



Paula Bumpers, DVM & Jennifer Heim, DVM
12482 W. Ken Caryl Ave B-5
Littleton, Colorado 80127
303-948-5000

Lawns and Dogs

By: Diana Alfuth, Horticulture Educator, Pierce County UW-Extension

The gardening world is full of myths and traditions, some of which work and can be explained scientifically, and some of which can't. Even so-called "experts" on television sometimes give questionable advice based on word-of-mouth information. One topic which often brings out bad advice is dog spots in the lawn.

For those of us who share our landscapes with dogs, we regularly have to deal with small brown spots caused by urine. In spring, those spots might be quite large because dogs tend to urinate in the same area all winter. Fixing those spots is one issue, but we're all interested in preventing these spots from occurring in the first place. That's where the misinformation comes in.

You will sometimes hear that it is the acidic pH of the dog's urine that kills the grass, and that you should feed your dog tomato juice or cider vinegar to adjust the pH of the urine. **Don't do it!**

Turf grasses actually prefer a slightly acidic pH, but can tolerate a wide range- 5.5 to 7.5 or higher- and still do well. Dog urine has a pH of between 6.0 and 8.0, depending on the dog's diet and health. It is NOT the pH of the urine that kills the grass!

The real culprit is the high nitrogen concentration in the urine that causes the brown spot. Urine consists mainly of water and urea, a form of nitrogen, which results from the metabolism of protein. Since dogs are carnivores, they consume relatively high amounts of protein, which translates to high urea (nitrogen) content in the urine.

The spots form because when a dog urinates, that high-nitrogen liquid is concentrated in a small spot, which "burns" the grass plants. The same thing would happen if you spilled a commercial lawn fertilizer in a small area. The center of the dog spot dies because of toxic levels of nitrogen, but each spot gets an outside ring of deeper green grass, because the nitrogen concentration around the perimeter is diluted enough to have a fertilizer effect.



Female dogs tend to cause more dog spots than males because they squat and concentrate more urine in a smaller spot. Males tend to urinate in smaller amounts scattered over several locations or against upright structures or foliage.

Since pH is not the reason for brown spots, feeding additives to your dog will not stop the brown spots, and can actually be harmful to your dog! Veterinarians warn that feeding pH altering supplements such as tomato juice, vinegar or baking soda could result in urinary tract diseases, bladder infections, crystals and bladder stones.

Increasing the dog's water might make the dog's urine more dilute; however, you can lead the dog to water, but you can't make him drink! Adding salt or salty substances (including tomato juice) to your dog's diet would probably make him drink more water, but you are risking problems to the kidneys and heart. Don't alter your pet's diet without first fully discussing it with your veterinarian.

There are a couple ways you can prevent brown dog spots in your lawn. You could run around after your dog with a watering can of water, and after your dog urinates, pour water over the area to dilute the nitrogen. That will work, but might give your neighbors some entertainment to talk about!

Better yet, train your dog to go in a particular area- an area mulched with rock or wood mulch, or an area of taller grasses or woods where you don't mow. Also, fescue grass is more tolerant of high nitrogen concentrations than Kentucky bluegrass.

Once those brown spots appear, especially in spring, they are quite simple to fix. If the spot is smaller than the size of your fist, just let it be- the surrounding grass will fill in after just a few weeks. For bigger spots, mix a few handfuls of seed into a bucket of soil. Then scratch up the dead brown grass- you don't have to remove it all, but get some of it out of there. Then simply sprinkle some of your soil/seed mixture over the area and keep it moist until the seeds sprout.

Before you start feeding your pets dietary supplements based on advice from well-meaning television personalities, or use any "unusual" substances in your garden or landscape, check out the science behind the advice. Know what you're using, and why, and be aware of potential side effects which might not be immediately apparent.

