

Protecting Your Precious *Roses* from those Dear Deer



You can use proven techniques, including using plants that deer don't like, specialized fencing, chemical deer repellents, high-pressure water, big dogs, noisemaking devices, scary lights, and more. You have to think like a deer, to look at your garden from the deer's point of view. Never mind if your neighbors think you're a bit crazy.

This is war.

Bill Adler Jr., Outwitting Deer



by Deborah Erickson, Ph.D.

Know Your Enemy: Useful Facts about Deer

It has been estimated that in the United States deer damage a total of \$100 million in agricultural crops, \$750 million of forest regeneration, and cost \$1 billion in deer vehicle accidents. Over 300,000 vehicles collide with deer every year in the United States (over half in October/November during mating season), resulting in an average of 120 fatalities, making deer the number one wildlife killer of man. On the plus side however, economic and recreational benefits from deer were judged to be \$14 billion.

In Washington state past forest practices have contributed to increased mule deer and elk populations. In the early 1900s we had 10,000 elk and about 50,000 deer. Today we have 55,000 elk and 350,000 deer. Clear-cut forests offered excellent habitat for these animals. The plants that grow in recently cleared areas provide forage preferred by deer and elk. On average, a healthy adult buck or doe needs to consume five to 10 pounds of food per day.

Deer are selective feeders: whether a plant is eaten depends on season, plant palatability and the availability of alternative foods, weather conditions and nutritional needs. The hungrier they are the less selective they are; no plant species will be avoided by deer under all conditions.

Deer learn quickly and learned behaviors are taught to their young. Deer have learned that suburban homeowners are not a threat and often won't run unless actually chased, so gardeners have to be more resourceful. Deer will learn the limit of a tied dog and stay beyond that range, then help themselves to plantings.

Once deer establish a pattern of behavior it is very hard to break. Deer are creatures of habit, and will return to a successfully foraged area. Therefore, if you have had deer damage in the past it is very important to use a control method BEFORE you see damage, to "unlearn" the past behavior. Preventing deer damage before it starts is easier than interrupting an established pattern. Once they adapt to your garden, they adopt it. Damage reduction should include different strategies in different times of the year; stronger measures are needed in late winter and early spring because natural foods may be scarce.

Deer are very good jumpers and can easily clear four-foot fences. Another deer was observed clearing a 12-foot fence when being chased by dogs. Deer lack upper incisor teeth; they just have cartilage like sheep so damage consists of tearing and breaking, as well as stomping on what they don't eat.

Methods of Damage Control

In any deer deterrent program plan on using several different tactics, rotating and alternating them throughout the season, before the deer get used to them. Use all five physical senses of the deer to assault their sense of security. Like all wild

LEFT: White-tailed deer, courtesy Getty images. ABOVE, LEFT TO RIGHT: *This One Works*, courtesy Mitchelandsnursery.com. *Miller Hot Sauce Animal Repellent*, courtesy Pinterest.

animals, they are neophobic (afraid of anything new) so don't give them a chance to adapt.

Population Control

Deer are classified as game animals and can only be killed during legal hunting seasons by persons holding a valid big game license. See your state's Department of Fish and Wildlife websites for current hunting season dates, licenses needed and regulations.

Deer have the potential to double their population about every two-and-a-half years if no mortality takes place. Buck-only harvests do not reduce or stabilize deer numbers. Some states are experimenting with steroid contraceptive birth control methods with some success; cost and logistics for wide-scale use are problematic.

Chemical Repellents

The greatest amount of protection for home gardens with repellents is to use several different repellents and to rotate their use so deer don't adjust to them. Although designed to have no worse effect than leave a bad taste in their mouths, chemical repellents are pesticides and usage should follow label directions carefully.

Contact Repellents

Commercial or home-made sprays can be temporarily effective but need frequent reapplying (every three to four weeks) or after rain. They usually include capsicum pepper, eggs, or thiram. Hot pepper sauce is a successful contact repellent; a commercial mix is *Hot Sauce Animal Repellent*. Another commercial spray I've used successfully is called: *This One Works*. Other commercial mixes are *Hinder* and *Repel* (ammonium soaps of higher fatty acids with Thiram). There are many homemade recipes available via a Google search.



Area Scent Repellents

Success is usually temporary as deer become accustomed to fragrances and realize the threat is not actually present. Repellents can include human hair, human urine, coyote urine, deodorant soap, moth balls, bone tar oil, rancid grease, feathermeal (dried chicken feathers), dried blood, or blood meal in a cloth bag. If the deer have encountered these before they will have little to no effect. Hang in a nylon stocking, plastic bag with holes or mesh bag about 30 inches off the ground. Commercial area repellent sprays include *Deer-Away* or *Big Game Repellent*.

The smell of decaying eggs is repellent to deer but can't be smelled by humans. A mixture of a dozen eggs and five gallons of water

can be applied to the ground using a pressure sprayer. The mixture will cover approximately one acre. Reapplication is necessary after each rainfall.

Another cheap and easy repellent is fabric softener cloth you use in the dryer. The stronger the fragrance, the better. Hang them at intervals of three feet. Replace after a rain as they lose effectiveness.

Also in this category is certain plants deer dislike; garlic or onions around a small raised bed sometimes works. I've successfully used commercial "garlic clips" to deter rabbits.



Physical Barriers

Fencing is a reliable deer control solution, but may not always be practical due to appearance, zoning restrictions, cost, or terrain. However, when pro-rated over their life spans, fences are often more cost effective than repellent spray programs.

Whatever the strategy and material used, it must be firmly attached to the ground. Deer will squeeze under or through tight places and are smart enough to knock down a flimsy fence. They will normally attempt to go under or through a fence rather than jump over it.

Natural Defenses

Use of large, thick woody shrubs can successfully keep deer from a garden, particularly if they can't see through them. Thorns or extremely thick growth work best. Deer rarely damage barberry, birches, dogwoods and spruces.

Netting & Partial Barriers

These are effective for protecting small plantings, individual plants, or small beds of plants. They can also be used to surround a planting as a temporary fence. Around a large planting, netting may need to be high enough to prevent being jumped over—six to eight feet. At this point it's really a fence.

Personal Experience

Fishing line can be used effectively in the woods if strung carefully. Use 10 – 15 lb. test fishing line, the first line about waist to chest high off the ground. String around trees or poles and pull very, very taut. (Not too high; deer aren't very tall.) String a second line about knee height off the ground, pulled as tight as you can get it. The deer will stop when they feel the line on their chest and legs, but can't see it so don't recognize it as a fence to jump over. I used this as a barrier between the yard and the woods for a number of years in Olympia, Washington with some success. It requires checking every few months or after a windstorm. Not recommended in a human pathway!

Passive Exclusion Fences

Low fences can be successful if the deer can't see a safe landing zone: the threat of injury is a powerful deterrent. The combination of a four-foot fence and five-foot tall shrubs they can't see through will work.

A woven wire fence must be at least eight feet high with 12-foot posts placed at 40-foot intervals. The bottom should be at ground level so deer cannot crawl under it. A fence that slants away from the area to be protected is another successful design because slanting lines seem to confuse the deer. If properly built, a wire fence should last about 20 years with little upkeep needed.

Active Exclusion Fences

Active fences use electricity to keep deer out. The deer are attracted to the fences by their appearance or smell. When they touch the fence with their nose or tongue, they receive a shock that conditions them to avoid the fenced area. They are usually less expensive than a tall passive fence.

The key to effective fences is high voltage, low impedance charger and a good ground rod. High voltage chargers require less vegetative maintenance. A good ground is an absolute requirement.

Another effective electric fence is a two-dimensional design. A single wire at 50 inches is placed around the garden. A second set of two wires is located 38 inches outside the first wire at heights of 15 and 43 inches. Using hand-driven posts and poly-wire makes it possible to take the fence down and put it back up several times.

Scare Devices: lights, whistles, gas exploders, gunfire, fireworks, dogs

Deer quickly habituate to noises and resume foraging. They will most likely annoy your neighbors and may be dangerous to other animals.

Dogs that run free can successfully repel deer long-term. However, it

is illegal for dogs to “run down” a deer at any time and as pet owner you might be legally liable. My personal experience with companion dogs is they seem to help: For 20+ years we lived near Olympia, Washington on four acres next to 2,000+ acres of the Federal Nisqually Wildlife Refuge. For 10 years we had two dogs, a Cocker Spaniel and a Welsh Corgi. I had occasional but never drastic deer damage. We lost both dogs, and went two years without a dog. Both summers I had *extensive* damage and *repeated total* loss of buds and blooms. After that we again had a small herd of Cocker Spaniels, and minimal deer damage. I’m convinced the scent of a dog in the yard could work as a deterrent that takes advantage of predator avoidance behavior.

Water Spray Motion Detector:

Now I live on two-and-a-half acres outside Battle Ground, Washington. In the winter I have deer helping themselves to the backyard bird seed at night. But in the summer the roses are in containers in the front yard, protected by *Havahart Critter Ridder* motion detectors attached to water hoses. When the motion detector is activated, the sprayer hose is triggered and shoots water very fast, hard and loud in the circle or the arc you have set. The distance of the spray is determined by the device

setting and your water pressure. After they are triggered, they will go off again in about 10 seconds until the motion stops. These absolutely work. I can see “skid marks” in the garden soil where the deer



leaped away from getting shot with water. We have the hoses on a timer, so they automatically turn on at night and off in the morning. Now I own four, aimed in the directions of the compass protecting the rose garden. Are they expensive? Not when you compare a permanent solution like motion detectors against the loss of a potentially trophy-winning rose, or the cost of new roses at \$35 to \$75 each!

As you can see, there are multiple deer deterrent options available to a determined rose grower. Easiest and least expensive is a repellent spray but it needs to be reapplied frequently. A more permanent solution is natural deterrent landscaping, passive physical fencing, or active electric fencing. I don’t have a hundred roses, but what I have I want to protect! The shock of hard, fast, loud water streams activated by motion detector devices have been the perfect solution for protecting my rose garden from those dear deer. Maybe they’ll work for you, too!

LEFT: Six-foot plastic heavy deer fence, courtesy Benner’s Gardens. ABOVE: *Havahart Critter Ridder Motion Activated Animal Repellent and Sprinkler*, courtesy Amazon.com.

RESOURCES: (Books) *Outwitting Deer: 101 Truly Ingenious Methods and Proven Techniques to Prevent Deer from Devouring Your Garden and Destroying Your Yard* by Bill Adler, Jr.; *50 Beautiful Deer-Resistant Plants: The Prettiest Annuals, Perennials, Bulbs, and Shrubs that Deer Don’t Eat* by Ruth Rogers Clausen; *Deer Proofing your Yard & Garden* by Rhonda Massingham Hart; *Gardening in Deer Country* by Vincent Drzewucki, Jr.

SOURCES: Washington State Dept of Fish & Wildlife: *Landscaping with Deer Resistant Plants*. University of Massachusetts: *Preventing Deer Damage*. Benner’s Gardens *Virtually Invisible Deer Fencing Systems*. Amazon: *Havahart Critter Ridder Motion Activated Animal Repellent and Sprinkler*.

CONTACT REPELLENT RECIPE All-in-1 Homemade Deer Repellent from Washington State Fish & Wildlife

Mix these in a 1 gallon tank sprayer:

- 2 beaten & strained eggs: strain them to remove the white strings surrounding the yolk, which otherwise will plug up your sprayer.
- 1 cup milk, yogurt, buttermilk, or sour milk
- 2 tsp. Tabasco sauce or cayenne pepper
- 20 drops essential oil of clove, cinnamon, or eucalyptus, found in small bottles at health food stores
- 1 tsp. cooking oil or dormant oil
- 1 tsp. liquid dish soap
- Top off the tank with water and pump it up. Shake the sprayer occasionally and mist onto dry foliage. 1 application will last for 2-4 weeks in dry weather.

