



## Deer baiting

What SCDNR found in study about whether baiting helps or hurts hunters.

Page 3C

## Hunting Out of State

Know what you can bring back and what you can't.

Page 2C

## Study on does

When and where do does move around?

Page 6C

## When you get one

How to properly dispose of deer remains.

Page 7C

## Hunting out of state: Know what you can bring back

With big game seasons opening in many parts of the country, the S.C. Department of Natural Resources (SCDNR) would like to remind hunters traveling out-of-state not to import into South Carolina certain carcass parts from white-tailed deer, mule deer, moose and elk harvested in areas where confirmed cases of Chronic Wasting Disease (CWD) have occurred.

"In order to ensure that South Carolina's extremely valuable white-tailed deer resource remains protected, the SCDNR continues to maintain regulations restricting the importation of certain carcass parts from deer and elk harvested in the U.S. states and Canadian provinces where CWD has been documented," said SCDNR Assistant Big Game Program Coordinator Jay Cantrell.

Deer hunting generates more than \$200 million annually for South Carolina's economy, and white-tailed deer are the most-sought game species in the state, in addition to being the official state game animal. It is critical that sportsmen and women who pursue big-game in other parts of the country understand and comply with these restrictions to protect the South Carolina deer population and not potentially bring infective materials back home from a successful hunting trip.

U.S. states where CWD has been diagnosed include: Arkansas, Colorado, Kansas, Illinois, Iowa, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska,

New Mexico, New York, North Dakota, Oklahoma, Ohio, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming. CWD has also been found in the Canadian provinces of Alberta, Saskatchewan and Quebec.

CWD has NOT been found in South Carolina. SCDNR is working to keep South Carolina CWD free. Hunters play a key role in keeping this disease out of our state.

#### **ABOUT CWD**

CWD belongs to the family of transmissible spongiform encephalopathies and is similar to mad cow disease. It is a contagious, always fatal, neurological disease that affects members of the deer family. Common members of this family include whitetailed deer, elk, mule deer, moose, caribou, red deer, and fallow deer.

The disease is not caused by a virus or bacteria, but is rather the result of a naturally occurring protein, called a prion, which becomes misfolded and thus resists being broken down by the body the way normal proteins are. When these misfolded proteins are introduced into a healthy deer, they multiply by causing the animal's normal and healthy prion proteins to misfold and begin damaging the animal's nervous system.

Prions associated with the disease are found primarily in nervous tissues like the brain and spinal cord, but are also found in other body parts, and in



This elk in Montana is an example of the type of carcass that can't be brought back to S.C.

the urine, feces and saliva of infected individuals. Clinical signs appear 1.5-3 years after exposure with symptoms that include extreme weight loss, excessive salivation, odd behavior and poor coordination.

Prior to the onset of clinical signs, deer infected with CWD can appear normal and healthy. However, infected animals are shedding infectious prions during this period before being symptomatic.

Good evidence ists that the CWD agent can remain viable in the environment, in the soil for example, for long periods of time. This has been demonstrated at research facilities where the disease was present in deer or elk. The diseased animals were removed, the facilities underwent complete disinfecting, and no animals were present for an extended period of time. Once animals were returned to the facility, they became infected with CWD. This is precisely the reason that the SCDNR is asking hunters not to bring certain parts of carcasses to South Carolina when they hunt in states where CWD has been diagnosed. If hunters dispose of these carcass parts in South Carolina, the disease agent could potentially infect deer in that local area.

## WHAT YOU NEED TO KNOW IF HUNTING OUT OF STATE:

It is important to note that these regulations do not prevent hunters from bringing home harvested game meat, since most game taken outside of South Carolina is processed in the state where it was harvested. To comply with state regulations, hunters traveling to states with confirmed cases of chronic wasting disease may only bring the following carcass parts into South Carolina:

■ Quarters or other

portions of meat with no part of the spinal column or head attached

- Meat that has been boned out
- Hides with no heads attached
- Clean skulls (no meat or tissue attached) or clean skull plates with antlers attached
- Antlers (detached from the skull plate)
- Clean upper canine teeth of elk, also called "buglers," "whistlers" or "ivories"
- Finished taxidermy heads

Hunters may NOT import whole carcasses or parts of deer or elk that contain nervous system tissue such as the brain or spinal column. Hunters traveling out-of-state should also check with the wildlife agency in their destination state, as well as states they may travel through, to determine their CWD status and follow any restrictions states may have on the movement of carcasses.

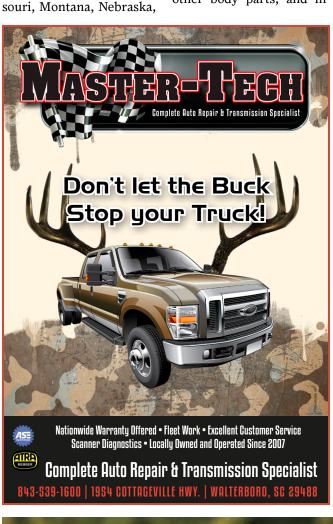
The SCDNR is joining many other states in letting hunters know how they can help fight the spread of CWD. The disease represents a very significant threat to North America's deer and elk populations, and it may be the most notable wildlife disease situation the country has ever faced. The SCDNR has conducted surveillance for CWD in South Carolina since 1998. To date, the disease has not been documented in South Carolina or any Southeastern state in the vicinity of South Carolina. Surveillance since 2002 has included samples from all 46 South Carolina counties, and over 6,000 total deer have been tested.

Fortunately, white-tailed Carolina's deer population currently has limited risk from CWD, due in part to the aggressive steps that the SCDNR and the S.C. General Assembly took years ago to limit and strictly regulate the importation of live deer, elk and other cervids. There is evidence that movements of live cervids for commercial purposes may have impacted the current CWD situation in other states, as many cases have been linked to captive animals. This is an important point, because states vary with respect to allowing cervids to be transported for commercial purposes.

The SCDNR has been criticized in the past for not being more liberal in supporting or allowing deer farming or high-fenced "shooter buck" operations that depend on moving animals into the state. However, since CWD has become a concern, a growing list of states have discontinued allowing deer to be imported for any purpose.

For more information on CWD visit http://www.dnr.sc.gov/wildlife/deer/chronicwasting.html

To report violations related to illegal carcass importation or any other natural resource criminal activity please call Operation Game Thief at 1-800-922-5431 or visit http://www.dnr.sc.gov/law/OGT.html.









## Does baiting negatively affect hunter success, deer harvest rates?

A retrospective on hunting deer over bait in South Carolina - Can baiting negatively affect hunter success and deer harvest rates?

#### INTRODUCTION

The use of bait for hunting deer is controversial and involves a complex set of biological, social and ethical issues. Biologically, population influences related to baiting can be important in the dissemination and maintenance of disease and can affect the natural movement, distribution and behavior of deer. Baiting can also influence survival and reproduction of deer, particularly when it moves towards supplemental feeding. Finally, concentrations of deer at bait sites may lead to effects on other species, habitats and ecosystems.

From a social standpoint, baiting can create conflicts between hunters due to real and perceived unnatural or unfair partitioning of the deer resource. Legal baiting for deer can create illegal baiting situations for other species (e.g. migratory birds) that may cause conflict between local user groups. Finally, baiting may simply pit groups against one another from a philosophical standpoint.

Ethically, support for baiting is often split among hunters; however, non-hunters and anti-hunting groups typically do not support the practice. Controversy or lack of public support related to baiting most often involves perceptions of fair chase and this fair chase challenge weakens public support

for hunting programs, as well as wildlife conservation and management programs that have historically been accepted by the public at large.

### HISTORY OF BAITING IN SOUTH CAROLINA

From a legal standpoint, prior to 2013 baiting for deer in South Carolina was regionally divided with the practice being prohibited in the Piedmont and not prohibited in the Coastal Plain. This divergent legal situation was rooted in the history of the respective deer populations and in the tradition and politics of deer hunting in the two regions. As was the case in most of North America, South Carolina's whitetailed deer population was nearly extirpated by 1900 primarily as a result of overexploitation and habitat loss due to agricultural development.

The Coastal Plain held residual deer populations that were associated with major river flood plain systems that were relatively inaccessible and of little agricultural value. Even when deer populations were low and protection of deer high in other states, deer remained available and hunting of deer continued in some parts of the Coastal Plain. Pursuing deer with dogs was the customary method of hunting deer and notable figures like Archibald Rutledge frequently described this activity as it was carried out specifically in the Coastal Plain of South Carolina. Many 1aws governing deer related activities in the Coastal Plain originated prior to

Table 1. Parameters from South Carolina regions when baiting was prohibited (Piedmont) and not prohibited (Coastal Plain), 2000-2007. Data was voluntarily submitted by hunters as part of annual Deer Hunter Survey.

Item	Piedmont Averages	Coastal Plain Averages	% Difference	
Total deer harvest (mi <sup>2</sup> )	14.2	11.1	27.9	
Doe harvest (mi <sup>2</sup> )	7.1	5.3	33.9	
Buck harvest (mi <sup>2</sup> )	7.1	5.8	22.4	
Doe:Buck harvest	1.00	0.91	9.1	
Man-days/hunter	15.7	19.2	22.3	
Man-days/deer harvested	8.4	8.6	1.6	
Humans/deer-vehicle				
collision	1,533	1,389	9.3	

the existence of wildlife management as a science and prior to the establishment of a wildlife agency in South Carolina. Even today, most restrictions on deer hunting in the Coastal Plain are legislative rather than being regulatory functions of SCDNR.

Historically, there was no need for the South Carolina General Assembly to address the issue of baiting deer in the Coastal Plain because hunting deer with dogs was the only method used. However, due to changing land use and ownership patterns and the fact that hunters determined that still hunting was an effective way to hunt deer, there was a relatively rapid shift from hunting with dogs to still hunting by the mid-1980s.

Today less than 10 percent of the Coastal Plain is under a regime of hunting only with dogs. With this shift to still hunting and no restrictions on baiting deer, the practice began. Baiting is now widespread and used by the majority of hunters in the Coastal Plain. Baiting typically begins several weeks prior to the hunting season; therefore, this food source

is available for about six months annually.

In many cases, baiting has moved towards supplemental feeding since it is made available regardless of season and for the purpose of increasing deer condition and density. In virtually all instances, shelled corn is the feed and it is typically provided free-choice, i.e. no timed feeders. Feeding rates on some properties are as high as 1,000 pounds per week per square mile.

In the Piedmont on the other hand, deer were nearly eliminated by the early 1900s and there are virtually no historical accounts of deer hunting in the Piedmont. By the 1950s, wildlife management as a science had emerged and a wildlife agency, now SCDNR, had developed in South Carolina. SCDNR was charged with restoring deer in the Piedmont and with this charge the agency was given regulatory authority over seasons, bag limits and methods of hunting deer under Title 50 of the South Carolina Code of

Deer restoration began in 1951 and the first open

season for deer in the Piedmont was in 1958. Since deer numbers were low and there was no tradition of hunting deer with dogs, still-hunting was the only method prescribed. At that time, baiting was prohibited in the Piedmont by SCDNR regulation. This took place when virtually all deer hunting in the Coastal Plain was with dogs, and baiting, though not prohibited by the legislature, was not an issue.

It is important to note that by Act 286 of the 2008 Session of the South Carolina General Assembly, the prohibition on baiting deer in the Piedmont of South Carolina was removed from SCDNR Regulation and placed into state law. This act did not address baiting in the Coastal Plain of the state. Also, due to pressure from some hunters and real and perceived problems with deer, there were a number of attempts by the legislature between 2000 and 2012 to eliminate the prohibition on baiting in the Piedmont. All along, there was a general lack of understanding among most hunters and legislators as to the history of baiting in South Carolina and how the conflicting legal situation arose. Hunters assumed that SCDNR had ultimate control over wildlife laws and that the agency was being arbitrary and capricious in allowing baiting in the Coastal Plain and prohibiting it in the Piedmont. Legislators, most having little or no experience in wildlife or hunting, either knew nothing about the issue or like hunters, felt the conflict was SCDNR's responsibility.

Act 2 of the 2013 South Carolina General Assembly removed the prohibition on baiting for deer on private lands in Game Zones 1 and 2. Therefore, baiting for deer is no longer prohibited on private land anywhere in South Carolina. Baiting or hunting over bait remains prohibited on WMA's statewide.

This historical account brings us to the present. South Carolina has a fully recovered statewide deer population, still-hunting is the dominant method of hunting deer, and prior to 2013, the state was divided regionally on the legality of baiting. In the Piedmont baiting was prohibited by the legislature, whereas, in the Coastal Plain baiting had not been addressed by the legislature.

SCDNR Wildlife Section biological staff opposes the practice of hunting deer over bait due to the aforementioned set of biological, social, and ethical concerns. The following discussion more fully describes those concerns and is based on data collected in South Carolina and

See BAIT, page 4C

Walk. Hunt. Live.



From ER care to orthopedic care, taking care of our community is our mission. We want to help you Live your healthy with the people who love you.

Go to **ColletonHealthy.com** to take a health quiz or connect with a nurse 24/7.

Colleton
Medical Center
Live your healthy

### BAIT

Continued from 3C

other states.

## THE EXTENT OF BAITING IN THE COASTAL PLAIN

With the decline in popularity of dog hunting for deer in favor of still-hunting, baiting began in earnest in the Coastal Plain in the mid-1980s. Initially, the practice involved what most people would consider true baiting, i.e. small amounts of bait being place in a few areas for the purpose of attracting deer to the gun.

As time progressed, more hunters learned that the practice was not prohibited and the popularity of baiting increased. By the 1990s, baiting had become very popular and it had become the typical way to hunt deer in the region. This brought competition among hunters to insure that bait was readily available throughout the deer season so "their deer" would not be attracted to someone else's bait site. Additionally, some property owners and hunting clubs began to shift more towards what would be considered supplemental feeding, i.e. providing "bait" in quantity, time and space for the purpose of affecting "management" of deer. In any event, by the year 2000, baiting was entrenched in the Coastal Plain and indications were that the magnitude of the activity could easily be affecting not only deer, but hunting as well.

In an effort to quantify the extent of baiting in the Coastal Plain, a survey was implemented in 2006.

survev This involved participants in SCDNR's Antlerless Deer Quota Program (ADQP) and the survey elicited information on harvest strategies, habitat management and baiting. The ADQP is a private lands deer management program that began in 1965 as a means for Coastal Plain landowners and lessees to harvest antlerless deer. Although the program is now available statewide, participation is dominated by properties in the Coastal Plain (98%).

With approximately 1,800 properties, the ADQP is a very large program and includes significant acreage in all coastal counties. There are approximately 9.3 million acres of deer habitat in the Coastal Plain and the ADQP encompasses 3.7 million acres or about 40 percent of the available habitat.

Response rates for this survey were high, with 77 percent of program completparticipants ing the survey resulting in direct data for three million acres of habitat. Ninety-four (94) percent of respondents indicated that bait or supplemental feed was used on their property. Corn was cited as the bait in virtually all cases. Eighty-five percent of participants indicated that bait was available outside of the deer season averaging 7.6 months per property. Feeding rates averaged 10,600 lbs./mi2 annually which is the same as 342 lbs./mi2/week or 43 lbs./mi2/day during the 7.6 months that cooperators averaged feeding. Based on deer harvest rates which were part of the ADQP record, it required an average of 1,200 lbs. of bait for

each deer harvested.

Given current corn prices of approximately \$8 per bushel, this equates to about \$170 per deer harvested, above and beyond the typical costs associated with deer hunting.

Total bait sites reported by respondents were in excess of 30,000 with one bait site for every 116 acres of habitat which calculates to a distribution of one site every 422 yards. If the average deer has a home range of one square mile, then the average deer would have access to 5.5 bait sites in its home range. As a group, survey respondents provided in excess of 40.8 million pounds (728,621 bu.) of bait with a total value of \$5.8 million at \$8 per bushel.

Due to the scope of the ADQP in both acreage and distribution of properties, it is believed that results of this survey are representative of the Coastal Plain in general.

Extrapolating to the region yields approximately 80,000 bait sites and 2.33 million bushels of corn with a value of \$18.6 million annually.

### **BIOLOGICAL ISSUES**

Baiting has the potential to unnaturally increase the survival of individual deer and when used in extreme amounts, baiting has been demonstrated to cause unnaturally high local deer populations due to increased survival and reproduction. Artificially high deer numbers is contrary to the goals of SCD-NR's deer management program and is not in the best interest of the state's natural resources nor the general public.

Referring to the survey data the following example can be used to demonstrate how the magnitude of baiting may have affected deer density in the coastal plain. This example simply estimates the number of deer required to consume the amount of feed (corn) that is being provided to the landscape by hunters.

If we assume that the average deer needs approximately 2,000 calories per day and that one pound of corn has approximately 1,600 calories then we can deduce that the average deer needs 1.25 pounds of corn per day to meet its requirements. Survey results indicate that 43 pounds of feed are available per square mile per day, therefore, this would support approximately 35 deer/mi2. Although this is a relatively high deer density, there are regions of South Carolina that naturally support this number of animals without

adverse affects.

However, deer would not restrict their diet only to feed that is being provided by hunters. Although corn is high in energy (carbohydrates) it is low in protein and other essential vitamins and minerals and should not be considered a complete feed. In fact, a study examining deer use of supplemental and natural feed in the Coastal Plain found that only about 50 percent of the diet was composed of feed (corn) with no statistical difference in deer sex, age or month of sampling. Therefore, the amount of feed being supplied by hunters would theoretically support approximately 70 deer/mi2. With few exceptions, this population density should be considered extremely high and unnatural in South Carolina. Without supplementation population density should result in poor biological characteristics (reproduction, body weights, antler characteristics, etc.) and there is no evidence that is the case in the Coastal

Plain. This analysis begs

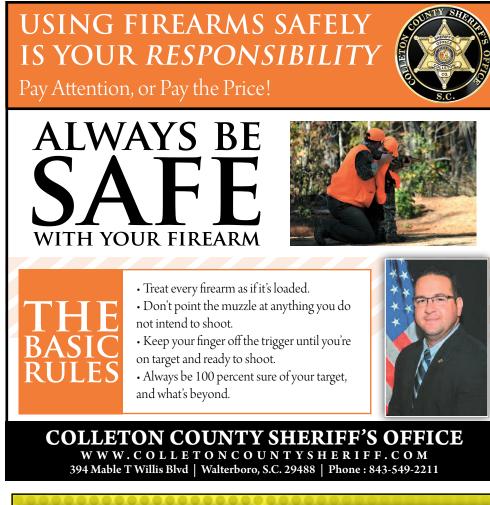
the question, "Are we unnaturally 'propping up' the deer population in the

Coastal Plain?" Research has demonstrated that baiting can change natural movements, distribution and behavior of wildlife, including deer. It has been documented that changes in deer movements and behavior related to baiting lead to increased levels of nocturnal activity by deer and that younger animals are most susceptible to being seen/harvested during legal hunting hours.

With increasing technology and decreasing cost, many hunters are now using trail cameras to monitor deer activity on the property they hunt. For obvious reasons, these cameras are typically located over bait sites. Although observations by cameras is high, hunters are learning that deer frequent bait sites much more at night than in the daytime. Data collected on one study site in the Coastal Plain yielded visitation rates of 25:1 night versus day. This data set includes See BAIT, page 5C











### BAIT

Continued from 4C

approximately 30,000 observations and it was collected outside of the hunting season when deer should be exhibiting natural behaviors. If deer movements and behavior are being modified by bait, what impact could this nocturnal use of bait be having on hunters' ability to efficiently harvest deer?

Also, as the availability of bait increases and ultimately moves towards supplemental feeding, there can be increased physical condition of deer at the local level. As body condition increases, deer become more selective as to what and when they eat and they can spend less time feeding. Both of these factors, increased selectivity of foraging and decreased time spent foraging, reduce deer movements. Anything that decreases deer movements makes the animals less available to hunters and negatively impacts hunter success and deer harvest

Data is available from the Coastal Plain that illustrates the relationship between supplemental feed and deer condition, as well as the relationship between deer condition and hunter success. Body weights and hunter effort data were collected from over 300 deer on each of two study areas located approximately 20 miles apart, in the same physiographic region, and on the same river system. One site is a public Wildlife Management Area (WMA) where baiting/feeding is prohibited and the other site is private land with a history of baiting/supplemental feeding. Neither area utilized selective harvest strategies and overall harvest pressure could be considered very high.

Results indicated that deer in 9 of 10 sex/age classes had significantly greater body weights from the area with a history of feeding compared to the area where feeding was prohibited. That is not to say that deer from the WMA were in poor condition, but rather, the deer from the area where feeding took place weighed more than would be expected naturally. On the other hand, it required nearly 3 times as much effort to harvest a deer on the area were feeding took place (3.37 man-days/ deer) compared to the area where it did not (1.16 mandays/deer). Again, this data demonstrates the positive relationship between feeding and deer body condition and the negative relationship between body condition and hunter success. Deer in better condition can be more selective in their feeding activities and in doing so they can more easily avoid hunters.

Changes in deer movements and distribution can increase the probability of spreading diseases and parasites because animals are concentrated at bait sites where they repeatedly come in contact with one another. In 1994 bovine tuberculosis (TB) was detected in deer in an area of Michigan. It was determined that high concentrations of deer around bait sites were a primary factor in maintaining and increasing the prevalence of the disease. Similarly, chronic wasting disease (CWD) has emerged as the most significant disease threat that North America's deer and elk populations have ever faced. The disease is similar to mad cow disease that was so devastating to Europe's livestock industry. CWD has been diagnosed in 22 states and two Canadian provinces, however, it has not been detected in any Southeastern states in the vicinity of South

Carolina. SOCIAL OR PU

Each of these diseases pose a significant risk to South Carolina because of the potential negative impacts it could have upon the deer resource, the deer hunting tradition and the state's economy (200 million dollars in annual retail sales related to deer hunting). Due to changes in deer movements, their congregations and behavior, baiting presents a major hurdle in managing these diseases. As was the case in Michigan with TB, states that have detected CWD and allow baiting have been forced to take immediate steps to address the issue.

Deer are normally selective browsers with feeding activities occurring widely over their home range. However, due to changes in movements associated with bait, deer concentrate their foraging activities around the baited area and research has documented that the habitat around artificial feeding locations can be negatively impacted due to this concentrated foraging. The unnatural movements and congregations of deer associated with bait sites may suppress the ability of plants to regenerate which can change plant species composition and ultimately affect the entire local ecosystem.

The inferior quality of typical deer bait (corn) is also a concern since it is being consumed by many species of wildlife including deer. Although the effects of certain feed contaminants are documented in livestock, the effects are not well known in wildlife. Research conducted by the Southeastern Cooperative Wildlife Disease Study at the University of Georgia indicates that aflatoxin, one contaminant of concern, has been found at 'above acceptable" levels for animal feed in approximately 50 percent of deer bait sites sampled in South Carolina. Although deer appear to be somewhat resistant to low levels of aflatoxin, it is documented that birds and monogastric mammals are more susceptible than ruminants. Therefore, the effects on these "non-target" species are a concern. (Note: the national incident in 2005 with contaminated pet food and mortalities in dogs was related to aflatoxin).

Finally, the baiting of deer may artificially increase, or at least concentrate, the local population of turkey and quail nest predators such as raccoons, opossums, foxes, etc. These animals may affect local turkey and quail nest success and/or contribute to pathogens contaminating such a site.

### SOCIAL OR PUBLIC RELATIONS ISSUES

Due to changes in deer movements, distribution, and behavior, baiting impacts adjacent landowners or clubs as the deer resource is unnaturally "partitioned." This is particularly the case where small land ownerships are dominant such as in the Piedmont.

When baiting occurs in an area, hunters feel that they must bait in order to have any expectation of seeing deer on their property. This "baiting in self-defense" creates hostilities between adjacent landowners and among hunters, even hunters utilizing the same property.

Similarly, many hunters believe that they can make any piece of property a good deer hunting tract if they can bait. This mind set devalues the skills and challenges inherent hunting because rather than the hunter hunting the deer, the roles become reversed as the deer hunts the hunter. It becomes only a matter of buying bait, having some place to put it and being a good shot. The traditional aspects of developing hunting skills and woodsmanship, as well as an intimate knowledge of the habitat and the animal's habits, are no longer part of the equation with

Complaints are frequent about individuals using bait to "draw" deer onto small properties and in-holdings within larger tracts.

These properties typically lack suitable deer habitat; however, deer are often harvested at disproportionately high rates, often at the expense and frustration of neighboring landowners who have expended effort and expense on a traditional deer and habitat management program.

Baiting for deer has created situations in South Carolina where dove and turkey hunting could not be allowed because the area was considered "baited" for these activities. In these situations, the hunter(s) and SCDNR are placed in difficult situations.

Further, it could be argued that legal baiting for deer (which attracts turkeys) may "lead" some hunters to consider or practice illegal baiting for turkeys in order to prevent the turkeys from leaving their property.

### HABITAT MANAGEMENT ISSUES

Many hunters suffer from the misconception that baiting is a form of habitat management. It is not and it should not be characterized as an acceptable alternative to traditional habitat management

techniques. This is all too evident in the Coastal Plain in years when abundant natural foods like acorns persist during the hunting season. Under these conditions, hunters who depend on bait frequently comment that they are unable to harvest deer because "they aren't coming to the corn." If this natural food availability is such that baiting is not effective over much of the season, then deer harvest levels may be insufficient to meet harvest management goals.

Many argue that baiting is no different than habitat management techniques such as food plots or agricultural plantings. However, in the case of bait, deer can more easily be manipulated with respect to space (location) and time to suit the desires of the hunter.

Although traditional techniques have space and time elements as well, the level of manipulation is not comparable to baiting (i.e. once a food plot is planted, its location does not change and it is always available to the deer).

wildlife Traditional activities management such as agriculture or food plot establishment create food sources and habitat/ cover for many species of wildlife that are available over broader areas and for longer periods of time. Also, since food plots are measured in acres there is much less concern about disease transmission because deer are not forced to repeatedly feed, urinate and defecate at the exact same spot as they do with a bait "pile."

### **FAIR CHASE ISSUES**

Baiting is controversial among hunters, and research has shown that Piedmont and Coastal Plain hunters differ in their opinion about baiting, likely a result of differences in traditional regulations and customs. In fact, baiting was one of the topics discussed at five public meetings that were held in the Piedmont in 2003. Once the issues and potential effects of baiting were discussed, only four percent of meeting attendees indicated support for legalizing baiting in the upstate. Furthermore, non-hunting and anti-hunting constituent groups do not support

This controversy and lack of public support for baiting involves perceptions of fair chase.

Many believe that killing deer (or other wildlife) over bait demonstrates that hunting is all about killing and has nothing to do with fair chase, conservation or wildlife management. This fair chase challenge weakens public support not only for public hunting programs, but also for wildlife conservation and management programs that have historically been accepted. Hunting wildlife over bait does not improve or heighten the skills of the hunter. Hunting is a tradition and an important tool with respect to deer management; however, issues such as hunting deer over bait jeopardize the continued acceptance of hunting by an increasingly skeptical public at large.

#### DEER HARVEST AND HUNTER EFFORT DATA FROM SOUTH CAROLINA

Although baiting may increase deer harvest rates under certain conditions, statewide deer harvest figures indicate that in the Piedmont, where baiting was prohibited, hunters harvested 28 percent more deer per square mile than hunters in the Coastal Plain where baiting has been the norm.

Also, coastal hunters expended 22 percent more time afield in harvesting this reduced number of deer.

Harvesting female deer is the key to deer management and data indicates that in the Piedmont, where baiting was prohibited, hunters harvest equal numbers of does and bucks while in the Coastal Plain, where baiting was never prohibited, hunters took more bucks than does.

Many proponents of baiting claim that the incidence of deer-vehicle collisions can be reduced if hunters bait. However, in spite of a 33 percent greater human population in the Piedmont, the per capita deer-vehicle collision rate was nine percent less than in the Coastal Plain prior to the change in the Piedmont baiting law.

In total, the evidence strongly suggests that baiting does not increase the harvest of deer over broad regions in South Carolina. In fact, deer harvest and hunter effort data voluntarily submitted as part of the Deer Hunter Survey which is sent randomly to 25,000 hunters annually indicate that baiting may have negatively impacting harvest rates and hunter effort in the Coastal Plain.

SCDNR Wildlife Section staff attributes these negative impacts of baiting in the Coastal Plain to hunter dependence on

bait, increased nocturnal behavior by deer around bait and increased body condition which affects deer movements. Each of these factors erodes hunter effectiveness leading to decreased harvest rates.

### CONCLUSION

Wildlife Section staff recognizes that hunting deer over bait has taken place in the Coastal Plain for a number of years. However, staff also understands that this situation exists only as a result of the history of deer hunting in that region, the fact that there has been a relatively recent change from dog hunting to still hunting, and the fact that the baiting issue has never been addressed in state law. Now, baiting is the norm rather than the exception in the Coastal Plain, yet state law does not prescribe the practice in that region.

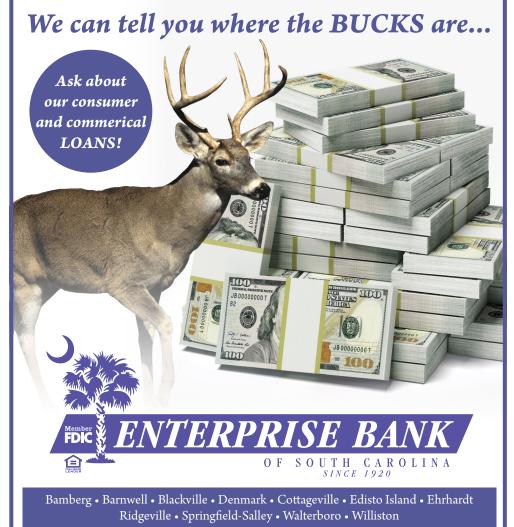
Staff is concerned with the obvious role that baiting can play in the biology of deer and in the dissemination and maintenance of disease. Baiting affects other "non-target" species and habitats, as well. It should also be understood that social issues involving bait pit hunters and landowners against one another in a "competitive" atmosphere related to the distribution, behavior, and harvest of deer. There are ethical considerations and it is important to recognize that the public at large does not support baiting and this point undermines hunting and wildlife management programs that have historically been accepted by the public.

Finally, although some believe that baiting increases hunter success and deer harvest rates, data collected in South Carolina over an 8-year period indicate just the opposite. In the Piedmont where baiting was historically prohibited, hunters killed more deer per unit area and spend less time doing it than in the Coastal Plain where baiting has been the norm.

The most significant concern of SCDNR Wildlife Section staff is the likelihood that decreased hunter efficiency and deer harvest rates will occur over time now that the prohibition on baiting has been eliminated in the Piedmont.

In the end, Piedmont hunters who support the change in the baiting law must answer one question: What was broken about deer hunting and management in the Piedmont that will be fixed with bait?





Visit us online at ebsc.bank

## Deer seasons on private lands

All harvested deer must be tagged at the point of kill prior to being transported. Tag must remain attached until the deer/carcass is quartered or received by a processor. Processors see Deer Rules & Regulations.

Antlered deer statewide limit:

■ Residents - 2 per day, 5 total all seasons and methods combined.

■ Nonresidents – 2 per day, 4 total all seasons and methods combined.

Antlerless deer - limit 2 per day. Must be tagged with date specific Antlerless Deer Tag or optional Individual Antlerless Deer Tag. Only one (1) Individual Antlerless Deer Tag may be used in Game Zone 1. Tags are valid in Game Zones 2, 3, and 4 beginning Sept. 15 and in Game Zone 1 beginning Oct. 1. Individual tags are not valid on properties enrolled for anterless deer in the Deer Quota Program. Individual tags do not alter

the daily (2 per day) or seasonal limit or change the type of weapon that can be used during special weapons seasons.

■ Limits listed include deer taken on private & WMA lands.

■ Limits listed do not apply to quota deer taken on properties enrolled in the Deer Quota Program.

■ Sunday hunting allowed on private lands.

Archery and crossbows allowed during all seasons.

Crossbows are considered archery equipment.

■ In Game Zones 1 and 2 it is unlawful to pursue deer with dogs.

Baiting or hunting deer over bait is permitted on private lands statewide.

#### **STATEWIDE YOUTH DAY - PRIVATE LANDS**

Listed by Game Zone. For youth 17 years old and younger. Youth hunters who have not completed the hunter education program must be accompanied by an adult at least 21 years of age. No license or tag requirements for youth. Adult may guide, however, only the youth may take or attempt to take. Antlered deer only, limit one.

#### **GAME ZONE 1** (PRIVATE LANDS)

Antlered Deer Limit: Statewide limits apply.

Antlerless Limit: 2 per day, 4 total all seasons and methods combined.

Primitive Weapons: Oct. 1-10

Gun Hunts: Oct. 11-Jan.

Youth Deer Hunt Days: September 29, Antlered deer only, limit 1. January 5, Either-sex, limit 2. Tags not required.

### **GAME ZONE 2** (PRIVATE LANDS)

Antlered Deer Limit:

Anderson Statewide Appeville limits apply. Antlerless Limit: 2 per day, 5 total all seasons and methods combined.

Archery

Sept. 15-30 Primitive Weapons: Oct. 1-10 Gun Hunts: Oct. 11-Jan.

Only:

Cherokee

Union

Saluda

Youth Deer Hunt Days: September 8, Antlered deer only, limit 1. January 5, Either-sex, limit 2. Tags not required.

### **GAME ZONE 3** (PRIVATE LANDS)

Antlered Deer Limit: Statewide limits apply. Antlerless Limit: 2 per

chery Ar-Gun Aug. 15-Jan. 1

Youth Deer Hunt Days: August 11, Antlered deer only, limit 1. January 5, Either-sex, limit 2. Tags not required.

Orangeburg

Dorchester

Colleton

Bamberg

Hampton

Jasper

Antlered Deer Limit: Statewide limits apply. Antlerless limit: 2 per

**GAME** 

**ZONE 4** 

(PRI-

VATE

LANDS)

Archery Only: Aug. 15-

Gun Hunts: Sept. 1-Jan.

Youth Deer Hunt Days: August 11, Antlered deer only, limit 1. January 5, Either-sex, limit 2. Tags not required.

## Study on doe movement can help hunters

A recently completed cooperative study between SCDNR, Auburn University and Brosnan Forest will help researchers and hunters better understand doe deer movements and behavior during the breeding season and in response to hunting pressure. According to Charles Ruth, deer and wild turkey program coordinator for SCDNR, this is one in a series of cooperative studies conducted in South Carolina made possible by revenue associated with deer hunter's participation in antlerless deer tag programs offered by SCDNR.

Jeff Sullivan conducted the study while working on his M.S. at Auburn University under the direction of Dr. Steve Ditchkoff, Ireland professor of wildlife ecology. The study was conducted on the Brosnan Forest Conference Center which is owned by Norfolk Southern Railway and located in Dorchester County. According to Josh Raglin, general manager of Brosnan Forest, "The property is actively managed for timber and wildlife and has been involved in deer research with Auburn University and SCDNR for a number of years."

Sullivan's study involved capturing does and fastening GPS collars around their necks. During the three-year study, approximately 40 does were captured with the average age being about four years old. The GPS units were programmed to record a location every 30 minutes and over the course of the study more than 160,000

locations were recorded. Results of the study indicate that does exhibited changes in behavior, movements and space use related to breeding. Does typically increased movement rate, probability of activity, and likelihood of being out of their seasonal home range as their date of conception approached. Additionally, about half of females made an excursion and temporarily left their home range around their

conception date. Sullivan said, "It appears that does may exhibit these behaviors as a form of mate choice, not necessarily to pick a particular buck, but rather to increase the pool of

**COLLETON COUNTY** Fire-Rescue • Sheriff • Police **EMERGENCY** 

potential bucks.

"The study also looked at the impact of hunting pressure on doe movements," said Sullivan. "Our data show that deer have the capacity to recognize and respond to localized threats posed by deer hunters in the immediate area around deer stands, food plots and feeders. They do this by altering behavior, space use and the times they use these areas (night for example.) Furthermore, it appears that how deer respond to these localized risks is a result of the number of times a stand is hunted, suggesting that deer are capable of recognizing even low levels of localized pressure from hunters, and modifying this information following additional experiences. Some deer hunters may have already believed this was the case, but we now have solid evi-

dence supporting it." Charles Ruth SCDNR added, "Jeff did a great job on this project and we are in the process of working with Dr. Ditchkoff at Auburn University and the folks at Brosnan Forest to continue using GPS technology to better understand how environmental factors such as weather, moon phase, etc. affect deer movements and behaviors."

More information from Sullivan's study can be found at the following link on the SCDNR website: http://dnr.sc.gov/wildlife/ deer/pdf/Sullivan\_thesis. pdf (PDF)

similar study related to bucks can be found at

Information from a the following link on the SCDNR website: http:// www.dnr.sc.gov/news/





**Locally Owned** 20+Years Experience Licensed & Insured **FAST & Affordable** 

**CALL NOW** 843-908-9712 843-908-1310



SALES AND SERVICE 1617 Bells Hwy, Walterboro • 877 South Lake Dr, Lexington 843-539-2000 • 803-399-1338

lowcountryequipment.net

PERFORMANCE

MORE GREAT DEALS IN STORE!

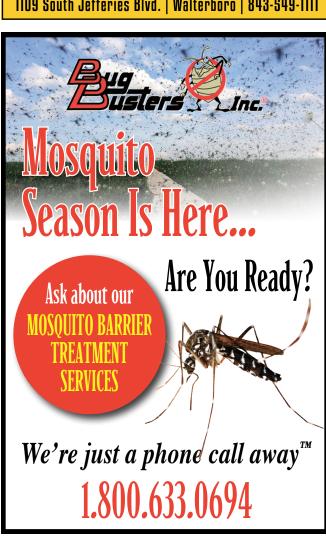


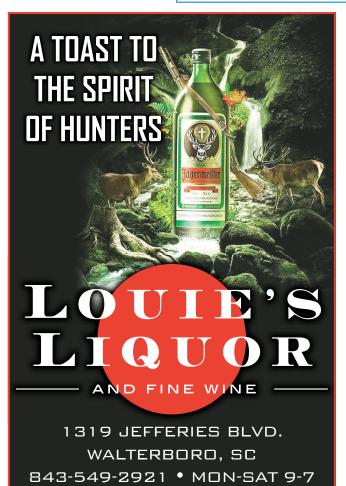




Big<u>Tex.</u>

### We are your From dents and dings to everyday fender benders... We are your full service certified collision center! 1109 South Jefferies Blvd. | Walterboro | 843-549-1111







### Loans for:

- Large and small acreage
- · Hunting tracts
- Land improvements
- Equipment



Ricky Varnadoe, NMLS #628791 529 Bells Highway, Walterboro 843-519-1584 I AgSouthFC.com

# Properly dispose of deer remains

By CHARLES RUTH
SCDNR Big Game Program Coordinator

Disposal of deer remains may not be the high-light of a hunting trip, but it is an important aspect of hunting, particularly in maintaining the hunter's image.

Properly disposed deer remains will soon be taken care of by decomposition and insects, because nature wastes no nutrients.

Hunters should realize that improperly disposing of deer remains is not only illegal, but presents a negative public image. It provides a legitimate point of criticism that can be used by people who oppose hunting.

Hunters should also remember not to display harvested game where it might offend non-hunting members of the public. When transporting a deer in the back of a truck or on top of a vehicle, hunters should wrap a tarp or other covering material around the animal. This is a simple, considerate step that may prevent a non-hunter from becoming an anti-hunter.

While most hunters are ethical and take the necessary steps and care in proper disposal of deer carcasses, some improperly dump remains in a creek or river, near a boat ramp,

Hunt in comfort...
Store your supplies...
Customize a hunting cabin...
The Possibilities are Endless!

property or private property that is not theirs. This unscrupulous practice creates numerous problems beyond the negative image to hunters. The carcasses can cause human and animal health issues, environmental contamination and a food source for unwanted scavenging animals. Hunters are also reminded that improper dumping of deer remains is illegal and persons involved in the activity can be cited criminally with littering.

Proper handling of all parts of a harvested deer from the field to the table is an important part of hunting. Heads, hides and entrails should be buried at least 2-3 feet deep so dogs or other animals won't dig up the remains and drag them around. Alternatively, hunters can take the remains to their local landfill, provided the landfill accepts animal carcasses.

Sportsmen hunting on Wildlife Management Areas often field dress their deer but the entrails should be disposed of properly, not just left on the ground. Never, under any circumstances, should remains be thrown into streams or other bodies of water. Again, this can result in a citation for littering.

Properly disposed deer

along a road, on public property or private property that is not theirs. This unscrupulous practice creates numerous problems beyond the negative image remains will soon be taken care of by decomposition and insects because nature wastes no nutrients. It is part of nature's recycling program.

For information on constructing a simple composter to recycle deer remains, hunt clubs that harvest large numbers of deer can contact their local Natural Resources Conservation Service (NRCS) field office or Conservation District office. Composting deer remains solves the dilemma hunters face in properly disposing of deer carcasses, and also yields a valuable by-product that can be used to fertilize next year's food plots.

Hunters should also keep in mind that people who discard deer remains on private or public property can be cited for litter-

Poor behavior by hunters, like improper disposal of deer remains, promotes the kind of negative image that anti-hunters use in their attempts to ban hunting. Landowners who find a mess on their property may also have second thoughts about allowing access to hunters next season.

Hunters must blacklist those people who display unethical behavior such as the improper disposal of deer remains. Violators should be reported to SCDNR's Operation Game Thief by calling 1-800-922-5431. The 24-hour, toll-free number is printed on the back of hunting

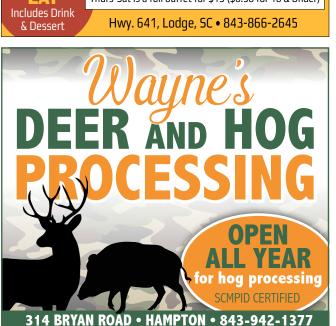
and fishing licenses.

Sportsmen reporting violators through Operation Game Thief do not have to

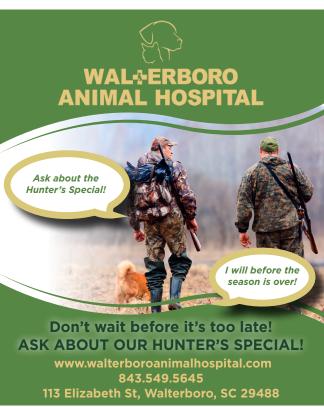
identify themselves, and rewards are offered for information leading to arrests.















banklowcountry.com





843-538-5269

424 SNIDERS HWY. AND BELLS HWY.

(Across from Walterboro Ford)



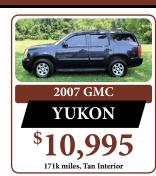










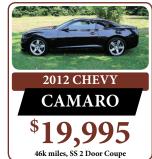






















### **GROUND BLINDS - SEATING - FIREARMS - AMMO - FEED** AND ALL THE ACCESSORIES YOU NEED!



**HOT BUY** 



**High Back Chair** Steel frame. Folds for easy transport. Rated for 200 lbs. AMEFT1001/#815713



Field & Range 12 Gauge Shotshells **High Brass Dove Load** 

12 Gauge, 2-3/4", 1-1/8 oz. 7.5 shot.

25 round box. FR123NBS75/#802365

12 Gauge Shotshells 1-1/8 oz. 8 shot. 25 round box. FR123NBSB/#802369



**Dove Stool with Lid** 



Voodoo Dove Decoy

Motorized call with magnetically connected wings. Includes steel support pole. HW2300/#805944