

Instructions of use for

FAM-Dispenser

FAM-Dispenser

Designed to treat Varroose in honey bees with formic acid 70%. The treatment is well tolerated by bees.

Design

1. Base plate to hold sponge cloth.
2. Sponge cloth without fungicides to hold formic acid during treatment.
3. Turning disc for easy adjustment following outside temperatures.
4. Tabs for safe and easy opening of the FAM-dispenser.

The dispenser is made of polystyrene and can be used for several years. The sponge cloth may be reused as well.

Functionality

The formic acid is completely absorbed by the sponge cloth. By turning the disc, the openings of the lid can be opened as required. Thus, the evaporation rate of formic acid can be adapted to hive size and temperature. The dispenser is placed with the openings pointing downwards over the brood nest. The formic acid evaporates into the colony. Formic acid fumes are heavier than the air and fall directly on the Varroa.

Filling and application

Separate lid and base plate of the FAM-dispenser holding on to the protruding tabs. Wash out the sponge and wring it dry. Place the base plate on a horizontal surface adding the damp sponge cloth. For the treatment, pour 130 ml of 70% formic acid onto the sponge. Then close the dispenser and lock the lid in all corners. Keep filled FAM dispenser level with the turning disc closed so that no acid may leak. By the position of the turning disc, the evaporation rate of the formic acid can be adjusted to hive volume and outside temperatures. Adjust the turning disc by setting the pointer between 1–5 according to the table below.

The first treatment with the FAM dispenser is to be scheduled for a duration of 7 days following honey harvest. Before treatment, feeding the bees with a limited amount of sugar syrup is recommended. Before the second treatment, the colony should be fed for winter. The dispenser will be put into the hive for another 14 days. Remove dispenser after the treatment to avoid deposits of wax and propolis.

Instructions for treatment

Prepare

Set turning disc

Treat

1. Wear suitable protective equipment.
2. Open the FAM dispenser.
3. Place the base plate on a horizontal surface and pour 130 ml formic acid onto the inserted sponge cloth.
4. Close the dispenser so that the lid engages in all corners and close the turning disc for transport (Position 0).
5. Open hive and make sure there is sufficient headspace for the dispenser. Use a frame of minimum 5 cm height or place dispenser under a turned feeder.
6. Place dispenser with openings pointing downwards. Make sure that openings are not obstructed.
7. Adjust openings by setting the turning disc between 1 and 5 according to table below.
8. Close hive tightly, open flight opening as wide as possible.
9. Remove after 7 or 14 days depending on timing of treatment. Sponge clothe may still be humid with condensate of in hive humidity.

Attention

- Determine natural mite fall one week prior to treatment. Make sure hive can be closed tightly.
- With expected high daily temperatures start treatment preferably in the morning.
- Do not start treatment just before thunderstorms or heavy rain to reduce inhive stress.
- Treat only after honey harvest to avoid contamination of honey with formic acid.
- Do not feed and treat at the same time. Robbery may occur and formic acid will be bound in fresh food.
- In nuclei with small flight openings, retract bottom board for 2 cm. A completely opened mesh floor will reduce efficacy by up to 20%.

Instructions for cleaning and general information

Use warm water to clean base plate and turning disc from wax deposits. Do not use hot water or dishwasher since the parts may distort at temperatures in excess of 40 °C.

Treatment with formic acid and FAM dispenser is proven safe and well tolerated by the bees and the queen. Formic acid acts into the cells. Young brood and emerging bees are sensitive to formic acid. A successful treatment with formic acid will thus always cause limited loss in brood and emerging bees. These losses have no negative impact on the overall development of the colony. Queen losses may be excluded when instructions of use are followed.

Setting of turning disc

Openings can be adjusted continuously by turning the disc. Evaporation may be adjusted following hive volume and outside maximum daily temperatures. Set the pointer of the disc to the number on the lid according to the instructions in the table. The numbers are embossed in the lid.

	Mini-Plus Warré	CH-Kasten Ruche Suisse (Bürki) Arnia Svizzera	Zander, DNM Langstroth Segeberger National Simplex, Smith, 2× Warré	Dadant 2× Simplex AZ (Alberti Žnideršič) Commercial Deep National
	Vol.: <40 l	Vol.: 40 l	Vol.: 40 l	Vol.: <50 l
1. Treatment (7 Days)				
15–20 °C	2	3		4
20–25 °C	1 first two days 2 from day 3 on	2		3
25–30 °C		1 first two days 3 from day 3 on		2 first two days 4 from day 3 on
2. Treatment (14 Days)				
10–15 °C	4	5	5	5
15–20 °C	3	4	4	4
20–25 °C	2	3	3	3

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