



Group	Primary Target Site of Action	Chemical Sub-group or Exemplifying Active Ingredient	Cotton Insecticides Active Ingredients (Trade Names)
1A		Carbamates	aldicarb (Temik) carbaryl (Sevin) methomyl (Lannate) oxamyl (Vydate) thiodicarb (Larvin)
		Triazamate	NOT REGISTERED ON COTTON
1B	Acetylcholine esterase inhibitors	Organophosphates	acephate (Address, Orthere, Payload) azinphos-methyl (Guthion) chlorpyrifos (Lorsban) dicrotophos (Bidrin) dimethoate (Dimate, Dimethoate) disulfoton (Di-Syston) malathion (Fyfanon, Malathion) methamidophos (Monitor) methidathion (Supracide) oxydemeton-methyl (Metasytox-R) parathion (Parathion) parathion-methyl (Methyl Parathion, Penncap-M) phorate (Thimet) profenofos (Curacron)
2A	GABA-gated chloride channel antagonists	Cyclodiene organochlorines	endosulfan (Phaser, Thiodan)
2B		Fipronil	NOT REGISTERED ON COTTON
3	Sodium channel modulators	Pyrethroids	bifenthrin (Capture, Double Threat CP *) cyfluthrin (Baythroid, Leverage **) gamma-cyhalothrin (Prolex) lambda-cyhalothrin (Karate Z) cypermethrin (Ammo, UP-Cyde) zeta-cypermethrin or zetamethrin (Fury, Mustang Max) deltamethrin (Decis) esfenvalerate (Asana XL) fenpropathrin (Danitol) permethrin (Permethrin) tralomethrin (Scout X-tra)
		Pyrethrins	NOT REGISTERED ON COTTON
		DDT	NOT REGISTERED ON COTTON
4A	Nicotinic Acetylcholine receptor agonists / antagonists	Neonicotinoids	acetamiprid (Assail, Intruder) imidacloprid (Gaucho, Leverage**, Provado, Trimax) thiamethoxam (Centric, Cruiser)
4B		Nicotine	NOT REGISTERED ON COTTON
4C		Bensultap	NOT REGISTERED ON COTTON
		Cartap	NOT REGISTERED ON COTTON
5	Nicotinic Acetylcholine receptor agonists (not group 4)	Spinosyns	spinosad (Double Threat CP*, Success (California only), Tracer)
6	Chloride channel activators	Avermectins, Milbemycins	abamectin (Zephyr) emamectin benzoate (Denim)
7A	Juvenile hormone mimics	Juvenile hormone analogues	NOT REGISTERED ON COTTON
7B		Fenoxycarb	NOT REGISTERED ON COTTON
7C		Pyriproxyfen	Pyriproxyfen (Knack)



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8A	Compounds of unknown or non-specific mode of action (fumigants)	Methyl bromide	NOT REGISTERED ON COTTON
8B		Aluminum phosphide	NOT REGISTERED ON COTTON
8C		Sulfuryl fluoride	NOT REGISTERED ON COTTON
9A	Compounds of unknown or non-specific mode of action (selective feeding blockers)	Cryolite	NOT REGISTERED ON COTTON
9B		Pymetrozine	NOT REGISTERED ON COTTON
9C		Flonicamid	NOT REGISTERED ON COTTON
10A	Compounds of unknown or non-specific mode of action (mite growth inhibitors)	Clofentezine	NOT REGISTERED ON COTTON
		Hexythiazox	NOT REGISTERED ON COTTON
10B		Etoxazole	NOT REGISTERED ON COTTON
11A1	Microbial disruptors of insect midgut membranes (includes transgenic crops expressing <i>Bacillus thuringiensis</i> toxins)	<i>B.t. var. israelensis</i>	NOT REGISTERED ON COTTON
11A2		<i>B.t. var. sphaericus</i>	NOT REGISTERED ON COTTON
11B1		<i>B.t. var. aizawai</i>	<i>B.t. var. aizawai</i> (WideStrike)
11B2		<i>B.t. var. kurstaki</i>	<i>B.t. var. kurstaki</i> (Bollgard, Bollgard II, Condor, DiPel, Javelin, WideStrike)
11C		<i>B.t. var. tenebrionensis</i>	NOT REGISTERED ON COTTON
12A	Inhibitors of oxidative phosphorylation, disruptors of ATP formation	Diafenthiuron	NOT REGISTERED ON COTTON
12B		Organotin miticides	NOT REGISTERED ON COTTON
13	Uncoupler of oxidative phosphorylation via disruption of H proton gradient	Chlorfenapyr	NOT REGISTERED ON COTTON
		DNOC	NOT REGISTERED ON COTTON
14	Inhibition of magnesium-stimulated ATPase	Propargite	propargite (Comite)
15	Inhibitors of chitin biosynthesis, type 0, Lepidopteran	Benzoylureas	diflubenzuron (Dimilin) novaluron (Diamond)
16	Inhibitors of chitin biosynthesis, type 1, Homopteran	Buprofezin	buprofezin (Applaud)
17	Inhibitors of chitin biosynthesis, type 2, Dipteran	Cyromazine	NOT REGISTERED ON COTTON
18	Ecdysone agonist / disruptor	Diacylhydrazines	methoxyfenozide (Intrepid) tebufenozide (Confirm)
19	Octopaminergic agonist	Amitraz	amitraz (Ovasyn)
20	Site II electron transport inhibitors	Dicofol, Hydramethylnon	dicofol (Kelthane)
21	Site I electron transport inhibitors	METI acaricides, Rotenone	NOT REGISTERED ON COTTON
22	Voltage-dependent sodium channel blocker	Indoxacarb	indoxacarb (Steward)
23	Inhibitors of lipid synthesis	Tetronic acid derivatives	NOT REGISTERED ON COTTON
24	Site III electron transport inhibitors	Acequinocyl	NOT REGISTERED ON COTTON
		Fluacrypyrim	NOT REGISTERED ON COTTON
25	Neuroactive (unknown mode of action)	Bifenazate	NOT REGISTERED ON COTTON
26	Unknown mode of action	Azadirachtin	azadirachtin (Neemix)

\* Double Threat CP is bifenthrin + spinosad.

\*\* Leverage is cyfluthrin + imidacloprid.