gm)**	**Formulation**	**-**	**ıtion in water(litres)**
Mosquitoes & files	400	1000	-	80
Lambda-cyhalothrin 10 % WP				
Pest	**Use**	**Dosage 500 m^3 floor area**		**Dilution in water (Litre)**
		a.i. (gm)	**ɔrmulation (gm)**	
Mosquitoes	ɔublic healthonly	7.50 - 15	75 - 150	10

Mosquito, housefly,cockroach	For household use	10	100	10

Malathion 25 % WP

Crop	**mmon name ofthe pest**	**Dosage/m^2**			**Waiting Period (days)**
		a.i. (gm)	**ɔrmulation (gm)**	**Dilution in water (Liter)**	
-	Adult mosquitoes	02/m^2	08/m^2	100	peat after6-8 weeks

Novaluron 10 % EC

Place of Applicatio n	**Insect**	**Dosages**		**Waiting Period**
		a.i. (gm)	**rmulation (ml)**	
Clean surface water	*nopheles stephensi, Aedes aegypti*	30	0.03 ml/m^2	-
Polluted surfacewater	*Culex quinquefasciatus, Anopheles subpictus*	60	0.06 ml/m^2	-

Pyriproxyfen 00.50 % GR

Breeding habitats	**Dosage/ha**		**Interval between**
	a.i. (gm)	**rmulation (Kg.)**	**application**
Clean water/Domestic containers	10 (0.01ppm)	2	08 weeks
Polluted/ Peri-domestic breeding habitat	20 (0.02ppm)	4	08 weeks

Pirimiphos methyl 50 % EC

Location	**Name of the pest**	**Dosage**	**-**	**Waiting period**

Mosquito breedingsurface	Mosquito larvae	25 ml/ha	-	-
Sulfoxaflor 21.8 % w/w SC				
Crop	Target pest	Dosage/ha		Water (l/ha)	Waiting period
		a.i. (gm/ha)	Formulation (ml/ha)		
Rice	Brown Plant Hopper (*Nilaparvatha Lugens*)	90	375	500	14
	White backed planthopper (*Sogatella furcifera*)	90	375	500	
Cotton	Jassids (*Amarasca bigutella*),	75	313	500	
	Aphid (*Aphis gossypi*)	75	313	500	
	Whitefly (*Bemmissiatabaci*)	90	375	500	
	Cotton mealy bug (*Phenococcus spp.*)	90	375	500	
Temephos 50 % EC				
Regime of applicatio n	**Common name ofpest**	**Dosage/ha**		**Waiting period (days)**
		a.i. (g)	**rmulation (ml)**	
Mosquito larval treatment area, ponds, swamps, drainage, ditches,canals and other, Breeding areas.	Mosquitoes larvae	37.5 - 125	75 - 250	200
Household Insecticides				

Alphacypermethrin 0.1 % w/w (RTU)		
Common name of pest	**Dose/m^2 (a.i./mg)**	**Formulation (ml)**
Cockroaches, Adult mosquitoes, Adulthouseflies	25 - 50	25 - 50
Alphacypermethrin 00.50 % Chalk		
Ready to use household insecticides	To control cockroaches	
Allethrin 00.50 % Coil		
Ready to use household insecticides	d to control of house hold flying insectlike houseflies and mosquitoes	
Allethrin 00.50 % Mosquito Coil		
Ready to use household insecticides	To control of adult mosquitoes	
Allethrin 00.20 % Coil Adult Mosquitoes		
Ready to use household insecticide	To control of mosquito	
Allethrin 00.50 % Coil Adult Mosquitoes		
Ready to use household insecticide	To control of mosquito	
Allethrin 04 % Mat Adult Mosquitoes		
Ready to use household insecticide	To control of mosquito	
Allethrin 05 % Aerosol		
Ready to use household insecticide	To control of mosquito	
Allethrin 03.60 % LV		
Ready to use household insecticide	To control of mosquito	
Bifenthrin 00.05 % Mosquito coil (8 hours Min.)		
Ready to use household insecticide	Used to control adult mosquitoes	
Cyfluthrin 10 % WP		
Common name of pest	**Dosage**	**Use**
	a.i. in mg/m^2	**Formulation (gm/m^2)**

Adult mosquitoes, Cockroaches, Houseflies & Mosquitoes in house	25	250 for each spray	100 gm of Cyfluthrin 10% WP to be diluted in 8 liters of potable water 40 gm of Cyfluthrin 10% WP to be diluted in 10% litres water.
	20	200 for each spray	100 gm of Cyfluthrin 10% WP to be diluted in 8 liters of potable water 40 gm of Cyfluthrin 10%WP to be diluted in 10% litres water.
Cyfluthrin 10 % WP			
For house hold use Cockroach HouseflyMosquitoes	25-40	250 - 400	Dilute 250-400 gm of Cyfluthrin 10% WP in 10 litres of water to cover 500 m^2 areas.
Chlorpyriphos 02 % w/w EC			
Ready to use household insecticides		Used for protecting wood from the attack of termites & borers.	
Chlorpyriphos Methyl 40 % EC			
Used to control adult mosquitoes			
Cyphenothrin 07.20 % VP w/w (For use by pest control operator only)			
American Cockroaches & German Cockroaches		o control of American Cockroaches & German Cockroaches (In house)	
Cypermethrin 03 % Smoke Generator			
Ready to use household insecticide.		To control Cockroaches in house, hotels & warehouse.	
Cypermethrin 01.00% Dust			
Ready to use household insecticide.		To control Cockroaches in house.	
Cypermethrin 01 % Chalk			

Ready to use household insecticide.			To control Cockroaches in house.		
Cyfluthrin 05 % EW					
Ready to use	Cockroaches, Houseflies, mosquitoes, in-house. Bed net impregnation	8.0 ml	1.0	50 ml diluted solution/m^2	
Cyfluthrin 00.025 % + Transfluthrin 00.04 % Aerosol					
Ready to use			Used for controlling /repelling Mosquitoes.		
			Houseflies & cockroaches in homes.		
Transfluthrin 1 % w/w + Cypermethrin 0.2 % w/w Spray					
Ready to use house hold			Mosquitoes (Culex quinquefasciatus, Aedesaegypti, Houseflies (Musca domestica), Cockroaches (Periplaneta mericana, Blatella germenica) and Ants(Red ants)		
Deltamethrin 02.50 % Flow					
Name of insectpest	**Type of use**	**Dosage /m^2 area of bed net**		-	-
		a.i.	**Formulation**		
Adult Mosquitoes	For impregnation of polyester , nylon and cotton bed net	25 mg	1 ml	-	-
Deltamethrin 02.50 % WP					
Name of insectpest	**Habitate**	**Dosage /m^2 area of bed net**			-
		a.i.	**Formulation**	**Dilution in water (Liter)**	

Lesser grain borerRice moth, Saw toothed grain beetle, Red flour beetle, Khapra beetle, Almond moth	Grain and seeds instacks	30 mg/m^2	1.2 g/m^2	1 Liter for 30 m^2	-
Rice weevil	Grain and seeds instacks	30 mg/m^2	1.2 g/m^2	1 Liter for 30 m^2	-
	Walls, Ceilings &Floor	30 mg/m^2	1.2 g/m^2	1 Liter for 30 m^2	-
Diflubenzuron 02 % Tablets					
Name of pest	**Habitat**	**Dosage**		**Dilution in water**	
Mosquitoes larvae	Unused Coolers	0.5-1.0 ppm		0.5-1.0 tablet in 40 liter water	
Diflubenzuron 20 % + Deltamethrin 02% SC					
Name of the insectpest	**Habitat**	**Dosage/ha (kg.)**		**Waiting period**	
House fly maggot	Poultry Manure & kitchen garbage	2.00 ml/liter water (5 litreof water /10 m^2		-	
Diflubenzuron 25 % WP					
Name of pest	**Habitat**	**Dosage**		**Dilution in water**	
Mosquitoes larvae	Clean surface water	25 - 50 g a.i./ha		-	
	Polluted surfacewater	50 - 100 g a.i./ha		-	
	Sewage pits, Soak pits, Latrines, Septictanks	01.0 mg a.i./liter		-	
House fly maggotscontrol	In poultry manuregarbage, filth & dumping areas	5.0 gm/10 m^2		ers water/10$_m$2	

Dinotefuran 0.5% RB Gel		
Ready to use house hold	Used for controlling American cockroach (*Periplaneta americana*) and German Cockroach (*Blattella germanica*)	
Deltamethrin 00.05 % + Allethrin 00.04 % w/w EC		
Common name of house hold insect	**Dosage/ha**	
	g a.i.	**Formulation (ml)**
Cockroaches, House flies, Mosquitoes	12.5 - 25.0	25 - 50
Deltamethrin 02.50 % + D-trans allethrin 02 % w/w EC		
Insects	**Dosage/m^2**	
	a.i. (mg)	**ity of solution(ml)**
Cockroach, Houseflies, Mosquitoes	12.5 - 25.0 + 10 - 20	25 - 50
Deltamethrin 00.02 % + Allethrin 00.13 % w/w		
Ready to use	To control cockroaches, mosquitoes andflies	
Deltamethrin 00.50 % w/w Chalk		
Ready to use household insecticide	To control Cockroaches, ants and bedbugs	
D-Trans Allethrin 00.10 % + Permethrin 00.03 % + Imiprothrin 00.02 % Aerosol w/w (all InsectKiller Aerosol)		
Ready to use	ɔckroaches, mosquitoes andhouse flies	
Deltamethrin 01 % RTU		
Ready to use household insecticide	To control Cockroaches in house. One litre of insect control of paints sufficient for an area of 22 sq. meters. Two coats of insect control paint are recommended giving 18 hours of drying between the coats.	
D-Trans Allethrin 02% Mosquito Mat		

Ready to use household insecticide.	To control Adult Mosquitoes in house.
D-Trans Allethrin 00.10 % w/w Mosquito Coil	
Ready to use household insecticide.	To control and repel of Adult Mosquitoes in the house.
D-Allethrin 21.97 % w/w Mosquito Mat.	
Used to control Adult Mosquitoes	ea like Park, Garden and FarmHouses etc. only.

Benzoate 00.10 % w/w Gel

Name of Insect/Pest	**Dose (g a.i.)**	**Formulation Dose**	**Application Usages**
American Cockroach (*Periplaneta americana*)	0.001 g a.i./m^2	1.0 gm of Gel Bait/m^2 (2-5 spots)	Place "Ready to Use Gel Bait" (RB) for use as spot or cracks and crevices treatment in residential institutional, commercial and industrial areas e.g. application at or nearharborage or aggregation areas, such ascorners, areas where cockroaches forageor crack and crevices, holes, hiddensurfaces, any other places where cockroaches are typically known to hide etc. for the control of cockroaches.
German Cockroach (*Blattella germanica*)	0.001 g a.i./m^2	1.0 gm of Gel Bait/m^2 (1-2 spots)	Place "Ready to Use Gel Bait" (RB) foruse as spot or cracks and crevices treatment in residential institutional, commercial and industrial areas e.g. application at or near harborage or aggregation areas, such as corners, areaswhere cockroaches forage or crack andcrevices, holes, hidden surfaces, any otherplaces where cockroaches are typically known to hide etc. for the control of cockroaches.

Fenitrothion 20 % OL

Name of Pest	Dose (g a.i.)	rmulation (ml)	Instruction for use
Bedbug (*Cimex* spp.)	2	10	Take 10 ml of BILFOL 20 and dilute in 200 ml of kerosene. Apply spot spray thoroughly in all bed bug infested areas like charpoy furniture etc. taking care that the spray is the directed into cracks and crevices where bedbugs are hiding. 200 ml of spray wash will approx cover 10 m^2 it can also be applied with a brush where ever bedbugsoccur.

Fipronil 00.03 % & 0.5 % Gel	
Ready to use household insecticide	ıtrol of German & AmericanCockroaches.

Fipronil 00.05 % GEL		
House hold	**Common name of the pest**	**Dosage/m^2**
House hold	American Cockroach (*Periplanata mericana*), German cockroach (*Blattella germanica*)	0.03 g (in a bait gun), 3-4 spot/m^2
House hold	German cockroach (*Blattella germanica*)	*(100 mg spot= approx 5 mm diameter)* Low Density – 1 spot / M^2 High Density – 2 spots / M^2
	American Cockroach (*Periplanata mericana*)	Low Density – 2 spots / M^2 High Density – 3 spots / M^2

Imiprothrin 00.10 % + Cyphenothrin 00.13 % w/w	
Ready to use	Used for controlling cockroaches in homes.
Imiprothrin 00.70 % + Cypermethrin 00.20 % w/w Aerosol	
Ready to use household insecticides	Used against Cockroaches.
Imiprothrin 00.05 % + Cypermethrin 01 % CL	
Ready to use	Used for controlling cockroaches in houses.
Imidacloprid 00.03 % w/w Gel	
Species	**Recommended Dose**
Pharaoh ant (*Monomorium pharaonis*), Small black ant (*Monomorium indicum*), Crazy ant (*Paratrechina longicomis*),Ghost ant (*Tapinoma melanocephalum*)	Low infestation level (one spot of 200 mg/m^2 of infested area). Moderate to high infestation level (one spot of 300 mg/m^2 of infested area).

Scoring of ant activity will be done based on the following: Low activity=1-50 ants passing from a given point in the time period of one minute. Medium activity=51-200 ants passing from a given point in the time period of one minute. High activity= 201 ants passing from a given point in the time period of one minute.			
Imidacloprid 02.15 % w/w Gel			
Ready to use household insecticide		trol of German & AmericanCockroaches	
Imidacloprid 21 % + Beta-cyfluthrin 10.50 % w/w SC			
Name of Insect pests	**Places**	**Dosage**	
American Cockroaches,German Cockroaches	Private Houses, Factories, Offices, Market places, Restaurants, Hotels, Shops, Ships, Hospital etc.	Diluter 04 ml of Imidacloprid 21.0% w/w + Beta-cyfluthrin 10.5% w/w SC with 01L of water. Apply 50 ml of this solution to spray per square meter area or apply 01 L of this solution to cover 20 square meter area	
Lambda-cyhalothrin 00.50 % Chalk			
Ready to use household insecticides		Used to control Cockroaches.	
Lambda-cyhalothrin 02.43 % CS			
Purpose and target pest	**Dosage/m^2 ofnetting**		
	a.i. (mg)	**Concentration of spray fluid**	**Quantity of spray fluid(ml)**
Impregnation of bed nets to prevent attack from mosquitoes	10.0	0.05%	1000 (depending on the type of the net)
Lambda-cyhalothrin 02.43 % CS			
Common Name of pest	**Dosage**		
Adult mosquitoes, Adult house flies,Cockroaches	20 - 30 mg/m^2	10-15 ml/litres of water to cover 50 m^2 area	
Lambda-cyhalothrin 02.43 % CS			

Target insect	Dosage	
	Mg a.i./m^2	**Method of application**
Non-porous surfaces – Mosquitoes, Houseflies & Cockroaches	12.50	Mix 20 ml of product in 1 liter of water & spray the solution uniformly @ 25 ml/m^2 on non porous & @ 50 ml/m^2 on porous surfaces.
Porous surfaces – Mosquitoes House flies& Cockroaches	25	Mix 20 ml of product in 1 liter of water & spray the solution uniformly @ 25 ml/m^2 on non porous & @ 50 ml/m^2 on porous surfaces.

Lambda-cyhalothrin 02.43 % CS

Name of pest	**Dosage/m^2**		
	a.i. (mg)	**rmulation (ml)**	**Dilution in water**
Cockroaches	50	1	Dissolve 500 ml of formulated material in 10 litre water to cover 500 square meter area.
Housefly, Adult mosquitoes	0.2	0.004	Dissolve 4 ml of formulated material in 20 litre water to cover 1000 square meter area.
Indoor			
Anopheles stephensi, *Culex quinquefasciatus*, *Aedes aegypti*	0.5	0.01	Dissolve 5 ml of formulated material in kerosene to cover 500 square meter area.
Outdoor			
Anopheles stephensi, Culex quinquefasciatus, Aedes aegypti	3.5	70	Dissolve 70 ml Formulation inkerosene to cover 1 hectare area.

Target Pest	**Active Ingredient Dose (g a.i.)**	**Formulation Dose (ml)**	**Method of application (water volume)**	**Application Usage**

Houseflies (*Musca domestica*)	0.375 – 0.5 g a.	15 – 20 per	**For Low Pest**	For use as
Mosquito (*Anopheles* spp.) American Cockroaches (*Periplaneta Americana*) German Cockroaches (*Blattella germanica*)	i. per Litre water (15 – 20 mg. a. i.per square meter)	litre water	**Infestation (Maintenance Rate)** Mix 15 ml of the product in one litre ofwater and spray the solution uniformly @40 ml per square meter. **For High Rate Infestation** **(Cleanout Rate)** Mix 20 ml of the product in one litre of water and spraythe solution uniformly @ 40 ml per square meter.	indoor or outdoor as asurface crackand crevice or spot spray treatment in residential, institutional, commercial and industrial areas / establishments etc.

Anopheles stephensi, *Culex* q*uinquefasciatus*, *Aedes aegypti*	0.5	0.01	Dissolve 5 ml of formulated material in kerosene to cover 500 square meter area.
Outdoor			
Anopheles stephensi, Culex quinquefasciatus, Aedes aegypti	3.5	70	Dissolve 70 ml Formulation in kerosene to cover 1 hectare area.
Malathion 02 % House Hold Spray			
Ready to use		To control of Bed, Bugs, Flies, Ants, Gnats,Mosquitoes, Moths and Cockroaches in houses.	
Metofluthrin 00.005 % (Mosquito Coil)-Min. 07 Hrs. Burning time			
Ready to use household insecticide.		To control of mosquitoes in houses.	

Metofluthrin 00.005 % (Mosquito Coil)-Min.12 Hrs.			
Ready to use household insecticide.		To control of mosquitoes in houses.	
Metofluthrin 0.32 % Liquid Vaporizer			
House hold		for Mosquitoes	
Permethrin 02.00% (Olyset@ Net) w/w for Import only			
Ready to use household insecticides		For control of mosquitoes both indoors andoutdoors. After unpacking and before usingthe new bed net, keep it in and open place for 12 hrs away from the sunlight.	
Propetamphos 01 % Spray			
Ready to use household insecticide		To control of Cockroaches, Bed bugs, Flies,fleas, Mosquitoes & Silverfish.	
Propoxur 00.75 % + Cyfluthrin 00.025 % Aerosol			
Ready to use household insecticide		Cockroaches, Mosquitoes & Houseflies	
Propoxur 20 % EC			
Common name of pest	**Dose (g a.i.)**	**rmulation (ml)**	**Dilution in water (litres)**
Flying insect- Mosquitoes, Files, Cockroaches , Bed bugs, Flash, Tickscrickets , Woodlice , Mite, Silver fish,Spider, Ants etc.	200	1000	40
Pirimiphos-methyl 01 % Spray			
Location	**Pest**	**Dosage**	**re period (min.hrs.)**
Spot spray inhouses	Cockroaches , bed bugs, flea etc.	100 ml/1 m^2	01
Space spray inhouses	Mosquitoes, houseflies	50 ml/100 m^3	01
Pyrethrin 00.05 % + Malathion 01 %			

Insects	Used to control of Cockroaches, Mosquitoes and Flies
Propoxur 02 % Bait	
Ready to use household insecticides	ol of Cockroaches andFlies
Pyrethrin 00.20 % Spray	
Ready to use household insecticide	ol of Cockroaches, Houseflies,Mosquito and bugs
Propoxur 01 % Spray	
Ready to use household insecticide	ontrol of Cockroaches, Houseflies and Adult Mosquitoes
Prallethrin 01 % w/w Red Mosquitoes Mat	
Ready to use household insecticide.	Used to control of adult mosquitoes
Prallethrin 00.04 % Coils (Min.11Hrs.)	
Ready to use household insecticide	Used to control mosquitoes in Houses
Prallethrin 00.04 % Coils (Min.6 Hrs.)	
Ready to use household insecticide	Used to control mosquitoes in Houses
Prallethrin 00.80 % w/w Red Mosquitoes Mat	
Ready to use household insecticide.	Used to control of Mosquitoes.
Prallethrin 00.50 % w/w Mosquitoes Coil	
Ready to use household insecticide.	Used to control of adult mosquitoes.
Prallethrin 01.20 % Mat	
Ready to use household insecticide.	Used to control of adult mosquitoes.
Prallethrin 00.04 % w/w Mosquito Coil	
Ready to use household insecticide.	Used to control of adult mosquitoes.
Prallethrin 19 % w/w VP	
Ready to use household insecticide.	Used to control of adult mosquitoes.
Prallethrin 02.40 % w/w Liquid Vaporizer	

Ready to use household insecticide.		Used to control of Mosquitoes.	
S-Bioallethrin 02.40 % Mosquitoes Mat			
Ready to use household insecticide.		Used to control of adult mosquitoes.	
Thiamethoxam 00.01 % w/w Gel Bait			
Common Name of the Insect/Pest	**Dose (g a.i.)**	**ɔrmulation Dose**	**Application/Usage**
Black Carpenter Ants (*Camponotus* spp.)	0.0001 g.a.i. per spot (2-4 spots per square meter)	1.0 gm of gel bait per spot (2-4 spots per square meter)	Locate the ant trails or location where ants are most active. Place" Ready to Use Gel Bait" (RB) for controlling ants for use as spot or cracks and crevices treatment in residential, Institutional, commercial and industrial areas e.g. application at or near harborage or aggregation areas, such as corners areas where antsforage or crack and crevices, holes, hiddensurfaces any other places where ants are typically known to hide.
Transfluthrin 0.08 % w/w Aerosol			
Ready to use household insecticide		Used to control in household Mosquitoes(*Aedes aegypti, Culex quinquefasciatus*) and Housefly (*Musca domestica*).	
Transfluthrin 00.88 % & 01.60 % Liquid Vaporizer			
Ready to use household insecticide.		Used to control of Adult Mosquitoes and House fly.	
Transfluthrin 01.60 % Liquid Vaporizer (For 30 Nights (25 ml)			
Ready to use household insecticide.		Used to control of Adult Mosquitoes.	

Transfluthrin 20 % w/w MV Gel	
Ready to use household insecticide.	Used to control of Mosquitoes in the house.
Transfluthrin 00.03 % w/w Mosquito Coil	
Ready to use household insecticide	Used for controlling/repelling of Mosquitoes in the house
Transfluthrin 01 % EU (Smoke generator)	
Use / recommendation	It is used for controlling/repelling adult mosquitoes in the houses (Effective for 6 hrs.)
Transfluthrin 01.20 % Liquid Vaporizer (For 60 Nights (45 ml) & 90 nights (67 ml.)	
Ready to use household insecticide	Used to control of adult mosquitoes
Transfluthrin 12 % AE	
Ready to use household insecticide.	Used to controlling/ repelling of adult mosquitoes in the houses (effective for 12 hours)
Zinc Phosphide 01 % bait (Household Product)	
To be ready to use household insecticide	To control Rats

Ad-hoc approval of molecules for Fall Army Worm (FAW) up to 31.12.2021

Sr. No.	Molecule	Dose/ha (ml/g a.i.)
1	Chlorantraniliprole 9.3 % + Lambda-cyhalothrin 4.6 %ZC	35 (23.42 + 11.58) g.a.i/ha
2	Cyantraniliprole 19.8 % + Thiamethoxam 19.8 % FS	2.38 g.a.i/kg seed (1.19+1.19)

3	Spinetoram 11.7 % w/w SC	30 g.a.i/ha
4	Chlorantraniliprole 18.5 % SC	40 g.a.i/ha
5	Emamectin benzoate 5 % SG	200 g a.i./ha
6	Emamectin benzoate 5 % + Lufenuron 40% WG	36 g.a.i/ha
7	Thiodicarb 75 % WP	750 g.a.i/ha
8	Novaluron 5.25 % + Emamectin benzoate 0.9 % w/wSC	78.75+13.5 g.a.i/ha
9	**Bio-pesticide as below** *Metarhizium anisopliae, Metarhizium rileyi (Nomuraea rileyi), Beauveria bassiana, Verticilliumlecanii*	1 × 108 CFU/g @ 5 g/litre whorl application. Repeat after 10 days if required.
10	*Bacillus thuringiensis* ver. *Kurstaki*, NPV	@ 2 g/l (or) 400 g/acre.

Recommended chemicals by FAO for Locust Control

Sr. No.	Chemical	Dose (gram activeingredient per ha.)	
		Hoppers	Adults
1	Chlorpyriphos 20 % & 50 % EC	240	240
2	Deltamethrin 2.8 % EC & 1.25 % ULV	12.5	12.5
3	Diflubenzuron 25 % WP	60	NA
4	Fipronil 5 % SC & 2.92 % EC	6.25	6.25
5	Lambdacyhalothrin 5 % EC & 10% WP	20	20
6	Malathion 50 % EC & 25 % WP & 96 %ULV	925	925
7	Fenitrothion is also recommended for the control of locust but only in scheduled desert area and public health but banned in agriculture.(refer copy of Gazette of India, S.O.706 (E) dated 03rdMay, 2007)		
8	Powder formulations are approved (RC-413) for control of desertlocust in Scheduled Desert Area: - 1. Fenvalerate 0.4 % DP 2. Malathion 5 % DP 3. Quinalphos 1.5 % DP		

Ad-hoc approval of molecules for Pink Stem Borer/Army worm in Wheat for (N – W India) Punjab state only

(Valid up to 13.10.2022)

Sr. No.	Name of Chemical	Dose
01	Chlorpyriphos 20% EC	2.5l/ha.
02	Chlorantraniliprole 18.5% SC	125ml/ha.
03	Fipronil 0.3% GR	17.5kg/ha. Mixed with 125kg. of sand / soil & apply (broadcast) in moist wheat field

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