

Managing Quality Deer at Ames Plantation



The QDM program at the University of Tennessee's Research and Education Center has proven that a large and diverse group of hunters can unite to achieve *deer management success*.

BY CRAIG HARPER AND ALLAN HOUSTON

Ames Plantation – the name brings to mind the wonderful writing of old-time authors like Nash Buckingham and the men and women who followed the call of “point” as bird dogs and bobwhites matched wits on those storied grounds. If you visit Ames and go through the old mansion, it seems you can still hear the laughter and tall tales that filled its halls long ago. Ames has been the home of the National Bird Dog Championship since 1905 and is widely known as the site where the world's finest pointers and setters gather each February and compete for the honor of the world's “top pointing dog.” Ames is almost a synonym for the South's greatest game bird, the bobwhite quail.

More recently, another game animal has been drawing attention at Ames Plantation – the white-tailed deer. Ames has increasingly become known for a QDM program that is producing tremendous results, a place where quality deer and quality deer hunting are expected. After only four years under QDM, Ames



JAMES McDONALD

hunters are enjoying a 30 percent success rate killing bucks aged 3½ years or older. It's no wonder Ames Plantation is becoming known for something other than bird dogs and bobwhites!

Location and History

Ames Plantation is just outside Grand Junction, Tennessee, in Fayette and Hardeman Counties. In 1903, Hobart Ames, a highly successful maker of tool handles from Easton, Massachusetts, pur-



With its century-long history as the site of the National Bird Dog Championship, Ames Plantation is managed carefully for wildlife. The result is high-quality habitat for whitetails. Here, a field of corn and grain sorghum is left unharvested for a fall/winter energy source (left). Abundant early successional habitat, managed with prescribed fire on a two- to four-year interval, provides bedding cover, natural forage, browse, and soft mast (center). Even in fields harvested for grain, such as soybeans, several rows are left unharvested for wildlife (right).

chased 400 acres and a manor house from the John Walker Jones family. Mr. Ames renovated the house and continued to purchase land until he controlled nearly 25,000 acres. Mr. Ames and his wife Julia were interested in pointing bird dogs and owned several of the best in the country.

Mr. Ames died in 1945. In the time prior to her death in 1950, Mrs. Ames made provisions in her will that the property would support running the National Field Trial, and also operate for the benefit of the University of Tennessee (UT). Today, the Plantation operates as a Research and Education Center of UT and is known for research in natural resources management.

The deer population on Ames Plantation remained low enough for a deer sighting to be a notable event until the 1970s, when restoration efforts of the Tennessee Wildlife Resources Agency (TWRA) gained traction and deer populations began to rebound. In the early years, deer hunting on the Plantation was conducted on an “ask and go” basis, consistent with the rural values of a simpler time.

However, local interest in deer hunting climbed right alongside a burgeoning deer population, and the Plantation, a place where wide open spaces still existed only an hour from the highly metropolitan Memphis area, was in high demand. It was a good place to hunt, and a chance at any buck was all most hunters wanted. To manage the increasing interest, a program was initiated in 1980 whereby hunters could make a monetary donation to demonstrate their desire to hunt. From 1980 until the QDM program began in 2003, approximately 300 permits were given out yearly. Although not all permits were active at the same time, overall hunting pressure was heavy. Hunters were required to attend an August Field Day and were instructed regarding Ames’ regulations or research requirements. During this time, a core group of hunters returned year after year. They participated in a number of research projects, including 20 years of blood collections for disease studies. Statewide regulations were followed, and no selective harvest restrictions were implemented.

Like most deer management programs, success at Ames has not been achieved without adaptive management. Because of an unexpected decrease in state funding, Ames Plantation was forced to become essentially self sufficient beginning in 2003. Donations garnered about \$20,000 per year – not enough to compensate for funding reductions. Therefore, a lease program was initiated.

Program Background and Property Description

In 2002, we initiated a study to investigate the effects of selective harvest restrictions on three Wildlife Management Areas and four private lands in Tennessee, including Ames Plantation. Chris Shaw worked on this project as part of his master’s degree at UT, and QDMA’s REACH program helped provide funding for this research. Before harvest restrictions were put in place, data from all bucks killed at Ames were collected in 2002 and 2003 to determine selective harvest criteria that would protect 1½- and 2½-year-old bucks. Data from browse surveys and infrared-triggered cameras were used to estimate deer population characteristics. From this, recommendations for an annual doe harvest were determined.

Ames Plantation encompasses 18,430 contiguous acres. There are approximately 10,500 acres in mixed hardwood or mixed hardwood-pine forest and approximately 3,500 acres in planted pines, which are managed for sawtimber and thinned as needed prior to harvest. About 100 acres of pine are clearcut each year. Forested acreage occurs in large blocks, and nearly 2,600 acres contain bottomland hardwoods or beaver-affected wetlands. In 2008, there were 1,050 acres of soybeans, 400 acres of corn, 300 acres of cotton, 200 acres of wheat, 80 acres of grain sorghum, and enough pasture to support 750 head of cattle. On the field trial grounds, large sections of old-field habitat are maintained with prescribed fire. Approximately 800 acres of the field trial grounds are burned each March and April. In short, habitat for deer is outstanding.

The Plantation accepted applications from anyone who wished to become a member. There were 52 members in the Ames Hunting Club in 2003, and most of those were from a core group who had hunted at Ames for many years. In 2004 through 2007, the first four years under QDM, membership grew to 67, 100, and then filled at 125, and 125, respectively. Beginning in 2008, to preserve an “empty country” experience, membership was limited to 115 members. There is a waiting list, and as old members move away or fail to renew, new members are added.

A check-in station was built when the club was formed, and all deer must be checked into the TWRA system there. The building for the check-in station contains a wood stove, kitchenette, couches, chairs, TV (replete with hunting videos), and all the

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other odds and ends of a hunting camp where members gather to relax, eat, and tell tales. Ames hunters must check-in before and after each hunt and fill out an observation form after each hunt that identifies the number of deer sighted by sex and age. Every harvested deer is aged and weighed at the check-in station. The place is seldom vacant during the hunting season, and few visitors go away hungry. On Saturdays or with news of a big deer coming in, the parking lot fills quickly. Excluding safety zones, members at Ames have the ability to hunt anywhere they choose on approximately 16,500 acres.

During the hunting season, ATV access is restricted to specified roads and, except for hunters with physical limitations, hunters must walk to their stands. ATVs may transport a harvested deer to a vehicle, but only during specific times when motorized access will least disturb hunting.

The goals of the Ames program are to construct and manage a healthy deer population, maintain high-quality habitat, and increase hunting excitement. We work toward these goals by trying to maintain a desired sex ratio and balance the age structure of the deer population. It is important to note that nowhere in the Club's goals or objectives will you find the word "buck" or "trophy." Members of the Ames Hunting Club are made aware that increased body and antler size come along as a reasonably expected by-product with increased buck age. We feel this is an extremely important principle of QDM and one that is missed by many trying to implement QDM. However, the Ames program has been mistaken by some as a trophy management program, most likely because mature bucks living on extraordinary habitat often display impressive antler development.

Involving the Hunters

The annual Ames Hunting Club meeting is held each September just prior to the opening weekend of archery season. New members get a chance to meet existing members, a 3-D archery course is set up for members to shoot, a free supper is provided, and members are given an update on data that have been collected as well as any changes for the upcoming season. This meeting is very important. Not only are members able to socialize, but deer biology and management are explained through presentations given by certified wildlife biologists. In recent years, highly recognized guest speakers have given presentations, including Joe Hamilton of the QDMA and Dr. Bronson Strickland from Mississippi State University. Selective harvest criteria are explained in detail, and hunters are able to ask questions about antler restrictions, genetic implications, habitat management, aging live bucks, judging Boone & Crockett score, etc. The meeting helps "get the juices flowing," amplifying the level of excitement. Because this enthusiasm is tempered with the realistic expectations that come with sound information, the meeting has served to create a group of committed deer managers. Some meetings have lasted well into the night.

Meetings such as this should be held by every group practicing QDM. Everyone in the group should agree with the goals and objectives of the program. And wherever you are, qualified biologists with state wildlife agencies are available to help decipher data and provide recommendations on deer management.

Bucks and Does: How Old? How Many?

For the Ames program, we desire bucks to reach at least 3½ years of age before being eligible for harvest. Remember, this is a Quality Deer Management program, not a Trophy Deer Management program. Based on pre-QDM data collected in 2002 and 2003, it was determined that a 120-inch Boone & Crockett gross score antler restriction was needed to protect *all* 1½-year-old bucks and more than 95 percent of the 2½-year-



Ames hunters are actively engaged in data collection, including observation data and harvest data. Regardless of sex or size, the jawbone is pulled from all deer after they are weighed, and antler scores are tallied from all bucks.

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old bucks. Point and/or spread restrictions were not implemented because a 4-point-on-one-side restriction would protect only 32 percent of 2½-year-old bucks, and a 15-inch-inside-spread restriction would protect only 59 percent of 2½-year-old bucks. Remember, collecting data from deer in your area is critical when determining an appropriate harvest restriction. There is no “one-size-fits-all” program, and trying to force one plan on another and expecting the same results is like painting two cars the same color and expecting the same gas mileage.

At the outset of the program, estimating B&C score in the field was intimidating for many hunters. Therefore, we felt it reasonable to allow a 10-inch “grace” as hunters became familiar with these restrictions. Although it was made clear the true restriction was 120 inches, hunters were not fined or penalized if they killed a buck that scored above 110. At the beginning of the program, any buck at least 5½ years old was eligible for harvest, regardless of antler score. In 2006, the “grace” was removed, and the age limit was lowered to 4½ years. Thus, any buck was (and still is) eligible for harvest if it has a gross score of at least 120 inches or is at least 4½ years old. These are biologically sound selec-



Beyond providing population data, trail cameras are great scouting tools. Ken Ripley killed this 5½-year-old buck which weighed 156 pounds (dressed) and gross-scored 152.

tive harvest criteria because they do not “high-grade” young bucks, they allow all bucks the opportunity to breed, and they allow older bucks with racks that do not score at least 120 inches to be killed. Further, *all hunters* are required to follow the restrictions and guidelines. There are no exemptions for Ames’ employees, visitors, or “celebrities.”

As the program has developed, Ames members have become increasingly diligent in trying to follow the program guidelines because they now realize the strategy is sound and they want to see it work in its full measure. Nonetheless, an ascending set of fines is in place for those who shoot bucks that do not meet the selective harvest restrictions (visit www.amesplantation.org if you’re interested in the details). Every hunter who kills a buck at Ames Plantation is photographed with the buck. Photos are pinned on a bulletin board divided into three categories: “the Good,” “the Bad,” and “the Ugly.” The “Good” board speaks for itself, but missing the score by up to 10 inches lands the member’s picture on the “Bad” board. If the score is missed by more than 10 inches, the “Ugly” board holds the guilty party’s face. While monetary fines are stiff, members squirm more at

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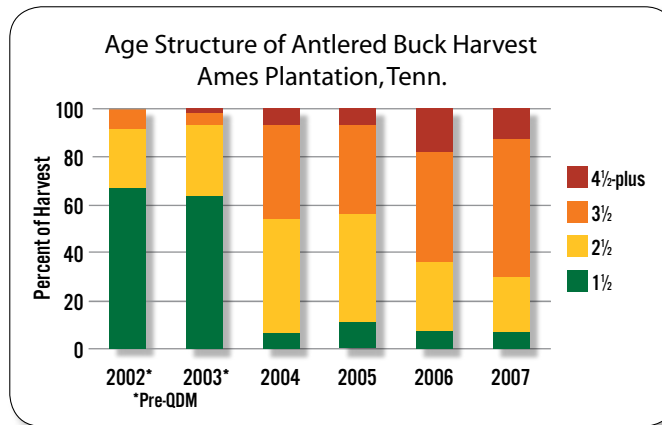
the thought of having their likeness on the “Ugly” board! It is the muttering place, for guilty and innocent alike.

There is also a “three-doe club.” Members who harvest three or more does are on the board and either receive a nice gift or go into a pool for something more substantial. It is a way to recognize members who are contributing notably to managing the population.

Program Results

Our selective harvest criteria have worked very well. Prior to implementing harvest restrictions, less than 10 percent of the bucks killed were 3½ or older (see the graph on this page). By the fourth year after implementing restrictions, bucks of this age represented approximately 70 percent of the buck harvest. A change in percentages, however, is not especially meaningful unless the actual numbers also increase, and they have. The number of mature bucks killed per hunter has steadily increased since restrictions were implemented, and was above 0.3 in 2007 (see the graph on the next page). That means hunter success for killing a mature buck is now more than seven times higher than the average in 2002 and 2003 prior to QDM. With 42 mature bucks killed in 2007, a mature buck was killed per 400 acres.

The average score for 2½-year-old bucks harvested at Ames



since 2003 is 105. The average score for harvested 3½- and 4½-year-old bucks is 124 and 134, respectively. Over the past four years, the age structure has progressed such that 5½-year-old bucks are now killed at Ames. Two were taken in 2007, and two more had been killed as of mid-season 2008. One of the 2008 bucks scored 152 and the other 132, with the latter being the heaviest buck ever recorded from Ames (205 pounds dressed).

We have recommended

removing roughly one doe per 90 acres to maintain the current population density and move toward a more balanced sex ratio. Given information from infrared-triggered cameras, hunter observation cards, and browse surveys, deer density at Ames Plantation is approximately 35 per square mile. There are no signs of excessive browsing on the property, and nutrition is not a limiting factor. The average dressed weight of yearling does is 75 pounds, and – another sign of good health – approximately 25 percent of the doe fawns are bred each year. Nonetheless, after many years of skewed harvests toward bucks, does outnumbered bucks on the property more than two to one when the program began. Effective protection of younger bucks and more aggressive doe harvests have been influential. Data from infrared-triggered

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cameras and observation cards suggest the buck:doe ratio is now much closer to 1:1 than 1:2. This is noteworthy because 100 to 125 hunters are shooting 160 to 220 does each year. For Ames hunters, this means more exciting hunting, particularly during the rut.

Besides its impact on the deer herd, the program has developed hunters who now connect much better with stories of letting young bucks walk. Some hunters have become especially respected for allowing “shooters” to live another day. Invariably, when telling one another what they saw, they mention antler score as casually as a baseball fan shares a statistic with another. They did not just see a young buck, they saw a “95.”

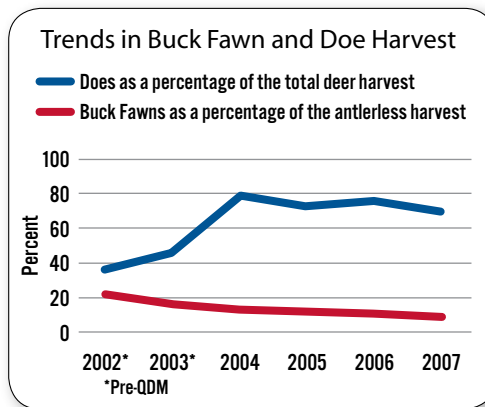
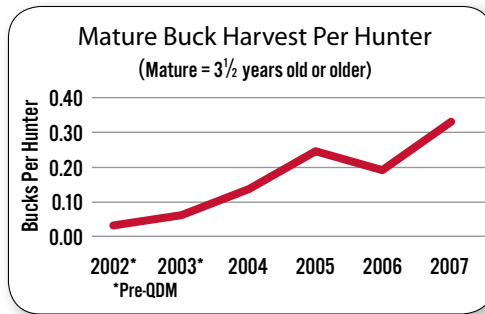
An important measure of hunter satisfaction is whether they are actually seeing deer. We tracked sightings during the study and found deer sightings averaged about one deer every hour and 20 minutes. Only anecdotal data exist prior to QDM, but the overwhelming consensus among members who hunted at Ames pre-QDM is that sightings are now much more heavily weighted with bucks. This has added a generous dose of excitement when afield and allows repeated opportunities to judge age and antlers.

QDM has likely made the Ames membership better hunters. They observe deer interactions and buck behavior that are rarely witnessed under the “if it’s brown, it’s down” mindset. The Ames’ membership is coming together as managers with ownership in the QDM concept and a vested interest in its success.

Challenges and Opportunities

A perennial problem for many QDM programs is hunters shooting bucks that are not “legal” for the program. At Ames, this problem is related to hunters not identifying the age of the buck or inaccurately estimating antler score. In addition to the mature bucks killed, there have been 10 to 15 bucks less than 3½ years old killed each year. This is a result of the inexperience of new members and, also, genuine mistakes that come with the “picket-fence look” a moving buck often gives the eastern forest hunter.

Enough Ames’ members have made the mistake of bringing in a young buck that there is a general realization that any hunter can make a mistake, especially if the buck’s score is within 5 inches of the minimum. There is a genial spirit of support for the poor fellow who brings in a close but too-young buck. It is a collective gesture that, contrary to what might be expected, has worked to decrease mistakes. Being extra careful afterwards is a thankful response to the courtesy of common experience and also reasonable expectations. It serves to keep the hunt fun, knowing that character assassination is not so likely in a sympathetic fellowship. As hunters, and now as managers, the membership has come to understand that while anyone can make a mistake, it is also true that there is no reason why too many pictures should



wind up on “the Bad” and “the Ugly” boards. Chronic or uncaring offenders, in due time, wear out their welcome at Ames.

Ames members were undeniably uneasy in the beginning but now are sold on the scoring restriction. Although we fully realize there will always be some under-aged bucks killed, we believe this number will decrease as hunters become more accustomed to aging live deer. This is something we now highlight in the annual

club meeting. Hunters are shown images of deer taken with infra-red-triggered cameras on the property, and ages and scores are estimated and discussed. This helps the hunters improve their skills in judging age and antler score. Indeed, this is a new horizon for deer hunters in general – to age bucks on the hoof using body characteristics. Honing these skills will take time, but we believe

this, combined with antler characteristics, will prove more effective than estimating antler score alone. Ames hunters have responded to other educational efforts as well, such as identifying buck fawns. We have seen the percentage of buck fawns in the antlerless harvest drop each year (see the chart at left). In 2007, the percentage of buck fawns in the antlerless harvest finally dropped below 10 percent.

A Bright Future

The QDM program at Ames is driven by science, not by marketing or politics. Ames Hunting Club is managed strictly by

the numbers; that is, data collected on the property.

The Ames membership is a loose confederation of hunters, most of whom did not know each other at the outset. This fact makes the program’s success even more impressive and speaks to the soundness of the QDM concept. Without question, Ames members have a deep passion for hunting and are like-minded in their desire for a particular kind of experience – one where an emphasis is on older bucks and a managed sex ratio, one that is intensely exciting, yet peaceful at the same time. Partly, this is accomplished with a limited membership, but also with the untroubled hush that comes with foot access. Many of the members have been a part of the program’s journey from the beginning and have come to believe strongly in the possibilities. They see Ames as a special place and anticipate making this one of the best QDM programs in the country. Perhaps more significantly, in growing from hunters to managers, they now have a clear sense of how to make it happen.

For more information about Ames Plantation and the Ames Hunting Club, visit www.amesplantation.org.



About the Authors: Dr. Craig A. Harper is a professor of wildlife management and the Extension Wildlife Specialist in the Department of Forestry, Wildlife, and Fisheries at the University of Tennessee. Dr. Allan E. Houston is a research professor of forest ecology in the Department of Forestry, Wildlife and Fisheries at the University of Tennessee. He is also Director of Natural Resources Research and Management at Ames Plantation.