



**Effective in killing
red poultry mite and
other insect pests**

KILLA



**smite
the mite!**

www.smite-a-mite.com

ALL YOU EVER WANTED TO KNOW ABOUT RED MITE!

The RED POULTRY MITE, *Dermanyssus gallinae*, is a very prolific external parasite of birds which can be very difficult to eradicate – partly because the mite can survive for up to eight months between feeds – so they are often in situ, just waiting for the arrival of a new flock!

Mites feed largely on blood of the birds, but also on feathers, skin or scales ; each blood feed lasts approximately 1-2 hours after which the mite leave the birds and return to hide in cracks and crevices in the poultry housing, where they lay their eggs, returning to the birds again the following night – hence, it is easy to miss their presence if examining a bird during daylight. Heavy mite infestations in chickens lead to high levels of stress and result in anaemia, reduced egg production and, eventually if not treated, death, so the effects of red mite are of considerable economic importance when considering production costs. Additionally, mite can transmit diseases, such as the chicken pox virus, Newcastle Disease, fowl typhoid and salmonella as well as causing dermatitis and mange. When disturbed, they will also bite interfering humans and can cause a type of dermatitis. At one time it was thought that mite only tended to live in wooden structures, but they are now found on both plastic and metal – anywhere that is as near to their next meal as possible. Nowadays, they are also becoming increasingly common in battery

cages, where they cause severe health problems and economic loss. The tiny mite vary in appearance, depending on when they last fed – a mite is only red when it has consumed blood recently and changes colour again through black to grey as the interval between feeds increases. When checking housing areas for mite, a tell-tale 'grey ash' around crevices is evidence of mite faeces, but the best time to examine a house is at night, when the mite can often be seen with the aid of a torch, both on and off the bird. Red Mite, in common with lice and other arachnids (spider-type creatures with eight legs) have a waxy exoskeleton (hard outer covering), without which they rapidly dry out (desiccate) and die. One of the best methods of attacking Red Mite therefore is to use a strong degreasant compound which dissolves the exoskeleton and rapidly kills the mite by desiccation. This method has the advantage that it is impossible for the mite to build resistance, a growing problem with many pesticides, and means that the same treatment can be applied repeatedly to keep the infestation under control.

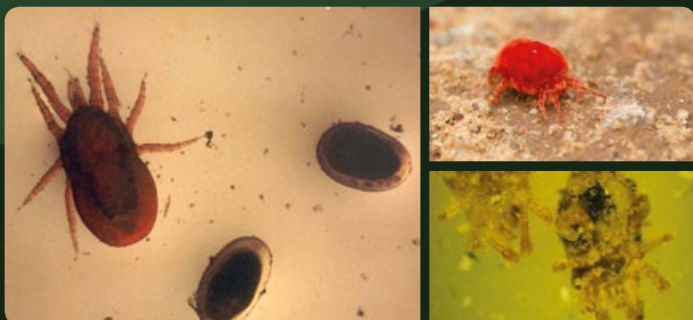
Smite organic Killa powder and sprays are particularly effective at killing red mite which is found on poultry and in/around poultry housing. Both products are also effective on other commonly found pests such as ants, bed bugs, fleas, cockroaches, stored product pests, beetles, lice and spiders.

Symptoms of Red Mite Infestation

- Pale, 'jaundiced' faces and wattles, through anaemia
- Depressed birds, lacking vitality Emaciation – or even weight gain!
- Decreased egg production
- Increase in feed intake coupled with decreased egg production
- Dark dots and speckles on normally plain eggs – they may be blood spots or on closer inspection you may see the speckles move!
- In extreme cases, feather loss and signs of dermatitis
- Whitish-grey 'ash' (mite faeces) around the edges of crevices and in trails along and under perches.
- Active red mite on housing which glow in the light of a torch at night. (Underneath the roofing felt is a favourite place for mite to hide!)
- Hens may avoid a nesting box which is particularly badly infected.
- Never assume that red mite are the problem if you can't find any physical signs of them at all – remember, most sick hens display some similar symptoms, whatever the cause!
- If in doubt – ask your vet.

The Red Mite Life Cycle

- Mites feed on the bird under cover of darkness each night and return to their crevices during the day
- Eggs are laid in crevices in the housing. Eggs are pearly white and oval, approx 0.4mm x 0.25mm.
- After 2-3 days, in warm conditions (longer in cooler weather), the eggs hatch into 6-legged larvae.
- Within 24 hours, the larvae moult into 8-legged pronymphs, which start to feed on the roosting birds.
- Pronymphs then moult into deutonymphs, which continue to feed, before moulting again to become adult male or female red mite.
- In warm, favourable conditions, this whole life-cycle can be completed within seven to ten days, which means that
- Mite populations in poultry housing grow very rapidly during the summer months, but
- Gradual climate change and warmer winters means that rather than being a problem which is only encountered during the summer, mite are now continuing to reproduce, though at a slower rate, through the winter, so need increased vigilance to keep populations in check.
- Mite can survive for up to eight months without a feed and have been known to lie dormant for ten years!
- When hidden in cracks are very resistant to desiccation – so cleaning out and leaving a house empty will not prevent mite reappearing when birds are reintroduced!
- Mite can be carried by wild birds and prevailing winds, so can appear even when there has been no previous evidence of infestation.





- ✓ **KILLS RED MITE AND OTHER INSECT PESTS**
- ✓ **NO RESISTANCE - KILLS PHYSICALLY**
- ✓ **LONG RESIDUAL ACTIVITY**
- ✓ **CAN BE APPLIED DIRECTLY TO ANIMALS AND HOUSING**
- ✓ **ODOUR FREE**
- ✓ **STAIN FREE**
- ✓ **ORGANIC**
- ✓ **EU APPROVED FOR INSECT CONTROL**

- Contains: 7.2% diatomaceous earth
- Application: Spray at a distance of approx. 30cm to produce an even film of spray. The coating should dry to leave a film of white powder.
- Fast application
- Pack sizes: 500ml



KILLA FAST APPLICATION SPRAY



- Contains: 100% diatomaceous earth
- Application: Apply at a ratio of 10g-30g per square metre in the animal housing and around entry the housing. Can be mixed with water at a rate of 4 tablespoons to one gallon of water. Can be applied directly to animals.
- Pack sizes: 220g, 500g, 2kg, 5kg and 15kg



KILLA POWDER



DE smite[®] organic POWDER

- Smite DE Powder – Desiccant powder and drying agent for use in poultry and livestock bedding and housing areas, especially in moist areas where moulds, fungi, mites and crawling insects thrive.
- Available in 350g, 1kg, 5kg, 10kg and 25kg

smite[™] the mite!



- Powerful biocidal disinfectant
 - Smite! micro-organisms, bacteria and viruses
- Highly efficient cleaner
 - Smite! organic matter where mite parasites breed and thrive
- Super degreasant
 - Smite! build-up of waxes and faecal deposits
- Pleasant odour and easy-to-use dosing pump
- Economical – only 3-6% dilution required (1lt makes up to 34lt of disinfectant)
- Suitable for all animal housing
- One product does it all – Smite! clean and disinfect – save time and money!
- Available in 750ml RTU, 1l, 5l, 20l and 950l concentrate



THE SMITE-A-MITE PROGRAMME



Getting the upper hand with a severe Red Mite infestation requires persistence and attention to detail, and it may involve using more than one approach.

Any control programme needs to pay attention to the following:

1. Operator hygiene and suitable protective clothing to prevent the spread of mite between sites.
2. Sealing up of as many joints and crevices as possible, to reduce the number of areas which harbour mite
3. Efficient disposal of mite-infested litter and debris, to prevent re-infestation
4. Study the Red Mite life cycle – repeat treatment needs to be undertaken within seven days to maximise the effect and 'catch' the largest possible number of mite.
5. Constant vigilance and prompt treatment of any hotspots.
6. Use of a poultry tonic or vitamin supplement to help the birds recover and increase their resistance to re-infection.

RECOMMENDED PROTOCOL FOR COMBINED USE OF FOR RED MITE CONTROL IN POULTRY HOUSING:

Note re. Smite! Professional: If using dosing pump supplied, use 2 x 30ml shots per litre of water (6% solution), or dilute 1 part Smite Professional with 15-25 parts water (6.66% - 4% solution). Apply as suggested to the housing and equipment, using knapsack or hand sprayer. Use suitable protective clothing.

REMEMBER SMITE PROFESSIONAL IS A VERY EFFECTIVE DISINFECTANT AND CLEANER – SO ONE PRODUCT DOES IT ALL

THE MITE! – CLEAN AND DISINFECT!

1. Before depopulation of the unit, initially spray liberally with 6% solution of Smite Professional to equipment and nesting areas. This reduces the number of mite initially and gives a more comfortable environment for the workforce. Smite Professional is not licensed to be sprayed on the birds, but it is safe to spray the housing with the birds in situ and any overspray will not cause a problem.
2. Remove all equipment from the unit, including any plastic slats, as these can harbour mite in the joints.
3. The housing unit and equipment should then be thoroughly cleaned and disinfected to a clinical standard, using a 6% solution of Smite Professional. Take care to remove all litter and manure from every area, thus removing as many mites as possible. Pay particular attention to cracks and crevices, perches and joints.
4. Leave all treated areas to air dry and then dust liberally with Smite Organic Powder or Spray to kill any mites and mite eggs which have not been removed by the cleaning process. Pay particular attention to cracks, crevices, perches and nesting areas. Sprinkle liberally over the surface of the litter.
5. When the new crop of birds has been introduced, or the original birds re-introduced, and the unit temperature has stabilised, spray the building and equipment with a 6% solution of Smite Professional.
6. 6/7 days later, spray the whole housing unit again with a 6% solution of Smite Professional and re-apply Smite Organic Powder or Spray to nesting areas, crevices and perches. This will treat any mite eggs which have hatched since the initial treatment. In severe infestations, the treatment should be repeated very 7-10 days until the infestation is under control.
7. Optionally, at stages 3, 4, 5 and 6 Smite Organic Powder can be added to the solution of Smite Professional, if desired, at the rate of approx 20g per litre, and sprayed using a knapsack sprayer. This will combine the separate operations of using both the solution and the powder. When applying Smite Organic Powder as a suspension, care should be taken to agitate the mixture at regular intervals to keep the powder in suspension.
8. A suspension of Smite Organic Powder in water can be applied direct to the birds, if required.

COMPLEMENTARY GOOD PRACTICE TO ASSIST IN THE CONTROL OF RED MITE:

In addition to the essential 'full cleandown' procedure detailed above (which cannot be avoided!), consider the following, pesticide-free, additional good practices to discourage reinfestation:

- There is no substitute for good husbandry! Keep your birds clean, and well supplied with fresh drinking water and food.
- Be observant – look for pale faces and wattles, 'depressed' birds, lacking vitality, reduced egg production and weight loss – or even weight gain.
- Use an essential oil-based 'Red Mite Repellent' powder on the birds and in the nest boxes.
- Use Smite Organic Powder (a natural mineral product), a very fine powder which can be sprinkled on the litter and in the nest boxes. The grains have razor-sharp edges which shred the mite exoskeleton when they come into contact with it. The mineral is safe for hens to ingest and has beneficial effects on the digestion.
- Make sure all poultry housing is regularly treated with a good preservative.
- Replace roofing felt with clear corrugated sheeting over plywood or corrugated Onduline sheeting, to remove places for the mite to hide.
- In a severe infestation, the housing can be 'torched' with a blow lamp, along all the joints and crevices, taking care, of course, to avoid igniting a fire! Mite will explode as the flame touches them.
- Remember that brand new housing is vulnerable – don't be complacent!
- Use a good poultry tonic, vitamin, herbal supplement to increase the resistance of the hens to mite attack.
- Garlic, either as a supplement added to the drinking water or as a clove placed in the drinker, is widely reputed to be an effective mite repellent.
- Cider Vinegar is reputed to have many health advantages, and is often used as a general tonic and mineral supplement, for increased egg production, improved feathering and bone development, increased disease resistance and also decreased attractiveness to blood-sucking parasites.

Smite Professional:

- Can be used alone as an efficient and powerful Disinfectant Cleaner and De-Greaser
- Dissolves waxy coatings and deposits
- Is economical and effective!

Smite Organic:

- Can be used alone for parasite control, both internal and external
- Kills all small insects, mite, lice, bugs, cockroaches etc
- Can be applied to animals

Available from your
local stockist

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