

Flea control

- you can win the battle!

Callum Blair scratches below the surface of a perennial problem...

Fleas! Mention the word and we start to itch – and it's no comfort to realise that the cat flea, *Ctenocephalides felis*, is one of the most abundant species of flea on earth. A small sucking insect, the cat flea's primary host is, of course, the domestic cat but it's also found frequently on dogs and will bite humans.

Flea bites cause discomfort and inflame skin. Some pets develop an allergic reaction to the flea's saliva – a condition known as Flea Allergy Dermatitis (FAD), a skin disease, which causes them to scratch constantly. Fleas can also pass on tapeworm infections while heavy flea burdens in kittens often result in anaemia.

The combination of our mild climate and the growing number of centrally-heated homes makes fleas a year-round problem. What's even more worrying is that despite a proliferation of products on the market, some pet owners are reporting that, even though they follow the product's instructions, they are still finding fleas on their pets.

So, what is best practice for a flea-control regime? What are the potential pitfalls and keys to success?

Flea control explained

To deal with fleas effectively it's important to understand the four stages of their life cycle:

Adults

Adult fleas live on your cat but represent only 5 per cent of the total flea population in your home. They feed on your pet's blood, causing distress and discomfort through their bites. The females lay up to 50 eggs a day with your cat acting as a sprinkler, depositing them throughout the house as it moves around. In ideal conditions, 10 adult female fleas can produce over a million eggs in 36 days.

Eggs

Eggs probably make up about half of the total flea population in your home. They will be concentrated in areas where the cat spends a lot of time for instance in its bed or yours, but can be anywhere your cat goes. They're 0.5 mm long, white, smooth and hardly visible to the human eye.

Larvae

Caterpillar-like larvae hatch from the eggs in one to three weeks. They burrow down into the pile of carpets and migrate under furniture and floorboard cracks. They have no legs or eyes but have chewing mouth parts. They feed on adult flea excrement, food debris and dead skin.

Pupae

After one to two weeks, the larvae spin themselves a cocoon in which to pupate. At this stage they are at their most resilient because the sticky, protective cocoons can resist insecticides and are virtually undetectable in the home. They can also lie dormant for up to a year until warmth and vibrations from passing people and animals trigger them to hatch – hungry for a blood meal. They leap on the next passing animal and the cycle starts again.

Flea control best practice – integration is the key

Using an 'on-animal' treatment, such as a spot-on, will kill the adult fleas on your pet but won't kill the eggs, larvae and pupae in your home. Likewise, using an environmental flea





spray will kill the eggs and larvae – but pupae are difficult to kill and adult fleas will remain on your pet. Tackling fleas effectively requires a three-pronged, integrated approach:

- An on-animal treatment
- An environmental treatment
- 'Mechanical' environmental controls, such as vacuuming and washing

On-animal treatments

It is important to treat **all** the appropriate pets in the household. The most frequently used treatments are spot-ons though other products are also available. Most on-animal treatments contain an 'adulticide' to destroy adult

Callum Blair BVMS MRCVS

Callum graduated from Glasgow Vet School in 1994 and spent six and a half years in general practice in the south and east of England. He joined Virbac's Technical Support Team at the end of 2000. His current role involves training and advising vets, nurses and pet owners on pet healthcare and all aspects of Virbac's product range.

fleas, although some over the counter products are merely repellents. So it is important to do some research as not all offer the same level of effectiveness while some dog-only products can be highly toxic to cats.

Spot-ons vary significantly in price and in the interval allowed between treatments. Some are also easier to use than others so it's worth looking around to find a product which offers you a combination of good value, high efficacy and convenience. Your veterinary surgeon or nurse will be able to advise you.

Environmental sprays

Environmental treatments in spray form usually contain two main ingredients: an Insect Growth Regulator (IGR) to prevent the development of the immature stages of the flea and an adulticide to kill adult fleas. They will help treat an existing infestation and stop a new one from becoming established. They are regulated by the Health and Safety Executive to meet strict safety standards.

When using an environmental treatment, follow the instructions closely and spray directly onto and where possible under carpets and rugs, blankets, upholstered furniture, beds, tiles and skirting boards. Pay attention to cracks and crevices in all areas of the home, including between floor boards.

Mechanical controls

There are some practical steps you can take to make your home a hostile environment for fleas. For instance, frequent vacuuming will stimulate lurking flea pupae to hatch as adults and be killed by the environmental spray. Regular machine washing of your cat's bedding will also drown any eggs, larvae, pupae or adult fleas.

Golden rules

Apply products properly

It sounds simple enough and spot-ons are popular because they are easy to use but experts believe that some reports of 'product failures' can be the result of owners not actually applying them properly or not using them as regularly as required.

It's important to part the fur to ensure that the treatment goes directly onto the animal's skin. It's also important to ensure that the whole dose is applied and that it is repeated at the required interval. At Virbac we take the art of applying spot-ons so seriously that we've coined the term 'spotonology' and work with veterinary practices to help pet owners become expert 'spotonologists!' ▶

Treating the environment is vital

Some owners are rigorous in their use of an on-animal treatment but ignore the eggs, larvae and pupae also in their homes by not using an environmental treatment.

The problem is that, as pupae can survive for up to a year, if you don't treat the environment, you'll still be faced with adult fleas hatching and jumping onto your pet where they will start laying eggs before they are killed by the on-animal treatment. On-animal treatments aren't always 100 per cent effective for the full duration of the treatment interval which means that the odd one can survive and lay eggs. And the odd one is all it takes...

It's also worth bearing in mind that it will take a very long time to eliminate an established infestation if you are only treating the animal because pupae hatch out at different stages. However, by using an environmental spray you can then take positive steps to accelerate the hatching of pupae from the house and thus eliminate the infestation more quickly.

Ask your veterinary practice for advice

The fight against fleas never stops so if you are unsure what product to use or how to use it, your veterinary nurse or veterinary surgeon will be able to give you up to date advice and show you how to use treatments. They will help you win the battle! ●



Illustrations: Sam Roberts

Competition time! 10 Virbac Indorex environmental flea treatments to be won!

Virbac is offering a can of its Indorex environmental flea treatment free to 10 lucky readers. You will need to send us your name, address and **most importantly** the name and address of your local vet. Due to postal restrictions we are unable to send aerosol cans via post so they will need to be picked up from your vet. The 10 winners will be notified as will their vets who will be sent the Indorex direct from Virbac.

Enter in the usual way: to either competitions@cats.org.uk or by post to **The Cat magazine, National Cat Centre, Chelwood Gate, Sussex RH17 7TT**. Do remember to mark your emails and envelopes with VIRBAC. Competition deadline **12 October 2012**.

Award winning Indorex is the UK's leading veterinary household spray. Indorex kills both adult fleas and dust mites while also preventing development of eggs and larvae. It's the only veterinary household flea control spray proven to be

stable in UV light (sunlight) and will keep your home flea free for up to 12 months. A single can is sufficient to treat an average sized three bed semi-detached home.

Active Ingredients: Permethrin (rapidly kills adult fleas), Pyriproxyfen (controls growth of eggs and larvae from fleas and house dust mites), piperonyl butoxide (reinforces the action of permethrin).

Please follow the instructions on the can.

