



Available *Varroa destructor* mite treatments for honey bees in Hawaii

Product name [EPA reg. no.]	Active Ingredient	Application Method	Honey Supers	Brood Safe	Timing	Notes
Api-Bioxal [91266-1-73291]	Oxalic acid dihydrate, 97%	Dribble	No	No	Late fall and/or early spring	Use when little or no brood is present, as product is toxic. Will contaminate marketable honey. May be used following application of a different acaricide if it was unsuccessful.
Apiguard [79671-1]	Thymol, 25%	Slow-release gel	No	Yes	Late fall and/or early spring	Do not treat during honey flow. Leave the product in the colony until the trays are empty or remove before replacing honey supers. Do not enter treated areas for 48 hours after treatment.
FormicPro [75710-3]	Formic acid, 42.25%	Slow-release gel	Yes	Yes	Treat year round as needed	Some brood death to be expected early in treatment. Do not use in combination with other treatments. Some adult bee death to be expected. Treatment may trigger supercedure of fragile queens.
Hopguard II [83623-2]	Hop beta acids resin, 16%	Strips	Yes	Yes	Spring, summer, and/or fall	Apply to brood chamber only – do not place strips in honey supers. Application timing should be based on mite numbers. Most effective when little to no brood present in the hive.
Mite-away quick strips [75710-2]	Formic acid, 46.7%	Strips	Yes	Yes	Treat year round as needed	Colony should be a minimum of 10,000 bees. Some brood death to be expected early in treatment. Treatment may trigger supercedure of fragile queens.
Oxalic acid dihydrate [91266-1-91832]	Oxalic acid dihydrate, 97%	Dribble	No	No	Late fall and/or early spring	Use when little or no brood is present, as product is toxic. Will contaminate marketable honey. Apply only when monitoring indicates treatment is necessary.

Organic



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	Product name [EPA reg. no.]	Active Ingredient	Application Method	Honey Supers	Brood Safe	Timing	Notes
Conventional	Apivar [87243-1]	Amitraz, 3.33%	Strips	No	Yes	Spring and/or fall	Remove honey supers <u>before</u> application of Apivar. Use when Varroa infestations reach treatment thresholds. Remove all strips 2 weeks before the honey flow starts. Not recommended for colonies used to produce queens. Do not use more than twice a year. Apply to brood chamber only - do not place strips in honey supers. Most effective when brood rearing is lowest.
	Checkmite+ [11556-138- [61671]]	Coumaphos, 10%	Strips	Yes	No	Early spring or late fall	Do not place strips in direct contact with comb with honey intended for human consumption. Treated beeswax cannot be used for human consumption. Remove honey supers before application and do not replace until the end of the control period. Do not remove strips from hives for 42 days.
	Zoecon RF- 318 Apistan [2724-406]	Fluvalinate, 10.25%	Strips	No	No	Early spring and/or late fall	

	Method Type	Honey Supers	Brood Safe	Timing	Notes
Mechanical	Screen Bottom Board	Yes	Yes	Year round	Replaces the solid bottom board and allows mites to fall through when bees groom themselves inside the hive. Coating a catch drawer with oil will prevent mites crawling back up.
	Drone Brood Removal	Yes	Yes	As needed	Remove normal frames and replace with drone brood frames to encourage drone egg laying. Once capped (23 days), remove the frames and destroy the drone larvae and mites. Alternatively, use a capping scratcher to remove naturally occurring drones .



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