



Treating Varroa using a Varrox and Oxalic Acid Dihydrate based product

Following is a simple step-by-step guide to treating Varroa using a Varrox sublimator and oxalic acid dihydrate product.

WARNING

The manufacturer's instructions for both the Varrox (supplied) and the product being used **MUST** be read and fully understood before use. Do **NOT** proceed if you are unsure. If you have any questions at all, contact the DSBA Mentoring service via our website. The equipment is only available to competent members and full agreement to the terms is mandatory. The DSBA Membership Card must be shown to ensure Varrox training has been carried out and in date.

In summary

Oxalic acid product is put in the Varrox pan, which is then placed in the hive, either from below through the entrance, or from above using a treatment box. The heating action of the Varrox pan causes the oxalic acid to vaporise. The vapour fills the hive and covers the bees and surfaces with a very thin layer of oxalic acid crystals. These fine crystals are tolerated well by the bees, but have a deadly effect on phoretic Varroa mites (up to 97% efficacy).

Preparation

Choose a dry day with little wind, very few bees flying and an air temperature of 4 degrees C or above. The recommended temperature range is 3 to 16 degrees C. Your bees should be broodless or with very low brood count. Fill a bucket with water, light your smoker, dawn your suit, gloves, and mask with suitable filtration against Organic Acids (check filters expiry date!) Eye protection is also recommended. Use as little smoke as possible (if any). Position the smoker in a handy prominent place and it will act as a guide to show where the fumes will be travelling and you should work UP-WIND of the hive.

Keep all non-mask wearing bystanders and pets away and well up-wind from the work area

Step-by-step instructions

1. Fit a Varroa board and firmly seal any gaps with strips of foam or cloth.
2. Load the Varrox pan with Oxalic Acid Dihydrate product (not supplied) as detailed on packet.
If treating from below
 - 2a. Insert the Varrox through the entrance and position the pan under the bees. Ensure it is level and not close to wax. Seal any gaps with strips of foam or cloth.
If treating from above using a treatment box
 - 2b. Remove the crown board and replace with a treatment box. Insert the Varrox into the treatment box. Keep it level. Seal any gaps with foam or cloth, including the hive entrance.
3. Attach the battery clips to the charged car battery supplied (12V, 40Ah) with the Red or Positive (+) lead to Battery Positive (+) and Black or Negative (-) lead to Battery Negative (-).
4. Start timer (not supplied) and leave Varrox connected for 2.5 minutes (unless instructions state otherwise).
5. After 2.5 minutes, disconnect the battery and leave the Varrox in the hive for a further 2 minutes.
6. Remove the Varrox from the hive and cool down the Varrox pan in water.
7. Keep the hive sealed for a further 10 minutes to allow the treatment to circulate.
8. Remove Varroa Board and all foam or cloth seals.
9. Move on to the next hive to be treated.
10. Thoroughly rinse all equipment, foam, cloths, and gloves in water to remove any residue.
11. Update your hive records.
12. Re-treat colonies 3 to 4 weeks later if required.



Equipment Required

Supplied by DSBA on production of a valid DSBA Membership Card:

12volt 40Ah fully charged battery

Varroa Sublimator and Manufacturer's instructions

Member to supply:

oxalic acid dihydrate type product suitable for sublimating and measure (not supplied)

Bee Suit

Bucket of cold water

Eye protection recommended if not full face mask

Gloves

Mask suitable for organic acid gas with filters in date

Smoker with fuel and lighter

Timer

Treatment Box (Not supplied, however, loan may be possible)

Varroa Board with various pieces of foam or cloth

As a rough guide and to help order the quantity of treatment required, the following measurements were used when raw Oxalic Acid DiHydrate was utilised:

For single National and Smith size brood box use 2 to 2.5 grams (0.5 teaspoon).

For single Langstroth brood box use 3 grams (0.75 teaspoon).