

## Can You Compost Your Dog's Poop?

The 10.6 million tons of poop produced by US pet dogs each year adds a heavy burden to landfills and the environment. A greener solution, composting, is being used by forward-thinking dog parks, turning waste into a nutrient-rich soil amendment.

**Analysis by Dr. Karen Shaw Becker**

### STORY AT-A-GLANCE

- America's pet dogs produce 10.6 million tons of poop each year; add in enough plastic poop bags to contain it, and you've got a hefty load in the nation's landfills
- It's often said that dog waste can't be composted because it carries potential pathogens, but when done correctly, dog waste can be composted safely and to great benefit of the surrounding environment.
- At Brooklyn, New York's East River State Park, two compost bins have been added for dog owners to dispose of their pet's waste
- Dog waste from sled dogs at Alaska's Denali National Park is also composted

***Editor's Note: This article is a reprint. It was originally published August 25, 2016.***

If you have a dog, picking up dog poop becomes just another part of life. After you've scooped up the poop and tossed it in the trash, you may not give it another thought, nor do most of the other owners of the 83 million pet dogs in the U.S.

Yet, perhaps we should give some thought to dog poop and, more importantly, how to best dispose of it. America's pet dogs produce 10.6 million tons of poop each year.<sup>1</sup> Add in enough plastic poop bags to contain it, and you've got a hefty load in the nation's landfills.

### Dog Poop Leaves a Surprisingly Large Environmental Footprint

Dog poop creates a surprisingly high environmental burden. While it doesn't compare to that created by industrial agriculture's concentrated animal feeding operations (CAFOs), bacteria, viruses and parasites in dog waste can be a problem.

In some areas, dog waste can lead to high bacteria counts in rivers, streams and other waterways. It can even be "the difference between a beach closing and a beach not closing," according to California Polytechnic State University microbiologist Christopher Kitts.<sup>2</sup>

Further, a study conducted by University of Colorado Boulder researchers revealed anywhere from 10% to more than 50% of bacteria in the air in wintertime may come from dog poop.<sup>3</sup> OnEarth also reported:<sup>4</sup>

*"Studies have traced 20 to 30 percent of the bacteria in water samples from urban watersheds to dog waste.*

*Just two to three days of waste from 100 dogs can contribute enough bacteria, nitrogen, and phosphorous to close 20 miles of a bay watershed to swimming and shellfishing, according to the Environmental Protection Agency."*

## **Forward-Thinking Dog Parks Turn Dog Waste Into Compost**

There's an alternative to tossing dog waste in the trash or, worse, leaving it on the ground in public places: compost.

It's often said that dog waste can't be composted because it carries potential pathogens, but when done correctly, dog waste can be composted safely and to great benefit of the surrounding environment.

A small number of dog parks have even caught on to the trend. At Brooklyn, New York's East River State Park, for instance, two compost bins have been added for dog owners to dispose of their pet's waste. The park even has a number of pooper-scoopers and brown paper bags for owners' use.

After being mixed with sawdust and "cooked," the poop will turn into useable compost that will be spread around city park gardens. "We figured we can use something people don't want and turn it into something great," Leslie Wright, New York City's regional director of state parks, told the New York Post.<sup>5</sup>

Only two other state parks have similar dog waste composting programs, Robert H. Treman State Park in Ithaca, New York and Denali National Park in Alaska.

Considering one dog park that entertains 50 to 75 dogs daily may generate close to 1.5 tons of dog waste a year, such programs have the potential to make real positive change.<sup>6</sup>

## **Sled Dog Waste Composted at Alaska's Denali National Park**

The average dog excretes 274 pounds of waste a year, according to the Environmental Protection Agency (EPA). In Alaska, where sled dogs play an important cultural and practical role, dog waste can be a serious issue.

A musher with 20 sled dogs would need to dispose of more than 2 tons of dog waste each year.<sup>7</sup>

At Denali National Park kennels, which house a working sled dog team, up to 50 pounds of dog poop are produced daily. For years, the waste was simply flung down a hill behind the kennels, but in 1980 a composting program was established.

Now, the kennels serve as an important example of how to turn waste into an asset. According to the Denali National Park blog:<sup>8</sup>

*"We built a four bin system in which the waste (nitrogen) is mixed with sawdust (carbon) and water and rotated regularly until it transforms into a soil that is jam-packed with nutrients.*

*The mixture of waste, sawdust, and water is carefully concocted to give us a carbon: nitrogen ratio of 20 or 30:1, with the consistency of a worn out sponge. Once the texture and ratio are adequate, we'll start monitoring the temperature of the pile.*

*As the pile sits, microorganisms digest the nitrogen and carbon of the waste mixture and heat is produced. The temperature of the pile tells you the level of microbial activity within it. In Denali, we wait for a pile to heat up to 145 degrees before we turn it.*

*When the microorganisms have broken down all the organic material, the pile is done 'cooking.' This process can take anywhere from four to eight weeks. The odorless, nutrient-rich material that is produced is called humus.*

*It increases the nutrient content of soils and helps retain moisture. Composting also reduces the volume of waste by over 50 percent!"*

## How to Compost Your Own Dog's Waste

If you already have a compost bin in your yard that you use for food scraps and yard waste, good for you! However, you'll want to create a separate bin for composting dog waste.

To do this, you'll need to add a carbon source such as sawdust. The University of Florida's Institute of Food and Agricultural Services (UF/IFAS) Extension recommends a recipe of 2 parts dog manure to 1 part sawdust.<sup>9</sup>

Mix the two together well once a good-sized pile has been collected, then allow it to heat up to at least 140 degrees. You should turn the compost pile at least once a week. In about four to eight weeks, you should have dirt-like compost that you can add to your flower gardens.

An important caveat: researchers are not yet sure if composted dog waste gets hot enough to kill large roundworms (which are fairly heat-resistant).<sup>10</sup>

Because of this, you should only use the resulting compost on non-food gardens, such as flowerbeds and shrubs. UF/IFAS even has detailed plans for how to build your own **self-contained, covered and turnable compost bin** using a plastic or metal garbage can.

Finally, if you don't intend to compost your dog's waste, you can also flush it, which is the disposal method recommended by the EPA.<sup>11</sup>

## Sources and References

<sup>1,4</sup> [OnEarth March 4, 2014](#)

<sup>2</sup> [USA Today June 7, 2002](#)

<sup>3</sup> [Applied and Environmental Microbiology September 8, 2011](#)

<sup>5</sup> [New York Post July 10, 2016](#)

<sup>6</sup> [Recreation Management](#)

<sup>7</sup> [USDA, Composting Dog Waste](#)

<sup>8</sup> [National Park Service, Denali August 26, 2012](#)

<sup>9,10</sup> [University of Florida Institute of Food and Agricultural Services \(IFAS\) Extension](#)

<sup>11</sup> [Los Angeles Times November 2, 2014](#)

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