

A GREENER PAWPRINT

Dog and Cat Companions Help Us Appreciate Nature—Can We Minimize Their Impact On It?

By Jim Paterson



There's no doubt caring for a pet counts as one of life's nobler, and more humbling, endeavors. There is no need to bring a pet into the home, other than the desire to give an animal a better life or the feeling that a home is not a home without a furry member. We lavish love, attention and countless products on these animal companions—we feed them, bag their waste (in the case of dogs) or scoop it (in the case of cats) and even clothe them (but hopefully not in silly frocks). And every aspect of pet companionship carries with it a hidden environmental cost. The better we understand the full impact a pet has on the natural world, the better we can raise pets that leave a lighter environmental pawprint, so to speak.

Some experts say that our pet ownership—how we feed, medicate, clean up after them and put them to rest—contributes markedly to environmental woes. Those in the animal rights community go even further—arguing that domesticated pets should never have been bred in the first place. Priscilla Feral, president of the animal advocacy group Friends of Animals, says that domesticated dogs and cats “displace the space needed by wild counterparts. The public becomes panicked to learn coyotes live in woodlands, while coveting small dogs who are treated like accessories.” The problem, she says, is not so much the attention we bestow on

our well-loved pets; it's the millions of animals cast aside by the commercial pet industry who lack homes and live out their lives in cages until they are, in her words, “snuffed out in these so-called shelters to make room for others.” Anyone interested in reducing animal suffering, Feral says, should adopt a shelter pet, and have it spayed or neutered. “Offering a homeless animal a loving, lifetime home is an act of kindness and humanity,” Feral says, as, she adds, is supporting the work of no-kill shelters.

But even when pet owners don't purchase frivolous dog and cat accessories, and can take pride in their choice of a rescue, the process of raising a pet still carries an environmental impact. Robert and Brenda Vale, two architecture professors and sustainability advocates from New Zealand created a stir with their book *Time to Eat the Dog? The Real Guide to Sustainable Living* (Thames & Hudson). In it, they suggest that dogs are worse for the environment than SUVs.

“There are a variety of ways pets may affect the environment, but I think that the impact of the food eaten by pets dwarfs all other considerations—and it is significant,” Robert Vale says. Other concerns include the impact of pet waste on water quality, the effect of pesticides on both pets and the human population, and the burial or other disposal of euthanized pets. There is even concern that genetically engineered pets will become a growing worry. ▶

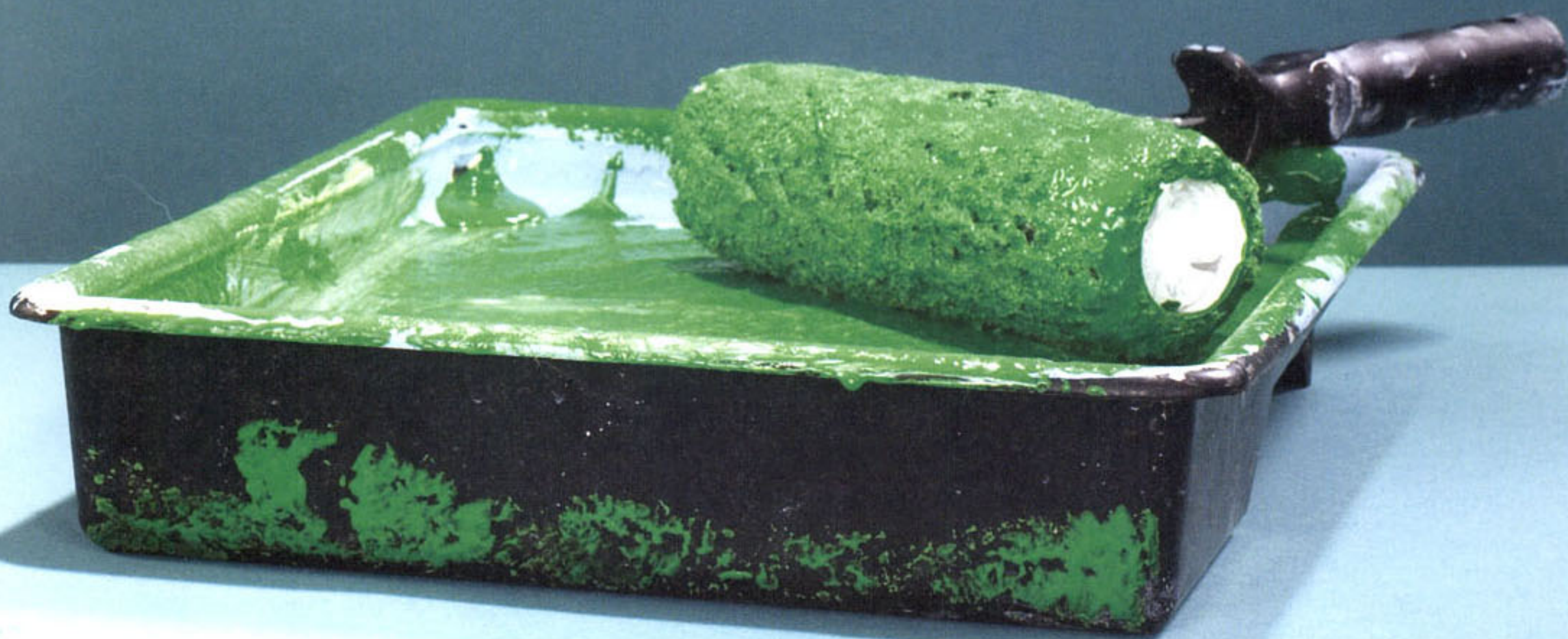


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Manufacturing associated with the growing number of toys, pet clothes and supplies—and the behemoth pet stores that sell them—all contribute to increased carbon emissions, particularly in the U.S., where the pet products industry has boomed. While the number of pets has increased steadily by about seven percent over the last 20 years, expenditures on pet products during that time have nearly doubled according to the American Pet Products Association (APPA), to about \$48 million. And pet ownership is on the rise—from 51 million pet-owning homes in 1998, to 69 million in 2009, according to the APPA.

The primary concern among both animal advocates and environmentalists is to reduce the numbers of unwanted animals—the dogs and cats crowded into shelters, and when shelters run out of space, prematurely killed to make room for more. For years, animal protection groups have advocated spaying and neutering pets along with adoptions. That effort has now been vastly expanded by online services—particularly Petfinder.com (see sidebar, page 25)—that let people find their best-matched animal companions by poring over detailed animal descriptions including health issues, kid friendliness and compatibility with existing pets, not unlike an Internet dating service.

There are also, increasingly, nontoxic, recyclable toys from makers like Planet Dog, as well as alternative cat litters from the likes of Feline Pine, and overall efforts by the makers of pet products to reduce waste. Last year, for instance, Britain's Pet Food Manufacturers' Association (PFMA) announced its intent to “reduce the environmental impact of prepared pet

Poisoned Pets and Vegan Dogs

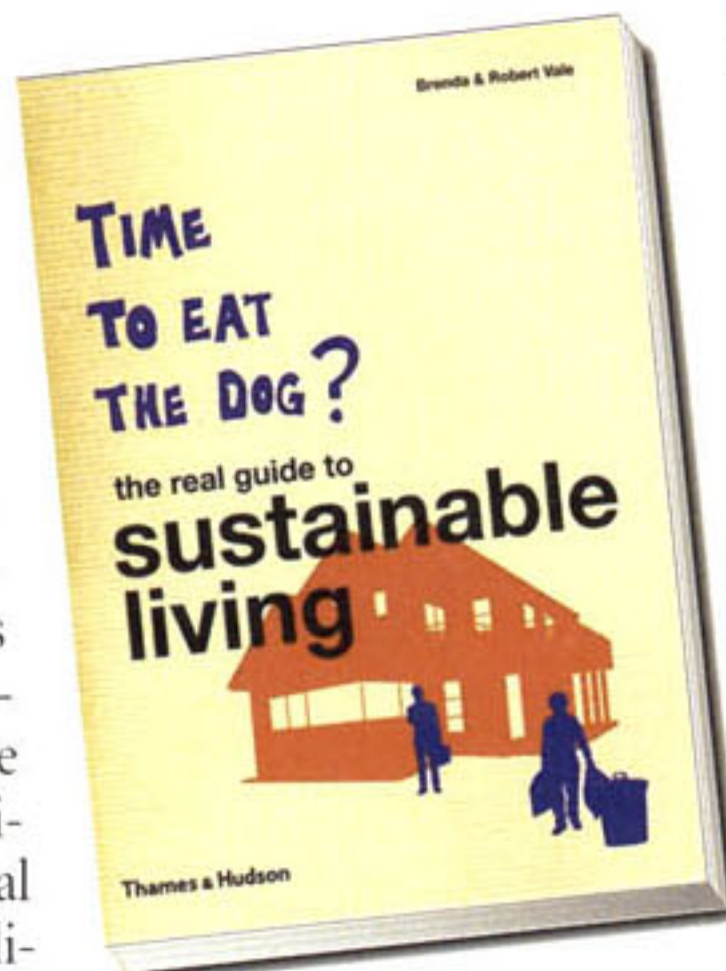
According to the Vales' research, a medium-sized dog eats food containing some 360 pounds of meat and 200 pounds of grain each year. That, they say, requires double the resources that it takes to drive an SUV about 7,000 miles. But critics contend that those figures overestimate the calories consumed by the average dog and ignore the fact that the meat and grains eaten by dogs are often byproducts of the waste-heavy human food industry.

Clark Williams-Derry, director of research for the Northwest think tank Sightline, says that byproducts account for only about 15% of the value of livestock—and thus should be credited with a lower impact than the meat we eat.

“We think pet food performs a huge public service,” says Marion Nestle, a professor of nutrition and food studies at New York University and a well-known food-quality advocate, as well as coauthor of *Feed Your Pet Right* (Free Press). “If pets didn't eat all that stuff we would have to find a means of getting rid of it:

landfills, burning, fertilizer, or converting it to fuel, all of which have serious environmental consequences,” she told *The Daily Green*.

She estimates that just on the basis of calories, the 172 million dogs and cats in America would consume as much food as 42 million people. “But they don't. If we want to do something to help reverse climate change, we should be worrying much



“DOGS CAN EAT A VEGAN DIET, ACCORDING TO SOME VETS, BUT CATS CANNOT.”

food and help tackle climate change” by cutting CO₂ emissions by 10% and water usage by manufacturers by 20%.

“This is a commitment for all of our members to reduce their impact on the environment,” says PFMA Chief Executive Michael Bellingham in a related release. “Although only 1% of pet food currently goes to disposal, compared to 30% of human food, we can raise environmental standards in other areas of pet food production. Working together with our members over the next 10 years we can make a big difference.”

APPA promotes environmentally sound pet ownership and connects with Earth Day each year by advocating products it says are least hazardous to the environment. Such products in past years have included NuHemp organic hempseed dog treats, Simple Solution Naturals biodegradable training pads for pups and World's Best Cat Litter made from whole-kernel corn.

more about the amount of meat that we ourselves are eating and the amount of [grains] we are growing to feed food animals—rather than blaming house pets for a problem that we created.”

Also troubling, Nestle says, is the pet food industry itself, which is lax in its regulation of the quality of pet foods and the risks associated with those failures. In her latest book, *Pet Food Politics* (University of California Press), she focuses on

one 2007 incident—the discovery that contaminants in wet dog and cat food produced by Menu Foods (which makes foods for top brands like Iams and Eukanuba) caused serious kidney damage in the animals that ate it. The discovery led to the largest recall of a consumer product in history—over 60 million containers of pet food—and pointed to the problems globalization causes by allowing serious gaps in



SEEKING: Four-Legged Friend for Long-Term Companionship

There are plenty of dogs and cats ready for adoption at shelters across the country—far more, in fact, than there is room to keep them. Inga Fricke, director of shelter initiatives in the companion animals department of The Humane Society of the United States, says that some 4-6 million dogs and cats are euthanized each year, and an astonishing 68 million are annually sent to shelters. What these animals lacked, in past decades, was a way to reach families willing and able to adopt a pet but who didn't have the time or ability to visit each shelter individually. Oftentimes the right dog or cat match for a family is many states away. That's where Petfinder comes in.

"The foundation for Petfinder was in the environmental movement," says Betsy Banks Saul, who cofounded Petfinder.com with her husband, Jared Saul, in 1996. The site now boasts the largest online database of adoptable pets and is the most-used pet-related site on the Web. "It is a social profit company," she says, "on a mission to see that no pet is euthanized for lack of a home and to ensure that pets are elevated to the status of family members. Our currency is 'lives saved.'"

In its 15-year history Petfinder has adopted out more than 17 million cats and dogs, at times 2 million or more in a single year. The site currently lists about 300,000 animals. Banks Saul was recently named one of "50 Women Who Are Changing the World" by *Woman's Day* magazine.

Updated continuously by volunteers and Petfinder staff, the website shows photographs of adoptable pets along with detailed health and personality descriptions and, in many cases, a video of the dog or cat, along with contact information for the agency that is caring for it. Individual animal shelters and rescue groups that are part of Petfinder's network also have links to their home pages on the site—and these organizations attribute over 50% of their adoptions to Petfinder, Banks Saul says.



Tito was adopted via Petfinder from Arkansas and traveled by plane to Connecticut where he is much loved.

"Petfinder is a virtual shelter," says Jared Saul. "It is being able to sit down with your family and visit hundreds of shelters, get to know the pets, and not have to drive all around to do it. When someone finally does go to meet a pet because of Petfinder.com, they are more likely to be well suited for each other. What better use of the Web?"

And adoption agencies say using Petfinder has greatly reduced the number of pets they have had to euthanize. "It's hard to imagine what we did before this," says Susan Ragland, president of Animal

Rescue Force in East Brunswick, New Jersey. "Petfinder adoptions account for about 60% of the dogs we place, and we placed 1,000 pets last year."

Cross-Country Pet Movers

There are a variety of other volunteer organizations providing transport for shelter dogs and cats once they've been adopted. That's allowed shelters to open their searches to prospective homes across regions, as opposed to just surrounding towns. Molli Bowen is director of Companion Pet Rescue & Transport in Tennessee which mostly rescues dogs in state. They transport about 200 dogs every other week to private owners and shelters in the north.

"People often ask us: 'Where do all these puppies come from?'" Bowen says. "Are there really that many unwanted puppies in west Tennessee? The answer is, sadly, a resounding 'Yes.' There are very few enforced laws in our area and there is no licensing to encourage spaying and neutering."

Another group, Operation Roger, is a nonprofit comprised of regional and long-haul truckers who volunteer time and space on their trucks to deliver pets to new homes. They've delivered 534 rescue animals to new homes since launching in 2005; and 103 in 2010.

And Pilots N Paws is a volunteer-based online discussion board where pets in need of transporting are matched with pilots willing to fly them to places where they're more likely to be adopted. Animal Rescue Flights is another pilots' organization that "promotes, plans and performs the transportation of animals from overcrowded shelters where they face certain death to other parts of the country where qualified families are waiting to adopt them."

Thanks to such coordinated efforts—and the increased ability to match animals both with transports and loving families across the country—animal adoption has never been easier or more rewarding.

CONTACTS: Companion Pet Rescue & Transport, www.tnpetrescue.com; Operation Roger, <http://operationroger.rescuegroups.org>; Pilots N Paws, <http://pilot.snppaws.org>. —J.P. E

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"IF WE WANT TO DO SOMETHING TO HELP REVERSE CLIMATE CHANGE, THAT WE OURSELVES ARE EATING—RATHER THAN

food safety requirements for pets and humans.

The solution may be to put pets on a vegetarian diet. Nestle says they can get all the nutrition they need from a balanced diet of all-vegetarian commercial food, though there is no long-term study to confirm it. Certainly, experts say, we could cut back on the amount of meat our carnivore pets eat.

"Dogs can eat a vegan diet, according to some vets," Vale says, "but cats cannot, so that would be a good way to go if you want to have a dog, as a plant-based diet has a much lower footprint than a meat-based diet." Companies like Natura Pet Food have responded to concerns with a line of dog food that's made from 95% organic ingredients and comes in a biodegradable paper bag.

And human food waste could be turned to pet food. A quarter of the food we purchase ends up in the garbage can and 40% of food produced nationwide ends up in landfills. There are recipes online for dog and cat food, much of it using stuff that we would otherwise throw out.

From Poop Problem to Poop Power

Pets produce plenty of waste. Will Brinton, president of Woods End Laboratories, which specializes in testing soils and organic wastes, says that American dogs and cats create 10 million tons of waste each year. Much of it sits on the ground until it is washed into storm drains, contaminating streams, lakes and rivers; or it ends up in landfills, sealed for posterity in multicolored plastic bags. Lots of what's in pet poop is bad for water bodies—the bacteria and parasites can spread diseases like salmonellosis (causing fever, vomiting and diarrhea) and toxocarisis from roundworms (causing vision loss, fever and cough). Meanwhile the waste releases fish-killing ammonia as it decays, and the nitrogen and phosphorous from pet waste can lead to excess algae and weed growth causing more low oxygen levels and dead fish.

But pet waste might yet find a higher purpose. Brinton has worked with cities considering a methane digester for dog waste. In 2010, a park in Cambridge, Massachusetts, was the first to install a dog park methane digester known as the Park Spark Project. Though temporary—in the nature of a public art exhibit—Park Spark showed what is possible in converting animal waste to energy. Dog walkers deposited biodegradable bags of waste into one of the digester's two 500-gallon tanks and then turned a wheel that helped release the poop's methane gas. That gas directly fueled an old-fashioned lamppost (though the conceptual artist who created it, Matthew Mazzotta, suggested it could just as easily power a tea cart or popcorn stand instead). Mazzotta was inspired by simple methane digesters used to cook food that he saw while traveling in India.

Another way to prevent pet waste from becoming a problem is to make your own backyard composter by drilling a few holes in a garbage can, burying the garbage can and adding septic starter (available at hardware stores) and water to safely break down the poop. There's also a more official backyard

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The Park Spark methane digester turned dog waste into usable fuel to light a lamppost in a Boston park.



septic system called a Doggie Dooley—a pet waste disposal system that looks a lot like a compost bin but is made from a galvanized steel tank and has a foot-operated lid. Short that, The Natural Resources Defense Council (NRDC) says flushing dog waste down your toilet assures that, at least, it is handled by a sewage treatment plant.

Kitty litter can't be flushed (certain parasites can evade treatment)—but biodegradable litters made from materials like pine, corn and newspaper are now widely available. Clumping litter is especially bad for the ecosystem, since the absorptive sodium bentonite it contains is a pollutant and potentially bad for cats

(or cat-poop-eating dogs) when it gets into their lungs or digestive tracts; It also requires destructive clay strip-mining. Owners who flush clay litter down the toilet, meanwhile, risk infecting sea otters and other wildlife with a parasite called *Toxoplasma gondii* found in cat poop, which can be fatal—or cause brain damage—to infants in utero or those with compromised immune systems.

Of Fleas and Ticks

There are all sorts of organic products—as well as home remedies—to combat the yearly problem of fleas and ticks on pets. Several studies indicate that some flea and tick treatments can cause serious health problems in pets—particularly if improperly applied—and careless disposal of medications creates toxic byproducts in landfills and, via leaching, waterways.

The U.S. Environmental Protection Agency (EPA) last year instituted stricter regulations after more complaints from pet owners that "spot-on" pesticide products like Advantage

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WE SHOULD BE WORRYING MUCH MORE ABOUT THE AMOUNT OF MEAT BLAMING HOUSE PETS FOR A PROBLEM THAT WE CREATED."



and Frontline caused health problems in dogs and cats, ranging from skin irritation to neurological problems, to death, according to Steve Owens, assistant administrator of the EPA's Office of Prevention, Pesticides and Toxic Substances.

"We found that the products could be used safely but that some additional restrictions are needed," Owens said in a statement, adding, "EPA's team of veterinarians learned that most incidents were minor, but unfortunately there were some pet deaths." Cats and small dogs are particularly vulnerable, the EPA found, especially when given products intended for larger animals.

Sevi Kay, a certified aromatherapist and botanical products formulator, recommends natural treatment blends using ingredients like eucalyptus, lavender and apple cider vinegar to keep flea and tick infestations at bay, but adds that these nontoxic treatments must be applied frequently. Others suggest

adding garlic to pets' food, vinegar to their water or spraying their fur with lemon-infused water.

But Michael Dryden, professor of veterinary parasitology at Kansas State University in Manhattan, Kansas (known as "Dr. Flea" on his website), says that many natural remedies are ineffective and that spot-on medications work best. "They're relatively safe and far superior to what's been used in the past," he says. There is some residue, he adds, but the EPA generally puts it in the category of "No Observed Effect Level." Most of these products are available only through veterinarians. Less expensive over-the-counter products can be purchased at pet stores, but their effectiveness varies widely. Those containing permethrin (used in some flea- and tick-prevention dog collars) are highly toxic to cats.

To rid your house of fleas or ticks, vacuuming daily can help, making sure to get corners and crevices and tossing your vacuum bag in the outdoor trash. You can also place a bowl of soapy water or sticky paper under a light bulb on the floor, which attracts the fleas in search of a warm body.

Into the Wild

Dogs can harass wildlife and other animals, but experts say cats are the biggest killers of birds. A March 2011 study published in *The Journal of Ornithology* found that of the baby gray catbirds researchers followed with radio transmitters, 80% were killed by predators, and 47% of those deaths came from cats. All told, the American Bird Conservancy estimates that cats kill 500 million birds per year—compared to just

440,000 birds that are killed by wind turbines each year.

The Vales, meanwhile, estimate that each outdoor cat is responsible for the deaths of 25 birds, mammals and frogs per year. The Humane Society of the United States (HSUS) recommends keeping your cat inside anyway, since indoor cats live to about 16, while an outside cat lives only until age four on average. And a bell can provide at least some measure of warning to birds and other small animals in a cat's path.

Resting in Peace

We don't, sadly, get to keep our animal companions with us forever, and eventually face the question of how to handle their remains. For the environment's sake, there are two simple rules: Allow the body to decompose naturally and bury it away from waterways.

The HSUS estimates that there are 77 million pet dogs in the United States and 94 million pet cats—so how they are eventually buried matters. Susan J. Tweit, a plant ecologist, animal lover and author of ten books on green living, reported in *Audubon* magazine that the burial process for pets is already much greener than human burial rituals: Most people don't embalm pets with carcinogenic substances, nor do they tend to bury them in concrete vaults or lead-lined caskets.

Tweit recommends burying your pet on your own property, following local laws, draped in a biodegradable shroud (such as a towel). A pet cemetery is OK, but avoid plastic or wooden caskets. Cremation results in remains that are easier to dispose of and that decompose more quickly, but the crematoriums require use of carbon-emitting fuel. There is a lot more information available from the Green Pet Burial Society, including a ranking of the types of cemeteries that are available.

From the time we adopt a dog or cat to the moment of their passing, they can teach us how to consider the planet in their care—from what they eat to how they're buried—all while keeping us connected to nature. Walking a dog each day may be the most

obvious example of a pet nudging us into the great outdoors, onto trails and into parks we might not otherwise have explored, but cats, too, are nature's teachers, causing us to consider, and always reevaluate, life from an animal's perspective.

CONTACTS: Dog Waste Compost, www.plantea.com/dog-waste-compost.htm; Doggie Dooley, www.doggiedooley.com; Friends of Animals, www.friendsofanimals.org; Green Pet Burial Society, www.greenpetburial.org; Natural Resources Defense Council on Pet Waste, www.nrdc.org/thisgreenlife/0801.asp; Park Spark Project, <http://parksparkproject.com/home.html>. **E**

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