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Table. Registered insecticides for use on ornamentals to target the Hibiscus bud weevil (HBW, *Anthonomus testaceosquamosus*), the short-spined thrips (SST, *Thrips parvispinus*) and the two-spot cotton leafhopper (TSCL, *Amrasca biguttula*).

Main IRAC Group	IRAC Subgroup	Subgroup Name	Product Name*	Active Ingredient	HBW	SST	TSCL
Acetylcholinesterase (AChE) inhibitors #1	1A	Carbamates	Sevin	carbaryl	X		
	1B	Organophosphates	Acephate	acephate	X		X
Sodium channel modulators #3	3A	Pyrethroids, Pyrethrins	PyGanyc	pyrethrins	X		
			Talstar	bifenthrin			X
Nicotinic acetylcholine receptor (nAChR) competitive modulators #4	4C	Sulfoximines	Xxpire**	sulfoxaflor-spinetoram	X	X	X
Nicotinic acetylcholine receptor (nAChR) allosteric modulators –Site I #5	5	Spinosyns	Conserve SC	spinosad	X	X	
Glutamate-gated chloride channel (GluCl) allosteric modulators #6	6	Avermectins, Milbemycins	Timectin	abamectin	X	X	
Chordotonal organ TRPV channel modulators #9	9D	Pyropenes	Ventigra	afidopyropen		X	X
Uncouplers of oxidative phosphorylation via disruption of the proton gradient #13	13	Pyrroles	Piston	chlorfenapyr		X	
Inhibitors of chitin biosynthesis affectin CHS1 #15	15	Benzoylureas	Dimilin 25W	diflubenzuron	X		
Inhibitors of chitin biosynthesis, type 1 #16	16	Buprofezin	Talus	buprofezin			X
Mitochondrial complex I electron transport inhibitors #21	21A	METI acaricides and insecticides	Hachi-Hachi	tolfenpyrad	X	X	X
Inhibitors of acetyl CoA carboxylase #23	23	Tetronic and Tetramic acid derivatives	Kontos	spirotetramat	X		X
Ryanodine receptor modulators #28	28	Diamides	Pradia***	cyclaniliprole-flonicamid		X	
Chordotonal organ modulators - undefined target site #29	29	Flonicamid	Aria	flonicamid			X
GABA-gated channel allosteric modulators #30	30	Isoxazolines	Vykenda	isocycloseram			X
Unknown	Unknown	Unknown	Overture	pyridalyl		X	
			Ultrafine	mineral oil	X	X	
			Mpede	potassium salts of fatty acids			X
			Tetracurb	castor, rosemary, clove & peppermint oil			X
			Suffoil-X	mineral oil		X	X
			BeeSafe	sesame oil		X	

*see back page for additional information and disclaimers.

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Disclaimer: The listed pesticides were evaluated under laboratory or controlled-environment conditions and have not been field-tested or validated under commercial production conditions. Their efficacy may therefore vary under field conditions. These results are provided as research-based information to support pest management decisions and should not be considered a guarantee of product performance.
Always read and follow the current pesticide label and use products only on sites and for pests listed on the label. Users are responsible for complying with all federal, state, and local pesticide regulations.
Mention of a pesticide, active ingredient, company, manufacturer, trade name, or product does not constitute an endorsement or recommendation of that company or product by the University of Florida/IFAS.

* These are examples. There might be more products available in the market. Products may also vary with the intended use site (nursery vs. landscape)
** Xxpire has two active ingredients, sulfoxaflor that belongs to subgroup 4C and spinetoram that belongs to subgroup 5
***Pradia has two active ingredients, cyclaniliprole that belongs to subgroup 28 and flonicamid that belongs to subgroup 29

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