



Oregon State University

Varroa Mite Control Methods

Determine mite population before & after each treatment method

Control Method	Pros	Cons
<p>Apivar (amitraz)</p> <ul style="list-style-type: none"> - 42- 56 days treatment - 1 strip per 5 frames of bees 	<ul style="list-style-type: none"> - Only one application - Slow release; covers several brood cycles - Not temperature dependent 	<ul style="list-style-type: none"> - Risk of mite resistance, rotate with other chemical controls - Low-level of break-down residue in beeswax and honey
<p>Apiguard (thymol)</p> <ul style="list-style-type: none"> - Twice at 2-week interval - 60° to 105°F - Block screened bottom board 	<ul style="list-style-type: none"> - Naturally occurring organic chemical - Mites do not develop resistance - Quick mite knock-down 	<ul style="list-style-type: none"> - Very aromatic; cannot use with honey supers in place - Requires spacer rim - Temperature dependent - May kill some brood
<p>ApiLife Var (essential oils)</p> <ul style="list-style-type: none"> - 1 tablet twice or 3 times 7-10 days apart - 54° to 95°F - Block screened bottom board and reduce entrance 	<ul style="list-style-type: none"> - Naturally occurring organic chemical - Mites do not develop resistance 	<ul style="list-style-type: none"> - Very aromatic; cannot use with honey supers in place - Temperature dependent - May cause bearding and some bee/brood kill above 80 degree - Bees may propolize tablet pieces
<p>Formic Pro; Mite Away Quick Strips (formic acid)</p> <ul style="list-style-type: none"> - 2 strips for 14 days or 1 strip twice 10 days apart - Apply at 50° to 85° F, max 92°F first 3 days - Block screened bottom board and open bottom entrance - Do not feed during treatment 	<ul style="list-style-type: none"> - Naturally occurring organic acid (found in honey) - Mites do not develop resistance - Only miticide that kills varroa in capped brood cells as well as phoretic mites - Honey supers can be in place when applied 	<ul style="list-style-type: none"> - May kill some bees & brood - May trigger queen supersedure - Requires minimum of 6 deep frames of bees - Temperature dependent - Respirator recommended - Non-disturbance of colony during and 1-3 days before treatment - Vapors corrosive to ferrous metal



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<p>Oxalic acid (oxalic acid dihydrate)</p> <ul style="list-style-type: none"> - Dribble or fumigation method 	<ul style="list-style-type: none"> - Dribble method inexpensive - Mites do not develop resistance - Can be used on swarms and packages (broodless) - Can be used as treatment in winter 	<ul style="list-style-type: none"> - Must be applied during a broodless period - Fumigation method may be hazardous to beekeeper; PPE is a must
<p>HopGuard 3 (potassium salt of hops beta acids)</p> <ul style="list-style-type: none"> - 14 days to up to 30 days treatment - 1 folded strip per 5 frames of bees - Max use 4 times per year 	<ul style="list-style-type: none"> - Naturally occurring organic acid - No known mite resistance - May be used with honey supers in place - Quick mite knockdown - Not temperature dependent 	<ul style="list-style-type: none"> - Only kills phoretic mites - Corrosive and “messy” - Requires several applications - Strips only effective when moist (about 5 days) - Only effective with little or no brood
<p>Drone Brood Management</p>	<ul style="list-style-type: none"> - Eliminates varroa mites before they can reproduce - Chemical free - Inexpensive 	<ul style="list-style-type: none"> - Labor intensive and requires careful timing - Not effective as stand-alone treatment - Only possible in spring and early summer