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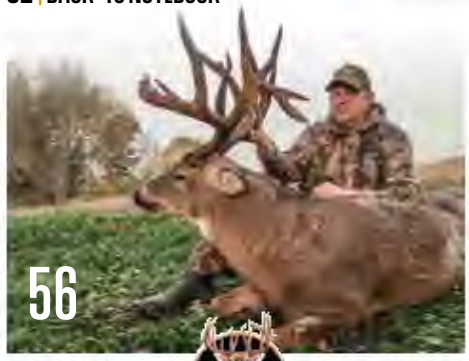


William Cousins~*GM Whitetail Institute*

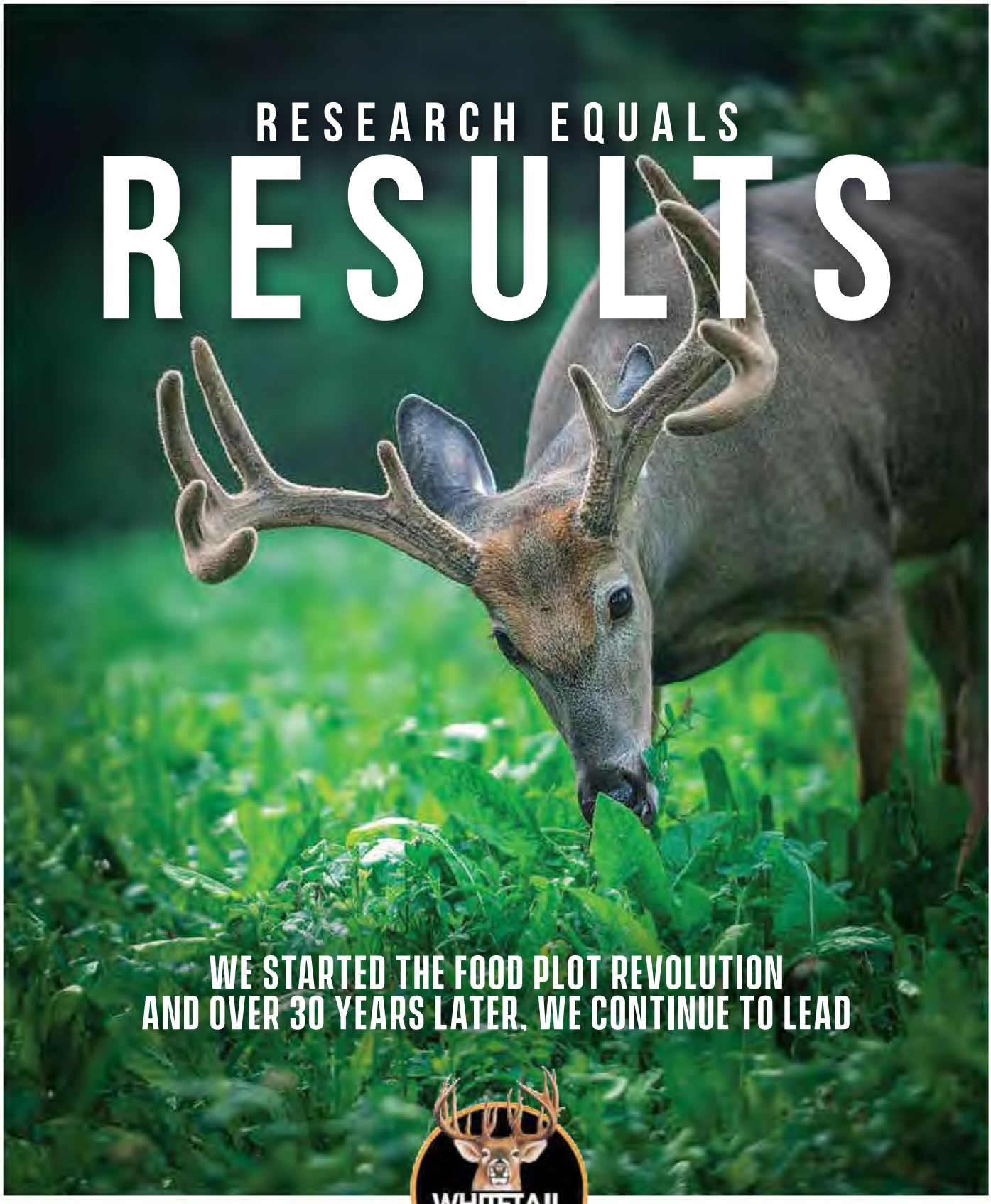
REMEMBERING A DEAR FRIEND

With a heavy heart, I write to inform our readers that a longtime editor, writer and friend of the Whitetail Institute team has passed away.

After a courageous two-and-a-half-year cancer battle, Scott Bestul passed away on April 19, 2025. Scott was passionate about hunting and fishing from a young age. Hunting took him around the country, and he experienced many successful hunts with his friends. He loved serving as a hunting guide to his friends, family and new hunters.

Scott's dedication to the outdoors extended beyond his personal adventures. He inspired countless readers through his compelling writing. His articles and editorials conveyed the spirit of the hunting lifestyle, seamlessly combining practical guidance through rich and captivating storytelling that resonated with hunters across all experience levels. Beyond his literary contributions, Scott found great fulfillment in mentoring others, always eager to impart his knowledge and nurture a love for the outdoors in the next generation. His enduring legacy lives on not only in his written work but also in the many lives he enriched through his passion, kindness and unwavering generosity. Scott will be missed, and countless outdoor enthusiasts will deeply feel Scott's absence. Rest in peace, my friend.

William



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*Whitetail Institute's extensive research and development network includes deer hunters, universities, farmers and seed producers around the world allowing us to discover new and improved forages. Our research, development and testing is conducted within our system of Certified Research Stations and field testers across North America. This unique process lets us subject our forage blends to the harshest critics of all – Mother Nature, real hunters and wild, free-ranging deer all across North America.

by *W. Carroll Johnson III, Ph.D.* – *Agronomist and Weed Scientist*

A PRACTITIONER'S VIEW OF PLANT IDENTIFICATION

Help Whitetail Institute help you by following these easy steps when seeking to identify pesky weeds.

Most of my work-related time in summer is spent identifying weeds and making control recommendations for customers.

These requests peak on Monday, especially after a holiday weekend, and significantly taper down by Friday. That cycle resets the next Monday. That pattern is because of customers visiting their hunting property on a weekend and later contacting Whitetail Institute. Some of these inquiries are direct emails from previous customer contacts. Others use the question submission process on the Whitetail Institute website. Whether I respond to inquiries or my co-worker Dr. Joyce Tredaway answers is basically random and usually depends on who's sitting at the computer at that moment.

Weed identification is a basic skill taught to every weed science graduate student throughout the country. The principles of weed identification are rooted in the pure science of botany. Entire careers of classically trained botanists are committed to plant taxonomy and making sense of how seemingly countless plants are related. Weed scientists view weed identification in a much simpler light because the question usually has two parts: What is the weed infesting the food plot, and how can that weed be controlled? In the real world, the second part of the inquiry is the more important question — how to control that weed. To answer the second, the first question must be answered. What customers do not see is that sometimes, Dr. Tredaway and I spend far more time answering the first question — weed identification. To do that, this is what we need from you.

BACKGROUND INFORMATION

When I receive an email request for weed identification, one of the first pieces of information I need is the location of the food plot in question. Location is important because weed species diversity varies widely across North America. The weeds I see daily in southern Georgia can be quite different from weeds in other regions. To confuse the situation, there are some species that might grow as cool-season weeds in the Deep South and as warm-season weeds in Northern latitudes.

GOOD WEED PICTURES

Digital pictures transmitted via email represent a breakthrough in third-party weed identification. It's now the default procedure. To fully use the benefits of digital pictures, the images need to be properly framed and shot at a suitable scale that captures the features necessary for identification.

To illustrate this point, I staged three pictures: a field shot of a weed infestation, a close-up of an isolated plant and a close-up of the flowering structures. The field-scale picture has limited value when identifying weeds but indicates the scope of the weed infestation. The close-up image of a single isolated plant from that infestation shows leaves with rounded lobes and rosette early season growth, characteristics of a weedy brassica. The close-up of the flowers is further evidence that the weed is wild radish. If the only picture I had was the field-scale pic-

Here's a whole-field image of an unknown weed infestation. Whole-field images help gauge the severity of the infestation. The more detailed images on Page 7 illustrate what's needed to correctly identify weeds and make control recommendations.

■ The right image is a close-up of an isolated plant in the field image on Page 6. The rosette-type early season growth and elongated leaves with rounded lobes are characteristic of a weedy brassica. The left image is a close-up of the flowers, which are characteristic of wild radish.

ture, positive identification would have been far less certain than if I could view the close-up images.

It's worth noting that when taking a close-up picture of weed leaves or flowers, it's important to make sure the object is sharply focused and has an adequate depth of field compared to the background. I took multiple shots and selected the best for this example. I have used high-end digital SLR cameras and my smartphone. Both will work, but make sure the image is focused and not zoomed in too close. The major benefit of digital cameras is the ability to take multiple pictures using different flash and focal-length settings at no additional cost compared to film. Keep only the best images, and use those for submission.

IMPORTANT WEED CHARACTERISTICS

When identifying a weed, I focus on certain plant structures and overall growth characteristics. The obvious characteristics are plant growth type (for example, spreading growth versus upright growth), leaf shape, flower appearance and fruiting (seed production). Flower color is often variable and an unreliable identifying characteristic.

There are stark differences in approaches to plant identification between a classically trained botanist and a weed scientist. In one of my undergraduate botany classes, we focused on identifying plants to species, relying heavily on characteristics of the flowers and fruiting structures. When advising food plot customers, that approach has limited value. By the time a weed is flowering or producing seed, those weeds are too large to be controlled by herbicides. Practitioners like me need to be proficient in identifying small (seedling) weeds that are not flowering or fruiting. Fortunately, I had a practical botany professor in graduate school at North Carolina State University whose approach was for students to learn the critical characteristics to instinctively identify the botanical family of an unknown plant using easily observed vegetative structures. When working with food plot customers, I occasionally identify an unknown weed to its botanical family but stop short of species. In those cases, the weeds are immature, making species identification by picture impossible, or the picture does not clearly show the critical characteristics. However, that's often good enough to formulate a weed control recommendation.

WEED IDENTIFICATION RESOURCES

At one time, I scoffed at the idea of using a smartphone app to identify weeds. Again, I have been proven wrong. Weed identification apps are a useful tool. I use the apps PictureThis and PlantNet. Typically, I compare the results of the two apps. I always verify the results of the weed identification apps with my stand-by reference books. I highly recommend three references for those who want quality written materials to self-educate themselves on weed identification: Weeds of the South, or Weeds of the Midwestern United States and Central Canada, collaboratively published by the Southern Weed Science Society and North-Central Weed Science Society, respectively; Weeds of the Northeast, published by Cornell University Press; and Weeds of Nebraska and the Great Plains, published by the Nebraska Department of Agriculture. These are the reference books I routinely use when identifying weeds for customers, and I'm certain many will find these books equally useful.

I encourage everybody to pay attention to the plants growing on your hunting property, not just weeds. One of the benefits of managing food plots is that the activity often stimulates interest in overall habitat management. Jody Holdbrooks is the wildlife biologist with Whitetail Institute and oversees the company's consulting service, Next Level Food Plot Consulting. I have reviewed dozens of management plans prepared for clients. Jody focuses on habitat enhancement, not exclusively food plots. Enhancing habitat means knowing the plants that are present, and plant identification helps with that knowledge gain. For example, I travel to southern Texas every year for a deer hunt. In 2022, that region went 13 months between rainfall events. Let that sink in for a minute. The first rain in 13 months fell 10 days before my hunting trip. Rain stimulated the sudden emergence of a forb on which deer were heavily grazing. I was not familiar with that plant. I took a picture with my smartphone and used a plant identification app. The plant was redstem filaree, also called redstem stork's bill. I had never seen that plant before because the range is mainly in the semi-arid region of the southwestern United States. I learned something new, and that new knowledge helped me better understand the habitat in that region. You can do the same on your hunting property.

by *Joyce Allison Tredaway, Ph.D.* – *Agronomist and Weed Scientist*

BROADLEAF CROPS TOLERATE ARREST MAXX

Science proves why this effective herbicide does not injure broadleaf forage crops.

As an agronomist and weed scientist for Whitetail Institute, on rare occasions, I receive comments about how Arrest Maxx was applied to clover (or Fusion or Alfa-Rack) and killed it. My first response to the customer is that this is impossible because the active ingredient in Arrest Maxx cannot kill those species. This article will explain why it's scientifically impossible for that to occur.

Let's start with a story about Dr. Wiley Johnson, the first forage breeder and agronomist for Whitetail Institute. He had a vegetable garden in the 1980s and wanted something to control his grassy weeds. His son, Whitetail Institute's Dr. Carroll Johnson, who was a graduate student in weed science at the time, gave him a new product to try: BAS-9052. (It was still a numbered compound/experimental compound and did not have a name). Carroll told Wiley to spray the compound over the top of his vegetables except the sweet corn. BAS-0-52 was sethoxydim, which is what's known as a -dim herbicide. Wiley was skeptical but did as he was told. After a few days, he was very frustrated that nothing had happened and reported that the new product wasn't working. He was told to wait a couple of weeks. Sure enough, after a few weeks, he called and said he loved the product because all of the grasses were killed and his vegetables were fine.

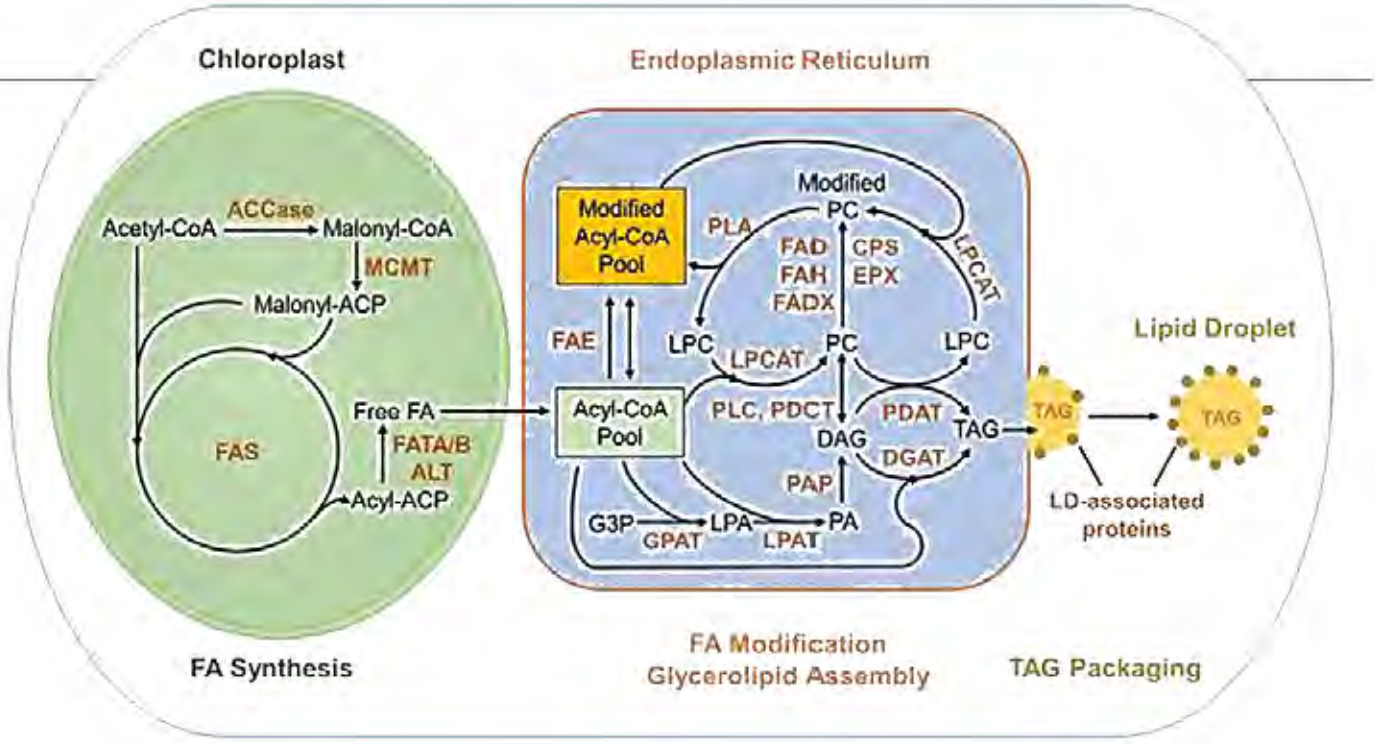
The purpose of that story is two-fold: First, a highly intelligent agronomist with a Ph.D. can be skeptical of a herbicide performing as he is told it will. Second, that agronomist can get frustrated with the amount of time it takes for the herbicide to work. The herbicide I'm referring to was part of the -fop herbicides.

Here's a stand of Fusion sprayed with Arrest Maxx.

The -fops and -dims are groups of herbicides that are safe for broadleaf crops and weeds but kill grasses. They are called -fops and -dims because the herbicide chemistries in which they belong are the aryloxyphenoxypropionate (FOPs) and cyclohexanedione (DIMs), reflecting the suffix on most of their chemical names. This article will explain why Arrest Max cannot kill broadleaf species, such as those in Imperial Whitetail Clover, Fusion (which contains clover and chicory) and Alfa-Rack.

An explanation of the herbicide mode of action is needed to understand why certain plants tolerate specific herbicides but others do not. The mode of action is the way in which the herbicide controls susceptible plants. It usually describes the biological process or enzyme in the plant that the herbicide interrupts, which in turn affects normal plant growth and development. In other cases, the mode of action might be a general description of the injury symptoms seen on susceptible plants. The Weed Science Society of America currently has 27 mode-of-action groups. Arrest Maxx is a -dim in the Group 1 classification.

An understanding of the herbicide Arrest Max (clethodim) is needed to explain why broadleaf crops (and weeds) cannot be killed or affected by an application regardless of the rate used. Arrest Max is a member of the cyclohexanedione family. Cyclohexanediones selectively control grasses, but broadleaf weeds and crops are tolerant of it. Because this chemical family of herbicides is more than 40 years old, tolerance of broadleaf weeds and crops of Arrest Maxx is a long-established and fully accepted scientific fact.



■ Here's the fatty acid synthesis pathway in plants, showing the ACCase enzyme that is targeted by the herbicide Arrest Maxx.

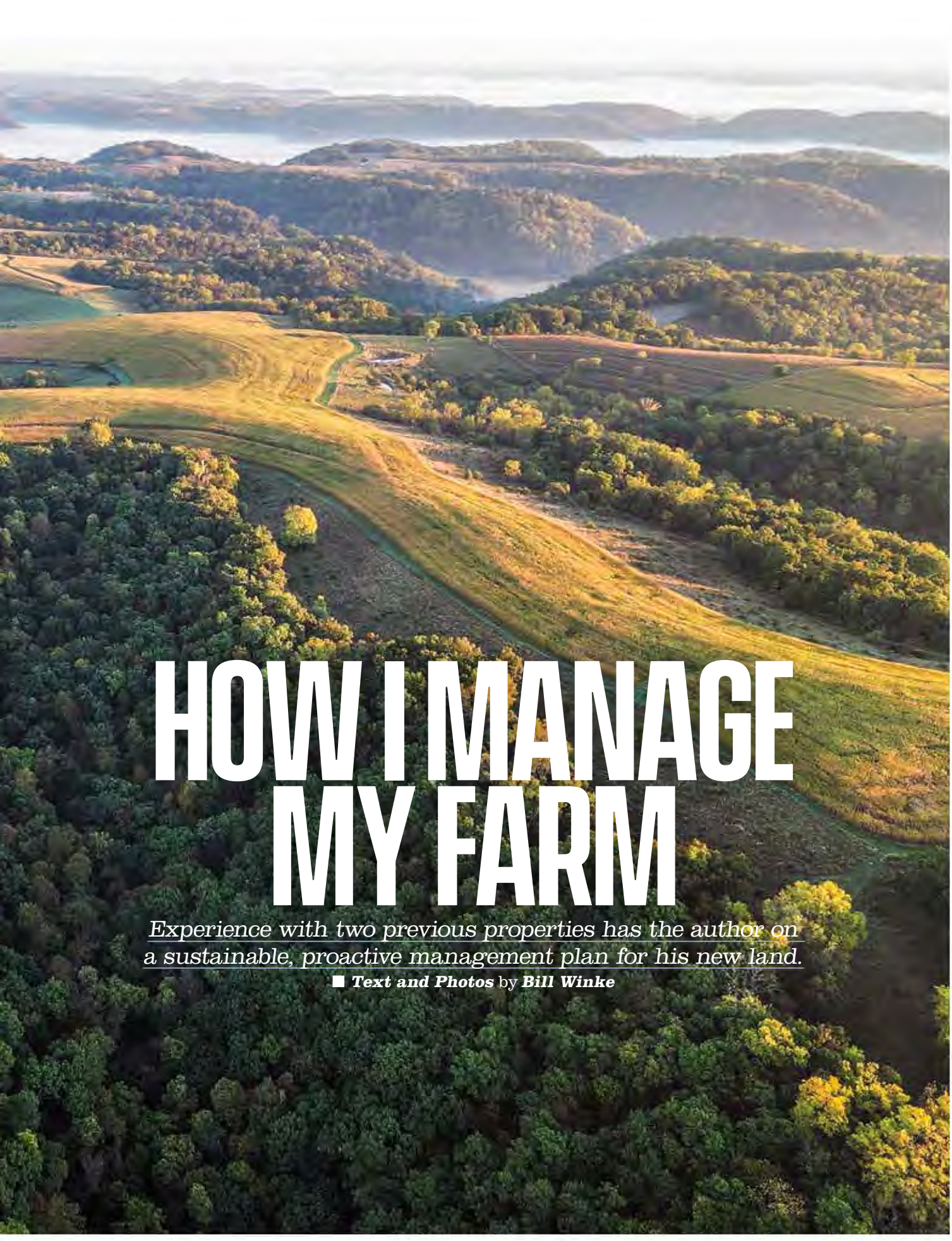
Herbicides in the Arrest Maxx chemical family inhibit the enzyme acetyl-CoA carboxylase (ACCase), which catalyzes the first step in fatty acid synthesis and is important for membrane synthesis. Fatty acid synthesis is like a factory inside plant cells that makes long chains of fat-like molecules called fatty acids. These fatty acids are made by combining small building blocks called acetyl-CoA. The process happens in the chloroplasts (the parts of the plant cell that also do photosynthesis). In general, broadleaf species are naturally resistant to these herbicides because of a less sensitive ACCase enzyme. (ACCase, or Acetyl-CoA Carboxylase, is the enzyme that converts acetyl-CoA into malonyl-CoA, a crucial step in fatty acid synthesis.) This less sensitive ACCase enzyme in broadleaf species is the reason why you can apply Arrest Maxx to such a wide range of plants, not only including clover, alfalfa and chicory, but also flowers, apples, broadleaf vegetables and fruits. It's the basis behind the safety for all broadleaf weeds and crops. Grass crops and weeds have a very sensitive ACCase enzyme, making them very vulnerable to these herbicides. The illustration in the picture on Page 9 shows that the enzyme ACCase is present in the chloroplast, which is an organelle only found in plant cells, thus further illustrating the safety for humans, because humans have no chloroplast organelle.

Arrest Maxx is a systemic herbicide primarily absorbed through the leaves of plants, penetrating the cuticle within one hour of application and being translocated systemically throughout the plant, meaning it's absorbed by the foliage and moves to the growing points of the plant, where it disrupts cell division and inhibits its growth by inhibiting the ACCase enzyme, which is critical for plant growth. That is how grasses are controlled and why broadleaf plants (with a less sensitive ACCase enzyme) are not affected. Slow symptom expression is explained by Arrest Maxx inhibiting the growth of treated grasses. Treated grasses simply quit growing and then die.

Arrest Maxx has no soil activity and has a half-life of about three days. It quickly penetrates the leaf cuticle. Therefore, the herbicide is rainfast — that is, it cannot be washed away by rain — one hour after application.

A crop oil such as Sure Fire should be used with Arrest Maxx. Adjuvants, such as a crop oil, help with the Arrest Maxx application in several ways. They increase the droplet size, which helps the herbicide reach the target (leaf), help the herbicide stick to the plant leaf, increase absorption into the plant cuticle, and help penetrate the plasma membrane, which aids in getting the herbicide into the target plant.

It's scientifically proven and widely accepted in all segments of agriculture that Arrest Maxx can be safely used on broadleaf crops and that it controls grassy weeds. The degree of reliable selectivity is almost too good to be true, especially when used for the first time. The story mentioned earlier in this article about the experimental herbicide used by Dr. Wiley Johnson to control grasses in his home vegetable garden is true. Even when witnessed by a professional agronomist for the first time, the results are astonishing, despite skeptical initial reactions. By results, I am referring to outstanding control of grasses and no injury to treated broadleaf crops. The same can be expected with grass control in your food plot. If there are cases of injury to broadleaf forage crops after spraying Arrest Maxx, the injury was caused by something other than Arrest Maxx.



HOW I MANAGE MY FARM

Experience with two previous properties has the author on a sustainable, proactive management plan for his new land.

■ ***Text and Photos*** by ***Bill Winke***

I'm just shy of four years into my third property, and I learned lessons from the first two that I'm now applying to the third. This time around, the management plans is much more proactive — fix things before they become a problem. And it's a lot more work. But I believe ultimately, the payoff will be worth the sweat and time.

In this article, I will go through the lessons I have learned and point you toward a proactive management plan that will stand the test of time. Let's get started.

MY NEW STARTING POINT

Too often, we focus on numbers — and why not, as they are easy to measure. You can tell when you have a lot of deer because you see a lot of them while hunting. You can count them. It's fun, and you rarely get bored on stand or in the blind. And big antlers, we all enjoy those — just more numbers. These goals are obvious, and we are tempted when managing a property to jump right to those numbers. You own the property for the experiences it offers, so why not get straight to maximizing those experiences?

Fire is critical to great long-term habitat. It sets back — and sometimes kills — undesirable plants that are basically nothing more than briars and brambles.

I have learned, however, that a lot more flies under the radar than you might think — considerations that will affect the long-term quality of the property and, ultimately, your ability to maintain those experiences. I have learned that habitat (not the numbers) is the most important starting point and the true key to sustaining a quality deer herd. For sure, food plots are important, and we understand their value, but too few land managers truly understand the value of great habitat.

Let's assume that your property has clover food plots and commercial corn fields.

A mid-level canopy is just as bad as a top-level canopy. It keeps sunlight from reaching the ground.

The deer aren't starving. They seem to be doing fine. There is plenty of food, right? But the same property has only average or worse habitat (measured by the amount of natural browse). Yes, you can feed the deer (at least part of the year) and keep them around with your crop fields and clover plots, but they are only getting a part of the nutrition they really need to thrive.

Here's an analogy. Someone tells you that you can only eat hamburgers and potatoes for the rest of your life — every meal. Doesn't sound too bad. I like hamburgers and potatoes. But, consider all the vitamins, minerals and macro- and micronutrients that you are missing with that diet. There are documented health issues you will eventually deal with. That's the same position you're putting deer into when you're satisfied with a property that has picked-over habitat and low-quality browse.

Deer are wired to eat the right things at the right time. They know what they need. God created them that way. So, they pick through their habitat — a bite here and a bite there as they travel. Some of the things they eat might look like weeds to us, but to deer, they are an important source of nutrients contributing to a healthy diet. Unless pressed, or dealing with outside forces (such as the rut), deer are usually browsing when they are moving.

If the habitat they live in is sparse and picked clean, many — maybe all — of the most nutritious options are already gone — maybe permanently. Biologists have told me that some preferred and important native browse plants might be permanently removed if a deer population is too high for the habitat.

So, habitat is my starting point. I want to create the best long-term habitat possible on my farm. There are four parts to this formula. And unfortunately, achieving success with each one of them requires a lot of work.

■ It's tempting to grab for short-term goals; lots of deer, with some big bucks in the mix. But long-term, that's not the way to build a great property.

FOUR KEYS

The first is deer density. If you have too many deer, you will never be able to produce great habitat. In fact, that is now my definition of too many deer. That occurs when the habitat is affected long-term by their browsing. This is the hardest lesson I learned in owning the first two properties. Both had too many deer. The first, a large partnership, had way too many. There was basically zero browse in the timber, which was the result of the excess deer numbers and the second part of this formula: a closed canopy.

Let's jump to that second factor. To grow food at mouth level for deer, sunlight must reach the ground. The most effective way to do this is to cut down trees. Although the first property I owned (the partnership) had a closed canopy throughout the timber, I owned the second one outright, so I could do whatever made sense. I hired a crew, and through four years, they cut down all the junk timber. It became super thick, and for a while, the browse was incredible.

That was when deer hunting there was at its best. That farm held a shocking number of really big mature bucks. I think it could well have been one of the best properties in the country at that time. We killed a lot of really big deer, too. What a blast. But every party eventually comes to an end if you don't plan well enough. If you don't also include the third part of this formula, the party will crash, and you will eventually be right back where you started.

Fire is the third key to great long-term habitat. We never burned on my first property, and I only burned one time, and then just a couple of acres, on my second property. I was afraid of fire in the timber, and I just didn't understand the need for it.

I didn't realize that when you open the canopy two things happen. First, you get a flood of new growth, which can be good and bad. If the right things come in, it's good. But if you have invasive species in the timber or just low-quality woody plants, that's what will flourish. The sunlight prompts what is there already to hit the afterburners. That can be bad. So you have to proactively control what flourishes when sunlight hits the ground.

Second, everything grows fast with an open gap toward the sun, and that growth soon creates a second — call it mid-level — canopy. It is 10 to 15 feet up and just as bad as the top-level canopy you worked so hard to open with the chainsaw. This mid-level canopy also keeps sunlight from reaching the ground, and you will have it in less than 10 years of the initial timber stand improvement, in most cases.

Fire can fix these negative scenarios. It has the same effect as hitting the reset button on your lower-level habitat. It sets back — and sometimes kills — undesirable plants that are basically nothing more than briers and brambles. In their place, you get more desirable plants that are young, tender and palatable to deer. That's what we call browse. Fire also has the effect of top-killing saplings that would otherwise make up the mid-level canopy.

As mentioned, I didn't burn on my second property. When the canopy was opened with the aggressive timber stand improvement cutting, I got way too much junk vegetation. In my case, it was multiflora rose, gooseberry and various invasives that raced each other to cover the ground floor. These were not what the deer needed. After the initial flood of browse, these secondary species started to dominate.

Then, in about 10 years, all the small saplings we released with the timber stand improvement reached a height that created the new mid-level canopy. To fix these problems, I would have had to burn it a couple of years in a row or go back through and cut down all that mid-level structure and spray herbicide on all that junk at ground level. That would be a ton of work — way too much work on a property of any size. My point is that fire is fast and effective, and serves this very important role in assuring you have the right stuff growing and in keeping it from creating a new canopy.

The fourth piece of the perfect habitat equation is planting — creating what you want from scratch. I have planted a lot of habitat (tens of thousands of trees and shrubs) through the years with mixed results. This is a very important step to convert marginal acres into a contributing part of any property. After you have satisfied your need for food plot acres, any otherwise unproductive ground should turn into cover.

I could write a full article about what to plant and how, but there are a lot of experts who have done this. My philosophy is to plant permanent habitat: trees and shrubs. I know that switchgrass is trendy right now, but I have planted 350 acres of it through the years, and deer never seemed to use it much. They traveled through it but didn't live in it, and it offered only limited browse potential.

Again, a full discussion of what I plant and why is beyond the scope of this article. Maybe I can come back to that topic in the future. Done right, the habitat you plant can enhance the quality (and value) of the property and improve the health of the deer living there for decades. You can't start those projects too soon.

I mentioned mixed results. In areas with high deer numbers, it was really tough to get bare rootstock plantings to grow. The deer just ate it all the first year. I would have needed to tube everything I planted, which was time- and cost prohibitive. Remember my definition of too many deer?

In a nutshell, that's why I focus on habitat over all other factors when managing my new property. Great habitat takes more work, it takes more years to produce, and potentially, it offers greater long-term benefits than any other management practice. It's the core around which all my other management decisions revolve.

REVISITING DEER NUMBERS

As mentioned, setting and maintaining a proper deer density is a huge part of the habitat formula. Like the discussion on what kinds of trees and shrubs to plant, this topic has a lot of moving parts and is also beyond the scope of this article. But it's fair to say that holding deer numbers at a moderate level can be a big job requiring help from friends, family and maybe even neighbors. But if you don't do it, you will be forever trying to grow great habitat and failing. The deer will eat it before it can establish.

FOOD PLOTS ARE PRIORITY NO. 2

Whitetail Institute is a food plot company, but the true role of food plots is secondary to the habitat in a healthy, sustainable hunting property. That's not to diminish their value. Food plots are super important, but compared to habitat creation or restoration, they are much easier and quicker to create.

I now have really good food plots on my property, too. Because the habitat is good and deer numbers are moderate, I can produce enough supplemental food in my plots to last throughout winter. I will need to keep adding acres to my plot strategy as deer numbers trickle up through time, but I will always keep the same philosophy: I don't want my food to run out before the next year's green-up.

My goal is to have a good mix of spring and summer food sources (mostly Imperial Whitetail Clover) with plenty of fall and winter sources, such as the brassica blends (my favorite is the Winter-Greens, which has done really well on my farm). I have also been experimenting with a sorghum blend that Whitetail Institute plans to release soon. That has also been a great late-season/winter food source.

Food plots will never replace browse on my farm. They only supplement it. The two work well together. The deer pick through the timber as they move, and if they can't find all they need there, I have food plots to take up the slack. It's the perfect one-two punch.

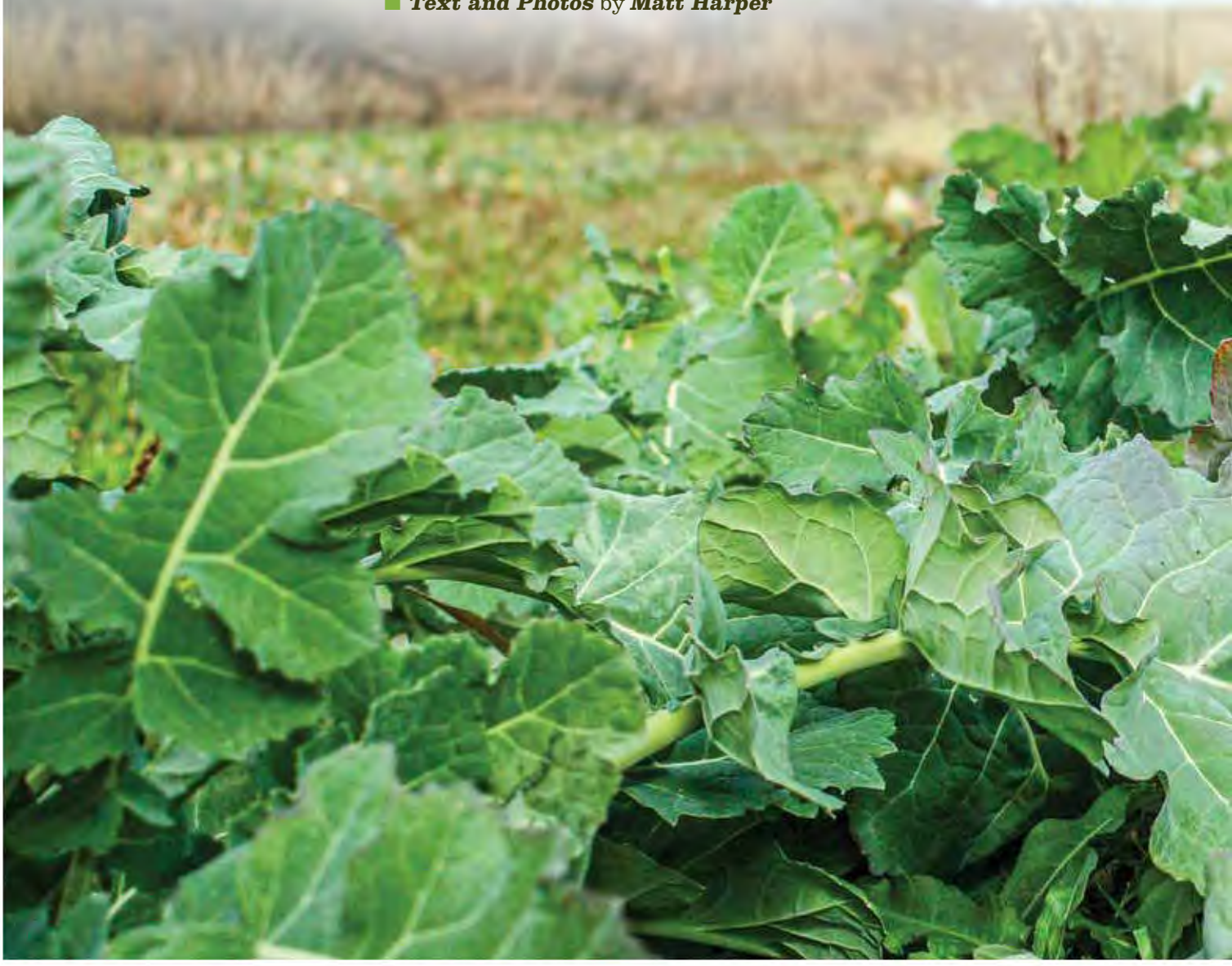
CONCLUSION

It's tempting to just grab for the numbers, the short-term goal; lots of deer, with some big bucks in the mix. But that's a house built on sand that eventually caves in. Long-term, that is not the way to build a great property. Great habitat has to be the priority. I took everything I learned from owning the first two properties and created a proactive plan I believe will stand the test of time. You must have vision and faith to see this through, because every part of the habitat-first plan takes a lot of work and patience. Good luck on your journey.

OF BEANS AND BRASSICAS

Food plot plans can fall apart with the whims of weather, but wise decisions — including the common-sense use of a secondary crop — can save the day.

Text and Photos by **Matt Harper**



Consider the meticulous planning of a food plotter, which seems so brilliant on paper when the melting winter snow thaws the frozen earth.

You peruse aerial and soil maps, measure fields with nifty software and count the acres of current fields and potential new ones. You review the past three years of trail camera pictures to determine population numbers and then work the math on how many acres to plant. Those trail camera photos also let you analyze deer movement and determine the perfect areas for hunting plots or feeding plots. Then it's time to hone in on seed varieties as you shuffle through perennials, annuals, spring plantings, summer plantings and fall plantings, arriving at the ideal food plot program for your property.

Ah, the best-laid plans of mice and men. It recalls a passage in Ecclesiastes that says, "All is meaningless," including the plans of people. And remember, that book was writing by Solomon, who was renowned for wisdom. That said, planning remains advisable for most things, including food plots. But regardless of how well-devised your plan might be, it can fall apart because of factors out of your control. The key is how you pivot when a monkey wrench enters the game.

BEANS AND BRASSICAS

Soybeans are one of the annuals I use often on my farm. They work well as a rotational partner to many crops, especially brassicas. Brassicas are an excellent fall and winter food plot but should be rotated after consecutive years of being planted in the same field. In any specific year, I will have soybeans and brassica fields for my fall and winter food sources, consistently rotating them as needed. Soybeans make for a good late-season food source, with deer munching on the high fat and protein the beans provide. I prefer soybeans to corn for the late season because corn is more expensive to plant, and, in my experience, it doesn't last as long as soybeans. Everything in the woods, especially raccoons, likes to eat corn, but soybeans attract fewer critters, meaning more food for the targeted species. Case in point: One year, I planted an acre of corn in a river bottom field, fertilized and sprayed it, and was rewarded with a pretty darn good stand of corn. The plant popula-

tion was perfect, and the stalks sported big ears that were fully filled out. I was downright proud of that field and excited about the prospects come October. As the season approached, I began to see areas in the field knocked over and, in some cases, void of even a stalk. My first thought was that deer were raiding the field with such zeal that my 20-yard pin settling on a big buck was a given. Admittedly, this was early in my food plotting career, and perception and reality were not lining up.

As I sat high in a cottonwood tree on an early October evening, I began to hear corn stalks breaking but could not see a deer. That's because it was not deer that had come to dine that evening, but rather a troop of ravenous raccoons — probably 20 or more. They would put their backs to the stalk, reach up and grab it, and then bend it over until it snapped, which overcame the vertical challenge of reaching the ears. Those marauders were causing most of the damage but weren't necessarily the only species involved in the destruction of my plot. That evening, I saw crows, turkeys, squirrels and even a beaver — the culprit responsible for the disappearance of the stalks, which apparently made great dam materials.

The author displays the 178-inch 8-pointer taken off his 8-Pointer Plot.

But back to soybeans. Although they attract fewer non-target species, they can come with a few downsides. Mainly, deer eat soybeans when the plants are young — pretty much as soon as they come up from the ground until they mature, and the leaves fall away. If you're planting a small field of soybeans in an area with few or no other beanfields, you might have a patch of dirt come hunting season. Unlike clover, from which deer nip off all the leaves, a soybean plant is essentially dead, and that can occur in days after the plants have peeked through the soil. In my area, there are hundreds of acres of soybeans within easy walking

distance for deer, so my plots are not the sole supply. I also have perennial plots of Imperial Clover on the farm, which takes the pressure off the young bean plants. The point is that soybeans might not be the best option for everyone, but in some cases and for some rotational programs, they can be handy.

THE 8-POINTER PLOT

Referring to the statement about mice and men, plans do not always come to fruition when nature chimes in. A great example occurred this past year at a small food plot I first planted almost 30 years ago. The plot is about an acre and sits in a small bottom with a huge bedding area to the south, wooded draws that filter downward to the plot from crop fields on the west and north, and a dense willow-choked swamp to the east. And there's a small pond about 40 yards up the hill to the north. That's about as good a setup as you could ask for, and that little plot has produced countless trophies in the past 30 years. I've had great success there during bow season, having shot at least four 8-pointers larger than 160, including one monster that tallied an incredible 178 inches. But it has also been the last resting place of several good bucks taken during the late muzzleloader season. Just this past year, I got my nephew his first buck in that little bottom food plot: a solid 4 ½-year-old, 135-inch 8-pointer.

But in June, I would have said the chances of shooting a deer at that plot were about as good as a blizzard in Hades.

NEW TOYS

I get a little giddy about new equipment, even if that equipment was new 40 years ago and I've only recently acquired it. Call it a toy if you want, but a toy can be as productive as it is fun. Having tried several methods of putting beans in the ground — broadcasting, hiring it custom planted, using borrowed equipment and other methods — I finally decided it was time I had my own drill. I found an old but nicely functioning John Deere soybean drill, which I used to plant several fields on three farms. There was some trial and error, as there always is when running equipment for the first time. But in general, it did a fine job. However, successful plantings do not always equal a successful food plot.

The farm with the aforementioned 8-Point food plot was planted about two weeks after my other farms because I ran out of time and couldn't get back to it right away. When I got the beans drilled on that farm, a frog-strangling rain arrived the next day, dropping 3 inches of water in a very brief period. That essentially pounded the dirt with such force that it created a thick crust on the surface. My drill is not a no-till drill, so I had disked the plots to prepare them for planting, and when the heavy rain hit the soft dirt, it formed concrete. The poor little soybean seedlings tried, but only a few found cracks in the hard layer and poked through the surface, leaving me with an optimistic 30 percent seedling emergence and eventually 10 percent seedling survivability. I didn't do anything wrong, other than having poor timing with a weather forecast that was less than stellar. The plot was well prepared, the seed was

good, and the drill did its job, but I was still left with a mostly barren food plot. As mentioned, that little sweetheart of a plot is way too good to admit defeat, so it was time to get creative.

BRASSICAS TO THE RESCUE

I waited longer than I should have to see if some late seedlings emerged, which, in retrospect, was foolhardy. By the time I gave up hope, it was early July, and re-seeding with beans was not an option worth the effort. Instead, I thought if I used something I could interseed in the sparse bean plot, I might salvage the situation. It needed to be something that required only minor seed-to-soil contact, germinate and grow well in late July into August, and not be affected by the few existing beans. Two choices surfaced quickly: Whitetail Institute's Winter-Greens and No-Plow. Both options met the specs I was seeking, but I wanted the plot to be a good food source late into the season.

I went with the brassica option of Winter-Greens. I sprayed the plot with an herbicide that would not kill the beans but get rid of the pesky grasses, leaving me with a field of dirt and a few soybeans. I broadcasted the brassica seed, and then went over the plot with a cultipacker, which did minimal damage to the beans but ensured good seed-to-soil contact. Finally, I hit it with some urea and crossed my fingers.

The rain took a vacation for a couple of weeks, so nothing happened until a small but adequate rain fell in early August. Week after week, the field slowly started to fill in, and by the opening day of bow season Oct. 1, the plot looked respectable. I'm not going to say it was the best plot I've ever grown, but it attracted and fed deer, and that was the best I could hope for based on the bleak outlook a couple of months before.

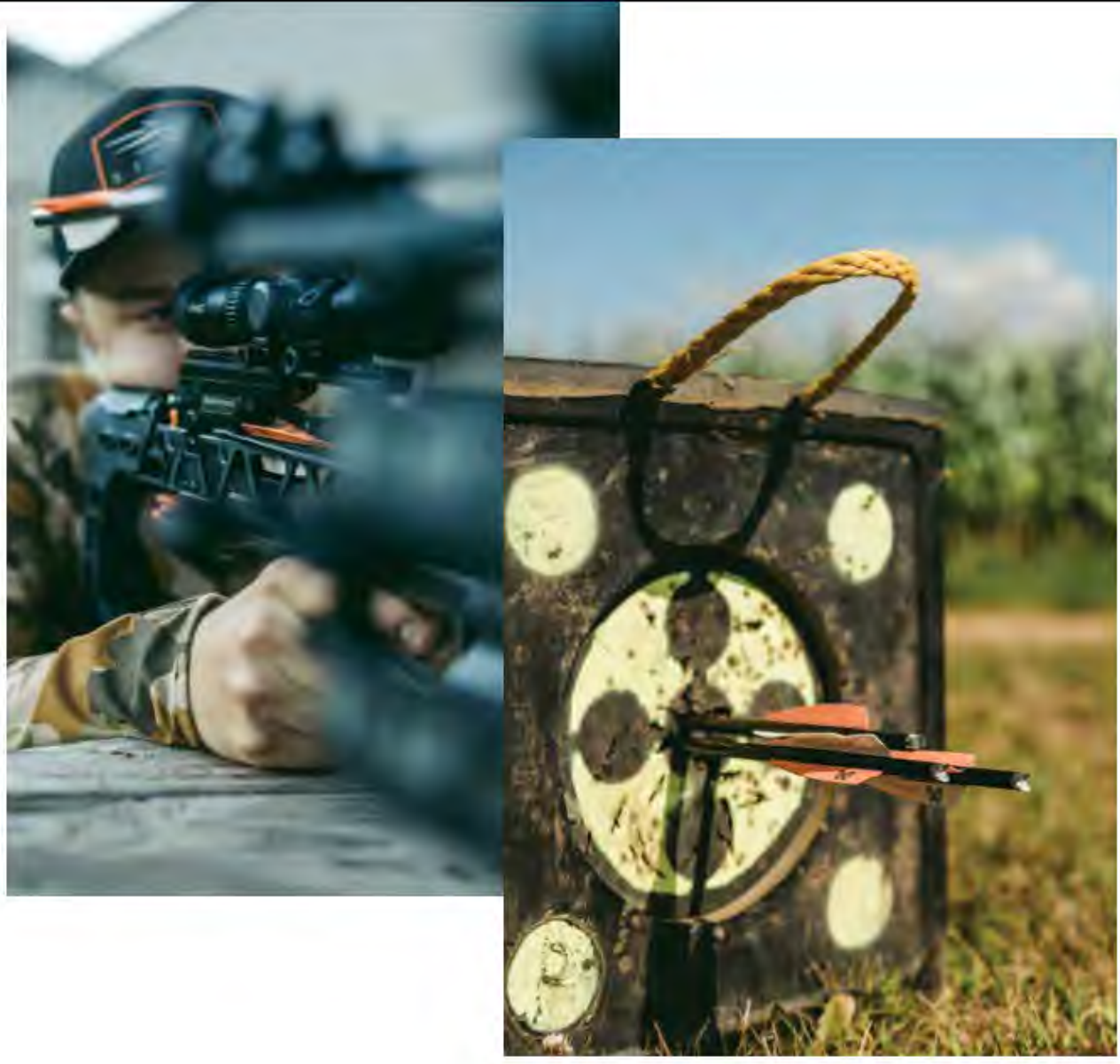
THE PAYOFF

My nephew approached me in Spring 2023 and asked if I could teach him how to deer hunt. He had just graduated from electrical school and said he would be willing to barter some wiring work on the farm if I would take him hunting that fall. Truthfully, he wouldn't have needed to offer me anything, as I'm always eager to show a new hunter the sport. Regardless, I respected the young man for his willingness to trade. Soon after we came to our agreement, he had some serious medical issues but insisted he would be ready come December and the late muzzleloader season. True to his word, he battled through with such positivity and faith that he became an inspiration.

When Dec. 26 arrived, he was cleared and showed up at my house dressed in orange. A huge smile showed that his level of excitement was palpable. I had been seeing a good buck at the brassica/bean field. It was showing up every few days — sometimes more frequently — so we climbed into the shooting house on the southwestern side of the plot and settled in. After about an hour, deer started moseying to the plot, and one of the early arrivals was a young 6-pointer. At first, my nephew was pretty keen on that buck, and I told him he could shoot whatever he wanted, but mentioned it was early and that we could wait to see what else wandered out. I'm pretty sure he thought I was crazy, as I would have if I were after my first buck, but he heeded my advice. An hour passed, and we started to get a little nervous as the sun slipped below the oak ridge to the west. Then, with about a half-hour of shooting light left, the guest of honor strolled out of the willow patch to the east to munch on some brassica leaves. It was the 8-pointer I was hoping to see, and I nudged my nephew and whispered, "There he is. That's the one. He's the shooter." He moved the smokepole into position as I slowly opened the shooting window. For several moments, the buck offered no shot, showing us only his south end as he faced north. I whispered for my nephew to stay on him, and that we had plenty of time for the deer to turn. I then realized I was not breathing, and neither was my nephew, so I told him to take a deep breath, and I followed my own guidance.

The buck finally turned, and at the shot, it dropped to the ground, only to jump back up and run off. I watched the buck run about 60 yards and go down again in a clump of small cedars. We reloaded, and I had my nephew stay on him for about 10 minutes until I was sure he was down for the count. When my nephew grabbed the antlers of that dandy buck and looked at me gleaming with excitement, I thanked God that I had not given up on that plot, and that He, in so many ways, had made that moment happen.

My nephew's story is one of incredible bravery and unyielding faith, and to see the joy in his eyes after battling through so much is a memory I'll carry far longer and move vividly than the mere taking of a trophy buck.



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A LITTLE BIT OF THIS AND A LITTLE BIT OF THAT

Deer need variety in their diet, which is a critical consideration when planting food plots. Here's how the author lays out a full-season buffet.

by ***Matt Harper***

I grew up having two of the world's best cooks prepare meals for me daily: my grandma Verdia and grandma Fern.

Being a late arrival to the family, and growing up in the 1970s and 1980s, I had a hard time relating to my grandmothers. Grandma Verdia was born in 1901, and Grandma Fern in 1918. I should make it clear — especially if she reads this — that my mother is also a good cook, but she also worked full time as a registered nurse at the country hospital, so I spent most of my formative years in the daytime care of my grandmothers. Both were professional full-time chefs, as well as part-time farm labor. Their job, among many others, was to cook breakfast, dinner and supper every day. And I'm not talking about cereal for breakfast or a ham sandwich for lunch, because the word lunch was not in our vocabulary. Lunch was a light affair for town folk, but dinner was a full spread of meat, potatoes and the like that would shame any fancy city buffet. Breakfast consisted of eggs, bacon, sausage, pancakes and homemade bread. I'm getting hungry just thinking about it.

Those wonderful culinary crafters also understood frugality. They had lived through the Great Depression, so nothing was ever wasted — nothing. They kept bacon grease and used it to make just about everything, including some of the best popcorn you could imagine. But sometimes, being cost conscious meant we ate some pretty strange stuff, or at least to an 8-year-old. At any meal, a dish of boiled dandelions or nettle greens would be simmering in a pot, and maybe a dessert of vinegar pie. We sometimes had a Sunday evening treat of milk toast, which is basically soggy bread sitting in warm full-fat milk, straight from our cow. And there was no way I could tell my grandmothers I didn't want to eat it, as that would result in a warning glower from the grandpas and my brother, and you didn't want that. So, I ate quite a variety of stuff when I was growing up.

Which brings me to deer. Believe it or not, my childhood diet and that of a whitetail's have distinct similarities. And that's an important consideration when planning food plots.

THE VARIETY OF A WHITETAIL'S DIET

I believe our taste buds expand as we get older, and we become open to a wider variety of foods. But if you love fried chicken or chocolate cake and don't grasp the importance of eating a balanced meal, you might simply flounder on chicken and cake. A white-tailed deer, on the other hand, consumes a naturally diverse diet. Even if a building-high pile of corn or a truckload of apples were available, deer would not simply set up camp until the bounty was exhausted. Sure, they would eat it and be attracted to it, but they would eat many other things on the way to the feast and their way to sleep off dinner.

I've witnessed this phenomenon hundreds of times. In fact, I'll perch over a lush food plot in early October and watch a parade of deer come to partake but then move into the brush to nibble on some dried leaves off a bush. I've also sat on a beautiful winter food plot laden with energy-rich nutrients and watched deer gather in the plot for a time but then slowly move off to a picked soybean field with far less to offer. That confounding trait can become aggravating, especially when you're bearing down on an old buck that's just out of range at your food plot and eventually wanders off to another food source that's not of the same quality. But that's just how deer feed and understanding some of the reasons behind it can help your food plot management scheme.

A DEER'S STOMACH

First, let's understand the physical nature of the whitetail's digestive system and how it affects their eating habits. Deer are ruminants, which is a category they share with many other herbivores. Ruminant derives from the base word rumen, which is the physical structure used to ruminate. The process of rumination involves the eating and mastication of forages, which are swallowed and enter the rumen, where microbes begin digesting the food. Some is digested rapidly, but some is not, and the latter is regurgitated back into the animal's mouth in the form of a feed matter called bolus. Deer chew on that material again, which is often referred to as chewing their cud, and then re-swallow it for further digestion. This process continues until the digesta fully moves out of the rumen. It's a little like burping up spicy chili until it finally passes into the intestines, only rumination is a good, pleasurable experience.

Four sections make up the structure in a ruminant: the reticulum, omasum, rumen and abomasum. Of those, the rumen is the largest. It's the fermentation factory where millions of microbes do their work breaking down ingested food. Rumination occurs essentially the same in all ruminants, but the physical characteristics of the ruminant structure varies as it pertains to the size of the rumen. Ruminants are divided into two further categories: large ruminants and small ruminants. Examples of large ruminants include cattle and elk. The rumen in those species is extremely large — about the size of a beach ball — and contains massive amounts of microbes, bacteria, fungi, protozoa and the like, which gives those animals the ability to digest a large variety of forages and forage quality. You can feed a cow corn stalks or wheat straw, and they can digest most of it. Because of their ability to digest a wide array of forages, large ruminants are mostly not picky eaters and are thus called grazers, meaning they move along grazing somewhat indiscriminately.

Deer, sheep and goats are small ruminants. The rumen on a deer is about the size of a large volleyball or basketball. It's the large paunch you avoid nicking when field-dressing a deer. The odorous green content that escapes if you perforate the rumen is food in the process of being digested, and the smell is from the gas caused by microbial fermentation. Because the rumen in small ruminants is smaller, deer don't have the same range of digestion as cattle. Their rumens have fewer microbes and less ruminal surface area, which limits their ability to digest certain forage types and specifically forage qualities. That corn stalk or wheat straw bale cattle love is useless to deer, as they simply can't digest poor-quality vegetation. That causes deer to be selective in what they consume, choosing forages that are more highly digestible. That places them in the classification as browsers.

PREDATOR EVASION

Another reason deer move from food source to food source is for their protection. Many critters are higher on the food chain than whitetails, which keeps deer constantly on alert for four- and two-legged predators. If you have watched deer approach

an open field or food plot, you will see the older deer stand on the edge and survey the situation for some time before committing to breaking cover. Even when they eat in the open, deer constantly jerk their heads up and scan the vicinity. Ears cocking from side to side, nose in the air, deer are in a high-risk scenario when feeding in open places. In my opinion, that's another reason why deer will leave a good food source to wander around on less greener pastures. Staying in one spot too long is not conducive to long-term health. Also, I'm pretty sure that's a learned behavior, in that younger deer are far more likely to come out early and stay longer in an open field than older deer. It's probably one of the reasons why they got older.

MANAGEMENT PRACTICES

So, we know a deer's propensity to move from feeding area to feeding area, but how does that affect the what, where and when of your food plot program?

First and probably most important, make sure you plant forages deer can easily digest. Nutrition is important, but digestibility ranks higher, because despite the nutrient density of a forage, if deer can't digest and use the nutrients, it's all for nothing. Palatability is also important. After all, deer have to eat what you planted, but the tastiness of forages is tied closely to digestibility. If a deer can't digest it, they probably will not be inclined to eat it.

Being small ruminants, deer can better digest and, as such, prefer forages that are in a vegetative state. As a plant grows and matures, compounds such as lignin build up in the plant to give it structural soundness. Those compounds are essentially indigestible to deer and therefore not consumed. Higher lignin content will generally be found in the stem rather than the leaves, so when you notice deer eating the leaves off of a plant and leaving the stem, it's because they can more easily use the leaves. You will see that often in a green soybean field, where deer leave the stems but eat the leaves. That's also true with alfalfa hay fields.

Alfalfa varieties commonly used for hay production are geared to toward large ruminants, such as beef or dairy cattle. They are typically mowed at one-quarter to one-half bloom, meaning that 25 to 50 percent of the field has plants matured to the point of blooming. The farmer is trying to achieve the right blend of nutrients and digestibility while still getting adequate tonnage. There should still be plenty of leaves in the hay, but there will also be a lot of stems. If you feed that hay to a beef cow, they will eat the entire thing — leaves, stems and all. That same bale fed to deer would result in a pile of stems with the leaves eaten off. This plays out each year when you see the number of deer on an alfalfa field decrease as the plants mature. When the field is full of vegetative alfalfa, deer will pack into the field. But as it grows and matures, the field will see less deer activity. When that field is mowed and regrowth occurs, deer again load up in the field. All of that points to the need for having food plots that provide highly digestible food sources throughout the year, which can best be accomplished by various food plot varieties.

One variety I always plant is Imperial Whitetail Clover, and I'm not just saying that because I am writing for this magazine. We've discussed the importance of

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digestibility and how it's related to stage of growth, and Imperial Clover is genetically designed to stay in a vegetative state much longer than other clover or alfalfa varieties. In fact, with deer browsing a field, Imperial Clover can stay in a permanent vegetative state for most of spring, summer and fall. The large leaf structure combined with the smaller stem helps produce the high level of protein required in spring through fall.

With the base plots established, I start sprinkling in other varieties that target specific times of year. With the amount of Imperial Clover and Alfa-Rack Plus fields I have on my farm, my spring and summer needs are mostly met. Additionally, we have soybean fields and hay fields on and around the farm, so deer make a daily trek eating at all these sources throughout summer. If you don't have many perennial legume plots, or there are few other agricultural crops (hay and beans) nearby, you might want to add some summer annuals to your food plot portfolio. A couple of good choices include Imperial Power Plant, a forage soybean-based food plot that produces high amounts of summer forage, and Summer Slam, a pea and legume mix that is highly drought- and heat tolerant.

My fall plantings fall into two categories: plots used for early fall and plots for late season and winter. The early fall plots are primarily oats, such as Imperial Oats Plus and No-Plow. The key to those plots is timing the planting, again based on digestibility of the forage. Oats are highly digestible when they are shorter than 6 inches and becomes less digestible as the stem hardens while maturing. I like to time the planting to hit 4 to 6 inches of height in October, when bow season is underway.

I typically use oats and No-Plow for my smaller hunting plots between bedding areas and destination plots. Timing maximum digestibility and, in turn, attractiveness, means deer will add those plots to their feeding pattern, stopping to eat for a bit before moving on, which is all the time I need to try to make an arrow connect.

Finally, my late-season plots consist of soybeans and brassicas, with the brassicas typically being Imperial Winter-Greens and Tall Tine Tubers. I use soybeans and brassicas as a rotation but will always have both on the farm for late-season hunting. In the cold and snow of late November and December, when other food sources are exhausted or dormant, those late-season plots become the destination of choice for most of the neighborhood deer.

CONCLUSION

For the first few years I planted food plots, I got frustrated when deer would leave a food plot, I had meticulously worked to be the perfect food source. But I was not taking into account a deer's normal tendency to browse and move on after a while, no matter how good the plot was. Instead of fighting it, I changed my strategy to match a deer's natural feeding habits and thus focus on variety based on digestibility and nutritional needs. That resulted in two important considerations: providing the nutrition deer need at all times of year and encouraging them to spend more time on my property to enjoy the buffet.

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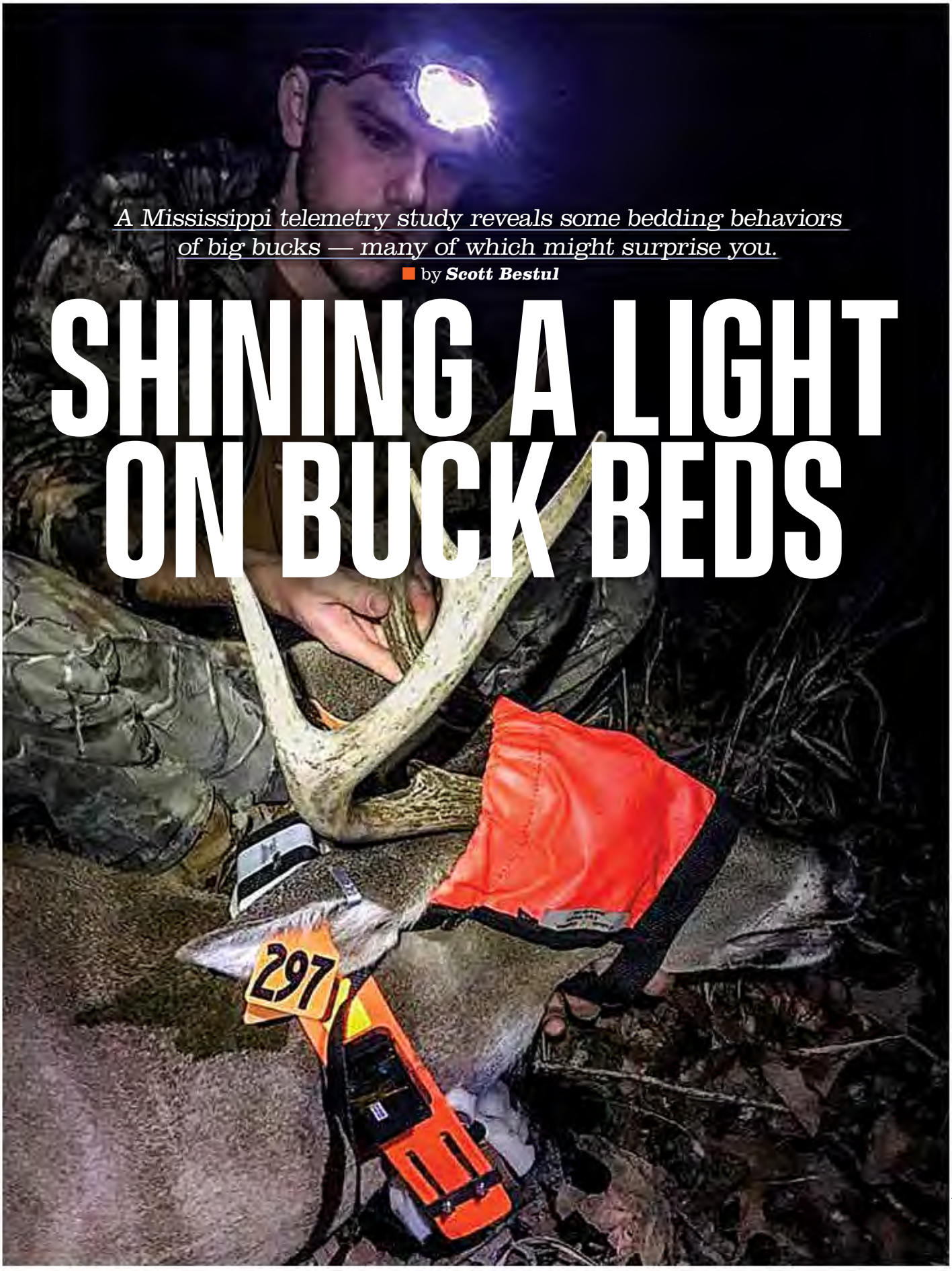
A Mississippi telemetry study reveals some bedding behaviors of big bucks — many of which might surprise you.

by ***Scott Bestul***

SHINING A LIGHT ON BUCK BEDS



PHOTOS COURTESY OF LUKE RESOP, MSU DEER LAB

Bucks in the Mississippi study displayed a wide variety of loyalty to bedding areas. They simply weren't as predictable as people would like to believe.

PHOTOS COURTESY OF LUKE RESOP, MSU DEER LAB

With just days left in the 2024 hunting season, I had one of the best outings of the year.

That afternoon, I watched 15 deer, including three pretty bucks, parade past my stand as they headed toward a food plot to dine. For reasons too numerous to list here, I did not draw my bow on any of those whitetails, but I still count the hunt as one of my highlights of fall.

And the factor I believe was largely responsible for that excellent deer movement was quickly clear to me: I had set up near one of three known bedding areas and caught the deer as they rose from bed and headed toward groceries. Although I could have set up on the food plot and possibly seen the same action, the wind was dead wrong for that spot and forced me to move closer to the bedroom. Because I knew or suspected where deer might be bedded that day, I experienced stellar post-rut action. And although I still have a lot to learn about bedding areas, I count it as one of a whitetail hunter's most valuable skills.

As hunters, we often talk about a buck's bedding area as if it's a well-defined spot that an individual whitetail returns to faithfully. Of course, if that kind of predictability were true, tagging a mature buck would be a lot easier than it actually is. And a recently concluded telemetry study in Mississippi proves that although some bucks are occasionally faithful to a bedding spot, many display no such loyalty. Thanks to the National Deer Association (deerassociation.com/), we learned of a ground-breaking research project that revealed the bedding habits of dozens of mature bucks.

THE PROJECT

The research was conducted in the Big Black River region of Mississippi and involved 60 bucks that were captured from 2017 through 2019 by darting and capture nets and then fitted with telemetry collars.

"The bucks were all at least 2-½ years old," said Luke Resop, a graduate research assistant at the Mississippi State Deer Lab, perhaps the leading site of whitetail research in the country. "I'd put this area up against any place in the country — including the best of the Midwest — when it comes to producing big, mature deer. The cover and food are excellent, and most of the landowners are serious about managing for mature bucks. It's a pretty special place."

The study area was conducted on more than 50,000 acres of mostly private land comprised of a mix of agriculture and large blocks of timber.

"We had excellent cooperation from landowners, who exhibited tremendous buy-in with the project," Resop said. "Most of them agreed to not shoot any study deer, which was a huge help. The telemetry collars sent us location fixes on each buck every 15 minutes for the entire fall hunting season, which opens Oct. 1 and runs through the end of January. So that's 96 locations for each buck every day, and

over a million GPS points were compiled over the course of the study. We analyzed bedding behavior by separating into the following time frames: the entire season, daily, and each two-week rut phase — pre-rut, early-rut, peak rut, late rut and post rut."

Resop and his crew sorted bedding behavior into two types.

"A bedding site was a single solitary location where a buck was stationary for at least one hour," he said. "We excluded all bedding locations in fields and food plots, since whitetails will simply lie down when foraging, especially at night. Since many bucks bed for periods much less than an hour, we consider our inventory of bedding sites to be on the conservative side."

Conversely, a bedding area was considered to be one or more bed sites separated from all other bed sites by at least 100 yards.

"A bedding area could consist of a solitary bed or a string of connected bed sites, each separated from the next by no more than 100 yards," Resop said.

BEDDING BEHAVIORS

As much as hunters would like to believe otherwise, bucks display a wide variety of loyalty to bedding areas.

"Bucks aren't as predictable as people like to think they are," Resop said. "Of course, there are bucks that have consistent and predictable bedding areas and sites. But on average, bucks in this study had 31 distinct bedding areas spread over the four-month period. Remember, this is an average. One buck used 87 different bedding areas, while another buck only used eight areas for the entire hunting season."

Resop noted that the number of bedding areas used by a buck increased steadily during all five phases of the rut, rising steadily from pre-rut to early rut, peak rut to late rut, and dropping off slightly in the post rut.

"Bucks are expanding their search for does in a stair-step fashion as the rut progresses," he said. "They're not only expanding the radius of their search for does, but the beds they use are spaced farther and farther apart as you get deeper in the rut."

Of course, most of us want to know if bucks are returning to the bedding areas they've used previously. The answer is sometimes. Resop and his team called this circuit time and defined it as the time period it took for a buck to return to a bedding area (not site).

"Over the entire study period, circuit time averaged six days," he said. "During the rut, it shortened dramatically and averaged 1.5 days during each of the rut phases. "

Resop noted that about 50 percent of bedding areas were used only one time during the hunting season and the buck never again bedded within 100 yards of that original spot.

"On the flip side, about 3 percent of a buck's bedding areas were used close to 200 times during the fall," he said. "So, a buck will have multiple bedding areas he uses only once but a handful that he really prefers. But that doesn't mean he's predictable. He might come cruising through there on his way to bed, but not necessarily by the same tree or blind location. Bedding areas can be dozens of acres in size."

Another interesting aspect of the study was how bucks used beds according to time of day.

"We were surprised by the percentage of daytime use of beds," Resop said. "About 50 percent of beds were night beds and 50 percent were day beds. The average time spent in an individual day bed was 1.75 hours, and nighttime use was 1.6 hours. The bucks in our study were only spending about 3-½ hours bedded during the day, and that was typically divided into two sessions of just less than two hours each. While they might not move super far — a buck might get up and walk 50 to 100 yards to grab an acorn or some browse — they are on their feet quite a bit during the day. If you're on to a bedding area that a buck is faithful to, it certainly pays to get in there."

SOME TAKEAWAYS

After crunching the numbers (a lot of them), one thing that stood out to Resop was the unique behavior and character of individual bucks.

"You really can't know too much about an individual deer," he said.

"And what you learned about one buck you hunted might not apply to the next one you chase. They're all different, and while the data revealed some general behaviors of mature bucks, it's important to remember that one mature buck might not behave like another."

For example, Resop recalled one study buck with a highly specific fidelity to one bedding site. "He loved the inside bend of a river in the study area," he said. "This oxbow on the river had only one way to get in and out unless you crossed the river, but that buck loved to bed in that spot, and we got several locations of him there. So, it would be tempting to say, 'Well, that oxbow is a great spot for a big buck to bed.' But meanwhile, there's another study buck that lived nearby, and that deer had the opportunity to bed in that oxbow almost any time he wanted to, and he never did. That buck liked to bed out in fingers of timber that jutted out into nearby ag fields."

Resop also noted that the study area might have had a direct influence on where and how often study bucks bedded.

"Cover is not a limiting factor here, and deer have all kinds of bedding options available to them," he said. "You get up in the Midwestern states like Iowa, Illinois, Wisconsin and others, and lots of the landscape is taken up by major agriculture. Once those crops come off in fall, you lose a lot of suitable bedding cover for deer, so it's important to remember that bedding behavior in a different region might be quite a bit different than what we found in our study."

Additionally, for land managers wanting to improve their properties, creating more — and more diverse — bedding areas is certainly a good idea. Although we place a lot of emphasis on food plots, screening cover and stand sites, you can make a strong point that bedding cover is probably more responsible for holding deer on a property than any other factor. So, whether it's a planned logging project, hinge-cutting low-value trees, or planting fields and openings to switchgrass or other native grasses, ensuring deer have security cover should be one of our primary goals. And having multiple, well–spaced offerings (assuming your property is large enough to allow this) is especially important when dealing with mature bucks, which often don't tolerate other old bucks taking up residence close by and will seek out spots where they can bed without disturbance.

Finally, Resop noted that the data revealed by the research represents "only the tip of the iceberg when it comes to buck bedding tendencies," he said. "We didn't examine the influence of wind, weather, hunting pressure and other factors on mature buck bedding behavior. But we've got some really sharp people working on just that kind of information, so I'd consider the information here to be a kind of sneak peek into the topic."

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PLANTING CEREAL GRAINS FOR FALL FOOD PLOTS

Brassicas might get more love, but these grains provide quality nutrition and improve hunting. Best, they're easy to plant.

■ by ***Gerald Almy***

As the orange sun slipped behind the oaks and hickories lining the green field, I saw the gray forms of my quarry. Does spilled out into the food plot first, followed by a fork-horn. Then slowly, I glimpsed the tall, mature 11-point I had been watching with binoculars and trail cameras. A wide-racked 8-point that usually accompanied him was there, too.

Waiting for a broadside shot, I aimed the cross-hairs of the scope just behind the tall buck's shoulder and squeezed. The deer scattered like a flushed covey of quail, but it was clear the oldest buck was not going far. Waiting patiently, I finally climbed down from the stand and found him on the edge of a creek slicing through a nearby woodlot.

That buck could have been taken on one of several Imperial Whitetail Clover plots on my land in northwestern Virginia. The deer could also have been shot at a radish or brassica field. However, I took him over a type of forage many deer managers have come to neglect in recent years: cereal grains. More precisely, it was the Whitetail Institute's blend of those forages: Imperial Whitetail Oats Plus Triticale.

Brassicas seem to grow in about every food plot you see nowadays. But the old-timers who planted acres of green fields in years past — mostly cereal grains — knew something. That's why those forages were their choice for deer hunting for decades. They knew that cereal grains attracted whitetails for hunting and also nourished the animals for long periods.

The longevity of those fall and winter annuals was demonstrated to me vividly when the wide 8-pointer I passed up in favor of the 11-point that day was still feeding in a Whitetail Oats plot on my land in March, soon before dropping his antlers. That deer had obtained vital nutrition there since September, when I planted the plot, until spring.

The takeaway from those experiences is clear: Cereal grains are great choices for attracting deer, enticing them to stay on a property, providing nutrition and improving hunting by creating evening feeding destinations near good stand locations.

Cereal grains offer high levels of carbohydrates and are prime sources of energy. Both qualities are important to deer as autumn arrives.

GENERAL BENEFITS

One of the most important things I do as a deer manager and food plot writer is to analyze forages and rate them for specific qualities. Traits I look for in choosing what to plant on my land are important on every whitetail property in North America. They include high protein content, palatability, digestibility, resistance to overbrowsing, ease of growing, low cost, drought hardiness, adaptability to various soils, cold tolerance, a lengthy period of availability and benefits to the soil. The Whitetail Institute also studies those traits and others when selecting or creating forages to include in its products.

No plant will score perfectly in all those features, but the best cereal grains rate high in a surprising number. And the Whitetail Institute's offering in this category of food plot blends stands out — Whitetail Oats Plus Triticale.

Before looking at why this blend offers the best combination of cereal grains for most food plot situations, let's delve into more background on why these forages are important for a deer management program.

PLUSES OF CEREAL GRAINS

First, cereal grains offer high levels of carbohydrates and are prime sources of energy. Both qualities are important to deer as autumn arrives and the animals face the stress of the rut followed by the challenges of winter's cold weather and dwindling food supplies.

They also are highly digestible forages. Cereal grains are easy to grow and thrive in various soils. Whitetails love their taste (palatability), and the plants can withstand heavy feeding pressure and bounce back strong with fresh new growth.

Cereal grains also benefit the soil in many ways. Planting them helps prevent erosion and reduces moisture loss from the soil. The roots of these deep-growing grains can scavenge nutrients and deposit them near the surface, where they're available to forages with shallower roots, such as clover. Their roots also drill through hardpan and aerate soil, reducing compaction.

Cereal grains suppress weeds and provide a good choice for crop rotation after legumes are grown by taking advantage of the extra nitrogen legumes leave in the soil. Grains can also suppress harmful nematodes and create valuable organic matter.

They are particularly beneficial during early fall, when many native plants have low palatability and are drying up from summer's heat. Brassicas are good for this period, but sometimes, it takes cold weather before they begin attracting deer in numbers. Cereal grains, on the other hand, begin attracting deer to food plots almost immediately. I've had deer feed on my Whitetail Oats plots within a week after sowing them. In many areas of the country, these grains survive through winter and see a flush of new growth in early spring — another period when native foods are often scarce.

A final plus of cereal grains is that they can be used as nurse crops to protect lower, slower-growing plants such as clover during their early development stages. They do this by taking feeding pressure off the clover or alfalfa, offering shade, and returning moisture to the soil.

Cereal grains are great for newcomers to food plotting because they are so easy to establish. They'll emerge in just a few days and attract deer within a week or two. This takes pressure off other cultivars you've planted, such as brassicas and native browse, allowing you to carry a larger deer population than properties without them.

That's the broad case for cereal grains. Now let's look in more detail at each of the cereal grains that are of most interest to food plotters.

RYE

This grain was brought to our America by English and Dutch settlers to use for making flour for bread. Rye's major strong point is that it's easy to grow. It withstands drought conditions well and will last through winter in most regions. It tolerates acidic soils and shade well, making it a good component in small amounts for kill plot mixtures.

Rye forage tonnage can range up to 5,000 pounds per acre. Although it can grow higher than 4 feet, it's most useful for attracting deer when it's in the 2- to 6-inch range. Whitetails don't consume the seed heads, so there's no benefit to letting rye mature.

Rye protein levels are typically modest, at 9 to 15 percent.

WHEAT

Wheat has long been attractive as a food plot forage, especially for folks on a limited budget. It grows fast and tolerates cold, drought and wet soils.

It will grow in areas with only minimal sunshine, making it a good ingredient in small woods kill plots, such as Bow Stand and Secret Spot. Wheat likes a more neutral soil than rye, but you don't need the pH as high as that for clover. A 5.8 reading or higher is adequate. Protein can range up to 15 to 20 percent. Acid detergent fiber levels are in the 20 to 25 percent range, close to those of oats.

Wheat mixes well with brassicas, winter peas and annual clovers. Planted alone, it can yield 5,000 pounds of forage per acre.

Wheat planting dates range from July in the North to October in the South. Do a soil test and follow the recommendations, or use a 20-20-20 or similar fertilizer mix. And remember, almost all cereal grains, including wheat, can benefit from adding urea, such as 46-0-0 or 34-0-0 a few weeks after planting or if the leaves start looking pale and yellowish instead of deep green.

Deer prefer wheat in the 4-to 6-inch range. If you don't have enough animals to keep the crop down to that height, mow it when it grows taller. Fresh new shoots will emerge.

OATS

Oats originated in the Middle East many centuries ago. When thriving, they should be a rich green color. Although they can grow quite tall, deer prefer them at about 3 to 8 inches. Apply urea at about 50 pounds per acre a few weeks after planting or if the leaves turn yellowish or pale green.

The protein content of oats is excellent, in the 15 to 20 percent range, but these plants do not tolerate excessive heat well or wet areas.

Oats are one of the most favored cereal grains for taste appeal to deer, with wheat a close second. Its acid detergent fiber — the indigestible portion of the plant — often measures below 20 to 25 percent, which is excellent. Oats perform beautifully as nurse crops when planted with perennial clovers. They can produce more than 2 tons per acre and withstand heavy browsing pressure.

Oats are the major component of Whitetail Oats, but not just any oats. The type of oat that forms the backbone of the Whitetail Institute's cereal grain offering was discovered in a scientific study aimed at finding a good forage for cattle. This oat was so appealing to deer that it had to be eliminated from that study. The whitetails in the study area devoured it, making it almost useless as a cattle crop. The Whitetail Institute bought exclusive rights to that oat, and it's now the main ingredient in its cereal grain offering.

TRITICALE

This plant is a cross between rye and wheat. Several agricultural scientists were working on similar projects and developed this new forage in labs in Sweden and Scotland around 1875. The grain is rated higher in protein content than wheat and combines the yield potential and high digestibility of wheat with the disease resistance and cold-tolerance of rye. It also grows in more acidic soil than wheat. Whitetail Institute owns an exclusive Triticale variety 1031-1 that is extremely preferred by whitetail deer. 1031-1 is used in several Whitetail Institute fall mixes.

THE RIGHT MIX

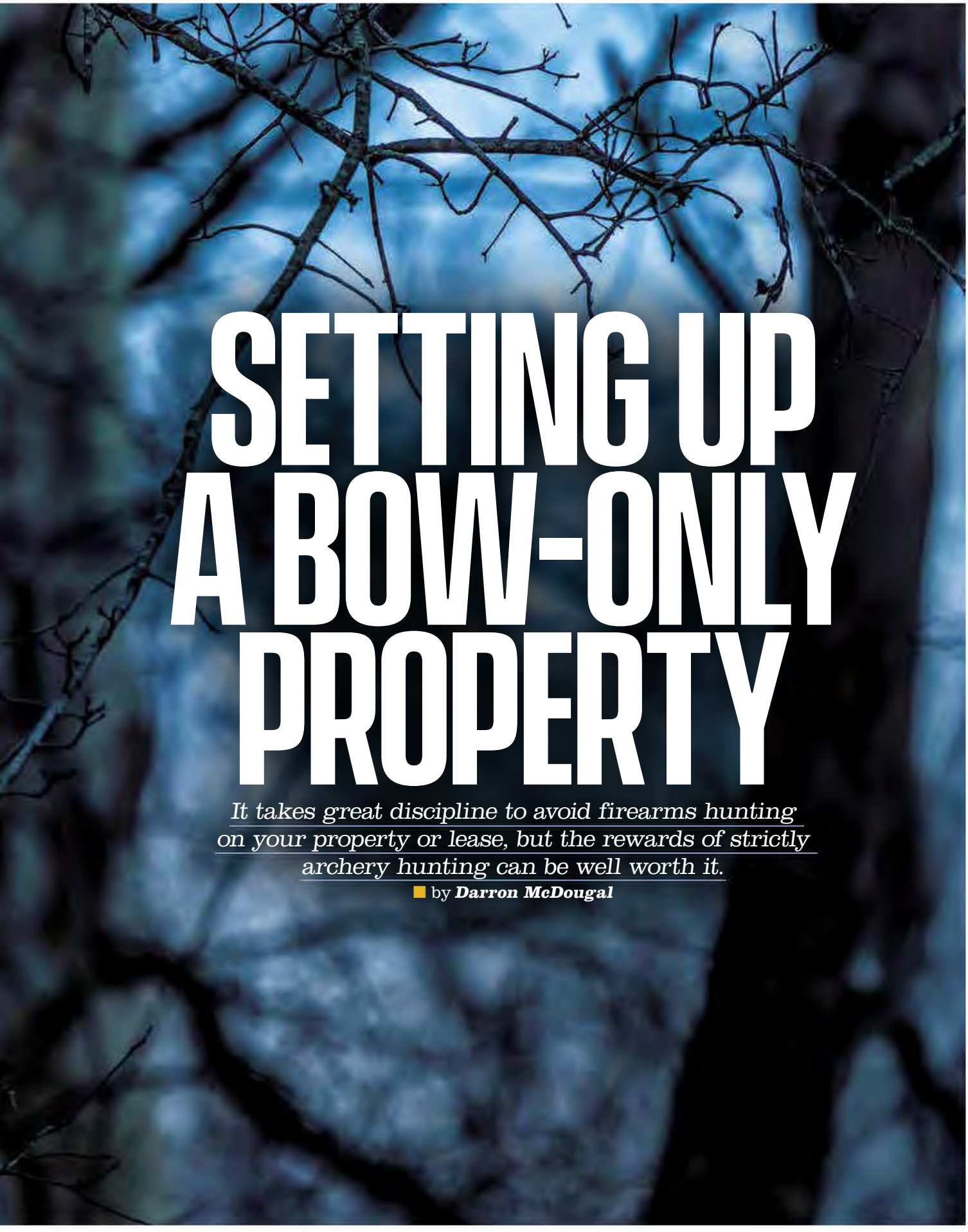
OK, there are the four major varieties of cereal grains used in food plots. So why not just plant a field of wheat or generic oats bought from a farm supply store, or make your own mixture of these? I've tried that approach, but the plants available are nowhere near as hardy or tasty to bucks as Whitetail Institute's mixture, which features the premier high-sugar oat for deer, available nowhere else. That major component is mixed with the right amount of triticale and a small portion of wheat.

Homemade cereal grain mixes do not attract deer in the numbers that Whitetail Oats Plus Triticale does. And why go through the bother? You won't have the main components that makes the Whitetail Institute's blend so palatable to deer — the exclusive Imperial Whitetail Oat and exclusive triticale.

I've found that deer relish this cereal grain blend for hunting and after hunting seasons close, for simply attracting deer to my property. Few things are more enjoyable on a cold, late-winter day than watching a mature buck that survived bow and gun seasons feeding in a green Whitetail Oats field, like the 8-pointer I saw this past March. You know those bucks will be around in fall, with bigger, heavier racks.

Yes, brassicas will still get the most attention from deer managers for fall plantings, but cereal grains should definitely be a part of any whitetail management program.

PHOTO COURTESY OF BUSHNELL



SETTING UP A BOW-ONLY PROPERTY

It takes great discipline to avoid firearms hunting on your property or lease, but the rewards of strictly archery hunting can be well worth it.

by ***Darron McDougal***

Because of a firearm's extended range, it's tempting to grab your gun and go hunting because everyone else is. But it only takes one false move to push a buck from your property and into someone else's cross-hairs.

PHOTO BY TESS ROUSEY

It's the opening morning of gun season. The hot coffee from your thermos hits just right as you await legal shooting light. With a few minutes until go-time, you hear leaves crunching behind you. You shift and lift your binoculars to identify the deer. It's the buck you've been after. Suddenly, he snorts and bolts because he hit your downwind airstream. He's gone.

To add insult to injury, you hear gunfire minutes later on the neighboring property in the exact direction the buck fled. Later, your neighbor texts you a picture of the buck that you were minutes from harvesting. Even if your neighbor is a great guy or gal, it stings a little bit, doesn't it?

Depending on your property's location, firearms seasons can be extremely chaotic and impose immense pressure on your neighborhood's deer. The sudden influx of human disturbances is an immeasurable change that deer will see, hear and smell. In most cases, deer immediately abandon the patterns they were on before the onset of gunfire, and survival becomes their primary focus.

In areas where the gun-hunting pressure is relentless, deer tend to hunker down during daylight and move between bedding cover and food sources only at night. Often, the only thing that will get them moving from their bedding areas in daylight is a hunter bumping them from their beds. If you're not into doing deer drives, gun season can be a frustrating time to hunt.

Considering all of the pressure, deer commonly seek the area's thickest and most secluded cover, and many will hide out in such locales for the remainder of firearms season and beyond. The good news is that your property can be the refuge where deer go as the chaos unfolds on every side. Reserving your property strictly for archery hunting reduces pressure and makes your land a safe zone.

Let's discuss how that might look.

FIRST THING

If you want to essentially invite deer to take refuge on your land while the crowds invade adjacent properties, the first and most important step is to have or create a sanctuary. This is a portion of your property that you never go to other than to assess and maintain it once a year during spring. The sanctuary must offer dense cover for security and protection from inclement weather. If you manage a large property, you might consider having more than one sanctuary.

If your property lacks a dense area suitable for a sanctuary, making one doesn't always require big equipment. In some cases, thickening up cover from the ground to about chest or head height can be as simple as hinge-cutting several trees. The horizontal tree trunks will decrease visibility, plus the additional sunlight hitting the forest floor will allow natural vegetation to sprout and flourish.

You can also look into adding thermal cover around the perimeter in the form of cedars or junipers. Inside the sanctuary, make sure that deer can easily walk about. Then, leave it alone, and deer will use it as a refuge most of the year, but especially when the firearms pressure spikes. You'll have more deer, and they'll feel safe and secure.

GET THE SHOT, OR GET OUT CLEAN

■ If you want to reserve your property for bowhunting, one of the keys is to set it up for bowhunting. It's always fun and exciting to encounter a shooter buck, but when those encounters happen just beyond your archery range, it becomes awfully frustrating. And the more you're close to deer and don't get a shot, the more likely they'll catch on to you.

If your property is truly a bowhunting-only property, you must set it up to get shots at deer. In other words, why sit on the edge of a 3-acre Imperial Whitetail Clover plot when you could create a small kill plot somewhere between a bedding area and that larger clover plot? Your goal must be to create tight setups that funnel deer within easy archery range. Otherwise, you'll face needlessly long shots or have no shot as your target buck feeds beyond your effective range.

Having a sanctuary, food and water are important, but how you lay out those necessities can have a big impact on your archery success. Consider ways to manipulate the way deer enter food sources to put them within easy arrow range.

If you don't get a shot for one reason or another, the next important step is to get out undetected. If you're hunting over a destination food source, that becomes very difficult. If you hunt away from the main food source over a small kill plot, waterhole or travel route, you'll likely be able to leave without spooking deer, making little to no impact, which is the point of archery-only hunting.

FOOD AND WATER ARE NEXT

The key to attracting deer that are being pressured on other properties is to give them everything they need. We already discussed the shelter aspect, and the next components are food and water. If your property doesn't have a constant water source, look into adding a pond or at least a water hole.

Next, have food sources that appeal to deer all year, but particularly during the firearms season. Firearm seasons occur between October and January in most cases, and that's when deer will be on winter food sources, such as corn, soybeans and brassicas. Without the proper food and water, deer will leave your property to eat and drink, making your sanctuary less attractive. Mitigate that by giving them everything they need.

SHOULD I BOWHUNT DURING GUN SEASON?

A firearm's report causes a lot of disruption, and deer quickly sense the danger. That, coupled with the increased commotion of hunters yelling, riding ATVs and other things, gets deer displaced and off their patterns. If legal, you might think, "What if I bowhunt during firearms seasons?" That's a valid question.

When considering that option, you must ask yourself about the odds of being winded or potentially bumping deer. Most gun-hunters are hunting regardless of the wind and other factors because they only get to hunt a handful of days annually. If you hunt with that mentality, especially thinking that other hunters might bump deer to you, you could land yourself on the radar and instead push deer off your property and into someone's cross-hairs. It's a risk.

If you have really tight access and believe you will have the buck you want in front of you, go ahead and hunt if the wind is suitable for your stand or blind. But if you don't have a buck on your camera in daylight or the wind is wrong, hunting might do more harm than good. In that case, you're better off letting the gun season pass and giving deer time to settle down. Introducing your own pressure on a property where the deer thought they were safe could push them off or make them move nocturnally, which they already have a tendency to do. Use solid discretion when deciding whether to bowhunt during gun season.

FINAL THOUGHTS

Given a firearm's extended range, it might be tempting to grab your gun and hunt, especially if you've had a difficult bow season. But if you're a dedicated bowhunter and would rather have the satisfaction of bow-killing a buck, reserving your property as bow-only can be a wise move. As chaos ensues on the surrounding properties, leaving your property alone during the gun season can make it a refuge of sorts where the deer will feel safe.

If you didn't fill your bow tag before firearms season, you can almost count on a more productive late bow season if you make your property a safe zone while guns blaze all around. That's why you should consider making your parcel or lease a bow-only property.

Journaling your management and hunting efforts is satisfying and rewarding, and it doesn't require much work. ■ by ***Scott Bestul***

FOR THE RECORD

■ Use trail cameras to obtain vital information that can sustain management and hunting efforts.

With another deer season in the rearview mirror, I settled down to take in the only thing I liked more than hunting: reading about hunting. And it was no expertly penned text, but pages of scrawled notes and sloppy drawings. It was the hunting journal I'd kept to record the events of the first year I'd vowed to get really serious about hunting mature bucks. What I learned as I pored over the pages surprised me and served as a wake-up call.

For example, I learned I stood as much as a 70 percent better chance of seeing a mature buck if I hunted from Tuesday through Thursday as I did on almost any weekend. Three stands for which I thought I knew the perfect wind resulted in zero deer sightings when I hunted those sets during those wind directions. And morning hunts resulted in more buck sightings than afternoon sits, provided I waited for the last week of October and pushed things no further than late November.

Although those findings were far from scientific, they were based on the personal experience of a young bowhunter desperately wanting to get better at the sport he loved. And perhaps equally important to the information I gleaned from my entries was the pure enjoyment of recalling hunts, deer sightings and wildlife encounters I'd surely have forgotten had I not taken a few minutes to write them down. I'd long poked fun at my little sister for her laborious devotion to her diary writings, but after reading through my journals, I had to admit my younger sibling might be onto something.

Truth is that record keeping can be one of the most important exercises undertaken by a serious deer hunter and land manager. Having an account of what went into a season's worth of scouting, shed hunting, foot plotting and hunting can serve as a reminder of things that went well — and what didn't — and serve as a springboard to greater success in the future. If you're anything like me, your memory can be tack-sharp about some things but maddeningly hazy about others. Or you might experience amazing clarity about your activities for the year but then realize that focus only exists in your short-term memory.

Although many of us acknowledge that record keeping might be beneficial, it's easy to write it off with various excuses. I'm not a writer. I'm too tired at the end of the day. I'm not sure how it would benefit me. There's not enough time. Blah, blah, blah. Trust me, I get it, but for the cost of a few minutes at the end of a day, you can create a thorough account of what you did, how you did it and what your results were, while becoming a little better than you were the day (or the year) before. Here's a look at some record-keeping categories that can fit the bill.

FOOD PLOTTING

If you're reading this magazine, you probably have some experience constructing, planting and maintaining food plots. And chances are, some of you are experts in this area or getting very close to achieving that goal. But let's be honest. Almost all of us — especially me — can get better, and the Whitetail Institute's Jody Holdbrooks has the answer. Holdbrooks, who heads up the company's Next-Level Consulting service, says Whitetail Institute's Plot Perfection app is the perfect tool for perfecting your food plot efforts.

"I view it as a database that tells me exactly what I've done on every plot I plant and can give me guidance about what to do in the future," he said.

"Then I soil test each plot, using the Institute's service," he said. "The soil test results flow automatically into the app for easy access. One of the great features of the app is that it automatically stores this information for you, allowing you to track your progress from season to season.

Another Plot Perfection feature Holdbrooks enjoys is its ability to make input recommendations according to what you might want to plant.

"One of the biggest mistakes — besides not taking a soil test — that I see people making with food plots is an unwillingness to rotate crops," he said. "You can typically get four to five years off an Imperial Clover plot, but then it's time to get brassicas or another annual in there. And you can't milk that plot with the same crop for more than a couple of years before you risk disease issues. Plot Perfection keeps track of exactly what I've planted from year to year and gives me a path to follow to make smart decisions as I plan."

For relative amateurs like me, Plot Perfection is the perfect tool, as I honestly struggle sometimes to remember what I planted in each of the dozen or so plots I plant every year. Oh, I scribble notes on whatever paper I can find and vow to put them in an accessible place when I get home. But typically, I'm so busy that the paper gets tucked in a jeans pocket and then run through the washer before I can rescue it. I know I can get much better at food plotting, and with the simplicity of this app, I actually stand a decent chance.

TRAIL CAM LOCATIONS AND PICS

I imagine I was like most hunters when I started to run trail cams. I just wanted to know what was out there that I wasn't seeing from my deer stand, and of course, cameras provided plenty of cool info on that front, clueing me in to bucks I was unaware of, and fueling my fire to spend as much time in the timber so I could see the bucks I knew were present.

But it didn't take long before I realized that cameras could provide me with more than just eye candy. They could be mined for vital information to sustain my management and hunting efforts. Several managers told me how they used summer camera surveys to determine buck-to-doe ratios and fawn recruitment as they headed into another hunting season. This information helped them decide on an appropriate antlerless harvest for the year, as well as the start of a shoot/don't shoot list of bucks on a property. In addition to serving as a great example of citizen science at work, those summer surveys also helped build excitement for the upcoming hunt and got hunters talking about deer and getting on the same page with management goals.

However, keeping cameras operational after the season begins yields even more valuable information. When bucks shed their velvet, I switch almost all my cameras from mineral or food plot sites to mock and real scrapes. The best scrapes will receive visits from almost every buck in a given neighborhood and clues you into the presence of bucks you know plus any nice strangers that show up. And I learned in a hurry to pay close attention to the data strip on any buck picture. I want to know what day the buck hit my scrape(s), but also the time, wind direction and weather conditions at the time. That's especially important info for a typically nocturnal buck that suddenly shows up during shooting hours. A rare daytime pic might be a fluke, but I rarely regard them as such. Something different likely got that buck on his feet, and I want to get an idea of what that was, as I want to be in the timber when those conditions exist again. I've also learned that cameras can give us a glimpse into yearly patterns. I nearly killed a 10-point monster this past fall that appeared at a scrape on October 29. I was sitting in that spot because I had a picture of that same buck hitting the same scrape exactly one year earlier. I had no idea why he chose to show up there on that day, but I didn't question his behavior. I simply capitalized on it, and only a touch of bad luck (a doe that ran past and distracted the buck into a chase) kept me from getting a shot on that deer.

The cool thing about record-keeping with trail cam pics is you don't have to do any writing or extensive extra work. I simply create folders on my laptop devoted to specific scrapes, or food plots or funnels, and then save any pics of good bucks in those folders marked according to year. Then, any time I'm looking for cam data about a particular buck, I simply open the appropriate folders, and the information (with great pictures) is right there in front of me.

HUNT STATS

In my mind, this is perhaps the easiest record-keeping to accomplish. Just take a few minutes after each hunt to record some information — from the basic to the complex — about your experience. I like to craft a simple form on my computer and print out a bunch of sheets, which I stick in a folder or binder. The form typically includes the date, wind direction, weather conditions (including barometer stats), time of day, stand/blind location, and the number of deer seen (with separate categories for bucks and does). If you just record this basic information for every hunt, you'll have a solid and valuable record of your experience for an entire season.

You can then mine this data for details, such as the best weather conditions, whether you had more success on morning or evening hunts, proper winds for each stand or blind, and — as I alluded to at the beginning of this account — what days and conditions you're most likely to see any deer versus a mature buck. Those stats serve as a living record of what's working for you as a hunter/manager and what you can strive to improve on.

Of course, if you have no trouble sitting down and devoting a few extra minutes, you can take things a step farther than simple stats-keeping. At the end of each day's entry, I leave a section for comments and memories, followed by a chunk of blank lines. Here's where — when I'm feeling up for it, which I usually am — I record any impressions of the hunt, including the deer I saw, how they behaved, any notes I have for myself and any changes or improvements I might make for upcoming hunts. I also like to record memories of cool events that happened during a hunt, and these often become some of my favorite parts of journal keeping. For example, the night I shot my first Pope and Young buck many seasons ago, I also recalled seeing a pair of gray fox climb up a tree to chase a squirrel. I've also enjoyed entries that note the first flush of migrating tundra swans, a fisher humping through the December woods in search of food, and the time a sharp-shinned hawk mistook the fletching on my arrows for a songbird and nearly strafed me.

HARVEST DATA

Of course, one of the most important pieces of information we can keep are stats related to the deer we kill. These serve as arguably the most concrete evidence of herd health and age structure and how well our management efforts are working.

Like most examples of record keeping, this can get as complicated as you want. As a baseline, it's a good idea to weigh each deer you kill. Whether you record live weight or field-dressed weight doesn't really matter, as long as you're consistent. Aging is another category that can indicate herd health through time, and again, this can be as simple as dividing deer into mature or immature categories, or as exact as jawbone aging or cementum annuli data, where you send a tooth to a qualified lab for exact aging. Most groups I know start with the basics and then get more serious as time goes on.

It should be noted that this data is gathered for does and bucks. Of course, including the gross score of any antlered deer is good information, and an approximation of the buck's age can be a good measure of any efforts you're making to advance deer into older age classes. And other data —such as location of kill, and the date, time, and weather conditions — can be a helpful indicator of the best hunting sites and best conditions for hunting.

CONCLUSION

This story clearly contains a pile of information — enough that it's tempting to think, "This is too much. I'm not doing all that." And that's the best news. If you're not record keeping now, getting started can be as simple as picking one of these suggestions or categories and adopting it into your management plan. Accomplishing that will put you miles ahead of where you were the year before, and I'm guessing when you recognize the benefit of that set of data, you'll start thinking about adding another category the next year, and perhaps another after that. But whether you dive all-in to record keeping or just keep a few simple yearly stats that don't subtract from your joy of hunting, my guess is you'll have a wonderful time and learn a lot.

Sometimes, even the best-laid plans can fall apart. However, a bare table doesn't always mean an anti-climactic end to your season. Manage what's within your control, and success will always be measured one whitetail at a time.

by ***Kristopher M. Klemick***

MANAGING SUCCESS ONE WHITETAIL AT A TIME

If you're fortunate to plant numerous acres of food plots across vast tracts of land, experiencing a failure with one plot isn't the end of the world. You can typically pinpoint it back to specific circumstances, such as poor soil conditions, improper seedbed preparation or excessive weed pressure.

But what happens when failure strikes someone who can only plant a limited area? There's significantly less room for error.

Worse, if it's someone new to habitat management, land managers collectively run the risk of seeing a potential cohort throw up their hands in disgust and walk away. No one who invests time, effort and money planting food plots or establishing mineral sites wants to see them flop, but if they do — although it's discouraging — understand that success is multifaceted and ever changing. A bare table doesn't always mean an anti-climactic end to your season. When we consider what's within our control and manage expectations, success will always be measured one whitetail at a time.

PHOTO BY KRISTOPHER M. KLEMICK

■ Seemingly minor setbacks or challenges often end up being much larger than expected. Here, the author's brother extracts a "small" obstruction from their seedbed.

MAINTAIN A BOOK OF RECORD

It's easy to lose track of time, misplace seldom-used items or forget various ideas and plans we once determined worthy of consideration. That's why it's important to keep some sort of annual documentation for reference. I maintain a comprehensive set of notes and information related to anything performed at our property each year.

I record fertilizer prices, soil test dates — including the results — and action taken for each plot. Food plot details include soil preparation, seeds planted, dates, challenges and progress, weather conditions throughout the year — including monthly rainfall totals — an overview of how the weather affected planting dates, the plot's ultimate growth and more. I also track mineral site applications and their usage. When you're buying mineral by the pallet, it's interesting to see how quickly deer use various sites over others.

LOSING SIGHT OF THE BIGGER PICTURE

It's also easy to get caught up in the whirlwind of challenges that exist today. From conspiring weather conditions, unrelenting demands on our time and ever-increasing prices, it seems there's never a shortage of pressures working against us. That's why it's important to remain positive and focused on the things we can control. If my neighbor decides to plant his almost 100-acre, decades-long fallow field into corn, it will significantly alter deer patterns and the strategies we used to hunt them.

Naturally, we can't limit what our neighbor does on his land, or how deer might use that newfound food source, but we can decide to adapt and find new ways to control how those deer use our property in relation to it.

Another neighbor might choose to clearcut his ground. When some of your favorite stands are no longer perfectly situated between food on one side of the line and cover on the other, the anguish is real when more than 50 acres of previously premier bedding habitat and thick cover is bulldozed in the blink of an eye.

CONTROL WHAT YOU CAN CONTROL

When a storm dropped a foot of snow across most of Pennsylvania a few years ago, I figured there was likely more in the higher elevations across the state's northern tier. Knowing our food plots and deer herd were stressed that year because of a lack of rainfall through summer and fall, I wanted to ensure our plots were easily accessible.

When I arrived at the property two days later, I couldn't believe my eyes at the compressed 3-foot blanket of white stuff. I was even more awestruck upon reviewing trail camera footage of the more than 4 feet that had buried roads, vehicles, food plots and wildlife. Our John Deere 620 got a workout that day and well after dark as I worked to plow off as much of our food plots, roads and trails as I could. Within hours, deer and turkeys were filtering into them from every direction.

In what couldn't be more perfect timing, a doe stepped in front of one of our cameras as the tips of ears from her two yearlings followed a short distance behind her. I replayed those two or three video clips several times, allowing the gravity of the situation to sink in, knowing there was no warmup in the extended forecast and watching as the yearlings struggled to keep up. Though wildlife endures, and mankind has evolved to control many things, weather is not one of them. But our response to it is.

Making food accessible during stressful times is one side of the life-sustaining coin. Offering water is another. Having a natural source of water close to a food plot can amplify its attractiveness, but when Mother Nature struggles to provide, you can keep deer coming if you offer a water source of your own. Start by digging a hole in the center of a shallow or concave depression, and place a plastic drum cut in half, a stock tank from any farm supply store, or even a simple kiddie pool in it so the top rests at or just below its grade. Line the bottom few inches of the form with soil extracted from the area, and you'll be set. On a bit larger scale, you can replace the preformed option with a heavy-duty pond

liner, available at most big box home-improvement or landscape supply stores, to prevent the natural drainage through the soil that would otherwise occur. Replenish either method with water as needed during dry spells, and you'll see more activity than you would without that added feature.

In your quest to provide abundant, high-quality food sources for wildlife, you'll encounter many growing challenges outside of the obvious moisture requirements. Soil pH deficiencies will quickly put the brakes on any dreams for success and are often the No. 1 reason why food plots fail to meet people's expectations. Fortunately, this often-overlooked stumbling block can be remedied through the proper application of lime and fertilizer as determined by a soil test. These inexpensive kits are available through the Whitetail Institute and offer results within days. Simply mail a bag with a few handfuls of soil to the Institute, and the results will arrive in your inbox or mailbox a few days later. They will include corrective actions to neutralize your soil, along with the exact quantities of lime and fertilizer needed. Both are available from ag centers and farm supply stores. Whitetail Institute's free Plot Perfection app makes ordering soil test kits and receiving results very easy.

PHOTO BY KRISTOPHER M. KLEMICK

■ A historic 50-inch snowfall created a management challenge at the author's family property.

With soil pH issues addressed, another fundamental challenge within our control is sunlight — or rather, the ability for sunlight to reach the ground. During fall and winter, when leaves are off the trees, it's easy to find an opening in the forest and decide it would be an awesome spot for a plot, especially if it's situated between a bedding area and food source.

You might pause to review the surroundings and consider the sky above, which appears wide open and full of potential. By spring and summer, however, those branches have filled out and encroached significantly on the initial size of the plot. In fact, the plot might be in almost total shade throughout much of the day. Whitetail Institute offers seed blends that thrive in those conditions, such as BowStand, Secret Spot and No-Plow, which can flourish in as little as three to four hours of broken or filtered sunlight per day. Another option is to push an encroaching wood line back into the forest. The newly increased footprint might make you consider expanding the plantable area of the plot, but remember why it was opened up in the first place.

In my article "Feather that Edge," from issue 34-2, I talked about the importance of feathering the edge of our food plots. This transition zone between the plot and its surroundings contributes significantly to the location's productivity in terms of growth and whitetail usage during daylight. Keep the edge rough, and the results might surprise you.

PHOTO BY KADEN KLEMICK

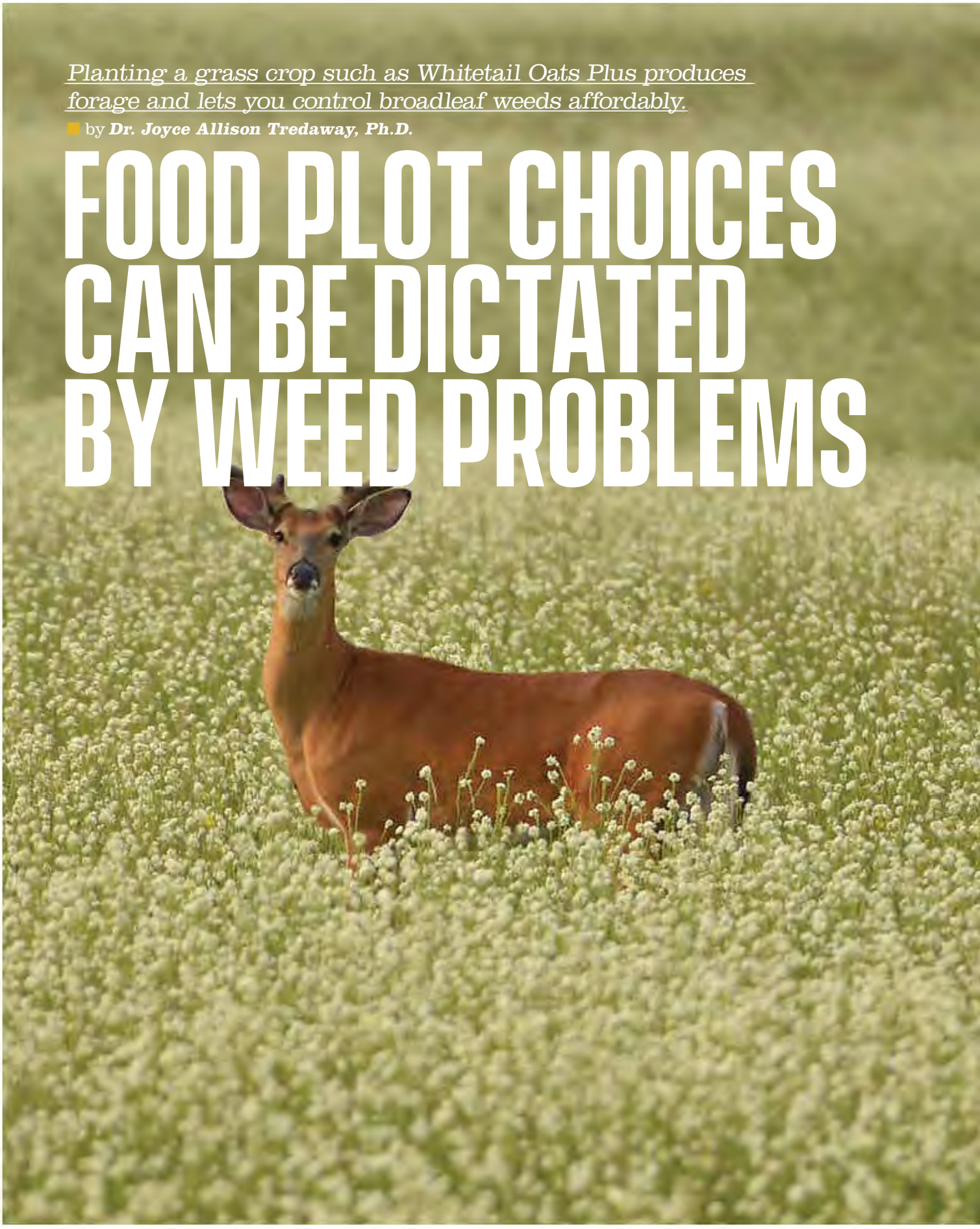
■ The author's brother Joel took this buck in 2023 — a testament to the family's common-sense management program.

No matter the obstacle, no setback is too large. If you stay true to your goals, any challenge can be overcome. Don't skip steps. Sample your soil. Lime where you should. Fertilize when appropriate. Control pesty weeds. Manage expectations, and test your resolve. These are some of the things we can control. Most everything else — including those blessed raindrops from the heavens — will land where they fall.

Planting a grass crop such as Whitetail Oats Plus produces forage and lets you control broadleaf weeds affordably.

by ***Dr. Joyce Allison Tredaway, Ph.D.***

FOOD PLOT CHOICES CAN BE DICTATED BY WEED PROBLEMS



When my two sons are home at the same time for an extended period, they tend to eat everything, and if I'm not careful, I will run out of certain ingredients for their favorite meals. When it's time to make supper, their choices are often dictated by what I have left in the pantry because there was no forewarning about what they ate.

That's very similar to how food plot choices can be made. Because of weed problems you might have faced in previous years, you know there are some forages you should not plant. You can do everything right — fertilize, lime, plant on time, prepare your seedbed and spray a non-selective herbicide at planting — but unfortunately, if a weed seed bank is built up, you'll need a selective herbicide to control the weeds. This article discusses when that occurs and what you can do for weed control.

For example, if broadleaf weeds have been a problem, it would be wise to steer away from planting a broadleaf crop. Planting an annual grass crop such as Whitetail Oats Plus provides a crop deer are attracted to while allowing you the option to control broadleaf weeds in an affordable manner.

FORAGE OPTIONS

Oats Plus is composed of Whitetail Oats and Proprietery 1031-1 Triticale. The main component in Whitetail Oats Plus is the most attractive oat variety Whitetail Institute has ever tested. The Institute first heard about the oat variety through one of its worldwide agriculture contacts, a university research team. The researchers told the Institute about the oat variety, which had been included in a university research project comparing how well various oat varieties performed as grain producers. Researchers had removed the oat variety from the grain production tests because it had been so heavily browsed by deer that it was not a good grain producer. The Whitetail Institute was, for obvious reasons, very interested in exploring the variety's potential as a forage for food plots. Initial tests included evaluating the variety's attractiveness to deer, how well it grew in various climates, and other performance characteristics related to use in food plots. Those tests confirmed that the oat variety is high in sugar and extremely attractive to whitetails, well-suited to a broad range of climates and extremely winter-hardy. Because of the oat's outstanding performance during Whitetail Institute testing, the company purchased the rights to the variety and named it Whitetail Oats. It's only available in Whitetail Institute products.

Oats grow fast and provide quick ground cover. That gives deer tender forage to graze and suppresses weeds through shading. Triticale, a cross between wheat and rye, is known for its cold tolerance. The triticale variety in Whitetail Oats Plus was a product of the North Carolina State University breeding program: WT 1031-1.

Oats Plus is an ideal nurse crop, which is an annual crop used to assist in the establishment of a perennial crop. It establishes quickly and needs little moisture for germination. It grows rapidly while perennial crops are still germinating, and it provides fast cover and early forage for deer while perennial crops such as AlfaRack, Imperial Whitetail Clover and Fusion are establishing.

WEED CONTROL

As stated, weed problems often dictate what you plant. If you have an infestation of broadleaf weeds, planting an annual grass crop such as Oats Plus gives you the flexibility to apply a cheap, effective broadleaf herbicide such as 2,4-D (2,4-diphenoxyacetic acid). 2,4-D is widely used in small grains such as oats and triticale because it's relatively inexpensive and controls a broad spectrum of broadleaf weeds. It has been said that more acres of small grains are treated with 2,4-D than any other crop with any other herbicide.

2,4-D was discovered in 1942 as a plant growth regulator, making it the oldest herbicide available. In 1944, USDA scientists reported that 2,4-D had herbicidal activity on certain broadleaf weeds. It's in the family of synthetic auxin herbicides. The auxins are growth regulators found naturally in plants and are responsible for cell division, and root and shoot growth, which means 2,4-D kills broadleaf weeds by growing themselves to death. The symptomology broadleaf weeds exhibit after the herbicide application is called epinasty. The cells elongate on one side of the plant, causing the plant to bend outward and downward. 2,4-D is absorbed by the plant through foliar uptake, so it has little soil residual activity.

2,4-D can be applied over the top of Oats Plus at any stage, as well as wheat, rye, triticale and ryegrass. However, spraying early (the three-to-six-leaf stage with three tillers) will be necessary for optimum weed control. A crop oil such as SureFire is recommended to be included with the post-emergence application.

IMPERIAL WHITETAIL

RAVISH RADISH

- Annual.
- Available in 10 pounds (plants up to .25 acre) .
- For light- to medium-heavy soils.
- Contains Imperial Whitetail Clover and WT1031-1 Triticale.

IMPERIAL WHITETAIL RAVISH RADISH:

FOR FALL AND WINTER ATTRACTION, AND SOIL IMPROVEMENT

This planting offers tremendous versatility and provides an excellent food source throughout and after deer season.

by ***Jon Cooner***

Ravish Radish is easy to plant, germinates rapidly and establishes quickly, providing substantial early tonnage and excellent attraction.

The past few years, more folks have discovered the substantial benefits certain types of radishes can provide in food plots. I wrote certain types because when it comes to food plots, radishes aren't created equally. And as is always the case, Whitetail Institute is ahead of the curve, this time with Imperial Whitetail Ravish Radish.

The backbone of Ravish Radish is Whitetail Institute's proprietary WINA 412 Radish, which is designed to provide two attractive, extremely productive and long-lasting food sources for deer during fall and winter. Ravish Radish also offers unmatched versatility and even directly improves the quality of your soil.

RAVISH RADISH AS A FOOD SOURCE FOR DEER

Ravish Radish is easy to plant, germinates rapidly and establishes quickly, with superior seedling vigor that provides substantial early tonnage and excellent attraction. Why can Ravish Radish do all those things? Because that's what Whitetail Institute designed it to do. One thing that makes WINA 412 Radish unique is that it's the only radish variety developed specifically for use in food plots for white-tailed deer. Available only in Whitetail Institute products, Ravish Radish has been thoroughly tested across the country to ensure suitability to a wide range of climates, and to provide top attraction and extended availability. The foliage develops quickly, providing outstanding tonnage from early fall through the late season, and it becomes even sweeter after fall frosts. The radish tubers begin to grow right after germination and continue to grow through the fall, providing an excellent source of food for deer through the coldest months.

VERSATILITY

Ravish Radish can be planted by itself, mixed with other seeds or overseeded into existing forage stands to provide additional attraction through variety, early season tonnage and increased availability to deer through winter. When planted with other fall seeds, Ravish Radish can also serve as a nurse crop, protecting the companion plantings from overgrazing while they are very young.

SOIL IMPROVEMENT ASPECTS

"Tilth" is an agronomic term used to describe the suitability of soil for crop growth. Factors include how well (or poorly) the soil can hold moisture, its degree of aeration, and how well air and moisture can move through the soil, and environmental factors. Generally, soils with poor tilth cannot sustain most high-quality forages as well as soils with good tilth. Ravish Radish tubers are a fantastic benefit to soil tilth. Unlike the small, round radishes we see in grocery stores, Ravish Radish tubers can grow much larger and wider, improving soil aeration, which is essential to all plant roots for maximum plant productivity. The tubers also increase soil permeability to water, which decreases rain runoff and improves soil drainage. Finally, any tubers that remain uneaten by deer at the end of winter decompose as spring arrives. That increases organic matter in the soil, which improves the ability of future plantings to use nutrients in the soil.

Ravish Radish can even be sprayed with Arrest MAX to control grasses, if necessary, after planting. It's designed for fall planting only. Ravish Radish is available in 2.5-pound bags that will plant ¼ acre when planted alone or up to 1 acre when mixed with other seeds or overseeded into existing stands. For information, go to whitetailinstitute.com, or call (800) 688-3030.

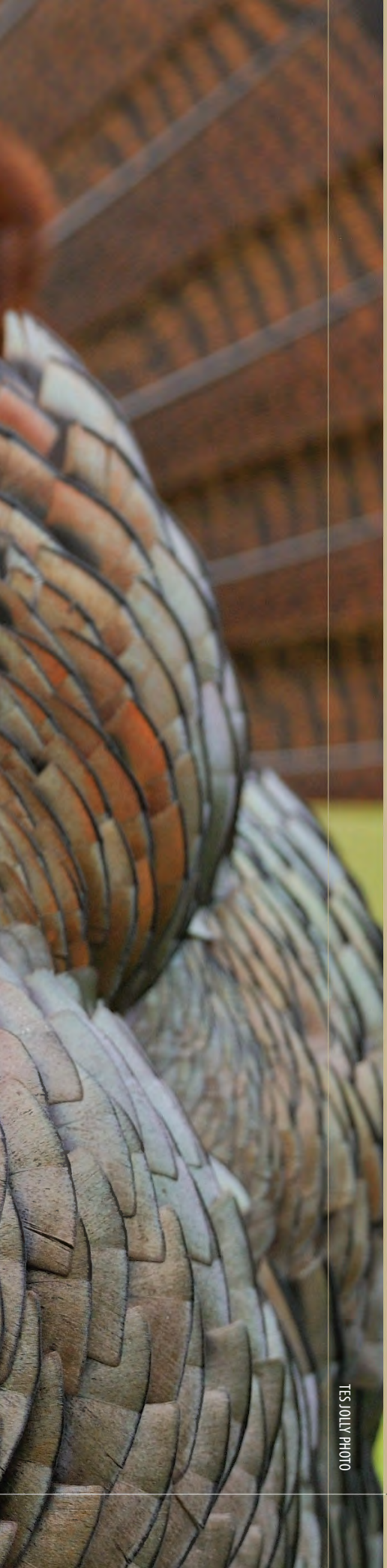
IMPERIAL WHITETAIL

FULL STRUT TURKEY

- Annual.
- Available in 10 pounds (plants up to .25 acre) .
- For light- to medium-heavy soils.
- Contains Imperial Whitetail Clover and WT1031-1 Triticale.

FULL STRUT

FOR TURKEY MADNESS



TES JOLLY PHOTO

Mixed clover plots at critical locations can significantly benefit the health, reproductive success and survival rates of turkeys.

by ***Jason Lupardus***

Mixed clovers can play a crucial role in the diet and overall health of wild turkeys, particularly in terms of their nutritional contributions and seasonal availability.

Quality plants, such as mixed clovers, attract and hold turkeys and other wildlife for many reasons. If you're a turkey fanatic like me, consider taking some time to amplify the chances of creating places where turkeys want to be — or should I say making the turkey madness a reality.

The big takeaway for creating turkey madness is having a properly managed property with a diversity of habitat that yields a smorgasbord of food. Mixed clover plots can be integrated at the most desirable locations, and if you have ever looked at the crop and gizzard of harvested turkeys in areas with these protein-rich clover blends, it becomes apparent why you need to have this as a structural habitat component on the landscape.

Clovers are rich in protein, which is crucial for turkey muscle development, feather growth and reproductive health. During breeding and nesting seasons, protein is especially important for hens to produce viable eggs and for poults (young turkeys) to grow rapidly. Clover plots provide direct and indirect enhancements for turkeys, as clover attracts an abundance of insects that feed on the highly nutritious leaves and flowers. The high protein content in clovers supports the energy needs of turkeys, letting them efficiently forage and conserve energy, which is critical for survival of birds that tend to cover a lot of ground.

Additionally, clovers provide an abundance of essential minerals, such as calcium, phosphorus, magnesium and potassium, all of which are necessary for bone health, muscle function and overall physiological processes. They contain vitamins A, B, and C, supporting vision, immune health and overall vitality. This nutrient variety is particularly important when weather conditions can negatively affect other native plant communities. But keep in mind that nutrient availability in plant species is maximized when you have ideal pH in the soil, so make sure you do some soil testing in advance, and make necessary amendments to ensure you are maximizing the nutritional quality at your location. Chat with one of the Whitetail Institute professionals, as they can provide guidance on three top choices for attracting Turkeys. Full Strut, Imperial Whitetail Clover and Fusion.

Nitrogen-fixing clovers are among the first plants to emerge in spring, making them an early-season food source for turkeys when other plants are still sparse. The diversity of clover types helps provide maximum nutrition throughout the growing season, as each clover type has a different peak production time frame.

■ The field at top left was planted with Full Strut during late October 2024. The images at top right and bottom left show ladino clover, red clover, vetch and triticale. The plot was full of insects that turkeys seek out. At bottom right, you can see the results.

Another benefit is that they often have a long growing season and can persist into late fall, providing a steady source of nutrients even as other forage plants die. More lush green plants attract and maintain insects, which creates the perfect areas where turkeys want to be year-round.

The size and diversity of flower heads in clover plots are attractive to turkeys. Over the years, we have seen many turkey crops and gizzards stuffed full of small, colorful flowers along with a mix of insects. Hens tend to bring their growing poults into these areas because of the high-quality diversity of food. When these areas are managed well, it's a buffet-style banquet for birds.

Overall, mixed clovers provide a nutritious, accessible and seasonally adaptable food source for turkeys. Take a moment to check out Full Strut, as this seed blend provides high protein, essential vitamins and minerals, and digestibility to make them a cornerstone of a balanced turkey diet. Encouraging the growth of mixed clovers in turkey habitats can significantly contribute to the health, reproductive success and survival rates of turkey populations. Most important, you will have many happy hens and a level of turkey madness that you want to experience on your property when you sit down to make memorable spring moments watching a gobbler in full strut.

Editor's note: *Jason Lupardus is a certified wildlife biologist with 20 years of experience. He currently serves as the CEO of Turkeys for Tomorrow.*

TWO DAYS, TWO DEER

An Imperial Clover food plot helped a father and son overcome a challenging schedule and enjoy an unforgettable experience.

by ***Steven Staub***

Sammy took his first deer, a doe, on Oct. 18. He followed up the next day by taking a buck.

Sammy, my 9-year-old, recently harvested his first deer. He's been eager to hunt like his older siblings, constantly asking me to take him out. The main hurdle was finding time for a hunter safety course, especially with all the children in sports and me coaching soccer. We opted for an online interactive course, which turned out to be an exceptional experience. Sammy, who isn't a fan of traditional schooling, was thoroughly engaged and found the course very informative. My other two children took the in-class course. Although it was good for them, it didn't captivate them like the online course did for Sammy.

After the course, planning our first hunt was challenging. Youth weekend on Nov. 16 clashed with Sammy's soccer tournament. Instead, we considered the early muzzleloader season, which was weeks before the youth weekend. The season started that week on Thursday, and we weren't ready. We often shoot guns, but not the muzzleloader. That night, we sighted it in at our private range, and the muzzleloader was right on target.

The next morning, Oct. 18, Sammy was incredibly excited, reminiscent of my own childhood anticipation. We settled into our blind early and listened to the woods awaken. He had school that morning. Around 6:45 a.m., we spotted six does. One dominant doe controlled the group, and after 45 minutes, the group entered the Whitetail Institute Imperial Clover food plot Sammy helped plant with his siblings years ago. When the doe offered a quartering-away shot at 45 yards, Sammy took it. Smoke filled the plot, and when it cleared, we saw her down. After some tears and a lot of shaking, we hugged, and I told him how proud I was to share this moment with him. His mom had just returned home from work and was the first to receive the exciting news. I've been fortunate to have similar experiences with all three of my children. We savored the moment before recovering the deer — a true blessing.

The adventure continued the next morning, Oct. 19, as we pursued his first buck. Sammy's excitement was renewed. Within 20 minutes, a small 4-point buck appeared, and Sammy made another excellent shot. This time, he saw the buck run through the smoke and disappear. I told him to listen, and seconds later, we heard the crash. He tracked the buck into some thick brush and found him. Overcome with emotion, we hugged amidst more tears. Again, his mother was the first call, followed by pictures.

The timing couldn't have been better. Sammy didn't miss his tournament, and his siblings also had successful hunts during the opening youth weekend, each bagging nice 8-pointers. These moments are rare and precious, and despite how busy life gets, they make it all worthwhile. They're only home for a short time, so we cherish every minute.

"BUTKER"

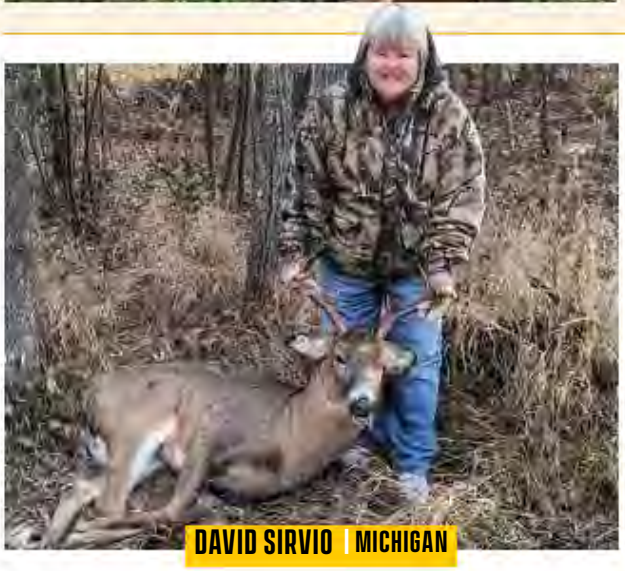
CLINT BARNES | KANSAS

■ Here's the story of "Butker." The buck was named by the landowner I have permission from. He is a huge Kansas City Chiefs fan, and the buck's brow tines looked like field goal posts, so Butker got the nod. I first got pictures of Butker in 2022, but I estimated he was 4.5 years old. I elected to pass him and see how he would grow. Beets and Greens, Chic Magnet, and Fusion were used to keep him in in the area. In 2023, he showed up with a drop tine and long sticker point. Passing him the year before paid off. I harvested Butker in November 2023. His body weight was massive. Forky was harvested at 5 yards. The story was featured in North American Whitetail Magazine.

MY TROPHY WHITETAILS

CLINT BARNES | KANSAS

■ Now, here's the story of "Forky." I started getting pictures of the buck in 2019. I estimated him to be 3.5 years old and score in the 160s. I really thought this buck had a lot of potential, so I didn't hunt him that year and put a plan in place for 2020. I installed four food plots in Spring 2020 using Whitetail Institute products. He showed up, bigger than ever. I estimated him at 205 inches. I have several videos of him eating Fusion. I had a few encounters with him in Fall 2020 but couldn't close the deal. In 2021, I frost-seeded the plots and changed my strategy by gaining permission on the neighboring property. The food plots kept him in the area, but I needed to find where he bedded. It paid off. Forky was harvested at 5 yards. The story was featured in North American Whitetail Magazine.



DAVID SIRVIO | MICHIGAN

■ We have been using Whitetail Institute products since 1991, and last year, my mother shot her biggest buck — a 7-point with a 17-inch spread on Nov. 14, 2024, over a clover plot. There were other much bigger bucks in the area that never presented a shooting opportunity. It was the last day of early archery season.

BRANDON PELLAM | ALABAMA

■ I use all types of the food plot blends you guys have to offer. This past hunting season was the first time using Pure Attraction. I was very impressed by the amount of food it provided and how it came up even in the dry conditions we had in northern Alabama this hunting season. In the photo, my nephew Tyde was hunting over a Pure Attraction plot and got his biggest deer to date. Thanks again for your great products.

PHIL GUARINO | ILLINOIS

■ Here are three generations of using and seeing the results of Whitetail Institute products.

CODY SHAY | PENNSYLVANIA

■ Honestly, on a 100-acre farm, my family and I hold deer and pull in more deer with these products. My 8-year-old shot a heck of a buck standing in a Tall Tine Tubers food plot.

MARQUETTA PISARCIKK | PENNSYLVANIA

■ The product is always consistent and grows each time I use it. It has helped me be more successful in my hunting experience.

FOOD PLOT PLANTING DATES...

PLANTING DATES FOR IMPERIAL CLOVER, ALFA-RACK PLUS, EXTREME, NO-PLOW, FUSION, CHIC MAGNET AND EDGE

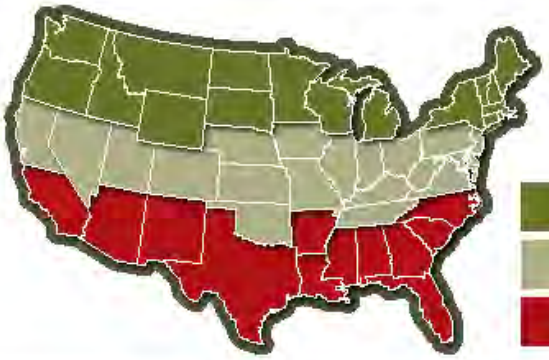
1. **Call for planting dates**
2. Apr 1 - July 1
3. Apr 15 - June 15
   Aug 1 - Sept 1
4. **Coastal:** Feb 1 - Mar 15
   Sept 1 - Oct 15
   Southern Piedmont:
   Feb 15 - Apr 1
   Aug 15 - Oct 1
   Mountain Valleys:
   Mar 1 - Apr 15
   Aug 1 - Sept 15
5. Feb 1 - Apr 1
   Aug 1 - Sept 30
6. Feb 1 - Apr 15
   Sept 1 - Nov 1
7. **North:** Mar 15 - May 1
   Aug 1 - Sept 15
   South: Mar 1 - Apr 15
   Aug 15 - Oct 15
8. Apr 1 - June 15
   July 15 - Sept 5
9. Apr 1 - May 15
   Aug 1 - Sept 15
10. Mar 20 - May 15
    Aug 1 - Sept 15
11. Sept 15 - Nov 15
12. Feb 5 - Mar 1
    North: Sept 5 - Nov 15
    South: Sept 25 - Nov 15
13. Feb 15 - Apr 1
    Sept 1 - Oct 30
14. **North:** Sept 15 - Nov 15
    South: Sept 25 - Nov 15
15. Feb 1 - Mar 1
    Coastal: Sept 25 - Oct 15
    Piedmont: Sept 1 - Oct 5
    Mountain Valleys:
    Aug 25 - Oct 15
16. **North:** Sept 25 - Nov 25
    South: Oct 5 - Nov 30
17. Mar 1 - May 15
    Aug 1 - Sept 15
18. Feb 1 - Apr 15
    Aug 20 - Sept 30

PLANTING DATES FOR WHITETAIL OATS PLUS

Use the map above as a guideline for when to plant Imperial Whitetail Oats Plus in your area. For best results, wait to plant until excessively hot, droughty summer weather has passed. Imperial Whitetail Oats Plus is highly cold-tolerant and designed to provide abundant forage from fall into spring in the southern U.S. and from fall into winter in colder climates.

PLANTING DATES FOR FULL STRUT, VISION, PURE ATTRACTION, SECRET SPOT, WINTER PEAS, BOWSTAND, AND DESTINATION

1. **Call for planting dates**
2. **Call for planting dates**
3. Aug 1 - Sept 15
4. **Coastal:** Sept 1 - Oct 15
   Piedmont: Aug 15 - Oct 1
   Mountain Valleys:
   Aug 1 - Sept 15
5. Aug 1 - Sept 30
6. Aug 15 - Nov 1
7. **North:** Aug 1 - Sept 30
   South: Aug 15 - Oct 15
8. July 15 - Sept 5
9. Aug 1 - Sept 15
10. Aug 1 - Sept 15
11. Sept 15 - Nov 15
12. **North:** Sept 5 - Nov 15
    South: Sept 25 - Nov 15
13. Sept 1 - Oct 30
14. **North:** Sept 15 - Nov 15
    South: Sept 25 - Nov 15
15. **Coastal:** Sept 15 - Oct 15
    Piedmont: Sept 1 - Oct 5
    Mountain Valleys:
    Aug 25 - Oct 15
16. **North:** Sept 25 - Nov 25
    South: South: Oct 5 - Nov 30
17. Aug 1 - Sept 15
18. Aug 20 - Sept 30



PLANTING DATES FOR POWERPLANT, REVIVE CONCEAL, SUNN HEMP, TURKEY SELECT AND SUMMER SLAM

*Do not plant PowerPlant, Sunn Hemp or Conceal until soil temperatures reach a constant 65 degrees F. Wait as long as necessary for soil temperatures to reach a constant 65 degrees F before planting.

PLANTING DATES FOR WINTER-GREENS, TALL TINE TUBERS, BEETS & GREENS AND RAVISH RADISH

1. **Call for planting dates**
2. **Call for planting dates**
3. July 1 - Sept 1
4. **Coastal:** Aug 15 - Sept 30
   Southern Piedmont:
   Aug 1 - Sept 15
   Mountain Valleys:
   Aug 1 - Sept 15
5. July 15 - Sept 15
6. Aug 1 - Oct 1
7. **North:** July 15 - Sept 15
   South: Aug 1 - Oct 1
8. July 5 - Aug 20
9. July 1 - Aug 30
10. July 15 - Sept 15
11. Sept 15 - Nov 15
12. **North:** Sept 5 - Nov 1
    Central: Sept 15 - Nov 15
    South: Sept 25 - Nov 15
13. **North:** Aug 15 - Oct 1
    South: Sept 5 - Oct 15
14. **North:** Sept 5 - Oct 30
    Central: Sept 15 - Nov 15
    South: Sept 25 - Nov 15
15. **Coastal:** Sept 1 - Oct 1
    Piedmont:
    Aug 15 - Sept 20
    Mountain Valleys:
    Aug 5 - Sept 15
16. **North:** Sept 15 - Nov 15
    Central: Sept 25 - Nov 15
    South: Oct 5 - Nov 30
17. July 15 - Sept 1
18. Aug 1 - Sept 30

DISCOUNT COUPONS

ORDER TODAY!

SHIPPING INCLUDED IN PRICES

YOU SAVE $29.98

IMPERIAL WHITETAIL **CLOVER**

36 LBS.-4.5-ACRE PLANTING

$249.98 + tax
Suggested Retail $279.96
___ (36 lb.) quantities of Imperial Whitetail Clover
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $42.98

IMPERIAL WHITETAIL **EXTREME**

33.6 LBS.-1.5-ACRE PLANTING

$198.96 + tax
Suggested Retail $241.94
___ (33.6 lb.) quantities of Imperial Whitetail EXTREME
TOTAL *(Add 7% Sales Tax)*
$_____

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IMPERIAL WHITETAIL **CONCEAL**

SOLD OUT!
Call 1-800-688-3030 opt1 to pre-book for 2026

28 LBS.-4.5-ACRE PLANTING

$139.96 + tax
Suggested Retail $159.99
___ (28 lb.) quantities of Imperial Whitetail Conceal
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $43.00

IMPERIAL WHITETAIL **FUSION**

27.75 LBS.-4.5-ACRE PLANTING

$246.96 + tax
Suggested Retail $289.96
___ (27.75 lb.) quantities of Imperial Whitetail Fusion
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $5.02

IMPERIAL WHITETAIL **POWERPLANT**

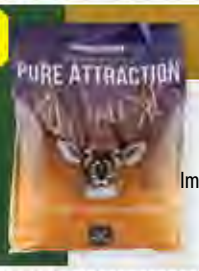
SOLD OUT!
Call 1-800-688-3030 opt1 to pre-book for 2026

40 LBS.-4.5-ACRE PLANTING

$134.98 + tax
Suggested Retail $140.00
___ (50 lb.) quantities of Imperial Whitetail PowerPlant
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $30.00

IMPERIAL WHITETAIL **PURE ATTRACTION**



39 LBS.-.75-ACRE PLANTING

$89.97 + tax
Suggested Retail $119.97
___ (39 lb.) quantities of Imperial Whitetail Pure Attraction
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $29.98

IMPERIAL WHITETAIL **WINTER-GREENS**

24 LBS.-4-ACRE PLANTING

$189.98 + tax
Suggested Retail $219.96
___ (24 lb.) quantities of Imperial Whitetail Winter-Greens
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $39.95

IMPERIAL WHITETAIL **"CHIC" MAGNET**

9 LBS.-3-ACRE PLANTING

$99.99 + tax
Suggested Retail $139.94
___ (9 lb.) quantities of Imperial Whitetail "Chic" Magnet
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $34.98

IMPERIAL WHITETAIL **TALL TINE TUBERS**

24 LBS.-4-ACRE PLANTING

$164.98 + tax
Suggested Retail $199.96
___ (24 lb.) quantities of Imperial Whitetail Tall Tine Tubers
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $10.98

IMPERIAL WHITETAIL **OATS PLUS**

45 LBS.-1/2-ACRE PLANTING

$69.00 + tax
Suggested Retail $79.98
___ (45 lb.) quantities of Imperial Whitetail OATS Plus
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $42.98

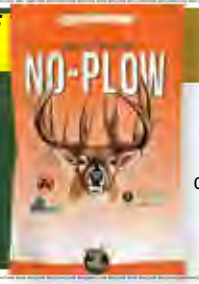
IMPERIAL WHITETAIL **ALFA-RACK PLUS**

33 LBS.-2.5-ACRE PLANTING

$246.98 + tax
Suggested Retail $289.96
___ (33 lb.) quantities of Imperial Whitetail Alfa-Rack Plus
TOTAL *(Add 7% Sales Tax)*
$_____

YOU SAVE $30.00

IMPERIAL WHITETAIL **NO-PLOW**



40 LBS.-2.25-ACRE PLANTING

$119.98 + tax
Suggested Retail $149.98
___ (40 lb.) quantities of Imperial Whitetail No-Plow
TOTAL *(Add 7% Sales Tax)*
$_____

NEW

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IMPERIAL WHITETAIL

SUMMER SLAM

$99.96 *+ tax*

Suggested Retail $ 139.96

___ (31.5 lb.) quantities of Imperial Whitetail Summer Slam

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE UP TO $16.05

IMPERIAL WHITETAIL

KRAZE

$42.96 *(4) pak*

Suggested Retail $52.99

$59.94 *(6) pak*

Suggested Retail $75.99

+ tax

___ (4) 5 lb bags @ $42.96

___ (6) 5 lb bags @ $59.94

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE $15.00

IMPERIAL WHITETAIL

RAVISH RADISH

10 LBS.-1-ACRE PLANTING

$79.96 *+ tax*

Suggested Retail $94.96

___ (10 lb.) quantities of Imperial Whitetail Ravish Radish

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE UP TO $6.03

IMPERIAL WHITETAIL

APPLE OBSESSION

$49.96 *(4) pak*

Suggested Retail $52.99

$69.96 *(6) pak*

Suggested Retail $75.99

+ tax

___ (4) 5 lb bags @ $49.96

___ (6) 5 lb bags @ $69.96

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE $7.06

IMPERIAL WHITETAIL

DESTINATION

36 LBS.-1-ACRE PLANTING

$129.96 *+ tax*

Suggested Retail $137.02

___ (36 lb.) quantities of Imperial Whitetail Destination

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE UP TO $20.02

IMPERIAL WHITETAIL

IMPACT SOIL AMENDMENT

• 8.5LBS - .5 ACRES

• 25.5LBS - 1.5 ACRES

$59.98 *(8.5lbs)*

Suggested Retail $80.00

$149.94 *(25.5lbs)*

Suggested Retail $169.95

___ (8.5 lbs) of Impact $59.98

___ (25.5 lbs) of Impact $149.94

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE UP TO $11.97

IMPERIAL WHITETAIL

30-06 BLOCK

$34.98 *(one block)*

Suggested Retail $39.95

$57.98 *(two blocks)*

Suggested Retail $69.95

+ tax

___ (2) -Pak blocks @ $57.98

___ (1) -Pak blocks @ $34.98

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE UP TO $13.00

ARREST MAX HERBICIDE

• 1 PINT-1 ACRE

• 1/2 GALLON-4 ACRES

$56.99 *(1 pint)*

Suggested Retail $69.99

$159.96 *(1/2 gallon)*

Suggested Retail $169.00

___ pint(s) of Arrest Max Herbicide

___ 1/2 gallon(s) of Arrest Max Herbicide

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE $20.00

IMPERIAL WHITETAIL

WINTER PEAS PLUS

44 LBS.-1-ACRE PLANTING

$129.96 *+ tax*

Suggested Retail $149.96

___ (44 lb.) quantities of Imperial Whitetail Winter-Peas Plus

TOTAL *(Add 7% Sales Tax)*

$_____

YOU SAVE UP TO $39.02

SLAY HERBICIDE

• 4 OZ.-1 ACRE

• 1 PINT-4 ACRES

$57.98 *(4 oz.-1 acre)*

Suggested Retail $72.99

$129.98 *(1 pint-4 acres)*

Suggested Retail $169.00

___ 4 oz. of Slay Herbicide

___ pint(s) of Slay Herbicide

TOTAL *(Add 7% Sales Tax)*

$_____

SHIP TO: _____

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(No PO Boxes, Cannot Ship to Canada)

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Payment: ❑ *Check or Money Order enclosed*

Charge to: ❑ *Visa* ❑ *Mastercard* ❑ *Discover* ❑ *AMEX*

Credit Card: _____ Exp. ____

Date: ___ Sec.Code: ____

Signature: _____

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Brian Lovett~Whitetail News Senior Editor

PERFECT TIMING

Our time in the woods is typically filled with purpose. Some days, however, simple reflection works just fine.

Dang briars.

Littered across my boots and stuck firmly to my sleeves in mats, they'll take hours to pick clean. And usually, that would really tick me off. But I have a turkey hunt planned today, and nothing will spoil it.

Halfway up the slope — and through more briars — I find a stout red oak overlooking a small clearing littered with acorns. It's the perfect setting to relax and run some calls for an hour or two. Adjusting my back against the timber, I grab a trough, a box and a slate and set them in a neat row on the ground. Then, I pop a diaphragm in my mouth, separate the top reed and eke out a few plain yelps. That's good enough for now, as I'm more interested in listening for a bit than calling.

No turkeys sound off, but that's OK. There's plenty of time for them to chime in. Pausing for a moment, I heard voices below me toward the cabin. I guess I wasn't as far up the hill as I'd originally thought. No worries. Their chatter won't spook any turkeys, and the distraction doesn't bother me today. As uneventful as this hunt seems, it's extremely memorable, and I intend to savor each minute.

One September day six years ago, my heart stopped for 6.8 seconds. Well, that's what they said in the emergency room, when my heart sputtered for the third time that morning.

The first event had occurred in my backyard as I let the dogs out for morning relief. I suddenly felt dizzy and somewhat ill, as if I could pass out, but I snapped myself back to reality and then seemed fine. "Must be tired and dehydrated," I thought. And for the next hour, that seemed plausible.

Then I got in my truck, turned the corner on our block and steered the vehicle south for a block or two, headed to a haircut appointment. I remember passing through a yield sign, but then everything faded to black. I woke up dazed, but my adrenaline spiked instantly. My truck had piled into the side of a house when I'd apparently been unconscious. Stunned and shaken, I backed the truck up, made sure no one was hurt and then parked it across the street. I then called the police, checked myself for injuries and then called my wife to let her know I "was OK." Which, of course, I was not.

The police, paramedics, and my wife and sister-in-law arrived soon, and I tried to downplay the incident. Thankfully, everyone surmised, my truck must have coasted while I was blacked out, so the damage to the house wasn't too severe. And thankfully, I hadn't struck anything — or anyone — else during my little trip.

The paramedics checked me out but found nothing wrong initially. Still, I gladly accepted their offer of transport to the hospital, as it was clear something was pretty off. And at the hospital, while hooked up to all sorts of monitors and gear, my ticker paused for the third time that day — 6.8 seconds, as recorded by the gadgets. It seemed like an instant to me.

An echocardiogram revealed that my aortic regurgitation — a leaky aortic valve, a condition with which I'd been diagnosed nine years earlier — hadn't worsened. And later, a test for Lyme disease returned negative. No one could determine with certainty why my heart had failed. Still, the cardiologists made one thing clear: I was getting a pacemaker.

And I did that evening. In fact, I was home by lunch the next day and have been fine since. But I was not the same. Feeling your heart stop and slamming a moving vehicle into a house changes your perspective on things. And in the days and weeks after the incident, I chilled at my brush with mortality and seemed to appreciate each day and its events, good or bad, much more than I had previously. Every morning as I let the dogs out, I gazed at the rising sun and thanked God for letting me see that day. I meant it. I still do.

Which is what brought me to this briar-choked ridge this warm mid-October morning. I'm pretty sure I won't kill a turkey today. I don't care. I'm just giddy just to be in the woods — alive and enjoying creation.

There will be plenty more days afield this fall, thankfully. Success, as always, might vary. But I know my appreciation of simply being privileged to try won't wane. The opportunity to soak up the outdoors in pursuit of a deer or turkey seems pretty important and insanely enjoyable. I'm grateful. And nothing will change that. Not today. Not next spring. Hopefully, not ever.

Finally, after a few more calls, I figure it's time to move on. I run one more series, pause to listen and then pack my gear in preparation for the descent along the ridge. Better lighting helps me avoid a few briars this time, and after several minutes of zigzagging along the slope, I pop into the open and arrive at the cabin. This place will no doubt be the headquarters for many more turkey and deer adventures — God willing — for years to come. But for now, I'm happy to live in the moment and value each of life's little tidbits as they arrive.

With that thought, I pull off my boots and begin working on those briars, one at a time, at a maddeningly slow pace. My wife opens the door and sticks her head out. "Oh, you're back," she says. "How was turkey hunting?"

"Wonderful," I respond. "Couldn't have been better."

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Since 1988

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IMPERIAL WHITETAIL CLOVER

Imperial Whitetail Clover provides attraction and up to 35% protein levels.
These proprietary clovers were developed by Whitetail Institute agronomists.

Still the leader since 1988

WHITETAIL INSTITUTE

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Redneck Blinds is excited to announce our all-new "Redneck Camo" option for the Game Changer 6x8, Big Country 6x7, and Buck Palace 6x6 Fiberglass Box Blinds.

The long-lasting Gel Coat finish will not scratch off from branches or other normal uses and provides camo to blend in with fall colors.

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GAME CHANGER

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Weight:	550 lbs
Door Size:	30" Wide X 63" High
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Interior Size:	70" Wide X 94" Deep X 80" High
Door Window:	18" Wide X 10" High
Front Window(s):	36" Wide X 14" High
Side Window(s):	25" Wide X 14" High
Corner Window(s):	10" Wide X 46" High
	36" Height from floor to bottom of horizontal windows

ON 10FT DELUXE STAND

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The Game Changer changes the way you hunt... Big enough to comfortably fit 3-4 adults, this blind is the ultimate solution to being able to scan a wide area while hunting with multiple hunters. Having more room to accommodate more helpful eyes to spot your trophy of a lifetime, the Game Changer really sets the bar high.

Combine the 46" tall vertical windows, with large oversized horizontal windows and roomy interior, and you have the ultimate blind for compound bow, crossbow or gun hunting. This combination of size and window functionality gives you plenty of room, visibility and angles to make a perfect shot when the moment of truth arrives. If the there is the need to sleep in the blind to catch that big buck at first light without getting busted, the Game Changer has ample enough space to accommodate a small cot or air mattress!

FEATURES

- Made from long-lasting fiberglass
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- 3 highly functional consoles pre-installed to help organize your hunting gear
- Built in shelves and gun holders
- Marine-carpeted foam floor liner
- Available with Deluxe 5ft, 10ft Stands and 5ft, 10ft Stairway Stands
- Available with Deluxe 5ft, 10ft. & 15ft powder coated steel stands
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