



2024 Wisconsin Honey Bee Pest Management Options

Read the product label thoroughly before applying any treatments and follow label instructions precisely. The pesticide label is the law. This list may not be complete, and information is subject to change. Information in this document does not imply endorsement by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP), and is provided strictly as a resource for honey bee pest management.

Name of Pest	Registered Treatment (Active Ingredient)	Registration Number	Applications	App. Season & Temps.	
 Synthetic chemicals	Varroa mite <i>Varroa destructor</i>	*Apistan (Tau-fluvalinate)	<i>EPA Reg. No. 2724-406-79671</i> Six-to-eight weeks, apply in spring and fall. No more than two strips per brood box. Do NOT use when honey supers are in place, see label.	spring, fall; temps >50°F	
		*CheckMite+ (Coumaphos)	<i>EPA Reg. No. 11556-138</i> Six weeks – 45 days, max., apply in spring and fall. Do NOT leave the strips in hive for more than 45 days. Do NOT treat more two times per year. Only two strips per brood box. Treat all infested colonies within the yard. Can be used during honey flow, see label.	spring, fall	
	*Widespread resistance of Varroa mites to above products. NOT recommended for Varroa mite control in Wisconsin.				
		Apivar Strips (Amitraz)	<i>EPA Reg. No. 87243-1</i>	Use two strips per brood box (or one strip per five frames of bees); hang each in bee cluster with two frames between strips. Leave strips inside hive for 42-56 days max., then remove. Two treatments per year, max. Do not re-use strip. Can be used as part of an IPM program. Remove strips two weeks before honey flow. Do NOT use when honey supers are in place.	spring, fall
 Organic acids		AmiFlex (Amitraz)	<i>EPA Reg. No. 87243-4</i> Restricted use pesticide requiring pesticide applicator certification to purchase and use. Applied as a gel using dosing gun. See label for application instructions. Do NOT use when honey supers are in place. More info: https://datcp.wi.gov/Documents2/AmiFlexFAQ.pdf	spring, fall	
		HopGuard III (Hop Beta Acids Resin)	<i>EPA Reg. No. 83623-2</i> Use two strips per brood box (or one strip per five frames covered with bees). Unfold strips and hang over a center brood frame with half of the strip on each side of the frame. Leave the strips in the hive for 14-30 days, max. Use up to four times per year. <i>Can also be used in packages, see label.</i> Can be used as part of an IPM program. Can be used during honey flow.	spring, summer, fall; temps >50°F	
		Formic Pro (Formic Acid)	<i>EPA Reg. No. 75710-3</i> Use two strips (staggered) for 14 days (<i>allow a minimum of one month between applications</i>); –OR– first strip for 10 days, remove, and replace with second strip for additional 10 days. Lay flat across the top of lower brood box. Do NOT disturb hive. Close screen bottom board, open entrance fully. Can be used as part of an IPM program. Can be used during honey flow.	spring, summer, fall; temps 50°F-85°F	
		Mite Away Quick Strip (MAQS) (Formic Acid)	<i>EPA Reg. No. 75710-2</i> Place two strips (staggered) on top of the bottom brood box for seven days (<i>allow a min. of one month between applications</i>); –OR– Apply first strip on day one, then apply second strip on day 14, for a total of 21 days. Do NOT disturb hive. Close screen bottom board, open entrance fully. Can be used as part of an IPM program. Can be used during honey flow.	spring, summer, fall; temps 50°F-85°F	
 Essential oils		Api-Bioxal (Oxalic Acid Dihydrate)	<i>EPA Reg. No. 73291-2</i> See label for application instructions. Ensure bees are clustered before applying treatment. Trickle solution or vaporize in the hive late fall or early spring when little or no brood is present. Treat broodless packages/swarms. Can be used as part of an IPM program. Can be used when honey supers are in place. Respirator required.	spring, fall; temps > 37°F	
		ApiGuard (Thymol)	<i>EPA Reg. No. 79671-1</i> Combine weak colonies before treatment. See label for instructions. Place one 50g tray facing upwards on the top of brood frames. After two weeks, remove and add second tray for <i>two to four weeks</i> (four to six weeks total for entire treatment). Best used late summer/ fall. Use 25mg dose if temps above 77°F. Do not enter or allow others to enter treated area(s) for 48 hours after treatment. Do NOT use when honey supers are in place.	late summer after honey harvest (preferred), fall, spring; temps 60°F-105°F	
		Api Life Var (Thymol, Oil of eucalyptus, Menthol)	<i>EPA Reg. No. 73291-1</i> Break one tablet into four pieces and place near four corners of brood nest. Leave the first tablet seven to 10 days. Place second tablet for an additional seven to 10 days. Place third tablet for 12 days. Close off screen bottom boards. Two applications per year max. Best if used in fall. Remove from hive at least 30 days before harvesting honey. Use the appropriate respirator when handling tablets. Do NOT use when honey supers are in place.	fall (preferred), spring; temps 64°F-95°F	

MAQS, ApiLife Var and Apiguard also show some control of **tracheal mites**. Apivar and oxalic acid do not.

Stock Bred for Improved Hygienic Behavior: Queens and packages bred for improved hygienic behavior are available from many producers including Russian, SMR, VSH, MN Hygienic, Purdue “Ankle-Biter”, and Pol-line.				
Integrated Pest Management (IPM) – Varroa Mites: No single treatment option is 100% effective. Check mite levels frequently. Use a combination of mite resistant stock, drone brood trapping and removal, screen bottom boards, brood interruption, and re-queening when needed. Rotate “hard” and “soft” controls, and keep records of each treatment type and date. See the EPA’s IPM instructional video Protecting Honey Bees: Integrated Pest Management for Varroa Mites , and the Honey Bee Health Coalition’s (HBHC) Varroa Management Guide for more information.				
Name of Pest	Registered Treatment (Active Ingredient)	Registration Number	Applications	App. Season & Temps.
The following medications for AFB and EFB require a Veterinary Feed Directive (VFD) Order or a prescription from a veterinarian. Labels and formulations vary. Consult with your veterinarian. See the DATCP Veterinary Feed Directives webpage for more information.				
American Foulbrood (AFB) <i>Paenibacillus larvae</i> and European Foulbrood (EFB) <i>Melissococcus plutonis</i>	TM- (50, 50D, 100, 100D), Tetroxy 25, Pennox 343, Tetroxy 343 (Oxytetracycline hydrochloride)	<i>FDA Reg. No.</i> NADA 008-804 ANADA 200-146 ANADA 200-026 ANADA 200-247	After consultation with your veterinarian, follow VFD order/ prescription and label precisely. Remove at least six weeks prior to honey flow to avoid contamination of production honey. American Foulbrood (AFB) Guidance: Inspect hives for symptoms of AFB. If hive(s) are suspected of having AFB, contact DATCP at DATCPapiary@wisconsin.gov . Destroy bees and burn frames confirmed to have AFB. Start with new frames and foundation. Treat all other hives in the yard. Quarantine and monitor yard closely for 12-18 months. See the HBHC’s Managing Foulbrood Guide for more information about AFB and EFB.	As needed in early spring or fall.
AFB and EFB	Terramycin, Terramycin 100MR Type A (Oxytetracycline dihydrate)	<i>FDA Reg. No.</i> NADA 095-143		
AFB and EFB	Pennox (55, 100-MR, 100 Hi-Flo, 200-Hi-Flo) (Oxytetracycline)	<i>FDA Reg. No.</i> NADA 138-938		
AFB (<i>NOT effective for EFB</i>)	Tylan, BiloVet, Tylovet (Tylosin Tartrate)	<i>FDA Reg. No.</i> NADA 013-076 ANADA 200-455 ANADA 200-473		
AFB (<i>NOT effective for EFB</i>)	Terramycin (-343, soluble powder concentrate) (Oxytetracycline hydrochloride)	<i>FDA Reg. No.</i> NADA 008-622		
AFB (<i>NOT effective for EFB</i>)	Lincomix (Lincomycin Hydrochloride)	<i>FDA Reg. No.</i> NADA 111-636		
Name of Pest	Registered Treatment (Active Ingredient)	Registration Number	Applications	App. Season & Temps.
Sacbrood virus (SBV) disease <i>Morator aetatulus</i> virus	No treatment available	<i>N/A</i>	Usually goes away by mid-June. If not, power wash equipment and re-queen hive.	<i>N/A</i>
Chalkbrood <i>Ascospaera apis</i> fungus	No treatment available	<i>N/A</i>	Maintain strong colony health. Requeen with a queen bred for hygienic behavior.	<i>N/A</i>
Vairimorpha (<i>Nosema ceranae, V. apis</i>)	No FDA approved animal drug available	<i>N/A</i>	Maintain strong colony health. Reduce colony stress. Reduce moisture in hive. Improve air circulation. Requeen. Cull old frames. Provide proper nutrition.	<i>N/A</i>
Wax moth <i>Achroia grisella, Galleria mellonella</i>	Para-Moth Insecticide (Paradichlorobenzene)	<i>EPA Reg. No.</i> 61671-2	Use on extracted, stored equipment only. Stack supers on several layers of newspaper, as tightly as possible. No more than five deeps or 10 shallow supers per stack. Kills adult wax moth and immature stages, but not eggs. Combs or equipment that have been treated must be thoroughly aired out before use, otherwise bees will be killed, see label.	<i>N/A</i>
Small hive beetle (SHB) <i>Aethina tumida</i>	GardStar 40% EC (Permethrin)	<i>EPA Reg. No.</i> 39039-8	Treats the SHB larval stage. Soil drench only. See label for directions and follow carefully. Cut grass prior to application. Apply 24-48 hours prior to placement of hive support(s) (e.g. pallet(s)). Highly toxic to bees.	<i>N/A</i>