

Quality Deer Management (QDM) at Fort Knox

Beginning with the 2001 deer season, Fort Knox implemented QDM throughout the installation. The primary goals of the Quality Deer Management program are to:

1. Produce healthy deer (bucks, does, and fawns)
2. Improve the sex ratio of the deer herd
3. Provide quality hunting experiences

Selective harvest is required in order to accomplish these goals. Hunters must refrain from harvesting young bucks and harvest an approximately equal number of bucks and does. In the initial years of QDM it is necessary in some cases to harvest more does than bucks to balance the sex ratio in the population. This is accomplished by issuing additional antlerless deer tags and the implementation of antler spread limits to protect yearling (1.5 years old) bucks and some of the 2.5-year-olds.

Harvest data collected from previous years at Fort Knox indicated that the implementation of a 12-inch outside spread limit will protect virtually all yearling bucks and a small percentage of the 2.5-year-old bucks. As a general rule a buck's ears are 14-15 inches from tip-to-tip in the relaxed state. Hunters should use the width of the ears as a guide and select bucks that have antlers that are about as wide as their ears or wider. This method allows for a few inches of error in judging the spread of a deer in the field.

The average size of a buck's antlers doubles from 1.5 to 2.5 years of age, with antler size typically reaching its maximum at 5.5 to 6.5 years of age. During the years 1992 through 2000 approximately 52% of the antlered deer harvested at Fort Knox were 1.5 years old and less than 1% were 5.5 years old or older.

One of the most challenging aspects of this management approach is to reduce the number of buck fawns or "button bucks" harvested. Although some harvest of button bucks is unavoidable, there are a few ways of identifying these young bucks to help avoid taking them. Button bucks can often be distinguished from doe fawns by the shape of their heads, with the heads of does appearing more rounded, while button bucks have a more flattened forehead, due to the developing antler bases. Button bucks also tend to be the first to arrive at a food source, such as a food plot, so waiting to see if another deer appears is a good idea so a size comparison can be made. Also, adult does tend to be more aggressive around other deer, but also more cautious, while fawns often seem playful and carefree.

Many hunters remain hesitant to harvest does fearing over-harvest. However, in areas like Fort Knox that have an abundance of cover and where the deer population has reached the maximum number that the habitat can support,

reducing the number of does in the population can actually increase the production of bucks. Fewer deer result in healthier deer and an increase in the number of fawns produced per doe (of which approximately 50% are bucks).

Also, many hunters are hesitant to harvest does that have fawns fearing that the fawn(s) will die. However, fawns begin grazing at just a few weeks old and are functionally self-sufficient ruminants at approximately two months of age. Since the vast majority of fawns in Kentucky are born around the first of June, virtually all of these fawns are three- to four-months old and feeding exclusively on vegetation by the time archery season opens in mid- to late September.

Below is a comparison of the harvest results from the Fort Knox quota gun deer seasons from 1997 - 2000 without QDM and from 2001 - 2011 with QDM.

1997 through 2000

Total harvest average = 1102

60% Bucks

40% Does

47% of antlered deer harvested were 1.5-year-old bucks

Average antlered deer harvest = 527

17% of antlered deer are 3.5 years old or older

2001 through 2012

Total harvest average = 855

50% Bucks

50% Does

Average antlered deer harvest = 290

48% of antlered deer harvested are 3.5 years old or old