



QDM Harvests Not an Exact Science

By **Kip Adams**

Photos by Charles J. Alsheimer

Quality deer management is a familiar term to many deer hunters today. You can't pick up a hunting magazine or watch the Outdoor Channel without seeing or hearing about it. Although hunters are more educated than before, many still don't fully understand QDM or how to practice it most effectively. One of the most common misconceptions is that QDM requires shooting as many does as possible. Read on to find out why that's not true — and how a better understanding of QDM can benefit you as a deer hunter and manager.

Quality deer management is an approach that unites landowners, hunters and resource managers in a common goal of producing healthy deer herds with balanced adult sex ratios and age structures. In simplest terms, QDM involves balancing a deer herd with its habitat and having deer — bucks and does — in multiple age classes. Balancing a herd with its habitat requires determining the appropriate density or number of deer relative to the available habitat, and then harvesting the appropriate number of does to achieve that density. Harvest too few, and the herd will quickly exceed or remain higher than what the habitat can support. This situation is not good for the deer herd, habitat or other wildlife species. Harvest too many, and the deer herd will decrease well below what the habitat can support and unnecessarily remove animals that could provide viewing or harvesting opportunities.

In their infancy, many QDM programs had nearly unrestricted doe harvests. The adage, "Shoot as many does as you can, and then shoot three more" was commonly stated. This approach was advocated by many biologists after years of inadequate doe harvests

that had resulted in overabundant deer herds and habitat degradation. In fact, from 1985 to 2000, the nationwide whitetail population essentially doubled from around 15 million to more than 30 million animals. Although aggressive doe harvests work well when deer numbers are high and the habitat is productive, when practiced long term in less than optimal habitats, they can reduce deer herds to less than what the habitat can support and lower than levels that provide many hunters with a quality hunting experience. A contributing factor is that as deer numbers increased the past two decades, so did the populations of whitetail predators. Early research suggested that, with few exceptions, predators such as coyotes, bobcats and black bears took so few animals that they had a minimal impact on overall deer populations. However, now that many deer herds have been reduced and predator numbers have increased, predators have the potential to affect deer densities and therefore the number of does we should harvest. That doesn't mean we should declare war on predators or stop shooting does. Rather, it emphasizes the need to determine the number of does to harvest on a site-specific basis. Across most of the whitetail's range, deer herds recruit an average of slightly fewer than one fawn per adult doe. Does drop more fawns than this, but some die from malnutrition, disease, predation and other factors before they are "recruited" into the population at about six months old. In the highly productive Midwest, fawn-recruitment rates can average well more than one fawn per doe. Conversely, fawn-recruitment rates can average 0.2 fawns per doe in southern Texas during dry years. At that rate, it takes five does to recruit one fawn. Obviously, doe harvest rates must be adjusted accord-



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ingly unless herd reduction is desired.

So, how many does should you harvest? Some situations warrant as many as possible, but others require very few or none. Many properties under QDM guidelines begin to achieve their initial antlerless harvest goal during the same period they establish food plots and improve the natural habitat. This combination improves deer herd productivity, and the antlerless harvest must increase or remain high. Conversely, there are some areas where aggressive doe harvests are not justified. Possible reasons can include poor-quality habitat, a low fawn-recruitment rate, severe winter or drought conditions, or overharvesting in previous years.


A target doe harvest depends on many variables, including deer density, property size, habitat quality, adult sex ratio, neighboring management practices, age structure of the doe population, your deer management goals, seasonal conditions — such as extreme winter weather or summer drought — hemorrhagic or other disease outbreaks (such as many states experienced in 2007), and the fawn-recruitment rate, which can be a function of the density of predators in your area. The appropriate doe harvest rate varies by region. For example, the average property in Florida cannot withstand a comparable doe harvest to the average property in Illinois. The appropriate harvest rate also varies locally. For properties with comparable density goals, one with low-quality habitat will likely have a lower target harvest than a property with high-quality habitat, even if the properties are only a few miles apart. This point is obvious, but it shows there is not an “exact” harvest rate that can be applied to a specific location or region. Fortunately, we can calculate a tar-

get doe harvest from survey data or use ballpark harvest rates. The key is to collect enough harvest and observation data to refine the target harvest in future years. If you have a deer density estimate, a general rule of thumb is that harvesting 20 percent to 30 percent of the does will stabilize the herd. If you do not have a deer density estimate, there are some general harvest guidelines that can help determine your target doe harvest. Whether you're in Alabama, Minnesota or somewhere in between, poor habitats can't support as many deer as good habitats. With that in mind, here are some harvest figures that can be used as a general guide to stabilize deer herds. Ballpark rates in poor habitats range from harvesting one adult doe for every 300 to 600-plus acres. Ballpark rates for moderate-quality habitats range from one adult doe for every 100 to 300 acres, and ballpark rates for good habitats range from harvesting one adult doe for every 25 to 100 acres. Higher harvest rates will cause herd reduction, and lower rates will allow herd growth.

Harvest rates for fawns can also be calculated. Ballpark rates for doe fawns range from one for every 100 to 640-plus acres, and you should harvest as few buck fawns as possible. Quality Deer Management recommends buck fawns constitute less than 10 percent of the total antlerless harvest (does and fawns combined). In reality, fawn target rates can vary widely. In some northern environments with low-density herds and extreme winter conditions, fawns might be specifically targeted for harvest over adult does because of their lower productivity and higher winter-mortality rates. In some areas, a few doe fawns are targeted for harvest so managers can collect important biological information on that segment of the population.

Additionally, in some urban and suburban areas with high deer densities and even higher deer-human conflicts, all antlerless deer — fawns and adults — are targeted for harvest.

What does this mean for your management program? The first step is to assess where the deer herd is relative to what the habitat can support. Do you have preferred tree species regenerating in the understory? Are the understory and shrub layers healthy? Does your harvest data indicate the deer are healthy and not nutritionally stressed? If you answered “yes” to these questions, the herd is likely in balance with the habitat, and your goal might be to maintain the current density. If you answered “no,” the deer herd is likely higher than the appropriate number for the habitat, and you should consider reducing it. After you determine where the herd is relative to the habitat, you can calculate a target doe harvest from the aforementioned figures. The key is to continue monitoring the deer herd and habitat and adjust future doe harvests accordingly.

So, do QDM programs require you to shoot as many does as possible? Not necessarily. Instead, they are determined on a site-specific basis and might range from none to as many as possible. Local conditions and data will dictate that number and help maintain your deer herd and habitat in a healthy condition. Just as it was improper to provide blanket protection to does during the pre-QDM era, it is equally improper to blindly harvest them today without a clear understanding of local conditions. Fortunately, research provides the information necessary to guide our management decisions, and when practiced properly, a QDM-managed herd will provide better deer, better deer habitat and better deer hunting. 



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