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FLEAS

Fleas are small, brown, wingless insects about the size of a common pinhead. Adult fleas take blood from various kinds of mammals and birds but spend a considerable amount of time off the host. Their bodies are compact with flattened sides, permitting them to move rapidly among the hairs of the animal on which they are parasites. Their legs are well developed for rapid locomotion. Fleas are capable of jumping considerable distances. Because they are minute and their bodies are hard, it is almost impossible to kill fleas by crushing them between the fingers.

been removed. With the normal host gone, the fleas turn to the most readily available food source, namely humans. This can also occur after a vacation when both pet and owner have been away.

- An infested animal developing a high temperature. Fleas tend to leave the sick host under these conditions.
- Fleas coming from a neighbor's pet. Fleas from this source may collect on your animal and become annoying.

HOW TO RECOGNIZE FLEA BITES

Different people have differing reactions to flea bites. Some people are immune to the bites, are unattractive to fleas, or both. Others are highly sensitive and attractive to fleas. In a flea-infested household, one or two individuals may be aware of and show severe irritation from bites. Other members of the family may not realize that fleas are present. Women and prepubescent children seem to be most attractive to fleas.

HOW AND WHERE DO FLEAS DEVELOP?

Flea bites can be diagnosed by their occurrence in clusters, particularly in areas where clothing fits tightly on the body (e.g., waistband). Flea bites are most common on the legs, particularly around the ankles; on small children the bites are liable to occur anywhere. Rarely does one feel a flea bite. After a few moments or hours, however, a hard, red, itchy spot may appear surrounding the puncture where the flea fed. This reaction may persist from 5 to 7 days, depending on the sensitivity of the individual.

The flea lays its eggs while roving about on the animal. The small white egg is not sticky and drops from the host animal into the bedding material, into cracks and crevices, next to the ridges of upholstered furniture, or onto other areas frequented by the animal. Hatching takes place within a week.

The tiny worm-like larvae feed on animal hair, skin scales, and bits of dried blood in the area where the host animal normally sleeps. This can be in a bed box in the home, in a dog house, or under the front porch. Larvae may also develop wherever eggs have been dropped and a small amount of animal matter is present for food.

There are no records of disease being spread in Minnesota by dog or cat fleas.

After about a week, a larva completes development and spins a cocoon in this same location. The flea pupates inside the cocoon and emerges as the environmental temperature warms. This pupation period explains why outbreaks occur after an animal has died or been removed.

Adult fleas can survive for several months without food or on a human blood diet.

WHERE DO HOUSE FLEAS COME FROM?

All adult fleas are parasitic and must feed on an animal's blood if they are to live and reproduce. In Minnesota, problems with fleas in the home are associated with infested cats or dogs. Less commonly, flea infestations may come from rats or squirrels nesting in the home. Every flea problem is associated with a warm blooded host (meaning the living animal the parasite flea feeds on). There are no free-living fleas such as what are commonly misnamed "sand fleas."

HOW CAN FLEAS BE CONTROLLED?

Preventive Measures

Dog or cat living areas should be cleaned regularly and thoroughly. Manure, debris, lint, and hair should be removed and old bedding material should be destroyed. Pets should be kept clean and well groomed.

Ordinarily the adult flea maintains an association with its preferred host, the dog or cat. If the flea population is small, a homeowner probably won't even notice them. If flea numbers increase markedly, fleas may leave the animal and bite humans.

Sanitation and Control

Locate areas where adult fleas are active. The presence of adult fleas can be detected by walking through suspected areas while wearing white socks. The dark-colored fleas will show up nicely against the white background as they jump from the floor to the host.

Other circumstances that may result in annoying flea infestations include:

Thorough vacuuming of infested areas is important for successful flea control. Pay special attention to areas where lint and pet hairs accumulate, such as along baseboards, around the edges of carpets, around heat registers, and under and within furniture. Follow this thorough cleanup with the application of an approved insecticide (see below). An infested pet

- Removal of the pet from the house. Flea outbreaks are commonly observed from 1 to 3 weeks after a pet has

also should be treated as part of a complete flea control program.

If the infestation is particularly heavy, remove rugs, overstuffed furniture, and mattresses from rooms and air them outdoors in a dry and preferably sunny place. Remove pillow slips or covers and hang them from the clothesline for a few hours.

Fleas can live and breed outside during the summer in Minnesota if the pet spends a great deal of time outside lying in one area. This area also may require treatment for effective control. As colder temperatures occur in the fall, these areas will not continue to support a flea population and outside treatment can be discontinued.

WHICH INSECTICIDE TREATMENTS ARE EFFECTIVE?

After cleanup measures, a residual insecticide spray can be used.

Insecticides for Use Indoors

Spray either ½-percent diazinon (4 tablespoons 25-percent emulsion concentrate per gallon), OR 2- to 3-percent premium grade malathion along baseboards, under heavy furniture, and on floor areas frequented by the cat or dog.

Insecticides for Use Outdoors

Treat only in summer. Dust areas frequented by the cat or dog with any one of the following insecticides: 5-percent carbaryl (Sevin), 4- to 5-percent malathion, or 10-percent methoxychlor. About 1 to 1½ pounds of the dusts can be applied per 1,000 square feet. Applications of insecticides prepared in granular form can be made at the same rate as dusts. Treat resting and bedding spots that the pet occupies on warm days as well as kennel and pen areas.

Insecticides for Use on Cats and Dogs

Apply dust containing any one of the following insecticides: 5-percent carbaryl, 4-percent malathion, 1-percent methoxychlor, or 1-percent rotenone to the animal and rub it into the fur along the backbone. Methoxychlor-pyrethrin and rotenone-pyrethrin combinations also are available and may provide better control than methoxychlor or rotenone alone.

Impregnated collars, 5-percent dichlorvos (Vapona) for cats and 10-percent dichlorvos for dogs, will provide 3 months of flea control. Watch for fur loss or dermatitis to be sure your pet is not sensitive to this type of treatment. Using flea collars without following other recommended control procedures sometimes results in fleas leaving the pet and seeking blood meals from human hosts.

Recently a chemical called Cythioate has been fed orally to dogs to control fleas and ticks. Cythioate at a dosage of 30 milligrams for each 20 pounds of animal weight is recommended. This treatment must be directed by a veterinarian.

Treating the pet alone will not always end the household flea problem. A thorough cleanup and treatment of the bed or resting sites is usually required to prevent future outbreaks.

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