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VARROA
TREATMENT

Apivar®

By Véto-pharma

The easiest, safest, most reliable treatment

The trusted
Amitraz strip

FROM
Véto-pharma
Committed to apiculture

APIVAR®

The original Amitraz strip

Amitraz-based miticide

A UNIQUE AMITRAZ-BASED PRODUCT

Simple and safe composition of two ingredients[1]

Apivar is the only amitraz-based varroa treatment containing only amitraz and the plastic strip.
Comparable products contain additional excipients.

Easy to use
No temperature constraints.[3]

- **1 - Amitraz**

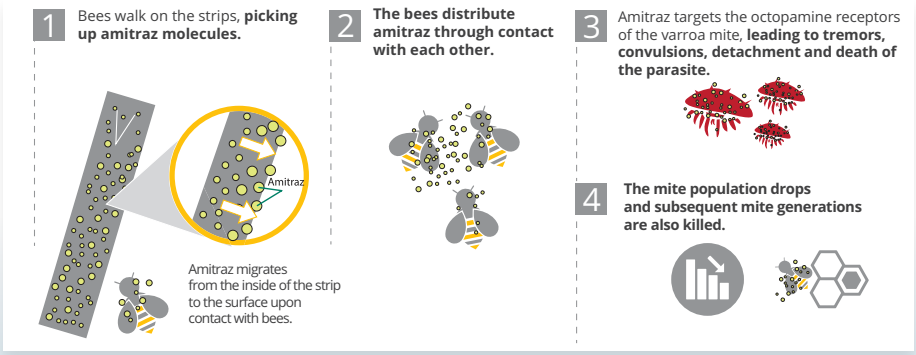
  Amitraz targets the octopamine receptors of the varroa mite, causing excessive stimulation of its octopaminergic synapses, leading to tremors, convulsions, detachment and death of the parasite.[2]

  The amitraz used in the production of Apivar is of **veterinary pharmaceutical quality.**

- **2 - Plastic polymer**

  Specifically designed to ensure a **continuous release of amitraz from the surface of the strip** after its placement in the hive. The polymer strip was chosen for its rigidity and its ability to continuously release the active ingredient during the treatment.

The special manufacturing process results in an even distribution of amitraz within the whole strip, not only on the surface.
As Apivar works by contact, the active ingredient is continuously delivered each time the bees pick up the molecule from the surface.



1, 2 & 3 : https://www3.epa.gov/pesticides/chem_search/ppls/087243-00001-20200224.pdf

A single application, long period of protection

Thanks to its controlled release technology, Apivar releases amitraz reliably over several weeks.

Varroa mites fall throughout the duration of the treatment (6 to 8 weeks)[1]

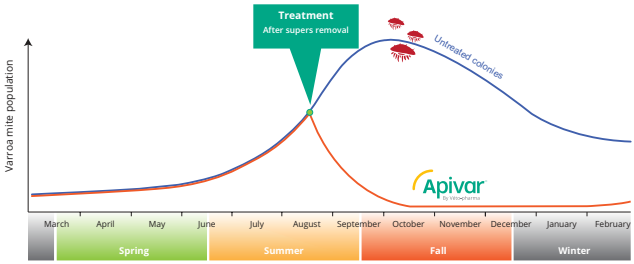
At the end of the treatment, Apivar efficacy is up to 99%.[2]

The plastic polymer of Apivar strips has been developed to continuously release amitraz throughout the treatment duration[1], killing several successive generations of varroa mites.

Therefore, fallen mites at the beginning of an Apivar treatment may be less than during a flash treatment. This is normal and does not mean the treatment is ineffective.

As the opposite graph shows, treatments over several weeks like Apivar helps control the overall colony infestation to lower the varroa mite pressure for longer.

Modeling the Varroa population with an Apivar treatment applied at the end of the season



Long-acting treatments like Apivar kill several successive generations of varroa mites during the treatment period. As a result, the colony remains clean for the long term.

1 - If brood is present, leave the strips in place for 8 weeks (cf. https://www3.epa.gov/pesticides/chem_search/ppls/087243-00001-20200224.pdf)
2 - Testapi - Study report 502-2021 (GLP Study)

APIVAR'S QUALITY AND SAFETY

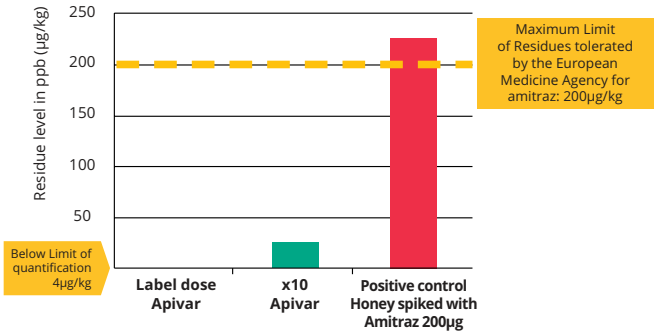
Apivar is a product of Véto-pharma, a French pharmaceutical company that develops and markets innovative products to help beekeepers prevent and control hive diseases and infestations for 25 years.

Apivar is manufactured in a dedicated facility operated to the highest standards in pharmaceutical manufacturing. Each batch is stricly controlled and analyzed before commercialization.

As a result, beekeepers around the globe can be confident that each Apivar strip is consistent, safe for bees and humans, and meets or exceeds stringent pharmaceutical quality standards.

Preserve the quality of honey

Concentration of residues [amitraz + metabolites] in honey[1]



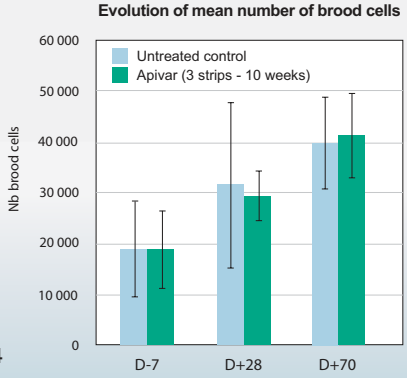
Thanks to its unique composition and its controlled release technology, Apivar guarantees respect for the quality of your honeys.

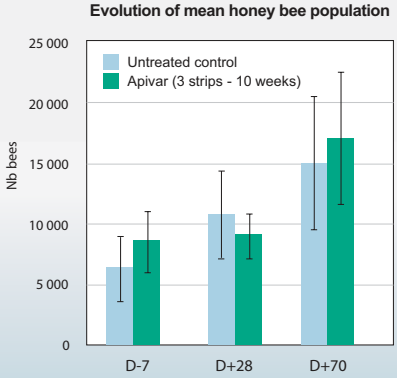
At the recommended dosage, the level of residues of amitraz + metabolites for Apivar is well below the Maximum Residue Limit (MRL) set by the European Medicines Agency.[2]

1 - Veeranan Chaimanee, Josephine Johnson & Jeffery S. Pettis (2021):Determination of amitraz and its metabolites residue in honey and beeswax after Apivar®treatment in honey bee (Apis mellifera) colonies, Journal of Apicultural Research, DOI:10.1080/00218839.2021.1918943
2- Commission Regulation (EU) No 37/2010 of 22 December 2009 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin

No negative effect on brood or bees

Total population before and after a ten-week treatment with 1.5 times the dosage of Apivar





Reference: Apivar registration dossier (2015). Study 2026-2015 - Testapi

25 YEARS OF RELIABILITY: EFFICACY AND WINTER SURVIVAL

Efficacy

Recent studies were conducted between 2018 and 2021, with efficacy rates above 97%.

These results show a consistent efficacy even after 25 years of use in France, the first country where Apivar was authorised.

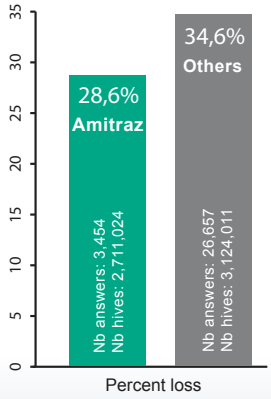
Country	Year	Type and nb of hives	Treatment	Efficacy (%)
France[1]	2021	Dadant Single body 10 hives	Apivar 2 strips 8 weeks	**99,3%**
France[2]	2020	Dadant Single body 10 hives	Apivar 2 strips 8 weeks	**98,1%**
Canada[3]	2019	Lab assay 58 colonies	Lab assay	**99.8%**
Spain[4]	2019	Layens Single body 10 colonies	Apivar 2 strips 6 weeks	**98.4%**
Spain[5]	2018	Layens Single body 7 colonies		**96.9%**

References:

1. *Testapi - Study report 502-2021 (GLP Study)*
2. *Véto-pharma report VTP20RU147*
3. *Olmstead et al. - Apivar® and Bayvarol® suppress varroa mites in honey bee colonies in Canadian Maritime Provinces - J. Acad. Entomol. Soc. 15: 46-49 (2019)*
4. *Ensayo de eficacia Apivar (Campaña 2019) - Pinofranqueado (Cáceres) - EUROMIEL*
5. *Ensayo de eficacia de campo del producto antiparasitario "Oxybee" (2018) - EUROMIEL*

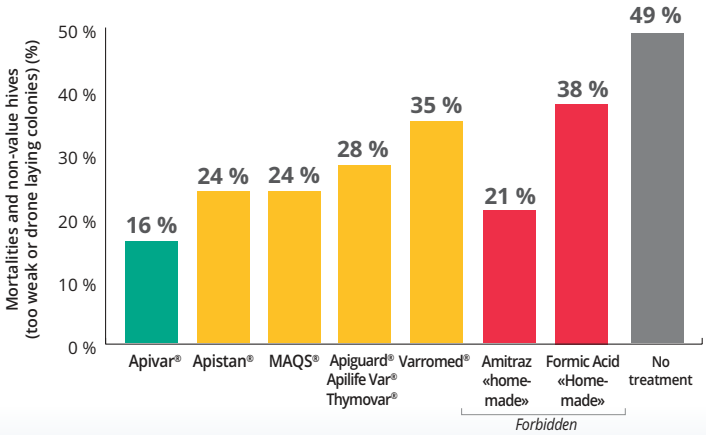
Winter survival with Apivar / amitraz over several years

Average winter loss in the USA for 13 years, depending on the mite treatment used



Survey conducted by the Bee Informed Partnership between 2007 and 2020 in the USA

Average winter loss in France between 2010 and 2020, depending on the mite treatment used



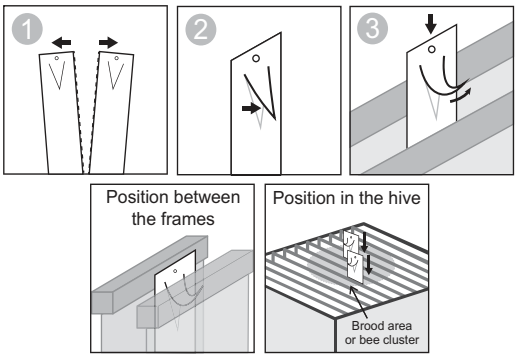
Nb hives	86.527	4.546	6.092	5.262	1.951	8.533	11.150	2.172
Nb beekeepers	3.306	86	195	234	99	31	122	162

Regional study report "Pertes hivernales 2010-2020 en Alsace". Chamber of Agriculture of the Alsace Region Ballis A. – May 2020

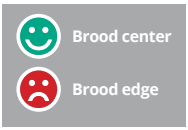
HOW TO USE APIVAR AND INCREASE THE EFFICACY OF YOUR TREATMENT[1]

Remove all honey supers before applying Apivar. Use 2 Apivar strips per brood chamber (i.e., one strip per 5 Frames of Bees - FoB).

1. Separate the double strip.
2. Push the strip's V-shaped die-cut outside.
3. Push each strip between two frames inside the brood area or the bee cluster with a minimum distance of 2 frames between strips. The strips should be placed in such a way that the bees can have free access to both sides.



Alternatively, the strips can be hung by the hole in the V-shaped die-cut, using a small nail or toothpick



FoB	≤ 5	6-10	11-15	16-20
Strips	1	2	3	4

Apivar works by contact!

Always place the strips in the brood center, and adjust the strips at mid-treatment if the cluster has moved. Feeding during treatment can also help to make the bees move inside the hive, and thus increase the contacts.

There is no temperature constraint when using Apivar:

It can be used throughout the season, in any climate, when the supers are not placed on the hives.

Leave strips in the hive between 6 to 8 weeks depending on season and amount of brood.

The larger the brood area is, the longer the strips should be left in the hive.

Do not re-use the strips!

Remove the strips at the end of the treatment. Open packs should be used immediately.

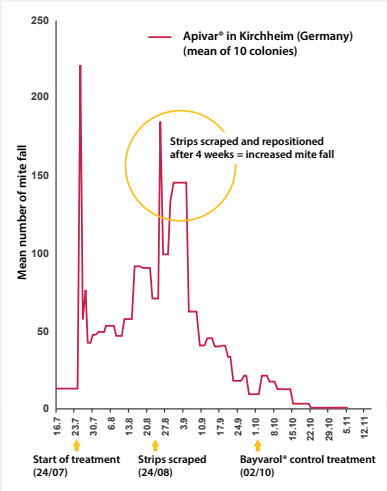
Extra tips: Adding boxes to allow for additional space for movement of bees, without additional Apivar strips, may reduce contact with strips below, and efficacy of Apivar application.

Repositioning and scraping the strips to improve the Apivar efficacy

As shown by the results of a study conducted in Germany in 2018, scraping and repositioning the strips at mid-treatment can considerably boost the daily mite fall. A second peak of falls is observed after 08/24, day of scraping and repositioning.

The systematic scraping at mid-treatment (and possible repositioning, if the bee cluster has moved) increases the number of direct contacts between the bees and the strips, thereby improving the effectiveness of the treatment.

Reference - Bienen&natur (08.2019). Feldtest mit Apivar. PD Dr. Peter Rosenkranz and Thomas Kustermann.



Useful tips to better fight the mite

Integrated Pest management

- ✓ **Regular monitoring of mite infestation throughout the year, beginning in spring** (at least four times a year).
- ✓ **Check your mite infestation BEFORE and AFTER treatment.** This is the only way to know if your treatment was successful. *If you had 10 000 mites in your hive, the treatment could be 97% effective and you will still see a lot of mites after treatment.*
- ✓ **Adapt your treatment strategy depending on your infestation** (do not stick to one treatment a year at the same date).
- ✓ **Stay informed about local infestation thresholds.**
- ✓ **Renew brood comb every 2 or 3 years minimum.**
- ✓ **Treat all colonies in an apiary at the same time** to prevent re-infestation.
- ✓ **Rotate the active ingredients** (and not only the treatment!).
- ✓ **Use only registered treatments and respect the product labels and instructions.**

What is an authorized varroa treatment?

A registered varroa treatment has been approved by the government authority, and has been tested not only for efficacy, but also for its safety for the colony (bees, brood, queen), for the beekeeper and the final consumer of the hive products. Registered treatments have been tested at different concentrations and different applications (variation of the duration, posology, way of application) to find the best use. Please follow all directions on the label and do not overdose to try to reach a higher efficacy. As your production will be part of the human diet (honey, royal jelly, propolis), you must use only authorised treatments in your hives, to guarantee the safety and compliance of the hive products.

MITE MONITORING IS ESSENTIAL

varroa easyCheck By Véto-pharma

3 MONITORING METHODS USING THE ONE TOOL: VARROA EASYCHECK

Alcohol wash | Sugar roll | CO_2 injection

RIP VARROA

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APV-12-US-N02-12/21