

## Vetramil history

Honey has been used for wound healing and skin treatments **since ancient times**. In modern times soldiers in World War 1 used honey to **prevent wound infections**. In 20th Century medicinal honey is becoming a **serious remedy for wound healing** through extensive studies and a search for a non-antibiotic remedy to treat infected wounds and **minimize the spread of antimicrobial resistance**.

Dr. Tineke Creemers performed research on flower biology at Wageningen University for over 15 years before **Bfactory was founded in 2000** with Willem Jan Bosma.

Vetramil honey ointment was launched 2006. The range of effective honey products under **Vetramil brand has developed to include 5 different honey products optimized for different uses**.

Vetramil honey range is **sold in over 30 countries worldwide** and has gained acceptance and **outstandingly positive clinical experience** both from veterinarians and animal owners.



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**Vetramil.com**

# Vetramil®

THE NATURAL POWER OF HONEY



Vetramil is a range of honey based skincare products for all animals, developed by Bfactory in close collaboration with Wageningen University & Research in The Netherlands.

The medical grade honey product developed was originally for human advanced wound care applications and registered as medical device (CE class IIa and IIb), later reformulated to meet the specific needs for veterinary use.



### **Vetramil can be used in:**

- Superficial and open wounds
- Lacerations, abrasions and avulsions
- Decubital ulcers
- Chronic and infected wounds
- Itchy skin and eczema
- Abscesses
- Wounds difficult to bandage

**Vetramil is suitable for all animals**

## **About vetramil**

Vetramil is a medical grade honey based skin care product range for all animals. It is an effective and natural way to provide supportive care.

The use of Vetramil medical grade honey products can decrease the use of antibiotics in animals. It has efficient antimicrobial effects due to its high glucose oxidase enzyme content, sugars that create an osmotic pressure and formation of a low PH at the wound site.

Vetramil's product range consists of medical grade honey based formulations that are optimized for the easy and convenient use for the animal owners and caretakers. The easy-of-use of the products ensures the optimal efficacy and supports the healing.

Vetramil's product range is well studied and the outstanding experience from clinical use in several European countries encouraged Bfactory to launch in the US market.

## **Why Vetramil is needed?**

**Antimicrobial resistance is a serious threat for health of people and animals. Honey has become a serious alternative aid in treatment:**

- Potent antimicrobial activity and no development of bacterial resistance by use of honey.
- Successful application on infected wounds not responding to antibiotic therapy.
- Suitable for all animals.
- Medical grade honey is both tested by every batch for the enzyme content and carefully purified to make it safe to use.

## **Quality control**

Each honey batch is tested for;

- pH
- enzyme activity
- water content
- residues



## Treatment of neck wound after car accident of Birillo

Birillo was brought to the veterinarian with an exudating neck wound full fly larvae. The wound was surgically debrided and stitched. The stitches did not hold. After five days treatment with Vetramil ointment was started. After four weeks the wound was healed and closed.

DAY 1



WEEK 1



WEEK 3



WEEK 4



## Treatment infected wound cat Max

After a fight male cat Max had a scratch at the back side of his ear. The wound became infected and the cat was feverish. Systemic medication (antibiotics) was given and after cleaning the wound Vetramil ointment was applied. After xxx days the wound became clean and healing was achieved after XXX days.



DAY 7



DAY 1



DAY 10



DAY 4



DAY 14



## Treatment forehead injury horse with Vetramil ointment

The four-year-old horse had a large forehead wound by hitting the stable door. The wound was cleaned and stitched.

From the first day treatment with Vetramil ointment was started. The wound could not be covered with a bandage and was difficult to keep clean. The stitches could be removed after ten days, the wound was completely healed, despite its initial large size.



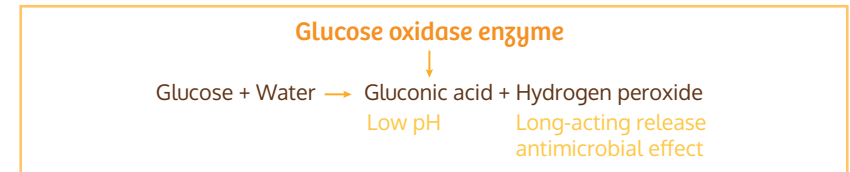
## How honey in Vetramil works?

### Honey sugars

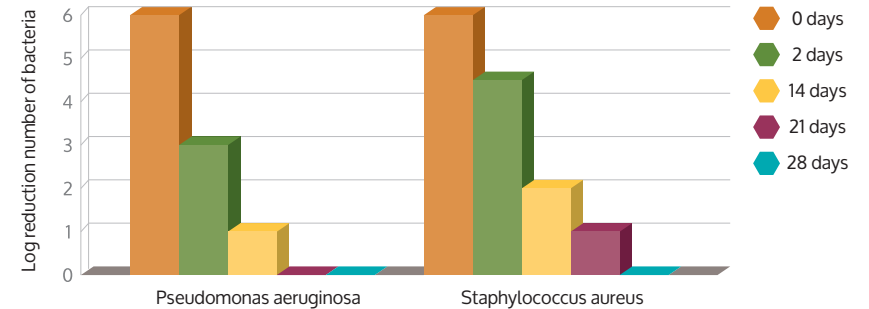
Honeybees collect nectar and nectar is concentrated to honey (80-85% sugar). The osmotic action of honey sugars is bacteriostatic and in the end bactericidal. At the wound site the sugar attracts wound exudate and creates a healing moist environment.

### Honey enzymes

- Glucose oxidase enzyme is added to honey by honeybees
- The enzyme becomes active in diluted honey
- Honey glucose is converted into hydrogen peroxide and gluconic acid



### Challenge test. Vetramil ointment bacteria



### Challenge test. Vetramil ointment yeasts and molds

