Pest-Free Pets

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Let's face it spring is here and so are the pests! Anyone who has a pet is going to contend with fleas and ticks. An all-out war of "Them vs. Us" has been waged all over the world for centuries. These external parasites aren't just annoying, they also increase potential sores and infection from constant scratching and they transmit internal parasites and diseases. In fact, the 14th century Black Death was spread by rat-borne fleas.

Numerous products have been developed to curtail these pests. Unfortunately, many of these are also potentially toxic to the animal being treated, its owner, and the rest of the environment. Carbanates (including carbaryl and sevin) and organophosphates (malathion, ronnnel, vapona, diazinn, dichlorvas, and parathion) are the two groups responsible for most pet deaths by insecticide poisoning.

Chemical insecticides are specially formulated to resist natural decomposition processes, so increasingly high toxic levels can accumulate and be stored in our own body fat as well as our pet's and in plants or other animals that both we and our pets eat as food.

It is impossible to completely eradicate fleas and ticks, regardless of the method (chemical or natural) used. Using preventative pest control based on the Integrated Pest Management (IPM) method is not only an effective pest control means but also the most ecologically responsible. The IPM method is a biological approach to pest control. It first considers the natural life cycle of the flea or tick and applies effort directly on their developing stages. It then chooses the treatment that is least likely to disturb the total environment. The treatment is applied strategically where the pests hide or breed, not just where they are seen.

Fleas

The life cycle of the flea is very dependent on high temperatures and high humidity -- most weather in a nutshell. At cool 55°F temperatures, larva mature in 140 days but in 95°F heat, maturation occurs in only 14 days! The whole process starts with the eggs that are laid by the female flea while on the animal's body. These eggs fall to the ground, floor, and bedding and, under optimum conditions, hatch in 2-3 days. After feeding for 4-8 days on dust, pet dandruff and dry drops of partially digested blood produced by the adult fleas feeding on the host, the larvae spins a cocoon from debris found in its environment. When the temperature and humidity are perfect, the adult flea emerges. This emergence can take any where from as little as 5 days to as long as 5 months. Until that occurs, the cocoon provides a physical barrier against insecticides.

Ticks

A tick's life cycle is much more complicated. One female tick can lay between 1,000-3,000 eggs. Within 30 days, these eggs hatch into six-legged larvae or "seed ticks". Each larvae immediately looks for a host from which to feed. A tick attaches itself to an animal either by dropping from a bush or blade of grass or by crawling onto a prone animal. The larvae's fishhook-shaped mouth hangs on tenaciously as it digs in and gorges itself for three to six days. At that point, it falls to the ground, molts for 1-2 weeks, and changes into an eight-legged nymph. Still with an insatiable appetite, it binges for a week on another host, and then falls

to the ground for yet another molting process, this time to change into an adult. After mating, the adult male lays eggs and the cycle starts over again.

Where to Start

Effective control of both fleas and ticks requires termination of the emerging adults and prevention of future emergence by killing the larvae. These parasites thrive in hot, humid, untidy conditions. It's difficult to change the weather unless one moves to another state, but a clean environment is possible to change and maintain. This includes daily grooming of the animal, consistent thorough cleaning of its bedding, and special attention to the house and yard, as well. Both ticks and fleas are sometimes hard to detect. Adult ticks are much easier to find than the "youngsters". Brown in color with long, oval bodies and six or eight legs, depending on how old they are, ticks are encased in a gray "bubble" which continually increases in size as they gorge themselves with blood. Special attention should be directed to the pet's head, inner ears, and neck for ticks. If any are found, use tweezers to remove, taking care to pull off the head along with the rest of the body. A head buried in the animal's skin may cause an infection or cyst.

Constant scratching may indicate fleas. Look for "flea dirt" in the pet's coat. These are dark, gritty particles that are actually flea feces. To determine if it is "flea dirt" or regular dirt, put a few specks on a paper towel and add water. If the specks turn red, your pet has fleas.

Non-Toxic Alternatives

Shampoo your pet regularly with a mild, non-toxic shampoo that includes essential oil repellents. Insecticides and harsh detergents in some pet shampoos destroy the hair's natural oils and cause irritation. The soapy solution drowns the fleas which then float away with the rinse water. The presence of essential oils interferes with the insects' ability to sense moisture, heat, and the breath of a prospective victim. Even ticks begin to voluntarily pull themselves out. Useful essential oil repellents include citronella, cedarwood, eucalyptus, rosemary and bay leaf. To make a non-chemical "dip", add ¼ teaspoon of essential oil repellent to 1 teaspoon of shampoo and 1 cup of water. Or, you can use our Organic Neem Dip™, which contains the essential oils along with Neem. Mix thoroughly and pour over your pet, making sure to avoid the eyes and mouth. Caution: watch carefully. Let the dip dry on your pet's coat. Never increase the amount of oil recommended.

Apply a non-toxic flea powder when your pet is dry and between baths. Herbal flea powders are ground aromatic herbs such as sage, wormwood, eucalyptus, and bay leaf which have repellent effects similar to the essential oils. Pyrethrins are often mixed with toxic insecticides in many conventional flea powders. This powerful product is related to a particular species of chrysanthemums. Even though considered the least toxic of all insecticides, pyrethrins work by causing convulsions and paralysis of the insect's nervous system.

The paralyzing effect is immediate when dusted on insects living on the pet and its bedding. Many insects die, but frequent applications are needed since some insects recover within a few hours.

Diatomaceous Earth (pronounced die-ah-toe-may-shus) is a finely ground fossilized diatom, a one-celled algae. Diatomaceous Earth can be found in vast deposits originating from ancient oceans over much of the world. Much of what is sold in this country is mined in the southwestern United States. When this material is finely ground, the microscopically sharp edges of the particles pierce the protective coating of insects so

that they dry out in a few hours and die. In addition to its use for eradicating fleas and ticks, it is used by gardeners as a non-toxic dust to control insects on plants, as a natural means of fumigating grains and seeds for long term storage, and to aid intestinal tone and prevent worms in horses.

The effectiveness of using Diatomaceous Earth for external parasites is related to the thoroughness of the application. 1 cup will de-flea a dog. Put it in a salt shaker or similar container and shake it on the animal's extremities, and comb it through to get it down to the skin. Be particularly thorough around the ears, between the legs, and around the tail. Repeat this process in 7 days and then in another 7 days after that. Since the Diatomaceous Earth particles can irritate the eyes and the respiratory system, keep the dust out of the animal's eyes, nostrils, and mouth. These precautions are equally important for you. A dust mask may be advisable when using in an enclosed area or when working with a large quantity. Refrain from applying Diatomaceous Earth on windy days.

Never use the filter-type Diatomaceous Earth commonly used in swimming pool maintenance. This type is treated until it no longer resembles the state in which it left the mine. After being air-dried, it is treated with soda ash and placed in a kiln. At temps of 2,000°F, some of the residue is burned off and the primary ingredient, amorphous silica, changes physically and chemically into needles of glass with a tough ceramic-like coating.

Herbal flea collars help prevent fleas from hopping on for a ride. Unlike dimethyldichlorovinyl phosphate (DDVP), a spin-off from nerve gas warfare research that is found in chemical flea collars, herbal flea collars take advantage of the benefits of essential oils. Herbal flea collars work best in areas of low infestation.

The House and Yard

Once the pet is brushed, shampooed, and dusted, the house and yard need attention. Fleas spend only 10% of their time on the animal, so treating the immediate environment is essential. Clean up any debris which may harbor food and lodging for fleas and ticks. Wash bedding regularly in hot water. Vacuum carpets and crevices regularly. Remove cushions and vacuum cleaner bag at once so flea eggs won't have a chance to hatch and re-infest the house. Another effective idea is to put a piece of herbal flea collar inside the bag to deter hatching, then dust the carpet lightly and refrain from vacuuming for a week. After 7 days, vacuum the carpets and dust lightly with more Diatomaceous Earth. Repeat the application once again in 7 days. Dust the yard on the same schedule. Moisture will not hurt the Diatomaceous Earth, but it could wash it away.

Nutrition

As per usual, final attention needs to be geared toward nutrition. Parasites love sick, old, and rundown animals. Add something fresh and raw to your pet's diet. Many people depend on supplementing their pet's food with garlic supplements. Results vary (depending on the potency; odorless will have no benefit) but the attractiveness of the skin seems to be reduced (from the pests point of view). Garlic can aid in pest control but it is no substitute for an intensive flea eradication program when dealing with substantial flea and tick presence.

For those who rescue animals, the needs are usually so great that it seems nearly impossible to surmount. You know that each and every animal needs help like you are providing. Persist though and you will eventually witness the condition of the animal go from debilitating and sickly to the health of a cared

animal. Obviously this won't happen overnight but it will confirm everything I ever printed ... good health is proven from the inside out!

Controlling fleas and ticks naturally reduces chances of side effects and eliminates the use of chemical insecticides in your home and out your pet. Don't create problems. Maintain the beauty of the environment while you maintain the health of your pet as well as your own.

ABOUT THE AUTHOR

Dr. Newman holds a Doctor of Naturopathy and a Doctor of Philosophy (in Holistic Nutrition) and has been a world renowned pioneer in the field of natural pet care. The author of nine books, including her latest, '*Three Simple Steps to Healthy Pets: The Holistic Animal Care LifeStyle®*', Dr. Newman is also the formulator of Azmira Holistic Animal Care® products and diets.