

## *Fleas*

*Use Integrated Pest Management (IPM) for successful pest management.*

### ***Biology***

Fleas are “nest parasites”. They generally move between the host animal (cat or dog) and the bedding (nest). The typical flea population in a home is comprised of 50% eggs, 35% larvae, 10% pupae, and only 5% adult fleas. Eggs, larvae and pupae are typically found in pet bedding, carpets, rugs, or on upholstered furniture where pets sleep. Since adult fleas are not good climbers, they are mainly found on host animals, on the floor or in bedding materials. Eggs are loosely attached to the host and can be jarred loose onto carpets when the host jumps or scratches. The small, whitish, worm-like flea larvae feed on adult fecal material which is composed of undigested blood. The fecal material looks like small, dark specks or grains of fine sand in the animal’s fur and is often the most easily noticed sign of an infestation. Fleas can last as pupae for several months in unoccupied homes or apartments, resulting in massive outbreaks on new inhabitants. This “outbreak” is triggered by pressure and vibration from footsteps, which stimulates the dormant fleas to literally jump out of their pupal cases and seek out the nearest host for a blood meal. In uninhabited homes or apartments with a flea infestation, the population is composed almost entirely of juvenile fleas (mainly pupae), so controls aimed only at adults will not effectively eliminate an infestation in empty dwellings. In our area, fleas in lawns are not usually a significant problem due to environmental conditions, so outdoor chemical flea control is not necessary.

### ***Management Options***

#### **Non-Chemical Management**

- ~ Where practical, do not allow pets access outdoors or to other (infested) animals.
- ~ Bathe pets frequently (do not use products containing d-limonene, linalool, or permethrin on cats). NOTE: When using topical (skin-applied) flea control products, be aware that frequent bathing may reduce the longevity and effectiveness of these products. For best results when using topical products, apply them after (not before) baths and limit the number of baths you give your pet while using these products.
- ~ Wash pet bedding frequently and vacuum their sleeping areas.
- ~ Frequently and thoroughly vacuum areas where cats and dogs rest, play or frequent in the structure. Vacuuming will not be completely effective alone if animals remain in the structure and should be used in conjunction with flea control measures for the animals.
- ~ Vacuum upholstered furniture and wash (where possible) fabric items which are used by infested animals (pillows, bedding, rugs, etc.).
- ~ To remove adult fleas on animals you may use a flea comb. This may not always be practical, since combing must be very thorough to be effective. Rinse the comb in a bowl of soapy water to remove and drown adult fleas trapped in the comb.
- ~ For flea control in unoccupied houses and apartments, the most effective and safest control measure is thorough vacuuming. Seal the used vacuum bag in a plastic sack and dispose of it in an outdoor trash container. Repeat the vacuuming and disposal process a few days later using a new vacuum bag. The vibrations from footsteps and the vacuum brush will stimulate pupae to hatch into hungry adult fleas, so tucking pants cuffs into boots or socks will help prevent numerous bites to the ankles.

***Select non-chemical management options as your first choice!***

#### **Chemical Management**

***IMPORTANT: Visit Home and Garden Fact Sheets for more information on using pesticides***

The most environmentally sound and effective flea control materials are the growth regulators (which work only on immature stages of the pest) or systemic medications given to pets. Some pet medications are administered based on animal weight. TO AVOID OVERDOSES, accurately weigh your pet before

treatment. Most animal drugs are available through veterinarians; some are available at pet stores or food and hardware chain stores. Ask your veterinarian for application procedures. **DO NOT USE** products containing d-limonene (limonene), linalool, or pyrethroids (particularly permethrin) on CATS. For indoor (non-pet) flea control, invert spray cans for carpets are a safer choice than foggers and are better at placing pesticides in contact with fleas. Household spray treatments are usually not necessary if the flea source (fleas on pets) is controlled and the home is vacuumed frequently. Outdoor chemical flea control is not usually needed. However, if a premise or foundation spray is considered necessary, products containing the insect growth regulator (IGR) pyriproxyfen are more UV-stable and therefore longer-lasting than products containing S-methoprene.

**If you choose to use a pesticide, some examples of products that are legal in Washington are listed below. Some products are labeled for just INDOOR or just OUTDOOR use, or may allow both uses. Be sure to choose a product appropriate for your situation. Always read and follow all label directions.**

- ~ Frontline Spray Treatment (topical use [apply to hair] only)
  - active ingredient: *fipronil*
  - EPA reg no: 65331-1
- ~ Zoecon Precor 2000 Plus Premise Spray
  - active ingredient: *S-methoprene, permethrin, phenothrin, piperonyl butoxide, N-octyl bicycloheptane dicarboximide*
  - EPA reg no: 2724-490
- ~ Program (available for cats; animal drug)
  - active ingredient: *lufenuron*
  - EPA reg no: N/A
- ~ Comfortis (dogs-only oral tablet; animal drug)
  - active ingredient: *spinosad*
  - EPA reg no: N/A
- ~ Revolution (available for cats or dogs, topical use [skin application] only; animal drug)
  - active ingredient: *selamectin*
  - EPA reg no: N/A
- ~ Frontline Plus for Cats & Kittens (topical use [skin application] only)
  - active ingredient: *fipronil, s-methoprene*
  - EPA reg no: 65331-4
- ~ Frontline Plus for Dogs & Puppies (topical use [skin application] only)
  - active ingredient: *fipronil, s-methoprene*
  - EPA reg no: 65331-5
- ~ Adams Flea & Tick Carpet & Home Spray
  - active ingredient: *Pyrethrins, Tetramethrin, Etofenprox, Piperonyl Butoxide, S-Methoprene*
  - EPA reg no: 89459-12
- ~ Hot Shot Flea, Tick & Lice Killer with Odor Neutralizer
  - active ingredient: *permethrin*
  - EPA reg no: 305-55-8845
- ~ Sentry Advance Guard2/Medium Cats 5-9 lbs
  - active ingredient: *pyriproxyfen (nylar), imidacloprid*
  - EPA reg no: 2517-175
- ~ Sentry Advance Guard2/large dogs >55lbs
  - active ingredient: *pyriproxyfen (nylar), imidacloprid*
  - EPA reg no: 2517-176
- ~ Bio Spot Active Care Carpet & Upholstery Powder
  - active ingredient: *piperonyl butoxide, pyrethrins, linalool, pyriproxyfen (nylar)*
  - EPA reg no: 2724-777-89459
- ~ This list may not include all products registered for this use.

*Fleas*

*Images*



~ Caption: Flea  
~ Photo by: CDC/Janice Carr