

Scottish Egg Producer Retailers Association

MARKET REPORT

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	Size	V. Large	Large	Medium	Small
Farm to Shop	Prices	£1.49	£1.25	£1.15	80p
Scottish Wholesaler	Prices	£1.20	80p	75p	
English Wholesaler	Colony F/R	£1.30	90p	80p	60p
		£1.43	£1.33	£1.23	70p
		£1.25	£1.00	80p	65p
		£1.40	£1.40	£1.30	70p
Packer / Producer Contracted average Price					
		Organic	FreeRange	Barn	Colony
		£1.20/£1.45	85p/£1.10	75p/£1.00	70p/95p
Producer / Consumer		V. Large	Large	Medium	Small
- Colony	Prices	£2.00	£1.85	£1.40	90p
- Free Range	Prices	£3.00	£2.35	£1.91	£1.05
Free-Range to Farm Shop	Prices	£1.75/£2.25	£1.31/£1.91	£1.15/£1.45	95p
Central Egg Agency	Colony	99p	85p	75p	57p
	F/R	£1.40	£1.25	£1.15	87p
Imported Continental Prices in Bulk					
Dutch Eggs	Barn	84p	73p(+1p)	66p(+1p)	

Nothing exciting happening in the market this week some people saying it's quieter some are fairly busy depends on your individual market and where you are.

The world cup didn't affect things a jot but Wimbledon does, a lot of ladies are avid watchers and look for quick and easy meals (eggs fit well) it's also that subconscious image of themselves in tennis gear and are looking for a meal that's quick, light and healthy and that just might shed a few pounds here and there. **(Eggs tick all the boxes plus as a bonus are great value for money).**

We in Scotland are moving into that funny time of year, schools now on holiday and the Edinburgh and Glasgow fairs about to happen.

This in the past dramatically dropped egg consumption as most of the population were away somewhere else, but not so much in the last couple of years as more of the people are having staycations or holidaying at other times of the year as many business's no longer shut down in this 24/7 world we know live in.

But if you are in a tourist area take full advantage of it, promote your local image and quality eggs, push for the maximum price you can get and ignore what's happening in the rest of the country, it's local image and freshness that holiday makers are looking for.

Horror of horrors, red mite, anyone who has experienced a red mite infestation know exactly what we are talking about, it is know that time of year when mite populations explode.

It is the old story prevention is better than cure and that means bio-security it is too easy for someone helping house pullets or in the holiday period to import them on foot wear or clothing be extra vigilant particular with footwear and those disinfectant baths as mite infestation is no fun for the hens or staff.

We have been informed that the development of a vaccine against red mite is now showing particular good promise but it will probably be some years before being commercially available but will try and keep you informed of developments, but in the meantime it's bio-security, bio-security, bio-security.

Tackling red mite in laying hens remains a challenge

Red mite can severely affect a layer operation. Birds become stressed and the impact on egg production and feed conversion is substantial. Despite good measures, tackling this parasite remains a big challenge.



By Farhad Mozafar, Lohmann Tierzucht, Germany

Compared to other poultry ectoparasites such as fowl ticks, lice and flies, mites are considered to be the most destructive ones. Particularly the poultry red mite (*Dermanyssus Gallinae*, also known as the Fowl Red Mite) has been identified as the most harmful one for laying hens. The title "Red" has been given to this mite as it turns from grey to red or dark red after being engorged with blood. The sucked blood is required for further development from a nymph into an adult and later for reproduction. Red mites are nocturnal (night-active) parasites which suck the birds' blood during periods of darkness and hide themselves in all kinds of gaps and cracks during the daytime. This behaviour makes the treatment of red mites harder and more complicated than other mite species like the northern fowl mite (*Ornithonyssus sylviarum*). Unlike the red mite, the northern fowl mite spends its entire life attached to its host. As such, treatment should only be applied directly on the birds.

Whereas, the red mite is able to survive long periods of time in the surroundings without being on the host bird and without even having a single meal of blood. This implies that even after the removal of the birds, the poultry house will remain infested for a long time, ie. if no appropriate treatment is applied.

Heavy infestation

Furthermore, the long period of egg production allows red mites to create large populations and cause heavy infestation in poultry farms. Depending on ambient temperature, the life cycle of a red mite from an egg to an adult can be completed within about 7-14 days and even accelerated under favourable conditions (ie. within ambient temperatures of between 25-30°C and a relative humidity of 60-70%). Fowl red mites exist almost worldwide, and are particularly present in Europe, the Middle East and Asia. There,

egg producers not only suffer from production losses but are also confronted with health and financial damages.

The problem of these infestations and their consequences are often underestimated. Losses due to red mite infestation are estimated to be up to €1 per laying hen per year in the EU depending on the housing system, infestation intensity and control methods.

Various treatments

The methods of controlling red mite can be divided into applications of conventional chemicals and alternative solutions.

Conventional treatments:

Synthetic acaricides such as Organo Phosphates, Carbomates, Pyrethroids are the most common chemicals used against mite infestations, although it must be mentioned that due to some problems, their efficiency and success of their application are becoming more questionable.

Developing resistance against acaricides caused by red mite populations has been ongoing for some years which might make treatment almost ineffective. Furthermore, wrong dosage and improper application of an acaricide can also accelerate the process of resistance development. Using higher dosages of pesticide is also a health risk for the birds and consumers due to possible residues which might be found in eggs and meat. On the other hand, constant changes in legislations in respective countries and a very limited number of pesticides licensed against red mite, make it even harder for farmers to control this pest.

A few general recommendations are useful when applying a chemical treatment:

- Specialised veterinary laboratories should test the efficiency of a product by conducting a resistance test before application.
- Avoid using an acaricide repeatedly.
- Apply the treatment properly and follow the manufacturer's instructions carefully.
- Depending on the construction of the house, make sure that the mites are directly targeted and treated with pesticides in the cracks and gaps during the treatment process.
- As far as possible, apply the treatment during period of darkness when the mites are out of their hideouts.

Alternative treatments:

In order to tackle the above mentioned problems and other hindrances in the use of conventional chemicals and pesticides against poultry red mite, many new alternative solutions have been developed in recent years. Some are as follows:

It is well-known that “*Essential oils*” derived from plants such as garlic, neem tree, thyme and tea have a toxic effect against red mites. Based on this fact, various products in the form of drinking and feeding additives are available on the market. Side effects such as tainting eggs or negative impact on laying performance may occur whilst using these products. There have also been some reports about negative impacts of drinking additives on the water system. It seems that more field studies are needed to identify proper candidates.

Consequences of red mite infestation

Restlessness and stress in the flock (especially during the night and in the nest)

Skin irritation, reduced plumage quality, dermatitis

Feather-pecking, cannibalism

Weight loss, anaemia (pale wattles and combs as an indicator)
Negative impact on feed conversion ratio
Drop in egg production
Increase of second-grade eggs
More susceptibility to poultry diseases
Transmission of poultry diseases and zoonosis (Salmonella, ND, Pasteurella, E. Coli etc.)
Mortality in cases of extreme infestations
Health problems and stress for the farm staff (Dermatitis, allergic reactions).

“*Biological pesticides*” such as Spinosad which has been used against mites of agricultural crops for several years now, also have a good reputation for controlling poultry mites. Spinosad is a natural product based on the fermentation of the bacteria *S. Spinosa*. Proper application is essential for a successful treatment.

Using so-called “*Predator mites*” is another rather new method of controlling red mites. As a natural enemy, the predator mite is able to combat and eat poultry red mites. Choosing the correct predator candidates in addition to proper management are essential for this method of control. Furthermore predator mites are very susceptible to other treatments applied against red mites and have to be restocked from time to time.

Based on the fact that temperatures above 45°C are considered lethal for poultry red mites, “*Heat treatments*” have been practiced recently in European countries. Heating the poultry house to up to 60°C for about two hours or 45°C for a longer time after birds are removed, are common models of this treatment. The fusibility of plastic parts of the equipment must be considered and treatment should be performed by experts with great caution. “*Low temperature treatments*” - liquid nitrogen and dry ice have also been experimented with. These methods are too expensive and not suitable for common practice.

Special “*Intermittent lighting programmes*” are also tools to control red mites and this is being practiced mainly in Russia as well as the Middle East and some African countries. Negative effects on feed consumption, laying performance and disturbance of circadian rhythm can be expected. However, the European bird welfare legislation forbids such lighting regimes.

An example of a very common treatment against poultry red mite in some European countries is the use of “*Inert dusts*”, a physical treatment based on Silicon Dioxide compounds which blocks the joints between chitin shell and causes the immobilisation of mites. Furthermore, silicate dust enters the respiratory system of the red mites causing suffocation. Choosing the proper product, mixture, particle size, pressure and appropriate application are crucial for a successful treatment. The application of inert dusts in poultry houses causes stress and health problems for birds and staff. The impact and side effects of this treatment should be further investigated.

The development of “*Vaccines*” is also another alternative solution in controlling the populations of poultry mites. There are different research groups which are working on identification and characterisation of possible antigens against red mites. If such vaccines can be successfully developed, the first candidates for a commercial vaccine against poultry red mites may just be around the corner.

Great demand for innovation

Unfortunately, the current treatment methods available are not effective enough to keep red mite infestations under control in many poultry farms worldwide. A relatively new study by the livestock research department of Wageningen University in the Netherlands, confirmed that a high percentage of farms in European countries have severe poultry red mite infestations.

The European ban on conventional cages and the move towards keeping laying hens in alternative systems like free-range is making the situation even more difficult. As this system is favoured by parasites

such as red mites. These kinds of systems give mites more hiding possibilities, enabling them to escape control methods more easily. In conclusion, there remains a great demand for developing more useful effective and innovative treatments to keep red mite infestations under control.

General recommendations

Generally, it is a fact that poultry farms with high standards of biosecurity suffer less from red mite infestation. Additionally some simple basic tools besides biosecurity measures and hygiene management issues can be very useful in controlling the infestation of red mites. Some of these are as follows:

Find an effective and individual concept, e.g. the combination of different treatments suitable for your farm and housing system.

Give mites minimal possibility to hide themselves in equipment and in the building of your farm. Consider these issues while building a new laying house and making a choice for new equipment.

Use monitoring tools like mite traps to start a treatment as soon as the first mites have been detected and before the mite population increases.

As far as possible apply an additional treatment directly after the removal of the birds and before the mites get a chance to hide themselves in cracks and crevices.

The use of an effective product against red mite eggs during service period is highly recommended since many usual treatments do not show efficiency against mite eggs.

Prevent the occurrence of red mite re-infestation in your farm (from rearing, construction of houses, transport vehicles, staff, visitors, wild birds, etc.)

[Source: World Poultry magazine Vol 30 nr 1, 2014]

UK research project to control poultry red mite

Infestation of hen houses with the poultry red mite is a major health concern of the European poultry industry with significant economical losses. The mites live, off-host, in inaccessible areas of the cages during daylight and emerge during darkness to feed on the hens, biting through the skin to feed on blood. Infestation with these mites has important animal welfare implications including anaemia, feather-pecking and an increased incidence of cannibalism, thus having a significant impact on productivity.

The [BBSRC](#) has recently awarded a £0.55M research grant to Moredun scientists in collaboration with Pfizer Animal Health to develop a vaccine to help protect hens against these blood sucking mites.

Dr Alasdair Nisbet who is heading the project at Moredun commented, "Controlling mite populations is now a major problem, with most pesticides affording only limited or short-lived reduction in the population of mites. There is also the issue of development of drug resistance and environmental contamination which means there is an urgent need to develop alternative control strategies".

The team's approach is to determine whether it might be possible to vaccinate laying hens using specific extracts of the mites thus inducing an immune response in the hens that will attack and kill the mites when they take a blood meal from an immunised hen.

"Our goal is to identify the bits of the mite that will induce the best immune responses in the hens and

produce large quantities of these using recombinant technologies to enable large scale vaccination trials to take place. Preliminary work at Moredun has shown that a vaccination approach is a feasible option to control red poultry mite and we are really excited about progressing this work," Nisbet concluded.

Professor Douglas Kell, BBSRC Chief Executive, said "Diseases in farmed animals are a serious animal welfare and food security issue. This new project looking at red mites in poultry highlight the vital role of bioscience research in ensuring farmed animals have the best possible welfare standards, as well as reducing the significant economic losses caused by reduced productivity."

World Poultry

One for the holiday's

Why did the hen cross the beach?

To get to the other TIDE!



Are your birds worm free?

Don't forget

Flubenvet TRADEMARK

The Only Licensed Poultry Wormer

For further information please contact:
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