PRACTICAL WILDLIFE MANAGEMENT INFORMATION

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Earl Says…

I don't know about you but I believe this is probably my favorite time of the year. The weather is starting to change with temperatures finally getting out of the triple digits and preparations are being made for deer season. Lots to do and it can be fun if everything goes right.

Hopefully this year we get a break and don't have a repeat of last year's series of debacles. First, we had a flat tire on the disk after plowing only one field. After replacing the tire the next day because the it was older than I am, one of our guys lost his expensive ear buds while replacing the tire. (The ear buds were finally found under the back seat of my truck several months later. Still don't know how that happened). Next, we had hydraulic problems with one of the two tractors we were using which slowed us down to a snail's crawl. It's tough to plow, seed and cultipack 25 green fields with only one tractor.

But the best was yet to come. Just as we were finished late the next afternoon and driving the one good tractor we had left back to the barn; the front right wheel falls off! I wish I was making this up but it is true. The good news was we did get finished. The bad news was we had to call a tow truck to get this huge machine out of the middle of a country road. Here's to better luck this year.

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Managing A Successful Hunting Club on Leased Timberland

By Jeremy Meares

Producing and harvesting mature bucks is not just for the grownups, Bob's club makes youth opportunities a priority.

Five years ago, I received a call from a gentleman (I will refer to him as Bob for the sake of this article) inquiring about some land we had available for lease. Some of his first words were "I am a Baptist preacher" and for those of us who have worked with hunting clubs leasing land long enough, sometimes this is a red flag. We have experienced several making that claim that turn out to be some of the biggest outlaws in the county. I am glad to report this is not the case here. The land he was inquiring about had not been leased during the previous hunting season because of the local stigma of the outgoing club. The outgoing group was not the most management-oriented club and hunted the property extremely hard over the years they had it leased. This land needed new blood, a fresh approach, and most of all some patience. I arranged a meeting with Bob to tour the

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approximately 2,000-acre property. His immediate thoughts involved concerns around the amount of clearcut present and the pine-dominated landscape. However, as we rode the property, the amount of deer sign became obvious and we even saw a few deer (an old lease manager's trick to help influence prospective customers to lease a property). After we made the rounds through the property, Bob decided to take a chance and see what happens. Based on the truck conversations, it became evident they were definitely new blood and had a different approach, but we would have to wait and see if they had the patience to get the results. The rest as they say is history…but it is a really good story.

The Journey

Hunting leases on industrial timberlands sometimes get a bad rap because of perceived stereotypes around management practices and lack of empathy for the hunters leasing the property. I am not saying this stereotype does not exist but in our case, we strive to handle things differently. We manage our forest in a sustainable manner and take an active approach with how we manage our hunting leases. Managing timber on a large scale involves landscape-level planning that support sustainable management while also promoting a diversity of wildlife habitats at varying stages of plant succession.

Leasing industrial timberlands will usually present challenges to hunting clubs at some point along the way whether it is due to the harvest of timber, tree planting, road conditions, etc. The property Bob's club leases is approximately 2,000 acres with a long history of pine management. Over the years, an extensive road network and food plots were established. About 25 years ago, a tornado impacted this area and caused extensive timber damage on this tract as well as some of the other surrounding properties.

When you start getting pictures like these, something you are doing is working; now getting them to skinning shed is the next step.

This weather event caused a large proportion of the 2,000+ acres to be essentially the same age and close to the age of final harvest when Bob's club began. While big timber certainly helps "sell" a lease at times, veteran timberland lessees know that when trees reach that stage it's usually not long before they start leaving the property on a log truck to be turned into a variety of wood products. As was the case here.

For Bob's club, timber harvest and/or reforestation has taken place at some point each year they have had their lease except perhaps one. Some of the timber harvest has taken place during portions of deer season and from a hunting perspective has been less than ideal but necessary to keep lumber mills supplied with material throughout the winter. This is where communication becomes essential and how our approach with hunting clubs is a little different. It is not a perfect system, but we always try to inform clubs about any activities taking place during the hunting season to reduce the likelihood of surprises. Bob notes the primary challenges of timber harvests and reforestation involves knowing in advance (if possible) in the event stands need to be moved temporarily or permanently, food plot planting, and scouting. With these activities happening during hunting season, access to hunting areas can sometimes be impacted temporarily which requires patience and understanding from both the club and the landowner. Bob acknowledges these challenges encountered along the way but touts the benefits of clearcuts and the resulting early-successional habitats created far outweighing those challenges.

"The natural habitat that results is tremendous. Not only do the newly harvested/planted areas provide range of sight for the hunter that wouldn't otherwise be realized, they provide access to travel corridors and other areas that would otherwise be very difficult to access".

Adapting to an ever-changing landscape creates a need for adapting from season to season to maximize the new hunting and access opportunities created. For Bob's club, the results speak volumes in that they have harvested at least ten of their 4 ½ + year old bucks in timber of 10 years old or less, including several in streamside management zones (SMZ's) or fresh clearcuts and those that have been recently planted.

Remembering the previous club did not use much discretion when making deer harvest decisions, Bob and his club had some challenges ahead of them to meet the goals they established. In year one, Bob filled his membership with mostly family and picked up a few others to get the numbers needed to cover the lease and expenses similar to the makeup of many hunting clubs. As would be expected for a new club on such a large block of land, their harvest numbers were relatively low. The club harvested four does and three bucks. Only one of the bucks met the 4 ½ year old criteria while one was 3 ½ years old, and the other was unknown (jawbone, weight, or antler measures were not submitted). However, the more I spoke with Bob, the more it became evident this was a group after my own heart. Every conversation was filled with a passion for creating a place for family and friends to have an opportunity to see and harvest a mature buck while maintaining a safe and family-friendly environment.

Excitement began to build within the club during the summer of 2016 based on preseason trail camera pictures and the number of bucks passed by members the previous year not meeting the harvest criteria. I remember getting flurries of text messages full of deer pictures nearly every week asking my opinion on age, quality, or something odd that showed up on camera. Based on the pictures I was seeing, Bob's club was poised for a great season if they could figure out how to get some of these bucks to take a ride to the skinning shed. The club's harvest numbers nearly doubled in their second season going from seven to 13 (6 does and 7 bucks). It is worth noting, while on the surface the doe harvest numbers may seem very low, but remember the previous hunting club was not discriminant about what they harvested and couple that with a landscape consisting of clearcuts yet to begin "greening up". Based on these conditions and what the observations the club was reporting while hunting, we felt it was best to take a phased approach with setting doe harvest recommendations. From a buck harvest perspective, four bucks meeting the age criteria were taken but once again there were a few mistakes with some being repeat offenders. These mistakes led to some uncomfortable conversations for Bob leading ultimately to the club and these members parting ways. For a hunting club, removing members can be a double-edged sword because on one hand you eliminate someone not willing to fully commit to the goals of the club, but it usually creates a need to find someone to replace them. While the first couple of seasons were certainly challenging for the club, each year improvements were made leading to more successful

hunts and more of those hit list bucks ending up at the skinning shed.

The timber activity scheduled for Bob's club over the years presented some landscape management opportunities mainly around food plot locations. We worked with Bob on a plan for us to create new food plots in some recently clearcut blocks to improve some of their key hunting areas and provide additional hunting opportunities over the life of the next timber rotation. Additionally, we served as a resource for the club for things like making changes to summer and fall food plot forages and hunting strategies along with serving as a psychiatrist at times. In case it is not common knowledge, hunters can sometimes be emotional and passionate creatures (especially when timber activities occur during hunting season). Managing a large hunting club is a very daunting challenge for most and we certainly do not envy those in that position. However, having the right people involved and effectively communicating can help ease the strains when things may not go as planned.

Finding the right people

Finding the right members for a club seeking to manage for quality bucks and quality hunting experiences is not an easy feat. The greatest challenge is finding members who are committed to showing the proper trigger restraint and putting in the necessary work to manage and grow quality whitetails. Bob commented and most of us who have ever been in a hunting club have witnessed this firsthand; people say they are willing to do the abovementioned work but do not really have the patience to wait on the benefits. With the club's harvest criteria focusing on 4 ½ - year-old bucks, they experienced difficulty with the challenges of properly judging the age of bucks. Bob mentioned the membership experienced challenges at times due to those variables but have sought to act quickly and respectfully to address them and move forward around a very strong core group of members fully committed to their goals. Another lesson Bob learned was the importance of the development of a core group of quality members working together committed to building quality hunting experiences for their families and fellow club members.

In years three and four Bob's club really dialed in their setups and began catching up with some of their "hit list" bucks like this one.

Key practices and strategies for running a successful hunting club

Bob has learned a lot on the go as it pertains to running a hunting club. *"We began with antler and weight restrictions but in consulting with our biologist, we decided to commit to age and quality restrictions thereafter."* Tangible restrictions with accountability measures in place will help ensure your members abide by them. Bob's club began with the end in mind. In other words, they wanted to manage in a way that produced 4 ½ -year-old bucks so that is where they set their harvest criteria. They had to "crack a few eggs" along the

way but now the club is reaping the benefits of holding the line and being committed to their original goals. With a much different landscape from when the club started and a different hunting approach, club members have doe harvest opportunities that balances maintaining enjoyable hunting experiences and the legitimate opportunity to harvest a mature, mountable buck. Not all clubs are created equal, obviously, so groups should decide on realistic goals based on their situation ahead of time (solicit the help of a biologist if needed).

Once you have found the harvest criteria and goals most feasible for your club, it is important to remain committed and seek members who will do the same. These goals can include anything from managing a property to harvest quality animals to just a place to fill the freezer and everything in between. More specific deer management goals should be addressed next. These goals will be dependent on the stage members are in their hunting careers. Again, input from everyone is needed for this in order to reduce potential frustrations down the road. Bob's club has been fortunate to have a strong core group that allowed them to only add members if they are strong fits for what they do as a club. Harvest results supporting the club's goals usually helps build and maintain that desired level of commitment. *"I've learned that communication is vitally important with our members and that showing gratitude for the hard work and efforts of others is immeasurably valuable."* The clubs we see having the most success are those that set attainable goals, communicate well, and more importantly have fun in the process. Hunting successes should be celebrated within the club because each member played a role in creating that moment for the successful hunter. Whether someone helped by planting a food plot, hanging a stand, or trimming shooting lanes it is all part of the process.

Bob's club is a great example and evidence that clubs can achieve high levels of success on industrial timberlands as long as all members are committed to a common goal. Finding success on actively managed timberland requires flexibility and an understanding of the "bigger picture". Inevitably, timber management activities will occur and it may be at an inopportune time, but usually the benefits following these activities outweigh the temporary inconveniences.

What Do Your Fish Eat?

By Scott Brown

This pan of fish collected during an electrofishing sample shows species that will always be forage (mosquitofish, brook silversides and grass shrimp) for others, and some that are potential forage right now, but may grow into predators (bluegill) and top-level predator (largemouth bass) after a few years.

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I have said many times knowing the habits of the species you are managing helps you be a better lake manager. Knowing the aquatic ecosystem also helps you be a better lake manager. Knowing what the fish in your lake eat to survive and thrive helps you be a more successful lake manager. This includes knowing the entire food chain and what is required for each species to thrive. I will cover the foods for largemouth bass and other species commonly found in small private waterbodies, along with the diets of the fish predators eat to survive and reach their full growing and reproductive potential.

Largemouth bass are the most sought-after fish in the country and most landowners want BIG bass, and lots of them to catch. However, some lake owners may desire a quality bluegill or redear sunfish pond, or be able to catch a mess of catfish to fry up for dinner. Knowing what all the fish species eat AND if they consume fish, what those fish eat helps to be the most successful lake manager you can be. We often see landowners fail at lake management because they only know part of the food chain, and do not address certain parts that can lead to less than optimal results.

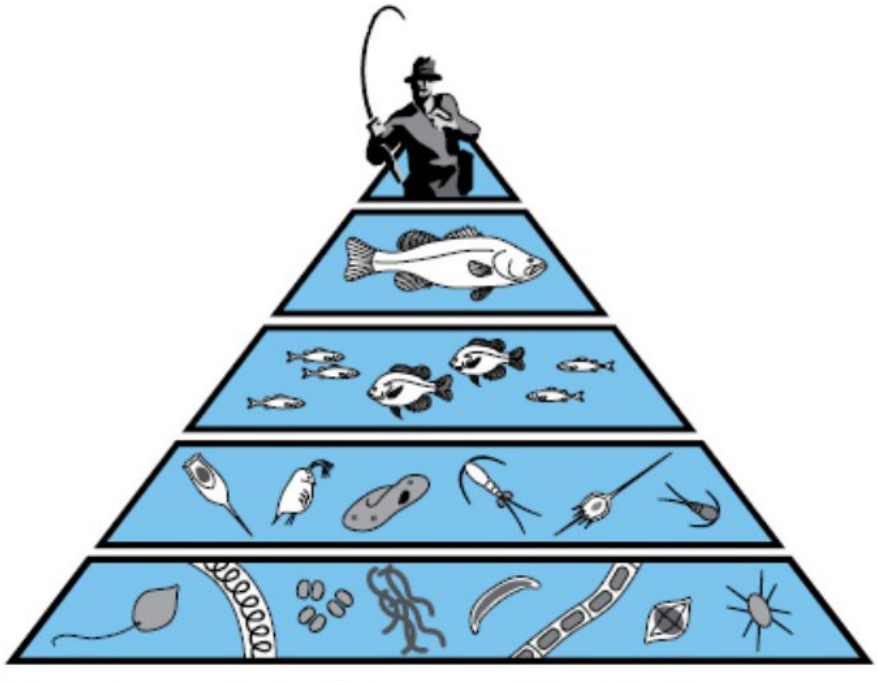
To obtain quality/trophy size largemouth bass, numbers of bass must be reduced with an abundance of forage present. The size your bass grow will max out based on length of growing season, genetics, habitat and available food. Some of these factors you cannot manipulate and some you can. Every waterbody has a carrying capacity which can be improved by improving water chemistry, habitat, harvest practices, natural forage, supplemental feeding and through supplemental stocking of forage fish.

Both bass forage (numbers and size) and current sizes of largemouth bass influence growth rates. Largemouth bass growth rates can be accelerated with the decreased numbers of bass and increased forage. One big bass needs to consume large numbers of small forage to grow, but exerts lots of energy to gather that food, so it needs even more of that food source. Larger bass exert less energy when the for-

age size is larger and fewer are required to obtain the same amount or more growth. Research has shown on average for a largemouth bass to gain one pound takes consuming 10-plus pounds of forage. This is important when comparing largemouth bass size to forage size present. These need to be addressed and properly matched. In other words, 10-pound bass do not get that big if they are only chasing and consuming 1-inch minnows or shad all the time. The 10-pound bass reaches that size when a steady diet of 6-8 inch and sometimes larger forage is consumed later in life. This is why electrofishing a lake is important, because all forage gaps can be identified and a proper management strategy developed addressing the entire fish assemblage and not just the top predator. Typically, a bream/panfish population with no large individuals present is the sign of a quality bass population and a quality bream population with lots of 8-10 inch or bigger bream is associated with a stunted largemouth bass population.

When creating or improving a largemouth bass diet, having multiple species in different size groups helps supply the forage required to grow trophy bass from birth. We always try to establish several species of forage for top predators. This can allow some forage species, once greatly reduced in numbers, to bounce back if the bass have started targeting something else. A forage base of minnows, bream, shad and shiners as opposed to one species is best. This ensures bass at different life stages and sizes can readily have food available. The more forage available at all life stages, the better growth rates with uninterrupted growth as they move from one forage size and/or species to the next. This translates into quicker growth and greater numbers of larger bass.

The largemouth bass is an opportunistic predator. If it fits in the mouth and the bass can catch it, the bass eats it. The first two weeks of life, largemouth bass fry will consume phytoplankton and zooplankton before moving on to tiny fish, insect larvae and insects. Once out of this stage they move on to various minnows, mosquitofish, grass shrimp, bream/panfish, golden shiners, shad (both threadfin and gizzard), Tilapia, trout, yellow perch, catfish/bullheads and crayfish. There are instances where largemouth bass have been documented with small bass (cannibalism) and crappie in their stomachs, but unless it's a unique situation, bass and crappie are not in a largemouth bass's regular diet nor would we normally recommend managing for or stocking those species as a forage for bass. We have seen in a large private waterbody in Central Florida where the bass are feeding regularly on armored catfish (brown hoplo) due to the lack of more desirable forage. Largemouth bass will also eat frogs, tadpoles, snakes, turtles, baby alligators and ducklings, but these are not a steady food source and will not be covered in this article as viable or practical forage that you can manipulate. These are consumed on occasion or during a short time period each year when the opportunity presents itself.



A typical aquatic food chain pyramid with phytoplankton and zooplankton on the bottom and humans and other fish consuming above water predators such as birds and otters at the top of the aquatic food chain. Illustration by Paul Thomas, Florida Fish and Wildlife Conservation Commission.

With most forage species we recommend stocking only native species that have the opportunity to survive and naturally reproduce. Sometimes these species occasionally need restocking in the future if the bass reduce their numbers to where they cannot repopulate. There are only a couple of species that can be stocked that are not native, knowing the individuals that are not consumed will perish due to water temperature changes, either

rising or falling.

The most frequently stocked and most common largemouth bass forage is **bream/panfish**, and usually **bluegill**. Bluegills are prolific breeders and can sustain a population even under heavy predation from a quality largemouth bass population. Their growth rates and the lake's carrying capacity can be increased through supplemental feeding. Once stocked, these species rarely need to be re-stocked, unless it is to jump start a stunted bass population with too many bass of one size, not growing into the next size class. Bluegill eat zooplankton, insect larvae, insects, grass shrimp, small crayfish, small fish and fish feed.

The second most frequently stocked largemouth bass forage is the **threadfin shad**. It requires fair water quality, but if you want them to live more than a few months, an algae bloom (green water) is required to keep them alive and to allow them to establish a self-sustaining population, which is the same for **gizzard shad**. They are filter feeders consuming phytoplankton their entire life no matter their size. If you stock threadfin shad into a clear lake they will eventually die from lack of food. If you understand they will need to be annually restocked and have the budget, they are an excellent forage for largemouth bass, black crappie and hybrid striped bass. Gizzard shad grow much slower in the North than in the South. In the South, gizzard shad can reach sizes beyond what a trophy bass can consume and become a problem quickly. If you have threadfin shad and gizzard shad 8-14 inches long, but not much larger, you have forage for all sizes of bass, including trophy (10-15 lbs)

This newly hatched dragon fly may never become fish food, but if he hangs out too close to water, a fish may eat him before his life span is up.

Largemouth bass not only need lots of forage, but throughout their life they need various size forage to help them grow from fry to trophy size. The less gaps in your food chain, the better chances of your bass reaching their full size and growth rate potential.

Mosquitofish may be small, but they are helpful in growing small bass under six inches into their next size range requiring larger forage, and a great food for big bluegill.

The golden shiner is almost always present in a trophy largemouth bass or quality hybrid striped bass fishery.

Crayfish are high in protein and easy to catch for largemouth and smallmouth bass. Sometimes they can create a self-sustaining population and other times they need to be restocked semi-annually or annually.

bass. I have observed 13-plus lbs largemouth bass with 15-inch long gizzard shad in their mouths. Big bass require big forage!

Another common self-sustaining forage is the **golden shiner**. Golden shiners get larger than threadfin shad and can be utilized by larger bass if a good shiner population exists. If established, golden shiners can feed both small and large bass, crappie and Hybrid striped bass if the populations remain balanced. The golden shiners consume zooplankton, insects, plants, algae, fish eggs and fish feed. They can feed at the surface, mid-water column or off the bottom and are both site and filter feeders.

Fathead minnows are a common starter forage stocked in a new pond situation for small largemouth bass or if large bream are present. Fathead minnows feed off the bottom, vegetation and woody debris eating algae, phytoplankton and zooplankton, including tiny crustaceans.

Tilapia stocking has become popular as a largemouth bass forage. High in protein, Tilapia eat detritus, insects, algae, other plant matter and fish feed. They also may consume fish eggs while bottom feeding. Tilapia are stocked in early spring, once water temperatures will remain above 55-60° F. They will grow and reproduce, until the following winter and die once water temperatures drop below 55° F. During this time, largemouth bass are on full feed and will consume many of them.

Yellow perch are also a high protein forage for largemouth bass and will not reach sizes too large for largemouth bass consumption before a spring die-off depending on how far south you are located. Yellow perch eat aquatic insects,

This bluegill has reached almost top-level predator status in this waterbody, unless there are some big blue or channel catfish or double-digit largemouth bass present, then he is labeled a predator and prey.

crayfish, fish and fish feed. This may sound counterproductive competing with largemouth bass, however, the fish they eat are much smaller than the fish the bass are eating. Yellow perch will die off from warm water temperatures when it gets near 80° F.

Trout are another high protein winter forage for largemouth bass. Trout feed on insect larvae, insects, grass shrimp, small fish and fish feed. Trout will die off from warm water temperatures when it gets near 70° F in spring. Although largemouth bass feeding does slow down as temperatures decrease, they will feed throughout the winter and prior to trout and yellow perch dying off. Bass will consume many of them before switching over to another food source as they disappear, which gives time for resident forage to spawn and grow before becoming a target.

Stocking **crayfish** is another forage option in some areas to supplement a waterbody's natural forage base to feed largemouth and smallmouth bass, channel catfish and hybrid striped bass. Crayfish mostly feed on decomposing animal matter or decayed leaves, and also algae, small invertebrates, small fish, and snails. Although native in most areas, their reproduction and survival rate in a quality largemouth bass fishery is poor and they do require restocking once the bass have knocked the numbers down to levels from which they cannot recover. Use only native crawfish and do not introduce species non-native to your area.

Crappie spend most of their adult life in open, deeper water, in schools, feeding on small schooling fish such as juvenile gizzard shad, threadfin shad and silversides (glass minnows). We have seen them thrive in a small waterbody on golden shiners, fathead minnows and other typical shoreline species, which does not fit their typical forage base criteria.

The most common forage for **Hybrid striped bass** are threadfin shad, small gizzard shad, and brook silversides (glass minnows). They will move close to shore and target bluegill, redear sunfish and golden shiners if offshore forage becomes scarce.

Channel catfish consume about anything including some plant material, insects, crayfish, mollusks, fish, small turtles, snakes, frogs, worms and fish feed. I have observed catfish stomachs full of filamentous algae, which contained high numbers of snails and mollusks. As they get larger, they shift their diet to fish such as bream and golden shiners.

There are many other species not discussed here that may be relevant in your particular waterbody to helping you achieve success managing your lake as pertaining to your specific goals. There are a few non-fish species listed here as forage, but most are items eaten as opportunities arise, not main staples of most management targeted fish species, so their diet preferences were not covered. Again, knowing something about aquatic ecosystems or your lake manager knowing some of these things helps you and/or them be more successful.

As you can see there are many options for improving the forage for many species in your waterbody. Multiple bass forage species and sizes are imperative to grow Trophy, Quality or BIG largemouth bass. Variable forage sizes are as important as the species present. The better your habitat, the more likely you are to have some of these species establish and naturally reproduce, eliminating or reducing future forage stockings. If a largemouth bass population becomes stunted, a combination of aggressive harvesting from the "bottle neck" size class combined with stocking a forage, the proper size, to jump start growth and move the bass or other predator fish you are managing into the next level should always be prescribed. Which species will work best and stocking rates for your particular waterbody should be discussed with your lake manager, county extension agent or local hatchery.

WHEN A PASTIME BECOMES A PASSION.

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Wildlife Diseases

By Dana Johnson

Wild animals, just like humans, may become ill when they contract certain diseases. While some of these diseases are transferable to humans, others are not. Most diseases that human's contract from wild animals are curable if accurately diagnosed and given appropriate medical attention. If medical attention is not received, some diseases may cause permanent damage to the body or even death.

Rabies

One of the most common diseases found in wild animals is **Rabies**. Rabies is classified as zoonoses or zoonotic. "Zoonoses" is a term originally used to describe diseases that humans may acquire from domestic animals. This has been modified to include all human diseases that are acquired from or transmitted to any other vertebrate animals, which includes humans.

Dana Johnson started working in the wildlife field helping with prescribed burning at 16.He received his Wildlife Science degree from Auburn and owned, "Quality Wildlife Habitat Management". He has authored over 200 wildlife and outdoor articles over the last 30 years.

This fatal disease is caused by the rhabdovirus which in the family of negative-sense RNA viruses. Rabies is also known as an enzootic disease, one that affects or is peculiar to animals of a specific geographic area and can lead to Epizootic outbreaks. Epizootic outbreaks occur when large numbers of wild animals become infected at the same time within a region. Historically, there have been numerous Epizootic outbreaks of rabies in the Southeast, including Alabama.

There are currently four rabies variants in the United States. A variant is a version of something that differs in some way from other forms of the same thing. Rabies variants are found in the skunk, fox, raccoon, and bat. In the late 1980's to the mid-1990's, a strain of rabies, common to dogs and coyotes in Mexico, started showing up in Texas. However, wildlife experts conducted a series of oral vaccination bait drops, thus eliminating this variant from the United States.

The two types of rabies virus found in the Southeast are the **raccoon** and **bat variant**. These two variants are enzootic with epizootic outbreaks. The general difference between each variant is the carrier. Each variant can lead to death if an infection occurs in other mammalian species. For example, if a raccoon is infected with the bat variant of rabies, or vice versa, a full infection will occur with the infected animal succumbing to the symptoms relatively quickly. Each of the stated animals are not carriers of the other variant. When testing for rabies in a region, it's important to know what variant you are dealing with to determine the proper response.

One mammal that seems to be resilient to the rhabdovirus, and thus, rabies, is the opossum. According to the *Field Manual of Wildlife* Diseases in the Southeastern United States, by William R. Davidson and Victor F. Nettles, "opossums historically have been exceedingly rare wildlife hosts of the virus. Opossums are highly refractory to infection by rabies virus, and the amount of virus required to experimentally infect opossums is extremely high. This factor may be responsible for the virtual absence of rabies in this species." Although the virus is rare in opossums, if bitten, one should contact local health departments.

How can you tell when an animal has an active rabies infection? According to Davidson and Nettles, "Raccoons and other animals with rabies typically have marked changes from normal behavior. Often these are classified into two forms: **dumb rabies** and **furious rabies**. Dumb rabies, characterized by aimless wandering, lethargy, incoordination, weakness in hind legs, paralysis, and loss of awareness, is the most common form in raccoons." (p 139) Furious rabies may cause the animal to lash out in unprovoked attacks on any moving object and may also lead to self-mutilation. In either case, the end is characterized by convulsions, coma, and death.

Although these physical symptoms may constitute suspicion of an active rabies infection, final diagnosis and confirmation is only achieved through testing brain or brainstem tissue. Quarantine and observation periods are used with domesticated animals, but this method is unreliable with wild animals because of the virus' incubation period. Suspected wild animals should be euthanized, double bagged using rubber gloves, and sent to the health department for testing. It is important that the cranium or brain not be destroyed. Contact the health department before submitting a specimen to make sure the appropriate samples and all pertinent data is included to conduct reliable testing.

Many well-intentioned individuals have also provided a means for the raccoon variant of rabies to become established in new areas. When humans reintroduce exterminated wildlife to historical home ranges, the population increases and presents a new genetic pool to the current population. Additionally, improper isolation and quarantine of an animal for the purposes of diagnostic pathogen testing can wreak havoc on unsuspecting wildlife populations. Even though infected raccoons have been known to swim large river systems and even use bridges to cross major waterways, the main source of translocation of the rabies virus seems to be through human intervention. Relocating raccoons is not recommended as isolated populations of raccoons that do not have confirmed rabies cases can also be subject to possible infection.

Despite the fact that it is illegal, relocating a carrier animal just a few miles from low density areas to more habitat suitable high-density sites could cause an epizootic outbreak. The best solution is not to relocate any raccoon regardless of the situation. Despite the illegality of relocating raccoons across major waterways and county lines, well-intentioned humans and those hoping to increase raccoon hunting success will only aid in the westward migration of the raccoon rabies variant and increase the risk of human exposure to the virus.

The bat variant of rabies is also prevalent in the Southeast region of the United States. Although exposure to and transmission from animal to human is also possible, it is unlikely. Only about 1-3% of all bats have rabies infections. Although less common than the raccoon variant transmission, there have been cases of the bat variant of rabies infecting humans through possible airborne contamination. But keep in mind, this is extremely rare. According to a Center for Disease Control document, two individuals who died from the bat variant had previously been in caves where millions of bats were congregated. Airborne contamination seemed to be the cause of the virus transmission. Having a bat flying overhead at night in your backyard is not considered exposure and is not grounds for preventative treatment.

The best way to minimize exposure to and possible contraction of the rabies virus is to be very careful around any animal, domestic or wild. The most common way rabies is transmitted is through the bite or scratch from an infected animal. As the virus is transmitted through the saliva of the infected animal, contact of the animal's saliva with open wounds or mucous membranes on a victim constitutes rabies exposure. Scratches from infected animals are grounds for possible exposure as these appendages could have saliva on them that contains the virus. Rabies is not transmitted through blood, feces, or urine from the infected animal. Additionally, according to an article titled, "Twelve Common Questions About Human Rabies and Its Prevention" published in Infectious Diseases in Clinical Practice (2000) 9:202-207, infectious material which has been dried "can be considered noninfectious because the rabies virus is inactivated by desiccation and ultraviolet radiation." Also, the article states, "rabies cannot be transmitted from an animal that does not have active infection."

Pseudorabies

Pseudorabies is caused by a virus found in swine called the Suid herpesvirus. This DNA virus, though, has no relation to the rabies virus. Even though domestic and feral swine are the hosts for this disease, it can also infect cattle, goats, dogs, cats, horses, bears, rodents, raccoons, skunks, and many other mammalian species. There are no documented cases of Pseudorabies in humans.

This virus was given the name pseudorabies because the symptoms that non-swine mammals exhibit are similar to the symptoms of those infected with rabies. The virus attacks the central nervous system and animals with an acute infection may have loss of appetite, vomiting, tremors, foaming, blindness, spasms, biting, self-mutilation, and intensive scratching. This virus is also referred to as the "mad itch" disease. Once an infected animal begins showing clinical symptoms, mortality is near 100%.

Swine are the only host to pseudorabies and some swine may survive the infection and be latent carriers. These animals show no symptoms of the virus but can continue to transmit it through many routes. Swine disease transmission is mainly through venereal route but can be transmitted via oral, nasal, digestive or reproductive mucosa. Other transmission can be through nasal and oral contact, contaminated food, water, or structures. Non-swine species transmission is mainly by the latter. Also, feeding on infected carcasses can also transmit the disease and possibly spread it.

Pathological testing is required for pseudorabies confirmation. Florescent antibody testing on brain or tonsil tissue or testing for antibodies in serum can positively determine the presence of the pseudorabies virus. There is no treatment available for pseudorabies and infected non-swine species are considered dead-end hosts because of the high mortality rate.

Swine Brucellosis

Swine brucellosis is an infectious disease caused by the bacterium *Brucella suis*. This bacterium is found in the reproductive tract and infections can cause spontaneous abortions, low milk production, infertility in sows and affect the testicles in boars. In boar's, brucellosis can affect their reproductive fertility. Serology testing in feral swine populations around the country has shown this disease is quite common. The main transmission of this bacterium is through reproduction. When this zoonotic disease infects a human, it can be fatal. This bacterium can live for hours outside the host which makes humans more vulnerable for transmission.

Symptoms of brucellosis in humans

are very similar to the influenza. Fever, body soreness, headaches, sweating, and fatigue are just a few. An infected person can also have chest and abdominal pains, difficulty breathing, loss of appetite and irritability. If one goes to a physician with any of these symptoms after field dressing a feral hog, they should tell the physician they may have been exposed to swine brucellosis. Often physicians do not test for brucellosis as this is a very uncommon diagnosis, unless they are made aware of the likeliness of the exposure.

When field dressing feral swine, it is highly recommended to take several precautions to avoid this bacterium. One needs to use disposable gloves and a rain suit that can be removed and washed when done. Also, rubber boots are recommended. Be careful when washing out the carcass. Minimize touching the reproductive tracts in both boar and sows when possible. When completed, wash the area in hot soapy water if possible or spray area with a 10% bleach mixture.

The Alabama Cooperative Extension Service posted two feral swine field dressing tutorial videos on their You Tube page and are quite informative for anyone planning to field dress a feral hog. One video is a traditional method of hanging a hog and the other is the "quick tailgate method." Both videos demonstrate proper personal protection equipment and how to mix a salted ice solution for quickly lowering the temperature of the meat so it will not spoil. These videos discuss swine brucellosis and preventative measures that should be taken when field dressing any feral swine.

Cutaneous Fibroma

Cutaneous Fibroma is a simple wart caused by the papilloma virus, but it can look hideous to people who have never seen it on a white-tailed deer walking through the woods. Cutaneous fibromas are often referred to as deer warts. They can be as large as golf balls or small as a grape. These tumors are black to brownish with a rough texture. The warts are attached only to the skin, so they move freely from the muscle. If the fibromas don't make it difficult to breath or eat, the deer will have a healthy life.

Deer contract this virus through numerous pathways. Biting insects can spread the virus from deer to deer. Sparring bucks can also transmit the virus. A deer with an open

wound, walking down a trail and rubbing against a stick that contains the virus, could cause this temporary inconvenience. Studies suggest that after a short inoculation period the warts may disappear in a few months. Deer that have been exposed and recovered can develop an immunity to the virus.

The two main concerns when one sees a deer with warts is whether it is suitable for eating and its impact on the herd. Deer with this virus are edible and palatable. The virus does not affect the meat in any way so it can be processed for human consumption like any other deer. Once the skin is removed the carcass looks like that of any other harvested deer. This virus does not transmit to humans so field dressing is safe. It is recommended though, to always use rubber gloves when field dressing any animal.

Removing, or culling, a deer with warts to keep from spreading the virus will have little to no impact on the herd. As stated earlier, the deer's immune system will take care of the virus and in a few months they will go away. The virus is already in the environment and that young buck with warts may grow to be a trophy in a few years. There may be many deer with cutaneous fibromas walking around in the woods but are just never identified.

Canine Distemper

Canine Distemper is a disease in the paramyxovirus family which also includes measles, mumps, newcastle disease, parainfluenza, and RSV (respiratory syncytial virus) which is a major cause of bronchiolitis and pneumonia in infants and children. Raccoons, gray foxes, coyotes, and unvaccinated domestic dogs can get canine distemper. Canine Distemper disease has also been confirmed in skunks and minks as well.

This respiratory virus is commonly transmitted from animal to animal through secretions such as nasal and eye discharge. Transmission can also occur from contact with airborne droplets. Contact with the feces or urine of an infected animal can also transmit the disease. Symptoms of infected animals include coughing, sneezing, convulsions, chewing, and thickening of the foot pads and nose. Animals that have this virus are usually emaciated and have diarrhea.

Canine distemper has a nearly 50% mortality rate among raccoons and coyotes. The mortality rate for mustelids is near 100%. Animals that recover can still spread the virus for weeks. The virus is not stable in the sun or heat, but in colder environments or shade it can be viable for a long period of time and even up to weeks in freezing temperatures.

In epizootic outbreaks, this virus can drastically reduce the local populations of raccoons. Infected animals can have the same mannerisms of a rabid raccoon and are often misdiagnosed as rabid. Positive diagnosis to confirm canine distemper can be done by serology. If a field necropsy is done, specimens of the brain, lung, liver, and other organs can be used for the fluorescent antibody testing used to confirm Canine Distemper.

This disease cannot spread to humans but can be profoundly serious to unvaccinated pets. Most domestic dogs get their vaccine as puppies which is important as there is no treatment for distemper. Those animals that survive the infection may have medical issues their entire life.

Conclusion

The diseases detailed in this article make up just a small fraction of wildlife diseases that are present in the world around us. Some have no effect on humans or domestic pets while others can be fatal if not properly treated. Some diseases have no treatment at all, and supportive care is all that can be done to unvaccinated animals. Epizootic outbreaks can have a drastic effect on local populations of certain wildlife species, but usually do not have long-term consequences. It is not logistically possible to attempt to control most wildlife diseases. Therefore, epizootic outbreaks will occasionally happen. Depending on how significant the mortality may have been, reproduction of the surviving animals, along with immigration, usually repopulates an area within a year. Wildlife diseases, just like human diseases, are a part of our existence. Our best strategy for dealing with them is to educate ourselves and engage in practices and behaviors that minimize the risk of infections.

Why, When, How to Plant Trees

By Allen Deese

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15 year old Chinese Chestnut, produced over 250 pounds of seed each year for last 5 years.

Here we are today in the times of the internet that you can find an answer to anything. Not only the answer but 10,000 opinions on why to do this and not that and how it worked for me but not for them. So, without all that expert commentary, let's try and spend time on why planting trees is a good thing for your wildlife along with your property. Not just for now but for years to come.

Being in the nursery business for twenty plus years, I have seen a lot of different trees and plant ideas come and go. But I have seen one constant through my fifty-plus years of life. If you desire at any time to watch something grow, you must put it in the ground. With trees, you may not get instant satisfaction,

but within 5-8 years, you will be amazed at the results. Yes, trees will produce that soon! Most chestnuts and many oaks will start dropping in that time frame. Fruit trees are the same and will have fruit that soon in life.

As stated above, planting chestnut seedlings now will start benefiting you and the animals in 5-8 years. Some say sooner, and it's possible to have nuts before then, but we need the tree to grow to become strong with spreading branches so that it can support tons of fruit or nuts, not just ten or fifteen. Native oaks such as **Chinkapin Oaks, Dwarf Chinkapin Oaks, Live Oaks, Swamp white oaks, Nuttall Oaks, Shumard oaks** I have seen all produce in the 5-10-year time frame.

Planting trees in groups is also an added benefit. For instance, I have one spot that holds ten Chinese Chestnuts. This one spot produces over a thousand pounds of seed each year. These trees are on about ½ acre of land. Could you imagine a field of Chestnuts, Chinkapin Oaks, Live Oaks, White Oaks, Nuttall Oaks all in one area? Planting in groups would allow you to have a nut drop from September thru January. Not only does this increase the food source for wildlife, but it significantly increases your property value, and will make your kids one day thank you for all the hard work.

Fruit trees are pretty much the same. **Pears, Persimmons, Crabapples, Mullberrys, Apples** and **Plums** are all very beneficial to supplying the animals with nutrient-rich food sources and helping with the carrying capacity for your land. Do you have to have 20-30 trees? The short answer is no. For pollination purposes, you do want to plant a minimum of three per species and mix varieties for pollination. Keeping in mind that pears pollinate pears, apples mixed with crabapples, persimmons with persimmons, and so on.

How fast do you want the trees to mature? Yeah, I know, tomorrow. How can you get production sooner, plant more significant trees? Just don't go too large unless you plan to irrigate each tree. The more substantial tree that you plant,

6 year old McKelvey Pear

the more water for the tree to survive. I typically do not go more massive than a fifteen gallon unless I have irrigation. When planting 7-15-gallon trees, you can start putting them in the ground as early as November in the Southeast, up north you could plant in October. Taking care to dig a nice wide hole and watering in well at planting should be efficient and get the tree through the winter and most if not all of spring. Most trees die in August, September of the 1st year after planting. Why, because the trees break out in early spring, the landowner goes out, and the trees are growing getting plenty of rain, and all is great. But then August shows up, it is hot and dry, and we forget about the trees until we go back out in September to plant. Too late, if you allow the roots on a 1st year planted tree to dry out, it's dead.

I touched on this in the last paragraph, but I want to emphasize the planting dates for trees. Any plant that is grown in a pot/container, you can start planting in the fall. Times will vary somewhat depending upon where you live. Customers living in the Southeast should feel comfortable starting to plant in early November. Northeast, I would probably say October, same for the Midwest. So anything that has an established root system, grown in a container, be it 1 gallon or 15 gallons, you can get in the ground early fall through the end of March; the sooner you plant, the better chance you have in the tree surviving. The same goes for bareroot plant material. Bareroot trees cannot be pulled from the soil until they have gone dormant, which is typically around December. So proper planting dates for them would be December thru March in the southern part of the U.S. The northern part of the U.S can plant thru the end of April. But I would like to reiterate that it's better to plant sooner than later.

15 Year Old Nuttall Oak, started producing acorns at 8 years

Tree Planting Tips

1. Soil test, much like anything that you plant it always helps to create the perfect condition for your plant, and this also helps identify soil types for the trees you intend to grow. For instance, our native White Oak likes upland dryer sites, somewhat rocky hillsides. Some oaks are very versatile such as a Nuttall oak, which is used a lot for landscaping but is also a fast-growing wetland species tree.

2. Purchase your trees from a reputable company. When buying container trees, try and find air root pruned trees. These would be grown in RootMaker bags, Root Pouch

Galloway Pear

bags, or plastic pots with holes and gaps to allow air circulation. Trees that are grown in hard plastic pots can become severely root-bound, and although they look good when purchased, they will not survive.

3. Prepare beforehand for your planting. Mark the area where you plan to plant, spray, and remove the weeds, prepare your holes not too deep but wider than needed in a sunny location. Shade, weeds, and animals will slow the growth of your trees or kill them. **Do Not Plant Too Deep!** Bareroot trees plant at the color change of the root to the tree itself. Container trees plant about 1 inch above soil level.

4. Do not fertilize at planting. I encourage you to use Bionutrtion at planting to reduce transplanting shock. These products include beneficial bacteria that will colonize the root surface, improve nutrient uptake, and stimulate new root growth. Some nurseries prepare a root dip for all bareroot trees and dip them before shipment.

5. As stated above, plant in direct sunlight, trees grow broad and robust when receiving adequate sunlight. Avoid planting in existing timber or thickets unless you have opened the area to receive light. Remove all existing vegetation and keep it gone. Use 2"-3" of mulch, pine straw, pine mulch, old cardboard, shredded paper, or grass clippings. A 3-4 ft circle is excellent, and do not pile it against the trunk of the tree.

6. Protect your trees using at least 5 ft tall Plantra Tree Protectors and fiberglass stakes. For larger trees, use the 3 ft trunk protectors to keep deer from rubbing them. Sometimes you will have to fence each tree or simply drive rebar or fence post around the tree to keep bucks from rubbing them.

7. 1st full growing season, early March, apply around 3 pounds of 10-10-10 around each container-grown tree; for Bareroot trees, add only one pound the 1st season. If you do not see new shoots of

growth soon, then add 1 pound of 21-0-0. Do not exceed this amount of nitrogen per tree.

Over the next several years, stick with the above directions, increasing 10-10-10 up to about 1 pound per year. Pear trees are vigorous growers, so limit nitrogen if the trees are growing great. Doing this can help reduce your chances of disease. The above directions are great on Apples as well as crabapples.

Planting trees can be very rewarding for yourself as well as your family and friends. Trees will increase your property's value, aesthetics, as well as the productivity of your land. Hardly a day goes by that I do not speak with someone that says, "I wish I had planted trees years ago." I also hear on a very consistent basis that I lease land, and it's a waste of time planting trees on someone else's property. Well, planting trees for the future is never a waste of time. I know it can be frustrating because I have planted many trees to return and see them mowed or sprayed, but hey, I did my part. I'll keep on planting and hope that one day I can sit in the shade of the trees I planted for someone else. But Confucius says, "Man who does not plant tree cannot watch it grow."

Wildlife Trends Journal Management Calendar

Dave Edwards

Save leftover seed. If properly stored it can be planted later.

Conduct pre-season projects that will help reduce or minimize deer hunting pressure and disturbance. Hunting pressure and disturbance on a property significantly impacts the hunting quality or number of deer you will see. I have thousands of hunter observations over many years that show as more pressure is applied fewer deer (particularly mature bucks) are seen. Here are a few things that will help minimize hunting pressure: 1) Position stands around food plots so that hunters can enter and exit them without spooking deer that are in the field. By this I mean place stands slightly inside the woods and/or plant a "screen" that will protect the hunter from being seen by deer in the field. Good screens include standing summer crops such as corn, Egyptian wheat, Sorghum Sudan. Other more permanent screens (which I prefer) include switchgrass, or evergreen type shrubs, or conifers (e.g., pines or cedars). Simply leaving a small portion or strip of the food plot fallow for a couple years will allow natural vegetation to grow and create a good screen.

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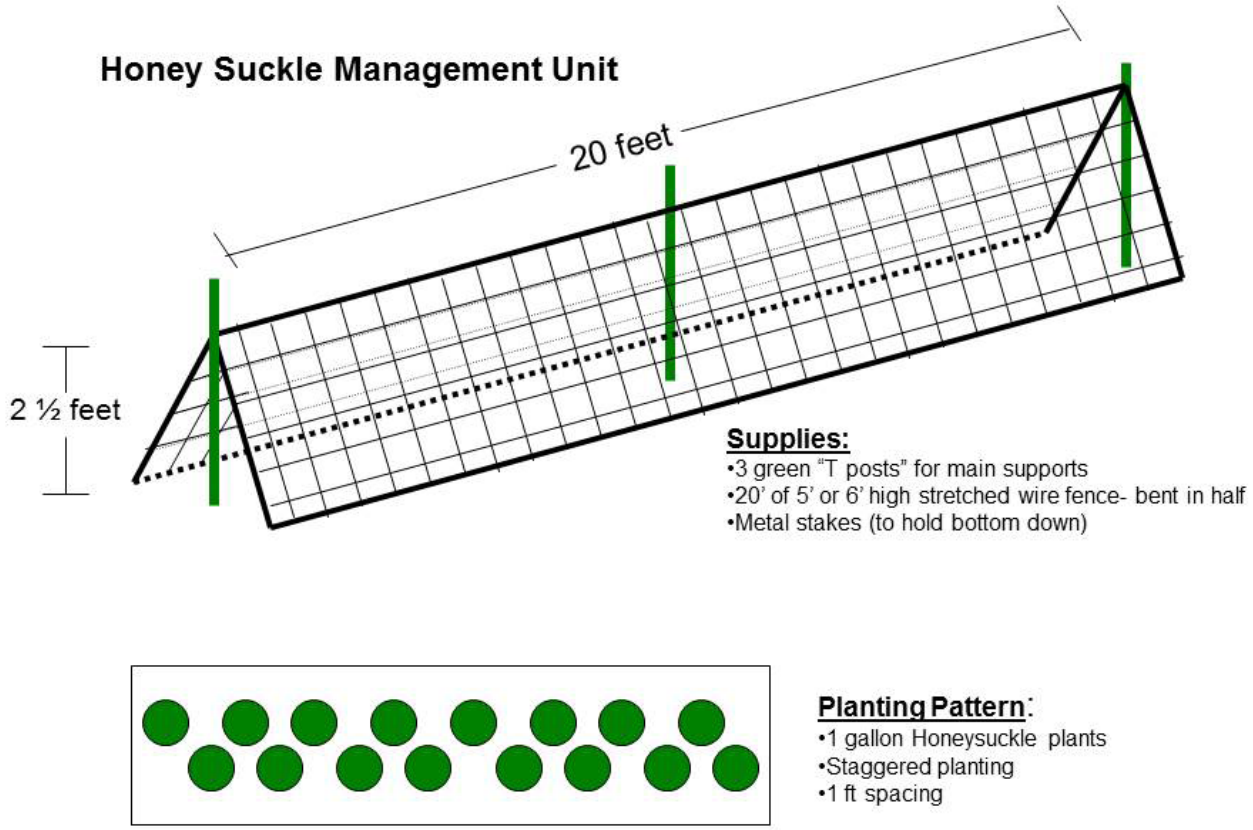
Once stands are placed inside the woods, simply cut shooting "windows" for hunters to see and harvest deer on the food plot. 2) Inspect stands to make sure they are safe, but from a disturbance standpoint, check for noises. Oil squeaky chairs, windows, doors, etc. Move around in the stand. Does it creak? Find the source and fix it. Ladders may simply need to be tightened. These little noises can ruin a hunt and disturb deer for future hunts. 3) Cut and clear trails for hunters to get to and from the stand without making a lot of noise. Clean these trails regularly with a rake or leaf blower if needed. 4) Determine favorable wind directions for each stand and do not hunt the stand unless the wind is right. At my camp, we have a list of stands for each wind direction. We check the wind, review the list, and hunt accordingly. 5) Look at a map of your property and determine if there are roads that may impact or disturb deer or other wildlife. Close these roads down before and during hunting season and only travel them on a "need to" basis. Besides effectively managing the deer herd, the key to having high quality hunting experiences to keep hunter-based disturbance on the property to a minimum. For more detailed information on managing hunting pressure refer to an article titled *"Steady Under Pressure"* that was published by *Wildlife Trends*.

Install honeysuckle management units for additional quality browse.

Due to its non-native status and hardiness, the debate on whether managing honeysuckle for wildlife should be promoted or discouraged will be forever ongoing. It currently is known to exist to a varying degree in every state. Honeysuckle is a highly preferred, practically year-round food source for deer, containing 9- 16% protein. As such, managed honeysuckle patches can provide additional quality food for deer and other wildlife. Management of honeysuckle patches is easy – fertilize to increase growth and nutritional value, keep competition down by removing undesirable weeds, and if possible "isolate" managed patches by mowing around them. Mowing around the patch allows easy access for management activities (like spreading fertilizer, pruning, or applying herbicide). This also provides easy access for wildlife. If you have ample honeysuckle patches on your property, select a few to concentrate



Enclosing honeysuckle in a cage is a common way to keep deer from consuming the entire plant. A honeysuckle tent is easy to build and install on a food plot.

Allowing duck ponds to reach full pool by mid-November will attract ducks to your property well before the season starts.

your management efforts on. Pick patches that receive plenty of sunlight and manage the same patches throughout the year and annually. Ideally, these patches will be in locations that will provide hunting opportunities such as near food plots, fields, and/or hunting stands. Some landowners create honeysuckle patches within their food plots by planting a staggered line of 1-gallon containerized honeysuckle plants. One trick that I often recommend is to create a wire fence tent to place over the patch. Because of the added fertilizer and care, these patches are very palatable, and deer will literally eat the plants to the ground. The wire tent only allows deer to eat portions of the honeysuckle that grow outside of the "tent" which saves the plant. Make sure to use wire fence with a small enough mesh to prevent deer from being able to eat inside the tent (~ 3" fencing works well).

Clean and service walk-in-cooler.

Making sure the walk-in cooler is ready is often overlooked until the first deer is harvested; then to find out that it is not working. If you are fortunate enough to have one, servicing and preparing the walk-in cooler should be on your pre-season task list. As with any area where food is stored, the interior of a walk-in cooler should be sanitized regularly. This includes the floor, walls, racks, meat hooks, etc. A plastic 2-gallon hand-held pump up sprayer is a great tool to apply disinfectants. Drains should be inspected, cleaned, and disinfected as well. Be sure to inspect weather stripping along the door and threshold. Air leaks due to the door not sealing well can reduce the life of the compressor as it must run more often to cool the air. Performing normal preventative maintenance, such as cleaning the coils, should be done to the cooling system. Lastly, give the cooler a good test run. Turn it on and let it run a day or two to make sure all is well, and that the thermostat works.

Coordinate food plot planting with good soil moisture

October through early November is often the best months to plant fall

food plots in the Southeast. The goal is to plant when conditions are favorable for maximum seed germination and plant growth. Do not fall into the trap of planting too early. Unfortunately, many landowners and hunters plant in early-mid September. Some hunters, particularly hunting clubs, even pick a specific weekend that food plots will be planted well ahead of time and do not have a clue what the soil conditions will be like….but they plant anyway because "that's when we plant every year". This is often a very dry period across the Southeast which could lead to food plot failure. If planted in September and you are lucky enough to receive adequate rainfall, food plots may grow rapidly which will result in over mature (i.e., high/tall) food plots by the time hunting season arrives. If an abundance of acorns are present during this time, plots receive less browsing pressure by deer which allows the plots to grow even more. I commonly get calls from hunters in November asking why deer are not really using their food plots. The most common reason is the crops were planted 2 months ago and the crop/food plot plants are mature, not vigorously growing, and "hardened" up making them less palatable. There is also a higher chance of army worm problems in September when temperatures are warm. In most areas of the Southeast more consistent rainfall events begin in October as cold fronts move south. Planting "later" (meaning in October-November) will also result in young, tender food plots that are extremely attractive to deer and other wildlife during hunting season. When planted under the right conditions (adequate soil moisture), plots germinate quickly and deer will begin using them within two weeks after planting. My point is to not feel rushed to get seed in the ground. Focus more on planting under favorable conditions. There have been several articles related to food plots and planting strategies in past issues of Wildlife Trends. Refer to these articles for more detailed information.

Conduct a camera survey to assess the status of your deer herd.

Monitoring the status of your deer herd is the backbone to the success of a deer management program. Collecting and recording harvest data (weights, measurements, ages, etc.), hunter observation data (number, sex, and quality of deer you see while hunting), as well as population surveys provide information about the deer herd that will allow you to make sound deer management decisions and adjustments in strategies where needed to accomplish your goals. Without this information you are simply guessing. If you are like me, you spend way too much time, money, and energy managing your property to just guess on how many and which deer to harvest. I want to know. Conducting a camera survey is the best tool available to assess the status of your deer herd (number of deer, buck quality, fawn recruitment, etc.) and make buck harvest decisions before you head to the woods. The best times of the year to conduct a deer survey is when natural food availability is at its lowest which is generally late summer/early fall and late winter before spring green up. Most managers conduct fall surveys (September through early November) because they also use the photographs to make buck harvest decisions before hunting season. The ideal period to conduct a fall survey is soon after bucks shed velvet but before many acorns start to drop.

Regardless of whether you conduct a full-scale survey or simply use cameras to scout, photographs from trail cameras are a great tool to assess buck quality and make buck harvest decisions before the moment of truth in a deer stand. I have seen many young bucks with great potential make it another year because they were placed on a "do not shoot" list. If you are using the trail camera photographs to make buck harvest decisions, late summer or early fall is when you need to deploy them.

Utilize standing corn to enhance deer hunting experiences.

Although I never recommend planting corn for feeding deer (except in the North), I now realize the "cover" value it provides for deer in the winter and how great it is to hunt in and around. I still never recommend planting corn for feeding deer in the Southeast. It's simply not worth the farming time and effort when you can get more for your money out of a 50-pound bag of whole corn from the Co-op. However, planting corn to create exceptional hunting set ups is a different story. If you have corn planted on your property, particularly larger agricultural fields, strategically leave some standing for deer. Standing dead corn is not only attractive to deer from a food standpoint but the cover it creates provides great travel corridors to connect woodlots or mature timber. In some situations, deer will "funnel" through mature woods to enter the standing corn as their travel path. This can make for some fun hunting in the mature woods near the corn. Mowing a wagon wheel pattern or hub & spoke design in

Conducting a camera survey is the best way to assess the status of a deer herd and make a harvest plan to achieve desired results.

the corn also makes for great hunting. This strategy is nothing more than mowing 8-10 ft strips through the corn as spokes that radiate out away from the hunting stand (hub). Depending on the skill level of hunters using the property, particularly guests that may hunt the spot, I often only mow spokes out to 125 yards from the stand. However, if the situation allows and hunters are skilled, spokes can be mowed out to 300 yards. The resulting spokes can either be left as is to simply provide shooting lanes through the standing corn or planted in fall food plot crops – or a combo of these. This set up is particularly successful during the rut and/or on cold mornings. Standing dead corn also provides great winter habitat for quail and turkeys. Leaving a border of standing corn around a field provides valuable wildlife habitat and creates a soft edge along abrupt woodlines.

Save leftover seed from fall food plots.

If you have food plot seed leftover after planting this fall, save it. Some seed can remain viable for a long time and can be used next year, particularly if it is stored in a dry/cool place (I often store seed in a walk-in cooler to prevent problems with rats and bugs). When planting time comes around next year simply conduct an easy germination test to determine if the seed is still good. Take 50 seeds and place them in a moist paper towel in a windowsill that receives sunlight. Monitor and keep the paper towel damp over the next week to 10 days. The number of seeds that germinate will tell you how much of the seed is still viable. If 30 of the 50 seeds germinate then your germination rate is roughly 60%. Adjust planting rates accordingly to ensure adequate coverage is obtained. If the seed is bad, say only 30% germination, I simply use it to feed birds such as quail, turkeys, and dove. Don't toss that old seed out - planting old seed can save you money.

Harvest deer.

Although biologists provide guidance on how many and which deer

to harvest, hunters are the real deer managers. Remember that each time you pull the trigger you are making a deer management decision. In fact, not harvesting a deer is a management decision. Unfortunately, I see many landowners with goals of producing high quality or trophy bucks that are allowing the deer herd to overpopulate because they like to see 20+ deer when they go to a stand. This situation often results in a poor-quality deer herd with significant dispersal of deer to surrounding properties, less reproduction and fawn recruitment, and ultimately poor-quality antlers. If your goal is to manage for a quality or trophy deer herd, harvesting an adequate number of deer each year is essential to keep the deer herd and habitat healthy. In addition to maintaining a desirable deer density, doe harvest is the primary tool used to manage the adult sex ratio of a herd. Maintaining a balanced sex ratio will result in a much healthier deer herd, better quality bucks, increased fawn survival, and exciting hunting. Balancing the adult sex ratio is also one of the tools I use to increase breeding competition and get mature bucks on their feet so that my clients can see or harvest them (which is always more challenging than growing them!). When harvesting does, especially early in the season, make attempts to do so in a way that minimizes hunting pressure and preserves hunting quality on the property. When possible, avoid harvesting lots of does on food plots before the rut if you plan to hunt the food plots for mature bucks later. There are always "low impact" options for taking does. Places such as woods stands, powerlines/gas lines, or clearcuts are great choices.

Flood duck ponds to "full pool" by early to mid-November.

Monitor water levels in duck ponds as fall arrives. Many areas in the Southeast have been fortunate and have gotten abundant rains so far. However, too much water too early can be bad for growing duck pond crops/plants. Water control structures allow managers to regulate water levels and are valuable tools when a rain event such as a tropical storm comes through. Once your crop matures, allow ponds to slowly flood to "full pool" as November approaches. Ideal water depths for dabbling ducks such as mallards, gadwalls, wood ducks, etc. is 12-18" with pockets of 4"-6" depths. The reason to have ponds flooded 2-4 weeks before the hunting season opens is to give ducks a chance to find your ponds and get used to using them. Flooding too early (more than a month before the season) may result in seed deterioration resulting in less food later during the late season. For good hunting throughout the season, do not over-hunt your duck pond and allow a "rest" period between hunts. If you have several duck ponds, designate one as a "no hunt area" to provide a place for ducks to loaf. This will keep them on your property.

A squeaky stand could ruin a hunt. Take time to check all stands before hunting season.

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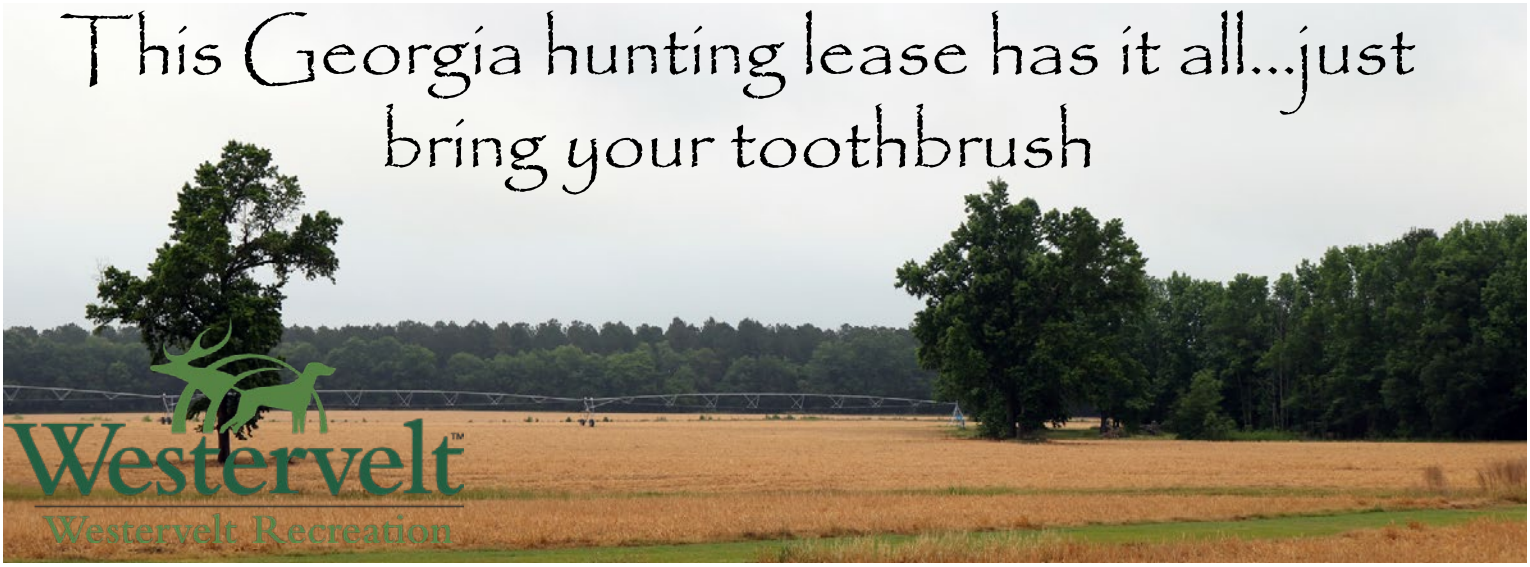

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