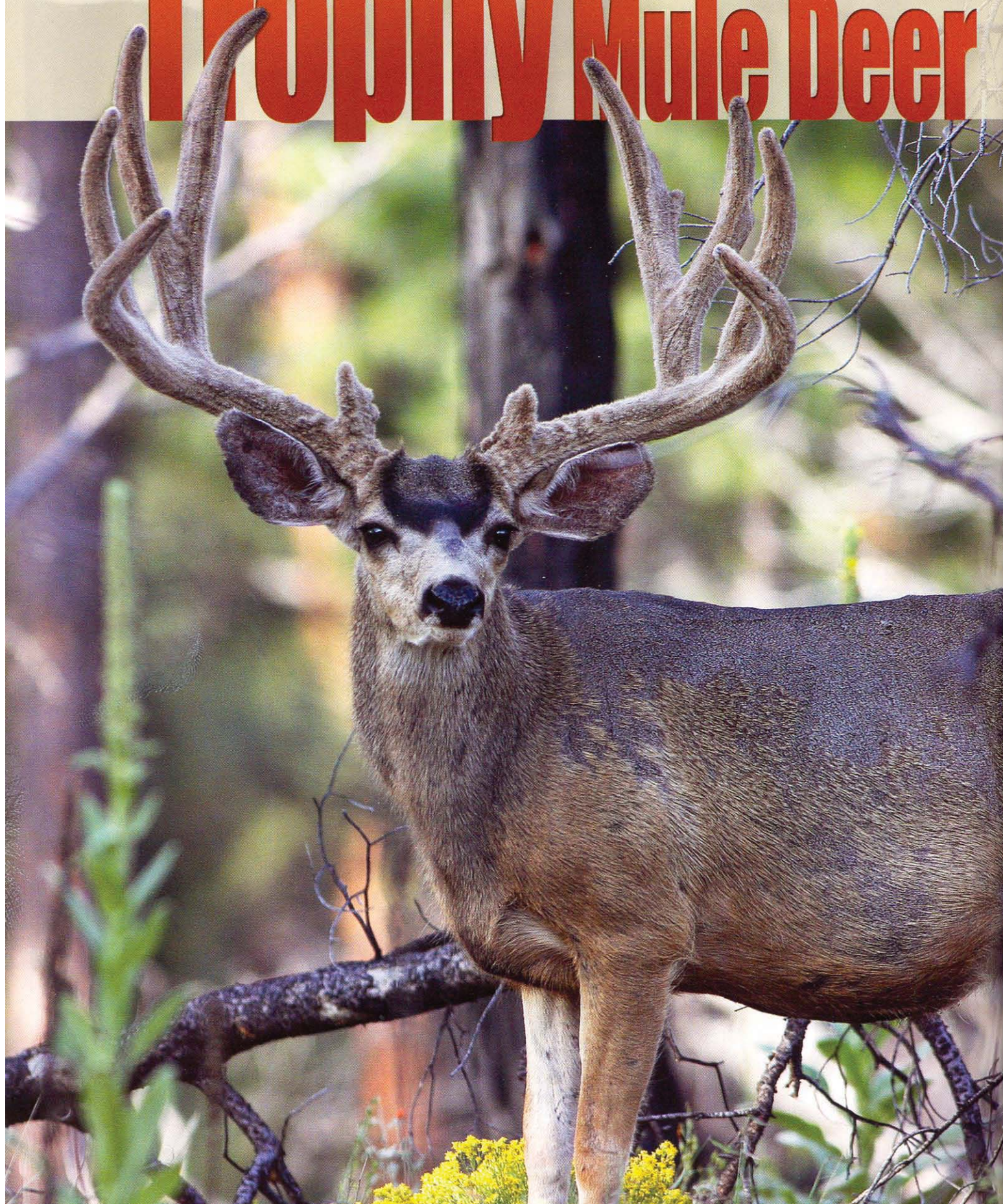


HOW TO GROW **Trophy** Mule Deer



“There is a reason the Boone and Crockett Club lowered the minimum score necessary for mule deer to qualify for the record book. Large-antlered bucks are hard to grow under the conditions found on western ranges today. More difficult than any other big game species.”

Photo ~ Ryan Hatch

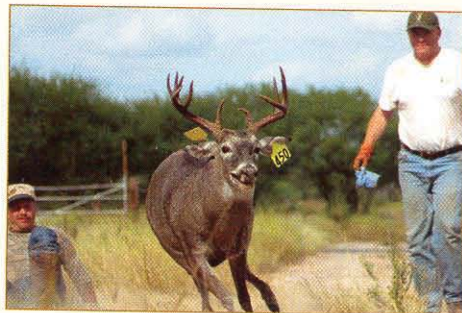
BY DR. CHARLES KAY

Unfortunately, very little has been written on how to grow large-antlered mule deer. In contrast, entire books are available on how to produce trophy whitetails and red deer—the same species as our North American elk. While quality management has taken the whitetail world by storm, western fish and game agencies have given little thought to producing trophy mule deer.

Based on studies of other cervids, three factors are key to growing large-antlered mule deer—genetics, nutrition, and age. First and foremost is age. The deer simply must live long enough to reach their full biological potential. Bull elk, for instance, do not achieve maximum antler growth until they are 7 to 10 years old. Mule deer bucks too do not achieve maximum antler growth until they are 6 to 8 years. To have mule deer of that age, you need 60 to 80 bucks per 100 does post hunt—a figure most sportsmen can only wish they had. If your post-hunt sex ratios are in the range of 10 to 15 bucks per 100 does or less, as is the case in many mule deer herds, the chances of a deer living long enough to produce maximum antler development is between zero and non-existent.

The only way to achieve the necessary post-hunt sex ratios and age structure is to curtail the buck harvest. Point restrictions will not work; a fact that has been proven time and again. A four-point minimum antler size might appeal to hunters, but it will do absolutely nothing to produce trophy mule deer, because

hunters simply shoot the first small four-point they see and few deer live long enough to reach maximum antler growth. So while point restrictions will increase the average age of the bucks harvested by a year or so, point restrictions, in and of themselves, will do nothing to produce trophy mule deer. Instead only limited-entry seasons have the potential to produce quality mule deer and then only if state game departments do not oversell the number of permits. This is usually not a problem with whitetails since virtually all the land in the Midwest, Texas, and back East is privately owned. If the landowner or leasee wants to grow trophy whitetails, it is a relatively simple matter to restrict



the harvest. In fact, according to Dr. James Kroll, who has spent most of his career studying whitetails and who has written a 590 page book on *A Practical Guide to Producing and Harvesting White-tailed Deer*, it is much easier to raise a trophy whitetail than it is to kill that deer! Except for exceedingly large private ranches, though, it is next to impossible for landowners in the West to produce true trophies because mule deer have much larger seasonal ranges than whitetails; i.e. the deer migrate to areas off the ranch.



Photo ~ Jim Vann

Burning the range not only produces more forage by removing competing pinyon, juniper, conifers, and other unpalatable woody vegetation, but overall forage quality also improves.

Under quality management, it is possible to produce a Boone and Crockett whitetail in as little as 3 or 4 years! This seldom happens with mule deer, but why? Because most of the whitetail's range is a smorgasbord of high quality foods and where agriculture does not provide adequate year-round forage, landowners will plant food plots strictly for the deer. In contrast, I have never read anything on using food plots to improve mule deer nutrition. For after age, nutrition is key to rearing large-antlered bucks. While private landowners plant specific winter, spring, summer, and fall food plots for their beloved whitetails, the best we have been able to do in the West is to burn a few acres here and there to improve mule deer habitat.

By firing the range, managers can not only produce more forage by removing competing pinyon, juniper, conifers, and other unpalatable woody vegetation, but forage quality improves, as well. Nitrogen is freed-up and the newly created charcoal improves the plants' ability to absorb nutrients from the soil. The problem in the West, however, is that there are too few controlled burns in the right places at the right times of the year. Plus we have the additional problem of too many elk. Elk that will eat all the new-growth and high-quality forage that is needed to fuel antler growth in mule deer.

To produce trophy deer, the animals simply must have a year-long diet of high-quality foods. Which brings us to the number one problem in rearing trophy whitetails—too many deer! If the deer population is not kept at one half, or less, of the land's carrying capacity, the deer will simply not grow big enough to develop large antlers. That is to say, antler quality is density dependent. The higher the density of deer on a given tract of ground, the less individual antler growth there will be because there is less food per deer. Since many whitetail hunters are reluctant to kill does, that having been the mantra for

years, most whitetail ranges simply carry too many deer. To overcome this problem, in some jurisdictions you have to kill a number of whitetail does before you are allowed to harvest a buck.

Now most western ranges do not presently carry too many mule deer the way eastern whitetail ranges do, but elk numbers have doubled and then doubled again since the 1950's. Since elk are three to four times the size of a deer, if you have 100,000 or more elk in your state, as many western states do, that is the equivalent of having an additional 300,000 to 400,000 mule deer competing for forage on ever-shrinking ranges. If you want to grow trophy-quality deer, there is such a thing as too many deer or too many elk. It is no coincidence that the best trophy mule deer areas in Arizona and Utah do not have any competing elk. Livestock grazing can also be a problem if not properly managed.

It is not only a matter of forage quantity but also of forage quality. Nitrogen, or protein, is important in producing large-bodied, healthy mule deer but phosphorus is the key to producing massive antlers. On most ranges, calcium is not limiting but phosphorus is. To overcome this problem, eastern landowners feed mineral supplements to their whitetails.



Photo ~ Luis Camou

Fenced scenarios for mule deer are becoming more common now that western states such as New Mexico have legalized deer ranching.