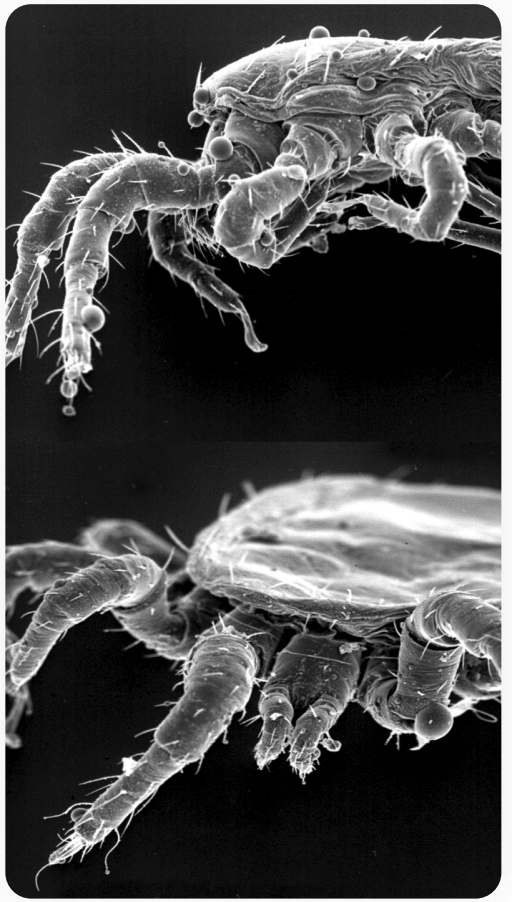
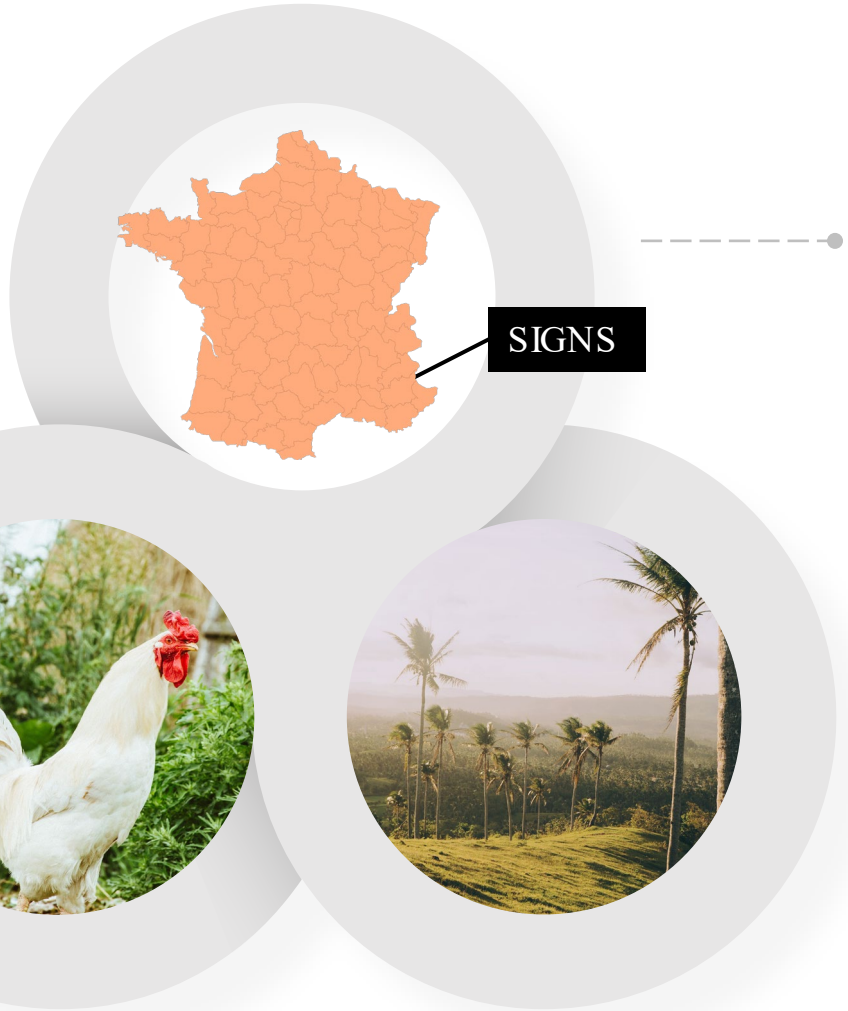
NOREDS

DUCK UROPYGIAL GLAND SECRETION ALLOMONE

THE FIRST EFFECTIVE BIOCONTROL SOLUTION FOR POULTRY RED MITES CONTROL USING AN ALLOMONE





Apt (Vaucluse)

R&D

Expert in the development of pheromone-based solutions

Unique solutions inspired by nature

Dermanyssus gallinae
Primary Mites Threatening Poultry Houses In Europe

- **Responsible for transmitting infectious diseases, inducing anemia, inducing stress.**
- **Decreases Productivity :**
  - » Egg production & quality
  - » Feed intake (=higher feed conversion)
  - » Weight gain decreased
  - » Shell thinning and shell spotting
- **Animal welfare impacted**
  - » Stress/ pecking / agitation / irritation
- **Excessive mortality and morbidity**

Current conventional chemicals and pesticides solution

- Mite resistance development
- High cost
- withdrawal periods following treatment
- Risk of feed contamination

Dermanyssus gallinae
A Sophisticated Social Mite

- Dermanyssus are social mites, living in colonies
- Adult females are the organizers of the colonies, after blood meal, they release an aggregation pheromone (Entrekin & Oliver 1982)
- Adult females detect the hens thanks to physical and semiochemical stimuli and release tracking semiochemicals (Koenraadt and Dicke 2010)
- They modify their behaviour according to the light (Kilpinen 2005)
- Protonymphae are capable to resist to starvation and inappropriate environment

The New Way Of Treating And Preventing Poultry Red Mites

Active ingredient =analogue of the Duck Uropygial Gland Secretion Allomone, a semiochemical produced naturally in the uropygial glands of ducks when they are in the nest, when ducklins hatch.

How does it work ?

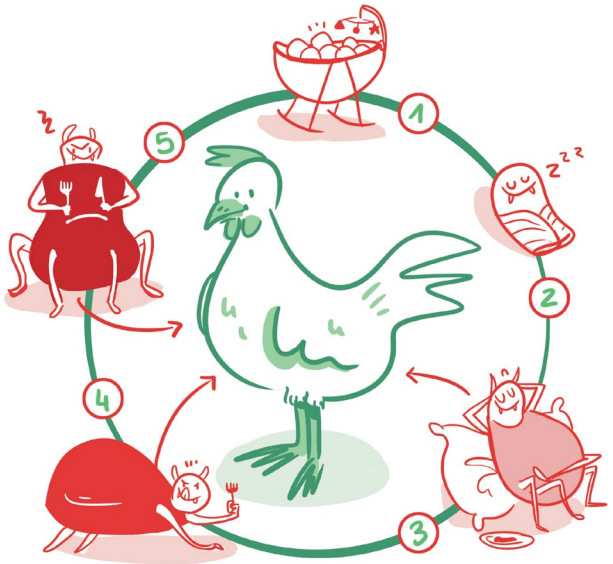
Disrupt Poultry Red Mites colonies with an allomone

When NoReds® is sprayed, adult female Poultry Red Mites stop feeding and no longer release the social pheromone that enables colonies to group together, as well as the trace pheromones that guide mites from the colony to the hens on which they will feed.

=the deutonymphs (nymphs II), that must gorge themselves on blood in the 8 to 10 days following their moult, **fail to transform into adults and die.**

The adult males and females die and only the protonymphs (nymphs 1) remain, that disperse without succeeding (for the majority of them)in moulting into nymphs 2.

A simple clean-up with a blower or hoover is all that's needed to destroy this residual population.



Contribute To Sustainable Practice

Innovation
- Patented Solution
- New way of treating and preventing
- Professional and domestic use
- Unique Formulation
- Encourage and promote biocontrol on the market

User Friendly
- Non toxic
- Easily administered to layer and breeder chickens
- Support Farmers to move to sustainable agriculture
- Fits in with sustainable farming practices and improves farmers' economic performance

Eco-friendly
- No Residue
- Improved bird and worker welfare
- No stressful application
- Strong alternative to chemical solution
- Take care of biodiversity
- Biomimetic

Efficacy

Quick and visible observability of the results (leading to a dramatic reduction of red mites)

Resistance Management
- Acts against mites resistant to conventional products
- No development of resistance

THANK YOU