

Now that a balanced harvest has become a part of the sportsmen's regimen of management tools, some questions concerning selection procedures must be addressed. Which doe do you shoot and what characteristics do you look for when making a decision? This type of questioning originated following the genetic research conducted on the male segment of the species. However, the fact is, our knowledge of genetics remains in its infancy when it comes to big buck production. We know it plays a significant role in antler size and configuration, but which one, the buck or doe, contributes most genetically remains questionable. Some researchers conclude that does contribute at least 50% to the genetic makeup of the offspring. This being the case, a selective doe harvest may very well be important.

The decision as to which doe to shoot must be easy. Experienced game managers will tell you that the correct doe is the one that remains stationary long enough for you to put the crosshairs on her shoulder.

When a doe harvest is initially implemented, the removal of does is easy. Why-- because they are normally overabundant and more importantly visible to the hunter. It is during these early stages when one could consider selecting for or against certain genetic traits exhibited by the does.

One of these fundamental selective traits would probably center around the "most obvious", body size of the doe. Since most would agree that a large-bodied doe would be more apt at producing larger bodied fawns, in turn, bigger bodied bucks—large does would be protected. But as for other traits, even if they existed, who could distinguish them. Even when it comes to body size, there is no guarantee progeny will be larger or

healthier than those produced by a streamlined doe. Even if easily identifiable physical characteristics existed, there is no insurance how or to what extent the individual doe you are looking at genetically contributes to its offspring.

A major question concerning doe harvest is timing. The answer to this question by most authorities is as early in the season as possible. The principle behind this philosophy is—the earlier a deer is removed, the more forage will be left for the remaining deer.

In order to investigate the potential negative impacts resulting from the premature orphaning of fawns in the wild, Dr. Steve Demarais, then Associate Professor at Texas Tech University, and I consolidated our efforts to investigate the effect of doe harvest on the survival, physical development, and home range size of whitetail deer fawns in South Texas.

The study was conducted on a large ranch I managed in Dimmit, Webb, and LaSalle Counties.

A total of 24 fawns were radio-collared on October 15-16, 1985. Thirteen fawns were orphaned, and 11 remained with their dams. The following year all survivors were collected. Two of the four yearlings, orphaned as fawns, were bred as fawns compared to zero of five females with dams. Physical development of males was not affected by the early harvest. Matter of fact, the largest-racked buck was an orphan. This study concluded that on well-managed landholdings providing quality deer habitat, there are minimal, if any, negative effects of dam removal on physical development of surviving fawns, but the study did support that early orphaning can potentially effect a fawn's home range, thus survival.

Orphaned fawns occupied a smaller home range (383 acres) than did unorphaned fawns (713 acres). The smaller home range exhibited by orphaned fawns could be attributed to a lack of fawn/dam interaction. More importantly, without a dam, the orphaned fawns could have experienced a disadvantage, particularly in their search for food, water, and more critically, escape cover from predators. Orphaned fawns experienced a 21% death loss. No unorphaned fawns perished.

With the major objective being the production of excellent quality mature bucks, the selection as to where does are shot may be the ultimate decision. Simply put, there may be areas you choose not to remove does.

For example, if your ranch or lease is small (less than 1,000 acres) or located in such a way that you wish to afford deer sanctuary in its middle; you would hunt the periphery of the protected area only. More importantly, you may have located areas where bucks exhibiting desirable antler qualities occur on a consistent basis and desire the spread of those particular antler qualities. The assumption is: the more does available, the greater chance these bucks have distributing desirable antlered characteristics. Thus does would be protected in these big buck producing areas referred to as genetic pools.

Selection of does becomes less critical over time because the harvest quota becomes increasingly difficult to attain each proceeding year. Those naïve “easy to kill” does rapidly evolve into evasive animals. This is the reason you see few does on well-managed lands. They learn the program and begin initiating their inherent survival instincts. And if you think a buck is elusive, you simply haven’t tried to match the wits of an old doe. A six-year-old doe that has survived five hunting seasons is an elusive

animal. Being a survivor is not her only accomplishment; she has raised fawns annually, and protecting their lives is obviously a more difficult task than the one of an old, single, reclusive buck.

The most challenging aspect of selection in an antlerless harvest is between sexes. It is imperative that nubbin buck fawns are not shot by mistake. The harvest of six month old bucks is always a concern, but by following several rules, accidents can be reduced.

First, hunting should be conducted if possible on open areas attractive to deer such as grain fields to insure hunters' time to verify their targets. Also, doe hunters should be required to have a pair of quality optics to enhance verification of their quarry.

Another rule to follow is to pass up individual, antlerless deer that appear fearless of man. This behavior is characteristic of buck fawns.

It is recommended to wait until several deer come into view in order to verify your target. To an inexperienced or excited hunter, a large, early born buck fawn looks like an adult doe when alone. Not until an adult deer appears can this youngster be properly identified.

The short antlers of a buck fawn are quite obvious, yet hunters often fail to spot them, demonstrating how difficult attaining a harvest quota is when additional limitations are placed on the sportsmen.

The critical aspect to any harvest of surplus deer, be it does or bucks, is dependent on the objective. What everyone must understand is the reason does must be removed.

Deer habitat is capable of supporting a fixed number of deer, defined as carrying capacity. Densities can be sustained at or near carrying capacity, but cannot surpass it without adversely affecting herd and habitat quality.

Suppose bucks are harvested at a high rate and does protected. Does increase annually until their numbers alone (not to mention their progeny) exceed the range's ability to sustain them. The result is abused habitat, unhealthy deer, few mature bucks, poor antler qualities, decreased fawn survival, and ultimately, disease and parasite problems. The rate at which a population can increase beyond its carrying capacity is dependent on its reproductive potential. In whitetails, it is rapid. Within a 1,200-acre enclosure located in Michigan, four does and two bucks increased to 160 animals in only six years. Based on this and other deer population studies, it becomes apparent that deer numbers must be controlled, particularly where natural mortality is non-existent.

A controlled harvest of the female segment of the herd is a management tool wildlife managers recommend to maintain deer densities in equilibrium with the range carrying capacity. A well-planned and conducted harvest eliminates competition, insuring all deer an adequate amount of forage while decreasing habitat damage.

A balanced harvest is required to maximize mature buck numbers. Managing for quality deer requires a buck-to-doe ratio of no greater than one to two. By tightening the sex ratio, bucks increase, permitting additional males to attain their maximum antler-growing years.

It should be obvious that in areas where an excessive amount of hunting pressure has been applied on bucks, a reduced buck harvest is desirable. So don't think that trophy bucks will appear simply because does are harvested. A balanced harvest is the vital infrastructure for a quality deer herd.

Harvesting does is only one aspect of quality deer management. A conservative harvest of is more important than shooting doe demonstrating questionable undesirable

traits. Even though the concepts of a balanced harvest have been introduced years ago, the buck segment remains exploited. If quality deer, particularly bucks are desired, it will take sacrifice in the form of a conservative male harvest complemented by a balanced harvest of doe and even then the production of trophy racks takes time, so the time to get started is right now.

Captions for slides. All photos by Bob Zaiglin.

1. With an estimated 4 million deer in Texas, finding a doe is no problem;  
controlling them is another matter...

2. Doe hunting is both an economical and enjoyable way to introduce our youth to hunting.
3. Harvesting doe is only one aspect of quality deer management. A conservative harvest of bucks is equally if not more important.
4. The decision process as to which doe to shoot must be easy in order to reach one's harvest objective.