

## >> MODUS VIVENDI WITH RED MITES



**Ronan, Christian and Pierre Le Donge accompanied by Emmanuel Odje and Yves Manach from the Biodevas laboratory (2<sup>nd</sup> and 3<sup>rd</sup> from the left).**

“Prevention is better than cure, you can’t wait until the red mite population explodes to take action and then it’s too late...” declared Pierre Le Donge, code 3 egg producer who is now retired after passing on the baton to his two sons, Christian and Ronan, partners at Gaec Keryano (Plovan, Finistère). But the truth is he never really left, surely the reason for his good health at 85 years old, and he works as a volunteer monitoring 6,000 free-range hens (Volito), production which started in 2011 on the family farm.

### **NO LIVESTOCK SYSTEM IS IMMUNE FROM MITES**

At the time, Christian and Ronan – sensing the changes in society’s expectations - planned to renovate one of its two caged coops (20,000 places) into an open-air aviary, but their downstream partner did not join them. As independent producers, they still set out on the adventure with a smaller workshop, and developed direct sales (bakeries, catering, convenience stores and local supermarkets). In the end, it was just a matter of time, as during our visit in November, work was well underway to transform this famous 20,000 hen coop and

to install an aviary (Meller) with 18,000 places with access to outdoor areas (cost: approx. €16/hen). “Our customers’ demand for free-range eggs has exploded in recent years, we didn’t expect it. This time, our code 3 eggs buyer is interested in taking some of these free-range eggs” explained Christian, not without a bit of resentment.

“We will stop there. We cannot arrange outdoor areas for the third building, which currently holds 73,000 hens in enriched cages” he adds. There is the possibility of producing code 2 with a greenhouse, but “we will wait a little while, we won’t rush into financial decisions with bigger consequences, as despite the media battle against code 3 eggs, we can’t work miracles.”

Free-range or caged hens: whilst it makes a difference to the consumer, in terms of red mites it’s six of one and half a dozen of another! Gaec Keryano has battled these parasites for years using different products, without achieving a satisfactory result. “For 20 years, we have always had them, over the years, we have tried all the products on the market, during rest periods and during

production, which has not limited peaks of infestation,” the farmers explained. With the following collateral damage: some anaemic hens (fatigued with a white crest), reduced laying performance (around 10%), difficulty for employees and farmers, dirty and marked eggs (declassified eggs), “we check the eggs ourselves, we see it very quickly” underlines Christian.

However, for the past two years, without managing extermination, a sort of *modus vivendi* has been achieved with red mites at Gaec Keryano. In addition to the usual insecticides used during rest periods, farmers have used a repellent product (Mitarom, Biodevas) made up of a blend of aromatic plant extracts.

### **PRODUCTION IS NO LONGER AFFECTED**

According to the official procedure, for prevention purposes, it is used in drinking water for 6 days in a row (1 liter to 1,000 litres), 8 to 10 days after the hens are introduced, then one day per week for 10 weeks (repeated if needed). “In the event of a medium to heavy infestation, after the 6-day treatment, we recommend using it for 2 to 3 days per week for four weeks, then one day per

## COMBINING DIFFERENT SOLUTIONS AGAINST RED MITES...

week for six weeks” explains Emmanuel Odje, poultry manager at the Biodevas laboratory. Once the situation has stabilized, it is recommended that the product is used once a week until the end of the laying period. It should be noted that Mitarom is also available in solid form to be mixed into feed. “Depending on the level of infestation, the cost of treatment ranges from 3 to 10 € cents/hen/year, more if action is taken later” he explains.

Pierre Le Donge does not adhere to this pace of one day per week, he uses it 2 to 3 days in a row per week for 6,000 free-range hens, unlike his sons who follow the instructions to the letter. “We can allow it considering the sale price of free-range eggs, plus the hen numbers are low, it’s a different ball game with 73,000 caged hens,” Ronan explains.



*For the past two years, without managing extermination, a sort of modus vivendi has been achieved with red mites at Gaec Keryano. In addition to the usual insecticides used during rest periods, farmers have used a repellent product (Mitarom, Biodevas) made up of a blend of aromatic plant extracts.*

The results? The situation is under control in the free-range section and deemed satisfactory in the large building where the problems of anaemia, reduced laying performance and marked/dirty eggs were found. Despite this, the mites are still there, the two brothers regularly see them during upkeep in the old manure dryer: “you can see very nervous white mites.”

### **“A PEPPERY TASTE, UNPALATABLE BLOOD”**

Due to the fact that it is a repellent product and not an insecticide “it does not cause residue in the egg nor does it need a waiting period, its persistence is low (15 days)” as underlined by Emmanuel Odje. Due to its formulation, the product gives a peppery taste to the hen’s blood which can only be tasted by the parasite, and it makes the blood unpalatable for red mites. However, in this parasite “the females cannot lay eggs without feeding on blood, so the red mites do not multiply in the building. Moreover, the odour released by the manure and the scent released by the hens lead the red mites to flee, which tend to get further away from the hen’s

immediate environment or even to leave the building.”

In red mites, other than just male and female, another form is able to bite hens to feed on blood: protonymphs. However, Mitarom contains a component (silicon) which enhances the elasticity of the hen’s skin and prevents protonymphs from biting the hens (not enough force). As they cannot feed, the males and protonymphs will die, however the females can hibernate and wake up when the temperature and humidity conditions are suitable. “That is why we recommend administering the product regularly, as we do not know when the females will wake up. We tend to think that mites are less active in winter, but this is not necessarily true: a ventilation problem in the building can cause a rise in temperature, with a subsequent explosion in the mite population,” explains Emmanuel Odje.

“Red mites are very resistant and live everywhere, including inside pipes which lead to the roosts, so it is impossible to eradicate them!” he continues, and the farmers do not disagree.

**ÉMELINE VIÉNOT**