



Oxalic Acid: The Dribble Method

The oxalic acid dribble method involves mixing oxalic acid with sugar syrup and applying it straight to your clustered bees using a large syringe. It is ideal to perform the dribble at a time when little to no capped brood is present in the hive and when your bees are clustered together. It can be done in temps as low as 40 degrees F. This way, the bees will remain clustered when you open the hive.

What you'll need:

- Oxalic acid (Api-Bioxal)
- Gram scale
- Glass container for mixing
- Plastic or wood stirrer
- 60 cc syringe for application
- Eye protection
- Gloves
- N95 respirator

To mix the solution:

A scale that reads in grams is recommended to ensure an accurate measurement of oxalic acid. Be sure to wear safety gear when mixing. Mix the correct amount of oxalic acid with the correct amount of hot water (see table below). *Note: it may be necessary to use distilled water if you have very hard tap water. 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.* Stir until crystals are dissolved completely. Stir in the sugar until it is completely dissolved. Do not shake the container. Close the container tightly and label it **POISON 2.5% Oxalic Acid**. Never use repurposed food containers or drink bottles that may be mistaken for a beverage.

Do not keep any unused solution. Dilute with a large amount of water and pour down the drain.

Always have a clean source of water nearby to flush any accidental contact with skin or eyes.

How many hives?	Oxalic Acid (g.)	Hot Water (g. or fl. oz.)	Sugar (g. or cups)
20	35 grams	600 g or 24 fl. oz.	600 g or 3 cups
10	17.5 grams	300 g or 12 fl. oz.	300 g or 1.5 cups
5	8.75 grams	150 g or 6 fl. oz.	150 g or 3/4 cup

*We recommend using the 5 hive recipe, even if you only need to treat 1-2 hives. It is difficult to accurately measure smaller volumes of the mixture.

To apply the solution:

Wear safety gear when handling the solution.

1. Draw 50ml of the solution into your syringe. Note: This is the maximum dose for an entire colony.



2. Dribble NO MORE than 5ml of solution along any seam (the space between two frames or the space between a frame and a sidewall) in the hive containing bees. Any solution that lands on a top bar does not count as this will not be circulated through the hive.
3. Once you have reached 5ml in a seam, you must move on to the next.
4. Once each seam of bees has received 5ml of solution, you are done- even if you have solution left in your syringe.
5. You must not exceed 50ml of solution in an entire colony. So if you have more than 10 seams containing bees, dribble the 10 seams containing the most bees.

Helpful tip: Since it will likely be cold when performing the dribble, it is helpful to have someone help you by either tipping your top brood boxes forward or removing them for you while you dribble. This will help to limit the amount of time your hives are open and exposed to the cold.