

Dr. Deer's Whitetail World

BY DR. JAME C. KROLL

Nutrition And Age — Key Essentials To Healthy Deer And Trophy Antlers

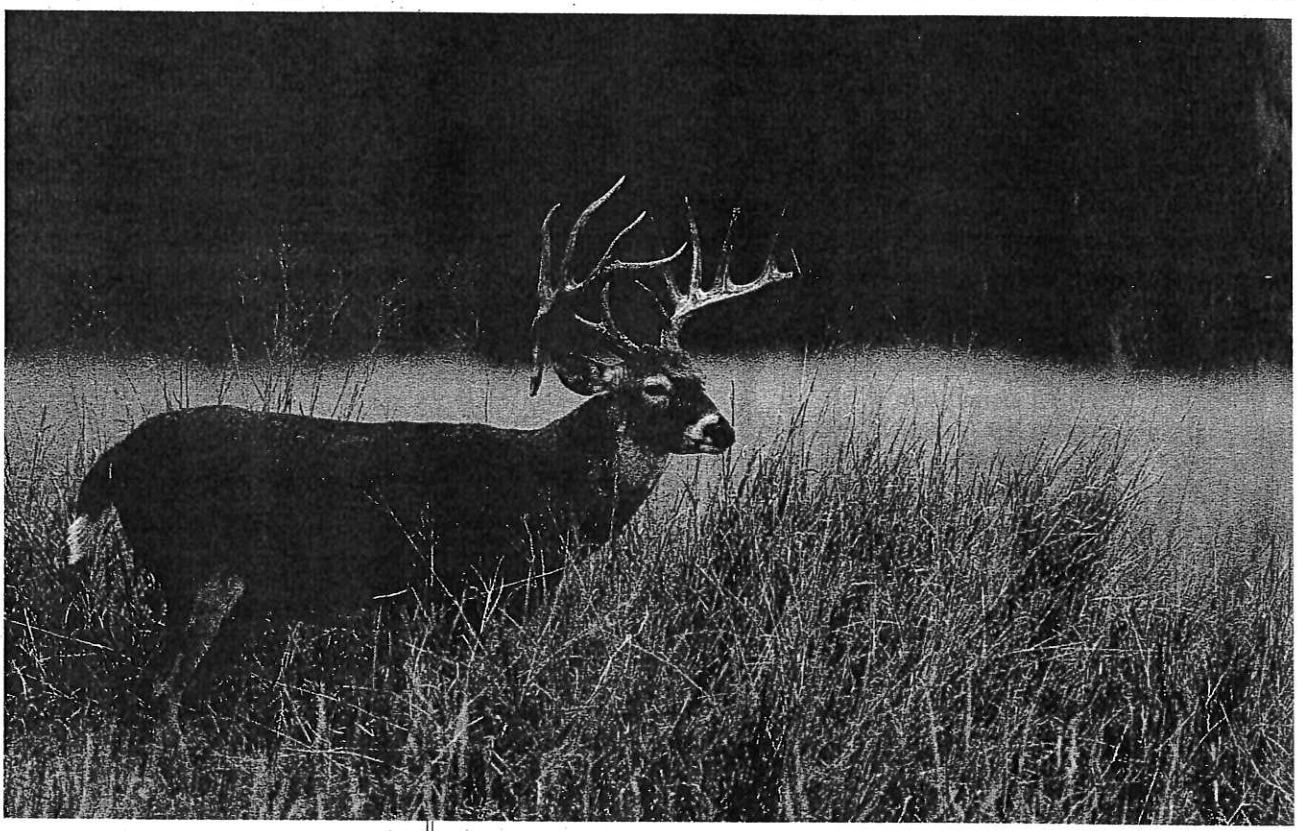
It has been said — perhaps too many times now — that the three things affecting the size of a buck's antlers are age, nutrition and genetics. And yes, even today these three factors remain the most critical to producing trophy bucks. However, our landmark research on antler development in free-ranging bucks over the last decade (see the October, November and December 2006 issues for the complete series) clearly demonstrated that there is no need for most hunters and landowners to worry about the genetic aspects of deer management. Why? Because your time and money is better spent on improving the two things that you *can* do something about — nutrition and age.

For a number of years now, I've been writing about the various ways you can improve the nutritional value of forages on your property, and the recent boom in food plot planting and natural forage management around the country is a testament to the widespread interest in the subject. Planting quality forages for whitetails has become an accepted practice, and an entire industry has developed around the seeds, implements and chemicals used for managing food plots.

Once we got over the nutritional hump, the next step was to improve age structure. Again, it may seem "old hat" to you when I talk about aging a live deer, but such a concept was quite alien in the not-too-distance past. There are two good reasons for knowing how old a buck is *before* you pull the trigger or release an arrow. First, it's safe to say that *every* B&C buck once was a yearling! That small 80-inch yearling a hunter killed last season easily could have grown up to be a new world record. So just letting a buck grow up and reach maturity will increase the number of trophies taken annually.

A NATURAL DEER HERD

Second, it's the right thing to do! Now, I'm not trying to preach. But some folks today talk about deer management as if it were a religion, and it's not! It's more about practicality. If we hunters expect the non-hunting public to accept what we do as important for deer, than we have to behave in such a manner that garners support. If the public ever comes to the conclusion that hunting is *not* vital to deer management, we might as well sell our guns and bows. Skewed sex and age ratios resulting from poor harvest man-



During the past few decades, we've learned that a combination of providing good nutrition and allowing bucks to reach maturity will produce not only a more natural deer herd, but also more trophy-class bucks.

agement in a number of states is already creating serious questions with the public. What's more, it gives the "antis" ammunition against us.

The real goal in deer management is to produce a *natural* deer herd, one that has a natural sex ratio and natural age structure. Why would we want to do that? Simple. It's much easier to control populations of natural deer herds than unnatural ones. And, from a selfish standpoint, natural deer herds produce more trophies per square mile than ones with skewed ratios.

Unfortunately, many parts of the U.S. exhibit buck harvests that are far too young. You may think areas such as Iowa, Illinois, Ohio and Texas literally are "crawling" with trophy bucks. Yet for every mature trophy buck killed in these places, scores of immature bucks are being "reduced to possession" each year. The states and provinces where large numbers of trophy bucks consistently are taken either have a very short rifle season or none at all, or they have large land holdings and a history of good management.

JUDGING LIVE DEER ON THE HOOF

Recently, the movement for states or counties to impose size limitations on bucks has really taken off. Our research has proven that placing size limits will increase the number of older-age-class bucks. These mandatory restrictions simply protect hunters from themselves, and in the process, they also protect younger bucks. But it remains my hope that hunters will eventually find an even better way — that is, impose their own size limits without having any laws involved. And this is already happening in many places!

Because of our concerns about protecting younger bucks, during the early '90s we launched a program intended to help educate hunters on how to age live deer. The big question was: *Could we actually do this?* As with many professional biologists, my first approach was to try to use some measurement to indicate age. That's when we began running statistical analyses on various antler measurements and the age of the deer. We even included body weight in the mix, along with head and body measurements. And we did find some reasonable correlations between a few of these measures and age, but the foolishness of asking hunters to estimate beam length or body weight finally brought us back to reality.

Deer are living, biological entities. As such they exhibit the normal variation in characteristics like all other animals. If we measured a thousand men and graphed their height, a "bell-shaped" curve would result. The average man in the U.S. stands 5 feet, 9.2 inches tall. Yet the shortest man is 27 inches tall and the tallest is 8 feet, 11.1 inches! Although the vast majority of men fall into the average category, there obviously are exceptions.

So back at the drawing board it occurred to me that in most cases, a 40-year-old man looks like a 40-year-old man. When estimating his approximate age, we don't estimate his height, weight or any other measurement. We simple recognize what a 40-year-old looks like. *Why couldn't we do the same thing with deer?* I wondered.

JUDGING ANTLERS ON THE HOOF

That's when I started looking at bucks of various known ages throughout the hunting season to see if there were ways to age them. In truth, I was already aging these bucks without giving it much thought. So the next step was to analyze *how* I was doing it. The result was our landmark book, *Aging and Judging Trophy Whitetails*, published in 1996, quickly followed by the video of the same name. My friend Ron Fash of Qué Pasa Ranch was the impetus behind these works. He not only suggested the idea, but he also contributed monetarily to the book's publication, and for that I will always be grateful.

Since then, a number of additional books and videos have been produced on the same topic. It is very gratifying to go to a hunting show and listen to a hunter talk about the 3 1/2-year-old buck he saw! My dream for hunters to know exactly what age buck they are harvesting is coming true. More recently, we have come to the realization it only is necessary to be able to place bucks in four age-classes: fawns, yearlings, immature bucks and mature bucks. Using a new education video we soon will release, our data show a 77 percent accuracy for a test group on aging to the year, and more than 90 percent to one of the four above age-classes.

Once we had folks talking about the ages of bucks, the next step was to teach them how to judge the buck's antlers. That was a bit more difficult, however. Our solution was to place bucks in 10-inch groupings that we called "class." Again, it is very gratifying to hear hunters refer to a buck as a 150-class buck. Rather than ask hunters to sit there and try to add up all the measurements, however, we again turned to simply trying to recognize what each class looked like on a buck.

JUDGING B&C SCORE ON THE HOOF

More recently, we developed a way to predict a mature typical buck's score with 80 percent documented accuracy. I call it the "Dr. Deer Antler Scoring Technique." Using thousands of measurements of mature buck antlers, we found a high correlation between the following measurements and B&C score. If you look at the buck's "weak" side (the smallest side), and add up the estimated lengths of his beam and typical tines, there is a statistically significant relationship between this sum and his actual score.

We also learned that when we added up the four circumference measurements used in B&C scoring, plus the inside spread, the total was approximately 50 in the majority of cases. Knowing this, all you have to do is estimate the sum of the weak side beam length and tine lengths, double them and add 50. This will place a typical buck within a 10-inch class correctly more than 80 percent of the time!

If he is a non-typical, all you have to do is estimate the typical frame and estimate the sum of the extra tines. If he is grossly non-typical, good luck! But this does give you a reliable way to estimate score.

In my early days, I often told audiences that the average hunter sees a buck for three seconds — deer, buck, *boom!* As a consequence, countless numbers of yearling and immature bucks died on opening weekend. Today, I am greatly encouraged by a significant change in hunter attitudes. More and more hunters want to know how old a buck is *before* they pull the trigger or release the arrow. I am very proud to have had a hand in bringing this change about.