

Reworked January 16, 2018. It is critical to mix and apply oxalic dribble correctly (5 mL between each frame of bees), or you risk seriously harming your bees! Be sure to read:

<http://scientificbeekeeping.com/oxalic-acid-questions-answers-and-more-questions-part-1-of-2-parts/>

<http://scientificbeekeeping.com/the-learning-curve-part-3-the-natural-miticides/>

<http://scientificbeekeeping.com/oxalic-dribble-tips/>

<http://scientificbeekeeping.com/oxalic-acid-powerpoint-presentation/>

Update: We tried using 40% glycerin in water instead of syrup this year—so far good results. Bees don't like the taste of glycerin, and may thus be less likely to lick up the acid. The glycerin also helps the OA to adhere to the bees' bodies for a longer period of time.

Oxalic strength →	<u>"Hot"</u> 4.2% w:v (for application when the colony is not going into an extended broodless period)	<u>"Medium"</u> 3.2% w:v (appropriate for most uses)	<u>"Weak"</u> 2.5% w:v (for fall application in northerly climates prior to an extended broodless period)	Notes
OA crystals	1	0.75	0.6	The given proportions refer to common oxalic acid dihydrate (wood bleach). If you should happen to get your hands on anhydrous laboratory oxalic acid, reduce the amount of acid to only 7/10ths of that of the dihydrate. Absolute precision in measurement is not necessary. However, oxalic crystals must be measured by weight, not teaspoons (which are too inaccurate)! See further notes on water and sugar below the table.
Water*	10	10	10	
Sugar**	10	10	10	
OA crystals	60g	45g	35g	Makes 1 liter. Treats about 20 hives (hobbyists can cut the measurements in half to make ½ liter).
Water*	600ml	600ml	600ml	
Sugar**	600g	600g	600g	
OA crystals	100g	75g	60g	Makes 1700ml. Treats about 33 hives.
Water*	1 liter	1 liter	1 liter	
Sugar**	1 kg	1 kg	1 kg	
OA crystals	232g	174g	139g	Makes 1+ gallon. Treats about 75 hives.
Water*	2.5 qt	2.5 qt	2.5 qt	
Sugar**	5 lb	5 lb	5 lb	
OA crystals	12-oz container	12-oz cont.	12-oz container	 For mixing up a full 12-oz container of wood bleach from the hardware store. Medium strength makes about 2 gal—enough to treat ~150 hives.
Water*	1 gal less 1 cup	5 qts	6 qts	
Sugar**	7.5 lb	10 lb	12.5 lb	
OA crystals	1112g (2lb 7oz)	834g (1lb 13.4oz)	667g (1lb 7.5oz)	Makes ~5 gallons. Treats about 375 hives. If you have heavy bee feed syrup on hand, you can use it instead of sugar. First dissolve the OA into 1 gal of <u>hot</u> water, then add 3 gal heavy (77% solids) syrup (which contains 25# of sugar) and top off to 5 gal. © Randy Oliver 2018
Water*	3 gal	3 gal	3 gal	
Sugar**	25 lb	25 lb	25 lb	

*Distilled water may be necessary if you have "hard" (calcium-rich) water that reacts with the OA. To test, heat up some of your tap water in a clear glass container, then stir in a tsp of OA. If the water turns (and stays) cloudy white, there is too much calcium.

**Granulated sugar can be roughly measured by volume --1 pint weighs ~1 lb; 1 qt weighs ~2 lbs.