



Fact Sheet 3.2

What other methods of deer control are there?

While hunting is the most effective method of rapidly reducing a deer population, one must consider the various methods used to hunt. As shown on page 2.2-2 of this report, Ridgefield's controlled hunt allows hunters to hunt using shotgun, rifle, muzzleloader, and archery.

A 2008 study (Pedersen et al) showed that 18% of deer shot by archers (bowhunting/archery) are wounded and not killed. The study states, "The overall 18% wounding rate is similar to wounding rates reported in more recent studies for hunters using modern bowhunting equipment."

Howard Kilpatrick (DEEP biologist and Ridgefield hunter) reported a "17% wounding rate over a two-year bowhunting program within a residential Connecticut neighborhood." The report cites, "We found bowhunters with modern archery equipment were able to hit 89% of the deer that they shot at on Naval Support Facility Indian Head (NSFIH), Maryland. Kilpatrick and Walter (1999) reported an accuracy of 75%."

Many hunters prefer a bow and arrow over a gun (for hunting) due to the challenge bow hunting provides. A 2015 *Police One* article stated, "If you are talking about legally hunting an animal, a bow and arrow would be preferable to a gun if you believe in giving the animal a fair chance at survival. The bow method requires more skill on the hunter's part, is the fair way to hunt game."

It is important to remember that Ridgefield implemented a hunt not for "sport" but rather to decrease the population in a safe, efficient, and effective manner.

There are, however, other methods to control deer populations that have been tried in other communities. Their effectiveness, cost, and implementability vary greatly depending on site-specific conditions.

Immunocontraception

Westport, CT's Deer Management Committee recommended that the Town of Westport offer a deer contraception program be developed using an experimental PZP (Porcine Zona Pellucida) vaccine. One of the attractions of this program is that it would allow interested residents to participate without committing or affecting the town as a whole. In addition, the Committee felt that a contraception program would be more accepted by the town than other types of deer population control programs.

Over the last few years PZP techniques have recently made deer contraception much more effective (a single vaccination lasting two to three years or more), simpler (deer can now be darted and marked simultaneously from as little as 35 yards away) and significantly more affordable (as low as \$70.00 per deer in a recent study Rutberg, et al., 2012).

The PZP vaccine works by producing antibodies to sperm, blocking fertilization. The PZP vaccine is safe for residents as well as the deer and poses no threat to animals or humans who might later consume a vaccinated doe (Miller et al., 2001).



The Committee discussed such a plan with Dr. Alan Rutberg of Tufts University who has successfully implemented similar programs in

other areas and has expressed interest in implementing a similar program in Westport (Rutberg, 2012). An implementation committee would be essential in facilitating collaboration between town government, interested residents, and Dr. Rutberg to manage this project (Town of Westport CT, Deer Management Committee Final Report).

From 2005 to 2010, 258 adult and yearling female deer on Fripp Island, South Carolina, were treated with one of several PZP preparations designed to produce 2+ years of effective contraception with a single treatment. Most vaccine preparations tested reduced fawning rates by 75% to 95% for at least 1 yr. From 2005 to 2011, deer density on Fripp Island declined by 50%.

In Hastings (NY), the town will be using the standard form of PZP supplemented with timed-release long acting PZP pellets. Therefore, annual booster injections will not be necessary; longer intervals between the dosing of individual animals will be possible.

Repellents

A variety of repellent products, used singly or in combination, can create an effective multi-sensory deterrent to repel deer. Commercial repellents work by creating unpleasant tastes or odors, gastrointestinal discomfort, or a sense of pain (hot pepper or peppermint) when the active ingredient comes in contact with the eyes, nose, or mucous membranes of the deer. Some of the more effective repellents contain a sulphurous odor, believed to induce fear by giving off smells that deer associate with a predator.

Selecting Deer-Averse Plants

Planting deer-resistant flowers and ornamental varieties will bring the best results. There is a wide variety of less tasty yet equally beautiful flower and ornamental options that deer do not usually eat. Also see Fact Sheet 7.

Physical Barriers

Fencing (wire or other) will keep deer out of larger areas, plastic netting can be used over particular bushes, and individual protective “tubes” and fencing can be placed around prized seedlings until they grow out of reach of the deer. There are also various options with electric fences. Some contain scent attractants (to ensure quick contact with electrified material).

Scare-Based Devices

Motion-sensing “Scarecrow” sprinkler devices (hooked up to a hose and blasts any animal moving within a set range with a strong burst of water) can be effective. Other devices pose a mild electric shock or emit deer distress calls.

The Bottom Line

While hunting is the most effective method of rapidly reducing a deer population, there are other methods to control deer populations that have been tried in other communities. However, their effectiveness, cost, and implementability vary greatly depending on site-specific conditions and their applicability to Ridgefield would need to be studied.