

# STOCKPILING older-aged Bucks:

separating  
Fact from Fiction

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It's been reported that about 10,000 customers may lose as much as \$500 million in uninsured deposits to the bank known as IndyMac, one of the largest mortgage-lending banks in the U.S., after it was taken over by the FDIC. Some experts predict that customers will get about half of their money back once the FDIC reorganizes the bank. The bottom line is that money deposited in the bank was not there when customers wanted to make withdrawals.

This news sounds very similar to advice we give constantly regarding managing deer populations for older-aged bucks. Managing for older bucks is a very inefficient process—meaning that every yearling buck protected from harvest will not live to maturity at five and a half years of age. It would be great if deer managers could guarantee the survival of young bucks by purchasing the equivalent of FDIC insurance for deer; unfortunately, there are no guarantees with the survival and recruitment of bucks into older age classes. In this article we're going to review some of the problems that deer managers encounter when managing for older-aged bucks and talk about some strategies to address those problems.

**Local harvest rates, natural mortality rates, dispersal rates, and property size all can play an important role in the success or failure of your management plan.**

## RECIPE FOR BIGGER BUCKS

Many deer managers have a goal of maximizing the antler size of bucks harvested on their property. The two most influential factors that deer managers can improve are nutrition and buck age structure. Genetics is commonly cited as a third factor, but there's little a manager can do about genetics in a free-ranging wild population. Furthermore, once deer nutrition and buck age structure have been improved on a property there's rarely a perception of a genetics problem. Deer managers can improve habitat quality and deer nutrition using a variety of timber management, old-field management, prescribed burning, and food plots. With habitat management it's easy to see results and there's a feeling of accomplishment knowing you have improved the quality and quantity of deer foods. In contrast, when managing for age structure the results are not immediate and often difficult to see. This lack of

positive feedback can leave some managers discouraged and wondering if their efforts have been wasted. Please be aware that managing for buck age structure will take many years, but it's a critical step in deer management, and the reward is well worth the wait.

So what happens to all those bucks when you lower your gun and let them walk away? Many stay on or around your property and provide future harvest opportunities, but some may be lost to either dispersal or natural mortality. We'll briefly discuss each of these and their impact on your deer management program.

## DISPERSAL

Dispersal is the process of an animal moving from where it was born to where it spends its adult life and is an ecological mechanism used to exchange individuals, and thus genetic material, between populations to insure genetic diversity. Dispersal distances can typically average about two to six miles. Dispersal of bucks from your property can significantly impact the success of your management plan if it is not balanced by similar dispersal onto your property from surrounding properties.

Reported dispersal rates vary from 40 percent in Virginia to 70 percent of bucks eight to 18 months old in Maryland. Researchers in Maryland found that the number of yearling bucks dispersing *onto* their property was much lower than the number of yearling bucks dispersing *from* their property. This resulted in an annual net loss of yearling bucks. They suspected the reason for unequal dispersal was the intense harvest pressure from neighboring properties. The rate of buck dispersal drops significantly after the yearling age class, but older bucks may temporarily disperse from their normal home range during the rut.

## MORTALITY

The annual mortality rate for a deer herd is simply the percentage of the population that dies in a given year. Mortality can be attributed to hunting, poaching, vehicle collisions, predators, and disease, among other factors. Mortality rates vary by sex and age of deer and by season and region of the United States. Understanding the most common sources of mortality in your area and the percentage of bucks lost to these sources will help you refine your management strategies.

Legal harvest is a significant source of mortality in most areas and is controlled with regulations and hunter selectivity. Illegal harvest, on the other hand, is not easily controlled and has not been quantified, but can be substantial. In most of the Southeast, legal and illegal harvest account for most of the annual buck mortality.

Populations near the northern and southern boundaries of the whitetail's range have the highest reported non-hunting mortality. In these regions, up to 25 percent of all bucks may be killed annually by predators. Coyotes, wolves, and black bears prey on whitetails in the North; whereas, coyotes and mountain lions are the prominent predators in the Southwest.

The Southeast no longer has viable populations of large predators such as wolves and mountain lions that are capable of killing healthy, adult deer. Coyotes and bobcats are prevalent in the Southeast, and they mostly take fawns and injured adults. Landscapes with very little ground-level cover may suffer substantial losses of fawns to coyotes. However, management practices that promote ground cover can significantly improve fawn survival.

Most health-related mortality in the Southeast can be attributed to two causes—hemorrhagic disease and malnutrition-parasitism

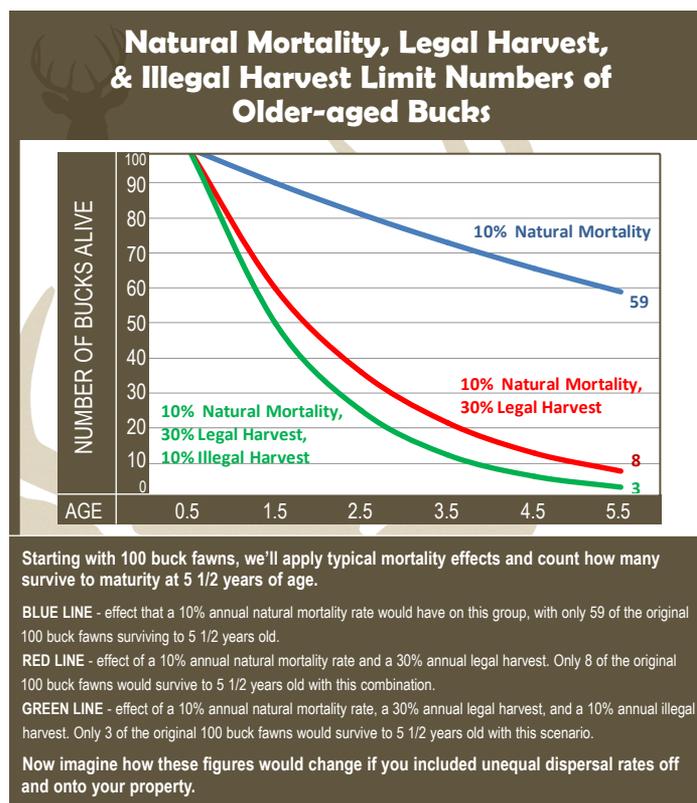
syndrome. Hemorrhagic disease (also known as bluetongue) viruses can be significant, although mortality rates are typically less than 15 percent. Deer populations in the South are confronted with these viruses much more frequently than their northern counterparts and have adapted to the disease. Without the acquired adaptations, northern deer populations suffer much higher mortality rates.

Malnutrition-parasitism syndrome is generally associated with high-density deer populations where the habitat has been chronically over-browsed or where populations occur on very poor-quality habitats. Nutritional stress makes deer more vulnerable to parasites. Primary internal parasites include the large stomach worm and lungworm. Major external parasites include ticks and keds (deer lice). High deer densities can increase the transmission of these parasites to other deer. Actual mortality rates vary by parasite species and age and health of deer.

Legal and illegal hunting are usually the most important mortality factors in the Southeast. Legal harvest is typically the most significant factor limiting the success of older-age buck management programs. Research in Mississippi demonstrated that the most significant cause of buck mortality was legal harvest. Clearly, control of legal harvest is required for successful buck management programs. Furthermore, properties less than several thousand acres also must rely on cooperation from neighboring hunters.

## MANAGEMENT IMPLICATIONS

So what does all this mean? As we mentioned earlier, managing for older bucks is inefficient. On average, for every 10 yearling bucks that you pass, less than six will be around at maturity. If legal harvest pressure is intense on and around your property, that number drops to less than four. To demonstrate this point, we've generated a graph showing how the number of bucks changes from year to year given various sources of mortality.



In the southeast, the lesser observation rate of older bucks compared to younger bucks can lead the deer manager to conclude there aren't many older bucks in the population. However, keep in mind that deer herds in the Southeast are very productive (that is, many fawns are produced and survive to the yearling age class); therefore, there's always a new crop of yearling bucks to see each fall.

Another source of frustration for hunters can come from differences in the susceptibility of bucks to harvest. The absence of older-aged bucks in the harvest can lead hunters to believe that these animals are not present in the herd. Often older bucks do not expose themselves to hunters during daylight hours, with most of the harvest opportunities occurring during the rut. There-

fore, it is possible these older-aged bucks are present but are not being harvested.

### TAKE HOME MESSAGE

We hope the information provided in this article will assist you in understanding some of the factors that can affect the success of your quality deer management program. Local harvest rates, natural mortality rates, dispersal rates, and property size all can play an important role in the success or failure of a plan. Deer managers with small properties that experience heavy buck harvest on surrounding properties may have a difficult time producing many mature bucks. The combination of natural mortality and hunter

# BIG Buck Hangouts

By Ed McMillan III, AWF Board Member

I am very fortunate to have had the opportunity to hunt and manage some of the best hunting grounds for deer and turkey in the Southeast and Canada. Ever since I can remember, I've been in awe of the elusiveness and intelligence that deer possess, and therefore, have dedicated the past thirty years to gaining some understanding of these elusive animals, especially the big ones.

### Where to Look

I grew up in a small south Alabama town where my father managed a large cattle operation. As a young man, my father and I would check the cattle in various pastures. These pastures were large, and in some cases, had small pockets of brush and timber in the center. Often in late winter, as we were making rounds checking cattle from the truck, we would jump a "super chief" (my father's term for a huge buck) from these small pockets of brush. I was always intrigued that these dominant bucks in the rut knew exactly where to bed in an effort to hide, yet maintain a 360-degree view of what may be approaching, whether a threat or doe in heat. There is no doubt in my mind these deer knew exactly what they were doing. Harvesting a super chief that is pulling this type of trick is almost impossible.

Another type of hangout for a super chief is one that I refer to as the "under your nose" hangout. We all make the mistake of thinking the deeper in the woods the better. Well, let me tell you, that's not always the case! During the early 1990s, reports began to surface about a big deer crossing the road beside a five acre-parcel where an elderly woman lived right off a county road in Dallas County. Of the five acres, there were three acres of mixed honeysuckle and privet and the remaining acreage was open yard around her house. For most of my adult life I have managed lands in Dallas County, so after hearing the news, I decided to talk to the man who knows everything—the mailman, Teddy Pouncey. Indeed, while on his mail route one morning at daylight, he had seen this super chief crossing the road. Some of our property joined the elderly woman's land, so I decided to take a look.

I discovered a few trails and some signs, but nothing earth shattering.

I set a couple of stands, but to no avail. The sightings went on for about a year, but always under the cover of darkness. This was a truly nocturnal animal—super chiefs usually are. I gained permission from that very sweet lady to take a look into that small thicket on her land. As I approached the thicket, I could see deer trails leading into it that looked like tunnels. Once I stepped in, I could see several huge rubs and broken branches—the sign was unbelievable! A few more steps and all hell broke loose. I could actually hear his antlers banging against the branches as he was making his escape. As he ran proud right across that lady's yard, I thought to myself, "Wow, this big guy has been there the whole time!" We never harvested that super chief, but I am sure that he left behind a few little chiefs to carry on.

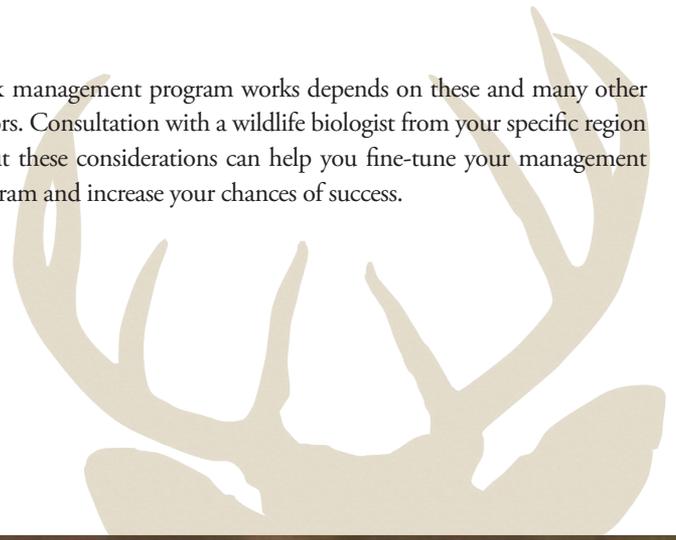
Areas around rural churches, old homesteads, and places that tend to have very little hunting pressure, can also harbor super chiefs. It really doesn't take much cover. Deer that adapt to dogs barking, cars honking, and children playing are very difficult to hunt because they are nocturnal. The ones that discover the right habitat for concealment and predictability can grow to an age where they become super chiefs.

Case in point, the largest deer I have ever harvested in Alabama was one that resided at our family camp house in Dallas County. We have a big family and often there are dogs running around with kids playing in the yard—not your typical deer camp. For several years, family and guests would arrive and report seeing a huge deer in the fields of the camp entrance. They were all excited about seeing this huge buck and I thought they were just seeing the usual group of camp house bucks. Wrong! On a cold, wet December morning, I was scouting an area about a click east of the camp when I caught some movement in the old-field place. The deer had his head down, but I could tell it was a pretty good buck. He was positioned right behind a doe at 150 yards away. I took an off-handed shot and really thought I had missed. After a closer look, to my surprise, there he lay, a SUPER CHIEF—a 150-class, 12-point that weighed 220 pounds. When I arrived back at the camp, my father-in-law, Lavon Rigby, informed me that this was indeed the buck that he and others had seen in the camp pasture driving in at night over a period of several years. The deer was later

harvest on peripheral properties will limit the recruitment of buck into older age classes. If this is the case, please consider forming a cooperative with surrounding landowners. You may be surprised what can be accomplished if you and your neighbors can agree on a common management plan—they may be willing to protect those younger-aged bucks once they know you will protect them too. The good news for deer managers of large properties is that the most significant factor limiting buck survival is legal hunter harvest. If you can control the harvest of bucks, you can someday produce mature bucks on your property.

Landowners and hunters must have goals and expectations that are reasonable given these limitations. The degree to which a

buck management program works depends on these and many other factors. Consultation with a wildlife biologist from your specific region about these considerations can help you fine-tune your management program and increase your chances of success.



aged to be seven years old. Remarkably, I had never seen that deer in all the time that I had spent at camp.

### **Challenging the Chief**

How do you harvest a super chief? Well, first you have to be lucky - real lucky. With that said, you need to identify where a super chief's core area is located, or where he spends most of his time. This is usually his bedding area. Third, both stand placement and the approach you choose in getting to your stand are important. I personally will establish an edge, tangible or non-tangible that I do not cross. The tangible edge might be the edge of the field or clear-cut, and a non-tangible would be one I create in my mind in relation to where the deer is bedded and where I want to harvest him. Most people make the mistake of trying to get too close. If you make your presence known several times, he will change his pattern. Believe it! Once your stand is up, the most difficult challenge is to avoid overhunting. Only hunt when all conditions are right. I prefer January days after a front has passed through and the wind has died down—a bluebird cold still day! Yeah, that's what I'm talking about—I can't wait!!

### **Solving the Management Mystery**

I am always asked, "What can I do to grow 'Trophy Whitetails?'" That is truly a loaded question. There are no silver bullets, and one has to have clear objectives and realistic goals. Trophy management, in my opinion, is too costly, too time consuming, and quite frankly—too boring. Where's the fun? So let me start by addressing the challenge of "Quality Management" for whitetails—the fundamentals, if you will, without getting too technical.

Habitat is one of the most overlooked parts of this puzzle. To sustain a healthy herd and attract those super chiefs to your property, you must have the right habitat. What is it? Have you heard someone make a reference to a goat-thicket? That brushy, prickly type stuff that you can't walk through, nor do you want to. It could be a second year cutover or prairie ground with mixed cedar and honeysuckle rose. Add to that a balance of mixed timber and hardwoods and your recipe for Whitetail

habitat is complete. Farmlands with this type of habitat are the best! This scenario provides the cover and nutritional needs that must be present to reach maximum antler development. To achieve good habitat you must customize a plan for your property. Every property is different, so learn your ground and design a plan that fits your needs. Timber cutting, bush hogging, and prescribed burning are techniques that can be used to achieve this objective.

Deer density is another component to a quality deer herd. You can only meet so many nutritional needs for your herd. Once you recognize the problem of too many deer on your property, by over browsing and so on, there is only one solution: manage by the trigger. It's not pretty, and I personally don't like it. For a manager, this is a pain but necessary. It has to be done and done right! Culling inferior bucks from the herd is another difficult judgment call, again no silver bullet here. In general, you should not consider a spike a genetically inferior deer. There are many studies to back this up. Lack of proper nutrition or water can be factors for abnormal antler growth.

And last but not least is age class. If you want to have mature quality bucks, you will have to let them grow! It's just that simple. I ask my hunters to let the one and two-year-olds walk—remember we're talking "Quality Management" not "Trophy Management." If you are trying to harvest only five-year-olds and better this will be difficult and frustrating. In most circumstances it is really difficult for most folks to determine the age of a deer. There will always be a few to reach the magic number of five to seven years of age. Most importantly, don't make the mistake of thinking after passing up bucks for a couple of years that you will have lots of high scoring deer running around. Even if you pass up the younger ones, there will only be a very small percentage of them that will become super chiefs.

In my approach to management, the goal is to keep the fun and spirit of the sport intact while respecting these magnificent animals and the land in which they live. The most important thing is to share quality time with family and friends and be good stewards of the great outdoors!