

**APPROVED INSECTICIDES, MITICIDES AND
NEMATICIDES FOR TEA**
(Revised & Updated)



BANGLADESH TEA RESEARCH INSTITUTE
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**APPROVED INSECTICIDES, MITICIDES AND
NEMATOCIDES FOR TEA**

Name of Pests	Pesticides			Dose/ha & water volume
	Chemical group	Technical name	Trade name & Formulations	
Mite Pests Red spider mite, Scarlet mite, Purple mite, Pink mite	Organophosphorus	Ethion	Ethion 46.5EC	1.25 lit/ha in 1000 lit water
	„	„	Sethion 46.5EC	1.25 lit/ha in 1000 lit water
	„	„	Ethiol 46.5EC	1.25 lit/ha in 1000 lit water
	„	Dimethoate	Dimethion 40EC	2.25 lit/ha in 1000 lit water
	„	„	Sunogor 40EC	2.25 lit/ha in 1000 lit water
	„	„	Tafgor 40EC	2.25 lit/ha in 1000 lit water
	„	Quinalphos	Hilux 25EC	1.00 lit/ha in 1000 lit water
	„	Triazophos	Stop 40EC	1.25 lit/ha in 1000 lit water
	Pyrethroid	Fenvalerate	Sumicidin 20EC	1.25 lit/ha in 1000 lit water
	„	„	Milfen 20EC	1.25 lit/ha in 1000 lit water
	„	„	Filtouch 20EC	1.25 lit/ha in 1000 lit water
	„	„	Velafen 20EC	1.25 lit/ha in 1000 lit water
	„	„	Amcofen 20EC	1.25 lit/ha in 1000 lit water
	„	Bifenthrin	Talstar 2.5EC	1.00 lit/ha in 1000 lit water
	„	Fenpropathrin	Danitol 10EC	1.00 lit/ha in 1000 lit water
	Avermectin	Abamectin	Abom 1.8EC	0.50 lit/ha in 1000 lit water
	„	„	Acamite 1.8EC	0.50 lit/ha in 1000 lit water
	„	„	Vertimec 018EC	0.50 lit/ha in 1000 lit water
	Unclassified	Tetradifon	Tedion V-18 20EC	2.25 lit/ha in 1000 lit water
	„	Propargite	Omite 57EC	1.00 lit/ha in 1000 lit water
	„	„	Sumite 57EC	1.00 lit/ha in 1000 lit water
	„	„	Entimite 57EC	1.00 lit/ha in 1000 lit water
	„	„	Emimite 57EC	1.00 lit/ha in 1000 lit water
	„	„	Mastamite 57EC	1.00 lit/ha in 1000 lit water
	„	Bromopropylate	Neron 500EC	1.12 lit/ha in 1000 lit water
	„	Fenazaquin	Magister 10EC	0.60 lit/ha in 1000 lit water
	„	Spiromesifen	Oberon 240SC	0.40 lit/ha in 1000 lit water
	„	Cyhexatin	Sunxatin 600EC	0.625 lit/ha in 1000 lit water
	Inorganic	Sulphur	Uniflow sulphur 80WP	2.25 kg/ha in 1000 lit water
	„	„	Microthiol special 80WP	2.25 kg/ha in 1000 lit water
	„	„	Energy 80WG	2.25 kg/ha in 1000 lit water
	„	„	Arenavit 80WDG	2.25 kg/ha in 1000 lit water
	„	„	McSulphur 80WP	2.25 kg/ha in 1000 lit water
	„	„	Sulfotox 80WP	2.25 kg/ha in 1000 lit water
	„	„	Thiovit 80WP	2.25 kg/ha in 1000 lit water
	„	„	Kumulus 80DF	2.25 kg/ha in 1000 lit water
	„	„	Ronovit 80WP	2.25 kg/ha in 1000 lit water
	„	„	Cosavet 80DF	2.25 kg/ha in 1000 lit water
	„	„	Insuf 80WP	2.25 kg/ha in 1000 lit water
	„	„	Haysulf 80DF	2.25 Kg/ha in 1000 lit water
„	„	Multiplex 80WG	2.25 kg/ha in 1000 lit water	
„	„	Rexivit 80WP	2.25 kg/ha in 1000 lit water	
„	„	Sulfox 80WDG	2.25 kg/ha in 1000 lit water	

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Insect Pests Tea mosquito bug, <i>Helopeltis theivora</i>	Organophosphorus	Fenitrothion	Agrothion 50EC	2.25 lit/ha in 500 lit water
	Edthion 50EC	2.25 lit/ha in 500 lit water
	..	Malathion	Malathion 57EC	2.25 lit/ha in 500 lit water
	Malataf 57EC	2.25 lit/ha in 500 lit water
	Amcomala 57EC	2.25 lit/ha in 500 lit water
	..	Trichlorfon	Dipterex SL50	1.50 lit/ha in 500 lit water
	Cekufon 80SP	1.00 kg/ha in 500 lit water
	..	Dimethoate	Dimethion 40EC	2.25 lit/ha in 500 lit water
	Sunogor 40EC	2.25 lit/ha in 500 lit water
	Tafgor 40EC	2.25 lit/ha in 500 lit water
	Perfekthion 40EC	2.25 lit/ha in 500 lit water
	Amcothoate 40EC	2.25 lit/ha in 500 lit water
	..	Phenthoate	Phaddy 50EC	0.50 lit/ha in 500 lit water
	..	Acephate	Asataf 75SP	500g/ha in 500 lit water
	Impact 75SP	500g/ha in 500 lit water
	Polyphate 75SP	500g/ha in 500 lit water
	..	Quinalphos	Phinacol 25EC	0.50 lit/ha in 500 lit water
	..	Quinalphos+Cypermethrin	Viraat 23EC	0.70lit/ha in 500 lit water
	..	Quinalphos+Cypermethrin	Quiner C-23EC	0.70lit/ha in 500 lit water
	Pyrethroid	Fenvalerate	Sumicidin 20EC	1.25 lit/ha in 500 lit water
	Sumitox 20EC	1.25 lit/ha in 500 lit water
	Milfen 20EC	1.25 lit/ha in 500 lit water
	Fentox 20EC	1.25 lit/ha in 500 lit water
	Filtouch 20EC	1.25 lit/ha in 500 lit water
	Bofen 20EC	1.25 lit/ha in 500 lit water
	..	Cypermethrin	Ripcord 10EC	0.50 lit/ha in 500 lit water
	Cythrion 10EC	0.50 lit/ha in 500 lit water
	Sunmerin 10EC	0.50 lit/ha in 500 lit water
	Ralothrin 10EC	0.50 lit/ha in 500 lit water
	Cymkil 10EC	0.50 lit/ha in 500 lit water
	Rise 10EC	0.50 lit/ha in 500 lit water
	Perythrin 10EC	0.50 lit/ha in 500 lit water
	Magic 10EC	0.50 lit/ha in 500 lit water
	Radar 10EC	0.50 lit/ha in 500 lit water
	CyruX 10EC	0.50 lit/ha in 500 lit water
	..	Deltamethrin	Decis 2.5EC	0.50 lit/ha in 500 lit water
	Khotom 2.5EC	0.50 lit/ha in 500 lit water
	Nokthion 2.5EC	0.50 lit/ha in 500 lit water
	..	Bifenthrin	Talstar 2.5EC	0.50 lit/ha in 500 lit water
	..	Lambda-cyhalothrin	Reeva 2.5EC	0.50 lit/ha in 500 lit water
	Karate2.5EC	0.50 lit/ha in 500 lit water
	Boxer 2.5EC	0.50 lit/ha in 500 lit water
	Topset 2.5EC	0.50 lit/ha in 500 lit water
	..	Alpha-cypermethrin	Axis 10EC	0.50 lit/ha in 500 lit water
	Phenylpyrazole	Fipronil	Lighter 50SC	1.00 lit/ha in 500 lit water
	Neonicotinoid	Thiamethoxam	Epsin 25WG	125g/ha in 500 lit water
	Carbamate	Carbaryl	Kalvin 85WP	1.00 kg/ha in 500 lit water

Name of Pests	Pesticides			Dose/ha & water volume
	Chemical group	Technical name	Trade name & Formulations	
Termites	Organophosphorus	Chlorpyrifos	Dursban 20EC	10.00 lit/ha in 1000 lit water
	Pyrifos 20EC	10.00 lit/ha in 1000 lit water
	Classic 20EC	10.00 lit/ha in 1000 lit water
	Chlorban 20EC	10.00 lit/ha in 1000 lit water
	Lethal 20EC	10.00 lit/ha in 1000 lit water
	Chlorpyrifos 20EC	10.00 lit/ha in 1000 lit water
	Chlorocid 20EC	10.00 lit/ha in 1000 lit water
	Chemicide 20EC	10.00 lit/ha in 1000 lit water
	Expert 20EC	10.00 lit/ha in 1000 lit water
	Baifos 20EC	10.00 lit/ha in 1000 lit water
	Rexiban 20EC	10.00 lit/ha in 1000 lit water
	Amcofos 20EC	10.00 lit/ha in 1000 lit water
	Psychlorex 20EC	10.00 lit/ha in 1000 lit water
	Tricel 20EC	10.00 lit/ha in 1000 lit water
	Hemlock 20EC	10.00 lit/ha in 1000 lit water
	Neptune 48EC	4.00 lit/ha in 1000 lit water
	Genephos 48EC	4.00 lit/ha in 1000 lit water
	Torpedo 48EC	4.00 lit/ha in 1000 lit water
	Predator 50EC	4.00 lit/ha in 1000 lit water
	Pyriban 15G	15.00 kg/ha in 1000 lit water
	Lorsban 15G	15.00 kg/ha in 1000 lit water
	Nokoban 15G	15.00 kg/ha in 1000 lit water
	Cyran 50WP	3.50 kg/ha in 1000 lit water
	..	Chlorpyrifos + Cypermethrin	Nitro 505EC	4.00 lit/ha in 1000 lit water
	Bipolar Plus 55EC	4.00 lit/ha in 1000 lit water
	AC Mix 55EC	4.00 lit/ha in 1000 lit water
	Nurelle D 505EC	4.00 lit/ha in 1000 lit water
	Pyrethroid	Permethrin	Pounce 1.5G	20.00 kg/ha in 1000 lit water
	..	Bifenthrin	Talstar 2WP	10.00kg/ha in 1000 lit water
	Neonicotinoid	Imidacloprid	Admire 200SL	1.50 lit/ha in 1000 lit water
	Imitaf 20SL	1.50 lit/ha in 1000 lit water
	Tiddo 200SL	1.50 lit/ha in 1000 lit water
	Mukti 200SL	1.50 lit/ha in 1000 lit water
	Emipid 20SL	1.50 lit/ha in 1000 lit water
	Agroimida 20SL	1.50 lit/ha in 1000 lit water
	Gaucho 70WS	0.50 kg/ha in 1000 lit water
	..	Thiamethoxam	Actara 25WG	200g/ha in 1000 lit water
	Rexitara 25WG	200g/ha in 1000 lit water
	..	Acetamiprid	Rocket 20SP	500g/ha in 1000 lit water
	Platinum 20SP	500g/ha in 1000 lit water
	Nize 20SP	500g/ha in 1000 lit water
	Phenylpyrazole	Fipronil	Seagent 3GR	33.00 kg/ha in 1000 lit water
	Jahor 3GR	33.00 kg/ha in 1000 lit water
	Profin 50SC	1.50 lit/ha in 1000 lit water
	Dimethylaminopropane	Cartap	Padmatap 50SP	1.4 kg/ha in 1000 lit water
	Supertap 50SP	1.4 kg/ha in 1000 lit water
	Chasidan 4G	1.0 kg/ha in 1000 lit water

Name of Pests	Pesticides			Dose/ha & water volume
	Chemical group	Technical name	Trade name & Formulations	
Nematodes	Carbamate	Carbofuran	Furadan 5G	165 g/m3 soil
	..	..	Pillarfuran 5G	165 g/m3 soil
	..	..	Curatar 5G	165 g/m3 soil
	..	..	Ecofuran 5G	165 g/m3 soil
	..	..	Carbotaf 5G	165 g/m3 soil
	..	..	Edfuran 5G	165 g/m3 soil
	..	..	Furamate 5G	165 g/m3 soil
	..	..	Baifuran 5G	165 g/m3 soil
	..	..	Hayfuran 5G	165 g/m3 soil
	..	..	Carbofuran 3G	275 g/m3 soil
	..	..	Autotaf 3G	275 g/m3 soil
	Phenylpyrazole	Fipronil	Elder 3GR	165 g/m3 soil
	..	..	Goolee 3GR	165 g/m3 soil
	Unclassified	Dazomet	Basamid 98%G	400 g/m3 soil
..	Rynaxapyr	Ferterra 0.4G	70g/m3 soil	

Name of Pests	Pesticides			Dose/ha & water volume	
	Chemical group	Technical name	Trade name & Formulations		
Flush worm	Organophosphorus	Trichlorofon	Dipterex 50WP	2.25 kg/ha in 500 lit water	
Faggot worm		..	Diazinon	Diazinon 60EC	0.63 lit/ha in 500 lit water
Bag worm		..	Phosphamidon	Dimecron 100EC	0.35 lit/ha in 500 lit water
Looper caterpillar		..	Thiomiton	Ekatin 25EC	1.12 lit/ha in 500 lit water
Leaf roller		..	Dimethoate	Rogor 40EC	1.12 lit/ha in 500 lit water
Aphid		..	Quinalphos	Final 25EC	1.00 lit/ha in 500 lit water
Jassid		..	Oxydimiton-methyl	Metasystox 25EC	1.12 lit/ha in 500 lit water
Thrips		..	Cartap	Hossatap 50SP	1.2 kg/ha in 500 lit water
Scale insect		Dimethylaminopropane			
Tea seed bug					
Field cricket					
Mole cricket					
Golden beetle					

Maximum Residue Limit (MRL) fixed by EU/EEC, FAO/WHO, Codex Commission, EPA, Japan, India and German Law in made tea (mg/kg)

Name of the chemical	EU+	EPA, USA	JAPAN	CODEX/WHO	GERMAN LAW	BANGLADESH** (BTRI)
Bifenthrin	5.0	-	5.0	-	-	0.043
Chorpyrifos	0.1*	-	10	2.0	-	-
Cypermethrin	0.5	20	20	20	-	0.85
Deltamethrin	5.0	-	10	5	-	-
Dicofol	20	45	3.0	50	2	-
Dimethoate	0.05*	-	1.0	-	-	ND
Endosulfan	30	24	30	30	30	1.4
Ethion	3.0	10	0.3	-	-	4.66
Fenvalerate	0.05*	-	-	-	-	-
Malathion	0.5	-	0.5	-	-	-
Propargite	5.0	10	5.0	5.0	-	3.52
Sulphur	Exempted	-	-	-	-	ND

*Indicates lower limit of analytical determination; **Not MRL, Residue level in made tea at 7 days after spraying
ND=Not Detectable

List of the banned pesticides in Bangladesh

<i>Banned under "Dirty dozens"</i>	<i>Completely banned</i>
Heptachlor	Disulfoton
Chlordan	Methyl parathion
Dieldrin	Phosmate
Aldrin	BHC & HCH
Endrin	Mephosfolan
Dicrotophos	
Methylbromide	
Phosphamidon	
Monocrotophos	
Dichlorvos	
Methamidophos	
DDT	
Lindane	
Ethylparathion	
2, 4, 5-T	
Camphchlor	
Chlordimeform	
Perthane	

*Banned pesticides are not recommended by Bangladesh Tea Research Institute for the use in tea.

Important notes

- (1) BTRI restricts the use of those pesticides, which are highly toxic and MRL has been quoted against each.
- (2) BTRI accepts no responsibility/liability in case of any dispute in the uses of such product beyond the permissible limit as mentioned.
- (3) It is important that unnecessary pesticide application will incur extra cost, which will not be desirable from economic point of view as well as might create resistance problem.
- (4) BTRI always emphasizes that pesticides should be procured from any authorized dealer with proper guarantee of its purity, efficacy and shelf-life.

Do's and Don'ts

- (1) Apply pesticides when absolutely needed
- (2) Use only approved pesticide at the recommended dosage and dilution rate
- (3) Maintain safe harvest interval between spraying and harvesting
- (4) Do not use pesticide indiscriminately
- (5) Same chemical used in the same field for several years is not wise
- (6) Take timely control measure
- (7) Apply chemical pesticide judiciously
- (8) Avoid over dose and under dose
- (9) Pesticide should pose no residual problem on tea
- (10) Pesticide would not be phytotoxic
- (11) Consider cost of pesticide
- (12) Procure pesticide from a registered dealer for its reliability
- (13) Follow LD₅₀ values and toxicity level
- (14) Strictly follow the shelf-life of a pesticide
- (15) Do not spray during extreme sun or in rainy condition
- (16) Spray from periphery towards the centre of the section
- (17) Spray strictly in the morning or late afternoon
- (18) Never spray up wind; avoid strong wind
- (19) Never mix pesticide near water resource, pond, well, stream etc.
- (20) Educate the sprayer personnel on the correct use of pesticides and sprayers.

Sd/-

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Sd/-

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